Literary histories tend to present Lucretius as an isolated figure, his poem as something of an anachronism. Unlike the work of Catullus or the Augustans, whose variety and contemporaneity stimulate the study of influence, development and interrelationship, the De Rerum Natura has seemed to stand apart from its historical and literary context. This impression is encouraged by the poet himself, when he preaches withdrawal from the follies of contemporary public life (e.g., in the proem to Book 2) and elevates the poem's practical aim above its merely aesthetic value (1.931f.).

Nevertheless, this isolation has been much exaggerated. Firstly, both the Epicurean subject matter and the poetic genre of the De Rerum Natura mirror contemporary tastes. Epicureanism, which had been known at Rome since at least 154 B.C., or maybe 173 B.C.,\(^1\) reached a height of popularity in the late Republic,\(^2\) partly in response to a growing disillusionment with the public scene which Lucretius depicts with such abhorrence (e.g., 3.59f.), much like Sallust in the next generation. Prose authors catered to this interest\(^3\) and Epicurean doctrine is conspicuous in Cicero's philosophical oeuvre. The idea of expounding such technical material in verse was an original stroke but by no means anachronistic, for indications exist that the didactic genre, revived in the Hellenistic era, was beginning to enjoy a vogue in Lucretius's day.\(^4\) Apart from Cicero's translation of Aratus, known to Lucretius,\(^5\) one might mention the De Rerum Natura of Egnatius (Frs 1-2 Morel), the Empedoclea of Sallustius (Cic. ad Quint. 2.10.3) and certain didactically flavoured fragments of Valerius Soranus (Fr. 4 M) and Q. Cicero (p. 79 M); in the next
generation came the *Chorographia* and *Epimenis* (?) of Varro Atacinus (Frs 14-22 M).

Another area of exaggeration concerns the poet's alleged neglect by his own and subsequent ages. Yet he is mentioned with praise by Cicero in a celebrated letter (*ad Quint.* 2.10.3) and there are many parallels to suggest that Cicero drew upon him also in his philosophical works (despite the often accepted view to the contrary). 6) Catullus too introduced clear Lucretian reminiscences into his most ambitious poem 7) and probably shared with him the patronage of Gaius Memmius. In later literature there are specific references to Lucretius in Nepos (*Att.* 12.4), Vitruvius (9, praef. 17), Ovid (*Am.* 1.15.23, *Trist.* 2.425), Velleius (2.36.2), Seneca (*Tranq. Anim.* 2.14, *Ep.* 58.12 etc.), Pliny the Elder (*N.H.*, index lib. 10) and Younger (*Ep.* 4.18.1), Statius (*Silv.* 2.7.76), Quintilian (1.4.4, 10.1.87 etc.), Tacitus (*Dial.* 23.2), Fronto (*Ep. ad Marc. Caes.* 4.3.2, p. 62 N etc.) and many later authors; 8) more significantly, he left an indelible print upon most subsequent poets, especially Virgil. 9)

These data suggest that Lucretius wrote about a relevant topic, employed a fashionable genre and was read by contemporaries and posterity. But there remains a final argument of those who have stressed Lucretian isolation, which represents him as an arch-conservative clinging to the antique style and ethos of Ennius in opposition to innovative trends variously styled Neotericism, New Poetry or Alexandrianism. 10) This old-fashioned Lucretius, immune to the influence of Hellenistic poetry and lacking contact with the Catullan circle, used to be a familiar figure, 11) but has happily disappeared from most modern criticism. No doubt those critics of Ennius whom Cicero characterized (some years after Lucretius's death) as *novi poetae* and *cantores Euphorionis* (*Orat.* 161, *Tusc.* 3.45) disapproved of Lucretian archaism; no doubt the experimental poetry of Catullus evinces a disassociation from poems so long and so deeply rooted in early Latin as the *De Rerum Natura*. But this hardly amounts to a rigid polarization of attitudes and styles. The absence of any other successful model made imitation of Ennius prudent and inescapable, once Lucretius had decided upon a large hexameter poem. However, this fact
should not be allowed to obscure his independence and modernity. Suffice it to observe here that Lucretian veneration for Ennius is tinged with criticism of his philosophy\(^\text{12}\) and competitive emulation of his poetic achievement.\(^\text{13}\) Moreover, a mechanical list of Lucretius's numerous archaisms does little justice to the quite un-Ennian range of sophisticated effects for which he employs them.

Another way of qualifying too narrow a view of the literary influences which molded Lucretius is to demonstrate the multiplicity of his Greek models. Traces of Homer, Hesiod, Sappho, Aeschylus, Parmenides, Empedocles, Euripides, Thucydides and Plato, not to mention Epicurus, testify to the broad reading and culture of the poet. Furthermore, it is becoming clear that, despite previous statements to the contrary, Lucretius was acquainted with the Hellenistic poetry which inspired young contemporaries like Catullus. Scattered parallels have been noted since Lambinus, but the first serious discussion came in L. Ferrero's overstated but unjustly neglected book on Lucretius and New Poetry,\(^\text{14}\) which stresses the common literary climate of Lucretius and Catullus. In recent years several other authors, especially E. J. Kenney, have made useful contributions to this aspect of Lucretian background.\(^\text{15}\) The intention of the present article is to explore further the extent and significance of Lucretius's debt to the most important of the Hellenistic poets, Callimachus. Not that Callimachus was a late Republican discovery, for Ennius almost certainly knew his work and he was translated by Q. Lutatius Catulus (Fr. 1 M).\(^\text{16}\) But since he played a key role in inspiring the fresh impetus of Alexandrianism which we observe in Catullus and his friends, any contacts with Lucretius become doubly interesting.

Roman poets were intrigued by the poet-critic combination in Callimachus and eagerly adopted his canons of style and subject matter in their programmatic poems. This kind of Callimacheanism is familiar to us from Catullus and the Augustans;\(^\text{17}\) there has been less discussion of the series of programmatic passages in Lucretius, many of which bear unmistakable traces of Callimachus, both in their general self-consciousness and also their specific images and slogans. Let
us begin with the famous digression in Book 1 (1.921-50), where we will be chiefly concerned with the first half proclaiming the poem's originality (921-34).

