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The Classical Quarterly / Volume 10 / Issue 01 / January 2016, pp 32 - 48

DOI: 10.1017/S0009838800004407, Published online: 11 February 2009

Link to this article: http://journals.cambridge.org/abstract_S0009838800004407

How to cite this article:

W. R. Hardie (1916). A Criticism Of Criteria. The Classical Quarterly, 10, pp 32-48

doi:10.1017/S0009838800004407

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A CRITICISM OF CRITERIA.

OBSERVATIONS ON THE EVIDENCE AFFORDED BY METRE AND DICTION FOR THE DATE OF LATIN POEMS.

I. EVIDENCE FROM VERSIFICATION.

THERE has been much discussion in recent years regarding the date and authorship of the poems included in the *Appendix Vergiliana*, and about the *Ciris* and the *Culex* in particular. Evidence of very various kinds has been brought to bear on the question. My chief aim in this paper is to propound a criterion which as far as I know is new—though it seems to me a fairly conspicuous thing, and I do not know why it has not been investigated—and to examine certain criteria which seem to me to have been treated quite wrongly—treated in a way which could lead to no conclusion—even by so distinguished a scholar as Norden. I propose in a second paper to examine the argument from diction, especially in regard to the *Culex*, and to try to show that the evidence adduced for Virgilian authorship by Miss Jackson (*Class. Quart.* vol. v., p. 163 sq.) is not so conclusive as it has been supposed to be; and, next, to point out certain features or mannerisms in the *Culex* which seem to me to be on the whole *against* authorship by Virgil. I have hardly any doubt that both the *Ciris* and the *Culex* were written before 44 B.C., and the *Lydia* and *Dirae* only two or three years later; but, while the evidence for the early date of some of the *Vergiliana* grows stronger on further examination, the evidence for Virgilian authorship seems to me to grow weaker, even in the case of the well-attested *Culex*.

A few years ago I collected, in an article in the *Journal of Philology* (vol. xxxi., p. 266 sq.) some of the facts about a certain type of Hexameter, that in which there is threefold agreement between accent and ictus at the end of the line:

Peliaco quondam prognátae uértice pínus
dicuntur líquidas Neptúni násse per úndas.

I selected this because it is an effect that can be felt, one of which poet and reader must alike be aware. Nobody could read twenty lines of Cicero's *Aratea* or of Catullus' sixty-fourth poem without feeling in some degree the frequency or prevalence of the effect. I rather distrust criteria which have to be discovered by counting and which might be called infra-sensible. What I want to find is what is a perceptible fashion or tendency or mannerism which has a vogue for a time. The liking of the νεώτεροι for a σπονδευιάζων (placidum mare matutino) is such a mannerism, and the facts about it were tabulated

long ago.¹ They are given by Skutsch in *Vergils Frühzeit*. The mannerism which I now propose to examine is the use of participles and participial clauses, especially in the nominative singular. Any careful reader would, I think, say that a line like this is not Augustan :

ipse suum cor edens, hominum uestigia uitans

(Cicero translating Homer). Again, in the *Ciris* (l. 402) we have :

ad caelum infelix ardentia lumina tendens,
lumina, nam teneras, etc.,

but in Virgil (*Aen.* ii. 405 sq.) :

ad caelum tendens ardentia lumina frustra,
lumina, etc.

Of course there *are* endings in the *Aeneid*—a few—like ‘ardentia lumina tendens.’ It is not a thing from which Virgil was absolutely debarred, and the comparison of these two passages does not in itself assign the *Ciris* to an earlier date. It is only when all the facts have been reviewed and counted that the difference is seen to be significant.

But before producing the details of this evidence I think it is desirable or even necessary to say something about the general conditions or aspects of the problem. When we view the whole situation, what sort of evidence is likely to be discoverable, or to be cogent when discovered? The conditions are not on the whole unfavourable. In the first place, there is more co-operation between Roman poets than is common among poets of modern times. We can see the Latin Hexameter gradually taking shape in the hands of successive generations. There is consecutive study of metrical technique, as there is also in elegiac and lyric verse. Sometimes this consists in conquering for Latin a particular effect of Greek verse; more often, or at all events frequently, it consists in rejecting some Greek effect which was vaguely or half-consciously felt to be alien to the genius of the Latin language. In diction, a new poetic speech is gradually created—Ennius had made a large contribution to it—and prosaic words or turns of speech are gradually discarded. In these respects the poets of any particular generation have a good deal in common. And when we turn to the two contiguous periods, that of Catullus and that of Virgil, this is seen to be pre-eminently the case. There is a great difference between the Hexameter of 60 or 55 B.C. and the Hexameter of 30 B.C. The decade 50 to 40 B.C., or 52 to 42 B.C., is a period from which we have no extant poem (unless we can prove that the *Ciris* and *Culex* and one or two other things belong to it). For us, Roman poetry is here like a stream that flows for some distance underground, to emerge again with very different qualities and very

¹ We know also why this criterion would be of no use for dating verses of Cicero's. Probably the fashion had not come in when he wrote his *Aratea*, *admodum adolescentulus*. When it did come in, he thought it an affectation, as appears from

the well-known passage in his Letters (*ad Att.* vii, 2, 1 : ita belle nobis *flauit ab Epiro lenissimus Onchesmites* ; hunc *σπονδαίῳ* *ῥοῖα* si cui uoles τῶν νεωτέρων pro tuo uendito).

