

Agronomic Policy: Re-evaluating the Agricultural Decline of the Later Roman Empire

In modern scholarship, myriad empirical studies explore the fall of the Western Roman Empire and the factors that caused its decline. To contribute, I investigate the impact of economic legislation on agronomic production in the later empire. Through investigation of agronomic interventions such as (a) the *capitatio-iugatio* system, (b) *emphyteusis* contracts, and (c) the *colonnate*, I argue that they are inherently financially driven, accounting for the increase of deserted lands and the consequent decline of sustainable, agricultural productivity. The discussion of agronomic policy is significant to the investigation of the western empire's collapse.

Introduction

The fall of the Western Roman Empire is a widely investigated phenomenon, associated with several geopolitical, militaristic, and socioenvironmental factors. However, the role of agronomic legislation is of particular significance, as Kehoe notes: "the legal institutions surrounding land played a crucial role in shaping the most important relationships defining the Roman economy, since, as in other pre-industrial societies, it was dominated by agriculture."¹ These legal policies influenced all

¹ Dennis Kehoe, "Tenure of Land and Agricultural Regulation," In *The Oxford Handbook of Roman Law and Society* (Oxford: Oxford University Press, 2016), 647, <https://doi.org/10.1093/oxfordhb/9780198728689.013.47>.

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agronomic producers and, thus, underpinned the empire's ability to sustain their exploits over centuries of largely unchallenged power. Despite this significance, late-empire legislative interventions highlight a dangerous negligence of agricultural productivity through the exacerbation of the *agri deserti*, or "deserted lands." According to Grey,² these plots denoted fields that did not provide revenue to the *Fisc*, the imperial treasury.

In this paper, I initially explore the common causes of this "desertion" (e.g. infertility, depopulation, and migration) through late-second century policy. Then, I will examine the exacerbation of the issue through (a) the *capitatio-iugatio* system, (b) *emphyteusis* contracts, and (c) the *colonnate*. I argue that these legislative interventions to the *agri deserti* (deserted fields) were inherently economically driven, ironically contributing to a *decrease* in agricultural production. It is through this investigation that I highlight the prioritization of economic output over agricultural sustainability and productivity. This is significant in developing a comprehensive understanding of the multi-faceted factors that contributed to the Western Roman Empire's collapse. However, it is necessary to recognize the issues of validity surrounding the legal evidence I present.

² Cam Grey, "Contextualizing Colonatus: The Origo of the Late Roman Empire," *The Journal of Roman Studies* 97 (2007): 155–75.
<https://doi.org/10.3815/000000007784016089>.

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The *Tributum Soli*

To provide context for these late-empire policies, I investigate the impact of and response to the *tributum soli* (land tax) in the earlier empire. This policy taxed farming lands based on assessed value of the *fundus* – the estate’s land.³ According to Buongiorno, this tax was complemented by economic punishments associated with forsaken land, as “the general approach to fighting land abandonment and its neglecting was the imposition of fines.”⁴ However, during the reign of Marcus Aurelius, the empire’s population decreased from both the Marcomannic wars and the Antonine plague. In his *Storia di Roma*, Lo Cascio associates the latter with a 20% increase in death rate over a twenty-year period.⁵ Accordingly, the empire was in desperate need to repopulate the forsaken lands that produced no agricultural yield, and more importantly, no revenue. Enter Emperor Pertinax.

In the late second century CE, Publius Helvius Pertinax rose to the purple following the death of the financially inept Commodus. In addition to funding a plethora of social programs, Pertinax donated imperial agricultural lands to Roman citizens in his 193 CE decree, recounted in Herodian’s *History of the Roman Empire since the Death of Marcus Aurelius*:

To begin with, Pertinax assigned all the land in Italy and the rest of the provinces not under cultivation to

³ Peter Brunt, “The Revenues of Rome,” *The Journal of Roman Studies* 71 (1981): 166. <https://doi.org/10.2307/299505>.

⁴ Pierangelo Buongiorno, “Agriculture, Environment and Law Between Ancient Experiences and Present Knowledge: Some Remarks,” *Law and Agroecology* (2015): 92. https://doi.org/10.1007/978-3-662-46617-9_5.

⁵ Christer Bruun, “The Antonine Plague and the ‘Third-Century Crisis,’” *BRILL eBooks* (2007): 203. <https://doi.org/10.1163/ej.9789004160507.i-448.44>.

