

the gods. G. Castelli has pointed out that Virgil could have found in Lucretius 'la celebrazione della vita pastorale', and that among scholars only Ribbeck seems to have noticed this; - Cp. Luc. 5,1384f. : per loca pastorum deserta atque otia dia. (Castelli, Rev. di Studi class., 1967, pp. 17-18.)

5. Compare Ec. 1, 1-10 on echoes and silvestris musa.
6. Cf, also Ovid Fasti 2,421.
7. Known by this title from the Lycaean games, cf. Paus 8,38,5.
8. Hinc lucum ingentem, quem Romulus acer Asylum/rettulit, et gelida monstrat sub-rupe Lupercal*/Parrhasio dictum Panos de more Lycaei (Aen. 8, 342-4). τὸ μὲν οὖν ἄλσος οὐκέτι διαμένει, τὸ δὲ ἄντρον ἐξ οὗ ἡ λιβάς ἐκδίδεται τῷ Παλλαντίῳ προσωκοδομημένον δείκνυται κατὰ τὴν ἐπὶ τὸν ἰκπόδρομον φέρουσαν ὁδόν, καὶ τέμενος ἐστὶν αὐτοῦ κληστόν, ἐνθα εἰκὼν κεῖται.....χαλκὰ ποιήματα καλαῖας ἐργασίας. Almost certainly there was an Arcadian Pan statue in the cave, though so far as representatives of Pan in the Roman period are concerned, more have been found in Crete than in Arcadia. ἦν δὲ τὸ χωρίον τῶν οὖν Εὐάνδρῳ ποτὲ οἰκιστῶν αὐτὸ Ἀρκάδων ἱερὸν ὡς λέγεται.
* Conington compares gelida monstrat sub rupe Lupercal with sola sub rupe iacentem/Maenalus et gelidi fleverunt saxa Lycaei (Ec. 10, 14-15).
I am not sure what work Augustus did on the Lupercal, or even whether there was a statue in the cave before his time. But compare Res Gestae, 19.

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VIRGIL'S KNOWLEDGE OF ARABLE FARMING

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It is commonly taken for granted that Virgil's Georgics, allowing for the inevitable brevity of his allusions to the actual processes of cultivation, present a reasonably accurate picture of the various operations described in the poem.⁽¹⁾ In this matter there is no need for the reader to take the poet on trust, since in most cases his account of a particular process in arable farming can be compared with the relevant discussion in one or more of the agricultural writers. Of these, Varro was an older contemporary, and seems to have provided the poet with much of his material on arable farming, apart from sections which may well derive from a source common to them both.⁽²⁾ Notwithstanding the great volume of critical work done on the Georgics it appears that no systematic study of the techniques mentioned by Virgil has so far been attempted. Billiard's well known book⁽³⁾ is quite unsystematic, and only casual correlations are made

with parallel passages in the agronomists. L. Savastano's *Studi Virgiliani*⁽⁴⁾ contains many acute observations such as might be expected from a writer who was both classical scholar and agriculturist, but here again the treatment is unsystematic. In the discussion that follows the approach is tentative and exploratory, and the scope limited; five passages have been chosen from the *Georgics*, four from Book I and one from Book II. In each case the relevant text is cited in full, and beside it are placed the most important parallel references to the particular topic in the agricultural writers, so that close and detailed comparison may indicate how far Virgil agrees with the practice recommended by them. The paper ends with some general observations on the results of the comparative analysis of the various passages.

The passages to be considered are the following:

- (1) On Ploughing G.i.43 ff; 63 ff. Varro 1.27: Colum.2.4.1: 11; Pliny 18.176; 181.
- (2) On the Second Ploughing (iteratio) G.i.97-9. Colum.2.2.25; Pliny 18.178; 180.
- (3) On Harrowing G.i.94 ff. Colum.2.4.2; 2.17.4; Pliny 18.179; 180.
- (4) On Burning the Stubble G.i.84 ff. Pliny 18.300; ILS 8745
- (5) On Testing Soils for Quality G.ii.248-50. Colum.2.2.18; Pallad. 1.5.3.

(1) On Ploughing.

