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The Graeca in the Tituli of Lucretius What they tell us about the archetype

Summary – This article examines the tituli of *De rerum Natura*, concentrating on the graeca found in the capitula of books 1 and 2 as transmitted in the Codex Oblongus and the Schedae. The seven tituli containing graeca are reconstructed and traced to their sources: six of the seven are quotations or close paraphrases of phrases from works by Epicurus. They were probably lifted from marginal annotations in a text of DRN that served as an index fontium to the relevant Latin passages. The text of Lucretius that we have descends from this lost ancient copy via (a late antique?) intermediary that made a selection of the marginal quotations and incorporated them into the predominantly Latin tituli.

De rerum natura, the only poem known to be written by Titus Carus Lucretius, was deeply admired in antiquity. Cicero praised the work in a letter to his brother Quintus, Vergil and Horace showed their admiration by imitating lines of the poem, while Ovid openly expressed his love for the work in the *Amores* (1, 15, 23/24). In the first century C. E. Velleius Paterculus, Vitruvius, Quintilian, Statius, and Seneca all showed appreciation in various ways. A fragment of Suetonius informs us that M. Valerius Probus prepared a critical edition of the work. It may have been the second edition undertaken by an important scholar, if there is any truth to the report that Cicero himself edited the work.¹

It is somewhat surprising that Lucretius survived at all. His famous poem of six books extolled the teachings of Epicurus and paraphrased them for a Roman audience. Epicurus's doctrines were characterized as atheistic even in antiquity, and his espousal of the pleasure principle won him few friends among serious philosophers. It is no wonder then that Christian fathers such

¹ Summarized from W. B. Fleischmann, *Lucretius Titus, Carus*, in: *Catalogus Translationum et Commentariorum*, vol. 2, Washington, D. C. 1971, 349/350 (hereafter cited as CTC). For new work devoted to Lucretius's influence in antiquity see Philip Hardie, *Lucretian Receptions: History, the Sublime, Knowledge*, Cambridge 2009. For the impact of DRN in the Renaissance see now the stimulating, but controversial, book by Stephen Greenblatt: *The Swerve: How the World Became Modern*, London-New York 2011; see my review forthcoming in *The Journal of Medieval Latin* 22 (2012).

as Arnobius and Lactantius regarded Lucretius, Epicurus's Roman acolyte, as highly dangerous, though Christian as well as pagan writers admired him for his style.² St. Jerome is our sole authority for the poet's manner of death: he claimed in his *Chronicle* that Lucretius committed suicide by drinking a love philtre that drove him mad.³

Despite pagan and Christian criticism, Lucretius continued to be cited by writers in late antiquity and the early Middle Ages – we find quotations in Macrobius, Priscian, Boethius (*Institutio arithmetica*), Isidore (*Etymologiae*), and Paul the Deacon in his abridgement of the lexicon of rare words by Festus. However, it is in the ninth century, that Lucretius truly came into his own. The writer who espoused the eternity of the universe, claimed that all that exists is matter and the void, that the soul disintegrates with death, and that the gods have nothing to do with the affairs of men, was accorded three full transcriptions (two of which survive intact),⁴ a couple of florilegia, and a scattering of quotations in that century.⁵ Lucretius was not to be so popular again until the Renaissance.⁶ The attested citations of Lucretius are preserved in Latin authors,⁷ and the exemplar of our extant MSS (ωII) was written in a western centre.

I shall here pose the question of whether the preservation of *De rerum natura* is owed to an ancient copy of the work annotated in Greek – to be more precise, a text of the poem accompanied by marginal annotations written in Greek that were intended to reference Lucretius's Greek sources. Very few of our modern editions of *De rerum natura* preserve the *tituli* – rubrics written in capitals that occur sporadically throughout the text.⁸ However,

² Harald Hagendahl, *Latin Fathers and the Classics: A Study on the Apologists, Jerome and Other Christian Writers*, Göteborg 1958, 12–88. For scattered traces in late antique poets see M. Schanz, *Geschichte der römischen Literatur*, vol. 4, 1, ed. I. Müller, Munich 1914, index, 564. Further to the reception of DRN see now Marcus Deufert, *Lucretius, Reallexikon für Antike und Christentum*, vol. 23, fascicle 181, Stuttgart 2009, 604–620.

³ Hieronymus, *Chron.*, ad ann. 1923, i. e. 94 B. C. E. (recorded as birth year).

⁴ The third manuscript, the so-called *Schedae* dispersed in two books (discussed below), is not a florilegium or anthology, but substantial remnants of a third full transcription.

⁵ David Ganz, *Lucretius in the Carolingian Age*, in: *Medieval Manuscripts of the Latin Classics: Production and Use*, ed. C. A. Chavannes Mazel and Margaret M. Smith, Leiden 1993, 91–102 (98–100).

⁶ Fleischmann, *Lucretius Titus, Carus* (n. 1), 351.

⁷ I could find no traces of translation or paraphrase of DRN by Greek scholars in Victor Reichmann, *Römische Literatur in griechischer Übersetzung*, Leipzig 1943.

⁸ The only edition I know of that preserves the *tituli* in the places where they occur in the MSS is: William Ellery Leonard and Stanley Barney Smith (eds.), *T. Lucreti Cari De*

Cyril Bailey, in his magnificent second edition of Lucretius's work with translation and commentary, was aware of them, and believed them to be archetypal.⁹ These same captions contain short passages in Greek for book 1 and part of book 2, which despite textual corruption can be shown to be not only meaningful, but also provide, at least in a handful of cases, accurately quoted snippets of ancient philosophical works.