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anyone willing to care for it and farm it, to be his own private property; he gave to each man as much land as he wished and was able to manage, even if the land were imperial property. To these farmers he granted exemption from all taxes for ten years and freedom from government duties as well.⁶

With little analysis, it appears that Pertinax' gesture is underpinned in generosity. However, I must consider the policy's underpinning intentions as attributed to declining Italian arability and a desire for increased economic output. The ten-year exemption from taxes offered was not an uncommon practice to increase husbandry and agronomic production.⁷ Such was its significance that, until the reign of Diocletian in 284 CE, Italian lands were generally exempt from the larger taxes imposed in the provinces. Here, I add that certain provinces held *ius Italicum*, the "Italian law" that offered the same exemptions to the *tributum* (land tax).⁸ For example, the emperor Septimius Severus gifted these indemnities to Carthage.⁹ These exemptions were not solely a display of national favouritism. Where Egypt's agricultural fertility was renewed yearly with the overflow of the Nile, the Italians had been harvesting from the same soil for centuries, leading to natural erosion, spoliation, and exhaustion.¹⁰ Accordingly, these tax exemptions were

⁶ Herodian, *History of the Roman Empire since the Death of Marcus Aurelius*, trans. Edward C. Echols (Los Angeles: University of California Press, 1961), 2.4-6.

⁷ Kehoe, "Tenure of Land," 648.

⁸ Thomas Watkins, "'Coloniae' and 'Ius Italicum' in the Early Empire." *The Classical Journal* 77, no. 4 (1983): 319.

⁹ Watkins, "'Coloniae' and 'Ius Italicum'", 320.

¹⁰ Vladimir G. Simkhovitch, "Rome's Fall Reconsidered," *Political Science Quarterly* 31, no. 2 (1916): 201-243, <https://doi.org/10.2307/2141560>.

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necessary to encourage land fallow practices and establish farms, encouraging sustainability and production.

However, the population and production pressures that defined the late second century aggravated the issue of the (albeit reduced) agronomic taxation. In years prior, farmers likely sought to maximize their yield at the cost of agronomic sustainability. Thus, a positive feedback loop must have arisen, in which, with decreased fertility, farmers were able to produce less and less yield, having to borrow more and more annually. Accordingly, larger numbers of farmers suffered the long-term problems of agronomic infertility or indebtedness, leading many to abandon their plots all together. Such action would have increased the state's dependence on outsourcing agriculture to satisfy the grain dole (i.e., *Cura Annona*) creating a tenuous reliance on the provinces, namely Egypt. While depopulation from plague and warfare is equally associated with declining productivity, Simkhovitch eloquently states,

It stands to reason that permanent desertion of entire countrysides can not be caused by temporary devastations of war, for war can not rob the fields of their fertility. Exhaustion of the soil, on the other hand, will lead to its desertion in time of peace and of course still more so in times of war.¹¹

Thus, we can source the increasing infertility to the early empire's economically driven *tributum soli*, a taxation policy that encouraged farmers to maximize their short-term yield at the cost of the soil. Tan condemns this financially driven unsustainability, writing "profit-motivated tax collectors are liable to do damage to the long-term productivity of agriculture

¹¹ Simkhovitch, "Rome's Fall Reconsidered," 228.

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if they press farmers too hard.”¹² Agronomic exploitation condemned the farm’s future fertility, thus underpinning the problem of the early *agri deserti*, not one of depopulation, but one of taxation. Here, I cite Pertinax’ land offerings and tax exemptions as an effort to address the snowballing issue to increase agricultural (and economic) productivity. However, Simkhovitch argues that the legislative interventions of later antiquity could “neither stop the robbing of the soil nor the depreciation of land values.”¹³ Going one step further, I argue these “interventions” had negative implications for agricultural production, as later administrations prioritized or exploited the economic benefits of the lands. Consequently, these policies increased the *agri deserti* and decreased agronomic sustainability, productivity, and accordingly, output. In this next section, I will examine one such example, a century later.

The *Capitatio-Iugatio* System and Standardization

In this section, I argue that the Tetrarchy’s reformed tax collection system ultimately discouraged agricultural sustainability, contributing to the *agri deserti* and decreasing agronomic and economic yield. In 284 CE, Diocletian’s bureaucracy consolidated practices under a single scheme of assessment, the *capitatio-iugatio* system.¹⁴ This framework attempted to standardize and regulate the agricultural system for both economic and agricultural productivity purposes. It

¹² James Tan, "The Use and Abuse of Tax Farming," in *Power and Public Finance at Rome, 264-49 BCE* (New York: Oxford University Press, 2017): 44,
<https://doi.org/10.1093/acprof:oso/9780190639570.003.0004>.

¹³ Simkhovitch, "Rome’s Fall Reconsidered," 219.

