

Animals and Space in Roman Agricultural Literature

Thorsten Fögen

A. Introduction

1. Modern studies on the consequences of domestication

See e.g. the contributions in Clutton-Brock (1989), the article by Clutton-Brock (1994) and relevant sections in Hurn (2012: 55–69) and DeMello (2012: esp. 84–98), with further references

James Serpell, *In the Company of Animals. A Study of Human-Animal Relationships*, Oxford 1996, 5:

“The shift from hunting to farming (...) produced a fundamental change in human relationships with animals. (...) The domestic animal is dependent for survival on its human owner. The human becomes the overlord and master, the animals his servants and slaves. By definition, domestic animals are subservient to the will of humanity (...).”

Serpell (1996: 218):

“The farmer has no choice but to set himself up in opposition to nature. Land must be cleared for cultivation, and weeds and pests, which would otherwise restore his fields to their original condition, must be vigorously suppressed. Domestic livestock must be controlled and confined, using force if necessary, to prevent them wandering off and reverting to a wild state, or being eaten by predators. The entire system, in fact, depends on the subjugation of nature, and the domination and manipulation of living creatures.”

2. Main representatives of Roman agricultural literature

- Cato: *De agri cultura*
- Varro: *De re rustica* (dialogic treatise)
- Columella: *De re rustica* (handbook)
- Palladius: *Opus agriculturae*

B. Columella’s *De re rustica* as a source

3. General overview of Columella’s *De re rustica*

- Book 1: general remarks on the status of agriculture as a discipline and recommendations concerning the acquisition of country estates and the duties of the landowner
- Book 2: precepts for the cultivation of land
- Books 3–4: precepts for the cultivation of vines
- Book 5: precepts for the cultivation of trees
- Books 6–9: animals
- Book 10: didactic poem on gardening
- Book 11: guidelines for the bailiff (*vilicus*), an overview of the farmer’s annual tasks, combined with instructions for the cultivation of vegetables and herbs
- Book 12: outline of the duties of the bailiff’s wife (*vilica*) as well as the preparation of various provisions

The authenticity of the separate *Liber de arboribus*, which has been transmitted together with Columella’s *De re rustica*, has rightly been doubted. For a short summary, see Fögen (2009: 157–158).

The complex nature of agriculture as a discipline, mirrored by the comprehensive character of *De re rustica*, is accentuated several times, e.g. in 1 praef. 21–33, 5.1.1–2 and 11.1.10–12. See also Fögen (2009: 158–159, 162–164, 166–170). Columella thus attempts to cover the field of agriculture in its entirety and even incorporates excursuses on related disciplines such as land-surveying (*De re rust.* 5.1.2–5.3.9).

4. Structure of Books 6–9 of Columella's *De re rustica*

Book 6 : Larger animals

- 6.1–19: oxen (6.4–19: diseases and remedies; cf. also 11.2.98–101: feeding of oxen as part of annual calendar)
- 6.20: bulls
- 6.21: cows
- 6.22: annual examination of herds of cattle
- 6.23: enclosures and cowsheds
- 6.24: breeding of cattle
- 6.25–26: calves (remedies for worms; castration)
- 6.27–35: horses (6.30–35: diseases and remedies)
- 6.36–38: mules (6.38: diseases and remedies)

Book 7 : Smaller animals

- 7.1: donkeys
- 7.2–5: sheep (7.5: diseases and remedies)
- 7.6–7: goats (7.7: diseases and remedies)
- [7.8: production of cheese]
- 7.9–11: pigs (7.10: diseases and remedies)
- 7.12–13: dogs (7.13: diseases and remedies)

Book 8 : Smaller animals (continued)

- 8.2–7: poultry / chickens / hens
- 8.8: pigeons
- 8.9: turtle-doves
- 8.10: thrushes
- 8.11: peacocks
- 8.12: guinea-fowls (*Numidicae*) and rustic cocks (*silvestres gallinae*)
- 8.13–15: amphibious birds
 - 8.13–14: geese
 - 8.15: ducks
- 8.16–17: fishes

Book 9 : Wild cattle and bees

- 9.1: wild creatures (*pecudes silvestres / ferae pecudes*), e.g. deer, gazelles, antilopes, wild boars
- 9.2–16: bees (9.13: diseases and remedies)