different inspiration. If we set aside the isolated genius of Lucretius, and a good deal of what Catullus wrote, it is not difficult to characterize the poetry of the time. The tendencies of the 'cantores Euphorionis' or the νεώτεροι, as Cicero called them, are the commonplaces of any text-book of literary history, and I need not recount them here. There is quite clearly what can be called a prevalent manner, a group of poets who have much in common. Catullus' *Peleus and Thetis*, Cinna's *Smyrna* and Calvus' *Io* were all poems of the same general type. And, to select one or two illustrations in detail, it is not an accident that out of ten extant Hexameters of Calvus five have the threefold coincidence of accent and ictus (as in 'et mágnas cóndidit úrbes'); nor is it an accident that out of the not very numerous extant lines of Varro Atacinus (who was twelve years older than Virgil) one is a good specimen of a σπονδειαίζων:

hortantes 'O Phoebe' et 'Ieie' conclamarunt;¹

nor have critics hesitated about assigning to some 'cantor Euphorionis' the anonymous lines:

tuque Lycaonio prognata e semine nympha,
quam gelido raptam de uertice Nonacrenae
Oceano prohibet semper se tingere Tethys,
ausa suae quia sit quondam succumbere alumnae,

where not only the σπονδειαίζων but also the slightly prosaic 'ausa suae quia sit quondam' and the elision in 'succumbere alumnae' are characteristic, while the whole passage may be said to be redolent of Alexandrian explanatory science, mythological and astronomical. The Augustan poet usually assumed such things to be known. Ennius, earlier, had been sometimes clumsily or heavily didactic ('sophiam, sapientia quae perhibetur'). The Augustans are more sensitive to poetic effect, it is only by inadvertence, by an occasional lapse or relapse, that they 'instruct' the reader (as when Horace talks about the 'Amazonia securis'). Nor do they begin by talking about their own literary efforts or purposes, their 'charta' or 'pagina,' as the author of the *Ciris* does (though Virgil has the word 'pagina,' once, in the *Eclogues*, 'quam sibi quae Vari praescripsit pagina nomen'). The author of the *Panegyricus in Messalam* does it, and it inclines us to place him fairly early (though not necessarily before, say, 36 or 37 B.C.). So does the author of the *Culex*. Catullus does not do it in his *Epyllion*, but the first word of the second line betrays its Alexandrianism—'dicuntur' (κλείονται, φατίζονται—the attitude of a learned poet, who collects picturesque myths and looks at them from the outside as myths, instead of assuming the truth of the story).

One other remark: I know of no evidence or instance to show that it was a practice in ancient times to imitate very minutely the style of a past generation, to work in the vein of Chatterton, or to do what a modern verse-

¹ A Latin word forming a dispondeus, not a Augustan poetry (nobile Pallanteum). Greek proper name, as is usually the case in

writer does when he composes a piece in the manner of Lucretius or Catullus. It is true that epic verse after Virgil is very like Virgil, and elegiac verse after Ovid is very like Ovid. But that is a different thing. In Virgil and Ovid epic and elegiac verse attained maturity, what they wrote became a norm or exemplar. What was not done, or not done with any exactness or completeness, was to reproduce the manner or various mannerisms of a time when a form of poetry was immature. On this general ground alone I should almost venture to say that it is inconceivable that the *Ciris* was written after 20 B.C. It is perhaps conceivable that it was written in 30 B.C., if we suppose that some contemporary of Catullus, who had begun to write when Catullus did, but enjoyed a longer life, persisted in adherence to his first manner, and resolutely shut his eyes to the movements that had taken place in poetry since that time.¹

From these general observations—introduced rather to justify explicitly my line of argument than to impart what will be new to the reader—I proceed to the examination of my new witness, the Present Participle in the Nominative Singular.

I.

In an inquiry of this kind, it is necessary to define very exactly what one is looking for. One begins by counting loosely things which it is perhaps not very important to count. It is only when a good deal of counting has been done that the issue becomes clearer.

The inquiry started from the contemplation of lines like :

non storage Idaeo fragrantis picta capillos,
coccina non teneris pedibus Sicyonia seruans,
non niveo retinens bacata monilia collo

(*Ciris* 168-170).

Here there are three things : a perfect participle (the clause occupying a whole line²) : a present participle as the last word of a line : a present participle belonging to a participial clause which occupies the whole line.

A present participle as the last word of a line is a very conspicuous thing, and I counted in the first place instances of that, denoting it by P.

A participial clause which occupies a whole Hexameter is also a conspicuous thing, and I also counted that, calling it *p* :

amissum credens immitti Thesea fato.

I counted also such clauses when they occupied five or five and a half feet (*p*¹) :

(atque ita) naue leui nitens et lenibus auris,

¹ It is pointed out by Drachmann, in an article which I shall discuss later, that we should have to assume a writer who was unaffected by the revolution which Virgil had made in versification, and yet knew and admired Virgil so much as to introduce into his own poem whole lines

and phrases from Virgil's writings. It is not a supposition that can be taken seriously.

² Or nearly so, if we exclude the *non* as belonging to the general construction of the whole passage.

or four to four and a half feet (p^2):

(quine fugit) lentos incuruans gurgite remos.

Clauses shorter than that it was fairly safe to neglect. They did not disappear or go out of fashion. The things I have enumerated one did feel to be rare in Augustan verse. What I counted here, under the heads p , p^1 and p^2 , were participial clauses in general, including plurals, which in the nominative are sometimes really significant:

fluctibus in salsis uictum uitamque petentes,

and including participles in oblique cases, which are less important, for it began to be obvious that the Augustan poets did not shrink from them to the same extent or in any very notable degree. However, I do not now think them wholly unimportant, and I produce the statistics of p , p^1 and p^2 . Little would be gained by recounting and subdividing minutely.

But when one had got as far as this, a new idea presented itself. It began to appear that what was most disliked—what the Augustan poets tended to avoid, whether consciously or half-consciously or unconsciously—was a participial clause which *followed* the main verb of the sentence. It is not difficult to see why this should be so. A subsequent participial clause has a certain weakness about it, it is a sort of appendage or *ἐφολκίς*. One saw that Virgil's rare present participles tended to precede the main verb:

lapidemque reuertens

incusum aut atrae massam picis urbe reportat

(*Georg.* I. 274)

(‘reuertens’ is perhaps an echo of Lucretius). Thus it became desirable to count separately two things which resemble P and p , and are included under them, namely, a participle at the end of a line, preceded by the principal verb (II), and a participial clause which occupied a whole line and was preceded by the principal verb (π). At this stage I counted only participles in the nominative singular. It had become evident by this time that it was mainly the nominative that excited some sort of repulsion. The line:

stringentem ripas et pinguia culta secantem

is obviously very different in effect from

ipse suum cor edens, hominum uestigia uitans.