¹⁴ Cam Grey, "Revisiting the 'Problem' of Agri Deserti in the Late Roman Empire," *Journal of Roman Archaeology* 20 (2007): 368,
<https://doi.org/10.1017/S1047759400005468>.

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assessed the tax liability of land through (a) *capita*, (heads) quantitative units of personnel assets, including tenants, slaves, and animals, and (b) the *iugum*, a notional unit representational of the land's productivity that denoted a proportion of the community's total tax burden.¹⁵ These factors were assessed in tandem by a regular census, organized by five-year periods from 287 CE onwards.

With increasing administrative management, this policy allowed the State to control dictating the apportionment of municipalities' total tax burden. This generated and regulated revenue for the imperial treasury (*Fisc*) but also introduced abuse by the land officials (*peraequatores*).¹⁶ While larger landowners could afford to bribe or resist them, the smaller landowners had no ability to do so, and thus they absorbed the brunt of the municipality's tax burden. Cameron writes "the major tax burden continued to fall on those least able to bear it, the main tax still fell on the land, and the notion that high status should carry with exemption from certain taxes was an idea which permeated Roman attitudes to taxation at all periods, even when the empire could least afford it."¹⁷ Consequently, individual landowners faced the same taxation issues that defined early empire taxation and surrendered to sacrificing their plots' future arability to make ends meet. The administration's assessment and taxation of pasture and uncultivated fields heightened this stress. Citing a late-5th century CE document from Syria, Grey describes the attitudes towards pastureland as follows: "Similarly, they inscribed land

¹⁵ Grey, "Revisiting the 'Problem' of Agri Deserti," 368.

¹⁶ Grey, "Revisiting the 'Problem' of Agri Deserti," 369.

¹⁷ Averil Cameron, *The Later Roman Empire*, (Cambridge, Mass: Harvard University Press, 1993), 38.

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not sowed with arable crops, grazing land, so that it should give this much in payment to the *Fisc*. And the assessment for grazing land is that it gives to the *Fisc* one denarius each year, and some gives two or three."¹⁸

In taxing "grazing land" at a differential rate, the bureaucracy sought to generate more revenue. However, this shows ignorance of the complementary rotation practices between tillage and pastural lands. For example, as discussed in Palladius' 5th century CE text, *Opus agriculturae*, certain fertility strategies necessitated these 'abandoned lands' to sustainably generate agricultural production.¹⁹ In the historian's description of field-management strategies, he recounts and validates the practice of field rotation, leaving land to fallow to increase future yield. This regeneration was necessary for Italian lands, without the extensive fertilization of the Nile. Thus, by taxing it, Diocletian's administration hindered reciprocal husbandry practices, forcing farmers to (a) abandon these fields and reduce their productivity, (b) indebt themselves, or, most often, (c) practice the discussed aggressive methods observed in the Republic and early empire that further eroded the soil. Any combination of these choices precluded sustainable methods of farming among smaller, single-family landowners. Further, these practices must be considered in the context of Diocletian's *Edict on Maximum Prices* (*Edictum de maximis pretiis*) in 301 CE. By setting the maximum prices for goods and services, the emperor attempted to curb inflation. However, Cameron notes how this policy largely failed due to a lack of

¹⁸ Grey, "Revisiting the 'Problem' of Agri Deserti," 369.

¹⁹ Palladius, Rutilius Taurus Aemilianus. *The Work of Farming (Opus Agriculturae)*; and, *Poem on Grafting*, translated by John G. Fitch. Totnes: Prospect Books, 2013.

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understanding of economics, “in the absence both of an adequate mechanism for enforcement and of parallel regulation supply.”²⁰ Combined with the pressure to meet the corrupt *peraequatores’* increased tax burden, the increased taxation, inflation, and the inability to sell goods at market value must have had a disastrous impact on the longevity of agricultural production. The system condemned its farmers to a life of increased poverty and thus drove the countryside depopulation that further exacerbated the problem of *agri deserti*.

***Emphyteusis* Contracts and Privatization**

Next, I explore the intervention of *emphyteusis* contracts upon the *agri deserti*, as well as their implications for agricultural production. Throughout the fourth century CE, the State produced legislation to both encourage and enforce cultivation of the deserted lands.²¹ They accomplished this through the distinct classification of *emphyteusis* contacts, long-term leases: “the right of *emphyteusis* should not be classed with those conferred by lease or alienation, but we have decreed that it shall constitute a third species of contract.”²² In his paper on *emphyteusis* contracts, Johnston describes the lease as the “grant of a hereditary right of the widest scope, subject to the payment of a low rent and to the duty of ameliorating the land.”²³ According to Whittaker and Garnsey, settlers were induced to prescribe to this quasi-permanent ownership, as they

²⁰ Cameron, *The Later Roman Empire*, 39.