The remarkable richness and variety of imagery which pervades these lines should warn us from the outset against seeking a single source of influence: clearly this is an original synthesis of motifs, relating not only to external models, but also to the proem of Book 1 and the surrounding context. Nevertheless, some of the threads composing this closely woven texture can be unravelled by reference to Lucretius's predecessors. For instance, in the opening lines he has drawn upon two conventional Greek concepts of the poet, those of the divinely possessed devotee (thyrso, 923) and the Muses' friend (amorem/Musarum, 924-5). Here he may have recalled the eloquent account of poetic inspiration in Plato's Ion 534a, where the idea of divine possession is followed by a comparison of poets with honeybees, according to which they are said to derive their songs from honeyed fountains in the gardens of the Muses (compare the sequence of ideas in Lucretius). It is noteworthy, however, that Lucretius has converted these originally religious motifs into personal symbols of ambition and ecstasy, stripping away the reference to external inspiration which was conventional in a 'Dichterweihe' of the Hesiodic kind.

Having established a tone of exultant pride and individualism, Lucretius now describes his originality through a series of three metaphors - untrodden path, untouched springs, fresh flowers for a garland (926f.). Much here is reminiscent of the beginning of the Theogony (the Muses, their gift to the poet, the natural setting and, later, the sweetness of song), but Lucretius probably had Ennius mainly in mind. The reconstruction of the proem to the Annales is highly controversial, but an excellent case can be made for supposing that Ennius, in imitation of Callimachus's dream in the Actia, traversed the realm of the Muses, drank from an inspiring spring and won a garland, just as Lucretius does in metaphorical terms. By repeating these motifs and simultaneously stressing newness (avia, nullius ante..., integros, novos, unde prius nulli...), Lucretius manages to convey both indebtedness and originality.
However, it is going too far to state that these lines are 'no more than an elaboration in the imagery of Ennius', for the terms in which Lucretius expresses his originality are irresistibly reminiscent of Callimachus. Lines 926-7, as Pfeiffer recognized, recall the road imagery of \textit{Aet. Fr. 1.25-8};

\[\text{πρὸς δὲ σει καὶ τὸδءάνωγα, τὰ μὴ πατέουσιν ἀμαξαὶ τὰ στείβεις, ἐντερων ἵχνια μὴ καθδωμα διφρὸν ἐλιξὰν μηδ’οἶμον ἄνα πλατῦν, ἄλλα κελεύθους ἀτριπτοὺς, εἰ καὶ στειλγεντέρην ἐλάσεις.}\]

Indeed, if the supplement ἀτριπτοὺς is correct, the parallel extends to verbal detail (\textit{loca nullius ante/trīta solo}). Moreover, the role of springs as a source of poetic inspiration (927), an unclassical idea which Callimachus's dream in the \textit{Aetia} may have popularized, reminds one here by its emphasis on freshness of the \textit{Hymn to Apollo}, where Apollo is said to approve a καθαρὴ τε καὶ ἀχράντος... ὡλγη λιβάς (\textit{Hymn 2.111-2}). Despite his general debt to Callimachus's dream, there is no evidence that Ennius formulated his claim to be the first real Roman poet with such specifically Callimachean emphasis on novelty of theme; indeed, had he done so, Lucretius would surely have avoided a repetition both weak and subversive of his own claim. A more plausible explanation is that Callimachean influence on Ennius's proem was restricted to the dream passage, while Lucretius has borrowed from elsewhere in Callimachus (including the later preface, which can hardly have been congenial to the Roman epicist) in order to underline his own independence from Ennius.

These reminiscences raise two important questions, which must be answered if we are to assess their significance correctly. Firstly, even if they were not derived from Ennius, is it possible that they were channelled from Callimachus to Lucretius by an intermediary source, or that they had attained the status of commonplaces by his time? The evidence tells against the latter, inasmuch as the images of unworn path and pure spring are uncommon in Hellenistic poetry and, to judge from later imitations (e.g., Virg. \textit{Georg.} 3.291f., Hor. \textit{Carm.} 1.26.6), received from Lucretius their first definitive statement in Latin. The former possibility, that Lucretius took his cue from an imitation of Callimachus, is more serious, since the unworn path appears in an epigram by Antipater, \textit{A.P.} 7.409.5-6 (\textit{εἰ τὰν ἀτριπτον καὶ ἀνέμβατον ἀτριπτόν ἄλλοις / μαίεατ}), which Lucretius is likely to have known on the basis of other parallels,
and pure springs are used in another epigram by Alcaeus of Messene, A.F. 7.55.5-6 (έννεα Μουσέων / ο πρέσβυς καθαρῶν γευσάμενος λιβάδων), to describe the inspiration of Hesiod. Whether or not Lucretius knew the Callimachean originals directly must therefore remain a matter of judgement, although it seems to me highly probable in view of other echoes of Callimachus which I hope to establish later.

Secondly, do these reminiscences - direct or indirect - imply any adherence to Callimachean stylistic canons, above and beyond their primary function of expressing Lucretius's originality? Kenney suggests that the emphasis Lucretius lays upon clarity (e.g., 1.136-45, 921-2, 933-4) may go beyond an Epicurean concern for σαφήνεια (D. L. 10.13) and share something with Callimachus's repeated insistence upon fine-drawn art.31

One could add that the notion of poetic sweetness (936-50, esp. 945-7) is prominent not only in the opening of the Theogony (39-40, 69, 83-4, 97) but also in the Aetia preface (Fr. 1.11, 16) and the epigram praising Aratus (Ep. 27.2); moreover, Lucretius repeats the cliche in a strikingly Callimachean statement at 4.180 and 909 (suavidias potius quam multis versibus edam), which I suspect to have been inspired by an epigram of Asclepiades (A.F. 7.11) that describes Erinna's tiny output as γλυκύς... πόνος, οὐχὶ πολύς μέν... ἄλλ', έτέρων πολλών δυνατάτερος.

However, very little can be made of such vague parallels, based as they are upon ideas which were prevalent not only in Callimachus but Hellenistic literature in general and even earlier Greek poetry. To return to the question posed above, we must answer that Lucretius assertions of thematic novelty (926-30) and lucid style (933-4) do not amount to a statement of allegiance to Callimachean poetics in the narrow sense of Catullus 95 or the Augustan recuauationes. This clearly emerges from a contrast between Lucretius's expansive handling of the path and spring images and the ironic, allusive treatment of Callimachus.32 Callimachus was revitalizing an old and jaded art by his insistence on refined exclusivity; Lucretius was exploring the potential of a relatively new one and conveys the exhilaration of a poetic pioneer and missionary.