5. Subdivision of quadrupeds (*De re rust.* 6 praef. 6)

duo genera quadrupedum:

- *alterum param in consortium operum, sicut bovem, mulam, equum, asinum (...)* (*cuius usus nostri laboris est particeps*)
- *alterum voluptatis ac reditus et custodiae causa, ut ovem, capellam, suem, canem*

C. Columella on the location of the country estate

6. Checklist of criteria for the selection of a farm (*De re rust.* 1.3.1–7)

- healthy climate of the surroundings (*salubritas caeli*)
- fecundity of the soil (*ubertas loci*)
- accessibility (*via*)
- water supply (*aqua*)

7. The importance of a healthy location (*De re rust.* 1.4.9–10)

Quod incohatur aedificium, sicut salubri regione ita saluberrima parte regionis debet constitui. nam circumfusus aer corruptus plurimas adfert corporibus nostris causas offensarum. sunt quaedam loca, quae solstitiis minus concalescunt, sed frigoribus hiemis intolerabiliter horrent, sicut Thebas ferunt Boeotias; sunt, quae tepent hieme, sed aestate saevissime cadent, ut adfirmant Euboicam Chalcidem. petatur igitur aer calore et frigore temperatus, qui fere medios optinet collis, quod neque depressus hieme pruinis torpet aut torret aestate vaporibus neque elatus in summa montium perexiguus ventorum motibus aut pluviis omni tempore anni saevit. haec igitur est medii collis optima positio, loco tamen ipso paulum intumescente, ne cum a vertice torrens imbribus conceptus adfluxerit, fundamenta convellat.

“As a building which is begun should be situated in a healthful region, so too in the most healthful part of that region; for when the surrounding atmosphere is bad, it is a contributing factor to a host of physical ills. There are certain places, such as Thebes in Boeotia is said to be, which are comparatively free from heat in midsummer but become frightful and unbearable with the cold of winter; there are places which are mild in winter but glow with a most cruel heat in summer, as they say of Chalcis in Euboea. Let there be sought, then, an atmosphere free from excesses of heat and cold; this is usually maintained halfway up a hill, because, not being in a hollow, it is not numbed with winter’s frosts or baked with steaming heat in summer, and, not being perched on the top of a mountain, it is not fretted at every season of the year with every little breeze or rain. The best location, then, is halfway up a slope, but on a little eminence, so that when a torrent formed by the rains at the summit pours around it the foundations will not be torn away.”

8. Water supply (*De re rust.* 1.5.1–2)

Sit autem vel intra villam vel extrinsecus inductus fons perennis, lignatio pabulumque vicinum. si deerit fluens unda, putealis quaeratur in vicino, quae non sit haustus profundi, non amari saporis aut salsi. haec quoque si deficiet et spes artior aquae manantis coegerit, vastae cisternae hominibus piscinaeque pecori struantur; quae tamen pluvialis aqua salubritati corporis est accommodatissima, sed ea sic habetur eximia, si fitilibus tubis in contectam cisternam deducitur.

“Let there be, moreover, a never-failing spring either within the stading or brought in from outside; a wood-lot and pasture nearby. If running water is wanting, make a search for a well close by, to be not too deep for hoisting the water, and not bitter or brackish in taste. If this too fails, and if scanty hope of veins of water compels it, have large cisterns built for people and ponds for cattle; this rain-water is after all most suitable to the body’s health, and is regarded as uncommonly good if it is conveyed through earthen pipes into a covered cistern.”