(a) 43 vere novo

45 depresso incipiat iam tum mihi taurus aratro
ingemere, et sulco attritus splendescere vomer.
illa seges demum votis respondet avari
agricolae, bis quae solem, bis frigora sensit ...

63 ergo age terrae
pingue solum primis extemplo a mensibus anni
fortes invertant tauri, glaebasque iacentis
pulverulenta coquat maturis solibus aestas;
at si non fuerit tellus fecunda, sub ipsum
Arcturum tenui sat erit suspendere sulco. G.i.43 ff. 63 ff.

(b) vere sationes quae fiunt, terram rudem proscindere oportet, quae sunt ex ea enata, prius quam ex iis quid seminis cadat, ut sint extradicata; et simul glaebis ab sole percalefactis aptiores facere ad accipiendum imbrem et ad opus feliciores relaxatas; neque eam minus binis arandum, ter melius. Varr.1.27.

(c) Pingues campi, quae diutius continent aquam, proscindendi sunt anni tempore iam incalescente, cum omnes herbas ediderint neque adhuc semina maturuerint. Sed tam frequentibus densisque sulcis arandi sunt ... quoniam sic omnes radices herbarum perruptae necantur. Colum.2.4.1.

- (d) ... Item graciles clivi non sunt aestate arandi, sed circa Septembres Kalendas, quoniam si ante hoc tempus proscinditur, effeta et sine suco humus aestivo sole peruritur nullasque virium reliquias habet. Itaque optime inter Kalendas et Idus Septembres aratur ac subinde iteratur, ut primis pluviis aequinoctialibus conseri possit; neque in lira, sed sub sulco talis ager seminandus est. Colum.2.4.11.
- (e) Prius quam ares proscindito. Hoc utilitatem habet quod inverso caespite herbarum radices necantur. Quidam utique ab aequinoctio verno proscindi volunt. Pliny 18.176.
- (f) Quarto seri sulco Vergilius existimatur voluisse cum dixit optimam esse segetem quae bis soles, bis frigora sensisset. Spissius solum sicut plerumque in Italia quinto sulco seri melius est, in Tuscis vero nono. Pliny 18.181.

Virgil's account of ploughing begins with a straightforward recommendation on the best time of the year to start operations (vere novo ...). Varro gives the main reason for the choice of this time of year:-

- (i) This is the time to catch the weeds that have grown since the last crop before they have seeded themselves;
- (ii) It is also important to let the advancing heat of the sun work on the clods before the next ploughing, aerating the soil and opening it up to receive the rain.

Virgil, in less precise language, also makes the same point, at V.48 (bis solem ...) and at vv.65-6 (glaebasque iacentis/pulverulenta coquat maturis solibus aestas). Columella, who treats the whole topic in very great detail, relates the timing of the operation to differences in the situation of particular fields (whether on level or hilly terrain), and to the type of soil, its quality (whether naturally productive or otherwise), and to its capacity to retain moisture. Pliny, apart from repeating with approval Virgil's recommendation about fallow in G.1.48, mentions only the destruction of weeds brought about by inversion of the sod. So far, no discrepancy between Virgil and the agronomists. On the frequency of ploughing the fallow, the first problem to be resolved is the meaning to be given to the phrase 'bis solem ... bis frigora' (v.48): does he mean four ploughings in the cycle or only two? Pliny evidently took it to mean four ('quarto seri sulco'). Elsewhere in Virgil, in all but two passages (A xi.629 and A ix.799?), the meaning of 'bis' appears to be 'more than once' (at ii.410, A ii.218, A vi.32 and 134). Here then the reference may well be general rather than specific.⁽⁵⁾ The next question is the recommendation for the treatment of unproductive soil ('at si non fuerit tellus fecunda,' v.67). Here Virgil, after briefly repeating his earlier injunction to plough good land thoroughly, offers a very different regime, saying that for poor soils it will be sufficient (sat erit) to give a single shallow ploughing in September.

