



Imperial Estates on the Lower Danube: Acquisition, Distribution, and Economic Role

Alberto Dalla Rosa, Slavtcho Kirov

► To cite this version:

Alberto Dalla Rosa, Slavtcho Kirov. Imperial Estates on the Lower Danube: Acquisition, Distribution, and Economic Role. Andrew Wilson; Tyler Franconi. Frontier Economies in the Roman Empire, Oxford University Press, In press. <hal-04799552>

HAL Id: hal-04799552

<https://hal.science/hal-04799552v1>

Submitted on 23 Nov 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons CC BY-NC-ND 4.0 - Attribution - Non-commercial use - No Derivative Works - International License

Imperial estates on the Lower Danube: acquisition, distribution, and economic role

Alberto Dalla Rosa and Slavtcho Kirov

If compared with the relatively abundant documentation available for the exploitation of imperial mines, the sources about imperial landed estates in the Lower Danube area from the first to third century AD are very limited. Yet we know that, during this period, this frontier region underwent a profound territorial reorganization which transformed it from a military district attached to Macedonia to a full-fledged and municipalized province.¹ Along the Danube, this process had been driven by the Roman army and by the settlers that followed the military units, which were installed around the main forts of Oescus, Novae, Durostorum and Troesmis. Existing tribes, such as the Moesians and the Treballians, were organized respectively around Ratiaria and Oescus, two legionary camps which also served as administrative centres². In the hinterland, some Thracian strategies and tribal territorial structures were kept in use for a longer period of time. The military controlled the mining area

¹ On the beginnings of the Roman occupation in Moesia see Tac., *ann.* 1, 76 and 80; Syme (1999); Sarnowski (1988: 15–8); Mrosewicz (2000); Duch (2017: 372–6). On the military district of the *civitates Moesiae et Treballiae* see CIL V 1838 = ILS 1349 and Faoro (2011: 135–6).

² Poulter (2004: 225–8)

around Montana at least from Tiberius' times and important *canabae* developed around the fort of Abrittus during the 1st century; however, other zones remained scarcely urbanized until the Trajanic foundations of Nikopolis and Marcianopolis.³ Military administration was gradually replaced by newly created municipal institutions during the 2nd century, and the recently published *lex Troesmensium* shows that the process was already in place by the end of Marcus Aurelius' reign.⁴

While we remain helplessly ignorant about many of the details, it is certain that the Roman state expropriated land from the local tribes to allow the installation of military forts, reward veterans and give form to city territories. Key natural resources, and particularly mines, were brought under direct Roman control after the conquest, as it is proven by the presence of special imperial administrators in the 2nd and 3rd century. At the same time, it is possible that tracts of land were confiscated and became property of the emperor, not differently from what used to happen under the Republic, when parts of the territory of subdued peoples could be transformed in *ager publicus*.⁵

³ Boteva (1996); Tomas (2016 : 101–15); Duch (2017: 383–91).

⁴ The text of the new municipal law has been published by Eck (2016).

⁵ *Ager publicus* continued to exist at least under Nero and Vespasian, as it is attested by a series of well-known delimitations from the proconsular province of Cyrenaica, recently studied by Elmayer and Maehler (2008), and Struffolino (2014: 359-361). Despite the opinion of Marquardt (1884: 247-248), followed by Gerov (1988: 69),

Starting from similar considerations, Boris Gerov produced the most complete survey of the imperial properties in the provinces of Moesia and Thrace at the end of the 1970s, and his work is still the most comprehensive and authoritative to date.⁶ Gerov was ultimately convinced that imperial estates had a central, strategic role for the supply of the army and that the emperor must therefore have taken every opportunity to seize new properties and accumulate new land. This attitude led him to over-interpret certain inscriptions and conjecture the existence of large estates on the simple basis, for example, of late-antique toponyms. Later scholars have proposed more careful interpretations, but have not changed the overall impression that the massive presence of military units located on the Danubian frontier would imply an equally important presence of imperial properties in order to control at least a part of the agricultural production intended for the troops.

the existing *ager publicus* was never transferred to the property of the emperor; however, we have no mentions of it after the Flavians and it is possible that its administration (not its property) passed to the *fiscus*. On this point, see Lo Cascio (2000: 111-120).

⁶ Gerov (1988: 69–83), which is the English translation of the original work *Zemevladienieto v rimska Trakiya i Miziya* published in Bulgarian in 1980. Gerov's position is followed by, among others, Tomas (2007: 41), Čisťakova (2014: 108–9), and Duch (2017: 392–3).

Gerov's work was remarkable at the time and it remains unrivalled in many aspects, but after more than forty years its central assumptions about the role of the *patrimonium* in this frontier region need to be reassessed. A number of recent and forthcoming publications are profoundly revising our ideas of the processes of acquisition of imperial properties, while new epigraphic discoveries have significantly increased the attestations of private landownership in the face of a practically unchanged amount of sources concerning imperial estates since Gerov's times. Drawing on these recent results and on our on-going work on an empire-wide survey of the documentation concerning imperial estates,⁷ we briefly present the key methodological issues that must be addressed when studying the *patrimonium Caesaris*, and then turn our attention to the documentation for Moesia. We argue that the presence of imperial estates in these provinces has been overestimated and that the emperor, while able to lay his hands on many estates thanks to conquests and confiscations, was only partially interested in incorporating them into his own property and preferred to redistribute them in various ways. This eventually leads us propose a revised interpretation of the economic role of the emperor in the region, who was—at least as landowner—less interventionist than previously thought.

⁷ This work will constitute one of the main outputs of the ERC project PATRIMONIVM—Geography and economy of the imperial properties in the Roman world (<http://patrimonium.huma-num.fr>).

Methodological issues

Our knowledge of the general patterns of acquisition and distribution of the imperial properties throughout the Roman world is still very fragmented. With the exception of a handful of regions for which we have more precise documentation, it is often very difficult to get an idea of the size of the estates in a given province from the sparse epigraphic mentions of imperial slaves, freedmen, and procurators. This is due to the fact that the geography of the *patrimonium Caesaris* is reconstructed mainly from indirect evidence, such as funerary inscriptions mentioning estate administrators, titles of procuratorial posts, or toponyms referring to the emperor.⁸ When found isolated—as it is often the case for the Lower Danube region—this evidence cannot say much more than an imperial property of some sort existed nearby and only a careful contextualization within the documentation of the region can reveal further elements about the origin and economic exploitation of a property. The reconstruction of the size of the estates is often a matter of speculation, since natural features (streams, ridges etc.) or political boundaries can offer only very loose parameters.⁹

⁸ Maiuro (2012: 159–60).

⁹ Some imperial estates were extra-territorial, that is laid outside the territory of a city, but others—particularly those inherited from freedman or other private individuals—were not. On this point, see already the critics of His (1896: 15–16) against the position of Schulten (1896: 8). Further considerations in Dalla Rosa (2020).

