'*DISCITE … AGRICOLAE*': MODES OF INSTRUCTION IN LATIN PROSE AGRICULTURAL WRITING FROM CATO TO PLINY THE ELDER*

I. INTRODUCTION

The aim of this article is to trace the development of the use of second-person imperatives and other second-person forms of instruction in Latin prose writings on agriculture from the elder Cato, via Varro and Columella, to the elder Pliny. There are different ways of telling someone how to do something, in Latin just as in English. In Latin, one of the commonest ways is to use second-person verb forms (particularly the imperative, present or future, but also the jussive subjunctive, or expressions such as *debes* with the infinitive). There are also various impersonal forms of instruction (including gerundive expressions and third-person jussive subjunctives, particularly impersonal passive ones); and first-person forms are available too (e.g. 'we do so and so', or 'let us do so and so'). The use of imperatives and other forms of imperatival in some Latin didactic texts has been examined in an important paper by Roy Gibson, to which Alison Sharrock has given a detailed response.[1] Gibson's paper investigates differences between Latin didactic texts in verse and in prose in respect of the kind of imperativals or directives that they use. He seeks to show that, broadly speaking, didactic prose texts apart from Cato tend to prefer *impersonal* forms of directive that avoid direct address to the reader, such as third-person verbs (particularly passive forms), gerundives and impersonal verbs; whereas, by contrast, Cato and most of the didactic poets tend rather to use more *personal* forms of directive, including second-person imperatives and other second-person verbs.

Gibson then raises the question of why literary prose, unlike didactic poetry, should tend to avoid direct forms of imperatival, and he makes several suggestions, which may be divided into two groups: stylistic considerations and considerations about the social status of the addressees. On the stylistic side he suggests that the directness of second person address perhaps seemed unsophisticated (78) – for he argues that the use of personal forms of directive is a more popular kind of instruction, closer to conversation; and he points out that the passive forms favoured by the prose writers were associated more with educated language than with common speech.[2] As for social status, he suggests (78–9) that the impersonal forms provided

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[1] R.K. Gibson, 'Didactic poetry as "popular" form: a study of imperatival expressions in Latin didactic verse and prose', in C. Atherton (ed.), *Form and Content in Didactic Poetry*, Nottingham Classical Literature Studies 5 (Bari, 1997), 67–98; A. Sharrock, response, '*Haud mollia iussa*', in ibid., 99–115.

[2] One could also make the same point about gerundives. On the status of the gerundive and the passive in directives, see J.N. Adams, *Pelagonius and Latin Veterinary Terminology in the Roman Empire* (Leiden, 1995), 197–8, 460–8.

a strategy for dealing with elite readers who were not going to be carrying out the instructions themselves, but would leave that to slaves and subordinates. A second-person verb, and particularly an imperative, could suggest that the elite reader was going to perform the action, but the more impersonal types of directive focus on the action itself rather than the agent, and make it easier to imagine a subordinate performing the action.

The present article will show that the relationship between Cato and later agricultural writing is more complex than that allowed for by Gibson's model, and that his suggestions about why prose writers tend to avoid personal forms of instruction fit some authors better than others. The scope of this article is clearly different from Gibson's paper, for, in the first place, he looks at a selection of didactic texts on philosophy, agriculture and medicine;[3] here the focus will be entirely on writers on agriculture – but, for the sake of comparison, in the case of Varro, his *De lingua Latina* will be examined alongside his *De re rustica*, and, in the case of Pliny, the non-agricultural books alongside the agricultural ones. Secondly, Gibson looks systematically at all kinds of imperatival or directive, but my concern is principally with the presence or absence of second-person directives, though some reference will be made to other kinds of directive. Thirdly, Gibson samples the writers he selects, but I have surveyed the entire works of my selected writers; this brings to light some significant differences within the works of the same author.[4] Fourthly, Gibson's main concern is to make a broad contrast between prose and verse didactic writers (with Cato siding with the verse writers), but I am considering only prose, and shall show that there are more differences between different prose writers than Gibson allows for. This conclusion is in line with one of the main emphases of Gregory Hutchinson's recent article on didactic poetry and prose, which, though it is not concerned with the same questions as Gibson and I are, shows that in various other respects the relationship between prose and verse didactic has often been oversimplified, and in particular that the differences between the various prose writers, and also between the various verse writers, can be just as striking and significant as the broad differences between verse and prose didactic.[5]

Another difference between Gibson's paper and mine is in the way that we present our results. I usually give average numbers of occurrences per 1000 words (or sometimes total numbers of occurrences), which facilitates comparison between the frequency of usage in different authors. Gibson, in contrast, expresses the number of, for example, second-person imperatives or imperatives in *–to* as a percentage of the total number of imperativals of all kinds found in the work in question (including first- and third-person expressions, gerundives and impersonal verbs such as *oportet*).[6] His methodology is challenged in the discussion of his paper by Sharrock, who points out that, in several of his categories – particularly third-person indicative statements – the identification of expressions as imperativals

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[3] The prose works examined by Gibson, and the sample he takes, are as follows: Cicero, *De officiis*, Book 1; Varro, *De re rustica*, Book 1; Celsus, Book 8; Scribonius Largus, chs. 1–96; Columella, *De re rustica*, Book 3.

[4] The picture that Gibson presents has to be modified in respect of Columella, for he uses Book 3 as a sample but, as Table 6 below shows, Book 3, which contains no second-person imperatives or imperatives in *–to*, is not representative of the work as a whole.

[5] G. Hutchinson, 'Read the instructions: didactic poetry and didactic prose', *CQ* 59 (2009), 196–211.

[6] See Gibson (n. 1), 72–3.

is an act of interpretation by the reader, and that different readers may interpret the same sentence differently.[7] Gibson offers a vigorous defence of his criteria for identifying imperativals,[8] but the fact remains that there will always be cases that can be disputed.[9] Despite such problems, he does provide important information about a wider range of imperativals than I cover.

II. USE OF THE SECOND PERSON:
THE OVERALL PICTURE

Second-person verb forms are used not only for instructions but for various other purposes, so Table 1 sets the use of imperatives in the context of the whole range of uses of the second person in the authors under discussion. The second column of the table gives the average number of vocatives per thousand words of text. Then the third column gives the average total number of second-person words per thousand words, and the remaining columns divide this number into various categories (pronouns and possessive adjectives, main verbs, jussives, imperatives[10] and verbs in subordinate clauses). I have attempted to count these, and vocatives as well, throughout the whole of each work being considered here. Occurrences within quotations from other authors or within direct speech are not counted,[11] nor do I count places where Varro in the *De lingua Latina* mentions or talks about a word or phrase (places where English would put the word or phrase in inverted commas). I make no claim that these figures are entirely accurate: I am bound to have missed some relevant words, so that some of the figures will be too low; and there are also occasional textual problems that make it uncertain whether a particular word is second-person or not. But none of my argument depends on the absolute accuracy of the figures, because some of the contrasts between the different writers are so marked that the broad picture will not be affected by modest adjustments to the figures.[12] It should also be pointed out that these average figures take no account of the distribution of the forms within a work: five second-person words in a single sentence count just the same as five words distributed across

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[7] Sharrock (n. 1), 101–2.

[8] See Gibson (n. 1), 75–7, on distinguishing descriptive and implicitly prescriptive third-person indicative statements.

[9] There are other problems with the project of counting all the imperativals in a work. Suppose that in one author we find one sentence containing five second-person imperatives, and in another author a sentence containing *oportet* followed by five infinitives, all conveying essentially the same instructions as the five imperatives. Do we count the former as five imperativals and the latter as one? Intuitively that would seem perverse. Or do we count each infinitive phrase as a separate imperatival? But in that case, should we count, for example, participial phrases or subordinate clauses as separate imperativals if they effectively convey an additional instruction? If we do, we again find ourselves relying on the reader's interpretation of the sentence. On participles expressing an instruction, see e.g. Adams (n. 2), 471–2.

[10] Imperatives in *–to* are not included in this figure, for reasons that will be given below.

[11] This refers to direct speech within historical anecdotes and in similar contexts. However, in the case of Varro's *De re rustica*, which is a dialogue, I do count the second persons in the speeches of the dialogue (unless they occur within direct speech within the speech).

[12] Another source of inaccuracy is the fact that, although I do not count words within quotations and direct speech, the word counts for each author that I have used to calculate the rate per thousand words are taken from the BTL CD-ROM, and do include quotations and direct speech. Again this does not affect the broad picture.

TABLE 1: Vocatives, second-person forms and imperatives in -to (average occurrences per 1000 words)[a]

Work	Vocatives	Average number of all 2nd person words	Pronouns, possessive adjectives	Main verb	Jussive	Present imperative	Subordinate verb
Cato	0	27.0	0.9	1.7	1.6	1.9	20.8
Varro, *L.*	0	1.6	0.2	0.5	<0.1	<0.1	0.9
Varro, *R.*[b]	0.7	10.7	2.5	1.1	0.1	0.9	6.2
Liber de Arboribus	0	29.3	0	5.3	1.0	1.0	22.1
Columella, *De re rustica*[c]	0.2	4.7	0.1	1.0	0.1	0.3	3.3
Pliny[d]	<0.1	0.3	0.1	0.1	<0.1	<0.1	0.1

[a] In this and subsequent tables, figures are rounded to one decimal place, and anything less than 0.1 is simply given as <0.1.

[b] These figures include second-person plurals (which are fairly frequent in the dialogue sections), one of which is the Greek imperative χαίρετε.

[c] Here and in subsequent tables, unless otherwise stated, the verse of Columella Book 10 is not included in the statistics.

[d] The figures include a few second-person plural forms, which will be mentioned below.

widely separated sections of the text. In some cases the distribution within an author is particularly uneven, but attention will be drawn to this in section III below.

The third column of Table 1 shows great variation between different authors in the frequency with which they use second-person words, ranging from over 25 per 1000 words (or more than 1 occurrence in every 40 words) in Cato and the *Liber de Arboribus*, to less than one per 1000 words in Pliny.

It is now time to look more closely at the practice of the individual writers and their individual works.

III. THE INDIVIDUAL WORKS

Cato, De agricultura

The relevant aspects of Cato's practice in conveying instructions have already been described in detail by other scholars, and so may be reviewed fairly briefly here.[13] Though there is no dedicatee in his *De agricultura*, throughout the work Cato adopts a direct, personal style, with frequent use of the second person, as Table 1 shows. But in his case we also have to take into account his frequent use of imperatives in –*to*, and these require some discussion. Their frequency in the authors under discussion is given in Table 2, column 3; column 2 reproduces the figures for second-person words already given in Table 1.

[13] See H. Vairel-Carron, *Exclamation: ordre et défense: analyse de deux systèmes syntaxiques en latin* (Paris, 1975), particularly 281–303; the range of ways in which Cato expresses commands was also surveyed, independently but in less detail, by M. G. Lopatina, 'Способы выражения прнказания в трактате Катона "De agri cultura" [Means of expressing instructions in Cato's treatise *De agricultura*]', *Voprosy Klassicheskoi Filologii* 6 (1976), 209–25. (I am grateful to Jill Hutchinson for help with translating this article.)

