Agricultural writers

Summary
In comparison with other technical and scientific disciplines, agriculture enjoys a higher social and cultural status because of both its inherent utility for society and economy and its moral exemplarity, associated in Rome with the *mos maiorum*. The extant works of Cato, Varro, Columella, Gargilius Martialis and Palladius testify to the long life of agricultural discourse throughout the history of Latin literature and beyond. While it is helpful to read these texts as belonging to a tradition, each of them has its own individual form, aims and poetics.

Recent studies on ancient technical and scientific texts have demonstrated that this particular strand of Greek and Roman textuality – taking as its subject matter not only arable cultivation but also livestock, arboriculture, market gardens, luxury foods, slave management, and villa construction - deserves much more attention than it was given in the past, when works on various fields of practical knowledge were generally dismissed both as literary texts and as historical sources: on the one hand they seemed to show no connection with the literary prose of other genres; on the other, quite paradoxically, historians of science and technology lamented that these texts were *too* literary and thus of limited utility for historical reconstructions. Today, however, there is a general scholarly agreement that these texts are not to be considered as mere "manuals," since they do indeed have a strong relationship with other literary genres, both prose and poetry, and since they create a specific textual language, one which is much more 'literary' than one might at first glance expect if one focuses only on the technical knowledge contained in those books. It is as if we were to read and interpret Vergil's *Georgics* or Manilius' *Astronomica* with a view only to their subject matter, i.e. agriculture and astronomy/astrology. It turns out, however, that technical and practical knowledge has its own poetics[1].

Among the technical disciplines, agriculture was especially widely treated in ancient literary culture. Hesiod* is the earliest Greek author to treat agriculture in his poem *Works and Days* (ca 700 BCE), but his main interest is not the discipline *per se* but its moral implications. Xenophon*'s Socratic dialogue *Oikonomikós* (4th c. BCE) praises agriculture as the activity most suited to ethically shaping the citizen: agriculture is the science of managing an inheritance, which in turn is fundamental to managing the *polis*.[2] In Rome, agriculture enjoyed an even higher cultural and social status. Cicero* celebrates agriculture in his *De senectute* and later affirms that among all the arts aimed at earning money, "nothing is more pleasurable and worthy of a free man than agriculture" (*off*. 1, 151). And, famously, Vergil*dedicated his perhaps most complex and ineffable poem, the *Georgics*, to agriculture, a field within which he eventually became an authority, as the early reception of his poem (especially in Columella* and Pliny the Elder*) clearly shows.[3]

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[1] See M. Formisano, „The Poetics of Knowledge", in M. Formisano and P. Van der Eijk (ed.), *Knowledge, Text and Practice in Ancient Technical Writing*, 2017 (12-26).
[2] See S. Föllinger, „Sokrates als Ökonom? Eine Analyse der didaktischen Gestaltung von Xenophons ‚Oikonomikos'", *Würzburger Jahrbücher* N.F. 30, 2006 (5 – 23).
[3] See A. Doody, „Virgil the Farmer? Critiques of the Georgics in Columella and Pliny", *Classical Philology* 102.2. 2007 (180-197).

Modern scholarship on ancient and especially Roman agricultural literature has been interested in reconstructing the socio-economic context of each work, in discussing the kind of knowledge transfer that is shaped and negotiated within the texts, and more recently, in shedding light on the literary features of the texts as well as the literary potential of agriculture as knowledge. A foreseeable trend is the analysis of this strand of ancient textuality from the perspective of environmental criticism and ecopoetics, critical approaches which seek to illuminate the relationship between humans and their non-human environment, including animals, plants, and objects.