However, the fact that programmatic Callimachean ideas influenced a segment of Lucretius's most personal statement remains significant in itself, and receives confirmation from echoes in other self-conscious passages of the poem. Perhaps next in importance as a personal utterance stand the lines on the difficulty of rendering obscure Greek discoveries in Latin (1.136-45), where, as in 1.921-34, the contrast of light and
dark acts as a frame for reflections on the nature of the poem. Here Lucretius states that the hope of friendship persuades him *quemvis efferre laborem* (141) and *noctes vigilare serenas* (142). The second phrase obviously reproduces a proverbial idea of working late into the night, with which one can compare the use of the verb *luostrare* and our own saying 'to burn the midnight oil'. However, I doubt whether it is coincidental that Lucretius's formulation of the idea in terms of staying awake (*vigilare*) puts one in mind of the sleeplessness which Callimachus ascribes to Aratus, as a token of his astronomical research and perfectionist artistry (*Ep. 27.3-4*):

\[
\chiαρετε λαπταί
\]

\[
φήοες, Ἀρητοῦ σύμβολον ἁγρυπνίνης.
\]

That this epigram was familiar to the Catullan circle may be inferred from the dedicatory poem attached to a gift by C. Helvius Cinna (Fr. 11 M):

\[
haec tibi Arateis multum invigilata Lucernis
\]

\[
caermina, quae ignis novimus aethereis.
\]

As a didactic poet following in the tradition of Aratus, Lucretius may have felt a particular affinity to the epigram; one may even sense a hint of Aratus's star-studded sky in the epithet *serenas*, apart from its important psychological significance. In harmony with this interpretation, of Lucretius's sleeplessness, the poet's *laborem* (141) can be compared with the Alexandrian ideal of painstaking craft, for here (and in the oxymoron *dulci*... *labore*, 2.730, 3.419) the word seems to refer less to the effort of Epicurean research than to that of committing it to verse. A concern for careful artistry also emerges from his use of the verb *pango* (1.933) and the revealing statement about *politis/versibus* (6.82-3). Again, however, the similarities to Callimachus must not be overstressed. Most importantly, the sleeplessness, labour and polish of Lucretius have a practical end, and by emphasizing them he wishes to engage our attention, not to praise art for art's sake.

Another programmatic statement occurs in 4.909-11, where Lucretius promises to explain sleep *suavidiois potius quam multis versibus* (a line already mentioned earlier), and favourably compares the *parvus... canor* of swans to the diffuse *clamor* of cranes. Lines 910-11 are a close adaptation of an epigram
by Antipater (A.P. 7.713.7-8). Line 909 can hardly be called an imitation of Callimachus (I compared it before with Asclepiades, A.P. 7.11), but certainly derives ultimately from his celebrated rejection of ἐν δὲ οἷς διηνεκές...ἐν πολλαῖς...χιλιάδοις (Aet. Fr. 1.3-4 and passim; cf. Frs 465, 398, Hymn 2.105f., Ep. 28.1). In the light of this flagrantly Alexandrian sentiment (even the compressed incongruity sounds authentically Callimachean), it may be legitimate to suppose that pedagogical claims of brevitas elsewhere in Lucretius (1.499, 2.143, 4.115, 723, 6.1083) also contain an artistic motivation.

Furthermore, it is interesting that Lucretius substitutes cranes for Antipater's jackdaws in his adaptation. To be sure, gruam is a more tractable word than graculorum, but in such a self-conscious and literary passage he is unlikely to have hit upon the replacement by accident. Pfeiffer originally conjectured that both poets worked independently from a common source in the Aetia preface, but the recovery of lines 15-16 disproved a close imitation by Lucretius. Rather, he modelled his passage primarily upon Antipater but returned to the Aetia preface for the illustration of cranes, which there represent tedious epic, by contrast with the 'little nightingales' preferred by Callimachus. If this analysis is correct, we have concrete evidence here for the coalescence of two separate Hellenistic poems in Lucretius's creative imagination. Once again, however, we should note that ideas which Callimachus used to clarify his aesthetic standards are appropriated by Lucretius for the different role of alluring his audience (912-15).

Together, these echoes testify to the contemporary pull exerted by Callimachean poetics, although it is sometimes difficult to tell whether Lucretius was responding directly to Callimachus or his Hellenistic imitators. I turn now to a few miscellaneous resemblances which permit a more confident decision in favour of direct inspiration. The first example has gone unnoticed hitherto and occurs within Lucretius's praise of Empedocles (1.716f.). This powerful passage pays homage to the Sicilian's achievements as philosopher and poet through a vividly imaginative description of his island's natural wonders, implicitly linking the ruggedness and grandeur of Sicily with the philosopher's majestic verse. Two areas of the encomium are verbally indebted to Callimachus's
Hymn to Delos (4), which in a similar fashion approaches the tale of Apollo's birth with praise of his island birthplace.

The first of these is the beautiful description of Sicily's seaboard in 718-19:

\[\textit{quam fluitans circum magnis anfractibus aequor Ionium glaucis aspargit virus ab undis,}\]

These lines are an adaptation of the picture sketched by Callimachus of the sea around Delos (Hymn 4.13-14):

\[\text{
\begin{center}
δέ ἄμφι ἐ ποιλὺς ἐλίσσων
\end{center}
\text{Ἰκαρίου πολλὴν ἄπομάσσεται ὕδατος ἄχνην.}^{47}\]
\]

To press the point, \textit{quam fluitans circum magnis anfractibus answers roughly to ἄμφι ἐ ποιλὺς ἐλίσσων,}^{48} \textit{aequor/Ionium to Ἰκαρίου... ὕδατος aspargit virus to ἄπομάσσεται... ἄχνην; in addition to verbal correspondence, Ionium and aspargit stand at the identical point in the line.}^{49} Of course, Lucretius has also transformed the original, both in detail, e.g., the substitution of 'brine' for 'foam' and the addition of the ornamental detail \textit{glaucis}, and in tone, which is rather more elevated than in Callimachus, thanks largely to the resounding periphrasis in 718.