TABLE 2: Imperatives in -to (average occurrences per 1000 words)

Work	Total number of 2nd person words	Imperatives in -to
Cato	27.0	78.4
Varro, *L.*	1.6	<0.1
Varro, *R.*	10.7	0
Liber de Arboribus	29.3	39.2
Columella, *De re rustica*	4.7	4.6
Pliny	0.3	0.1

Originally the imperative in –*to* (the future imperative) was used to issue an instruction that did not require immediate obedience, as opposed to the present imperative, which did require immediate implementation. The imperative in –*to* can have either a second-person or a third-person subject (or no expressed subject), and can have a dependent subordinate clause containing either a second-person or third-person verb or pronoun, and so these imperatives are often classified as second-person imperatives or third-person imperatives.[14] So, for example, Vairel-Carron analyses the contexts in which these imperatives occur in Cato's *De agricultura*, and concludes that 976 are second-person, 69 are third-person and 205 are uncertain or debatable.[15] There has been discussion about whether there were separate second- and third-person imperatives in –*to* originally, and some have argued that originally, and still in Cato, the imperative in –*to* was an impersonal or apersonal imperative referring to a non-immediate future.[16] However, in the plural there was already a distinction between second and third person by Cato's day: Plautus uses the second-person plural imperative in –*tote* and the third-person plural imperative in –*nto*, and Cato, too, uses the latter.[17] This suggests that, by analogy, both authors would have differentiated between second and third person in the singular forms as well. Whatever view one takes of the origin and development of the –*to* imperative, however, the fact remains that in Cato there is a significant number of cases, and in some other authors there are a few cases, where there is nothing in the context to justify identifying the –*to* form as either second- or third-person.[18] Therefore, for present purposes, imperatives in –*to* are listed separately in Table 2, and a figure is given for all of them, whether the context contains second-person or third-person words or neither. As Table 2 shows, there are considerable numbers of imperatives in –*to* in the *Liber de Arboribus* and Columella as well as in Cato, and there are a few in some of the other writers.

To return to Cato, Vairel-Carron lists 31 second-person present imperatives and 11 second-person jussives, and there are over 20 other second-person main verbs;

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[14] Clear examples from Cato are, second-person, 143.1 (addressing the *uilicus* concerning the *uilica*): *si eam tibi dederit dominus uxorem, ea esto contentus*, and third-person, 146.3: *Emptor domino debeto et id satis dato.*

[15] Vairel-Carron (n. 13), 281–303.

[16] See R. Risselada, *Imperatives and Other Directive Expressions in Latin* (Amsterdam, 1993), 130–6; H. Rosén, Latine loqui: *Trends and Directions in the Crystallization of Classical Latin* (Munich, 1999), 114–19.

[17] In Plautus, for second-person plural see *Amph*. 507 *obseruatote*; *Bacch*. 703 *poscitote*, 712 *geritote*, etc. For third-person plural see *Poen*. 1281 *habento*. In Cato see *iuranto* in 144.2, 145.2, and *sunto* in 146.2, 146.3, 149.2 (all within the sample *leges* or contracts whose wording is given by Cato).

[18] See Vairel-Carron (n. 13), 285; examples include the series of imperatives in Cato chapters 55–8, where nothing indicates whether they are to be taken as second- or third-person.

TABLE 3: Third-person jussives and gerundive imperativals (average occurrences per 1000 words)[a]

Work	3rd singular jussive	3rd plural jussive	gerundive
Cato	11.7	2.1	<0.1
Varro, *L.*	<0.1	0	1.6
Varro, *R.*	0.3	<0.1	6.1
Liber de Arboribus	1.9	1.1	1.4
Columella, *De re rustica*	2.6	1.2	6.4
Pliny	0.3	0.2	0.5

[a] Only predicative uses of the gerundive in main clauses are counted, not other uses.

but the majority of the more than 400 second-person verbs occur in subordinate clauses, most of these being dependent on verbs in –*to*.[19] Vairel-Carron, contrasting Cato with legal texts, comments rightly that 'L'auteur s'adresse à un interlocuteur supposé qui, tout imaginaire et indéfini qu'il soit, n'en est pas moins une personne "tu"' (p. 287). Gibson argues that Cato's preference for active as opposed to passive or impersonal forms of imperatival, above all for imperatives in –*to*, brings him closer to the popular, spoken language than the more self-conscious treatises that he compares with Cato's.[20]

However, one may question whether the imperative in –*to* was ever intrinsically popular,[21] and one may point out that it is not just second-person imperatives that are more frequent in Cato than elsewhere. The second person is varied with other forms of imperatival, particularly imperatives in –*to* accompanied by third-person subject or subordinate clause, as noted above, and also third-person jussives; but there are no first-person plural jussives, and virtually no gerundive constructions. Third-person jussives are far more frequent in Cato than in the other authors being considered, as Table 3 shows, and though they lie outside the scope of this paper, they would need to be taken into account in any general characterization of Cato's instructional style.

Varro, De lingua Latina

This work is included for the sake of comparison with Varro's agricultural work. As Table 1 shows, in *De lingua Latina* Varro uses the second-person singular moderately often – not nearly as often as Cato or Columella but not as rarely as Pliny. The incipits and explicits, and external evidence, tell us that the extant books were dedicated to Cicero, though he is never named within the surviving

[19] The 31 present imperatives are listed in Vairel-Carron (n. 13), 287–8, who points out (288–90) that the present imperatives are clustered in chapters whose authenticity has been doubted on other grounds, though he is open-minded about whether these are later additions by Cato himself or by someone else. Second-person singular jussives are listed on p. 290.

[20] Gibson (n. 1), 83–7.

[21] Gibson, in his commentary on Ovid, *Ars Amatoria* 3 (Cambridge, 2003), 180–1 on 3.207 *petitote*, discussing the fact that didactic poets use the normal imperative frequently but the imperative in –*to* rather rarely, tentatively suggests that this could be because the latter seemed a little archaic; but he notes also that the author of the *Commentariolum Petitionis* makes regular use of the imperative in –*to*. See also n. 93 below.

text.[22] The work is entirely different in character from Cato's, since it is not an instructional text but an analytical, and sometimes polemical, discussion of features of the Latin language. There are over fifty second-person verbs, of which nearly a third are main verbs, and many of these address the reader *qua* reader. This is clear in the case of the only two imperatives in the work, which tell the reader to notice or pay attention to something:

His discretis partibus singulas <u>perspice</u>, quo facilius nusquam esse analogias quas sequi debeamus uideas.   (8.47)

In quo <u>animaduertito</u> natura quadruplicem esse formam, ad quam in declinando accommodari debeant uerba.   (9.37)

We may note that Varro is happy to use either present imperative or imperative in *–to* in an instruction to the reader. He also uses future indicative main verbs to tell the reader how to react, for example:

In nullo horum analogiam seruari <u>uidebis</u>.   (8.53)

Quae cum inter se tanta sint cognatione, <u>debebis</u> suptilius audire quam dici expectare, id est cum dixero quid de utroque et erit commune, <ne> expectes, dum ego in scribendo transferam in reliquum, sed ut potius tu persequare animo.[23]   (10.40)

Sometimes, also, second-person questions appeal directly to the reader, seeking the reader's assent, for example:

An non <u>uides</u>, ut Graeci habeant eam quadripertitam, unam in qua sint casus, alteram in qua tempora, tertiam in qua neutrum, quartam in qua utrumque, sic nos habere? Ecquid uerba <u>nescis</u> ut apud illos sint alia finita, alia non, sic utra<que> esse apud nos?[24] (9.31)

These passages in which the reader is directly addressed are more numerous in Books 8–10, which are more argumentative and polemical, dealing with the anal-ogy–anomaly controversy, and so have more occasion to appeal to the reader to side with Varro.[25]

However, as Table 1 shows, the majority of the second-person verbs are in subordinate clauses, many of them, significantly, with an indefinite second-person singular subjunctive.[26] For example:

Mensium nomina fere sunt aperta, si a Martio, ut antiqui constituerunt, <u>numeres</u>: nam primus a Marte.   (6.33)

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[22] But the dedicatee is several times referred to with the second-person singular pronoun (5.1, 6.97, 7.109–10).

[23] The subjunctives *expectes* and *persequare* should probably be regarded as jussives – the latter introduced by *ut* as sometimes in early Latin. Alternatively, there is slight anacoluthon, and they are to be regarded as indirect commands, as though something like *cauere debebis* preceded.

[24] Cf. 7.3.

[25] See also 9.6, 9.100, 10.29, 10.39. In earlier books see 6.71, 7.2–3. In the last passage, near the start of the book, one might take the addressee to be the dedicatee, Cicero – as indeed one is at liberty to do elsewhere too – but nothing points to Cicero specifically.

[26] See further Table 8 below.

… sed quamuis tria sint simile dissimile neutrum, tamen potest diuidi etiam in duas partes sic, quodcumque <u>conferas</u> aut simile esse aut non esse … (10.5)

But the following general statement has indicative verbs:

Vetustas pauca non deprauat, multa tollit. Quem puerum <u>uidisti</u> formosum, hunc <u>uides</u> deformem in senecta. (5.5)

However, one could equally regard these second-person verbs as referring to the reader. In the works we are considering there is usually nothing in the specific context or general tone to invite one to draw a firm line between indefinite second persons and second persons referring to the reader.[27]

Varro, De re rustica

Since this work is in dialogue form, it is not directly comparable to the other works here under discussion, which are in treatise form; for a dialogue, by its very nature, involves direct address between the participants, and the authorial voice is not heard, unless there is an introduction or a narrative frame for the dialogue.[28] But the agricultural sections of Varro's work principally take the form of long speeches, which are similar in character to sections of a prose treatise, and it is illuminating to compare the use of second persons in these long speeches with their use elsewhere in the work, and with their use in the *De lingua Latina* and other works examined here.

One can distinguish three different components in the *De re rustica*. First, there are prefaces to each book, dedicating the successive books to Varro's wife, Fundania, to Fundanius Niger and to Pinnius. Then the dialogue proper may be roughly divided into, on the one hand, the conversational frame, in which the participants talk about the events of the day and various other topics unrelated to agriculture, and, on the other hand, the sections on farming. These sections, as just stated, often take the form of fairly long speeches that resemble sections of a treatise, though they also occasionally take the form of rapid dialogue with short speeches, which can merge gradually into the conversational frame. This means that occasionally it is arbitrary whether one classifies a particular passage as 'dialogue' or 'farming section'; such uncertainties affect only a small proportion of the text, however. Table 4 illustrates how the long speeches differ significantly from the rest of the dialogue in respect of the use of second-person imperatives and jussives (the prefaces do not appear here because they contain no imperatives or jussives).

We see that most of these direct instructions come in the conversational frame, and are instructions about speaking, or listening or other activities relevant to the

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[27] The distinction is clearer when the primary audience is plural, as in most oratory, where one occasionally finds examples such as the following from Cicero, where the second-person singular is not directed at a specific individual: *Sed est difficile, quod cum spe magna **sis** ingressus, id non exsequi usque ad extremum* (*Rab. Post.* 5); *Tum etiam ne tam necessarium quidem est male meritis quam optime meritis referre quod **debeas**. Odium uel precibus mitigari potest uel temporibus rei publicae communique utilitate deponi uel difficultate ulciscendi teneri uel uetustate sedari; bene meritos <ne> **colas**, nec exorari fas est neque ...* (*Red. Pop.* 22–3).

[28] Of course the author may also be a speaker within the dialogue, as Varro is in the *De re rustica*, but the voice of the author *qua* participant in the dialogue must for present purposes be distinguished from the voice of the author *qua* writer.

TABLE 4: Second-person imperatives and jussives in Varro, *De re rustica*

(a) Conversational frame:

(i)   instructions to the speaker(s): *deme* 2.1.26; *dic* 1.2.27, 1.9.7, 3.3.10, 3.5.8, 3.9.1, 3.16.11; *docete* 1.2.12, 1.3; *expone* 1.5.3, 3.2.18; *induce* 3.2.18; *narra* 2.5.2; *perge* 3.7.11; *reddite* 2.2.1; *transi* 3.10.1; *uide* 1.2.18, 2.1.25, 2.5.2.

(ii) instructions to the listeners: *accipe* 2.3.1; *audi* 3.16.3; *cognosce* 2.4.1; *disce* 2.3.1.