What I exhibit therefore in the table on p. 6 is five things which I have now explained: P; p ; the sum of p , p^1 and p^2 ; II, and π .

It will be seen that the chief texts here reviewed (down to *Aen.* VIII.) have been arranged according to the results given in the first column—the frequency of P. But where that result puts a text late, the result in another column will often be found to put it early, e.g. the figure in the third column puts the *Ciris* below Cicero and Catullus only. And one large result stands

	P.	p .	$p + p^1 + p^2$.	II.	π .
Cic. <i>Aratea</i> , etc. (639)	I in 24½	I in 18·2	I in 10½	I in 42·6	I in 40
<i>Lydia</i> (80) ...	I in 40	o	(I in 80?)	I in 80	
<i>Culex</i> (414) ...	I in 52	I in 59	I in 20·7	I in 207	I in 138
Catullus, 64 (408) ...	I in 68	I in 14½	I in 8·3	I in 136	I in 34
Lucr. V. (1457) ...	I in 76·6	I in 104	I in 56	I in 104	I in 291·4
<i>Lydia</i> and <i>Dirae</i> (183)	I in 91	I in 183		I in 183	
Lucr. VI. (1286) ...	I in 128	I in 143	I in 67·7	I in 214	I in 321·5
<i>Ciris</i> (541) ...	I in 135	I in 32	I in 15½	I in 270	I in 108
Germ. <i>Aratea</i> (725) ...	I in 181	I in 181	I in 72·5	I in 725	
Ovid, <i>Met.</i> VI. (721)	I in 240	I in 103	I in 65·5 ¹	o	
<i>Aeneid</i> I. (756) ...	I in 252		I in 54	I in 756	I in 126
<i>Georg.</i> I.-IV. (2186) ...	I in 263	I in 169	I in 65·5	I in 729	I in 364·3
<i>Eclogues</i> (829) ...	I in 414	I in 207	I in 82·9 ²	I in 829 ³	o
<i>Aen.</i> VIII. (731) ...	I in 731	I in 91	I in 61	I in 731	
<i>Moretum</i> (124) ...	o	I in 124		o	
<i>Dirae</i> (103) ...	o	I in 103	I in 34	o	I in 103
<i>Paneg. Mess.</i> (231) ...	o	I in 77		o	
<i>Aetna</i> (646) ...	o	o	I in 646	o	
<i>Cyneg.</i> (540) ...	o			o	
<i>Laus Pisonis</i> (261) ...	o			o	

out very plainly. Let us contemplate two large groups, drawing a line across the table just below the *Ciris*. It is obvious at a glance that there is a great difference between the poems above that line and those below it. (It should perhaps be pointed out as a reservation that poems so short as the *Dirae* or *Moretum* hardly admit of comparison with the *Ciris* or Lucr. VI., in which participles occur at intervals greater than their total length).

The arrangement arrived at in column 1, on the basis of P, is in substantial agreement with the two more important of the remaining columns, the third and fourth. With column 4 (II) the agreement is complete. In column 3 ($p + p^1 + p^2$) there is only one figure above the line—for Lucr. VI.—that would be in place below it; and only two below it that would be in place above it. Of the latter, one is the figure for the *Dirae*; a doubtful matter, perhaps, owing to the shortness of the poem, but of the last six poems on the list it is the *Dirae* that has much the best claim to an earlier date. The other is the figure for *Aeneid* I., a book which in various passages has perhaps a more archaic and Ennian air than others; in *Aeneid* II. the numbers for P and II are exactly the same as in I. (three instances of P, only one of them II), while examples of p , p^1 and p^2 seem to be very few.

It seems to me to be proved, on the whole, that participial endings and

¹ In all the eleven cases the participial clause precedes the main verb.

² This infrequency may be set down to the fact that the *Eclogues* are a dramatic form of composition. Participial clauses belong chiefly to description and narration (description in Cicero's *Aratea*: narration, in Lucr. VI., where they become more frequent in the narrative of

the plague at Athens); they are less likely to occur in conversation. But description or narration, of course, does not *compel* their use: compare Germanicus with Cicero, the *Aeneid* with Catullus or the *Ciris*.

³ This solitary specimen (*Ecl.* X. 25) is an echo of Lucretius (IV. 587).

participial clauses fell into disfavour with the advent of the Augustan age. The participial ending P is still in disfavour in the time of Nero. In six books of the *Pharsalia* the proportion is 1 in 272, or about the same as in Ovid—for the figure given above for Ovid, 1 in 240, does not represent the *Metamorphoses* quite accurately, a wider survey pointing rather to 1 in 300. In the epic of Domitian's reign there is a revival of participial endings, due probably to the fact that Virgil had not excluded them. In Valerius Flaccus, books V., VI. and VII., the proportion is 1 in 124, in books I.-IV. of the *Thebais* of Statius it is 1 in 116. In Juvenal they are extremely rare: I find only four in the first eight satires (2,169 lines): I. 165 (Lucilius ardens—but 'ardens' is rather an adjective than a participle here), III. 49 (et cui feruens), 233 (et haerens | ardenti stomacho), VII. 152 (haec eadem stans). Here it may be suggested that rhetoric helped to drive them out; for an ending in a participle is an ending in something of subordinate importance and therefore ineffective. Latin prose also rather disliked a present participle in the nominative; but I do not know whether this has been investigated, and I have no facts or statistics to offer.

As regards the *Ciris* and *Culex*, the outcome of the participial criterion is to put them early. Of course it does not give us an exact date—it may be said to point to some such time as 50-45 B.C.—nor is it in itself a conclusive proof. The conclusion will become more and more cogent if other criteria yield a similar result.

II.

It is now clear, I hope, why some cogency can be claimed for the use of the participle as a criterion of date. It is a perceptible or recognizable feature of verse; and it is a feature or mannerism which gradually died out. Are there other tests like it? Antecedently, we might hope to find something similar happening in the case of the trochaic caesura, as in:

Iaside Palinure, ferunt ipsa aequora classem,

for this is a metrical effect for which Latin had little liking, just as it had little liking for the 'bucolic' division or diaeresis, as in:

omnia uel medium fiant mare. uiuite, siluae.