A second echo of the same hymn occurs a little later, where Lucretius praises the revelations of Empedocles above those of the Delphic oracle (738-9):

\[\textit{sancitius et multo certa rations magis quam Pythia quae tripodi a Phoebi lauroque profatur,}^{50}\]

The commentators offer parallels for the expression 'from the tripod and laurel of Phoebus' (e.g., Eur. Or. 329, I.T. 976, Arist. Plut. 39), refer to the proverbial notion, contradicted by Lucretius, of speaking as truthfully as Apollo's oracle^{51} and mention an epigram by Athenaeus (not Epicurus, as Bailey says) which praises Epicurus as having learnt a certain fact from the Muses or the Delphic tripod (D. L. 10.12). Only Munro has recognized that the clever idea of speaking more accurately than the Delphic oracle derives from the humorously prophetic words of the unborn Apollo in Callim. Hymn. 4.90-94, esp. 94:^{52}
A comparison with the Lucretian lines will show that Callimachus's reference to the Pythian tripod (90) has been conflated with the joke about speaking more clearly than 'from the laurel' (94), in order to create a single, cogent idea. Significantly, Lucretius has turned the thought against Apollo and foreknowledge in general, whereas Apollo's words in Callimachus are unprejudicial to the veracity of his future oracle (he simply implies that firsthand prophecy is better than secondhand).

It seems reasonable to conclude on the basis of these echoes that Lucretius had read the whole hymn with some care. Perhaps this reading supplied him with some of the inspiration to praise Empedocles through the medium of his island birthplace and in terms of a latter-day god, although the poetic statements of Empedocles himself are likely to have provided the chief impetus. This larger claim may be insupportable, but it helps towards a clearer appreciation of the plan and purpose of this striking digression, which can be seen as a demythologized hymn, removing true superhumanity from the realm of superstition to that of ratio and scientific discovery. As such, the passage may be compared with the 'hymns' to Epicurus (3.1f., 5.1f.), in which hymnic formulae of praise are applied to the enemy of superstition, partly for polemical reasons, partly to turn around ingrained religious attitudes and divert them into constructive channels.

Another imitation of Callimachus is found in the virtuoso and complex digression on Cybele (2.600-660). Here, at the climax of the ritual procession he is describing, Lucretius paints a lively picture of the dancing attendants named Curetes, who recall the Dictaean Curetes who drowned Jupiter's infant cries. After an ironic gesture to tradition (feruntur, 634) Lucretius reports the story of the latter's dance in 635-9:

*own pueri circum puerum permio chorea*
*armati in numerum pulsarent aeribus aera,*
*ne Saturnus eum malis mandaret adeptus*
*aeternumque daret matri sub pectore vulnus.*

The first half of this tableau seems to echo Callimachus's treatment of the same story in the *Hymn to Zeus* (1.52-4):

*οὐδὲ κούρητες σε περὶ προλιν ώρχήσαντο τεῦχα πεπλήγοντες, ἵνα Κρόνος ὡβαίν ἡχήν ἀσπίδος εἰσαθί καὶ μὴ σεο κουρίζοντος.
Aside from rough correspondences of verbal detail (circum/perī, pernice chorea/οὐλα 59)... ωχήσαντο, armati/πρόλιν, 60) pulsarent... aera/τεύχεα πεπλήγοντες, ne Saturnus/να Κρόνος... μή 61), Lucretius has imitated the etymological play upon words in Callimachus: he, of course, connects Κοῦρητες and κούριζοντος (‘crying like a boy’), while Lucretius more subtly suggests the derivation of Κοῦρητες from κοῦροι by emphasizing the words pueri ... puerum (635); 62 yet another pun appears in 643 (parent... parentibus). As usual, he has also made substantial changes to suit his anti-mythological purpose, particularly through an exaggerated use of alliteration and the ironically mock-epic development of 638-9, where he parts company entirely with Callimachus.

A small item of supporting evidence for direct imitation of the Hymn to Zeus here may be supplied by the first verse of the digression on Cybele (hanc veteres Graium docti cecinere poetae, 600). One would dearly like to know what poets Lucretius has in mind 63 and how they relate to his subsequent account of Cybele worship. 64 But, leaving aside these difficult problems, it is reasonable to suppose that Lucretius disapproved of the way in which these poets personalized the insentient earth (albeit allegorically), thus opening the door for superstition. That the tone of 600 is sarcastic may be confirmed by the similar references in 5.405 (collis et ut veteres Graium cecinere poetae), where he dismisses the legend of Phaethon, and 6.754 (Graium ut cecinere poetae), where the myth about crows being banished from the Acropolis is ridiculed. This being so, it seems possible that the allusion to ‘old poets’ was inspired by Callimachus’s rejection of an unbelievable story in the Hymn to Zeus, only a few lines after the description of the Curetes (1.60):

δηναιοί δ’ οὐ πάμπαν ἄληθές ἦσαν ἄοιδοί.

Of course, Pindar contradicts his predecessors in a similar way (Ol. 1.36), 66 but a closer analogy exists between Callimachus’s phrase δηναιοί 67 ... ἄοιδοί and veteres... cecinere poetae; as for the charge of falsehood, one could compare the sweeping rejection of the whole Cybele cult which Lucretius makes later in 644f. Nevertheless, a ready contrast between the two authors is again available, in that Callimachus is rejecting a particular myth told by ancient poets, while Lucretius is hostile to the mythologizing tendency of poetry in general.

The next passage for consideration is similar, for it once again involves the invocation and rebuttal of a Greek poetic source. In the
course of Book 6 Lucretius discusses Averna... loca (738), i.e., pestilential areas which were observed to poison overflying birds. After mentioning the famous place near Cumae (747-8), he turns to the location on the Athenian Acropolis which was traditionally believed to be shunned by birds, particularly the crow (749-55): 68)

_750_ est et Athenaeis in moenibus, arcis in ipso vertice, Palladis ad templum Tritonidis almae, quo numquam pennis appellunt corpora raucae cornitis, non cernunt altaria donis. usque adeo fugitant non iras Palladis arcis pervigili caeca, Graium ut eceinere poetae, sed natura loci opus efficit ipsa suapte.