(iii) other instructions within the dramatic setting: *age* 3.2.17; *aperi* 1.56; *bono animo es(te)* 1.2.11, 1.26, 2.5.5; *expedi* 1.26; *recipe* 3.2.18; *ueni* 2.5.1; χαίρετε 2.5.1.

(b) Farming sections:

1.12.2 *uendas*, *relinquas*;[a] 1.42 *obserues*; 2.2.3 *obseruate* [*obseruant* Keil].[b]

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  [a] In fact these two words occur in a piece of rapid conversation, but I include them here since they deal with a farming matter.
  [b] On the text here, see below. There are also imperatives in the direct quotations from Saserna at 1.2.25 (*condito*, *infundito*, *unguito*), 27 (*medere*), but, as already stated, occurrences within quotations are not counted here.

dramatic setting, such as opening doors or getting things ready. In the farming sections, on the other hand, which are considerably longer, there is only a tiny clutch of such direct second-person instructions; Varro here prefers the impersonal forms of imperatival, as Gibson has shown.[29] There are also clear contrasts if one looks not just at imperatives and jussives but at all second-person verbs, pronouns and possessive adjectives. Table 5 analyses these (excluding the imperatives and jussives that are already listed in Table 4, and, as usual, excluding quotations). These figures show, unsurprisingly perhaps, that in the long speeches second persons are predominantly verbs in subordinate clauses, whereas in the prefaces and the conversational frame second-person pronouns and main verbs are much commoner. We should also note that there are no second-person plurals in the long speeches.

    From Table 4 we see that the participants in the dialogue show no reluctance to use direct imperatives for activities such as talking and listening, things that

TABLE 5: Varro, *De re rustica*: second-person pronouns, possessive adjectives and verbs, except imperatives and jussives (total numbers of occurrences)

Varro, *R.*	2nd person singular			2nd person plural		
	pronoun/adj.	main verb	subordinate verb	pronoun/adj.	main verb	subordinate verb
Prefaces	12	0	16	0	0	0
Conversational frame	62	22	54	9	6	14
Farming sections – long speeches	2	6	126	0	0	0
Farming sections – dialogue	3	2	10	0	0	1
Generalized[a]	0	0	2	0	0	0

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  [a] This refers to two passages with an indefinite second-person verb in a subordinate clause, where the subject-matter is nothing to do with farming: ... *ut est in aede Catuli, si pro parietibus feceris columnas* (3.5.12); *ibique eminens radius a cardine ad orbem ita mouetur, ut eum tangat uentum, qui flet, ut intus scire possis* (3.5.17).

  [29] Gibson (n. 1), 74.

Roman gentlemen spend their time doing, but there is a noticeable absence of imperatives when it comes to the details of farming. This, at first sight, is consistent with Gibson's suggestion that the social status of the audience is a factor in the avoidance of direct, personal imperatival expressions in instructions on farming.

But let us examine more closely the three passages that do contain direct second-person instructions about farming (Table 4, [b]):

'Istuc uel ego possum respondere', inquit Agrius: 'uendas, quot assibus possis, aut si nequeas, relinquas.' (1.12.2)

Here we notice, first, that this is from a section of rapid dialogue, where direct instruction is more common, and secondly, that it concerns selling farms, something in which landowners were directly involved. Another passage gives advice about sheep:

Esse oportet cruribus humilibus: caudis obseruate ut sint in Italia prolixis, in Syria breuibus. In primis uidendum ut boni seminis pecus habeas. (2.2.3)

Here Keil proposed altering *obseruate* to *obseruant*, referring to the use of *obseruant* later at 2.2.11,[30] and certainly the change to singular *habeas* in the next sentence is abrupt. But, even if *obseruate* is correct, ensuring that something happens is appropriate to the supervisory role of the landowner. However, the third passage, also involving *obseruare*, is different:

In primis obserues ne in terram nimium aridam aut uariam, sed temperatam, semen demittas. (1.42)

Here 'you' are doing the planting, *semen demittas*. Just a few lines later there is another example,

Illut quoque multum interest, in rudi terra, an in ea seras, quae quotannis obsita sit … (1.44.2)

There are numerous other passages where the 'you' in a subordinate clause is carrying out farming activities.[31] I give another couple of examples from earlier in Book 1:

Hoc licet coniectura uidere ex aliquot rebus, ut nuces integras quas uno modio comprendere possis, quod putamina suo loco quaeque habet natura composita, cum easdem, si fregeris, uix sesquimodio concipere possis. (1.7.3)

… in quibusdam est uidendum ut eo tempore sit deplantatum, quo oportet …; et quae de arbore transferas ut ea deplantes potius quam defringas … (1.40.4)

So, although there are very few second-person imperatives or jussives related to farming activity, there is not the same reluctance to use second-person singular

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[30] There are other parallels in Varro; see *TLL* 9.2.213.52–7, where Keil's *obseruant* is accepted.
[31] Gibson (n. 1), 77, n. 15, notes that second-person verbs are occasionally found after imperativals that are not second-person.

verbs[32] in subordinate clauses of various sorts to describe agricultural activities that one would not expect the land-owning participants in the dialogue normally to engage in themselves.[33] But the participants are all keenly interested in farming, and so to some extent are ready to speak as though they do the work themselves. Another indication of this is the occasional use of the first-person plural to mean effectively 'we farmers', with verbs describing basic farming activities; for example:[34]

Simili de causa, oleae semen cum sit nuculeus, quod ex eo tardius enascebatur colis quam ex aliis, ideo potius in seminariis taleas, quas dixi, <u>serimus</u>.   (1.41.6)

Hos [sc. asinos] <u>pascimus</u> praecipue faeno atque hordeo, et id ante admissuram et largius <u>facimus</u>, ut cibo <u>suffundamus</u> uires ad feturam, eodem tempore quo equos adducentes, itemque ut ineat equas per origas <u>curamus</u>. Cum peperit equa mulum aut mulam, nutricantes <u>educamus</u>.   (2.8.4)

No doubt it is understood in such cases that the hard work will in fact be done by farm workers; indeed this could be taken to be a sociative use of the first-person plural, implying 'we and our farm workers'.[35] However, as regards the use of the second person in the farming sections, we should also remember that the dialogue involves more than two participants, so that the speaker is at any moment imagined addressing two or more people, and therefore the generalizing nature of the second-person singulars is clear.

But we still have the apparent discrepancy between, on the one hand, Varro's readiness to use second-person verbs in subordinate clauses, and occasionally to use first-person plural verbs, of farming activities, and on the other, the comparative reluctance to use second-person imperatives and jussives, or indeed other kinds of second-person main verb. The explanation in terms of social status does not seem sufficient: if it can be understood that the work is actually done by farm workers when first-person plurals are used, why not with second-person imperativals also? One might wonder whether there are linguistic factors at work. One possibility worth considering is that Varro felt that the present imperative, demanding instant action, was appropriate to the dialogue sections, but inappropriate for general instructions about farming; but at the same time he felt that the imperative in –to, though applicable to instructions requiring non-immediate action, was too old-fashioned (see n. 21). However, there are reasons for doubting this. First, one might point out that an imperative in –to is found in the *De lingua Latina* (9.37 *animaduertito*, quoted above).[36] Secondly, there were other forms of second-person

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[32] Predominantly subjunctive, see Table 8 below.

[33] On the question of who does the hard work, *R.* 1.17.2 is plain: *Omnes agri coluntur hominibus seruis aut liberis aut utrisque: liberis, aut cum ipsi colunt, ut plerique pauperculi cum sua progenie, aut mercennariis, cum conducticiis liberorum operis res maiores, ut uindemias ac faenisicia, administrant, iique quos obaerarios nostri uocitarunt et etiam nunc sunt in Asia atque Aegypto et in Illyrico complures.*

[34] Occasionally first-person plural verbs are also used to refer to higher-level activities that the participants could be expected to do themselves, e.g. determining staffing levels (2.2.20), or keeping dogs (2.9.1), as well as buying and selling (2.5.10–11, 2.8.3).

[35] On this and other types of sociative plural see J.B. Hofmann and A. Szantyr, *Lateinische Syntax und Stilistik* (Munich, 1965), 19–21.

[36] No weight can be placed on the fact there is only one such imperative, because the work contains only one second-person present imperative too (*perspice* at 8.47, also quoted above).

imperatival that were definitely not old-fashioned and could be used instead of the imperative in –to – for example *debes* or *debebis* with infinitive, or second-person future indicatives of other verbs; but Varro does not use them either.[37] So maybe we should look for a stylistic explanation. Perhaps in the more formal context of the long speeches on farming the imperative and other direct second-person expressions seemed too blunt or colloquial, whereas they were acceptable in the cut and thrust of lively conversation between the participants. On the other hand, generalizing second-person singular *subordinate* verbs were acceptable in the long speeches.[38]

The Liber de Arboribus *and Columella,* De re rustica

The *Liber de Arboribus* (henceforth *Arb*.) is included in the manuscripts of Columella's *De re rustica* as the third book of a thirteen-book work, but a variety of internal evidence shows that it does not belong with the other twelve books; at some stage it was incorporated into the *De re rustica* as Book 3, and the subsequent books were then renumbered. *Arb*. has no dedicatee, but it was not originally the first book (see *Arb*. 1.1), so the original opening of the work could have contained a dedication. Much of the content is very similar to the content of parts of Books 3–5 of Columella's *De re rustica*, and sometimes whole chapters are almost word for word the same, so there is a close relationship between *Arb*. and Columella's work. But the date and authorship of *Arb*. are disputed: some scholars think that it is part of an earlier work by Columella, but others regard it as a later work closely based on Columella.[39] There is not space here to review all the arguments, so for present purposes I shall treat *Arb*. as a separate work of unknown date and authorship.

As Table 1 shows, *Arb*. uses second-person verbs very frequently (over 29 per 1000 words), slightly more frequently even than Cato. As Table 2 shows, there is also a large number of imperatives in –to, though these are not so frequent as in

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[37] *dicere debes* is used in conversation at 1.3.

[38] It may be said that this generalizing second-person singular in subordinate clauses was scarcely felt as a second-person utterance at all – it is sometimes said that it can be translated into English by the indefinite 'one'. However, one should note that some technical writers never, or hardly ever, use it: Vitruvius never uses any kind of second person outside his prefaces; in Celsus and Mela second persons of any kind are extremely rare. On this see H.M. Hine, 'Subjectivity and objectivity in Latin scientific and technical writing', in L. Taub and A. Doody (edd.), *Authorial Voices in Greco-Roman Technical Writing*, AKAN-Einzelschriften 7 (Trier, 2009), 13–30, at 23–30. Their reluctance contrasts with Varro's readiness to use generalizing second-person singulars, and suggests that the usage was not felt as totally impersonal.

[39] It was generally accepted as an early work of Columella until W. Richter, *Der liber de arboribus und Columella*, SBAW (Munich, 1972), argued that *Arb*. is later than Columella's *De re rustica*, and by another author. R. Goujard, 'Le *De Arboribus* de Columelle: problèmes de l'authenticité', *RPh* 53 (1979), 7–28, responded to Richter's arguments and defended the view that *Arb*. is an earlier work by Columella himself. G. Hentz, 'Le *De Arboribus*: oeuvre de jeunesse de Columelle ou compilation d'un anonyme?', in H. Zehnacker and G. Hentz (edd.), *Hommages à Robert Schilling* (Paris, 1983), 303–13, reviews the question, casts doubt on some of the arguments of both Richter and Goujard, and leaves the question open. T. Fögen, *Wissen, Kommunikation und Selbstdarstellung: Zur Struktur und Characteristik römischer Fachtexte der frühen Kaiserzeit*, Zetemata 134 (Munich, 2009), 157–8, accepts Richter's position and gives full bibliography. J. Henderson, 'Columella's living hedge: the Roman gardening book', *JRS* 92 (2002), 110–33, at 111–13, gives a clear account of how *Arb*. has been transmitted, and treats it as an early work of Columella's.