One of the most familiar facts (though it is not often set out very clearly or explicitly) is that the Greek hexameter differs very widely from the Latin in regard to these two cadences. It is largely owing to the frequency of the trochaic division that the hexameter of Homer is so different from Virgil's, so much lighter and more rapid in its movement:

ἀλλ' ἴθι, μή μ' ἐρέθιζε, σαώτερος ὧς κε νέηαι

or

ὑβριος εἵνεκα τῆσδε · σὺ δ' ἴσχεο, πείθεο δ' ἡμῖν

(where the bucolic division is seen also). In the first hundred lines of the *Iliad*

there are forty-eight which have the trochaic division quite unmistakably.¹ It might be called the 'Homeric' caesura. In Virgil it is really very infrequent. Similarly, the bucolic division is infrequent, even in the *Eclogues*. In the *Eclogues* it is found in one line of every ten. In Theocritus it occurs in every second line, and sometimes in two lines out of three. Did the Roman poets *gradually* eject or discard these cadences? It would be quite in keeping with the history of metre generally at Rome if they did.

There are three divisions of a hexameter which are vital to the very nature of the verse, the penthemimeral, trochaic and hephthemimeral caesurae. A hexameter must have one of them, if it is to be a legitimate hexameter at all.² It will save printing if we designate these places in the line by the letters *p*, *t* and *h*. Besides these, there are divisions which, without being vital, may be of much importance for the general effect or cadence of the line; in particular the trihemimeral division, and the bucolic diaeresis. I propose to take some account of the latter, calling it *b*. This distinction between vital divisions and divisions which are only important is very elementary, but it is not always set out explicitly by writers on metre, and I premise it here for the sake of clearness. The discussion of *t* leads at once to the discussion of *h*, for there are lines in which some critics find one and some the other. And this leads to the question of the proportion of *t* or *h* or both to *p*. In determining where the vital caesura falls, *the* caesura of the line, we must be guided, I contend, by the sense of the passage or the rhetoric or whatever we choose to call it; sometimes the punctuation makes it obvious; it is *not* metre or *μετρική* that can tell us where it is, in particular lines; *μετρική* can only classify or define the three vital effects and the other subordinate ones. Thus in the lines

hi summo in fluctu pendent; his unda dehiscens
 terram inter fluctus aperit, furit aestus harenis,

I regard the hephthemimeral division as the dominant or real or characteristic one. It is true that there is the end of a word at *p*; but that is a fact of very little importance for the reader.³

It may seem unnecessary to set out things as elementary as these. But it is not. It is in fact necessitated, in my view, by recent treatment of the subject, treatment so extraordinary that it is difficult to use moderate language about it. One of the delinquents is no less eminent an authority than Norden,⁴

¹ There are also half a dozen more like
 ῥοῦσαν ἀνὰ στρατὸν ὤρσε κακῆν, ὀλέκοντο δὲ λαοί
 or
 Ἄτρεΐδα δὲ μάλιστα δύω, κοσμήτορε λαῶν,
 which I count as hephthemimeral and not as
 'trochaic.'

² Hexameters which fall into two equal parts, like Ennius'

spernitur orator bonus, horridus miles amator,

are so very rare as to be altogether negligible for this inquiry.

³ Of course it is not a fact of absolutely no importance at all. It means that the line is *not* exactly like 'obstupuit simul Aeneas . . .'

⁴ From an article by A. B. Drachmann in *Hermes* (vol. 43, p. 412) I learn that Meyer was the originator of the method. Drachmann himself adopts Meyer's rules, 'though I am not quite convinced that they are right.'

who in a metrical appendix to his edition of *Aen.* VI. gives us a list of lines that have 'weibliche Hauptcaesur' or 'trochaic' division. They include

(finibus omnes)

haud mora prosiluire||suis | ferit aethera clamor

and

litora deseruere ; latet sub classibus aequor.

Both of these! *Both* have 'weibliche Hauptcaesur'! To my ear the second is 'Homeric' in effect, the first is not. The first is frequent in Virgil, the second strikes a reader (if I am at all a normal reader) as, for Virgil, quite unusual in its rhythm. Inspired perhaps (or, as I think, misled) by this example of Norden, an English scholar, Mr. W. G. D. Butcher, has made an elaborate study of the 'Caesura in Virgil' (*Classical Quarterly*, April, 1914), in which 'trochaic' and other types of line are counted. Somewhere in Mr. Butcher's mind there were misgivings about the rightness of the method, and he set himself to justify it—it is a method which will obviously result in finding a great many *more* 'trochaic' lines than I am prepared to recognize. 'Ancient writers differ,' he says, 'as to whether the trochaic or the hephthemimeral caesura should take precedence, and in modern criticism great names, such as Meyer and Müller, may be found on opposite sides. Either caesura can stand alone, and though the hephthemimeral is found alone more frequently than the trochaic, its superiority in this respect is insufficient to determine the question of precedence.' (It may be 'insufficient,' but that is not a positive reason for doing the opposite—for giving the precedence to the trochaic.)

'Perhaps the best argument in favour of the trochaic caesura,' he proceeds, 'is that it is natural to accept the first available caesura in the verse. For instance, in a line beginning :

infandum, regina

we have no certainty that another caesura will follow'—no doubt you have not, at the moment, but in a fraction of a second the matter will be settled one way or the other!—'so that we should naturally adopt the first caesura as the principal one, and consider any other that may follow as subsidiary.' 'In the following analysis therefore we shall accept the penthemimeral as the normal type; failing that the trochaic; and only when both are absent shall we allow the hephthemimeral to be the main caesura. This is the most convenient arrangement, though in a large measure arbitrary.'

Mr. Butcher has not succeeded in stifling his own doubts. 'Arbitrary' it certainly is. The reason given is no reason at all. It means that the critic or reader is to be so furiously impatient that in the case of

et quorum pars magna fui. quis talia fando

he will not wait till he hears or sees the word 'fui,' but must at once set down the line as trochaic. Let us see what comes of this method.