9. Hippocratic treatise *De aere, aquis et locis* 1–2 (II 12–14 Littré), esp. 2 (I 14 Littré)

Καὶ ἀπὸ τουτέων χρῆ ἐνθυμέεσθαι ἕκαστα. Εἰ γὰρ ταῦτα εἰδέη τις καλῶς, μάλιστα μὲν πάντα, εἰ δὲ μὴ, τὰ γε πλείστα, οὐκ ἂν αὐτὸν λανθάνοι ἐς πόλιν ἀφικνεόμενον, ἧς ἂν ἄπειρος ἦ, οὔτε νοσήματα ἐπιχώρια, οὔτε τῶν κοινῶν ἢ φύσις ὀκοίη τις ἐστίν· ὥστε μὴ ἀπορέεσθαι ἐν τῇ θεραπείῃ τῶν νούσων, μηδὲ διαμαρτάνειν, ἃ εἰκός ἐστι γίνεσθαι, ἢν μὴ τις ταῦτα πρότερον εἰδῶς προφροντίσῃ. Περὶ ἐκάστου δὲ, χρόνου προϊόντος καὶ τοῦ ἐνιαυτοῦ, λέγοι ἂν ὀκόσα τε νοσήματα μέλλει πάγκοινα τὴν πόλιν κατασχίσειν ἢ θέρεος ἢ χειμῶνος, ὀκόσα τε ἴδια ἐκάστῳ κίνδυνος γίνεσθαι ἐκ μεταβολῆς τῆς διαίτης. (...) Οὕτως ἂν τις ἐρευνώμενος καὶ προγιγνώσκων τοὺς καιροὺς, μάλιστ’ ἂν εἰδέη περὶ ἐκάστου, καὶ τὰ πλείστα τυγχάνοι τῆς ὑγιείης, καὶ κατ’ ὀρθὸν φέροιτο οὐκ ἐλάχιστα ἐν τῇ τέχνῃ.

Vitruvius’ *De architectura* was influenced by some of the ideas presented in this Hippocratic treatise. For details, see Fögen (2009: 139–143).

D. Columella on space and economic issues

10. Studies on sociological and economic aspects in Columella

The majority of studies on Columella have concentrated on the sociological and economic aspects of *De re rustica*. Good examples are Gummerus (1906), Carl (1926), Mihăescu (1959), Brockmeyer (1968), Martin (1971), Kaltenstadler (1978), Kolendo (1980), and Flach (1990); see also White (1970), Hentz (1980), and Marcone (1997).

11. Bovines

De re rust. 6 praef. 7 on the hierarchy among animals (motivated by etymology, myth, religion, astronomy, pragmatic aspects and tradition):

*nec dubium quin, ut ait Varro [De re rust. 2.5.3], ceteras pecudes **bos** honore superare debeat, praesertim et in Italia, quae ab hoc nuncupationem traxisse creditur, quod olim Graeci tauros italos vocabant, et in ea urbe, cuius moenibus condendis mas et femina boves aratro terminum signaverunt, vel, ut antiquiora repetam, quod idem Atticis Athenis Cereris et Triptolemi fertur minister, quod inter fulgentissima sidera particeps caeli sit, quod denique laboriosissimus adhuc hominis socius in agricultura, cuius tanta fuit apud antiquos veneratio, ut tam capital esset bovem necuisse quam civem. ab hoc igitur promissi operis capiamus exordium.*

De re rust. 1.6.4–6:

pecudibus stabula, quae neque frigore neque calore infestentur, domitis armentis duplicia bubilia sint hiberna atque aestiva, ceteris autem pecoribus, quae intra villam esse convenit, ex parte tecta loca, ex parte sub divo parietibus altis circumsaepita, ut illic per hiemem, hic per aestatem sine violentia ferarum conquiescant. sed ampla stabula sic ordinentur, ne quis umor influere possit et ut, quisque ibi conceptus fuerit, quam celerrime dilabatur, ut nec fundamenta parietum corrumpantur nec ungulae pecudum. lata bubilia esse oportebit pedes decem vel minime novem, quae mensura et ad procumbendum pecori et iugario ad circumeundum laxa ministeria praebeat.

“For cattle there should be stables which will not be troubled by either heat or cold; for animals broken to work, two sets of stalls – one for winter, another for summer; and for the other animals which it is proper to keep within the farmstead there should be places partly covered, partly open to the sky, and surrounded with high walls so that the animals may rest in the one place in winter, in the other in summer, without being attacked by wild beasts. But stables should be roomy and so arranged that no moisture can flow in and that whatever is made there may run off very quickly, to prevent the rotting of either the bases of the walls or the hoofs of the cattle. Ox-stalls should be ten feet wide, or none at the least – a size which will allow room for the animal to lie down and for the oxherd to move around it in performing his duties.”