TABLE 6: Vocative, second-person singular, imperative in -to, and gerundive in Columella, *Rust.* (numbers of occurrences)

Book	Vocatives	2nd sing pron/adj.	2nd sing verb	2nd sing imper.	2nd sing jussive	Total 2nd sing. in -to	Imper.	Gerundive
1	2	0	5	0	0	5	1	21
2	2	1	31	0	1	33	14	53
3	5	6	17	0	0	23	0	25
4	4	0	26	1	1	28	10	115
5	2	3	105	13	0	121	113	52
6	2	0	22	1	0	23	16	72
7	1	0	17	1	0	18	7	74
8	1	0	9	0	1	10	0	67
9	2	1	22	0	1	24	1	47
10 (prose)	1	3	0	1	0	4	0	2
11	1	1	57	0	1	59	4	87
12	2	0	139	19	5	163	322	65
Arb.	0	0	171	6	6	183	244	9

Cato (and in *Arb.* most of these imperatives in –*to* are associated with second-person subordinate verbs, or occasionally with present imperatives). So there is something rather 'Catonian' about the style of *Arb*. But there are differences: Table 3 shows that *Arb.* uses gerundives in instructions much more frequently than Cato, but third-person jussives are much less frequent; and we shall see below (Table 7) that *Arb.*, unlike Cato, uses second-person indicatives as imperativals fairly often.

Columella's *De re rustica* (henceforth *Rust.*) is dedicated to P. Silvinus, who is regularly addressed in the vocative, both in the prefaces and within the books.[40] Book 10, which, apart from the preface, is written in hexameter verse, will not be considered in detail here. As Table 1 shows, Columella uses a modest number of second-person singular verbs of all kinds, 4.7 per 1000 words on average, which is more than Pliny or Varro in *De lingua Latina*, but markedly less than the other works we are considering. But, as Table 2 shows, he uses imperatives in –*to* far more frequently than either Varro or Pliny, though markedly less frequently than either Cato or *Arb*. As in *Arb.*, so in *Rust.* the majority of the imperatives in –*to* are associated with second-person subordinate verbs in the vicinity, or occasionally with present imperatives, but there is probably a series of third-person imperatives in –*to* at *Rust.* 4.24.7–8 (see below).[41]

[40] Vocative addresses to Silvinus: 1.pr.2, 1.1.15, 2.1.1, 2.2.1, 3.1.1, 3.3.14, 3.7.1, 3.8.1, 3.9.6, 4.1.1, 4.3.2, 4.3.5, 4.4.1, 5.1.1, 5.1.4, 6.pr.1, 6.pr.6, 7.1.1, 8.1.1, 9.pr.1, 9.16.2, 10.pr.1, 11.1.2, 12.pr.1, 12.59.5; also in the verse of Book 10 at lines 1 and 433. The verse of Book 10 also contains a number of vocative addresses to other people and deities.
[41] Also third-person *esto* is used in *Arb.* 19.2, and several times in the instructions on calculating areas in *Rust.* 5.2.5–3.1; and at 6.2.7 the series of imperatives should perhaps be interpreted as third-person, with *domitor* understood as subject from the previous sentence.

TABLE 7: Second-person indicative imperativals in Columella, *Rust.*

Book	Total number of second-person indicative main verbs	Number of imperativals
1	0	0
2	2	0
3	4	0
4	3	1
5	28	15
6	1	1
7	5	5
8	0	0
9	11	8
10 (prose)	0	0
11	5	2
12	37	32
Arb.	33	26

However, the average figures for *Rust.* as a whole are misleading, because they conceal wide disparities between the individual books, as Table 6 illustrates.[42] These are total numbers of occurrences, and allowance must be made for varying lengths of books. Nevertheless, Books 5 and 12 stand out from the other books of *Rust.*: both have well over a hundred second-person forms in total (seventh column), though Book 11 comes not too far behind with 59; and the number of imperatives in *–to* in Books 5 and 12 (eighth column) is vastly more than in any of the other books. They are in the same league as *Arb.* when it comes to second-person forms and imperatives in *–to*.

Another feature of Books 5 and 12 is that they contain the majority of one particular category of second-person main verbs, namely imperatival second-person indicatives. Columella and *Arb.* are the only works of those being considered here in which this usage is at all frequent.[43] Of course identification of indicatives as imperativals is not always straightforward (see pp. 625–6 above), but many cases in Columella are clear enough, e.g. in 5.2–3 where *multiplicabis*, *multiplicato* and *oportebit multiplicare* occur in precisely similar contexts, in the instructions on calculating areas.[44] Table 7 gives my count of the number of such imperativals in each book of *Rust.*, and shows that, as with imperatives in *–to*, the largest numbers are in Books 5 and 12.[45] In *Arb.* they are also relatively common, 26 out of a total of 33 second-person indicative main verbs being imperativals.

Another feature shared by Books 5 and 12 and *Arb.* (and this one, unlike indicative imperativals, is also shared with Cato) is a tendency to prefer the indicative of the second-person singular to the subjunctive in subordinate clauses where the

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[42] There are no second-person plurals in the prose books, but the verse of Book 10 contains 3 second-person plural pronouns and 23 verbs, of which 20 are imperatives.

[43] In the other authors, I would count only the following future indicatives as imperatival, and some of these could be classified differently: Cato 90 *depses*, 103 *facies*, 132.1 *facies*; Varro *R.* 1.44.1 *obseruabis*; Pliny praef.4 *imputabis*, *ignosces*.

[44] *multiplicabis*: 5.2.3, 5.3.3; *multiplicato*: 5.2.5, 5.2.6, 5.2.7 (bis), 5.3.2; *oportebit multiplicare*: 5.2.8; note also 5.2.4 *multiplicabimus*; 5.2.10 *multiplico* (at 5.2.6 and once in 5.2.7 *multiplico* is a variant for *multiplicato*).

[45] The vast majority are future tense, with the exception of 12.34 *mittis*, *decoquis*.

TABLE 8: Indicative and subjunctive in indefinite second-person subordinate clauses

Work	Indicative	Subjunctive	Verb in *-eris*
Cato	157	12	77
Varro, *L.*	2	24	10
Varro, *R.*	1	36	30
Arb.	47	2	45
Columella, *Rust.*	48	66	155
Pliny	1	18	3

subject is indefinite. In some types of conditional, temporal and relative clause with an indefinite second-person verb, the writer may use either indicative or subjunctive: contrast, for instance, Cato, *Agr.* 99, *Fici aridae si **uoles** ut integrae sint, in uas fictile condito*, and 101, *Sed ea, quae demissurus **eris**, sumito paulo acerbiora*, with Varro, *Rust.* 3.9.6, *Si ducentos* (sc. *gallos*) *alere **uelis**, locus saeptus adtribuendus*, and 2.2.13, *Arietes, quibus **sis** usurus ad feturam, bimestri tempore ante secernendum et largius pabulo explendum*. Table 8 attempts to give figures for the numbers of indicatives and subjunctives of such types found in the works under consideration. I have excluded passages where the subject is not indefinite (i.e. prefaces addressed to the dedicatee; the dialogue sections of Varro's *De re rustica*, where a specific interlocutor is addressed; and passages of apostrophe in Pliny, on which see p. 645 below); and I have excluded passages where the subjunctive may be otherwise explained (e.g. as expressing purpose in a relative clause or a *dum*-clause, or as subordinate to virtual indirect speech). Also, since forms such as *amaueris* can be either future perfect indicative or perfect subjunctive, they are counted separately, to avoid any question-begging decisions on whether individual instances are indicative or subjunctive. Sometimes the text, or the interpretation of the syntax, is uncertain, but as usual it is the broad picture and the main contrasts that are important, even if individual figures are not entirely accurate.

　　When we examine the second and third columns of Table 8, the differences are quite clear: Cato and *Arb.* overwhelmingly prefer the indicative; Varro, in both works, and Pliny overwhelmingly prefer the subjunctive; and Columella's *Rust.* comes somewhere in between, with a preference, but a far less marked one, for the subjunctive. However, there are again differences between the individual books

TABLE 9: Indicative and subjunctive in indefinite second-person subordinate clauses in Columella

Book	Indicative	Subjunctive	Verb in *–eris*
1	0	1	1
2	5	10	7
3	0	6	2
4	0	4	14
5	19	0	37
6	0	16	3
7	0	4	6
8	0	7	1
9	1	3	5
10	0	0	0
11	7	11	17
12	16	4	62
Arb.	47	2	45

of *Rust.*, as Table 9 shows. Here we see that again Books 5 and 12 stand out from the rest: they both have a clear preponderance of indicatives, as does *Arb.*, whereas other books all have a majority of subjunctives (though Books 2 and 11 also have a significant minority of indicatives).

Why are there these differences between different books of the *Rust.*, and in particular why do Books 5 and 12 stand out from the rest? Part of the explanation lies in the subject matter of these two books. They both contain long series of detailed, step-by-step instructions. Book 5 starts with instructions for calculating the areas of fields of different shapes and the numbers of plants needed for a field of a given area (chapters 2–3); later in the book there are detailed instructions on the cultivation of various kinds of tree (chapters 5–12). Book 12, from chapter 5 onwards, is largely made up of recipes for making vinegar, brine, wine and other things, and with instructions for pickling, preserving and other household tasks, all to be carried out by the *uilica*, the bailiff's partner. With lists of instructions it is natural to find a lot of imperatives and second-person indicative imperativals. By contrast, some other books do not contain similar lists of instructions. For instance, in Book 1, the first chapter discusses earlier writers on agriculture, later chapters contain a lot of advice on choosing a farm (chapters 2–4), the importance of water supply (chapter 5), farm buildings (chapters 6–7) and choosing and managing farm workers (chapters 8–9); but Columella's argument and recommendations are too subtle to be reduced to a series of direct instructions. Book 3 is about vines, but there are stretches of description (e.g. chapter 2 on varieties of vine, chapter 3 on whether vine-growing is profitable), and Columella is frequently arguing a case, exposing prevalent misconceptions or justifying his own preferences or procedures (so that, for instance, in 3.10.22 he apologizes for the lengthy argument he has included). This concern to argue, to justify his opinions rationally, is one of the characteristics of Columella's work.[46]

But this cannot be the whole story, for there are other sections of the work that contain a lot of detailed instructions but do not use nearly as many second-person verbs, and especially not as many imperatives, as Books 5 and 12. Thus Book 4 has a lot of detail on growing vines, Books 6 and 7 on rearing animals, Book 8 on birds and fish, Book 9 on wild animals and bees,[47] and Book 11 on the tasks to be done during each month of the year, and on gardening.

In Book 5, which has the largest number of second-person singular verbs and imperatives after Book 12, they are mostly clustered in two sections of the book: first, in the fairly brief section on calculating areas (chapters 2–3), there are 18 second-person singular verbs, of which 11 are imperativals, plus 10 imperatives, all in *–to*;[48] secondly, in chapters 10–12, which is roughly the last quarter of the book, there are 12 second-person singular present imperatives, 62 other second-person singular verbs (of which 4 are imperativals), and 92 imperatives in *–to*. In the first section, it is natural enough that Columella should use imperatives and

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[46] See, for instance, Richter (n. 39), 64–83; E. Noé, *Il progetto di Columella: profilo sociale, economico, culturale* (Como, 2002), particularly 151–85; Fögen (n. 39), 152–200.

[47] Notice the figures for Book 9 in Table 7.