This method is not mentioned elsewhere except by Columella, who at 2.4.11 refers specifically to lean and sloping land as requiring this minimal treatment, adding that earlier ploughing of such land will expose the already dried-out soil to too much summer heat and leave it with no reserves of strength. "Therefore", he continues, "it is best to plough it between the Kalends and Ides of September,

and then to work it a second time shortly afterwards (subinde), so that the seed can be put in during the first equinoctial rains." This second ploughing is of course essential under the conditions described by Columella: "When poor land is ploughed late, there is not time enough to plough it as often as reason requires: because there must be a competent exposure between ploughings, and the poorer it is, the more ploughings will be necessary to pulverise it."⁽⁶⁾ The poet has thus missed a vital point: repeated ploughing of such land is essential. The poet then concludes this section with two lines in which he gives his reasons for the two different methods of ploughing: *illic. officiant laetis ne frugibus herbae, hic, sterilem exiguus ne deserat umor arenam.* (vv.69-70)

The reason advanced at v.69 is technically correct: thorough ploughing from the first months of the year is essential for keeping down weeds; but the reason given for the mere scratching of the surface of unproductive soils is incorrect; it is natural, but erroneous, to suppose that frequent stirring of the surface will deprive such a soil of its moisture; on the contrary, by opening the pores it will materially reduce capillary action, and thus help to conserve moisture.⁽⁷⁾

All this may well be irrelevant, if we accept the view that Virgil may have decided that it was not his business to offer precise instructions on this or any other technical point; my own impression at this stage in my work on the subject is that, while comparative analysis may help to throw light on the poet's method of handling technical material, the use to which we put such analysis will have to be determined by the sort of decision we make about the difficult question of what Virgil is really doing in the Georgics! There are two attitudes which ought to be avoided: the first, that analysis of technical problems is out of place in this context; the second, that of behaving as if the poet was being examined in a curious kind of agricultural Tripos, and being failed or perhaps given a grudging second class mark.

(2) On Second Ploughing

(a) *et qui proscisso quae suscitatur aequore terga
rursus in obliquum verso perumpit aratro,
exercetque frequens tellurem, atque imperat arvis.*

G.i.97-9

(b) *bubulcum autem per proscissum ingredi oportet alternisque versibus obliquum
tenere aratrum et alternis recto plenoque sulcare, sed ita necubi solum et
immutum relinquat ... quod agricolae scamnum vocant.*

Colum.2.2.25.

(c) *omne arvom rectis sulcis, mox et obliquis subigi debet. in collibus traverso
tantum monte aratur, sed modo in superiora, modo in inferiora rostrante
vomere ... id demum recte subactum erit ubi non intellegitur utro vomer
ierit.*

Pliny 18.178-9.

The commentators seem to be rather confused here. Conington appears to suggest that these three lines are an afterthought at the end of a long discussion on methods of cultivation: 'he seems to be enumerating the different parts of cultivation without much regard to order, forgetting that he has already recommended cross-ploughing'. But Virgil is not referring to cross-ploughing, but to the

ordinary method of ploughing used on most Italian soils. Columella's account is perfectly clear: the plough is first driven with the sole horizontal, then, in each alternate furrow with the plough held at an angle (obliquum tenere aratrum). 'By ploughing obliquely the furrow was made sloping on the land side with a narrow bottom, and by ploughing with an upright and full furrow, the sloping firm earth was removed, the bottom of the furrow widened, and no scamnum left, as the peasants called the firm earth, that by bad ploughing was left between the furrows, made by the plough in going.'⁽⁸⁾ In this passage the poet is brief and to the point; it is the commentators who do not know what he is talking about. Adam Dickson, however, was a practical farmer, and his pages often contain more sense than many a learned commentary.

(3) On Harrowing

- (a) multum adeo, rastris glaebas qui frangit inertis
vimineasque trahit crates, iuvat arva. G.1.94-5,
- (b) sed et compluribus iterationibus sic resolvatur vervactum in pulverem, ut
vel nullam vel exiguam desideret occationem, cum seminavimus. nam veteres
Romani dixerunt male subactum agrum. qui satis frugibus occandus sit.
Colum.2.4.2.
- (c) male aratur arvum quod satis frugibus occandum est: id demum recte subactum
erit ubi non intellegitur utro vomer ierit. Pliny 18.179.
- (d) aratione per transversum iterata occatio sequitur, ubi res poscit, crate
vel rastro, et sato semine iteratur; haec quoque, ubi consuetudo patitur,
crate contenta¹ vel tabulo aratro adnexa - quod vocant lirare - operiente
semina. ¹ dentata edd. Pliny 18.180.
- (e) Deinde viciam permixtam seminibus faeni seremus, tum glaebam sarculis
resolvemus et inducta crate coaequabimus, grumosque, quos ad versuram plerumque
tractae faciunt crates, disiciamus ita, necubi ferramentum faenisicis possit
offendere. Colum.2.17.4.