A well-known passage of Frontinus' *De controversiis agrorum* indicates that large private or imperial domains, sometimes larger than a city's territory, were not so uncommon in the provinces, particularly in Africa.¹⁰ The spectacular number of epigraphic sources concerning imperial estates in the Bagradas (Mejerda) valley in modern Tunisia confirms Frontinus' statement and delivers precious information about their organization.¹¹ We can reconstruct the existence of two statutes known as the *lex Manciana* and the *lex Hadriana de agris rudibus* that regulated the land tenure conditions of the *coloni* and their obligations toward the *conductores* who collected from them the rent in kind for the imperial administration.¹² The rich and important evidence from the Bagradas valley has attracted so much attention that it has become somehow paradigmatic and is too often considered to describe how imperial land was exploited and administered in general. This is, however, far from certain. We would

¹⁰ Front. *Contr. Agr.* 42.10: *Inter res p. et privatos non facile tales in Italia controversiae moventur, sed frequenter in provinciis, praecipue in Africa, ubi saltus non minores habent privati quam res p. territoria: quin immo multi saltus longe maiores sunt territoriis* ('It is not easy for disputes of this type between communities and private individuals to arise in Italy. But they often occur in the provinces, especially in Africa, where private individuals have estates no less extensive than the territory belonging to communities. Indeed many estates are far bigger than territories.'). References and translations for the Roman land surveyors are given according to the edition of Campbell (2000).

¹¹ In general, see Kolendo (1976) and De Vos and Attoui (2013).

¹² The most accurate interpretation of the documents is that of Kehoe (1988). For some new elements, see González Bordas (2017).

therefore be misguided if we simply transposed what we know from Africa to the Lower Danube, where we have no comparable evidence.¹³

Outside Africa, imperial *latifundia* have been confidently identified in Italy and Asia Minor and must have been present in more provinces, but the emperor possessed smaller properties as well. In fact, the main patterns for the *fiscus* to acquire new land were inheritances, confiscations from condemned persons and *bona caduca*.¹⁴ Now, despite the attention that literary sources pay to the inheritance or confiscation of large patrimonies, the bulk of the land that the *fiscus* could claim consisted of testamentary inheritances from thousands of imperial freedmen, who did not generally possess large estates.¹⁵ The *bona caduca* and *vacantia*, that is legacies deemed invalid by virtue of the Augustan marriage laws, and the

¹³ See, for example, Gerov (1988: 110) and Čist'akova (2014: 103).

¹⁴ There is still much debate on the legal nature of the *patrimonium* and its relationship with the *fiscus*. In this article, we follow the position of Mommsen and Lo Cascio (2000; 2015) and consider the *patrimonium* as a part of the *fiscus*, which belongs to the emperor but receives also revenues from public sources.

¹⁵ Maiuro (2012: 70–80). Freedmen with a fortune of 100,000 sesterces or more were obliged to leave at least a half of it to the former master, but they could be dispensed from that obligation if they possessed the *ius trium liberorum*. However, since the inclusion of the former master in a freedman's will was a common social practice, we can imagine that, even when not legally required to do so, imperial freedmen voluntarily left something to the emperor. On the different rules affecting *bona libertorum* see Astolfi (1996: 214–24). Slaves returned their entire *peculium* to the master at their death.

properties of persons who died without any heir, constituted a more stable and probably more substantial flow of resources than the highly publicized but less frequent confiscations of properties belonging to senators or members of the provincial aristocracy.¹⁶ These patterns of acquisition imply that the *patrimonium* could incorporate estates of different sizes and different status, from large extraterritorial estates to small landholdings within a city's territory. They can also give us some rough indications about which sources of growth were available for the emperor's properties in a given province: we can expect the presence of large estates where a long tradition of senatorial landownership was established, like in Italy or Africa; where significant numbers of Roman citizens are attested, the *fiscus* could count on a constant stream of *caduca* and *vacantia* consisting mainly in small or medium-sized estates.¹⁷ At the moment of their acquisition, these estates were exploited in heterogeneous ways and the imperial administration had no interest in imposing a uniform organization. The diversity did not depend on the size of the property only: the imperial tenants from Lydia petitioning the emperor for being harassed by soldiers and *frumentarii* occupied a sizeable estate but sent

¹⁶ This point has been stressed particularly by Maiuro (2012: 60); see also Lo Cascio (2015: 66).

¹⁷ *Bona vacantia* were properties left without any heir and consisted in someone's entire estate, while *caduca* were mostly testamentary legacies. The imperial administration could also confiscate properties of persons indebted with the *fiscus* (*debitores fisci*). While all landed properties falling under these categories were claimed by the *fiscus* from the second century, they seem to have been incorporated into the *patrimonium Caesaris* only occasionally and were preferably auctioned off within a short time. Cf. Maiuro (2012: 88–117).

a fixed amount of money directly to the *fiscus*.¹⁸ They were not sharecroppers and the fact that the imperial administration preferred this solution for this region means that it had no need or interest in obtaining and managing what was produced on the estates. In the end, imperial properties originated from private ones and therefore they remained rooted in the various local landholding schemes and this is the basic reason why we have to be very cautious in applying the exploitation frameworks of Africa or Italy to other provinces.¹⁹

Once we recognise the existence of these general principles, we must also admit that the reality must have been more complex and that all manner of acquisitions could operate at the same time, albeit with different intensities according to the regional context. Moreover, another frequently overlooked aspect is that a portion of the land claimed in these ways by the *fiscus* was sold at auction. We do not have yet a clear idea of which properties were most frequently sold, also because the evidence comes mostly from the *Digest*. However, epigraphic evidence attests to the existence of confiscated land sold again at auction and we know from various sources that part of the estate of condemned senators was regularly given

¹⁸ *TAM* V 3, 1418 from Ağa Bey Köyü (197–211 or 244–9 AD), where the term ἀποφοραί of line 29 has been interpreted as a fixed canon in money by Hauken (1998: 49–50).