[48] This figure does not include six occurrences of third-person *esto*, and I am ignoring *ut puta* at 5.2.4, where *puta*, 'for example', has lost its imperative force; on this usage see Hofmann and Szantyr (n. 35), 339. The usage first appears in Horace, *Sat*. 2.5.32, but J. Wackernagel, *Vermischte Beiträge zur griechischen Sprachkunde* (Progr. Basel, 1897), 24–5, argues that it must have been much older.

second-person future indicatives, among other constructions, in the instructions for
calculating areas. The second section, chapters 10–12, stands out as the only place
where a long stretch of the text of *Rust.* is verbally very close to the text of *Arb.*,
chapters 19–28: much of the text is more or less word for word the same, with
minor changes of vocabulary or phrasing that make no difference to the sense,
and with the occasional minor divergence of substance.[49] The striking density of
imperatives in these chapters of *Rust.* corresponds almost exactly to what we find
in *Arb.* Sometimes a different verb is used,[50] occasionally an imperative in *Arb.*
corresponds to an indicative in *Rust.*,[51] occasionally there is a difference of person,[52]
and once *Rust.* has an imperative that is not in *Arb.*[53] This section of *Rust.* also
mirrors the practice of *Arb.* in the matter of the preference for second-person
indicatives in subordinate clauses.[54]

Columella Book 12, as has been stated, has the greatest concentration of sec-
ond-person verbs, including imperatives, in its recipes. The book was clearly an
afterthought to the work as a whole, since Book 11 ends with a list of the contents
of the first eleven books.[55] Columella may, for all we know, closely follow the
wording of some unknown earlier source or sources in Book 12; or the imperatives
and second-person indicative imperativals may have been traditional in recipes.[56]

All the other books of *Rust.* contain some second-person forms, and most of
them contain some imperatives, but never in the same concentration as we find in
Books 5 and 12 or *Arb.* It is well established that Columella is fond of *variatio* of
all kinds, and he uses a variety of ways of giving instructions, including second-

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[49] See the discussions in Richter (n. 39), 22–6; Goujard (n. 39), 15–25. The notes in Goujard's
Budé of *De Arboribus* (Columelle, *'Les Arbres'*, ed. R. Goujard [Paris, 1986]) chart the paral-
lels in detail.

[50] E.g. *Arb.* 19.1 *incendito*/5.10.3 *calefacito*; *Arb.* 20.1 *sumito*/5.10.6 *eligito*; etc. At 5.11.14–15
a series of eight present imperatives (from *relinque* onwards) corresponds to imperatives in *–to*
in *Arb.* 27.3–4.

[51] E.g. *Arb.* 19.1 *scrobes fodito*/5.10.2 *scrobem fodies*; *Arb.* 26.4 *figito*/5.11.5 *inseres*.

[52] *Arb.* 19.1 *hoc erunt laetiores uberioresque fructus*/5.10.3 *laetiores uberioresque fructus per-*
cipies; *Arb.* 26.4 *quae ... facta sunt*/5.11.5 *quae ... feceris*; *Arb.* 27.4 *inseritur*/5.11.15 *inseres*.

[53] *Arb.* 26.9 *... bene uincito ita ne laedas*/5.11.11 *... bene alligato, cauetoque ne laedas ...*

[54] Of the nineteen subordinate clauses with indicative verb in Book 5 (see Table 9), two occur
in chh. 2–3, and sixteen in chh. 10–12. In fourteen of these sixteen cases *Arb.* has the identical
verb, and in the other two cases a different indicative verb: *Arb.* 26.2 *sumpturus es*/5.11.3 *sumes*;
Arb. 26.8 *quam arborem inserere uoles*/5.11.10 *arboris quam emplastraturus es*.

[55] 11.3.65 promises such an index. The manuscripts contain a table of contents after Book 11,
but this cannot be the table given by Columella himself because it includes *Arb.* It is disputed
whether the surviving table incorporates Columella's original, or is a later production; Hentz (n.
39), 305–6, briefly reviews the question, with bibliography; see Henderson (n. 39) for detailed
discussion of the twelve-book structure of *Rust.*

[56] We do not have much evidence of what the traditional form of recipes may have been. The
practice of the much later cookery book attributed to Apicius is different: it uses predominantly
second-person singular present and future indicatives, which are also found in Columella, as we
have seen; but Apicius uses imperatives much less often, and the ordinary imperative more often
than the imperative in *–to* (ordinary imperative: 43 occurrences; imperative in *–to*: 8). On the
imperatival use of the indicative in the work, see O. Soffriti, 'Indicativus pro imperativo', *Studi
Pubblicati dell'Istituto di Filologia Classica di Bologna* 13 (1963), 55–95, at 77–8. Apicius'
usage fits in with the gradual disappearance of imperatives in favour of second-person indicatives
in later Latin: see L. Löfstedt, *Les expressions du commandement et de la défense en latin et
leur survie dans les langues romanes* (Helsinki, 1966), 143–83; Adams (n. 2), 460–2. Therefore
one cannot take Apicius as indicative of the practice of earlier writers in the field.

person indicatives, gerundives, third-person and passive constructions.[57] There is some variety in *Arb.*, but there is also the marked preponderance of imperatives in *–to* that has been noted already. It seems that Columella in *Rust.* used a much more varied range of styles of instruction than we have found in Cato, Varro or *Arb.*, and as part of the mix he was willing to include intensive use of the imperative in *–to* for long stretches of the work.

Columella provides a good testing ground for the hypothesis that the social status of the person expected to perform the actions may affect the form of instruction used. His dedicatee, P. Silvinus, is a friend and social equal, who shares a strong interest in farming. Can we detect any tendency to use the second person for things that Silvinus could be expected to do himself and to avoid it for things his slaves or employees would do? Some features of the work might be thought to indicate such a tendency. Columella regularly gives instructions on jobs to be carried out by specialist farm workers: scattered throughout the work we find descriptions of the duties of the *arator* (e.g. 2.16.1), *bubulcus* (e.g. 2.2.25), *curator* (e.g. 8.11.2), *custos* (e.g. 7.9.10), *domitor* (6.2.2, 6), *fartor* (8.7.1), *fossor* (e.g. 3.15.2), *opilio* (e.g. 7.3.13), *pastor* (e.g. 7.3.14), *putator* (e.g. 4.17.5), *sator* (3.15.3), *uinitor* (see below) and others. Particularly interesting for our purposes are the instructions about how the vine-dresser is to prune the vine at 4.24.7–9, which is here set out in parallel with *Arb.* 10.1–2:

Arb. 10.1–2 **Plagas autem rotundas** facito**, nam celerius cicatricem ducunt. (2) Sarmenta lata, uetera, male nata, contorta, omnia haec** praecidito**; nouella et fructuaria et interdum subolem idoneam, si iam superficies parum ualebit,** submittito **brachiaque** conseruato**.** Quam celerrime <u>poteris</u> putationem <u>perficito</u>. Arida et uetera, falce quae amputari non possunt, acuta dolabra <u>abradito</u>.

Rust. 4.24.7–9 **Plagae, quas in duro uitis accipit, obliquae rotundaeque** fieri debent**, nam citius coalescunt**, et quamdiu cicatricem non obduxerint, commodius aquam fundunt; transuersae plus umoris et recipiunt et continent. Eam culpam maxime <u>uinitor fugito</u>. **Sarmenta lata, uetera, male nata, contorta, deorsum spectantia** decidito**; nouella et fructuaria recta** summittito**. Bracchia tenera et uiridia** seruato**; arida et uetera falce** amputato**.** Vngues custodum annotinos <u>resecato</u>. (8) In quattuor ferme pedes supra terram uitem elatam totidem bracchiis <u>componito</u>, quorum singula spectent singulas decussati iugi partes. Tum uel unum flagellum si macrior uitis erit, uel duo si plenior, bracchio cuique <u>summittito</u>, eaque iugo superposita <u>praecipitato</u>. (9) Sed meminisse oportebit ne in eadem linea unoque latere bracchi esse duas materias pluresue <u>patiamur</u>.

In the highlighted sections the *Rust.* passage corresponds closely to *Arb.*, sometimes word for word, but with an important difference – in *Arb.*, within the series of imperatives in *–to* there is a second-person verb *poteris*, guaranteeing that the imperatives are second-person, whereas in *Rust.* we seem to have a series of third-person imperatives in *–to* with *uinitor* as subject.[58] It could be argued that the *Rust.*

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[57] See Noé (n. 46), 171–2; G. Nyström, *Variatio sermonis hos Columella* (Diss., Göteborg, 1926), with variation in instructions discussed at 18–35.

[58] It is also possible to take *uinitor* as a vocative, and the imperatives as second-person (punctuating the first sentence *eam culpam maxime, uinitor, fugito*); but in the absence of second-

passage deliberately avoids giving any impression that the dedicatee or the reader is expected to carry out the duties in question. On the other hand, at the end of the extract there is a first-person plural verb, *patiamur*, which could indicate that Columella has shifted seamlessly to treating 'we', the author and reader, as carrying out the pruning; though it would be possible to interpret this sentence as applying to the landowner's supervisory role.

But whatever one makes of this particular passage, it is certainly not the case that Columella consistently avoids the second person where functions carried out by such farm workers are concerned. This is particularly clear in Book 12, on the duties of the *uilica*, the wife or partner of the *uilicus*, the manager or bailiff of the farm.[59] Here, if anywhere, a writer might have been careful to say not 'do this, do that', but 'get your *uilica* to do this', 'the *uilica* must do that' and so on, if he were concerned about such matters. But Columella is not consistently careful in this way. In the first four chapters he does preserve that kind of language, when, for instance, he tells the landowner how to choose a *uilica* of the right sort. But once he gets on to the recipes and other instructions about her daily duties, he is quite happy to use second-person verbs and imperatives in *–to*, as we have already seen. From time to time there are reminders that all these tasks are supposed to be carried out by the *uilica*, e.g. 12.18.1: *Quamuis priore libro, qui inscribitur uilicus, iam diximus quae ad uindemiam praeparanda sint, non tamen alienum est etiam uilicae de iisdem rebus praecipere, ut intellegat suae curae esse debere, quaecumque sub tecto administrantur circa uindemiam* (see also 12.46.1, 50.1, 52.14), but that does not prevent him from soon reverting to second-person instructions. Thus after 12.18.1, other forms of imperatival are used for a couple of chapters, including gerundives and first-person plurals, but he reverts to second persons in 12.20.3:

Cum amphoras musti nonaginta in defrutario <u>decoxeris</u>, ita ut iam exiguum supersit de toto, quod significat decoctum ad tertias, tum demum medicamina <u>adicito</u>, quae sunt aut liquida aut resinosa, id est picis liquidae Nemeturicae, cum eam diligenter ante aqua marina decocta <u>perlueris</u>, decem sextarios, item resinae terebinthinae sesquilibram.

More second-person verbs follow. The same variety of expression is found elsewhere in the work. For example, in 6.2, on training oxen, there is a third-person reference to the *domitor* in section 2, then a string of imperatives in *–to* with second-person verbs in subordinate clauses in sections 3–5, then third-person references to the *bubulcus* and the *domitor* in section 6, and so on. So at times Columella is careful to distinguish the duties of farm workers from those of the landowners, but that does not translate into consistent avoidance of the second person when the tasks for farm workers are being described.

However, Columella's practice was not something new in Latin agricultural writing. Brendon Reay has shown how Cato often, while ostensibly issuing instructions to the landowner, is in fact talking about things that would normally be done by farm slaves or by the overseer; there is often no grammatical differentiation between

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person pronouns or verbs (such as are found with the series of vocatives to farm workers in Plin. *HN* 18.328ff., see below), the imperatives are perhaps more naturally taken to be third-person. On either view, the central point – that the *Rust.* passage is spelling out what the *uinitor* must do – remains unaffected.