In Virgil's brief account of the process of harrowing, two implements are mentioned. The ancient authorities refer to several types of each. The rastrum, or 'drag-hoe', resembled both the heavy garden fork and the garden rake. It was a multi-purpose implement, being used both for breaking ground and, as here, for clod-smashing. In cereal cultivation it was used to promote an even tilth by breaking up the skips left after ploughing. That it was also used after the seed had been sown is evident from all four passages cited above. Pliny(c), following Columella (b), quotes an old farming adage which condemns the latter practice as evidence of bad ploughing. The use of rastri and crates would of course be determined by the nature of the soil; in (c) Pliny is clearly referring to a friable soil which can be reduced to an even tilth by ploughing alone. Virgil, on the other hand, seems to have in mind those heavy clay soils which require both rastri and crates. Crates were of two kinds, a light type, consisting of a simple wooden sled, with a mat made of twigs (vimineae crates), and a heavy, toothed type, fitted with rows of wooden pegs (Pliny's crates dentatae (d), - a generally accepted emendation). At 18.173 Pliny explains that this implement had recently come into use in Rhaetia in combination with a heavy wheeled plough, and that no subsequent hoeing during the growing period was necessary.

Commentators who assume that Virgil is referring to this heavier, animal-drawn implement are clearly wrong; his reference is brief, general, and appropriate. Jethro Tull's criticism (op.cit. 147) is misguided: he wrongly assumed that the Roman writers condemned all harrowing.

Passage (e) is cited here to illustrate the normal use of the harrow for levelling; in this case a meadow is being prepared on ground that has been neglected, and which has to be cleared of brambles and other useless undergrowth. The harrow or drag is essential, since the scythe (falx faenaria) cannot be used except on a level surface.

(4) On Burning the Stubble.

- (a) saepe etiam steriles incendere profuit agros
atque levem stipulam crepitantibus urere flammis.

The poet next advances four reasons to justify the practice:

- (i) sive inde occultas vires et pabula terrae
pinguia concipiunt;

i.e. it enables the soil to draw on its reserves of strength

- (ii) sive illis omne per ignem
excoquitur vitium, atque exsudat inutilis umor;

i.e. it burns out latent badness in the soil and sweats out useless moisture.

- (iii) seu plures calor ille vias, et caeca relaxat
spiramenta novas veniat qua sucus in herbas.

i.e. it opens up the pores of the soil, enabling moisture to penetrate.

- (iv) seu durat magis, et venas adstringit hiantis
ne tenues pluviae, rapidive potentia solis
acrior, aut Boreae penetrabile frigus adurat.

i.e. it closes up the pores, to prevent rain, or the sun's heat. or the chill blasts of the north wind from making their way in.

Pliny refers to this passage at 18.300, where he writes:

- (b) sunt qui accendant in arvo et stipulas, magno Vergilii praeconio; summa autem eius ratio ut herbarum semina exurant. These are apparently the only literary references to the burning of stubble. The operation, however, finds a place in one of the rustic Calendars as a regular procedure after the grain harvest.

- (c) mensis Augusti
MFSSSES FRVMENTAR.
ITFM
TRITICAR.
STIPVLAE
INCENDVNT.

Menologium rusticum Colotianum
CIL 11.2.994 ff = ILS 8745.