It now seems to be agreed that the textual tradition of Lucretius is a closed one.¹⁰ The tradition descends in a straight line in three principal stages marked as ω , ωI , ωII .¹¹ There is, however, frequent confusion regarding the term 'archetype'; I use it here to denote the head of the entire tradition, namely ω . Thus, when I refer to the graeca in the tituli as 'archetypal', I mean the very first stage of the tradition following the autograph, not the exemplar of our extant manuscripts,¹² nor any stage in between.¹³

The three extant Carolingian MSS group themselves into two families. One of these families (ψ) produced no offspring other than Q and Schedae (see immediately below), and its line died out. The other (O), which consists of O alone, was fecund. All of the inferiores descend from it. A copy of O was made by Poggio in 1417 in an undisclosed location. O was housed in St. Martin's at Mainz by 1479,¹⁴ but we cannot be sure that it was already there

rerum natura Libri Sex, Madison, WI 1942. The edition of Karl Buechner (Wiesbaden 1966) prints the tituli (including the graeca) in a capitularium preceding each book.

⁹ Titi Lucreti Cari De rerum natura Libri Sex, ed. C. Bailey, 3 vols., Oxford 1947, 1, 39. See also Fleischmann, *Lucretius Carus, Titus* (n. 1), 350.

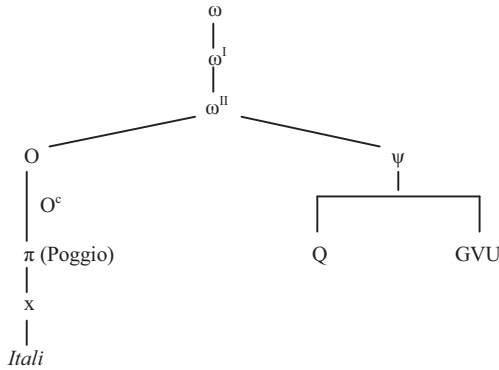
¹⁰ L. D. Reynolds, in: Reynolds (ed.), *Texts and Transmission: A Survey of the Latin Classics*, Oxford 1983, 218/219.

¹¹ Following Reynolds, *Texts and Transmission*, 216, based on K. Müller's edition of 1973. Although there are some variations, nearly all of the proposed stemmata posit three principal stages between the author and the extant manuscripts.

¹² Most scholars today (including Reynolds) use the term to designate the lost manuscript that is the immediate source of all the extant manuscripts. For a useful attempt at clarification see Virginia Brown, 'The Insular Intermediary' in the Tradition of Lucretius, *Harvard Studies in Classical Philology* 72 (1967), 301–308 (302, n. 5).

¹³ Here I wish to avoid involvement in the long, unresolved debate on the nature of the hands employed in the various stages of transmission between the author and the earliest extant manuscripts. For a review of the question see Sebastiano Timpanaro, *The Genesis of Lachmann's Method*, edited and translated by Glen W. Most, Chicago-London 2005, Appendix B (145–156). On the character of 'archetypal codices' as applied to Lucretius, see Franz Brunhölzl, *Zu den sogenannten codices archetypi der römischen Literatur*, in: *Festschrift Bernhard Bischoff zu seinem 65. Geburtstag*, edited by Johanne Autenrieth and Franz Brunhölzl, Stuttgart 1971, 16–31.

¹⁴ Reynolds, *Texts and Transmission* (n. 10), 219.



when Poggio had it transcribed.¹⁵ Poggio sent this transcript to his close friend Niccolò Niccoli for re-copying. Niccoli's transcript survives as Florence, Laur. 35, 30 (*L*). It preserves only a few of the corrections made in *OI*, though it keeps those of 'the Saxonics', i. e. the Irishman (!) Dungal. All of the so-called *Itali* (including *L*) descend from π via an intermediate copy signified here by x .

Let us now briefly look at our three ninth-century manuscripts:

The *O* tradition is represented by:

O (Codex Oblongus = Leiden, UB, Voss. Lat. F. 30) was thought to have been written 'not long after 800 in the Palace School of Charlemagne';¹⁶ however, Bischoff more recently placed it as 'IX Jh. 1, 2 Viertel', and set it more generally in Northwest Germany.¹⁷ It contains corrections, supplements, and glosses by Dungal, the Irish authority on astronomy.¹⁸ There are also glosses and corrections by several hands dated to the second half of the tenth century.¹⁹ Experts on the text of Lucretius regard this as 'the best manuscript'.

¹⁵ However, one of the *Itali*, Vat. Lat. 3276 bears the inscription on its binding: "da antico di Magonza". This brings us closer to certainty about the location. See M. Reeve, *The Italian Tradition of Lucretius Revisited*, *Aevum* 79 (2005), 115–164 (161 n. 135).

¹⁶ Reynolds, *Texts and Transmission* (n. 10), 219.

¹⁷ B. Bischoff, *Katalog der festländischen Handschriften des neunten Jahrhunderts (mit Ausnahme der wisigotischen)*. Teil II: Laon-Paderborn, ed. B. Ebersperger, Wiesbaden 2004, 50, no. 2189.

¹⁸ These have been studied and evaluated by Ganz, *Lucretius in the Carolingian Age* (n. 5), 91–102.

¹⁹ Bischoff, *Katalog* (n. 17), Teil II, 50.

The ψ tradition is represented by:

Q (Codex Quadratus = Leiden, UB, Voss. Lat. Q. 94), written in the ninth century in northeastern France; it spent most of the Middle Ages at St. Bertin.

GVU (or ‘Sched.’ for Schedae): substantial fragments of a once complete manuscript represented by Copenhagen, Royal Library, Gl. Kgl. S. 211 2, fols. 1–8 (*G*), and Vienna, Österreichische Nationalbibliothek, MS 107, fols. 1–6 (*V*). *U*, thought by some to be from a different manuscript, continues *V*, fols. 7–10. The Schedae preserve most of books 1/2, about half of book 3, then pick up late in book 6.