12. Doves

De re rust. 8.8.2–6:

(...) nec in plano villae loco, nec in frigido: sed in edito fieri tabulatum oportet, quod aspiciat hibernum meridiem. (...) Nec minus extrinsecus levigari parietes, maxime circa fenestram: et ea sit ita posita, ut maiore parte hiberni diei solem admittat, habeatque appositam satis amplam caveam retibus emunitam, quae excludat accipitres, et recipiat egredientes ad apricationem columbas, nec minus in agros emittat matrices, quae ovis vel pullis incubant, ne quasi gravi perpetuae custodiae servitio contristatae senescant. Nam cum paulum circa aedificia volitaverint, exhilaratae recreantur, et ad fetus suos vegetiores redeunt, propter quos ne longius quidem evagari aut fugere conantur. (...) Locus autem subinde converri et emundari debet. Nam quanto est cultior, tanto laetior avis conspicitur, eaque tam fastidiosa est, ut saepe sedes suas perosa, si detur avolandi potestas, relinquat.

“(...) on the farm they should not be kept in a part of the farm-house which is level with the ground or cold, but a loft should be constructed for them in an elevated position to face the midday sun in winter. (...) Also the walls ought to be made smooth outside, particularly round the window, which should be so placed as to admit the sun for the greater part of a winter’s day and should have adjoining it a fairly large pen, protected by nets to keep out hawks, which may accommodate the doves when they come out to bask in the sun; through this also the mother-birds, which are sitting on their eggs or their squabs, can be let out into the fields, so that they may not become prematurely aged through the depression caused by the grievous servitude of perpetual imprisonment; for when they have fluttered about a little round the farm-buildings, they are exhilarated and refreshed and return invigorated to their young, for whose sake they make no attempt to wander far afield or escape by flight. (...) The place ought to be swept and cleaned out from time to time; for the better it is looked after, the more cheerful is the appearance of the bird, and so squeamish is it that it often takes a dislike to its own home and abandons it if it is given the opportunity to fly away.”

13. Pests and parasites

For a more general picture on pests and parasites in antiquity, see the article by Bodson (1994), with further references. This rather short piece also looks at Roman agricultural writers.

Important recommendations:

- The country estate should not be located in marshy regions, as they generate disease-bearing insects (*De re rust.* 1.5.6–8; cf. Varro, *De re rust.* 1.12.2).
- The construction of farm buildings should ensure that these are sufficiently protected against the intrusion of pests (*De re rust.* 1.6.12–17; cf. 2.19.1).
- The farmer needs to be familiar with methods to deter or eliminate vermin and other beasts such as snakes, cats, weasels or ferrets (*De re rust.* 6.2.6, 6.16.2–3, 6.18.1–2, 6.25, 6.30.9–10, 6.33.1, 7.5.11–13, 7.13.1–2, 8.3.6, 8.5.3, 8.7.2, 8.5.18, 8.14.9, 9.7.5–6, 9.14.2, and 9.14.8–9).

14. Chickens and pigeons

a) *De re rust.* 8.7.1–2 on the fattening of chickens:

Pinguem quoque facere gallinam, quamvis fartoris, non rustici sit officium, tamen quia non aegre contingit, praecipendum putavi. locus ad hanc rem desideratur maxime calidus et minimi luminis, in quo singulae caveis angustioribus vel sportis inclusae pendeant aves, sed ita coartatae ne versari possint. verum habeant ex utraque parte foramina, unum quo caput exeratur, alterum quo cauda clunesque, ut et cibos capere possint et eos digestos sic edere ne stercore coinquentur.

b) *De re rust.* 8.8.11–12 on the fattening of pigeons:

nam si quae steriles aut sordidi coloris interveniunt, similiter ut gallinae farciuntur. pulli vero facilius sub matribus pinguescunt, si iam firmis, priusquam subvolent, paucas detrahas pinnas et obteras crura, ut uno loco quiescant, praebeasque copiosum cibum parentibus, quo et se et eos abundantius alant. quidam leviter obligant crura, quoniam si frangantur, dolorem et ex eo maciem fieri putent. sed nihil ista res pinguitudinis efficit. nam dum vincula exedere conantur, non quiescunt, et hac quasi exercitatione corpori nihil adiciunt. fracta crura non plus quam bidui aut summum tridui dolorem adferunt, et spem tollunt evagandi.