If lines like this or like

non comptae mansere comae ; sed pectus anhelum

(which is Mr. Butcher's example) are to count as 'trochaic,' trochaic lines will be very numerous. Mr. Butcher's table gives them as 1,156 in the *Aeneid*, the total number of lines in the poem being 9,878; that is roughly one line in every nine. If the reader met with lines of 'Homeric' cadence as often as that, he would not feel the vast difference which I think he does feel between Homer and Virgil. That, however, is a rather vague objection. When we come to *h*, hephthemimeral lines, the result given is much more startling. There are only 371 of them! Naturally; for Mr. Butcher counts a line as *h* only when there is no point before *h* at which it *can* be divided. That is 3·7 per cent. of the total number of lines, or about one line in twenty-seven. And of course all the rest are *p*—all are *p* except *t* and *h* and two lines which appear to have no obvious or ordinary caesura. *p* comes to 8,349 lines; and here I definitely refuse to follow or agree. It is 84·5 per cent. of the total. But Virgil has always been credited with great and subtle variety of cadence. It is one of his chief merits, and any reader can feel it. But if 84·5 per cent. of his lines are really of one metrical type, the variety is gone. He is convicted of conspicuous monotony. The hexameters of Catullus *are* monotonous in their cadence; those of Virgil are not, and in passing to him the unprejudiced reader must perceive a great difference, a great advance. The statistical result then is one which effaces a real and vital difference.

I quite admit that Mr. Butcher's method has the advantage of definiteness. It is possible to say with complete accuracy how many lines have the end of a word at *p*. I do not doubt that there are 8,349 of them in the *Aeneid*. But it is not a useful fact, it is merely a curiosity of enumeration. It has no real significance.

What I propose to substitute for this method is one which it is much more difficult to apply. The things to be counted are not all simple and certain. There are lines about which readers or critics will differ. Where is the more marked division, at *p* or *h*? There are some lines in which it seems impossible to say e.g.

heu quantae miseris | caedes | Laurentibus instant
or

purpurei cristis | iuuenes | auroque corusci.

I see no solution; I designate such lines as *ph*, meaning that they are lines which have either division or both. Similarly there may be hesitation between *t* and *th*.

euomit inuoluitque domum caligine caeca (*Aen.* VIII. 253)

—that, I think, is *th*, but I am prepared to call it *t*. Or again:

addiderat, subitoque nouum consurgere bellum

Romulidis Tatíoque seni Curibusque seueris (*ib.* 637-8)

—here the first line I am inclined to designate *th*, but, to be safe and to take no advantage in the discussion, I will agree to call it *t*; the second line I am not prepared to call either *th* or *t*; it seems to me to be simply *h*. These lines, as

it happens, have a *que* at the critical point. I do not believe that the *que* was sufficiently detached from the word before it to give a penthemimeral caesura, but I know that it has been maintained. (It would not, if it were admitted, impair my contention, that the cadence *t* is rare. On the contrary, it would sweep away at one blow a large number of *th*'s.) Here are examples without *que* :

iamque tibi, ne uana | putes | haec fingere somnum (*Aen.* VIII. 42)
inflaut cum pinguis | ebur | Tyrrhenus ad aras (*Georg.* II. 193).

Both of these, I find, I have marked *th*, and I see no way of getting further; I simply leave them in that category. In the line

conuellunt; immota manet multosque nepotes (*Georg.* II. 294)

I myself feel the effect to be mainly *h*, but in order to proceed with caution I have set the line down as *th*.

What then are the results of the alternative method—which consists, briefly, in reclaiming for the hephthemimeral caesura its right to be felt or heard? In the first one hundred lines of *Aen.* VI. I find twenty lines which seem to me quite clearly *h*. In case the reader wishes to test the procedure and to see whether he agrees with it—that is, of course, if any reader has had the patience to follow the argument as far as this point—I give the numbers of the lines which I so reckon: they are 3, 4, 7, 9, 12, 13, 18, 20, 24, 40, 44, 52, 59, 72, 73, 77, 88, 98, 99, 100. Twenty per cent. would mean some 2,000 *h*'s in the *Aeneid*. But a wider survey points to a somewhat higher percentage in the *Georgics* and the *Aeneid* :

<i>Eclogues</i> IV.-IX., l. 15 (500 lines)	...	12.6 per cent.
<i>Georg.</i> II. 1-500	25.4 „
<i>Aen.</i> VIII.-IX., l. 269 (1,000 lines)	...	25.8 „

If this estimate may be trusted, it points to a total for *h* of some 2,500 lines in the *Aeneid*. Now if we add to this *t* and *th*, 1.8 and 2.6, that is 4.4, and add also *ph*, which I make 5.8, we arrive at 36.0 per cent. as the total number of lines which are *not p*, or in the whole of the *Aeneid* some 3,500 lines.¹ *p* comes to 64 per cent. This is an entirely credible result. It leaves unshaken our belief that Virgil in his treatment of the hexameter made a great advance in variety of cadence. Mr. Butcher's results efface this fact completely. Here are his percentages for *p*: *Ecl.* 85.8, *Georg.* 86.4, *Aen.* 84.5: Pseudo-

¹ This result I believe to be substantially sound, and as accurate as can be looked for. Substantially sound, because there is no reason to think that Virgil's manner in the 1,000 lines selected was different from his manner in other parts of the *Aeneid*. He had already written the *Georgics*, and his style was mature. As accurate as can be expected, because the attempt to count all the lines in the *Aeneid* would not result in absolute precision and certainty. Some lines

marked *ph* might seem to be *p* on a second scrutiny or if considered by another critic, and some marked *p* turn out to be *ph*; some marked *th* might be finally relegated to *h*. Callimachus' maxim must be kept in mind:

μη μετρεῖν σχολῶν Περιίδι τὴν σοφίην

—if the words meant that it is unsafe to apply a footnote to poetry.