¹⁹ This does not mean that we cannot expect similarities. The different local practices were normally maintained, but described in terms of Roman law, as shown particularly by Kehoe (2007: 123–8).

back to their direct heirs, if present.²⁰ Moreover, we have little actual evidence that certain large confiscations, like those under Caligula or the Severans, resulted in spectacular patrimonial gains for the emperor. This can be partially explained if we consider that such measures were often taken after civil wars or in preparation of military campaigns, when the *fiscus* needed cash rather than land in order to pay the soldiers.²¹ This means that we need to **relativize** the often-repeated assumption that confiscated property systematically ended in the

²⁰ Much of the actual evidence for fiscal auctions comes from Egypt, where—unlike in the other provinces—the imperial administration could also claim all unused or abandoned land. The documentation has been collected and discussed by Alessandri (2005–2017). The estate of Ti. Claudius Hipparchos of Athens, the grandfather of Herodes Atticus, were confiscated under Domitian (Philostr., *Soph.* 2.547–8); his former land had been then auctioned by the *fiscus* and enjoyed a special taxation regime under Hadrian (*IG* II² 1100.2.2–6). On Hipparchos’ estate see Camia and Rizakis (2013: 75–6), where however the idea that the land had remained imperial property contradicts the evidence of *IG* II² 1100 l. 4–5: τὰ Ἰππάρχου χωρία τὰ ὑπὸ τοῦ φίσκου παρθέντα (‘the estates of Ipparchos which have been sold by the fiscus’).

²¹ The confiscations of Caligula are placed by Cassius Dio in the context of his military preparations along the Rhine and the emperor presided the auctions himself (Dio 59.21.4–5). Severus’s confiscations after the death of Clodius Albinus profited the *aerarium* and allowed for unprecedented distributions to the soldiers, as reported by Hist. Aug., *Sev.* 12.1–2: *interfectis innumeris Albini partium viris ... omnium bona publicata sunt aerariumque auxerunt ... denique militibus tantum stipendiorum quantum nemo principum dedit* (‘Countless persons who had sided with Albinus were put to death ... and all their goods were confiscated and went to swell the public treasury ... Finally, he gave his soldiers sums of money such as no emperor had ever given before’, translation by D. Magie, Loeb edition, 1921) .

hands of the emperor.²² In fact, without substantial evidence from other sources—such as the epigraphic attestation of local freedmen procurators—it would be dangerous to postulate the presence of landed estates of vast size in a given region, even if the literary sources hint at exceptional confiscations.

These considerations can apply also to royal land acquired after the provincialization of a kingdom, despite the assumption that it normally became an imperial property. We of course have abundant evidence of former royal possessions passing into the hands of Augustus and his successors, but we also count several cases for which we have no trace of the conversion of supposedly ample estates into imperial property. We know from Tacitus that, after the annexation of Cappadocia, Tiberius could finance a reduction of half of the amount of the tax

²² See, for example, Millar (1977: 165): ‘The new factor under the empire was to be the extension of the confiscation of property to all major criminal convictions, and the large-scale retention, rather than sale, of the property by the ruler’. Millar was aware that confiscated estates were resold in order to obtain ready-to-use cash for the army (1977: 165), but he seemed to underestimate the amount of properties that were auctioned. It is true that the proportion of properties not auctioned was higher than under the Republic, but the mass of land on which the *fiscus* could lay claim was so vast that what was kept in the *patrimonium* constituted only a relatively small portion of the total.

on sales, probably also through the sale of the former properties of king Archelaos.²³ A part of the estates of king Amyntas of Galatia were converted into *ager publicus* and distributed to the veterans installed in the Augustan colonies of Pisidia, but others were sold and others perhaps kept.²⁴ The fate of the properties of the kings of Mauretania and Thrace is also uncertain, since the evidence of imperial estates in these provinces mostly dates to the second century AD or later and under no circumstances demonstrates a clear link to ancient royal land.²⁵

One last area where generalizing assumptions have sometimes been made in the absence of actual evidence is the destination of the produce of imperial estates. Apart from the well-known cases of Africa and Egypt, we only have sparse evidence that the main destination of the grain produced on imperial estates was the *annona* for Rome or, alternately, the army.²⁶ It

²³ Tac., *Ann.* 2.42. Former slaves of Archelaos became property of Tiberius (*CIL* VI 4776). Despite the lack of evidence, it is probable that some of Archelaos' vast grazing lands passed into the *patrimonium* of Tiberius, as proposed by Broughton (1938: 651).

²⁴ Dalla Rosa (2017: 113).

²⁵ On Mauretania, see Coltelloni-Trannoy (1997: 88–91); on Thrace, Gero (1988: 71). Both postulate the passage of large tracts of former royal land to the emperor despite the lack of evidence.

²⁶ An interesting document is *P.Dura* 64, that mentions grain which comes from *praedia fiscalia* located along the Euphrates. *O.BuNjem* 75 mentions a shipment by an unknown procurator, but it is impossible to say if this

is certain that, through the payment of a rent in kind from the tenants, the *fiscus* could accumulate a substantial stock of grain. However, as we have seen, sharecropping was not the only and perhaps not even the main form of tenancy practised on imperial estates and the needs of the *fiscus* could have been met equally well with cash payments for rent. In fact, the imperial administration was used to buying grain on the market at a fixed price and, therefore, liquid assets would have allowed it to purchase supplies nearer to the place where they were needed instead of sending them directly from imperial estates.²⁷

The issues raised in this section show how important it is not to transpose what we know about the organisation of imperial property in particular provinces to regions with little documentation. The obvious risk is to apply pre-established interpretative models, thus ending up forcing the interpretation of sources or making them say more than they actually can. It is therefore with these warnings in mind that we can now move on to the examination of the sources concerning the imperial estates on the Lower Danube.

consisted of olive oil from imperial estates or something else. On this document, see recently Guédon (2018: 207).

²⁷ Managing large stocks of grain would also have compelled the imperial administration to build or pay for the use of a network of granaries like the one that is attested in Egypt. The costs and the logistics involved required a more complex organization and the *fiscus* may not have had interest in it if alternatives were at disposal. See Erdkamp (2005: 159).

Estates and villas

Unlike other provinces, we have no evidence of imperial properties in Moesia for the Julio-Claudian period (see Fig. 1 for map). Epigraphic sources suggest that the army played a dominant role in the organization and control of the province. We do not know to whom exactly the lands, quarries, and mines belonged in pre-Roman times and for whose benefit they were exploited. It is fair to assume that land, quarries, and other resources were taken from the kings of the various tribes populating this vast territory, but we do not know the details. Ravaged by war for many years, the area was not densely populated and in AD 5–6 Sex. Aelius Catus (the consul of AD 4) moved 50,000 Getae from the north to the south of the river; under Nero, Ti. Plautius Silvanus Aelianus (*cos.* AD 45) again moved 100,000 Transdanubians into Moesia.²⁸ These measures along with the gradual installation of permanent military camps with their allocated territories (the so called *prata legionis*) show that the Roman state seized and reassigned large amounts of land.²⁹

<Fig. 1> Map

²⁸ Str. 6.3.10; *CIL* XIV 3,608. For a detailed study, cf. Avram (2015).

²⁹ Gerov (1988: 20–6); Ivanov and Bülow (2008: 24–5). On the *prata legionis* in general, see Mócsy (1967).