As we can infer, for instance, from a long list of Greek authors provided by Varro* (*Rust.* 1. 1. 8–11), including Hesiod, Xenophon, Aristotle* and Theophrastus*, the Greek tradition could be described as more oriented towards theorization, whereas Roman writers present themselves as more interested in discussing practical aspects in an elegant prose -- but of course this does not necessarily imply that all such Roman texts actually were directly applicable by agricultural practitioners. An important factor in the production of agricultural literature at Rome seems to have been the fact that individual landowners, in most cases members of the urban *élite*, typically possessed large quantities of land outside of town and were unable to consistently or directly oversee the personnel. Furthermore, agricultural discourse fundamentally shaped the self-fashioning of the *élite*, and the *villa** played a major role in Roman life and culture. The kind of knowledge provided in the Roman agricultural treatises is primarily aimed at effectively guiding the *vilici* (managers or overseers) in their responsibilities as well as managing slaves, all of course with an eye to economic factors. Truly practical advice, for example precisely how to sow and plant, is treated very rarely and always in an incomplete manner, not least because in agriculture as in other technical fields, detailed, practical instructions are a matter of tacit knowledge which cannot entirely be expressed in words. Another important feature of ancient agronomical literature in general is that it is not interested in experimentation, and is characterized by an absence of causal explanations[4].

Nonetheless, Roman writers are more explicitly concerned with practicality than their Greek predecessors, as we can infer for instance from Xenophon's *Oikonomikós*. Roman agricultural literature is vast, comprising several fields and subfields, such as the management of livestock, cultivation of trees, gardening, medicine and veterinary, and it is the only technical field for which we have a rich group of authors from the archaic to the late antique period. This literature can be said to have a double starting point. The first author, M. Porcius Cato*, wrote *De agri cultura* probably towards the end of his life during the Punic Wars (around 160 BCE); this is the earliest Latin prose text surviving in its entirety. Cato's ideal farm is commercially oriented and relatively well mechanized. The absolute protagonist is the *pater familias*, who exercises direct control over his possessions and personnel. But the *vilicus* also represents a potential reader, as can be inferred, for example, when texts describe specific tasks which certainly were not performed by the landowner himself. Cato does not quote nor explicitly refer to any other written source, and places emphasis on learning by doing, rather than learning from others. But, while he famously rejected Greek culture and science, in particular medicine (Pliny, *nat*. 29,14), Cato clearly knew and alluded to Greek texts and names some Greek technical innovations.

[4] See P. Thibodeau, "Ancient Agronomy as a Literature of Best Practices", in P.T. Keyser and J. Scarborough (ed.), *The Oxford Handbook of Science and Medecine in the Classical World*, 2018 (463-480).

Soon after the end of the Punic Wars, the Senate commissioned a certain D. Silanus* to translate into Latin the monumental agricultural treatise in 28 books by the Carthaginian Mago* (Pliny *nat*. 18, 22-23). This Punic text, later also translated into Greek by Cassius Dionysius* and eventually epitomized in six books in that language by Diophanes of Bithynia* (see Varro, *rust*. 1, 1, 10), was considered the Bible of agriculture within the Roman world. That the Senate decided to commission a translation, even though Cato's work was already available, implies a great deal about Mago's fame and authority. Unfortunately, no version of Mago's treatise has been preserved, but within Roman agricultural literature it is always honored as a fundamental model. Varro* criticizes Mago's text for its lack of systematization and clear order in the presentation of its subject (*rust*. 1, 1, 10), while his own stated goal is to present the subject matter in a systematic and concise manner, omitting everything he considers irrelevant to agriculture. And yet Varro applies to his *De re rustica* (37 BCE), his only complete extant work, a literary form specifically associated with philosophy, the dialogue, suggesting a high degree of theorization and methodological reflection. Each of this text's three books has a significant setting; Book 1, for instance, opens with an address to Varro's wife Fundania on the occasion of her buying an estate (*fundum;* at 2.pr.6 he draws attention to the verbal echo). In this sense Varro presents a typical feature of Roman technical writings: his goal is to offer a reflection on practice rather than practical guidance itself (see Vitruvius* for an analogous approach to architecture). In contrast to Cato, Varro openly displays his wide knowledge of Greek sources, providing a list of more than 50 names of Greek kings, philosophers and poets, but not a single Roman name. Yet Tremelius Scrofa*, the Sarsenae* and other Romans are protagonists of the dialogue, while Cato is named on various occasions. It is as if Greek knowledge is presented as a matter found only in books, while its Roman counterpart consists of live actors in a dialogue. Varro is also keen on emphasizing the complexity of agricultural knowledge and its multiple relationships with other fields; this encyclopaedic vein represents another strength of Roman technical writings. As recent studies have shown, Varro's dialogue, the last work of a powerful Roman intellectual in his eighties, contains a plurality of meanings which are not strictly related to the agricultural subject matter itself. Kronenberg for instance interprets *De re rustica* as a grand allegory, capable of complex and subversive irony, and sees in it a response to Cicero's *De re publica*[5], while Leonardis emphasizes the anthropological project developed by Varro around the role of agriculture within cultural history[6].