Interlinear section headings, or tituli, are found in *O* and Sched., and partially in *Q* (mainly in the last three books). As noted above (n. 8), with rare exceptions these do not appear in modern editions including Lachmann’s, and are usually omitted from the apparatus critici. They are, however, discussed in Bailey’s commentary appended to his 1947 (2nd) edition, in which the editor draws from his previous work on the remains of Epicurus’s writings (cit. below, n. 24). Schröder’s recent survey of tituli in the texts of classical and late antique writers omits discussion of their place in the text-tradition of Lucretius.²⁰ This is the more remarkable, given that in her bibliography she lists the 1924 dissertation of Hans Fischer, *De capitulis Lucretianis*.²¹ Fischer’s dissertation contains a full edition of the tituli in two forms: (1) as reconstructed, (2) as given by the three manuscripts mentioned above; these are followed by an excellent discussion of the stages in which they came into being. Alas, Fischer’s fine work, written in a clear and elegant Latin, remained unread and unloved in the English-speaking world and exercised no influence there on discussions of transmission. It is, however, cited and used by Deufert in his recent work on transmission and reception of DRN (cit. above, n. 2). With the help of the librarians at the University of Toronto’s Robarts Library, I managed to retrieve a copy (in mint condition!) from the library’s storage room in the basement. Upon reading it I learned that Fischer’s theory of the origins of the tituli agrees in a number of particulars with the hypothesis I had formulated after several years of work on the facsimiles of *O* and *Q* and in situ inspections of Sched. (both MSS). None the less, it seemed reasonable to present my own findings regarding

²⁰ Bianca-Jeanette Schröder, *Titel und Text: zur Entwicklung lateinischer Gedichtsüberschriften mit Untersuchungen zu lateinischen Buchtiteln, Inhaltsverzeichnissen und anderen Gliederungsmitteln*, Berlin-New York 1999.

²¹ Printed in Giessen, 1924, by v. Münchow’sche Univ.-Druckerei Otto Kindt.

the graeca in the tituli, not only because of the difficulty of consulting Fischer's dissertation, but also – and more especially – because of the relevance of the graeca to the reconstruction of the early text-tradition of DRN. In the remaining pages I shall acknowledge the points at which Fischer's discussion of the development of the tituli coincides with my own hypotheses.

The tituli occur in both branches of the tradition. A personal examination of *Q* showed that in the books where the tituli are missing lines were left blank in the identical places to accommodate them. Thus, it is beyond any reasonable doubt that the exemplar of *O* and ψ (i. e. ω II) contained tituli. In the vast majority of cases the readings of the tituli are identical. I examined both manuscripts representing Sched. in situ; for *O* I relied on the excellent photographic facsimile by Émile Chatelain.²² Here is a sample of the few divergences in the tituli written entirely in Latin:

DRN 1, 269/270: *corpora tute necessesit / confiteare esse in rebus nec posse videri.*

O: Corpora quae non videantur

Sched.: Corpora quae non videntur

DRN 1, 305/306: *denique fluctifrago suspensae in litore vestes / uvescunt*

O: Vestes uvesci et aresci

Sched.: Vestes Vesci [with second u above the line] artesci

DRN 1, 432: *quod quasi tertia sit numero natura reperta*

O: Tertiam naturam nullam esse rerum

Sched.: Tertiam naturam ullam esse rerum

DRN 1, 635: *Quapropter qui materiem ...*

O: Contra Heraclitum

Sched.: Contra Eraclitum

There are also cases where Sched. omits a rubric given by *O*, or where one manuscript or the other carelessly writes out a rubric as a line of text. Let us look at one instance of the rubrics indicating the transition from one book of DRN to the next:

*O: TITI LUCRETII CARI DE RERUM NATURA LIBER .1. EXPLICIT
INCIPIT LIBER SECUNDUS*

²² É. Chatelain (ed.), Lucretius, Codex Vossianus Oblongus phototypice editus, Leiden 1908.

Sched.: TITI LUCRETI DE RERUM NATURA LIBER I. EXPLICIT.
INCIPIT LIBER II

Despite the fact that *Sched.* omits CARI and substitutes a numeral for SECUNDUS, their origin from a common exemplar is reinforced by the identical juxtaposition of EXPLICIT and INCIPIT. The titulus marking the end of book 2 and start of 3 is identical in both witnesses. The more careless representation of the tituli at some places in *Schedae* is explained by the hypothesis that *Sched.* is once removed from ω II via ψ , whereas *O* is thought to be copied directly from ω II. It is thus highly probable (to the point of certainty) that the tituli in *O* and *Sched.* (and those in books 4–6 of *Q*) are copied from ω II, which is agreed to stand at the head of the entire extant tradition of Lucretius’s work.

Quae cum ita sint, let us look at the examples of tituli in Greek. The Latin words and some Greek words are written in Latin capitals and other majuscule forms, with an occasional mixture of Greek majuscules such as are commonly used in western Latin manuscripts. In a number of cases (discussed below) Latin letter-forms are substituted for Greek. As there are only seven ‘purely Greek’ tituli (not counting the Greek endings used in some proper names: Empedoclen at 1, 716, Anaxagoran at 1, 830), we shall consider them all. Given the difficulties ninth-century scribes had with transcribing Greek, it is not surprising that there are more divergences here than in the purely Latin rubrics. Prefacing six lines (DRN 1, 44–49) in the order in which they occur in the MSS (note that editors beginning with Lachmann transposed these to 2, 646–651), we find this inscription in *O*:

(1.) DRN 1, 44–49 (Bailey, 2nd ed.; transposed to 2, 603ff., 1st ed.): *omnis enim per se divum natura necessesit / immortalī aevō summa cum pace fruatur*, etc.

O reads: TOMA CARION CAE APITPATON [rubric cut off in *Sched.*]

Proposed reconstruction: TO MAKAPION KAI AΦΘΑΡΤΟΝ (‘the blessed and immortal’)

Bailey noted the titulus in his commentary to his second edition (2, 603) and posited the source as the first sententia in Epicurus’s *Kyriai Doxai* or Principal Teachings. He went on to show in detail how each phrase in the Epicurean quotation matched a phrase in the Lucretian passage:²³ Τὸ μακάριον

²³ Despite Bailey’s convincing demonstration, some misgivings remain, as transmitted API-TRXTON more closely represents ἀτάρακτον than ἄφθαρτον. However, I could not find the collocation ἀτάρακτον καὶ μακάριον in the extant works or fragments.