_755_

Not content with a reference to the simple fact, Lucretius mockingly alludes to the legendary explanation of how a crow had reported to Athene the disobedience of the daughters of Cecrops in opening the chest containing the infant Erichthonius which had been entrusted to their care by the goddess, who angrily banished the crow from the Acropolis in return for its unwelcome interference. 69)

As in the Cybele passage (2.600), Lucretius refers here to a poetic tradition (Graium ut eceinere poetae, 754), and again one would like to know of whom he is thinking. No doubt the story was well-established in folklore long before Callimachus, but it is interesting to note that the sole known pre-Lucretian treatment in poetry comes in the influential short epic Hecale, where it is narrated by an old crow (Fr. 260.17f.). If, as appears likely, Lucretius has Callimachus primarily in mind when he mentions poetae, 70) it may also be possible to identify a verbal reminiscence in the mannered phrase _iras Palladis aoris_ (753), which echoes recognizably the words of the old crow in Hec. Fr. 260.41 (βαρὺς χόλος ... Ἄθηνης). 71) A less obvious allusion to the Callimachean source may possibly be detected in the epiteth _Tritonis_ (750), which in Greek first occurs in Callimachus (Iamb. 12, Fr. 202.28) and Apollonius (1.109, 3.1183), 72) in Latin first in Lucretius (later in, e.g., Virg. Aen. 2.226, Ov. Met. 3.127). 73) One of the commonest interpretations of Athene's title _Tritoevyνής_ explains it by reference to the Libyan lake Triton (or Tritonis) near which she was said to have been born; 74) this will naturally have commended itself to Callimachus, the native of Cyrene, for whom the name Tritonis may have had a special meaning and attraction. 75) Perhaps, then, Lucretius borrowed a recherche title from Callimachus (the context of the _Hecale_ under discussion?) in order to sharpen his sarcastic mention of the legend. For, like the description of the Curetes, this passage offers a fine example of his ability to denigrate a mythical
tradition. Note how the sentence ascends from the epic formula est... (749) by an elegant tricolon to the impressive cult-title of the goddess (750), only for the elevated tone to be deflated methodically in the following lines (751-5).

If Lucretius remembered the legend of the crow from the Hecale, maybe he recalled elsewhere the story of the raven who was turned from milky white to pitch black for telling Apollo about the adultery of Coronis, as briefly told by Callimachus soon after the passage on the crow (Fr. 260. 55-61). For, during his series of proofs that atoms lack colour, Lucretius uses an illustration involving white ravens as a reductio ad absurdum (2.822-5):

conveniebat enim corvos quoque sape volantis ex albis album pinnis tinctare colorem et nigros fieri nigro de semine omanos aut alio quovis uno varioque colore.

This whimsical notion may easily have been drawn from the poet's own imagination or proverbial expressions, but it is not unlikely that the myth was at the back of his mind, and, if so, it is worth pointing out that the version in the Hecale is our first source for the detail about a change of colour.

Lucretius's probable use of the poem to Aratus, which was discussed earlier, encourages the search for other connections with the epigrams of Callimachus. The general influence of Hellenistic erotic epigrams upon the end of Book 4 has been fruitfully explored by Kenney and there is no need to repeat his findings. Suffice it to say that the love epigrams of Callimachus share with countless others the favourite images of wound/sickness (Ep. 43, 46), fire (Ep. 43, 44) and hunting (Ep. 31) which Lucretius selected for satirical exploitation. In addition, three possible instances of specific imitation may be suggested. Firstly, in the arresting phrase vulgivaga... Venere (4.1071), which commentators wrongly attempt to elucidate by the title Πάνδημος 'Αμορδίτη, for Venus here is simply a metonymy for sex. If a Greek model is necessary, the adjective is more likely to have been inspired by the word Περίφοιτος, used by Callimachus in his rejection of the promiscuous beloved (Ep. 28.3, cf. 38.2). If so, Lucretius has managed a piquant reversal, for promiscuity is precisely what he recommends. Secondly, the euphemism Chariton mia (4.1162), which is absent from the models in Plato (Rep. 474d-e) and Theocritus (10.24f.), may derive from Callimachus's flattering conceit of adding Berenice to the number of the Graces (Ep. 51.1-2), though it could have reached Lucretius through one of the later imitations. Thirdly,
the tableau of the *exclusus amator* (4.1177f.), a composite picture indebted to Hellenistic epigram, introduces a detail which lies outside the general run of serenade literature when it mentions the kissing of the doorposts (1179). Observation from life cannot be ruled out as the inspiration, but the literary parallel in Callimachus's paraclusithyron epigram (*Ep.* 42.5-6) is surely significant.

This concludes the examination of Callimachus's miscellaneous poetic influences on Lucretius (though other incidental resemblances can be found). But we should remember that he was also the scholar who produced a famous catalogue of the Alexandrian library and wrote many works on subjects such as winds, rivers and birds. Among these was an encyclopaedia of marvellous natural phenomena (Frs 407-11), comprising information drawn from a multitude of previous writers (e.g., Aristotle, Theopompus and Theophrastus). This work laid the foundation for the popular genre of paradoxography taken up by such authors as Antigonus of Carystus. The influence of such writings can be seen in Book 6 of Lucretius, particularly in the sections on *Avemula loca* (738-839) and extraordinary springs (840-905). Naturally, it is difficult to decide whether he used Callimachus directly or a later doxography partly based upon Callimachus (such as that of Antigonus, to whom we owe the main fragment of the former's work); additionally, Lucretius may have drawn some information from original sources (like Aristotle) or Epicurean studies. Nevertheless, it is interesting to note that noxious areas like the *Avemula loca* of Lucretius were recorded by Callimachus (Pr. 407, xxiv, xxxi, xxxii), with emphasis duly placed upon the death of birds as in Lucretius (6.740f., 818f.). As for springs, Callimachus also records fresh water bubbling up in the ocean (*ibid.* i, cf. Lucr. 6.890f.), the ignition of objects placed above water (*ibid.* xx, cf. Lucr. 6.879f.) and puzzling phenomena of hot and cold water (*ibid.* v, xxxi, cf. Lucr. 6.840f.), including the famous spring of Hammon which was cold at day and warm by night (*ibid.* xvi, cf. Lucr. 6.848f.); this wonder was recorded by Herodotus (4.181.3), but Lucretius probably discovered it in a doxography.