In this vast reorganisation, some tracts of land were perhaps incorporated into the *patrimonium Caesaris*, but we are unable to prove it. Gerov has proposed that some stone quarries located around Nicopolis ad Istrum, Pautalia, and Marcianopolis could have passed into the imperial property early on.³⁰ However, contrary to what was widely accepted in Gerov's time, we now know that most quarries belonged to cities and private persons and only the most prestigious ones—those producing the finest coloured marbles—were in the emperor's hands.³¹ Since we have no trace of the presence of imperial agents in these Moesian quarries, we should assume that they were not imperial property. Some imperial slaves and freedmen are recorded for the first century AD, but none of them can be connected to an imperial estate. They were rather assistants of the provincial procurator residing in Tomis, the provincial capital.³² All evidence concerning imperial estates comes from the second century or later, but it remains rather meagre.

Much has been said about a possible large estate near Gabare, east of Montana, where a dedication to Diana placed by an imperial *vilicus* Domitianus under Severus Alexander has

³⁰ Gerov (1988: 82).

³¹ Hirt (2010: 85–6); Russell (2013: 53–61).

³² *SEG* 39, 677 (Tomis); see also Avram (2018: 458 and especially n. 25).

been found.³³ The title *vilicus* can identify a manager of an imperial estate, but also the person in charge of the *statio* of the *portorium*. Gabare is not far from the road that, from Oescus, led to the Haemus and then to Thrace, and lies near the provincial border. Domitianus might therefore have been a tax agent rather than an estate manager.³⁴ The presence of imperial estates around Montana remains however a concrete possibility thanks to the attestation of an Anicetus, an imperial slave who set up a dedication to Diana and Apollo at some time between the second half of the second and the first half of the third century.³⁵ Private landownership and large estates are well attested in the region³⁶ and therefore it is quite probable that imperial estates existed, but we cannot locate them.

Another imperial property seems to have existed not far from Abrittus. During excavations in 2015, a dedication to the Thracian Horseman by an imperial *saltuarius* was found reused in a

³³ *CIL* III 14207⁴¹: *Dianae Scop|titiae pro salu|te d(omini) n(ostri) Sev(eri) [Ale]x(andri) | Pii Aug(usti) Domi|tianus eiu[s] | vil(icus) v(otum) c(um) s(uis) l(ibens) | p(osuit)*. See Velkov (1962); Gerov (1977: 217–19); Gerov (1988: 73–4); Čiřakova (2014: 109).

³⁴ Gerov (1988: 72–3) thought that this estate could have been part of an imperial domain administered by M. Titius Maximus, who bears the title of *praefectus saltus* in an inscription from Gabare (*CIL* III 14207). However, Bartels (2008) has demonstrated that the title had nothing to do with imperial properties, but was a municipal office and the *saltus* concerned consisted in public land of the colony of Oescus.

³⁵ *I.Montana* I 14 = *I.Montana* II 55 = *AE* 1987, 880.

³⁶ *I.Montana*, II 23; 32; 112.

5th century building.³⁷ The term *saltuarius* indicates a keeper or warden of an estate or, more often, of woodland belonging to an individual or a city. We cannot therefore precisely determine the nature of the imperial property he worked on, but it must not have lied too far from the local sanctuary where he made the dedication. The editor of the inscription linked this property to a number fragments of tiles bearing the stamp *FISC(i)*, which were discovered in Abrittus in the 1950s and 1960s, but have only recently been published.³⁹ However, as we will see in more detail later, the stamps do not attest the existence of imperial workshops, but simply the fact that the *fiscus* bought a certain quantity of tiles for an unknown building financed by the emperor.

<Fig. 2> Villa plan

Our best evidence, both archaeological and epigraphic, comes from the imperial villa near Madara (Fig. 2). Excavated at various times from the late 1920s, but especially during the period 1949–1963, the site consists of an architectural complex that was the focal point of economic activities for almost four hundred years—between the second half of the first

³⁷ Radoslavova (2017): "Ἡρώϊ Μαρμαρίθᾳ Νοήμων σαλτουάρι[ος] | Αὐτοκ(ράτορος) εὐχαριστήριον.

³⁹ Ivanov (2017a); cf. Ivanov (2017b: 45–7). A number of bricks stamped *DD(ominorum) NN(ostrum)* were also found, but they belong to a building of the 4th century that has been identified as a *statio*.

century and the beginning of the sixth century AD.⁴⁰ The villa features a warehouse that could hold more than 13 hectolitres of wine, as well as very large stables, while two graffiti with the indication *domini* and δεσποτικόν respectively suggest the presence of a servile workforce. According to the report of K. Škorpil, two life-sized marble statues were found on the site,⁴¹ but, above all, it is an inscription mentioning a *M. Aurelius Caesaris libertus*, found in the nearby river that makes possible to ascribe this important archaeological remains to an imperial property.⁴²

The case of Madara has remained isolated despite the recent identification and excavation of several new Roman villas in Moesia, particularly in the region of Montana, Nicopolis ad Istrum, Novae, and Abrittus.⁴³ Some of these villas must have belonged to fairly large estates, like the second villa near Montana, which featured three large *horrea* alongside pottery and leather workshops.⁴⁴ The villa located near Pavlikeni was another centre of mass ceramic production that shipped its wares to many other parts of Moesia, from Novae to Dobruja

⁴⁰ Dremsizova-Nelchinova (1984).

⁴¹ Škorpil (1905: 27; 1932: 113).

⁴² Detchev (1936: n. 3): — — — — — | *et M. [A]ur[— — —] | Caes(aris) lib. EI[— — —] | eor(um), Meno[— — —] | lib. Procl[— — —]*.

⁴³ Čiřakova (2014).

⁴⁴ Aleksandrov (1980).

during the second century.⁴⁵ Nearby Butovo was also an important centre of production that served the military camps along the Danube, especially Novae.⁴⁶ Some of these villas of the interior still belonged to Thracian aristocratic families, while others were the property of Roman colonists.⁴⁷ On the basis of the strategic position and the destination of the production, Tomas has proposed that the land around Butovo may have been part of an imperial estate, but this identification seems very uncertain.⁴⁸ No inscriptions mentioning imperial freedmen or other imperial administrators have been found in the area, while—on the contrary—there is abundant evidence for the presence of veterans and members of the elite of Nicopolis.⁴⁹ Moreover, a recently discovered stamp on a ceramic pipe from Butovo carries the name of one Arrius, which could have been the owner of the production centre.⁵⁰

⁴⁵ Dintchev (1997: 45–7); Vladkova (2011: 40–3).

⁴⁶ Sultov (1983: 126); Tomas (2007: 40–2).

⁴⁷ Poulter (2007); Boyanov (2012: 251–6); Mihailescu-Bîrliba (2019).

⁴⁸ Tomas (2007: 41).