καὶ ἄφθαρτον οὔτε αὐτὸ πράγματα ἔχει οὔτε ἄλλῳ παρέχει, ὥστε οὔτε ὀργαίς οὔτε χάρισι συνέχεται ἐν ἀσθενεῖ γὰρ πᾶν τὸ τοιοῦτον. In Baileys translation: “The blessed and immortal nature knows no trouble itself nor causes trouble to any other, so that it is never constrained by anger or favour. For all such things exist only in the weak.”²⁴

It would seem that the quotation represents an ‘incipit’, or catch-phrase, to a teaching in the *Kyriai Doxai* that aptly reflects the doctrine in this passage of DRN. The former could even be seen as a source of the latter.

(2.) DRN 1, 551: *Denique si nullam finem natura parasset / frangendis rebus*
O and Sched.: CONTRA ISAPIRONTEN TO MEN (*gl. vel elocutio*)
 Proposed reconstruction: CONTRA EIC AΠEIPON THN TOMHN (‘against division into infinity’).

CONTRA was supplied by the compiler of the tituli (ωΙ) in order to show that Epicurus was taking a stance against the division of matter into infinity. In other words, CONTRA correctly reflects Epicurus’s οὐ δεῖ νομίζειν in the quotation cited below. This is one of two quotations where Latin is mixed with Greek (cf. no. 7), and it shows the concern of the compiler of the tituli for the needs of a primarily Latin-speaking audience.

Bailey (DRN, 2nd ed., 2, 691) commenting on the passage in Lucretius identified the Epicurean source, but did not relate it to the titulus. In the letter to his disciple Herodotus (56), Epicurus wrote the words τὴν εἰς ἄπειρον τομήν. The transposition of τὴν may be explained as an attempt by ωΙ at grammatical simplification. In any case, the words appearing in the titulus are a snippet from the passage that expresses Epicurus’s opposition to the notion that atoms can be divided infinitely. What we have here is a cutting of a genuine passage of Epicurus in Greek used as a caption for this section in Lucretius, with the word CONTRA prefaced to the quotation to ensure that the reader knows Lucretius’s stance.²⁵ Here is the entire passage from the Letter to Herodotus followed by Bailey’s translation of the relevant section: Πρὸς δὲ τούτοις οὐ δεῖ νομίζειν ἐν τῷ ὀρισμένῳ σώματι ἀπειρους ὄγκους εἶναι οὐδ’ ὀπηλικούς οὖν. ὥστε οὐ μόνον τὴν εἰς ἄπειρον τομήν ἐπὶ τοῦλαττον ἀναρετέον, ἵνα μὴ πάντα ἀσθενῆ ποιῶμεν κἂν ταῖς περιλήψεσι τῶν ἀθρῶν εἰς τὸ μὴ ὄν ἀναγκαζόμεθα τὰ ὄντα θλίβοντες καταναλίσκειν, ἀλλὰ καὶ τὴν μετὰβασιν μὴ νομιστέον γίνεσθαι ἐν τοῖς ὀρισμένοις εἰς ἄπειρον μηδ’

²⁴ C. Bailey (ed.), *Epicurus. The Extant Remains*, Oxford 1926, 94/95.

²⁵ Fischer, *De capitulis Lucretianis* (n. 21), 64, treats this as evidence of the anteriority of the *graeca* – rightly, in my view.

ἐπὶ τοῦλαττον. “Besides this we must not suppose that in a limited body there can be infinite parts or parts of every degree of smallness. Therefore, we must not only do away with division into smaller and smaller parts to infinity, in order that we may not make all things weak, and so in the composition of aggregate bodies be compelled to crush and squander the things that exist into the non-existent”, etc.²⁶

Thus there can be little doubt that the titulus IC (EIC) APEIPON THN TOMHN was extracted from a pericope in the Letter to Herodotus with a slightly changed word order and pressed into service as a titulus.

It remains to account for the Latin gloss *elocutio* over TOMHN, here used in its most literal sense (‘a cutting’). Greek τομή has numerous meanings covering a wide semantic range of semantic areas. One meaning, according to Liddell and Scott, s. v. 3, is ‘conciseness or precision in expression’. The *Rhetorica ad Herennium* 1,3, which was known by the ninth century,²⁷ defines *elocutio* thus: *elocutio est idoneorum verborum et sententiarum ad inuentionem accommodatio*. A Latin editor-scribe, with some knowledge of Greek but no grasp of the context of this passage, attempted a rendering of a recognizable Greek word.

(3.) DRN 1,951: *Sed quoniam docui solidissima materiai / corpora perpetuo volitare invicta per aevum*

O reads: TOPANAPIRONTO GARPEPIRAS MENONACROE

Sched. has: TOPANAPIRONTO GAR PEPIMS[corr. in *O*] MENON A

Proposed reconstruction: ΤΟ ΠΑΝ ΑΠΕΙΠΟΝ ΤΟ ΓΑΡ ΠΕΠ(Ε)ΡΑCΜΕΝΟΝ ΑΚΡΟΝ Ε(ΧΕΙ) (‘The whole is boundless, for the bounded has an extremity.’)

This titulus belongs more aptly eight lines below (959–961) where Lucretius, following Epicurus closely, presents arguments for the spatial infinity of the universe: ... *namque extremum debebat habere. / extremum porro nullius posse videtur / esse*, etc. The restored passage, represented better in *O* than in Sched., is another snippet from a passage in Epicurus’s Letter to Herodotus (41), omitting only the word ἐστι. The full Epicurean passage from which the titulus is taken runs thus: Ἄλλὰ μὴν καὶ τὸ πᾶν ἄπειρόν ἐστι. τὸ γὰρ πεπερασμένον ἄκρον ἔχει· τὸ δὲ ἄκρον παρ’ ἑτερόν τι θεωρεῖται· ὥστε οὐκ ἔχον ἄκρον πέραc οὐκ ἔχει· πέραc δὲ οὐκ ἔχον ἄπειρον ἂν εἶη καὶ οὐ πεπερασμένον. καὶ μὴν καὶ τῷ πλήθει τῶν σωμάτων ἄπειρόν ἐστι

²⁶ Bailey, *Remains* (n. 24), 32/33.