E. Columella on space and aesthetics

15. *De re rust.* 8.11.1 on peacocks

Pavonum educatio magis urbani patrisfamiliae quam tetrici rustici curam poscit. sed nec haec tamen aliena est agricolae captantis undique voluptates acquirere, quibus solitudinem ruris eblandiatur. harum autem decor avium etiam exteros, nedum dominos oblectat.

“The rearing of peacocks calls for the attention of the city-dwelling householder rather than of the surly countryman, yet it is not alien to the business of the farmer who aims at the acquisition, from every source, of pleasure with which he beguiles the loneliness of country life; and the elegance of these birds delights even strangers, much more their owners.”

16. *De re rust.* 9.1.1–2 on wild creatures

Ferae pecudes, ut capreoli dammaeque nec minus orygm cervorumque genera et aprorum, modo lautitiis ac voluptatibus dominorum serviunt, modo quaestui ac redivitibus. Sed qui venationem voluptati suae claudunt, contenti sunt, utcumque competit proximus aedificio loci situs, munire vivarium, semperque de manu cibos et aquam praebere: qui vero quaestum redivitumque desiderant, cum est vicinum villae nemus (id enim refert non procul esse ab oculis domini) sine cunctatione praedictis animalibus destinant. Et si naturalis defuit aqua, vel inducitur fluens, vel infossi lacus signino consternuntur, qui receptam pluviatilem contineant.

“Wild creatures, such as roe deer, antelopes and also gazelles, fallow-deer, and wild boars sometimes serve to enhance the splendour and pleasure of their owners, and sometimes to bring profit and revenue. Those who keep game shut up for their own pleasure are content to construct a park, on any suitable site in the neighbourhood of the farm buildings, and always give them food and water by hand. Those on the other hand who look for profit and revenue, when there is a wood near the farm (for it is important that it should not be far out of sight of the owner), reserve it without hesitation for the above-mentioned animals, and if there is no natural supply of water, either running-water is introduced or else ponds are dug and lined with mortar to receive and hold the rain-water.”

F. Columella on space and ‘favoured’ animals

17. Studies on dogs in Graeco-Roman antiquity

See esp. von Keitz (1883: 15–17), Keller (1909: 91–151), Orth (1910), Merlen (1971: esp. 25–89), Toynbee (1973: 102–124), Bodson (1980), Zaganiaris (1980/81), Perfahl (1983), Peters (1998: 166–187), Brewer, Clark & Phillips (2001), Amat (2002: 25–92, 225–226), Franco (2003), and Giebel (2003: 120–128).

18. *De re rust.* 7.12.1 on the outstanding qualities of dogs

nunc (...) de mutis custodibus loquar, quamquam falso canis dicitur mutus custos. nam quis hominum clarius aut tanta vociferatione bestiam vel furem praedicat quam iste latratu, quis famulus amantior domini, quis fidelior comes, quis custos incorruptior, quis excubitor inveniri potest vigilantior, quis denique ultor aut vindex constantior? quare vel in primis hoc animal mercari tuerique debet agricola, quod et villam et fructus familiamque et pecora custodit.

19. The character of dogs

De re rust. 7.12.5:

(...) mores autem neque mitissimi nec rursus truces atque crudeles, quod illi furem quoque adulantur, hi etiam domesticos invadunt. satis est severos esse nec blandos, ut non numquam etiam conservos iratius intueantur, semper excandescant in externos. maxime autem debent in custodia vigilantes conspici nec erronei, sed adsidui et circumspecti magis quam temerarii. nam illi, nisi quod certum conpererunt, non indicant, hi vano strepitu et falsa suspitione concitantur.

De re rust. 7.12.6 on the education (*disciplina*) of dogs:

haec idcirco memoranda credidi, quia non natura tantum, sed etiam disciplina mores facit, ut et, cum emendi potestas fuerit, eius modi probemus et, cum educabimus domi natos, talibus institutis formemus.

20. Dogs inside the house (*De re rust.* 7.12.7)

Nec multum refert an villatici corporibus graves et parum veloces sint: plus enim cominus et in gradu, quam eminus et in spatioso cursu facere debent. Nam semper circa septa et intra aedificium consistere, immo ne longius quidem recedere debent, satisque pulchre funguntur officio, si et advenientem sagaciter odorantur, et latratu conterrent, nec patiuntur propius accedere, vel constantius appropinquantem violenter invadunt.