The meaning of the text of vv. 84-5 has been much disputed. In particular, many commentators have foolishly assumed that steriles refers to the condition of the fields after a crop has been reaped, when it is sterile, as containing nothing but stubble. The poet may indeed be referring to the poor land previously described (v.70) as sterilis harena, and this meaning is common. But the passage appears to be quite generalised (leves, coupled with stipulae at v.289, may well be a stock epithet), and the general drift is perfectly clear: 'crops take the goodness out of the soil (and crops like flax (77) take a heavy toll); treat the exhausted soil by fallowing (71 ff) and manuring' (79 ff). Burning is then added as a suitable treatment in many cases ('saepe etiam...') The difficulties begin when the reader is presented with four reasons for the practice of burning the stubble; the third and fourth of these are mutually contradictory. The condition of the soil cannot be either so hard and impacted as to require burning to open it up or so wide open (venas hiantis) that it requires to be burnt in order to secure a result exactly opposite to that mentioned just before. The reader is left in a dilemma. Turning to the first explanation, we find the poet recommending the burning of dense stubble (assuming that the soil in question is fertile), in order to release its latent energies, so that it may put forth rich food (presumably for feeding stock). This is common practice in areas with abundant rainfall in the late summer, where burning off the coarse stubble produces a fresh growth into which stock can be turned to graze. Virgil may well have seen this being done near Mantua where such climatic conditions prevail; south of the Apennines, however, conditions are different, and we do not find this procedure in any of the farming writers. On the contrary we find Varro (RR 2.2.12) putting sheep into stubble, with the two-fold aim of fattening them on the fallen ears of corn and giving the soil the benefit of their droppings. Burning is recommended, but only of pasture, and to promote new growth (e.g. Pallad. 9.4. (August)).

There is a perfectly good reason why stubble-burning is not recommended by the agronomists; in central and southern Italy intercultivation of cereals with vines or olives was normal practice, and burning was out of the question. Apart from the silence of the agronomists, however, we still have Pliny (b), and the Calendar entry for August (c). Pliny's 'sunt qui accendant' implies rather less frequency than Virgil's 'saepe... profuit', but the most striking feature of his brief allusion to the practice is the statement that the main purpose is to prevent the seeds of weeds from germinating: the reasons advanced by the poet are thus reduced to minor importance, in spite of the weight of his authority. As for the entries in two of the surviving Calendars (the texts are practically identical) they must take their proper place as part of the evidence; they must not be regarded as the last word on this or any other topic. All that they tell us is that stubble-burning after the wheat-harvest was a common practice. That there was considerable variety in the treatment of the stubble is evident from Pliny's comment on the burning of the stubble of common millet (HN 18.297).

There remains the second explanation (vv. 87-8). Tull's comment is brief and incisive (op.cit. 144): 'there was no vice in it, to be boiled out, except its being stocked with grass, and wanting tillage. Had there been moisture in it, it would not have burnt, therefore that must have been dried out before the fire could operate' The validity of his criticism depends, however, on the interpretation of the phrase 'inutilis umor': if Virgil is referring to a portion of an

arable plot which is difficult to drain, the burning of the surface growth would be helpful, and would make subsequent preparation for the next crop easier; if the whole area was fired the temperature could be raised sufficiently to dry out the waterlogged section. But the association of vitium and umor suggests the more generalised notion of fire as a cleansing agent (see further the comments of W. Richter on this passage, cited in n.9 below).

Various attempts have been made to overcome the difficulty and to explain away the inconsistencies of the passage. The device favoured by most commentators is to assume that Virgil is here referring to four different soil conditions; Hevne assumes this without discussion: Sive;.. sive. Pro varia soli, vel macri vol uliginosi vel densi vel rari, natura varias causas subicit' (ad 84). Conington is less decisive: 'The explanations given are apparently intended to vary more or less according to the different kinds of n.9 soil' (ad 91). W. Richter (9) solves the problem by suggesting that Virgil is here influenced by a Greek source, in which the doctrine of opposing δυσώμετα (Straton's vis calidi and frigidi ap. Seneca, Nat.Quaest. 6.13.2) is strongly emphasised. But this is no more than a conjecture, and not a convincing one.