²⁷ Michael Winterbottom, *De inuentione and Ad Herennium*, in: Reynolds, ed., *Texts and Transmission* (n. 10), 99. Winterbottom notes three mutuli, one from the circle of Lupus.

τὸ πᾶν καὶ τῷ μεγέθει τοῦ κενοῦ. Bailey translates: “Moreover, the universe is boundless. For that which is bounded has an extreme point, and the extreme point is seen against something else. So that as it has no extreme point, it has no limit; and as it has no limit, it must be boundless and not bounded. Furthermore, the infinite is boundless both in the number of the bodies and in the extent of the void.”²⁸

(4.) DRN 1, 1052, inc. *Illud in his rebus*

O and Sched.: IS TO MESON EPHORA

Proposed reconstruction: EIC TO MECON H ΦΟΡΑ (‘movement to the centre’)

Lucretius in this passage refutes the view that all things tend to the centre of the cosmos: *Illud in his rebus longe fuge credere, Memmi, / in medium summae quod dicunt omnia niti*. “Herein shrink far from believing, Memmius, what some say: that all things press towards the centre of the world.” I have not found a certain Epicurean text to support this. However, Zeno, the founder of Stoicism and Epicurus’s contemporary, used words very close to these according to Stobaeus, Ecl. 1, 19, 4, cited in Bailey, Luc. 2, 782, n. 2, which conceivably could have been quoted by Epicurus so that he could dispute them: πάντα τὰ μέρη τοῦ κόσμου ἐπὶ τὸ μέσον τοῦ κόσμου τὴν φορὰν ἔχειν, μάλιστα δὲ τὰ βάρως ἔχοντα. ταῦτόν δ’ αἴτιον εἶναι καὶ τῆς τοῦ κόσμου μονῆς ἐν ἀπείρῳ κενῷ καὶ τῆς γῆς παραπλησίως ἐν τῷ κόσμῳ, περὶ τὸ τούτου κέντρον καθιδρυμένης ἰσοκρατῶς. (“All parts of the world tend towards the centre of the world, especially those which are heavy. The same fact is the cause both of the stability of the world in infinite void, and likewise of earth in the world, since it is established in firm equilibrium about its centre.”²⁹)

For Epicurus and Lucretius an infinite universe has no centre (and as a corollary, it cannot be spherical in shape). Atoms move in diverse directions. Thus, we would expect the compiler of the tituli to have prefaced the Greek words with CONTRA, as he did in example 2. It is not impossible that a word such as OYK has fallen out before IS (EIC); indeed, example 3, in which only E remains for E(XEI), points to the possibility that words in the margins of the compiler’s exemplar may have been cut off. The tiny pericope could have been extracted from a work by Epicurus such as *On Nature*, of which only portions of a few books survive. As for the idea, Stoics were not the only school to propound the teaching of a spherical universe in which matter

²⁸ Bailey, Remains (n. 24), 22/23.

²⁹ Bailey, Remains (n. 24), *ibid*.

moved to the centre. It is also attested in Plato and Aristotle; see the references in Bailey, Lucretius, 2nd ed., 2, 1092.

(5.) DRN 2, 14, inc. *O miseras hominum, etc.*

O and Sched.: SARCOS EUSTATES CATA STEMMA

Proposed reconstruction: CAPKOC EYCTAΘEC KATACTHMA (‘the stable condition of the body’)

The passage is Bailey’s no. B11 (Usener, fragment 68), drawn from Epicurus’s *Peri Telous*: Τὸ γὰρ εὐσταθὲς σαρκὸς κατάστημα καὶ τὸ περὶ ταύτης πιστὸν ἔλπισμα τὴν ἀκροτάτην χαρὰν καὶ βεβαιοτάτην ἔχει τοῖς ἐπιλογίζεσθαι δυναμένοις. Bailey translates: “The stable condition of well-being in the body and the sure hope of its continuance hold the fullest and surest joy for those who rightly calculate it.”³⁰

Here it will be useful to quote the full passage in Lucretius:

*O miseras hominum mentis, o pectora caeca!
qualibus in tenebris vitae quantisque periculis
degitur hoc aevi quodcumque! nonne videre
nil aliud sibi naturam latrare, nisi ut qui
corpore seiunctus dolor absit, mente fruatur
iucundo sensu cura semota metuque?*

Bailey translates (DRN, 2nd ed., 1, 237) “Ah! Miserable minds of men, blind hearts! In what darkness of life, in what great dangers ye spend this little span of years! To think that ye should not see that nature cries aloud for nothing else but that pain may be kept far sundered from the body, and that, withdrawn from care and fear, she may enjoy in mind the sense of pleasure!”

The Epicurus passage quoted here from the *Peri Telous* carries a slightly different meaning from that conveyed by Lucretius. “The stable condition of the body” implies that one is in a period of good health – as when a patient receives the good news from his doctor that he can reasonably expect to live a while longer. “Pain sundered from the body” does not quite capture this sense of relief and feeling of contentment. But the annotator obviously thought the passage to be the closest analogue he could find.

(6.) DRN 2, 646, inc. *Omnis enim per se divum natura necessesit*

O has: TOMAKAPION KAIA ΦEAPTON

Sched. reads: TOMAKAPION KAIA Φ[eras.]ΘARTON

³⁰ Bailey, *Remains* (n. 24), 122/123.

Proposed reconstruction: ΤΟ ΜΑΚΑΡΙΟΝ ΚΑΙ ΑΦΘΑΡΤΟΝ ('the blessed and immortal')

Τὸ μακάριον καὶ ἀφθαρτον οὔτε αὐτὸ πράγματα ἔχει οὔτε ἄλλω παρέχει, ὥστε οὔτε ὀργαῖς οὔτε χάρισι συνέχεται· ἐν ἀσθενεὶ γὰρ πᾶν τὸ τοιοῦτον.