To conclude, I hope to have demonstrated that Lucretius shows the direct or indirect influence of several Callimachean works. In particular, Callimachean motifs appear in certain programmatic statements of his poetic aims and attitudes, just as they do in those of Catullus (albeit with much more depth and significance). Furthermore, we have seen how various other details in Callimachus inspired Lucretian
reminiscence by their verbal dexterity or pictorial charm. These echoes are not extensive or especially dramatic, but they help to dissipate further the myth of Lucretius's literary isolation and to indicate the necessity for more study of his poetic art, which is less divorced from Catullus than is generally recognized. 86) Lucretius was not Callimachean in the sense of being an aggressively modernistic poet, but he was sensitive to the invigorating winds of change which were effecting a transformation of the contemporary literary climate.

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NOTES

1) Depending upon which consulship is referred to by Athenaeus (xii, 547a): P. Boyancé, _Lucrece et l'Epicurisme_ (Paris 1963) 7-8.


3) Amafinius (Cic. _Fam._ 15.19.2, _Acad. Post._ 1.5-6, _Tusc._ 4.6-7), Catius ( _Fam._ 15.16.1-2, 19.1-2), Rabirius ( _Acad. Post._ 1.5): Boyancé, _op. cit._ 8f., Mantero, _op. cit._ 41f.


5) Munro on _Lucr._ 5.619, K. Büchner, _RE_ 7A (1939) 1242f.


7) For Lucretius and Cat. 64 see Munro on _Lucr._ 3.57.


9) For Lucretius's 'Fortleben' see Schanz-Hosius, _op. cit._ 280-84, Boyancé, _op. cit._ 316-27, Dalzell, _loc. cit._ 101f., L. Alfonsi in "Lucrece",
Fondation Hardt etc. (n. 2) 271-315. Against the idea of Augustan suppression see A. Traina, "Lucrezio e la 'congiura del silenzio'", Dignam die (a Giampaolo Vallot) (Venice 1972) 159-68.

10) The first two expressions are based upon Cicero's notorious remarks (Att. 7.2.1, Orat. 161) and are unlikely to have a very broad significance; see N. S. Crowther, CQ N.S. 20 (1970) 322-27; on 'Alexandrianism' see J. K. Newman, Augustus and the New Poetry (Collection Latomus LXXXVIII [Brussels-Berchem 1967]) 31-60. For a recent attempt to define neoteric poetry see R. O. A. M. Lyne, CQ N. S. 28 (1978) 167-87.


12) Esp. 1.117f., where the sincere praise of Ennius is followed by implicit criticism of his inconsistency (etsi præterea... 120), and perhaps of the whole idea of supernatural revelation, as E. J. Kenney argues in his article "Doctus Lucretius", Mnemosyne Series IV, 23 (1970) 373-80. Maybe the Iphigenia passage, drawing possibly on Ennius as well as Greek models (L. Rychlewskia, "De Enni Iphigenia", Eos 49 [1957-8] 71-81), is an indirect foretaste of criticism; but Ennian influence is denied by Grimal in "Lucrece", Fondation Hardt etc. (n. 2) 195.

13) Esp. 1.921f., which, as will be discussed later, probably contains Ennian motifs, and 6.95, where Lucretius's hope for a garland recalls the garland won by Ennius (1.118).

14) Poetica nova in Lucretio (Florence 1949).


16) That Callimachus's dream in the Aetia influenced the proem of the Annales is controversial, but very likely: see O. Skutsch, Studia Enniana (London 1968) 7-9, J. H. Waszink, "The proem of the Annales of Ennius", Mnemosyne Series IV. 3 (1950) 215-40; for further bibliography see "Ennius", Fondation Hardt für l'étude de l'antiquité classique, Entretiens, Tome 17 (Geneva 1972) 120 n. 2. Lucilius, and maybe Ennius, knew the Iambi: M. Puelma Piwonka, Lucilius und Callimachos (Frankfurt am Main 1949). Late Republican interest in Callimachus may have been stimulated by Parthenius: W. Clausen, "Callimachus and Latin Poetry", GRBS 5 (1964) 181-96.


20) For a general account of the relationship see Kroll, op. cit. 26f. By stressing his own love rather than that of the Muses Lucretius seems to
invent the usual emphasis.

21) Grilli, op. cit. 96-7. Lucretius compares himself with honeybees in 3.11ff., and his allusion in 6.910ff. to a magnetized chain of rings provides further evidence that he knew the Platonic passage (cf. Ion. 533d-e).

22) For a convenient list of the conventional elements, see M. L. West's commentary (Oxford 1966) on Hes. Theog. 22-34.

23) Waszink, loc. cit. passim. For the Muses' realm cf. Enn. Ann. 215, together with later evidence for an experience on Helicon (Lucr. 1.117ff., Prop. 3.3.1f.) and/or Parnassus (schol. Pers. prol. 2); for the draught from a spring (doubtless Hippocrene) cf. Prop. 3.3.6, in combination with Lucil. 1008 M and Enn. Ann. 217, where the object of reserve may have been fonts (Waszink, loc. cit. 225-6, comparing Virg. Georg. 2.175); for the garland, presumably parallel to the laurel branch received by Hesiod (Theog. 30-31), cf. Lucr. 1.118, Prop. 4.1.61, and, in addition to Waszink, loc. cit. 232-3, see W. Suerbaum, "Untersuchungen zur Selbstdarstellung älterer römischer Dichter", Studiomena 19 (Hildesheim 1968) 310-11, Kenney, loc. cit. 371 (with n. 2). I am unconvinced that Lucretius was chiefly inspired here by the garland which Hippolytus brings to Artemis from an inviolate meadow (Eur. Hipp. 73-87), as is claimed by G. Berns in "Time and Nature in Lucretius' De Rerum Natura", Hermes 104 (1976) 490-91, though it cannot be ruled out that he knew the passage. The notion of a poetic garland is Hellenistic (e.g., Antipater, A.F. 7.14.4) and the association of flowers with poetry is an old one: A. S. F. Gow and D. L. Page, The Greek Anthology: Hellenistic Epigrams 2 (Cambridge 1965) 593-4, A. A. R. Henderson, Latomus 29 (1970) 742.