These solutions are all based on the reasonable assumption that the poet is making brief allusion to four different treatments for different soils, and that any knowledgeable reader would fill in the missing parts. But there are two further considerations here: first, this is not the only passage in which the poet's recommendations are either defective or inaccurate; we do not solve the problem by assuming that in this particular passage Virgil has given his readers a condensed version of several processes; secondly, the style and choice of words in the passage suggest a quite different explanation. Sets of alternative explanations introduced by a series of 'sive's' are very common in Lucretius (e.g. De Rerum Natura V.519 ff.). The language has a distinctly Lucretian flavour (occultas vires, caeca spiramenta (Cf. spiracula VI.492), penetrabile frigus (cf. penetrabileque frigus, i.494). In addition to these Lucretian echoes, which of course abound in the poem, there is the added point that the scheme itself is thoroughly Lucretian being a series of multiple and often mutually exclusive explanations of a physical phenomenon; Virgil may here be aiming at a conscious imitation of his great predecessor, or possibly following a Greek source which was framed in this Epicurean form. (10)

There remains a further question arising from this passage. At v.79, having stressed the importance of fallowing, the poet now reminds the farmer that some crops exhaust the soil; rotations are useful for easing the burden on the land: 'only think of the dried-up soil, and do not be ashamed to give it its fill of rich manure, and broadcast over the fields the grimy ashes' (vv 79-81). The meaning of cinis immundus is not entirely clear: the ash from a wood fire contains potassium and is of value for certain types of soil, (11) but what is the meaning of immundus in this context? E. de St. Denis, the Budé editor of the Georgics, may well be right in seeing a reference to the practice of burning the dung and collecting the ash, citing Pliny NH 17. 49: 'Farmers north of the Po are so fond of using ash (cinis) that they prefer it to dung, and they burn stable manure, which is the lightest variety, in order to obtain the ash'. The ploughing in of wood ash, even of stubble, is not without value; at v. 85 the poet does not specifically refer to ploughing in, and may have omitted it as self-evident. Others

regard immundus as a stock epithet; but not all ash is dirty: wood ash is in fact clean!

(5) On Testing Soils for Quality

- (a) Pinguis item quae sit tellus, hoc denique pacto
discimus: haut umquam manibus iactata fatiscit,
sed picis in morem ad digitos lentescit habendo.

G.ii. 248-50.

- (b) Itaque considerandum erit, ut solum, quem excolere destinamus
pingue sit. per se tamen id parum est, si dulcedine caret:
quod utrumque satis expedita nobis ratione contingit discere.
nam perexigua conspergitur aqua glaeba manuque subigitur. ac
si glutinosa est, quamvis levissimo tactu pressa inhaerescit
et

picis in morem lentescit habendo,
ut ait Vergilius, eademque inlisa humo non dissipatur quae
res admonet inesse tali materiae naturalem sucum et pinguit-
udinem.

Colum. 2.2.18.

(repeated in condensed form by Palladius (1.5.3).)

Here the poet gives us a very short description of a well-known test; unfortunately he has omitted to mention that one part of the operation which alone makes the test effective. Both Virgil and Columella are referring to what is called the "sticky point" in clay soils - that is, the moisture content at which a clay soil sticks to the fingers and implements. The test, which is still recognised, consists of taking some soil in the palm of the hand, then adding minute quantities of water at a time until the sticky point is reached; when the soil is drier than this critical point it can be moulded in the hand without sticking; when too much water is added the soil will turn to mud.

The above passages came under review in the course of an investigation of the recommendations of the Roman agronomists for the cultivation of cereals. On closer analysis it would appear that the poet's recommendations, if in fact they are to be regarded as 'recommendations', are roughly half right and half wrong. Thus at G. i. 43 ff and 63 ff we have an excellent account of the right way to plough rich land; but the concluding couplet, which rounds off the recapitulation of the opening theme, has been shown to be technically unsound.

AT. i. 84 ff the reasons advanced for stubble-burning are unsatisfactory, being either imprecise or mutually contradictory. In countries where climatic conditions resemble those of ancient Italy, burning is to-day a controversial subject among farmers, and it is just possible that the poet's confused account reflects disagreement among his sources; since the Roman agronomists, as we have seen, ignore the whole topic, judgment must remain suspended. Perhaps it was the poet's ear that led to its inclusion; it is an exciting spectacle and one that would have made an abiding impression on the poet when he first saw the ground leaping into flame, and heard the crackle of its violent progress through the fields. At 1.94 ff, however it is the poet who is unmistakeably in the right, and his critics

who are wrong (p.7 f.). The same is true of the passage on the second ploughing (1.97-9), while at 2.248-250 Virgil's natural brevity on a somewhat prosaic topic (p.13 f.) has caused him to omit the essential point.