The source of the phrase is once again Epicurus's *Kyriai Doxai* 1 (see translation at example 1). Here there can be no question here of the intended reading of the titulus. Lucretius in this passage is discussing the nature of the gods: "For it must be that all the nature of the gods enjoys life everlasting in perfect peace, sundered from all grief, free from danger, mighty in its own resources, never lacking aught of us ...". Ἀφθαρτον, 'imperishable', 'immortal', clearly belongs to the nature of the gods discussed here.

(7.) DRN 2, 1058, inc. *Cum praesertim hic sit*

O and Sched.: APIROS MUNDOS 'infinite worlds' or 'an infinite world'

Proposed reconstruction: ΑΠΕΙΡΟΥΣ ΜUNDOS

The titulus applies to lines 1074 – 1076, almost twenty lines away:

... *necesse est confiteare*
esse alios aliis terrarum in partibus orbis
et varias hominum gentis et saecla ferarum.

It looks as though a Latin translator replaced Greek ΚΟΚΜΟΚ with Latin *mundus*, its usual equivalent, retaining the Greek (or archaic Old Latin) ending for show. However, the phrase reflects Epicurus's Letter to Herodotus, 45: Ἀλλὰ μὴν καὶ κόσμοι ἀπειροὶ εἰσιν, οἳ θ' ὅμοιοι τούτῳ καὶ ἀνόμοιοι. αἱ τε γὰρ ἄτομοι ἀπειροὶ οὔσαι, ὡς ἄρτι ἀπεδείχθη, φέρονται καὶ πορρωτάτω. οὐ γὰρ κατανήλωνται αἱ τοιαῦται ἄτομοι, ἐξ ὧν ἂν γένοιτο κόσμος ἢ ὑφ' ὧν ἂν ποιηθεῖη, οὔτ' εἰς ἓνα οὔτ' εἰς πεπερασμένους, οὔθ' ὅσοι τοιοῦτοι οὔθ' ὅσοι διάφοροι τούτοις. ὥστε οὐδὲν τὸ ἐμποδοστατήσόν ἐστι πρὸς τὴν ἀπειρίαν τῶν κόσμων. ("Furthermore, there are infinite worlds, both like and unlike this world of ours. For the atoms, being infinite in number ... are borne on far out into space. For those atoms, which are of such nature that a world could be created out of them ... have not been used up either on one world or on a limited number of worlds, nor again on all the worlds which are alike, or on those which are different from these. So that there nowhere exists an obstacle to the infinite number of worlds."³¹)

Epicurus's passage opens with the phrase Ἀλλὰ μὴν καὶ κόσμοι ἀπειροὶ εἰσιν, "furthermore there are infinite worlds", and ends with ὥστε οὐδὲν τὸ

³¹ Bailey, Remains (n. 24), 24/25.

ἐμποδοστατήσόν ἐστι πρὸς τὴν ἀπειρίαν τῶν κόσμων, “so that there nowhere exists an obstacle to the infinite number of worlds”. The titulus as transmitted by *O* and Schedae would be untrue to Epicurus’s thought, if it spoke only to the infinite nature of the cosmos rather than the possibility of infinite worlds. However, if *mundos* is read not as a nominative singular with a phony Greek ending, but as a Latin accusative plural, and transmitted APIROS is taken to stand for ΑΠΕΙΡΟΥΣ (ἀπείρους), the problem of content disappears. This leaves, however, the matter of the accusative substituting for the nominative. This, perhaps, can be explained by the hypothesis that some of the marginalia took the form of a paraphrase, e. g. ἔφη τοὺς κόσμους ἀπείρους εἶναι.

What should one make of all this? First, whoever was responsible for the graeca in the tituli did not live in the Carolingian age. In other words, the Greek quotations cited in the rubrics cannot have been the work of the editor-scribe of *ω*II, who arguably flourished in the late eighth or very early ninth century.³² Knowledge of Greek in the West in this period was deficient,³³ and sources written in Greek extremely scarce. It defies the imagination to think that even a scribe who knew some Greek had access to the works of Epicurus, or even an anthology of excerpts, and possessed the knowledge to apply them intelligently to the fashioning of the rubrication. It is thus a virtual certainty that the graeca belong to antiquity, and their incorporation into the Latin tituli was also completed before the Carolingian age. Even the placement of *CONTRA* before the snippet *EIC ΑΠΕΙΡΟΝ ΤΗΝ ΤΟΜΗΝ* (example 2) would have required the knowledge that the words run directly counter to Epicurus’s teaching, and at the same time point the reader to a longer quotation containing the words οὐ δεῖ νομίζειν, vel sim., which correctly represent Lucretius’s thinking. On the other hand, the hapless gloss *elocutio* written above *TΟΜΗΝ* suggests an early Carolingian editor-scribe who possessed some basic knowledge of Greek, or had access to glossaries, but did not understand the context of the passage he was glossing.

If these surprising finds of Epicurean quotations in early medieval manuscripts can be considered a kind of Grail, then we must ask: whom did the Grail serve? Surely, the surviving graeca would have been a cause of confusion to almost any Latin reader after the sixth century; indeed, many Latin readers who could read Greek before that time would have wondered to what

³² Reynolds, *Texts and Transmission* (n. 10), 219.

³³ I agree with the generally cautious assessment of Bischoff, *Das griechische Element in der abendländischen Bildung des Mittelalters*, in: *Mittelalterliche Studien: Ausgewählte Aufsätze zur Schriftkunde und Literaturgeschichte*, vol. 2, Stuttgart 1967, 246–275.

they referred. On the face of it, their only conceivable use would have been as *signes de renvoie* to the writings of Epicurus, especially the Letter to Herodotus and the *Kyriai Doxai*, for readers who were already familiar with those works. Indeed, one might think of them as a kind of *apparatus fontium*. They say in effect: “Dear reader, the Lucretian passage you are reading is based on this pericope of Epicurus that you should be aware of.”³⁴ The compiler of these quotations was doubtless well versed in the doctrines and writings of the master.³⁵ If he recorded the annotations for any other purpose than his own edification, he would have aimed at an audience comprising other devotees of Epicurus, or at least those with serious philosophical interests. We may therefore imagine that the surviving *graeca* were originally written as *marginalia*,³⁶ and are remnants of what may have been a larger body of *marginalia* referencing Epicurus’s writings. Their incorporation into Latin *tituli* obfuscates their original function. Unlike the purely Latin *tituli*, which could have been formulated by any intelligent reader of the poem at almost any time, the Greek quotations transposed from the *marginalia* demand acquaintance with Epicurean writings, and thus point to a time of compilation when the school still flourished.