²¹ Kehoe, “Tenure of Land,” 648.

²² *Codex Justinianus* in *Corpus Juris Civilis*, 4.66.1, trans. S.P. Scott (Cincinnati: Publisher, 1932).

²³ William R. Johnston, “Emphyteusis: A Roman ‘Perpetual’ Tenure”, *Univ. of Toronto Law J.* 3, no. 2 (1940): 323, <https://doi.org/10.2307/824317>.

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received a temporary immunity from land tax.²⁴ However, I argue the underlying issues associated with these contracts discouraged the repopulation of the *agri deserti*, decreasing agronomic production.

First, Kehoe considers that “the perpetual and alienable rights to municipal land and land held under *emphyteutic* leases meant that there were many people who held secure rights to land.”²⁵ Recognizing that land was leased out on almost permanent long-term bases, ambiguities must have arisen surrounding the tenants’ claims to these deserted territories. Turning to the Theodosian and Justinian Codes for evidence, it appears the policy surrounding *emphyteusis* largely involves ownership rights.²⁶ Interestingly, Kehoe also notes that it was standard for legal officials to deny such tenants rights of possession.²⁷ Denied possession adversely affects agricultural yield, without providing the economic incentives required for farmers to continue both sustainably and, more importantly, at all. If repeatedly refused ownership rights, *emphyteutic* farmers would have little reason to continue working the land and forsake it, especially in the difficulties of the third-century crisis. Thus, this policy displays an economic prioritization, and a related decline in agricultural productivity.

Secondly, agricultural production was hindered by the agricultural monopoly of private *emphyteusis* contracts held by the elites. While not necessarily intended to be so, these contracts were primarily obtained by the wealthy *conductores*

²⁴ C. R. Whittaker and Peter Garnsey, "Rural Life in the Later Roman Empire," in *Cambridge Ancient History* (Cambridge: Cambridge Univ. Press, 1997), 281. <https://doi.org/10.1017/CHOL9780521302005.010>.

²⁵ Kehoe, "Tenure of Land," 656.

²⁶ *Codex Justinianus* in *Corpus Juris Civilis*, 7.30.1.

²⁷ Kehoe, "Tenure of Land," 656.

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(lessees) of the aristocracy.²⁸ With semi-permanent ownership and thus, the land rights, the elites would sublet the lands to farmhands. In the context of Diocletian's administrative regulations, corruption and taxation had increasingly shifted the ownership of these plots from smaller landholders to the larger wealthier ones. Thus, in privatizing Imperial lands, agricultural production was increasingly controlled by the aristocracy, further stressing small landowners' holdings and engendering agricultural abandonment. Bar recognizes the resulting impact, writing that "in the countryside... huge tracts of agricultural land were deserted, reverting to wasteland. Large estates swallowed up small farms, making big *latifundiae* the typical form of landowning."²⁹ Therefore, analysis of these factors in tandem – ownership denial and aristocratic privatization – highlight the contracts' influence in increasing *agri deserti* and decreasing agricultural production. I will now examine the consequences of such in the next century, with the rising popularity of *emphyteutic* contracts and their role in underpinning the Roman *colonate*.

The *Colonate* and Immobility

Finally, I investigate the decline of agricultural productivity under the *colonate* of the fourth century. In the period following the economic reforms of Diocletian's bureaucracy, the census consistently recorded a subset of tenant farmers, the *coloni*, on *emphyteutic* lands. These represented farmers who voluntarily cultivated specific estates under wealthier landowners, and both

²⁸ Whittaker and Garnsey, "Rural Life," 284.

²⁹ Doron Bar, "Roman Legislation as Reflected in the Settlement History of Late Antique Palestine," *Scripta Classica Israelica* 24, no. 1 (2005): 202.

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contributed to meeting the land's annual taxation.³⁰ This legislation attests to the abstract noun *colonatus*, which, appears to be "explicitly connected to agricultural activity."³¹ Recent scholarship has provided an interpretive framework – labeled the *colonate* – that links the *coloni* and *colonatus* together in a relationship of mutual dependence between tenants, landowners, and the land. While difficult to establish a discrete set of assumptions surrounding the role of the *colonate*, the link between individuals and land is key to understanding the taxation system's motivations and the related issues for the land. Through *origo* – an administrative concept that encouraged the investment of land with a proportion of a collectivity's total tax burden – legislators attached liability for taxation to the land, and accordingly, the people attached to it.³² This association was reinforced throughout the fourth century, with the voluntary *colonus* of the early empire evolving into a land-bound serf by virtue of "hereditary bondage."³³ The first clear evidence for this comes from a law passed by Emperor Constantine in 332 CE.