⁴⁹ Veterans: *CIL* III 12411 = *ILBulg* 432 (end of Hadrian's reign); *CIL* III 12409 = *ILBulg* 431 (beginning of the second century AD); *CIL* III 12408 = *ILBulg* 430 (first half of the third century AD). A military diploma: *RMD* 2, 132. A *bouleuta* from Nicopolis: *CIL* III 12410 = *ILBulg*, 433 (mid-second century AD). For a detailed study, cf. Boyanov (2008: 147–55).

⁵⁰ Kolendo and Kowal (2011).

This overview shows that, despite the publication of a significant number of new inscriptions since Gerov's times, very little new evidence about imperial landed properties has emerged.⁵¹ The identification of possible or potential imperial estates on the basis of the geographical position and supposed strategic value remains risky in a context where many private estates with the same qualities existed.

Figlinae

Brick and tile stamps carrying the name of the emperor are quite rare outside Italy and the Adriatic area; therefore the relatively ample dossier coming from Moesia deserves a closer look.⁵²

A series of bricks stamped *IMP(eratoris) Had(riani)* have been found reused in other buildings in a number of towns around the ancient site of Ratiaria. The bricks have been attributed to the aqueduct of Ratiaria, because excavations conducted in the 1960s isolated a part of the aqueduct and remarked the presence of triangular bricks also stamped *IMP HAD*.⁵³

⁵¹ The remaining testimonies of members of the *familia Caesaris* for the second and third century do not relate to imperial estates, as pointed out by Kirov (forthcoming).

⁵² Morfova (1970); *ead.* (1971).

⁵³ Bollini (1980).

Lead pipes, reported in the early twentieth century,⁵⁴ had been used there and a fragment of such a pipe has recently been published, bearing a stamp in the form of a *tabula ansata* with the inscription *IMP(eratoris)*.⁵⁵ A brick stamped *FISC ALM* has been found in the military camp of Almus, where an inscription attests to the presence of a vexillation of the Legio I Italica.⁵⁶ Tiles stamped *FISC* have been found in Abrittus, as mentioned above. It is impossible to determine, on the basis of this evidence, if these materials were produced in imperial *figlinae*. In fact, the abbreviated marks are to be developed in the genitive case and therefore define the owner of the product and not necessarily the owner of the production unit. What they certainly prove is that the imperial administration had directly ordered on the market bricks and tiles intended for buildings financed by the emperor.

<Fig. 3> Brickstamps

The most interesting series of brick stamps comes from the site of the imperial villa of Madara and from the modern locations of Pliska and Kovachevsko Kale, both near Abrittus.⁵⁷

⁵⁴ Djakovic (1900: 165).

⁵⁵ AEAE 2014, 1101

⁵⁶ Ivanov (2017a).

⁵⁷ See Gerov (1988: 74–6). Further evidence on Kovachevsko Kale in Doncheva (2009).

A first group of stamps from Madara (Fig. 3) attests names that have no apparent relation with the emperor and refer probably to privately owned *figlinae* (see table 1), even if the meaning of the abbreviations is not always certain⁵⁸.

<Table 1>

A second group contains stamps with *AVGG* followed by a second abbreviated name. As Gerov rightly pointed out, the names *ANN*, *AVX*, *MAR*, and *SAR* that appear in connection with *AVGG* most probably correspond to *ANNIA*, *AVXAN*, *MARCIA*, and *SARM* of the non-imperial group and thus indicate the passage of these private *figlinae* into the hands of the emperor.⁵⁹ The naming pattern would then follow that of other workshops that became imperial property, like the Italian *figlina Pansiana*, formerly owned by Vibius Pansa (the son of the consul who died in 43 BC) and for which we find the simple *Pansiana* for the Augustan

⁵⁸ As for the stamp with the inscription *AVXAN*, Gerov (1988: 75) reads it as *AVXAN(ium)*, while *SARM* is supposed to denote *SARM(atianum)*; he then supposes that all these names would identify imperial estates. But this would bring us a step too far, since the abbreviations are probably to be developed in the feminine nominative singular: (*figlina*) *Auxan(ia)*, and *Sarm(atiana)* or *Sarm(atica)*.

⁵⁹ Gerov (1988:76).

period and *Ti(berii) Pansiana*, *Caes(aris) Pansiana* and similar variations later.⁶⁰ The plural Augusti denoted by the *AVGG* in the Moesian stamps could indicate the reign of Marcus Aurelius and Lucius Verus or that of Severus and Caracalla.

The workshops were probably confiscated, but since no one of the names on the stamps can be linked to known individuals, we can only speculate on why these *figlinae* became imperial property. The *AVGG* series indicates that the emperor was willing to control a larger share of the production of brick and tiles, but we should be careful before claiming that the emperor pursued in this way a more interventionist approach in the economy of this region. In fact, the attested number of workshops acquired by the emperor is still limited and clearly inferior to that of the *figlinae* owned by private entrepreneurs. In fact, we have to add the *OFF(icina) TRIN(-)*, *OFF(icinia) APII*, and *OFF(icina) PRIM(i)* documented in Pliska to the stamps attested in Madara.⁶¹ It is often presumed that the production of these workshops was intended for imperial buildings and the various military units along the Danube, but that is reductive. These *figlinae* probably produced for a larger market and we do not even know if

⁶⁰ Matijašić (1983); Pellicioni and Bucci (2012).

⁶¹ Gerov (1988: 123). Evidence from the archaeological sites in the basins of Yantra and Osam rivers in Tomas (2007: 36–7).

the bricks were always stamped if the orders did not concern a military or imperial construction.⁶²

Patterns of acquisition and distribution

The limited evidence for imperial estates along the Lower Danube makes it difficult to identify clear patterns of their acquisition and distribution. A few considerations can nonetheless be proposed. Imperial estates do not seem to fundamentally differ in size or production type from private estates. While the villa in Madara is a quite large complex, so too is the second villa near Montana, which probably belonged to a member of the local elite. This could point to an acquisition scheme that sees the emperor incorporating into his *patrimonium* estates inherited or confiscated from former local landowners, a pattern seemingly confirmed by the exceptional series of brick stamps from the Abrittus region. As we have seen, the evidence concerning former vast royal estates or other large *saltus* created at the time of the conquest is very thin. The lone testimony of the *vilicus* from Gabare is our only possible hint of the presence of an imperial estate of this sort, but we have seen that this interpretation is not the only option available.

⁶² On the sometimes misleading focalization of our attention on inscribed evidence, see Franconi and Wilson, this volume.