26) For which see Wimmel, op. cit. 103-11, esp. 106; cf. also Callim. Ep. 28.1-2, adduced in connection with Lucretius by E. Fraenkel in Das Problem des Klassischen und die Antike, ed. W. Jaeger (Leipzig and Berlin 1931) 63, also O. Regenbogen, "Lucrez. Seine Gestalt in seinem Gedicht", Neue Wege zur Antike 2.1 (Leipzig and Berlin 1932) 24. For the possible origin of the image in a Pythagorean saying, see Pfeiffer on Aet. Fr. 1.25ff., and cf. also Parm. B 1.27 DK.

27) Kroll, op. cit. 28-30 (suspecting, as others have done, the precedence of Philetas), E. Reitzenstein, in Festschrift Richard Reitzenstein (Leipzig and Berlin 1931) 54f., Waszink, loc. cit. (n. 16) 216ff., 239, A. Kambylis, Die Dichtermethe und ihre Symbolik (Heidelberg 1965) 98-102, 110f.; Pfeiffer is cautious about assuming the presence of the motif in the Aetia (op. cit. 11).

28) Fraenkel, loc. cit. 63, Ferrero, op. cit. 22 n. 2, 44, Kenney, loc. cit. 370. Callimachus' rejection of a public spring in Ep. 28.3-4 is also comparable.
29) For the 'primus-Motiv' in relation to Ennius see Suerbaum, op. cit. 269f. Lucretius repeats his claim to novelty in 5.335f.

30) The unworn path parallel is mentioned by Munro, ad. loc.; for the other reminiscences (3.1037-38, 4.912) see Grilli, op. cit. 102-3, 118.

31) Loc. cit. 371; cf. Mantero, op. cit. 103-4. It is tempting to speculate whether Lucretian and Catullan insistence on lepos (Lucr. 1.28, 934, Cat. 1.1, 6.17, 16.7, 50.7), remarked upon by, e.g., Ferrero, op. cit. 38f. and Newman, loc. cit. 102, has anything to do with the Callimachean catch-word λεπτός (Aet. Fr. 1.11, 24, Ep. 27.3, and see Reitzenstein, Loc. cit. 25-40, on the history of the word). Several points discourage the idea - e.g., translation of λεπτός by teneris elsewhere (Lucr. 4.42 etc., Cat. 51.9), contemporary use of lepos in literary criticism (e.g., Rhet. Herenn. 4.32, Cic. de Orat. 1.213, 3.206), differences in sense - but ears so attuned to etymological connections as were those of the Romans might well have discerned an association; cf. S. Commager, The Odes of Horace (New Haven and London 1962) 39 n. 85, V. Buchheit, "Sal et lepos versiculorum (Catull. c.16)", Hermes 104 (1976) 338 n. 41.

32) For instance the thyrsus image (923) lends a sense of Bacchic abandon to the whole passage; moreover, there is a significant difference between Callimachus's narrow path (Aet. Fr. 1.27-8) and the remote haunts of Lucretius (926); also between the trickling Callimachean spring (Hymn 2.111-12) and the more robust-sounding fontes of Lucretius (927; cf. the mention of largos haustus e fontibus magnis in 1.412, which seems notably un-Callimachean, pace Ferrero, op. cit. 22).

33) Cf., e.g., Cic. Parad. 5, Varr. L.L. 5.9, Men. 219, O.L.D. s.v.

34) Ferrero, op. cit. 21 n. 2, Cazzaniga, op. cit. 25f., Grilli, op. cit. 123-4 (suggesting an Epicurean provenance also, on the basis of Epict. Diss. 2.20.9 and Him. Or. 3.17), Tarditi, Loc. cit. 88; see also Kroll, op. cit. 38 (with n. 34), R. O. A. M. Lyne's commentary (Cambridge 1978) on Ciris 46.

35) Apparently a conflation of the idea of sleeplessness with the metaphor Lucubrare (n. 33), as in Auson. 19.1.5-6 Peiper (damnosee... musae,... iacturam somni quae parit atque olei). With Arateis... Lucernis compare Juv. 1.51 (Venuesina... lucerna).

36) 'Seems merely a poetical epithet' (Munro). D. West, in The Imagery and Poetry of Lucretius (Edinburgh 1969) 81, remarks that 'noctes vigilare serenas is the phrase of a man who enjoyed the solitude and serenity of working at night, and who couldn't keep away from the window'.


38) Cf. Philetas's description of the poet as πολλὰ μογήσας (Fr. 10.3), Call. Ep. 6.1, Asclepiades, A.P. 7.11.1, Leonidas, A.P. 9.25.5, Theoc. 7.51, with Gow's note, Kroll, op. cit. 38, Piwonka, op. cit. 125f., 139 n. 2.

39) See Lyne's note on Ciris 99, adding Hor. Epist. 2.1.224, A.P. 291.

40) For the metaphor cf., e.g., Cic. Opt. Gen. 12, Brut. 326, Ov. Pont. 1.5.61; its Alexandrian quality is illustrated by Cat. 1.2, where expoli-tum is more than literal. The Lucretian passage continues with a self-conscious use of canere (6.84), which Newman believes was a catchword for neoteric poets (Loc. cit. 98f., esp. 101-2), though he is opposed by C. Griffiths in PVS 9 (1969-70) 7f.

41) Identical to 4.180-82, but with extra verses integrally attached (912-15).


44) Cf. Ferrero, *op. cit.* 17ff., but it is hard to see how the *De Rerum Natura* could escape the charge of being ἐν δεϊμα διηνεκές.


48) *anfractibus* refers to the wheeling sweep of the sea around the twisting coastline of Sicily (cf. its use in 5.683), not to the coastline itself as Bailey's note seems to imply.

49) It is interesting to observe that line 14 of the *Hymn* is a pure Golden Line. Unfortunately, the Lucretian line can only be construed as such by taking *Ionium* with *virus* instead of *aequor*, which is unnatural. Nevertheless, Lucretius has preserved something of the interlocking arrangement by the separation of *glaucis... undis* (matching ΠΟΛΛΗΝ... ΔΧΥΝΝ).


52) The Lucretian parallel was first noted by O. Schneider, in *Callimachea 1* (Leipzig 1870) 277. Munro's reference was picked up by Merrill.