In the early empire, agriculture becomes a fundamental part of encyclopaedic projects and of a wider "literature of knowledge"[7]. Aulus Cornelius Celsus* opened his *Artes*, written during the reign of Tiberius, precisely with agriculture (as we can infer from the extant book on medicine), and Pliny the Elder dedicated a long portion of his *Naturalis Historia* (books 12-19) to the subject. Agronomical encyclopaedias were also written in Greek, for example by the brothers Quintilii*, consuls during the reign of Marcus Aurelius (no longer surviving), and during the late antique period by Vindonius Anatolius* (subsequently translated into Arabic, Syriac and other languages; some fragments are extant) and Cassianus Bassus* (whose text made use

[5] L. Kronenberg, *Allegories of Farming from Greece and Rome*, 2009.
[6] I. Leonardis, Unus scilicet antiquorum hominum. *Senso del passato e pratica antiquaria*, 2019.
[7] See R. Mayer, „Creating a literature of Information in Rome", in M. Horster and C. Reitz (ed.), *Wissensvermittlung in dichterischer Gestalt*, 2005 (227-242).

of Vindonius' and was itself subsequently excerpted in a Byzantine collection of *Geoponica*). But the long history of the Roman agricultural monograph continued. We know of at least two other early imperial writers, Julius Atticus* and Julius Graecinus*, both active after Celsus, who devoted their treatises exclusively to vines. Active during the age of Nero, L. Iunius Moderatus Columella* from Gades (modern Cadiz, Spain) wrote the massive *De re rustica* in 12 books, the most complete and systematic of extant agricultural treatises in Latin literature, dedicated to a certain P. Silvinus (a significant name). Like Varro, Columella provides a list of sources, which also includes Roman and more recent authors (Celsus, Julius Atticus and Julius Graecinus); Vergil is the most quoted author in this text. But for Columella agriculture is a much more complex form of knowledge than that which can be deduced from books. His methodological priority is to present his topic following a clear order yet also always in a certain degree of flux, determined as it is by direct experience, which sometimes enters into conflict with the knowledge of the *veteres*. Columella's agriculture is an immense and complex field of knowledge, virtually open-ended, which tends to embrace and subsume other disciplines, so that it can be considered an encyclopedic treatment of the arts and sciences presented from the unique perspective of agriculture. As Columella puts it, agriculture is *consaguinea sapientiae* (*praef*. 4): consequently, *De re rustica* in both style and structure represents a grand achievement in aesthetic and literary terms as well. The text seems to grow organically before the eyes of the reader; each book adds an aspect, and this growing sequence of additions is always motivated and emphasized.