Before attempting to posit an order of composition and transmission of the *tituli* it is necessary to make a few observations: (1) The substitutions of the Roman characters S for C (Σ), P for Π, R for P, E for H, T for Θ, and C again for K (SARCOS = CAPKOC) arguably belong to the Carolingian stage of transmission (ωII). They were made by an editor-scribe who knew enough Greek to transliterate certain letters. Examples of the same practice can be instanced in Carolingian manuscripts.³⁷ (2) The itacistic spellings IS for EIC, APIROS for AΠEIPOC, etc., were already widespread in antiquity.³⁸ I would suggest that these itacisms were already in the exemplar copied by ωII. If we identify ωI as the compiler of the *Graeco-Latin tituli*, then the itacisms might be ascribed to that individual, but the orthographical changes

³⁴ On Lucretius’s direct borrowings of Epicurus’s writings see D. Sedley, *Lucretius and the Transformation of Greek Wisdom*, Cambridge 1998. Sedley argues specifically for Lucretius’s use of the *Peri physeon*, not the letter to Herodotus or any of the other minor writings; see esp. ch. 5. This argument, however, does not entail the consequence that later scholars had to have used the *Peri Physeos* to annotate their copy of Lucretius.

³⁵ Fischer, *De capitulis lucretianis* (n. 21), 61.

³⁶ Fischer, *De capitulis lucretianis* (n. 21), 64.

³⁷ See e.g. the apparatus to the poems of John Scottus Eriugena that contain *graeca*: *Iohannis Scotti Eriugena Carmina*, ed. M. Herren, Dublin 1993, *passim*.

³⁸ The data for phonology and morphology are available in: F. T. Gignac, *A Grammar of the Greek Papyri of the Roman and Byzantine Periods*, 2 vols., Milan 1976 and 1981.

in Greek can be instanced much earlier, so even that is not certain. The inept gloss *elocutio* for TOMHN was probably the work of ωII. The substitution of MUNDOS for a lost KOCMOYC and the placement of CONTRA before EIC AΠEIPON THN TOMHN seem to have been the work of ωI.

The seven Greek quotations cited constitute the entirety of the extracts. They leave off at the end of DRN, book 2. It is hardly likely that this small selection represents the whole collection of quotations made by the ancient compiler. One can scarcely imagine that these were the only citations of Epicurus applicable to Lucretian lines in books 1 and 2. What of books 3–6? If Schedae alone contained the graeca, one could argue that the ‘Copenhagen scribe’ was more meticulous than the ‘Vienna scribe’. However, Sched. and *O* bear witness to the identical number of Greek quotations, and Dungal, who must have used ωII to correct and fill in missing passages in *O*,³⁹ would surely have copied out more Greek tituli had they been there. The fault probably lies with ωI, who simply grew weary of his task.⁴⁰

We can now posit at least three stages in the formulation of the tituli as they stood in ωII:

1. a text made of DRN likely without tituli accompanied by marginalia consisting of Greek pericopes or snippets taken from Epicurean sources of the Lucretian passages (ω)
2. a new copy of DRN made intended mainly for Latin readers; Latin tituli inserted to assist readers with finding passages of interest; Greek marginalia in phase 1 not copied as such, but a selection incorporated into the tituli for books 1 and 2; itacistic spellings were used or were already there at that stage (ωI). CONTRA (example 2) belongs to this phase as does the replacement of KOCMOYC with mundos (example 7).
3. a copy of DRN complete with tituli made from above (phase 2), with substitution of some Latin characters for Greek; inept gloss *elocutio* on THN TOMHN (ωII)

Of the quotations I have identified three come from the Letter to Herodotus (nos. 2, 3, 7), two (in fact the same fragment) are taken from the Kyriai Doxai (nos. 1, 6), one (no. 5) is identified as fragment 11, which is taken from the lost Peri Telous, and one is just possibly a quotation from Zeno (preserved in Stobaeus) that Epicurus would have refuted (4). The graeca of the tituli in Lucretius, then, are in all likelihood survivals of an annotated

³⁹ Thus Ganz, *Lucretius in the Carolingian Age* (n. 5), 93.

⁴⁰ Fischer, *De capitulis lucretianis* (n. 21), 64, attributes the failure to continue to the annotator (i. e. ω).

edition. As suggested, one may speculate that the annotations preserved in the tituli represent only a portion of the original, but it is impossible to gauge the original number of annotations.

The question to be decided is whether the original quotations that comprise the annotations were compiled in the classical period by Epicurean scholars such as Philodemus or Siron, or even by Cicero⁴¹ (assuming there is truth in the tradition that he edited DRN), or at some later period by an editor using the quotations from the Letter to Herodotus and the Kyriai Doxai as they were transmitted by doxographers such as Hippolytus, Plutarch, Diogenes of Oinoanda, or Diogenes Laertius, on whom our present-day editions of the Letter to Herodotus and the Kyriai Doxai are dependent. One can imagine that the easy access to these two works made possible by the publication of book 10 of the *Vitae philosophorum* brought about renewed interest in and further study of the ancient philosopher in the third century.