54) The title *Aeragantisimus* (716), the association with a wonderful environment and the climactic praise of his inspired discoveries all sound vaguely hymnic. However, further echoes of Callimachus are lacking, apart from certain similarities which are no doubt coincidental: e.g., between the statement that Sicily 'bore' Empedocles (*gesit!, 717) and the pervasive notion that Delos was Apollo's nurse (2.5-6, 10, 51, 264-5, 275-6); *triquetris* (717) could be compared with τριγλάχυν, which is applied to Sicily in *Aet.* Fr. 1.36 and Poseidon's trident in *Hymn* 4.31, but the idea is fairly conventional (cf., e.g., Thuc. 6.2.2, Polyb. 1.42.3, Hor. *Sat.* 2.6.55. Sil. 5.489, Quint. 1.6.30); the uncommon lengthening of the first vowel of *Italicae* (721, if correct) is found in Call. *Hymn* 3.58 (cf. Norden on Virg. *Aen.* 6.61, Austin on *Aen.* 1.2, Fordyce on Cat. 1.5); the alliteration and polyptoton of 726f. are a little like *Hymn* 4.266f., though it would be unwise to postulate a model for such a common Lucretian feature.

55) Cf. his self-apotheosis in B 112.4 DK.


57) A typically Alexandrian feature (see Nisbet and Hubbard's note on
Hor. Carm. 1.7.23), though Lucretius's irony is authentically Epicurean (cf., e.g., Us. 228-29 on the master's contempt for mythological poetry).

58) The parallel was noted by Lambinus; cf. Munro on 2.635, Ferrero, op. cit. 131 n. 1.

59) This and Πρύλις were obscure words: E. Cahen, Les hymnes de Callimache (Paris 1930) 28; maybe Lucretius received elucidation from an annotated text.

60) For this armed dance see W. H. Roscher, Ausführliches Lexikon der griechischen und römischen Mythologie 2.1 (Leipzig 1890-94) 1611-12.


62) Roscher, op. cit. 1591, West, op. cit. 108.

63) Bailey argues for an allegorical account, which seems an unlikely subject for verse. Perhaps Lucretius has foisted an allegorical interpretation upon straightforward poetic descriptions, drawing from the same source as Varro (Aug. Civ. Dei 7.24) and Ovid (Fast. 4.215f.), which Boyancé thinks was Stoic (op. cit. 123). Since none of the extant descriptions of the goddess in classical Greek poetry fit Lucretius's reference, it is worth mentioning that Cybele, Attis and the Galli were a favourite Hellenistic and late Republican theme (cf., e.g., Call. Fr. 761, with Pfeiffer's note, Nic. Alex. 7-8, 217-20, Hermes. Fr. 8 Powell, A.P. 6.51, 217-20, 281, 9.340, Cat. 35, 63). The verbal play docti... doentes (600-602) suggests a learned version of the Alexandrian type, which is the assumption of W. Kranz in Philologus 96 (1944) 68.

64) The poetae seem to be in the foreground until 610, where Lucretius turns to the universal acceptance of Cybele's cult.

65) Ferrero, op. cit. 90 n. 2, hints at a reminiscence. Cf. also Ov. Am. 3.6.17 (veterum mendacia vatum).

66) Contrast the more respectful attitude in Nem. 3.52, and, later, Apollonius 1.18, Arat. Phaen. 637.

67) Ἄντωνοί is another word of difficult meaning: Wilamowitz, op. cit. 2.9 n. 1.


69) For a full account of the myth see Ov. Met. 2.552f.


71) Pfeiffer, ad loc.; cf. Ov. Met. 2.568.


73) C. F. H. Bruchmann, Epitheta Deorum, quae apud poetas Latinos leguntur (Leipzig 1902) 71.

74) Cf., e.g., Hdt. 4.180.5, Eur. Ion 872.

75) The lake is mentioned in Aet. Fr. 37.1, and cf. Fr. 584.
76) Ravens are proverbial for blackness (Otto, op. cit. 95, Bömer on Ov. Met. 2.535), swans for whiteness (Otto, op. cit. 104, Bömer on Ov. Met. 2.539). The contrast of raven and swan is present, to a varying degree, in Callimachus (Fr. 260.56), Lucretius and Ovid (Met. 2.539); cf., also, Mart. 1.53.8, 3.43.2, Otto, op. cit. 104.

77) Bömer on Ov. Met. 2.535.

78) Loc. cit. 380f.

79) Gow and Page, op. cit. 156.

80) Esp. Meleager, A. P. 5.149.2.

81) Gow and Page, op. cit. 163. In Theoc. 23.18 it may be a gesture of farewell rather than of sentimental adoration (see Gow's note).

82) For the sake of completeness, some of these are listed here, though direct influence is very implausible: Lucr. 1.40, cf. Call. Hymn 6.137 (but the prayer is an obvious one; cf., e.g., Euphorion, in the Loeb Library volume Select Papyri, 3 ed. D. L. Page [London and Cambridge, repr. 1970] 496 line 19, Hermocles, Fr. 1.21 Powell), Lucr. 1.125, 920, cf. Call. Hec. Fr. 313 ('salt tears' is probably an Ennian phrase and can be paralleled by Acc. Tr. Frs 420, 578 Ribbeck), Lucr. 2.196 etc., cf. Call. Hymn 2.4 (but also Hom. Il. 7.448, Arat. Phaen. 733), Lucr. 3.957, cf. Call. Ep. 31.5-6 (a proverbial idea: see Kenney ad loc. and Gow on Theoc. 11.75), Lucr. 5.1f., cf. Call. Hymn 1.92-3 (Enn. Ann. 174 is closer), Lucr. 5.256, cf. Call. Ep. 44.4 (Hor. Carm. 1.31.8 is a much more likely imitation).


84) Lück, op. cit. 140-41, Pfeiffer, op. cit. (n. 83) 134-5; for a history of the genre see RE 18.3 (1949) 1137f.


86) For instance, Lucretius makes artistic use of several so-called 'Alexandrian' features, such as epanalepsis, spondaic fifth foot and interlocking word order, though not of course to the same extent as Catullus. It is noteworthy that Nepos, the dedicatee of the Catullan libellus, pairs Lucretius with Catullus as the best poets of their age and implies that both were elegantes (Att. 12.4); see further Alfonsi, loc. cit. (n. 9) 276-77, and compare Cicero's well-known appraisal of Lucretius in terms of ars as well as ingenium (ad Quint. 2.10.3).