    [59] On the role of the *uilica* see Henderson (n. 39), 122–5.

direct commands that would normally be carried out by the landowner and those that would be carried out by the overseer or slaves. According to Reay's analysis, Cato regards slaves, in accordance with ancient thinking, as 'prosthetic tools', extensions of the master's own agency; and he occludes the distinction between landowner, overseer and slaves as part of a strategy of self-fashioning that works by linking him and his contemporaries to Cincinnatus and the other exemplary farmer-statesmen of early Roman history.[60] Reay's approach raises the interesting question of whether a similar approach could be taken to the other writers we are considering here.[61]

Finally, does this investigation shed any light on the relationship between *Arb.* and *Rust.*? As we have seen, in the two long passages where the works are almost word for word the same, *Arb.* 19–28 and *Rust.* 5.10–12, there is a large concentration of second-person verbs of all kinds, including imperatival second-person indicatives and indicatives in indefinite second-person subordinate clauses, and there is also a large concentration of imperatives in –*to*. All these features are found evenly distributed throughout the rest of *Arb.*, but they are not evenly distributed throughout the rest of *Rust.*, where they are found concentrated in this one passage and in a couple of other passages whose content distinguishes them from the rest of the work – the chapters on geometry early in Book 5, and the recipes in Book 12. There are other parallel passages of *Arb.* and *Rust.* where the content is very similar, but there is not such a close verbal relationship. So if *Arb.* is the earlier work, Columella was happy to copy this one stretch of it practically word for word, whereas elsewhere he made more substantial changes to the wording; if *Arb.* is the later work, its author copied Columella practically word for word where the latter happened to use the style that he himself favoured, but elsewhere the author of *Arb.* harmonized everything with his own instructional style. If we regard the question of priority as open, we need to decide whether either of these scenarios is more probable than the other.[62]

Pliny, Natural History

Pliny's *Natural History* (henceforth *HN*) is of course not a work on agriculture, but several of the books devoted to plants (Books 12–19) cover topics that are also covered by agricultural writers, and give not simply descriptions of trees and crops but also instructions on how to cultivate them. The topics of the books in question are: Books 12–13: foreign trees; Books 14–15: fruit trees; Book 16: forest trees; Book 17: cultivated trees; Books 18–19: crops. Before we look more closely at the botanical books, however, we shall set them in the context of Pliny's work as a whole, and review the use of second-person verbs, and particularly imperatives, in other books.

The work begins with a preface addressed to Titus, son of the reigning emperor, Vespasian. In the preface there are many second-person singular pronouns and

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[60] B. Reay, 'Agriculture, writing, and Cato's aristocratic self-fashioning', *CA* 24 (2005), 331–61.

[61] Reay does not consider whether Greek writers may have used direct instructions in the same way as Cato does. But of course one could maintain both that it was a generic feature and that Cato exploited it for his own purposes. On the relationship between master and *uilicus* in Columella see Henderson (n. 39), especially 114–17.

[62] If one thinks that Columella and *Arb.* may both follow a common source, the question becomes more complicated, but the basic issue is similar.

TABLE 10: The use of the second person in Pliny's *Natural History* (outside quotations and direct speech)

Book	2nd sing. pron./ adj.	2nd sing. verb	2nd s. pres. impera- tive	2nd sing. jussive	2nd plur. pron./ adj.	2nd plur. verb	2nd plur. impera- tive	Total 2nd pers. for book	impera- tive in -to
pref.	22	26	0	0	3	0	0	51	1
1	0	0	0	0	0	0	0	0	0
2	0	0	1	0	0	1	1	3	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	15	7	2	0	0	0	0	24	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	5	0	0	0	0	0	5	0
11	0	2	1	0	0	0	0	3	0
12	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	4	0	0	0	0	0	4	0
18	2	14	0	1	0	0	0	17	32
19	0	5	0	0	0	0	0	5	0
20	0	2	0	0	0	0	0	2	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	1	0	0	0	0	0	1	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	1	8	0	0	0	0	0	9	0
29	0	0	0	0	0	0	0	0	0
30	0	1	0	0	0	0	0	1	0
31	0	1	0	0	0	0	0	1	0
32	0	0	0	0	0	0	0	0	0
33	1	2	0	0	0	0	0	3	0
34	0	0	0	0	0	0	0	0	0
35	0	1	0	0	0	0	0	1	0
36	0	1	0	0	0	0	0	1	0
37	6	2	2	0	0	0	0	10	0
Total	47	82	6	1	3	1	1	141	33

verbs addressed to Titus, and three second-person plural pronouns referring to Titus together with his father and his brother, Domitian (praef.18, 20). After the preface, second persons are few in number, and rather unevenly distributed, as Table 10 demonstrates (the table gives actual numbers).[63] The penultimate column

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[63] Imperatives and jussives are listed separately from other verb forms; there are no second plural jussives. As in previous tables, occurrences in quotations and in direct speech are excluded.

shows that over half the books have no second-person forms at all. Of the books
that do have second-person forms, apart from the preface, only three get into
double figures, namely Books 7, 18 and 37; and Book 28 has nine forms. As the
last column shows, Book 18 stands out because it alone, apart from the preface,[64]
contains imperatives in *–to* – 32 of them. The fourth column shows how few
present imperatives there are throughout the work.

    A considerable proportion of these second-person forms are clustered in a small
number of the dramatic apostrophes that are found from time to time in Pliny.
The first of these is an extended apostrophe to the *uiri ingentes* who have made
the most important discoveries in astronomy, and towards the end it contains the
only second-person plural verbs found outside the preface: 2.54 *macte ingenio
este, caeli interpretes rerumque naturae capaces, argumenti repertores quo deos
hominesque uicistis!* In Book 7, a generalized apostrophe to human beings (7.43–4
Tu qui corporis uiribus fidis ... uno pilo strangulatus) and an extended apostro-
phe to Cicero (7.116–7 *Sed quo te, M. Tulli, piaculo taceam ... quam imperii*)[65]
account for all but one of the second-person forms.[66] In Book 18 there is a series
of apostrophes to the pruner (*putator*, 18.328), the farmer (*agricola*, 18.329), the
tree-surgeon (*arborator*, 18.330) and the shepherd (*pastor*, 18.330).[67] At 28.6 there
is a brief apostrophe to the magus Osthanes, at 28.9 a general one (*Quisquis es
...*) to those who use human body parts and bodily substances in medicine, and
other apostrophes to Brutus at 33.39 and to Pompey the Great at 37.15; and the
work concludes with a prayer to Nature (37.205).

    Outside the general preface, these passages of apostrophe and Book 18, which
will be discussed below, there is only a sprinkling of second-person forms through-
out the work. They may be divided into two categories: (a) the main verb is
second-person, and gives guidance to the reader *qua* reader, saying what the reader
ought, or is likely, to think, believe, see, notice and so forth. This includes the
conventional imperatives *adde quod* (2.172)[68] and *age* at the start of a question
(7.138, 11.83; see n. 66), also potential *arbitrere* (11.82), *credas* (10.108),[69] *putes*

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    [64] Where there is the standard *scito* (praef.22).
    [65] This highly rhetorical encomium of Cicero mirrors Cicero's own style; see R.E. Wolverton,
'The encomium of Cicero in Pliny the Elder', in C. Henderson (ed.), *Classical, Mediaeval and
Renaissance Studies in Honor of Berthold Louis Ullman*, 1 (Rome, 1964), 159–64; M. Beagon,
The Elder Pliny on the Human Animal: Natural History *Book 7* (Oxford, 2005), 306–10.
    [66] The other is 7.138 *age* at the start of a question, a case of Interjektionalisierung: see
J.B. Hofmann, *La lingua d'uso latino*[3] (Italian trans., Bologna, 2003), 149; *TLL* 1.1404.63–
1405.16.
    [67] There is probably another apostrophe to the farmer at 18.335, where I would punctuate:
Nec tamen eum [sc. aquilonem] toto anno in praedictis timeto, agricola. Here recent editors
do not punctuate after *timeto*, and recent translators take *timeto agricola* to be a third-person
imperative; but the second-person *quas positurus adferes* a few lines earlier (18.334), and more
second persons a few lines later (18.335 *Ergo cum frigidum senties, caueto, etc.*), suggests it
could be a second person, with *agricola* vocative. The position of *agricola* at the end of the
sentence arguably tells against taking it as a vocative; but, on the other hand, the whole sen-
tence is a tightly knit colon that offers no obvious earlier point for a vocative to be inserted.
For vocative at the end of shorter sentences in Pliny cf. 18.251 (in a proposopoeia by Nature)
Cur caelum intuearis, agricola? cur sidera quaeras, rustice?
    [68] See *TLL* 1.591.56–70.
    [69] This use of *credas* appears earlier in comedy (Ter. *Haut.* 1063), poets, particularly Ovid
(Hor. *Sat.* 2.2.72, Verg. *Aen.* 8.691, Ov. *Ars am.* 3.154, *Fast.* 1.573, etc.), and, in earlier prose,
in a declaimer (Sen. *Constant.* 7.5.9) and the geographer Mela (2.78).

(10.112), *scires* (19.87) and *uideas* (17.17);[70] (b) the indefinite second person is found in other contexts, once in a parenthetic main clause (20.25 *Iidem et contra uenena prosunt, cerastis et scorpionibus aduersantur – uel ipso uel semine infectis manibus inpune* **tractaueris**, *inpositoque raphano scorpiones moriuntur –* , *salutares et contra fungorum aut hyoscyami uenena ...*), more commonly in subordinate clauses (e.g. 10.12 *Est autem lapis iste praegnans intus alio, cum* **quatias**, *uelut in utero sonante*; 10.85 *Sed hae tantae tamque artifices argutiae a XV diebus paulatim desinunt, nec ut fatigatas* **possis** *dicere aut satiatas*).[71]

   Apart from the apostrophes, Pliny's use of the second person thus far is chiefly aimed at the reader, and so is similar to what we found in Varro's *De lingua Latina*. But Book 18 stands apart from his other books, and the other authors, in that it contains over thirty imperatives. There is only a scattering of imperatives elsewhere: *adde* and *age* have just been mentioned, as has *scito* (see n. 64), and there is *salue* in the address to Cicero at 7.117, and *salue* and *faue* in the concluding address to Nature (37.205). But none of these is comparable to Book 18, where the imperatives mostly give instructions on farming, and they are all imperatives in –*to*, whereas in other books present imperatives are used, with the standard exception of *scito*.

   The use of imperatives in Book 18 relates clearly enough to its subject matter, for it gives instructions on agriculture. But there are other books where imperatives could have been used. Books 14 to 17, on various kinds of trees and crops, also contain a variety of advice on farming, but Pliny himself never uses imperatives there, nor in Books 19 to 21, where the cultivation of various plants and flowers is described. Looking at the rest of *HN*, one sees that Books 2–6 on geography, and 7 on anthropology, are primarily factual and descriptive rather than instructional, and the same goes for 33–37 on metals, earths and precious stones. Books 8–11 on animals are predominantly descriptive, but there are passages that could have been expressed with imperatives, whereas Pliny uses indicative statements.[72] The same goes for Books 12–13 on foreign trees, and 20–32 on medicinal remedies derived from various sources, where, besides using third-person indicative statements, third-person jussives, gerundives and other impersonal forms of instruction,

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[70] Note also third-person requests of the readership at 3.42 *legentes tantum quaeso meminerint* …; 8.44 … *quaeso ut legentes boni consulant* …; 11.4; 18.214; 35.92; 37.31. Also 14.1 *noscentes tantum meminerint* …

[71] Other examples: 10.191 *loquare*; 11.171 *extrahas*; 17.78 *intueare*; 17.214 *uelis*; 17.233 *putes*; 18.45 *patiaris*; 18.125 *uelis*; 18.308 *uelis*; 18.334 *adferes*; 19.116 *commorere*; 19.139 *seras, sequare, accumules*; 20.207 *intuearis*; 24.127 *fregeris*; 28.32 *medearis*; 28.116 *calcaueris, uelis, uelis*; 30.54 *effoderis*; 31.73 *auferas*; 33.84 *uelis*; 36.134 *fregeris*; 37.114 *intueare*. The text at 35.155 is corrupt: Hardouin conjectured *ut non posses*. There are some further examples in Book 18 of second-person verbs in subordinate clauses where the main clause contains an imperative.