Virgiliana: *Lydia* 93, *Dirae* 92, *Moretum* 84, *Aetna* 82, *Ciris* 88, *Culex* 84.¹ The method means counting things which are either too numerous or too few to yield any inference. Too few, sometimes: for example, he deals with the number of *p*'s that are accompanied by elision, saying in support of the Virgilian authorship of the *Culex* 'elided penthemimeral caesurae are rare as in the *Eclogues*.' His numbers no doubt bear this out. But what are they? Elided *p*'s are: *Lydia* 1, *Dirae* 1, *Moretum* 0, *Aetna* (644 lines) 9, *Ciris* (541 lines) 9, *Culex* (412 lines) 2: *Eclogues* 4, in 830 lines. Are there differences here that mean anything? Perhaps there are: I think the higher numbers in the case of the *Aetna* and *Ciris* are due to the fact that one of these is a didactic poem and the other a heroic epyllion, while the other pieces are pastorals. For the *Lydia*, *Dirae* and *Moretum* together the number is 2 in 305 lines. Elided *p* was an effect which the writer of a pastoral did not cultivate, but did not shrink from either, if once or twice it came in his way.

Before producing statistics arrived at on my rival method—from which I do not promise anything important or conclusive regarding the *dates* of undated poems—I briefly examine the treatment which has been accorded to the 'bucolic' diaeresis, which seems to me to have been wrong in precisely the same way as Mr. Butcher's treatment of *p*, *t* and *h*.

In regard to the bucolic division, the original delinquent appears to have been Hartel, who is followed by Gleditsch (*Metrik*, p. 119), and Mr. Mooney in his recent edition of the *Argonautica* has over-estimated the bucolic lines in a similar way. Gleditsch accepts from Hartel the statement that in Homer 60 per cent. of the lines have bucolic division. Now this amount cannot be arrived at without counting things like *ἑλώρια | τεύχε κύνεσσιν*, in which I refuse to see a bucolic effect. In the first 100 lines of the *Iliad* (Oxford text) I find 6 bucolic divisions or *b*'s marked by punctuation, and 25 that can be counted as fairly clear—31 in all, or about half of Hartel's percentage. In the first book of Apollonius Mr. Mooney puts *b* at about 62 per cent. (observe again how these methods efface differences! Homer and Apollonius come out alike). In the first 200 lines of his text I find 41 marked by punctuation (i.e. there is at least a comma at the end of the fourth foot). Fifty-seven more lines I am prepared to regard as 'bucolic,' though sometimes rather doubtfully. So I get a total of at most 98, or 49 per cent. Thus Homer and Apollonius appear to differ quite perceptibly. Callimachus is exactly like Apollonius, and it is only in some of the poems of Theocritus that percentages well over 60 come to light.

The Hartelian method is obviously the same in principle as Mr. Butcher's. It means counting as 'bucolic' lines in which there is the end of a word at the end of the fourth foot, including lines like

¹ In Catullus LXIV., on my method of reckoning, *p* amounts to 82.7 per cent. In the *Ciris* and *Laus Pisonis* it is about 80 per cent. In other Latin poems the percentage does not depart

widely from the Virgilian one, i.e. it is about 64. Catullus had a very strong preference for the rhythm 'prognátae vértice pínus,' which excludes *h*.

οἰωνούς τ' ἀλέγειν ἢδ' ἔμπυρα σήματ' ιδέσθαι.¹

On this principle, 'atque altae moenia Romae' would be a bucolic ending, and Catullus' *Peleus and Thetis* would prove to be one of the most 'bucolic' poems in the Latin language, for there are in it multitudes of lines with a word-ending at the end of the fourth foot. 'Peliaco quondam prognatae | uertice pinus,' a bucolic line! Catullus' poem might even prove to be more 'bucolic' than the *Bucolica* of Virgil.

I count *b* on the same principle as *p*, *t* and *h*, looking for a pause or division such as a normal reader, attending carefully to the sense and construction, would be aware of. Here, again, it must be admitted that the same degree of exactness is not attainable. Readers would differ about a particular line, whether it is to count as *b* or not. But they would not differ often enough to make the general result doubtful, and that this was the method of the Romans themselves, or at all events of some Roman critics, seems almost capable of proof.

The Hartelian method would find a very large number of *b*'s in the *Eclogues*, and if this meant anything that is real for the reader little or no difference would be felt between Virgil and Theocritus. But the ancients did feel a difference; they thought that Virgil had *not* followed Theocritus in his frequent use of bucolic division. Terentianus Maurus says that Theocritus has the effect in abundance:

plurimus hoc pollet Siculae telluris alumnus,

but that Virgil makes a sparing use of it:

noster eo rarus pastor Maro, sed tamen inquit
'dic mihi, Damoetas, cuium pecus? an Meliboei?'

So too Atilius (c. 21): 'Theocritus hanc metri legem custodiuit, *Vergilius contempsit*.' What Virgil precisely did will be shown by my statistics. The statement of Atilius is quoted by Christ, but Christ has not profited by it, for he falls into one of the subsidiary errors which result from Hartel's principle. After mentioning that in Greek a dactyl usually precedes the bucolic division, he adds 'a similar preference is not provable in Roman poets.' Of course it is not, if lines like

molli paullatim flauescet campus arista

are to count as bucolic, for many Roman poets had a liking for this type of line. But the really bucolic lines in Virgil almost always have a dactyl in the fourth foot.²

¹ The adjective *ἐμπυρα* naturally goes closely with *σήματα*. Between it and *σήματα* there is a slightly less severance than between *σήματα* and *ιδέσθαι*. It may be thought that elision has a connecting effect, and makes *σήματ' ιδέσθαι* into a group; but that effect is doubtful, and I think, if it exists, balanced by the close connection between *ἐμπυρα* and *σήματα*.

² *Ecl.* III. 15 is one of the rare exceptions. The line quoted above is in the Fourth *Eclogue*. In that *Eclogue* there is not a single example of *b*, as I reckon *b*'s. In this I see a further confirmation of my position. For *Ecl.* IV. *ought* to be very different from the others: it is not a pastoral or dramatic idyll at all.