Close examination of the inaccuracies which have been noticed shows that they fall into three categories: first, those which are due to condensation (cinis immundus at i.81: picis in morem.. habendo at ii.250). In each of these cases it may be argued that the poet has refrained from spelling out in detail a practice which was familiar to his readers. To the second category belong passages where the poet is not compressing but generalising (e.g. bis solem... bis frigora at i.48; multum adeo... iuvat arva at i. 94-5). This is an essential feature of the poet's art which distinguishes him from his Hellenistic predecessors⁽¹²⁾. Finally, there are passages in which the poet's account may well be based on his recollection of methods and practices common in the Po Valley, where the prevailing conditions differ from those of central and southern Italy (e.g. saepe etiam... urere flammis at i. 84-5; vere fabis satio at 1.215; ? cinerem immundum at 1.81). It would clearly be presumptuous, on the basis of a handful of passages, to draw conclusions concerning the purpose of the poem, and the attitude of the poet towards his theme. But our discussion of these passages points clearly to the need for systematic comparison of Virgil and the agronomists throughout the poem. As M. de St Denis has pointed out⁽¹³⁾, the modern reader of the poem who does not engage in this comparative study tends to exaggerate the poet's technical knowledge.

That the purpose of the Georgics was not to give instruction to farmers but enjoyment to readers was already evident to Seneca, whose eighty-sixth letter contains much of the essence of the matter⁽¹⁴⁾. In the full context, however the familiar reference ('pleasure not instruction') takes second place to a different proposition concerning the poet's aim: 'non quid verissime, sed quid decentissime diceretur aspexit': he has fixed his attention, not on the highest degree of accuracy, but on the most beautiful form of expression' (ep. 86.15). That Seneca admired the work of Virgil is evident from the frequency with which he quotes from him. His observations, which are based on an intimate acquaintance with the poet's work, should provide a starting-point for a fresh investigation based on the comparative method employed in this paper. In particular the close relationship between Virgil and Varro, which has already engaged the attention of a number of commentators,⁽¹⁵⁾ deserves the closest scrutiny.

I hope I have succeeded in persuading you that rigorous analysis of a passage involving technique is an essential pre-requisite of a fuller understanding of the Georgics. I also want to emphasise that this is no more than a necessary preliminary to a much more difficult exercise, that of assessing the poetry as a total achievement, - a fusion of many different elements, including the poet's intense feeling for Nature, his sensitivity to the interplay of her mysterious processes; his patriotism, the poetic tradition to which the poem belongs; above all, the poet's creative acts of selection and presentation. I end with a highly pertinent observation by Sir Roger Mynors, made during a discussion of one of these passages: "You have to analyse the old devil with the greatest cunning, with learning, with finesse and with determination, before you can make him submit to any examination".