The lack of any sign of continuity between the former royal or tribal possessions (quarries included) and the *patrimonium Caesaris* seems to indicate that much of the properties of the former kings were sold or redistributed during the transfers of populations from the north to the south and in the various processes of military occupations. This situation can be compared with Galatia, where the land belonging to king Amyntas did not end up in the property of Augustus, but was used for creation of Roman colonies. As Stephen Mitchell has showed, imperial estates in the vast plateau around the colony of Laodikeia Katakekaumene are not attested under the Julio-Claudians but emerge gradually during the second century, probably originating from the inheritance or confiscation of the properties of members of the elite of the Roman colony.⁶³ Despite the fragmentary nature of the evidence, a similar pattern of acquisition could be proposed for the region of the Lower Danube: with the gradual progress of urbanization around the main military camps, private property could expand and consolidate. New larger estates came to exist near those already belonging to the ancient Thracian families and—following, among others, Roman practices of inheritance from freedmen and confiscation from condemned persons—some of them became part of the *patrimonium Caesaris*.

⁶³ Mitchell (1993: 151–7).

New epigraphic finds may shed some light on this very broad pattern and allow us to identify additional estates in different parts of the region. However, the fact that the evidence has remained substantially the same from Gerov's times until now indicates that the number of imperial estates must not have been particularly high. Making such an inference on the basis of our scarce documentation could seem a hazardous argument *ex silentio*. However, the increasing overall volume of epigraphic discoveries gives more weight to this (partial) silence. Another hint of the sparse presence of imperial estates is also the apparent lack of administrative districts of the *patrimonium Caesaris* (lat. *regiones* or *tractus*). In Italy or in the provinces where a conspicuous number of imperial estates is attested, we regularly find such entities, which were entrusted to freedmen procurators subordinated to the central procurators residing in the provincial capital.⁶⁴ These figures are absent on the Lower Danube and we only find personnel responsible for single estates (a *saltuarius* and perhaps a *vilicus*), meaning that the small number of estates could be managed by central procurators and there was no need to create additional administrative layers.

As we have seen above, a small amount of imperial estates does not mean that the *fiscus* did not handle even considerable flows of land claimed as *bona caduca* and *vacantia* from the many veterans and other Roman citizens of the region. The foundation of colonies at the

⁶⁴ Hirschfeld (1905: 125–6).

beginning of the second century and the further creation of *municipia* under Marcus Aurelius greatly increased the number of Roman citizens susceptible to such testamentary sanctions, but we do not have any trace of imperial estates around the cities along the Danube (Ratiaria, Oescus, Novae, Durostorum). Some land was perhaps acquired, but it is not recorded in our evidence. However, it seems that the imperial administration preferred to put the seized properties back on the market via auctions in order to get cash for the different military-related expenses. Estates could be kept in the interior, where municipalization came later and where a longstanding tradition of aristocratic landownership existed.⁶⁵ Here, the appropriation of land by the emperor would not have had any consequence for the resources available to the *decuriones* of the colonies and therefore could be practised more often if economically reasonable.⁶⁶

The myth of the interventionist emperor

Making sense of the few sources about imperial landed estates on the Lower Danube is not an easy task. Evidence from other provinces has been often invoked to fill this void and to imagine the existence of large domains organized and exploited like those existing in Africa. This reading of sources is risky and has sometimes led to stretch the interpretation of certain

⁶⁵ Dintchev (2015); Gerv (1988: 119–20).

⁶⁶ Some considerations on this topic in Maiuro (2012: 108–9) and Dalla Rosa (2020: 118–20).

documents. Starting from the recent advancements in our understanding of the patterns of acquisition of imperial estates, we took instead a more cautious approach that brought us to relativise the weight of imperial estates.

Unlike the mines, for which it is possible to document a clear intention of direct control and exploitation by the emperor in the years following the conquest of the Balkan area, land in the Lower Danube region does not seem to have aroused the same interest, and this despite the strong presence of military units nearby needing a constant supply of grain, wine, and oil. However, as we argued above, we should not always assume that the needs of the army were better met if the emperor directly controlled a large part of the land and extracted a rent in kind. The military constituted the most important consumption centre of the region and this was evidently enough of an incentive for private landowners to exploit their estates in a market-orientated way. Moesia was famous for its fertility and, on some occasions, Moesian grain shipments could be directed to Rome.⁶⁷ The process of urbanization and the consolidation of private landownership had produced a base of farmers large enough to guarantee an agricultural output sufficient for the needs of the army. This agricultural economy does not in itself explain the low number of imperial estates, but does add an

⁶⁷ *CIL* XIV 3604 l. 25–6 (under Nero): *primus ex ea provincia magno tritici modo | annonam p(opuli) R(omani) adlevavit*. On the fertility of Moesia, cf. Solin. 21.3: *Moesia, quas maiores nostri iure Cereris horreum nominabant*.

important element. In a context where the market was able to meet the demand of the military, the imperial administration must have realised that it was not convenient to heavily interfere in the domain of agricultural production. The *fiscus* could limit itself to ordering supplies on the market and then stocking and managing what it bought. The *dispensator horreorum* attested at Drmno near ancient Vinimacium on the Danube was certainly involved in this fundamental activity.⁶⁸ However, we find no signs that the emperor ever wanted to control a large share of the production of these goods, in order, say, to send large quantities of grain or bricks produced on his estates directly to the army, cutting out all the intermediaries. What the *fiscus* needed was cash to buy the supplies and this could be provided, among other things, by the frequent auctions of land claimed from Roman citizens as *caduca* or *vacantia*.

The evidence remains meagre and we should not push too far this or any other possible interpretation. It seems however that a certain idea of economic interventionism by the emperor should be abandoned or, at least, revised. The Lower Danube shows that the emperor could choose not to intervene, and that the absence of imperial estates can be as significant as their presence for our understanding of the economic role of the *princeps*.

References

⁶⁸ *AE* 1973, 471.

- Aleksandrov, G. (1980). 'Antichna vila No 2 kraï Montana = An Antique Villa Number 2 near the Town of Mihailovgrad (Montana)', *Bulletin des musées de la Bulgarie du Nord-Ouest* 4: 11–62 (in Bulgarian, summary in English).
- Alessandrì, S. (2005). *Le vendite fiscali nell'Egitto romano* (Documenti e studi). Bari.
- Astolfi, R. (1996). *La lex Iulia et Papia*, 4th edition. Padua.
- Avram, A. (2015). 'Aspects de la colonisation des Daces au sud du Danube par les Romains', in P. Schirippa (ed.), *Aristonothos 9: I Traci tra geografia e storia*. Trento, 143–159.
- Avram, A. (2018). 'Tomos, le héros fondateur de Tomis', *Pontica* 51: 453–466.
- Bartels, J. (2008). 'Was tat der *praefectus saltus*? Städtischer Grundbesitz und seine Verwaltung in der römischen Kolonie Oescus', *ZPE* 167: 276–282.
- Bollini, M. (1980). 'Bolli laterizi di Ratiaria', *Ratiariensia. Studi e materiali mesici e danubiani* 1: 93–127.
- Boteva, D. (1996). 'The South Border of Lower Moesia from Hadrian to Septimius Severus', in P. Petrović (ed.), *Roman Limes on the Middle and Lower Danube*. Belgrade, 173–176.
- Boyanov, I. (2008). *Rimskite veterani v Dolna Misija i Trakija (1-3 v.): = The Roman veterans in Lower Moesia and Thracia (1st-3rd century AD)*. Sofia (in Bulgarian).
- Boyanov, I. (2012). 'Veterans and society in Lower Moesia and Thrace during the Principate', in L. F. Vagalinski, N. Sharankov, and S. Torbatov (eds.), *The Lower Danube Roman Limes (1st - 6th c. AD)*. Sofia, 251–269.