Particularly worthy of note is book 10, entitled *Cepuricus de cultu hortorum* ("on gardening"), which consists of a prose preface and a hexametric poem in 436 lines in which the author simultaneously imitates and challenges Vergil, whose *Georgics* omit discussion precisely of gardening (4, 147-8). In general, Columella's poem is meant to complete what the readers miss in the Vergilian didactic poem; here the 'garden-book' becomes the ideal terrain for representing the author's literary ambitions but, at the same time, for undermining the *utilitas* at the basis of the didactic project itself. Another point of interest in the treatise's massive textuality, recently discussed by Mielke, is the formation and schooling of readers as landowners.[8] Within the logic of an ever growing textuality, the final book is especially significant for its topic, the tasks of the *vilica*, i.e. the bailiff's wife, who is presented as a figure of excess, both because of her gender and because of her function as administrator of the *res congestae* (12, 2), i.e. of excessive goods. Adding further material to an already massive corpus is the insertion within the manuscripts of a so-called *Liber de arboribus** between books 2 and 3; this might be either a previous work by Columella himself or, more probably, a later epitome.

The cultivation of trees is at the center of the work of Gargilius Martialis* (probably 3rd c. CE). His extant work consists of two sets of fragments, one including advice on medical uses of plants and fruits, and the other consisting of instructions on the cultivation of fruit trees; Zanaldin has recently argued that these fragments might belong to a single text bearing the title *De hortis*. Even in its fragmentary nature, it is not difficult to appreciate the uniqueness of this treatment compared with the

[8] L. Mielke, Spaliere für Silvinus, Charakterschulung in Columellas Werk über die Landwitschaft, PhD thesis, University of Rostock 2020.

preceding tradition of Roman agricultural writing, both in its specific subject matter and in its exclusive focus on the practicality of knowledge.[9]

Gargilius represents an important source for the last in the long series of Roman agricultural writers, Palladius Rutilius Taurus Aemilianus*, author of *Opus agriculturae* in 15 books (late 4th - 6th c. CE). Palladius does not offer any detailed information about himself, and in general, as Giardina observes, he presents an agriculture without men and a nature without human protagonists.[10] A striking characteristic of this text is its calendrical structure, which derives from the *ephemeris*, a sort of calendar for farmers (which, although in a less prominent fashion and not a structural device, had played a role within the tradition from Varro on). Book 1 of Palladius' text contains a variety of general agricultural topics, such as the *pastio villatica* or rearing of small animals on an estate, which had also been an important topic in Varro and Columella, while books 2 through 13 are each devoted to a month, starting with January. Book 14 is on veterinary medicine, and the final book consists of a prose introduction followed by a poem entitled *De insitione* in 85 elegiac couplets on grafting techniques; since those techniques were previously treated in book 3, the poem is not meant to fill a thematic lacuna, as was the case for instance with Palladius' model, Columella's poem *De cultu hortorum* (Book 10 of his *De re rustica*). Although one might well wonder about the real applicability of Palladius' text, it is clear that, at least superficially, this author has the ambition of being read by farmers, referring to himself as *formator agricolae* ("farmer's instructor") and rejecting the adornments of *eloquentia* which can only be understood by highly educated people (praef. 1,1,1). By doing so, Palladius exemplifies the more marked tendency towards applicability which characterizes late antique reflections on technology and technical writing. It is therefore not surprising that precisely Palladius enjoys a tremendous reception in the Middle Ages and beyond, his work being transmitted in more than one hundred manuscripts. As Mago's work had been the agricultural Bible in earlier periods, so Palladius' *Opus* became *the* Roman model for agricultural discourse in Europe for centuries afterwards.

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Keywords

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instruction
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gardening
ephemeris

Hesiod
Xenophon
Mago

[9] J. Zainaldin, *Gargilius Martialis. The Agricultural Fragments* (2020).
[10] A. Giardina, „Palladio, il latifondo italico e l'occultamento della società rurale", in A. Giardina (ed.), Società romana e impero tardoantico. Vol. 1: Istituzioni, ceti, economie, Roma-Bari 1986 (31-36).

Vergil, georg.

Cato
Varro
Columella
Gargilius Martialis
Palladius
Geoponica

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