NOTES

1. E.g. 'This' (viz. the Georgics) 'was a didactic poem... giving practical advice to farmers on the cultivation of crops...' (H.H. Scullard. From the Gracchi to Nero 2nd edn., London, 1963, 245. In 'Virgil's plough' (JRS 46 (1956), 97 ff.) R. Aitken sought to prove that V's description at G.i. 169 ff was based on a visit to a ploughwright's workshop.
2. On V's debt to Varro, P. van de Woestijne 'Varro de Reate et Virgile', Rev. Belge de Phil., X (1931), 909-929.
3. R. Billiard, 'L'agriculture dans L'antiquite d'apres les Georgiques de Virgile.' Paris, 1928.
4. L.A. Savastano, Studi Virgiliani, Acireale, 1931
5. Theophrastus (C.P. 3.25) merely refers to the importance of exposing the soil to the influence of heat and cold (ὄρος ἡλιασθῆ καὶ χειμασθῆ). M. E. de St. Denis, Virgile, Georgiques Paris, 1956, p.4, n 1, thinks that V. is here giving an amusing misinterpretation of Theophrastus. If V's comment is to be taken as specific rather than general, the crucial point is whether the poet is doubling two separate things (sol and frigus), or doubling a 'doublet' (sol/frigus). I incline to the latter interpretation - i.e. that Virgil is describing two ploughings in the spring.
6. Jethro Tull, The Horse-Hoeing Husbandry, London, 1828. 129 f.
7. This is the basis of 'dry farming' as recommended by the Roman authorities (e.g. Colum. 10.150 ff., 11.3.10; Pallad. 1.34.2). It is still the practice in southern Italy, North Africa, and in many other arid and semi-arid areas.
8. Adam Dickson, The Husbandry of the Ancients, vol. i. 394. Edinburgh 1788.
9. Virgil, Georgica, ed. w. comm. by W. Richter. München, 1957, 131 ff. F. Klingner, in Fondation Hardt, Entretiens t.ii Geneve, 1953, 140 ff (on the Greek sources).
10. On Lucretian echoes in the Georgics E. Paratore. 'Spunti Lucreziani nelle Georgiche', Atene e Roma, 41.4 (1939), 171-202.
11. 'The only benefit derived therefrom would be a small amount of potash: in the long run it would impoverish the soil': L.A.S. Jermyn, The Singing Farmer. Oxford, 1949, n. to v 99.
12. Hier kann also nicht von lukrezischer oder hesiodeischer oder alexandrinischer "Schule" gesprochen werden, sondern das Neue, das daraus geworden ist, ist nicht weniger persönlich virgilisch, als die Musik des Klassizisten Brahms: durchaus persönlich brahmsisch ist" (W. Richter, op.cit. (n.9), 9).
13. Georgiques, ed. E. de St Denis Paris, 1956 Intro. XV).
14. See L.P. Wilkinson, 'The intention of Virgil's Georgics', Greece and Rome, vol. 18, 55 (1950), 19 ff; W. Richter, Georgica, p.6, n. 21. regards this

view as generally accepted: 'Das Virgil nicht für den Landmann, sondern für ein kunstsinniges, hochgebildetes Lesepublikum schreibt, darf heute als communis opinio gelten'.

15. See P. van de Woestijne, 'Varron de Reate et Virgile', Rev. Belge de Philol X, 1931 909-929. E. de St Denis, Georgiques... Introd. xxix ff. provides excellent illustrations of the way in which the poet gives life to the pedestrian descriptions of Varro.

V.S. Lectures, No. 85

THE ROLE OF THE SIXTH BOOK IN THE AENEID

A lecture delivered to the Virgil Society

20th January 1968

by W. A. Camps, M.A.

In bringing Aeneas to Cumae in the sixth book of the Aeneid Virgil follows what was evidently an already existing version of the travels of the Trojans on their way from Troy to Latium. But what remarkable, if accidental, opportunities the tradition of a halt at Cumae offered to his invention. As home of a Sibyl it gave occasion for prophecy, so convenient to Virgil's design of relating his story of a mythical past to the course of later Roman history up to his own time; and an opportunity further to evoke by anticipation a particular organ of prophecy that was characteristic of the Roman state - the celebrated Sibylline Books. Furthermore, the presence nearby at Avernus of a supposed entry to the world of the dead made it possible to associate with the prophetic motif an episode corresponding to one of the most remarkable episodes in the Homeric poems - the visit of Odysseus to the world of the dead in the eleventh book of the Odyssey. Nor was this all. It happened that Cumae was in a neighbourhood personally familiar to Virgil from his frequent spells of residence at nearby Naples. And it was further charged with memories of events in recent history, and those of a moving and exciting nature: for here had been the base of Octavian's naval forces in the war with Sextus Pompeius; the scene, too, of a momentous conference between the rival leaders and later of a disastrous battle. One may truly feel that the legend has been kind to the poet in bringing his hero to this particular place at the very moment when he is about to reach his journey's end and the Trojan remnant are to find a new home in Italy and there lay the foundations of the Roman race.

The first 264 lines of the book are occupied with preliminaries - Aeneas' interview with the Sibyl, the discovery of the death of Misenus (required, we recall, by the legend) and his burial, the finding of the mysterious Golden Bough which marks Aeneas as a man of destiny, and the sacrifice to the gods of the underworld which immediately precedes the hero's entry into the underworld itself. The rest of the book, 647 lines, relates the successive stages of his experience as he passes through the habitations of the dead.