- Broughton, T. R. S. (1938). 'Roman Asia Minor', in T. Frank (ed.), *An Economic Survey of Ancient Rome*, vol. 4. Baltimore, 499–918.
- Camia, F. and Rizakis, A. (2013). 'Notes on the Imperial Estates and Valorisation of Public Lands in the Province of Achaïa', in A. Rizakis and G. Touratsoglou (eds.), *Villae rusticae: family and market-oriented farms in Greece under Roman rule: proceedings of an international congress held at Patrai, 23-24 April 2010*. Athens and Paris, 74–86.
- Campbell, J. B. (2000). *The Writing of the Roman Land Surveyors: Introduction, Text, Translation and Commentary* (Journal of Roman Studies Monograph 9). London.
- Čist'akova, V. (2014). 'Development of the rural settlement in Moesia Inferior in the context of frontier area: introduction to the issue', *Studia Hercynia* 18: 89–115.
- Coltelloni-Trannoy, M. (1997). *Le royaume de Maurétanie sous Juba II et Ptolémée, 25 av. J.-C.-40 ap. J.-C.* (Études d'antiquités africaines). Paris.
- Dalla Rosa, A. (2017). 'Propriété familiale, pouvoir impérial: origine et gestion du patrimonium d'Auguste en Asie Mineure', in L. Cavalier, M.-C. Ferrière, and F. Delrieux (eds.), *Auguste et l'Asie Mineure*. Bordeaux, 101–116.
- Dalla Rosa, A. (2020). 'Imperial Properties and Civic Territories: Between Economic Interests and Internal Diplomacy', in F. Luciani and E. Migliario (eds.), *Boundaries of Territories and Peoples in Roman Italy and Beyond* (Documenti e studi 71). Bari, 105–120.

- De Vos, M. and Attoui, R. (eds) (2013). *Rus Africum*. vol. I: *Le paysage rural antique autour de Dougga et Tébourouk: cartographie, relevés et chronologie des établissements* (Bibliotheca archaeologica 30). Bari.
- Detchev, D. (1936). 'Inscriptions antiques', in *Madara: Razkopki i proučvanija II. = Madara. Fouilles et recherches archéologiques II*. Sofia, 21–24 (in Bulgarian).
- Dintchev, V. (1997). *Rimskite vili v dнешnata bŭlgarska teritoriya = Roman villas in the present-day Bulgarian lands*. Sofia (in Bulgarian).
- Dintchev, V. (2015). 'The municipia of the province of Moesia Inferior', in L. F. Vagalinski and N. Sharankov (eds.), *Limes XXII: proceedings of the 22nd International congress of Roman frontier studies, Ruse, Bulgaria, September 2012*. Sofia, 581–591.
- Djakovic, I. (1900). 'Belezhki po arkheologiyata na Kraïdunavska Bŭlgariya = Notes on the archaeology of Danubian Bulgaria', *Sbornik za narodni umotvoreniya, nauka i knizhnina*. Sofia, 147–178 (in Bulgarian).
- Doncheva, I. (2009). 'Stroitelna keramika s pechaty ot antichnata krepost "Kovachevsko kale" = Building ceramics with stamps from the ancient fortress "Kovachevsko kale"', in *Yubileen sbornik '45 godini Filologicheski fakultet' = Anniversary collection '45 years of the Faculty of Philology'*. Veliko Tarnovo, 58–68 (in Bulgarian).
- Dremsizova-Nelchinova, T. (1984). 'Vilata kraï s. Madara, Shumenski okrŭg = La villa située près du village de Madara, département de Šumen', *Fouilles et recherches* 11: 74–124 (in Bulgarian, summary in Russian).

- Duch, M. (2017). 'The integration process of the Lower Moesian areas', *Studia Europaea Gnesnensia* 16: 371–97.
- Eck, W. (2016). 'Die lex Troesmensium: ein Stadtgesetz für ein municipium civium Romanorum', *ZPE* 200: 565–606.
- Elmayer, A.F. and Maehler, H. (2008). 'A Boundary Inscription from Roman Cyrenaica', *ZPE* 164: 136–138.
- Erdkamp, P. (2005). *The Grain Market in the Roman Empire: A Social, Political and Economic Study*. Cambridge.
- Faoro, D. (2011). *Praefectus, procurator, praeses: Genesi delle cariche presidiali equestri nell'alto Impero Romano* (Studi Udinesi sul Mondo Antico 8). Florence.
- Gerov, B. (1977). 'Die Grenzen der römischen Provinz Thracia bis zur Gründung des aurelianischen Dakien', in *Aufstieg und Niedergang der römischen Welt*. Berlin-New York, 212–240.
- Gerov, B. (1988). *Landownership in Roman Thracia and Moesia (1st–3rd century)*. Amsterdam.
- González Bordas, H. (2017). 'Un nouveau regard sur le dossier des grandes inscriptions agraires d'Afrique contenant le sermo procuratorum', *CCG* 28: 213–229.
- Guédon, S. (2018). *La frontière romaine de l'Africa sous le Haut-Empire* (Bibliothèque de la Casa de Velázquez 74). Madrid. <https://books.openedition.org/cvz/6537>.

- Hauken, T. (1998). *Petition and Response: An Epigraphic Study of Petitions to Roman Emperors, 181-249* (Monographs from the Norwegian Institute at Athens 2). Bergen.
- Hirschfeld, O. (1905). *Die kaiserlichen Verwaltungsbeamten bis auf Diokletian*, 2nd edition. Berlin.
- Hirt, A. M. (2010). *Imperial Mines and Quarries in the Roman World: Organizational Aspects, 27 BC–AD 235* (Oxford Classical Monographs). Oxford.
- His, R. (1896). *Die Domänen der römischen Kaiserzeit*. Leipzig.
- Ivanov, R. T. (2017a). ‘New Interpretation of a Brick Seal from Almus’, in *Mezhdu Dunava i Khemus I-VI v. = Between Danube and Haemus mountain (1st–6th c.)*. Sofia, 45–53 (in Bulgarian, summary in English).
- Ivanov, R. T. (2017b). ‘Imperatorsko imenie kraj Abritus = The Imperial Domain by Abritus’, *Izvestiya na Regionalen istoricheski muzei-Razgrad = Bulletin of the Regional historical museum — Razgrad* 2: 258–264 (in Bulgarian, summary in English).
- Ivanov, R. T. and Bülow, G. von (2008). *Thracia: eine römische Provinz auf der Balkanhalbinsel* (Orbis provinciarum). Mainz.
- Kehoe, D. P. (1988). *The Economics of Agriculture on Roman Imperial Estates in North Africa* (Hypomnemata 89). Göttingen.
- Kehoe, D.P. (2007). *Law and the Rural Economy in the Roman Empire*. Ann Arbor.