If any person should knowingly detain in his own household a colonus that belongs to an other, he shall first restore the man himself to his owner, and he shall be compelled to pay his tribute for as long a time as the man was with him. But the colonus himself who was unwilling to be what he has been born shall be reduced to slavery.³⁴

³⁰ Grey, "Contextualizing Colonatus," 155.

³¹ Grey, "Contextualizing Colonatus," 155.

³² Grey, "Contextualizing Colonatus," 156.

³³ Bar, "Roman Legislation," 202.

³⁴ *Codex Theodosianus*, 5.17.1, trans. Clyde Pharr (Nashville: 1952).

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This policy forcibly detained runaway tenants, returned them to their former estates, and demanded that owners pay their taxes. At this time of decreased fertility and depopulation, this legislation must be interpreted as a response to agricultural issues surrounding the *agri deserti*. Binding the *coloni* to the land would have assured participation in the agronomic economy and accordingly, increase agricultural yield. However, this policy equally reflects an attempt to create a more reliable basis for taxation, highlighting the State's interest in exploiting their farmers for taxation and production. While this exploitation had direct implications on the *coloni's* ability to provide agricultural yield, I will examine the indirect agronomic issues associated with this policy.

Consider the implications of the *coloni's* increased bargaining power in their relationship with landowners. Because the *coloni* were impeded by these legal restrictions, the addition and replacement of new *coloni* necessarily rose in value. Any *colonus* willing to run the risk of punishment to enlist with a new landowner could demand far better terms than what was available under the free labor market.³⁵ Furthering the author's point, given the landowners had to pay the poll tax of runaway *coloni*, they now carried a leveraging power to further incentivize the terms of their agreement. Due to the reciprocal dependence enforced by this policy, landowners thus had no choice but to continue leasing their land to *coloni*, even when disadvantageous. And thus, the landowners bore the brunt of the cost, losing the revenue that they might have used to reinvest in more productive forms of agriculture. If this stress

³⁵ Dennis Kehoe, *Law and the Rural Economy in the Roman Empire* (Ann Arbor: University of Michigan Press, 2007), 153.

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prevented landowners (of often *emphyteutic* plots) from paying the inflation-driven increased taxation, “the lands were abandoned and *coloni* died off.”³⁶ An irony emerges: the increased bargaining power of the *coloni* under Constantine’s law indirectly led to their financial ruin, while simultaneously increasing *agri deserti* and decreasing agricultural productivity. With fewer *emphyteutic* estates paying annual taxes, the financial productivity of the rural empire decreased too. The restrictions on the mobility of *coloni* thus discouraged the sustainable investment of profits into agricultural growth (*origo*), highlighting the negative impact on the *agri deserti*: quantitative increase and qualitative decrease.

Conclusion

In this paper, I have investigated the legislative interventions that contributed to and exacerbated the issue of *agri deserti* in the later Roman Empire. Initially, the *tributum soli* was responsible for the unsustainable production of agricultural goods during the emerging stressors of the late second century. In the crisis of the third century, Diocletian’s administration sought to standardize and regulate agricultural activity, but in so doing, created a system of corruption that increased taxation and discouraged sustainability. Next, while *emphyteusis* contracts were integrated to provide incentivize agricultural production, they were privatized by the elites and subject to ownership disputes that decreased agronomic production. Lastly, the fourth-century economic and agronomic incentives associated with Constantine’s binding of the *coloni* to their land

³⁶ Kehoe, *Law and the Rural Economy*, 190.

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backfired too, increasing the quantity of *agri deserti* and minimizing agricultural and fiscal yield.

Simkhovitch wrote “the progressive exhaustion of the soil was quite sufficient to doom Rome, as lack of oxygen in the air would doom the strongest living being.”³⁷ The legislative investigations discussed reflect an increasingly financially driven empire, obsessed with curbing inflation and maximizing economic output. This underlying motive led to unproductive and unsustainable agriculture, reflected in agronomic policy adverse to its original purpose. This too highlights the complexity of the interplay between legal frameworks and socioenvironmental factors. Identifying the intricacies of the later empire’s agricultural sector is thus necessary to understand the larger implications for the later fall of the empire, which had experienced centuries of increasingly unsustainable and neglectful tenure.

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³⁷ Simkhovitch, “Rome’s Fall Reconsidered,” 241.

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