In surveying a large number of lines with the view of distinguishing *h* from *p*, one found many lines in which the symmetrical position of an adjective and its noun seemed to determine the structure. Thus in the line

irrita uentosae | linquens promissa procellae

p seemed to be indicated; or, again, in

candida permulcens | liquidis uestigia lymphis

the division 'candida permulcens liquidis | uestigia lymphis' seemed unnatural, and this line also counted as *p*. There are many types of such symmetrical arrangement, and they are frequent in all Latin verse. Examples are as easily found in Catullus as in Claudian. It did not seem worth while to examine them all. I noted those in which the adjective came just before *p* and the substantive at the end of the line, using for this the symbol A. A poet who has this arrangement frequently is sure to have several of the others frequently also. Besides A, I noted only the variant of it in which adjective and substantive change places, calling this A¹. There is only one example of it in the *Peleus and Thetis*:

Nec Thetidis taedas uoluit celebrare iugalis,

and some poets seem to avoid it altogether.

The adjoining table gives the percentages which I arrive at for the various things which I have now described. Except for A and A¹, which are very definite things, the figures are only approximate, but I believe that they

	<i>h</i> . %	<i>h+p</i> <i>h</i> .	<i>t</i> .	<i>t+th</i> .	<i>b</i> .	A.	A ¹ .
Ennius (359 lines surveyed)	22.2	25.6	7.8	9.7			
Cicero, <i>Aratea</i> (480 l.) ...	13.9	23.1	3.12	3.33	2.5	6.25	0.83
Catullus LXIV. (408) ...	5.63	10.5	6.86	6.86	0.73	17.89	0.24
Lucr. V. 1-500 ...	24.4	29.8	5.8	6.6	1.4	2.2	0.2
Virgil, <i>Ecl.</i> IV.-IX. 15 (500)	12.6	20.4	6.6	8.4	10.0	13.2	0.8
„ <i>Georg.</i> II. 1-500 ...	25.4	31.8	3.8	6.2	3.4	11.0	1.8
„ <i>Aen.</i> VIII.-IX. 269 (1,000 l.) ...	25.8	31.6	1.8	4.4	2.2	7.7	1.7
Calpurnius, <i>Ecl.</i> I-VI. 18 (500 l.) ...	10.6	15.6	3.8	5.8	7.6	29.2	0.8
Statius, <i>Theb.</i> VI. 1-250, and <i>Ach.</i> I. 1-250 ...	20.8	22.8	4.4	9.2	1.0	17.8	0.1
<i>Ciris</i> (541) ...	7.58	13.68	4.80	7.02	1.85	23.66	1.66
<i>Culex</i> (414) ...	22.0	26.6	3.86	6.52	6.52	13.77	0.72
<i>Lydia</i> (80) ...	13.7	28.7	1.25	2.5	2.5	16.25	0
<i>Dirae</i> (103) ...	20.4	25.2	3.88	5.82	7.76	17.47	0
<i>Paneg. Messalae</i> (211) ...	10.4	15.6	5.2	7.11	2.37	39.8	0
<i>Moretum</i> (122) ...	14.8	20.5	4.92	8.19	0.82	22.9	2.46
<i>Germ. Aratea</i> , 1-500 ...	25.2	30.6	3.2	4.4	4.4	7.4	0.2
<i>Laus Pisonis</i> (261) ...	12.26	15.32	4.21	4.25	3.83	23.0	1.15
<i>Aetna</i> , 1-500 ...	29.4	30.2	6.2	8.4	1.8	10.2	0

answer to real differences. Like many metrical statistics they often tell us only what was more or less known before and what could be observed by a careful reader. But that is better than telling us what no reader could by any possibility observe at all. They tell us more about different *genera poematum* than about the date of any undated poem.

Didactic and epic poems admit *h* very freely, and they disdain the rather mechanical *A*. The variety of cadence achieved by Virgil is shown by the figures for *h*. But of course the mere figures do not differentiate him from Lucretius. In Virgil, the variety was more a matter of art, more subtle and deliberate. The place of the caesura moves, as it were, in a group of lines, so that some kind of connected cadence or structure can be felt to run through them; lines that stand by themselves and form a complete grammatical sentence are rare, one line leads to the next, and the lines of a paragraph are welded into a harmonious whole. Sentences are short, and adapted to metrical moulds, the moulds being not whole lines but parts of a line. Such effects are not absent in Lucretius, but in Lucretius it is often the necessity of the argument that brings variety. The poet who has had a late division at *h* in one line has not enough space for what he has to say before *p* in the next line. To point out this difference in technique is not to deny that Lucretius is a great poet.

The *Panegyrics* are monotonous: *h* is infrequent and *A* is very frequent. The reader wonders whether Messala's eulogist was paid by the line; he has a digression on Ulysses which would have justified Messala in following the example of the Thessalian chief who refused payment to Simonides.

Neither *t* nor *b*—in the Homeric and Theocritean sense, a pause so perceptible as often to be marked by a comma or other stop—ever had any real vogue at Rome, except that *b* does find a place in pastorals: Virgil 10 per cent., the *Dirae* 7·76, Calpurnius 7·6, the *Culex* 6·52—after these there is a gap, and the next number is 4·4. It is true, as the Romans observed, that Virgil did not follow Theocritus in his use of the bucolic division. But he was too subtle an artist in verse to neglect it. What he did was to make it just frequent enough to be noticed, to remind the reader of the cadence of his predecessor. The number for the *Culex* associates that poem with the *Eclogues* and the *Dirae*, but it also associates it with Calpurnius, and though it is not a pastoral like the others it is distinctly pastoral in its general character. Whether the writer of it had a pastoral effect in view, however, may be doubted. He has a general tendency to end a sentence late in the line, and he has six *b*'s in twelve lines in a passage which is not pastoral at all, but is a narrative (very much out of place in its context) of the homeward voyage of the Greeks from Troy (341-352).

The figures for the *Ciris* seem to show that its versification resembles that of Catullus more closely than it does that of Virgil. The infrequency of *h* (7·58) perhaps points to an early date. It is akin to Catullus also in its fairly frequent *σπονδειαζοντες*. The *Culex*, on the other hand, seems to stand nearer

to Virgil than to Catullus. The resemblance does not prove it to be Virgil's, but, as far as versification is concerned, it may be admitted that there is nothing that is *against* Virgilian authorship.