- Kirov, S. (forthcoming). 'Patrimonium Caesaris dans les provinces danubiennes I-III s. p.C. Les provinces de Mésie Inférieure et de Mésie Supérieure', in *Proceedings of the 24th Limes Congress*.
- Kolendo, J. (1976). *Le colonat en Afrique sous le Haut-Empire*, 1st edition (Annales littéraires de l'Université de Besançon 117). Besançon-Paris.
- Kolendo, J. and Kowal, T. (2011). 'Stamps on Ceramic Pipes from Novae (Moesia Inferior)', *Novensia* 22: 67–76.
- Lo Cascio, E. (2000). 'Patrimonium, ratio privata, res privata', in E. Lo Cascio (ed.), *Il princeps e il suo impero: studi di storia amministrativa e finanziaria romana*. Bari, 97–149.
- Lo Cascio, E. (2015). 'The imperial property and its development', in P. Erdkamp, K. Verboven, and A. Zuiderhoek (eds.), *Ownership and Exploitation of Land and Natural Resources in the Roman World* (Oxford Studies on the Roman Economy). Oxford, 61–70.
- Maiuro, M. (2012). *Res Caesaris: ricerche sulla proprietà imperiale nel principato* (Pragmateiai 23). Bari.
- Marquardt, J. (1884). *Römische Staatsverwaltung, Band II*, 2nd edition. Leipzig.
- Matijašić, R. (1983). 'Cronografia dei bolli laterizi della figulina pansiana nelle regioni adriatiche', *Mélanges de l'école française de Rome* 95.2: 961–995.

- Mihăilescu-Bîrliba, L. (2019). 'Les vétérans dans les campagnes de Mésie inférieure: les propriétaires ruraux', *Dialogues d'histoire ancienne* 45: 129–151.
- Millar, F. (1977). *The Emperor in the Roman World (31 BC – AD 337)*. London.
- Mitchell, S. (1993). *Anatolia: Land, Men, and Gods in Asia Minor*. Oxford.
- Mócsy, A. (1967). 'Zu den Prata legionis', in *Studien zu den Militärgrenzen Roms: Vorträge des 6. Internationalen Limeskongresses in Süddeutschland* (Beihefte der Bonner Jahrbücher 19). Köln and Graz, 211–214.
- Morfova, Z. (1970). 'Briques romaines à marques d'ateliers privés et impériaux situés sur les rives du Danube et sur le littoral de la mer Noire', *Arheologija (Sofia)* 3: 33–43 (in Bulgarian, summary in French).
- Morfova, Z. (1971). 'Briques et tuiles romaines à estampille provenant d'ateliers privés et impériaux de la Bulgarie du Nord-Est', *Arheologija (Sofia)* 3: 25–33.
- Mrosewicz, L. (2000). 'Kaiser Claudius und die Donauländer', *Eos* 87: 295–310.
- Pellicioni, M. T. and Bucci, G. (2012). *La Pansiana in Adriatico: tegole romane per navigare tra le sponde = Pansiana na Jadranu: Rimka strešna opeka za plovbo med obalami*. Ferrara.
- Poulter, A.G. (2004). 'Cataclysm on the Lower Danube: The Destruction of a Complex Roman Landscape', in N. Christie (ed.), *Landscapes of Change: Rural Evolutions in Late Antiquity and the Early Middle Ages*. Aldershot–Burlington, 225–254.

- Poulter, A. G. (2007). 'The transition to Late Antiquity on the Lower Danube: the city, a fort and the countryside', in A. G. Poulter (ed.), *The Transition to Late Antiquity on the Danube and Beyond*. Oxford, 51–97.
- Radislavova, G. (2017). 'Nepublikovani obrochni pločki i statui na Trakijskiya konnik ot Abritus = Unpublished Votive Reliefs and Statues of the Thracian Horseman from Abritus', *Izvestiya na Regionalen istoricheski muzei - Razgrad = Notices of the Regional Historical Museum-Razgrad* 2: 237–257 (in Bulgarian, summary in English).
- Russell, B. (2013). *The Economics of the Roman Stone Trade* (Oxford Studies on the Roman Economy). Oxford.
- Sarnowski, T. (1988). *Wojsko rzymskie w Mezji Dolnej i na północnym wybrzeżu Morza Czarnego = L'Armée romaine en Mésie Inférieure et sur la côte Nord du Pont Euxin* (Novaensia 3). Warsaw.
- Schulten, A. (1896). *Die römischen Grundherrschaften. Eine agrarhistorische Untersuchung*. Weimar.
- Škorpil, K. (1905). *Materials for Bulgarian Antiquities. Aboba Pliska*. Sofia (in Russian).
- Škorpil, K. (1932). 'Le plateau de Madaro-Moguila', *Byzantinoslavica (Praha)* 6: 85–130 (in Bulgarian, summary in French).
- Struffolino, S. (2014). 'Proprietà imperiali in Cirenaica: alcune considerazioni', *SCO* 60: 349–380.

- Sultov, B. (1983). 'The typology and chronology of provincial Roman pottery from Lower Moesia', in A. G. Poulter (ed.), *Ancient Bulgaria. Papers presented to the international symposium on the ancient history and archaeology of Bulgaria*. Nottingham, 119–128.
- Tomas, A. (2007). 'Inter Moesos et Thraces. a Contribution to the Studies on the Rural Hinterland of Novae in Lower Moesia', *Archeologia (Warsaw)* 58: 31–47.
- Tomas, A. (2016). *Inter Moesos Et Thraces: The Rural Hinterland of Novae in Lower Moesia (1st - 6th Centuries AD)* (Archaeopress Roman archaeology 14). Oxford.
- Velkov, V. I. (1962). 'Kŭm vŭprosa za agrarnite otnosheniya v Miziya v prez I v. na n.e. = On the question of the agrarian relations in Moesia in the 1st century AD', *Arheologija (Sofia)* 4: 31–34 (in Bulgarian).
- Vladkova, P. (2011). *Antichen proizvodstven tsentŭr pri Pavlikeni (Dolna Miziya) = The Ancient production centre near Pavlikeni (Lower Moesia)*. Veliko Tarnovo (in Bulgarian).