It is somewhat tempting to accept the first hypothesis. The Letter to Herodotus and the Kyriai Doxai were already known to Cicero, who apparently regarded the latter as a work by Epicurus himself.⁴² Survivals of *Peri Telous* in Cicero's day are attested by that writer's use of the work in the *Tusculan Disputations* and *De finibus*.⁴³ More to the point, Cicero made a practice of rendering passages from Epicurus into Latin in both of these works.⁴⁴ Whatever the source of example 4, it was laid under contribution by the annotator precisely because it states a point that Epicurus (followed by Lucretius) was attempting to refute. (Had the compiler of the tituli [ωI] been more alert, he would have prefixed a CONTRA at this place as well.) This suggests that the annotator was thoroughly bilingual and knew the doctrines of Epicurus (whether from original works or indirectly through the doxographers) well enough to reference Lucretius's poem with apt quotations from the master. One might equally imagine the compiler to be Philodemus, Cicero's close contemporary, adherent of Epicureanism, author of a chronological history of philosophy, and user, if not owner, of a copy of DRN, of which tiny

⁴¹ I am grateful to Carlos Steel for this suggestion. For the tradition that Cicero edited DRN see Fleischmann, *CTC* 2, 349. However, we have nothing earlier than Jerome's testimony in *Chron.* (cf. n. 3).

⁴² Bailey, *Remains* (n. 24), 344 with testimonia.

⁴³ For quotations of *Peri Telous* in the *Tusculan Disputations* see the index fontium in the edition by H. Drexler, *M. Tulli Ciceronis Tusculanarum Disputationum Libri Quinque*, Milan 1964.

⁴⁴ For a demonstration see the commentary on book 2 of *De finibus* by John Reid, *M. Tulli Ciceronis Bonorum et Malorum Libri I, II*, Cambridge 1925.

charred papyrus fragments survived the volcanic fire in the library of Herculaneum.⁴⁵ Perhaps further papyrological finds, such as those made at Herculaneum, will provide additional clues.

A more plausible hypothesis, however, is that a scholar of the second or third century drew on a source such as Diogenes Laertius's *Vitae philosophorum*, book 10, which concentrates entirely on Epicurus's life and writings, or on some other exponent of Epicurus's teaching such as Diogenes of Oenoanda.⁴⁶ Plutarch provides a further source of Epicurean quotations. Of these writers, Diogenes Laertius is particularly promising, since our texts of both the Letter to Herodotus and the *Kyriai Doxai* are preserved in book 10 of the *Vitae*, along with other writings. As it happens, five of the seven Greek quotations incorporated into the tituli (1, 2, 3, 6, and 7) appear in book 10 of the *Vitae*. There Diogenes mentions 'The Great Epitome' as one of his sources (e.g. at *Vitae* 10,38). Thus, between the first and third centuries C. E. (and even before) a number of expositions and epitomes of Epicurean teachings were compiled, and any one of them or more than one could have served as the source for our annotator's marginalia. However, it is important to keep in mind that the annotator, whenever or wherever we place him, directed his efforts to a bilingual readership – those who could read Lucretius's Latin and the annotator's Greek references with ease and grasp their relationship. It is likely, then, that the annotator lived at a time when there was still a lively interest in the writings and teachings of Epicurus; it is hard to imagine this to be later than the end of the third century.

The compiler of the tituli, on the other hand, was concerned to serve the interests of a Latin readership. Why he bothered to preserve the graeca in the form of tituli remains a mystery. Indeed, the compiler himself may have wondered about the fruitfulness of his endeavour, and simply ceased to copy any more annotations after book 2. Thus, there is a significant contextual difference between the annotator and the compiler of the tituli (i. e. between ω and ω I). Chronologically, there might have been a gap of a century or even centuries between them.

⁴⁵ K. Kleve, *Lucretius in Herculaneum*, *Cronache Ercolanensi* 19 (1989), 5–27. Kleve located verses from books 1, 3, 4, and 5.

⁴⁶ This Diogenes (2nd century?) arranged for a summary of Epicurus's teaching to be inscribed on the wall of Oenoanda (in Lycia). Even if this inscription had been transcribed on papyrus for wider circulation, it is still an unlikely source of our Epicurean extracts, since direct quotations of the master's writings are very difficult to identify from it. See the very helpful edition, translation, and commentary by Martin Ferguson Smith, *Diogenes of Oinoanda, The Epicurean Inscription*, Naples 1992.

We will probably never know for certain who this annotator was, or when exactly in antiquity he inserted his marginalia into a text of Lucretius's poem. Neither can we pinpoint a place or time when a later editor (ωI) mixed a selection of the Greek annotations into tituli for Latin readers for purposes not entirely clear. What is certain is that the exemplar of the extant tradition (ωII) and all that followed descends directly from a work of scholarship carried out at some point in antiquity by a thoroughly bilingual scholar familiar with the teachings of Epicurus. This annotated edition must be ω.⁴⁷

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⁴⁷ This essay is the result of idle curiosity and the chance to read a number of Carolingian manuscripts of classical texts in Copenhagen in February 2006. I am grateful to Dr. Eric Petersen, keeper of manuscripts, for allowing me to examine these treasures. The first manuscript I inspected contained the first part of the Schedae, which, in fact, contains all of the extant Greek tituli, as I was later to learn. When I realized that what looked like gibberish in the rubrics was actually Greek, I began the process of transcribing the tituli and investigating their sources. The work carried on while I was a visiting professor at Berkeley in 2007. There I made use of Chatelain's facsimile of the Oblongus that resides in the Classics Library, and collated its readings with Sched. On 30 January 2009 I presented the first fruits of my investigations at the Nostra Eruditio conference sponsored by the Centre for Medieval Studies, Toronto. I gave a revised version of the paper at Kalamazoo in May of the same year. Subsequently I was in touch by email with David Butterfield, who had just completed a dissertation at Cambridge entitled *The Early Textual History of Lucretius' De Rerum Natura* (2010). I am grateful to Dr. Butterfield for his communications. I am deeply indebted to Professor John Magee for his incisive comments after the Toronto lecture and for his careful reading of this essay in a penultimate draft. I am also grateful to Dr. Greti Dinkova Bruun, editor of the *Corpus Translationum et Commentariorum*, for her comments on this essay, and to Professor Danuta Shanzer (University of Vienna) for numerous suggestions for improvement. Once again I am indebted to my colleague Professor Ross Arthur for his assistance with scanning Greek texts. Finally, I wish to acknowledge the helpful comments of Professor Dorothea Weber (University of Salzburg).