[72] I give a few examples from Book 8 on animals: on precautions against rabies, 8.152 *Quapropter obuiam itur per XXX eos dies, gallinaceo maxime fimo inmixto canum cibis aut, si praeuenerit morbus, ueratro*; on horse-breeding, 8.163 *Coitus uerno aequinoctio bimo utrimque uulgaris, sed a trimatu firmior partus*; on breaking in oxen, 8.180 *Domitura boum in trimatu, postea sera, ante praematura*; on sheep-breeding, 8.188 *Ferocia eius cohibetur cornu iuxta aurem terebrato. Dextro teste praeligato feminas generat, laeuo mares. Tonitrua solitariis ouibus abortus inferunt; remedium congregare eas, ut coetu iuuentur*; and examples could readily be multiplied. One could take some or all of these indicatives to be imperatival, but it is far from clear that one should, since the contexts do not all contain explicit imperativals, and most of them do contain plain factual statements.

TABLE 11: The use of imperatives in Pliny's *Natural History*, both outside and within quotations and direct speech

Book	Outside quotations and direct speech		Within quotations and direct speech	
	2nd s. pres. imperative	imperative in *-to*	2nd s. pres. imperative	imperative in *-to*
pref.	0	1	0	0
1	0	0	0	0
2	1	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	2	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	1	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	4
15	0	0	0	3
16	0	0	0	4
17	0	0	3	58
18	0	32	3	14
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	0	0	1	0
28	0	0	0	0
29	0	0	1	0
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	0	0	0	0
34	0	0	0	0
35	0	0	1	0
36	0	0	0	0
37	2	0	0	0
Total	6	33	9	83

Pliny also regularly reports the instructions of other individuals or groups, named or anonymous;[73] but he never uses imperatives.

[73] E.g. 32.92 (a passage about remedies from aquatic creatures) *Tussim sanare* **dicuntur** *piscium modo e iure decoctae in patinis ranae. Suspensae autem pedibus, cum destillauerit in patinas saliua earum, exinterari* **iubentur** *abiectisque interaneis condiri. Est rana parua arborem scandens atque ex ea uociferans; in huius os si quis expuat ipsamque dimittat, tussi liberari* **narratur**. **Praecipiunt** *et cocleae crudae carnem tritam bibere ex aqua calda in tussi cruenta.* Here the statements and instructions are reported anonymously; for named subjects, see e.g.

However, Table 11 shows that Books 14 to 17, and Book 18, contain a considerable number of imperatives, mostly in *–to*, within quotations and direct speech, which I have consistently excluded from all the preceding tables. (The data in the second and third columns are repeated, for convenience, from the fourth and tenth columns of Table 10.) Outside Books 14–18 there are very few imperatives within quotations or direct speech.[74] Within these five books the majority of the relevant passages are quotations from the elder Cato. The first imperatives in Book 14 occur within a paragraph quoted from *Agr*. 6.4–7.2 at 14.46, with imperatives *conserito* and *serito*; in later books there follow other quotations from Cato containing imperatives, only a few in Books 14–16, but more in 17–18.[75] It would seem that in Book 18, after having quoted Cato so often, Pliny himself catches the habit, as it were, and makes considerable use of such imperatives himself. For example, there is a string of them in 18.321–2:

Omnia quae caeduntur, carpuntur, tondentur, innocentius decrescente luna quam crescente fiunt. (322) Stercus nisi decrescente luna ne <u>tangito</u>, maxime autem intermenstrua dimidiaque <u>stercorato</u>. Verres, iuuencos, arietes, haedos decrescente luna <u>castrato</u>. Oua luna noua <u>supponito</u>. Scrobes luna plena noctu <u>facito</u>. Arborum radices luna plena <u>operito</u>. Vmidis locis interlunio <u>serito</u> et circa interlunium quadriduo. Ventilari quoque frumenta ac legumina et condi circa extremam lunam iubent, seminaria cum luna supra terram sit fieri, calcari musta cum luna sub terra, item materias caedi quaeque alia suis locis diximus.[76]

The imperatives occur in a number of other passages too.[77]

Book 18 is the only place where Pliny uses these imperatives himself. In some cases the imperative construction may reflect the language of a lost source;[78] even if that is true, however, in these passages Pliny has not signalled that the

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20.31 *Radicem eius Dieuches contra iocineris aut lienis ac lumborum et renium uitia ex aqua mulsa dari* **iubet**, *Cleophantus et dysintericis ueteribus*.

[74] I have noticed only *reseda* in a medical incantation at 27.131, *puta* in a fragment of the elder Cato on doctors at 29.14, and *dic* in direct speech in an anecdote about Crassus at 35.25. In Books 14–18 imperatives also occur outside a strictly agricultural context in direct speech within historical anecdotes at 14.58 (*memento*), 17.81 (*excide*) and 18.20 (*uela*).

[75] Further quotations from Cato with imperatives (some with prohibitions as well): 15.72 (*Agr*. 8.1); 16.193–4 (*Agr*. 31.1–2, 37.3–4); 17.34 (*Agr*. 5.6); 17.55 (*Agr*. 37.2–3, 30); 17.125–7 (*Agr*. 45, 61.2, 44, 5.8, 61.1); 17.195–8 (*Agr*. 33.1–4, 41.1, 49.1–2); 18.229 (*Agr*. 28.4); 18.243 (*Agr*. 131); 18.260 (*Agr*. 53). There are also prohibitions with *ne* plus present or perfect subjunctive in quotations at 17.56 (*Agr*. 37.2); 18.26 (*Agr*. praef.4, 1.1, 1.3). These are not all the quotations from Cato: there are further quotations that do not contain imperatives, and also passages where Cato's ideas are paraphrased or summarized without the use of direct quotation, e.g. *HN* 15.20–23 (based on Cato 6.1–2, 7.4, 64.2–67), *HN* 15.33–4 (based on Cato 91–101), *HN* 15.123 (based on Cato 125), *HN* 19.147–9 (based on Cato 161). Pliny's use of Cato *Agr*. is analysed by F. Münzer, *Beiträge zur Quellenkritik der Naturgeschichte des Plinius* (Berlin, 1897), 12–17, 55–81. The relevant passages of Pliny are all given in apparatus I of A. Mazzarino's Teubner edition of Cato (Leipzig, 1962).

[76] On parallels and predecessors for much of this section see the notes ad loc. in A. Le Boeuffle's Budé edition of Book 18 (Paris, 1972), 309–10; Pliny does not, however, reproduce the wording of any surviving source.

[77] Other examples at: 18.231–2 *A kal. Nouemb. gallinis oua supponere* **nolito**, *donec bruma conficiatur. In eum diem ternadena* **subicito** *aestate tota, hieme pauciora, non tamen infra nouena* ... (232) *Per brumam uitem ne* **colito** (the last sentence occurs in exactly the same form in *Arb*. 5.3); 241; 253; 293; 318; 328–30; 334. At 18.193 *caueto* is Mayhoff's conjecture for *autem*.

[78] See the preceding note on 18.232 and *Arb*. 5.3 for correspondence with a surviving text. But the relative dating of *Arb*. and Pliny is disputed; Richter (n. 39) thinks that *Arb*. is later and shares a common source with Pliny.

TABLE 12: Third-person jussives and gerundive expressions in Pliny

Book	Number of 3rd sing. jussives	Number of 3rd plur. jussives	Number of gerundive expressions	Total
praef.	3	0	0	3
1	0	0	0	0
2	3	9	8	20
3	2	1	1	4
4	0	2	8	10
5	2	1	2	5
6	4	1	3	8
7	5	0	3	8
8	0	1	5	6
9	6	1	2	9
10	4	1	5	10
11	7	0	1	8
12	3	1	3	7
13	2	2	2	6
14	1	1	3	5
15	2	3	0	5
16	1	1	4	6
17	17	12	29	58
18	21	26	27	74
19	6	2	6	14
20	2	1	5	8
21	1	1	8	10
22	4	1	2	7
23	3	0	9	12
24	0	0	2	2
25	0	0	10	10
26	1	1	4	6
27	1	0	4	5
28	3	3	3	9
29	1	2	8	11
30	5	0	5	10
31	5	2	2	9
32	3	1	1	5
33	4	7	1	12
34	2	1	0	3
35	3	2	4	9
36	4	5	5	14
37	0	1	4	5

passage is a quotation from elsewhere but presents it seamlessly as a part of his own text. It is tempting to think that the practice of his hero Cato in the use of imperatives has influenced his style in this book. It is, for Pliny, the culmination of the agricultural books, dealing with cereal crops, both grains and legumes. The opening chapters demonstrate the antiquity of their cultivation at Rome, drawing on the evidence of religion, etymology and nomenclature; by contrast, Pliny says that vine-growing started much later; and the latter part of the book is dominated by a lengthy farming calendar, which effectively rounds off the strictly agricultural

books.[79] So the use of imperatives in *–to* in this, the most significant, and the longest, of the agricultural books can be seen as a tribute to Cato.[80]

However, Pliny may have had other reasons, too, for the use of direct imperatives in Book 18. First, other kinds of imperatival are also much commoner in Books 17 and 18 than in the rest of the work, as Table 12 illustrates, giving the number of third-person jussives, singular and plural, and the number of instructions with the gerundive,[81] in each book of *HN*. Again occurrences within quotations or direct speech are excluded. The figures show that there is sprinkling of these constructions throughout the work, but much higher numbers in Books 17 and 18. So, given the large overall number of imperativals in these two books, the use of imperatives in Book 18 can be seen as extending the range of *variatio* in imperatival expressions where they are particularly dense.

Another factor that seems to be at work is the association between imperatives in *–to* and laws. The quotations in which these imperatives occur in Books 14–17 come mainly from Cato, but not solely.[82] Pliny quotes a law of Numa (14.88 *Numae regis Postumia lex est: 'Vino rogum ne* **respargito***'*); in the next book he quotes a 'very old law' (*lex antiquissima*) about harvesting olives:

Tertia est culpa in parsimonia, quoniam propter inpendium decerpendi expectatur ut decidant oliuae. Qui medium temperamentum in hoc seruant, perticis decutiunt cum iniuria arborum sequentisque anni damno. Quippe oliuantibus lex antiquissima fuit: 'oleam ne <u>stringito</u> neue <u>uerberato</u>'.   (15.11)

This 'very old law' in fact comes from Cato (*Agr*. 144.1, where the sentence continues *iniussu domini aut custodis*). The heading of Cato's chapter is *Lex oleae legendae*. It is debated whether the chapter headings are Cato's own, but the heading here is entirely appropriate because, while chapter 144.1 begins *Oleam legendam hoc modo locare oportet*, chapter 145, containing similar advice on drawing up contracts for pressing olive oil, starts *Oleam faciundam hac lege oportet locare*, 146 begins *Oleam pendentem hac lege uenire oportet*, and there is similar phrasing at the start of several other chapters.[83] So Pliny's description of the sentence as a *lex* is justified.[84]

Later in Book 18 Pliny gives some 'laws' of ploughing:

18.176 Sunt et huic suae leges: Lutosam terram ne <u>tangito</u>. Vi omni <u>arato</u>. Prius quam ares <u>proscindito</u>.