Several metrical criteria were discussed by Skutsch in *Aus Vergils Frühzeit*, a book which inspired, or gave interest to, this whole inquiry. But he deals with them rather briefly (p. 68). His survey is often too limited. To survey a hundred lines only is precarious; five hundred is not too much to eliminate chance. The statistics which he gives for caesuras I now see to be on the lines of the Meyer-Norden-Butcher method. He finds 'männliche Caesur im dritten Fuss'—it is quite clear that he means 'Hauptcaesur'—in eighty-nine out of a hundred lines of Virgil. He proceeds to statistics for elision, a thing more easily counted; I have made no further scrutiny of this, and I have nothing to add to what I said about it in the *Journal of Philology* (vol. 31, p. 277). Finally he deals with the occurrence of the *σπονδευίζων*, a test which more clearly than others points to some such date as 50 B.C. for the composition of the *Ciris*. On this also I commented in the same article of the *Journ. of Phil.*, reinforcing it and adding one or two minor facts. Some years later (in 1908) Drachmann of Copenhagen contributed to *Hermes* (vol. 43, p. 405 sq.) an interesting article on the *Cirisfrage*, in which he discusses metrical criteria among others. He has valuable observations on diction and grammar; and here he mentions participles in the *Ciris*, but dismisses the present participle in a sentence, 'Das Part. Praes. ist häufig, wie bei Catull und Lucrez,' without tracking it down in the morphology of verse, as I have attempted to do in the preceding pages. His most important contribution to the metrical inquiry is an investigation into the frequency with which the end of a line is also the end of a period or sentence or clause. His results under all three heads are instructive, most clearly perhaps those which fall under the second—'Satzschluss und Versschluss fallen zusammen.' His table gives the following figures (I rearrange the order of them): Cic. *Aratea* 50·3 per cent., Catullus LXIV. 50·8 per cent., Lucretius about 50 per cent. (two different sections of Lucretius' text yield different results, 56·7 and 46·4 per cent.), *Ciris* 51·3, *Culex* 41·3, *Georgics* 34·8, *Aeneid* 27·7 per cent.¹ The *Ciris* is associated with the poetry of the Ciceronian age, and the *Culex* comes between that poetry and Virgil. Here then is another line of inquiry that points to some such dates as 50 and 45 B.C., for the *Ciris* and *Culex* respectively. It should be added, however, that Drachmann's table does not show a continuous and uniform change throughout. There are indications of a rise after Virgil—

¹ What Drachmann surveys is a tract of two or three hundred lines in each case, not necessarily consecutive, for he limits himself to narrative or description, avoiding speeches. This seems a sound precaution. It is specially in regard to the relation of sentences to verses that dramatic parts would differ from narrative. Of

course some poets show greater skill than others in differentiating them. It is not, I think, a very important consideration for the texts I have dealt with above. I have been content to take rather larger tracts of text (usually not less than 500 lines).

Ovid 38·9 per cent. The highest figure is for the *Paneg. ad Messalam* 68·4 per cent., and the figure for the *Moretum* is 47·2 per cent. Messala's eulogist, we may perhaps suppose, is a writer who has discarded the mannerisms of the Ciceronian age *without* learning the Virgilian lesson of variety in cadence. We have seen that he has a strong tendency to what I designate A (which often does mean the end of a sentence at the end of the line).¹

I have summarized Drachmann's investigation because it seems to me a good example of the kind of inquiry that is really profitable. What he surveys is a thing that is a real feature or characteristic of versification, a thing of which neither poet nor reader can be unaware. The result is not a mere statistical curiosity, like the number of lines in which there is the end of a word at *p*.

The general conclusion which I come to is that there is enough evidence of this really significant kind to make very probable or almost certain what I have more than once stated above—some such date as 50 and 45 B.C. for the *Ciris* and *Culex* respectively. But to prove that is not to prove that they are Virgil's. The metrical inquiry leaves *that* still quite uncertain, and many other considerations come into view. I propose to discuss it once more, with special reference to the *Culex*, in view of the fact that a belief in the Virgilian authorship of the *Culex* has recently found favour in this country.

NOTE.

One other test which I have tried may be mentioned. The results are very slight, though not perhaps exactly *nil*.

How often does the writer end his line with a pure trochee, a word like *antrā* or *armā* (a short vowel, not an ending like *tendis* or *armat*)? The poems that have this ending most frequently are the *Dirae* and *Lydia*: in them it occurs² in one line out of every five (=20 per cent. of the lines). Here is the order: *Dirae*, 1 in 5; *Lydia*, 1 in 5; *Paneg. Mess.*, 1 in 7·8; *Culex*, 1 in 8·8; Catullus LXIV., 1 in 10·6; *Georgics* IV., 1 in 10·9; *Aetna*, 1 in 11·5; Ovid, *Met.* VII., 1 in 12; Cicero, 1 in 13; *Ciris*, 1 in 13·2; *Ecl.*, 1 in 14·3; *Aen.* I. 1-500, 1 in 17·2. The *Dirae*, *Lydia*, *Paneg. Messalae* and *Culex* seem almost to form a group by themselves. But the significance of this is somewhat impaired by a fact about *Georg.* IV. In the epyllion, the story of Aristaeus, Orpheus and Eurydice, the proportion is 1 in 80.

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¹ Drachmann deals briefly with a similar thing, lines in which two adjectives and two substantives are symmetrically placed, such as 'Gnosia Cecropiae tetigissent litora puppes' (ab A B) and 'indomito nec dira ferens stipendia tauro' (ab B A). His results are: *Ciris*, 15·5 per cent.; Catullus LXIV., 14·5; *Eclogues*, 4·7; *Georg.* I. and IV., 6·1 (*Hermes* 43, p. 418). My results for

A so far agree with this that they put the *Ciris* and Catullus in one group and the *Eclogues* and *Georgics* in another. They also, it may be noted, associate the *Culex* with the *Eclogues*, and would put it slightly before them in time—if we limit our view to this sequence of five, Cat., *Ciris*, *Culex*, *Ecl.*, *Georgics*.

² As it does in Homer.