“It does not matter much if farm-yard dogs are heavily built and lack speed, since they have to function rather at close quarters and where they are posted than at a distance and over a wide area; for they should always remain round the enclosures and within the buildings, indeed they ought never go out farther from home and can perfectly well carry out their duties by cleverly scenting out anyone who approaches and frightening him by barking and not allowing him to come any nearer, or, if he insists on approaching, they violently attack him.”

21. On lapdogs

E.g. Martial 1.109 on the dog Issa and Petronius, *Sat.* 64.5–10 on the lapdog (*catella*) belonging to Trimalchio's beloved boy Croesus. By contrast, Trimalchio's own dog Scylax, designated by him as *praesidium domus familiaeque*, does not seem to live within the house; he has to be led into the dining-room by a slave (*Sat.* 64.7; see also *Sat.* 72.7). For further information on lapdogs see e.g. Lazenby (1949: 246–247), Toynbee (1973: 108–122), Amat (2002: 63–68), and Goguy (2003: 58, 65–68).

22. Pets

For definitions of what constitutes a pet, see in particular Fudge (2008: 8):

“Pets have been regarded by some thinkers as degraded animals: what might be perceived as truly animal qualities of wildness and self-sufficiency have been removed from – bred out of – the pet and replaced with tameness and dependency. (...) A pet is what the anthropologist Edmund Leach called an ‘ambiguous (and taboo-loaded) intermediate category’ between ‘man’ and ‘not man (animal)’ (Leach 1966: 45). Pets are animals in the human home; Leach calls them ‘man-animals’.”

See also Fudge (2008: 15–16):

“Unlike most other animals, such as domestic cattle or wild creatures, pets are given individual names (sometimes human names), they are fed human-like (if not human) food, they are (like humans) not eaten, and they are offered increasingly sophisticated healthcare (organ transplantation for pets is an increasing trend). For many of us, pets are simply among those beings we live with: they are animals that are kin. The inherent paradox here – of a member of a different species also being perceived as a member of the family – is, in many ways, unimportant to those who live with animals. (...) Pet ownership is premised on the notion that it is possible to extend one's capacity to love beyond the limits of species; that one can have a truly affectionate and meaningful relationship with a being that is not human.”

For further approaches, see e.g. Serpell & Paul (1994: 129–130), Serpell (1996: 13–14, 17), Hurn (2012: 98), and DeMello (2012: 147–150). It is evident that very few of these criteria are applicable to the role of dogs in Columella.

On pets in Graeco-Roman antiquity:

See e.g. von Keitz (1883), Lazenby (1949), Bradley (1998), Bodson (2000), and Giebel (2003: 120–134). Pets in the modern world are the subject of Tuan (1984), Shell (1986), Serpell & Paul (1994), Serpell (1996), Fudge (2002: 27–28, 33–34), Fudge (2008), Hurn (2012: 98–111), and DeMello (2012: 146–169).

G. Conclusions

23. On the term ‘animal machines’

This expression is borrowed from the title of Harrison's important book from 1964, which has now been re-edited with additional contributions from several other authors (2013).

In his chapter ‘Animal agriculture’, Garner (1993: 93–117) elucidates common procedures in modern factory farming. Its distance from the standards outlined by Columella could not be made more obvious than through a passage from a trade magazine which he quotes (1993: 109): “Forget the pig is an animal. Treat him just like a machine in a factory. Schedule treatments like you would lubrication. Breeding season like the first step in an assembly line. And marketing like the delivery of finished goods.” See also DeMello (2012: esp. 132–145).

24. Experts taking care of animals (mentioned by Columella)

Ploughman or cattleman (*bubulcus*), shepherd (*opilio*, *pastor* or *magister pecoris*), the goatherd (*caprarius* or *magister pecoris*), swine-breeder (*porculator*), swineherd (*subulcus*), poultry-keeper (*aviarius*, *pastor* or *custos*, otherwise called *gallinarius*), or beekeeper (*curator*, *qui apes nutrit*)

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Thorsten Fögen

Durham University
 Department of Classics & Ancient History
 38 North Bailey
 Durham DH1 3EU
 Great Britain

e-mail: thorsten.foegen@durham.ac.uk