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[79] The place of arable farming in early Roman history: 18.6–21; viticulture began much later at Rome: 18.24; the farming calendar: 18.201–35. Book 19 starts with a handful of further crops, but this does not detract from the climactic position of Book 18, for the first of them, flax, is said to be classed *neque inter fruges neque inter hortensia* (19.2).

[80] Compare Pliny's stylistic tribute to Cicero at 7.116–7 (see n. 65). Hutchinson (n. 5) has shown the importance of intertextuality in a wide range of other didactic texts, both prose and verse, both Greek and Latin.

[81] As in Table 3, only predicative gerundives in main clauses are counted.

[82] For imperatives in direct speech in anecdotes see n. 74.

[83] See 147.1, 149.1, 150.1. Note also how 148.1 begins *Vinum in doliis hoc modo uenire oportet*, like 144, but the chapter ends (148.2) *cetera lex, quae oleae pendenti*.

[84] Though one should note that, whereas *lex* in Cato means 'contract', Pliny appears to understand the more common sense 'law, statute'.

These sentences are not quotations from Cato or other surviving authors.[85] Further examples of *leges* expressed in such form in Book 18 are:[86]

Hoc tantum nemini inconpertum est, nisi stercorato seri non oportere, quamquam et huic leges sunt propriae. Milium, panicum, rapa, napos nisi in stercorato ne <u>serito</u> [*Detlefsen*: seritor; *Mayhoff*: seritur *codd.*]; non stercorato frumentum potius quam hordeum <u>serito</u>.
(192)

With the last instruction compare Theophrastus *Hist. Pl.* 8.6.4 on the vine harvest (cf. *Caus. Pl.* 3.21.4).

Leges ita se habent: 'Vuam caldam ne <u>legito</u>', hoc est nimia siccitate ac nisi imber inter-uenerit. 'Vuam rorulentam ne <u>legito</u>', hoc est si ros nocturnus fuerit nec prius quam sole discutiatur. (316) 'Vindemiare <u>incipito</u>, cum ad palmitem pampinus procumbere coeperit aut cum exempto acino ex densitate interuallum non conpleri apparuerit ac iam non augeri acinos.'
(315–16)[87]

There is no exact parallel to these 'laws', though commentators note a similarity in content to Cato 112.2.

The application of the term *leges* to these rules of farming lends them a vener-able authority, and in that respect is comparable to Pliny's application of the term *oraculum* to agricultural precepts.[88] The concept of a *lex* of farming was not a new one. As already noted, Cato himself uses *lex*, but in a different sense from Pliny, of the terms of a contract of sale or hire (see *TLL* 7.2.1243.6–13). Varro, in the *De re rustica*, generally uses *lex* of statutes (e.g. 1.2.9, 1.2.17–18), but also of the terms of a contract (2.3.7). Columella is the first extant agricultural writer to use *lex* metaphorically, for written instructions on farming (2.2.21), for rules laid down by the ancients (5.11.12) and for the rules followed by farmers (5.6.24). Pliny is therefore continuing this broader use of *lex* in an agricultural context.[89]

The use of *lex* may also suggest a link or analogy with the laws of nature, which appear occasionally in *HN*, governing heavenly bodies, winds and other

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[85] With *lutosam terram ne tangito* one can compare *Arb.* 12.1 *Lutulentam terram neque arare neque fodere oportet, quia ualde durescit et finditur*, and Columella *Rust.* 2.4.5 *Sed quandoque arabitur, obseruabimus ne lutosus ager tractetur neue exiguis nimbis semimadidus, quam terram rustici uariam cariosamque appellant*. Pliny may be quoting from a lost work, or it could be his own wording. (The way he expresses himself implies that *proscindere* is different from *arare*, though Varro [*Rust.* 1.29.2] and others treat *proscindere* as the first ploughing.)

[86] But the content of the *lex* can be expressed in other grammatical forms too: see 18.241 (though injunctions with *ne sarito* and *habeto* follow swiftly there), 254, 298.

[87] I adopt Rackham's punctuation in the Loeb, putting the 'laws' in quotation marks, to dis-tinguish them from Pliny's comments.

[88] *oracula* on farming: 18.25 *Ac primum omnium oraculis maiore ex parte agemus, quae non in alio uitae genere plura certioraue sunt. Cur enim non uideantur oracula, a certissimo die* [*deo* Pintianus] *maximeque ueridico usu profecta?*; 18.39, 40, 170 (cf. Verg. *G.* 1.53), 174 (*Catonis oraculum*), 200 (*Hoc pertinet oraculum illud magno opere custodiendum: Segetem ne defruges* [*defrudes* Sillig], from Cato *Agr.* 5.4, with *defrudet*), 298 (*lex* and *oraculum* in paral-lel). See also Münzer (n. 75), 62–3.

[89] For this broader use in various other authors and contexts see *OLD* s.v. *lex* 6; *TLL* 7.2.1247.73–1249.25. On the linguistic form of Cato's *leges* see Vairel-Carron (n. 13), 298–300.

natural phenomena.[90] In Book 18 there are laws of nature governing activities related to farming: for instance, at 18.67, on bread-making, *Lex certa naturae, ut in quocumque genere pani militari* [*miliari* Detlefsen] *tertia portio ad grani pondus accedat ...*; and at 18.178, on the amount of work farm animals can do, *Iustum est proscindi sulco dodrantali iugerum uno die, iterari sesquiiugerum, si sit facilitas soli; si minus, proscindi semissem, iterari assem, quando et animalium labori natura leges statuit*.[91] So Pliny's laws of nature can apply both to the physical and natural world, where they are essentially descriptive of the regularities of the cosmos, and to human behaviour, where they are prescriptive. The use of the term *leges* forges a link between the rules of cultivation and the regularities of nature, between instruction and description.

But perhaps there is a further layer to Pliny's use of the term *leges*, for the linguistic form of the instructions may sometimes have encouraged him to employ the term, since instructions using the imperative in *–to* were characteristic of early Roman laws, including the laws of Numa such as the one he quotes at 14.88, and the Twelve Tables. In laws the imperatives are only ever associated with subordinate clauses containing third-person verbs,[92] whereas in Pliny's 'laws' an associated verb is second person at 18.176 (quoted above); but this distinction may well have mattered less to Pliny than the fact of using the imperative in *–to* at all.[93]

IV. CONCLUSIONS

The main conclusion to be drawn from this survey of forms of instruction in agricultural writers is that, while Gibson is quite right to draw attention to the importance of the distinction between the direct second-person style of instruction and more indirect and impersonal styles of instruction, there is no straightforward contrast, in terms of style of instruction, between Cato on the one hand and the later writers whom we have examined on the other. Certainly there is a clear difference between Cato and the agricultural speeches of Varro's *De re rustica*, where second-person instructions are very rare, although they are common in the conversational frame of the dialogue. But the *Liber de Arboribus*, with its frequent use of the second person and of imperatives in *–to*, is in some ways remarkably 'Catonian'

[90] *lex* of nature in Pliny: 2.77 (planets), 2.116, 121 (winds), 7.170 (diseases), 11.35 (gathering honey). Cf. 10.61 (storks migrate *ceu lege praedicta*).

[91] See also 18.210, 291.

[92] See Vairel-Carron (n. 13), 228–30. On imperatives in *–to(d)* as characteristic of the language of Roman law see also C. De Meo, *Lingue tecniche del latino*[2] (Bologna, 1986), 102–3.

[93] The imperative in *–to* continued to be used regularly in later medical and veterinary writers, surviving as a feature of a traditional instructional style when it had declined (along with the ordinary imperative) in the colloquial language, in favour of second-person singular present and future indicative (see e.g. A. Önnerfors, 'Das medizinische Latein von Celsus bis Cassius Felix', *ANRW* 2nd series 37 [1993], 227–392, 924–937, at 292–3 and 293, n. 108; Adams [n. 2], 461–2). Gibson (n. 1), 84–5, talks of a '"popular" or "mundane" tradition of utilitarian technical prose', stretching from Cato to late antiquity; but, given Columella's stylistic ambitions, it would be an oversimplification to label his work in that way, despite his fondness for imperatives in *–to* in certain sections of *Rust.*; and the same goes for Pliny in Book 18. In Pliny the association of the imperatives with laws as well as with Cato could suggest that for him they had an archaic flavour. See further p. 629 and n. 21 above.

in style.[94] Then both Columella in his *De re rustica* and Pliny in his agricultural books display considerable variation in instructional style. In some parts of their works they adopt more impersonal forms of instruction, but in others they use a more 'Catonian', direct second-person style. In the case of Columella this can be seen as part of his fondness for stylistic variation of all kinds, whereas in the case of Pliny's agricultural books, as well as achieving stylistic variation, it seems to be a form of stylistic homage to his hero Cato;[95] and Pliny's use of imperatives in *–to*, a stylistic feature shared with Roman laws, also fits with his conviction that laws operate in the agricultural world just as they do in the natural world.

As for Gibson's suggestion that stylistic or social factors influenced the avoidance of second-person imperativals, this investigation has indicated that these factors may have had some limited influence. Outside the agricultural context, we have seen that Varro in *De lingua Latina* and Pliny throughout his *Natural History* address imperatives to the reader *qua* reader; and these instructions are obviously appropriate to the social status of the recipients; as also are the instructions issued by the speakers in the conversational frame of Varro's *De re rustica*. Within the agricultural context, the picture is more mixed: in the long speeches on farming in Varro's *De re rustica* we saw some reason to think that stylistic considerations may have been the main factor in the avoidance of direct forms of instruction. However, in Columella we saw that there is no reluctance to use second-person imperativals even when the context makes plain that the duties are to be carried out by subordinates; and Reay has shown that the same is true of Cato.

My paper leaves important questions untouched. First of all, whereas Gibson (n. 1) suggests that later writers may have had reason to avoid blurring the distinction between what the landowner did and what his subordinates did, Reay (n. 60) argues that Cato had reasons to blur the distinction deliberately, in order to bridge the gap between contemporary absentee landowners and the exemplary farmer-statesmen of early Rome. It would be interesting to see how Reay's approach could be brought to bear on the later agricultural writers as well. Secondly, this paper has confined itself to the second person but, in considering differences between direct, personal styles and indirect, impersonal styles of instructional writing, one should not neglect the first person, both singular and plural.[96] Thirdly, the focus has been entirely on agricultural texts, of which we have a relative abundance from the late Republic and early Empire, but it could usefully be extended to instructional texts in other fields and other periods. Fourthly, I have confined myself to prose texts, and so have left out of consideration Virgil's *Georgics* and Columella's verse book.[97] Finally, no investigation has been made of practices of the Greek writers with whose works

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[94] We should remember that we do not know how similar the style of the Latin translation of Mago was to Cato's; so the style I am calling 'Catonian' may have been more widespread.

[95] Of course Pliny's admiration for Cato was not unbounded, not even in the field of agriculture. See M. Beagon, *Roman Nature: The Thought of Pliny the Elder* (Oxford, 1992), 17, 164, 236.

[96] On the use of the first person in Celsus, see H. von Staden, 'Author and authority: Celsus and the construction of a scientific self', in M.E. Vázquez Buján (ed.), *Tradición e innovación de la medicina latina de la antigüedad y de la alta edad media*, Actas del IV Coloquio Internacional sobre los "textos médicos latinos antiguos" (Santiago de Compostela, 1994), 103–17; more generally, see Hine (n. 38).

[97] Hutchinson (n. 5), 197, 203–5, looks at some aspects of Columella's relationship to Virgil. On Columella's verse book see also Henderson (n. 39), and id., *The Roman Book of Gardening* (London and New York, 2004).

most of these Latin writers were acquainted. Therefore much remains to be done to put the findings of this paper into a broader context.[98]

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