Supplying Imperial Quarries: a Comparison between Mons Claudianus and Dokimeion

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The exceptional documentation available for the imperial quarries of Mons Claudianus in Egypt allows for a detailed insight into the practices and the problems linked to the supply of provisions for the workforce of this large imperial exploitation. Other contexts are far less documented, but that does not imply that we cannot reconstruct at least some of the aspects of the supply organization. Recent studies have shown that epigraphic or archaeological data can reveal how the grain needs of workers employed on large extraction sites had a profound impact on the exploitation of arable land in a more or less large region. The purpose of this paper is therefore to compare the documentation coming from the regions surrounding different imperial quarries (Dokimeion and Mons Claudianus) in order to show how the combination of different kinds of sources can help us to reconstruct some general traits of the grain supply and to understand the adaptations needed for the different local contexts.

The ERC Project PATRIMONIVM and the Study of Imperial Quarries

Coloured marble figures prominently in the architecture of imperial Rome and of the most important cities of the empire. Inscriptions on marble blocks and other epigraphic evidence confirm that some of the most important quarries throughout the Roman world were controlled by the emperor and produced chiefly or exclusively for his projects in Rome.¹ A passage of Suetonius has often been invoked to prove that at some point under Tiberius all mines and quarries passed under imperial control.² This point is contradicted not only by other literary, juristic and epigraphic sources but also by the evidence of the imperial quarry labels, which come from a limited number of quarries.³ This also means that the emperor neither wanted nor needed to directly administer all quarries in the empire, but chose to control only those important for him. It was the prestige attached to the exclusive use of precious marbles that motivated this choice, and this was just one of the many factors that Roman emperors had to ponder when considering whether or not to include a new property in their estate, the *patrimonium Caesaris*.⁴

The PATRIMONIVM project, hosted at the Bordeaux Montaigne University and financed by the ERC for the period 2017–2022 aims at providing, for the first time, a complete picture of the geography and the economy of the imperial properties in the entire Roman world, in order to address some fundamental questions about the economic and political reasons behind the growth, the distribution and the use of the imperial properties.⁵

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In this general framework, archaeological data, evidence from quarry marks, ostraca and other inscriptions will be rediscussed in order to assess the economic, practical and political reasons behind the different choices taken from the emperors: partial or total acquisition of a quarry, direct or indirect exploitation, monopolistic control of the resource or opening to the market. Comparisons between the practices in use at different quarries will be conducted in order to highlight similarities, differences and common challenges faced by the organization of this activity. Extant imperial regulations concerning mines (Vipasca) and landed estates (Bagradas valley) will also constitute a fundamental reference for understanding how natural resources were exploited by the fiscus for the needs of Rome and the empire.

Comparing different contexts is extremely important for a research domain like ancient history, that cannot rely on an abundant and evenly distributed documentation. The comparison needs nevertheless to be careful and must avoid any quick and inappropriate application to the context under examination of practices coming from different places and epochs. This approach is often more suited for highlighting differences and therefore for better understanding the peculiarities of each case in responding to similar challenges.⁷

The exploitation of imperial quarries needed a large human and animal workforce and many other resources: water, grain and fodder to sustain men and animals; tools, ropes; building materials for the construction of storage facilities and shelters for the workforce. Supply organization was a complex matter, particularly since many of the sites producing marble for the emperor had a considerable size and their exploitation needed the presence of hundreds of skilled and unskilled workers. Unfortunately, we have practically no sources for this crucial aspect, apart from the quarries of Mons Claudianus in Egypt, where thousands of ostraca give us a rare insight into the correspondence between imperial agents administering the site and other local and regional official. The specific situation of Mons Claudianus, and particularly its isolation from any urban centre, clearly complicated the task. The organization must therefore have differed from that of other imperial quarries situated nearer to well-populated and grain-producing areas, but how much? A comparison between Mons Claudianus and the quarry of Dokimeion in Asia Minor can be very instructive in this regard.

The Organization of Supplies at Mons Claudianus in Egypt

Mons Claudianus was part of the imperial quarrying district of the Egyptian eastern desert (mod. Gebel Fatirah), that included three other sites: Mons Porphyrites, Mons Ophiates and Tiberiane. At Mons Claudianus, over 130 quarries with a width of 20–30 m were unevenly spread over a surface of 9 km² around a central administrative complex featuring a fort, a storage facility, animal enclosures, a bath, a small housing

area and a temple of Zeus Helios Sarapis.¹⁰ The fort did not serve military personnel only, but was probably occupied by other civilian administrative staff and, perhaps, a part of the workforce. Simple huts have been found inside numerous quarries, but we cannot know if they were used as habitations. As the ostraca reveals, the size of the workforce employed at a single quarry could fluctuate significantly.¹¹ These variations were probably determined by the general demand from Rome, by different work-phases in the quarry and also by seasonal factors, as it is attested in other imperial and non-imperial quarries.¹² A number of watchtowers were installed inside the district for communication purposes and – perhaps – for internal policing.

The ostraca found near the central complex allow us to reconstruct the allocation of administrative responsibilities and to partially reconstruct the organization of supplies. At district level, a central *procurator* ($\epsilon \pi i \tau \rho \sigma \pi \sigma \sigma \tau \tilde{\omega} \nu \mu \epsilon \tau \alpha \lambda \tilde{\omega} \nu$) seems to have been in control of all quarries of the region. His headquarters were located outside the district, most probably in the same unknown location on the Nile valley where we know that workers received their pay. 14

Military *praesidia* were situated along the different routes that connected Koptos to Moyos Homos and to Berenike, including Mons Claudianus and the other extracting sites. Between 15 and 20 auxiliary soldiers stationed in each post, but the garrison at Mons Claudianus was larger with around fifty soldiers. 15 The highest military officials at Mons Claudianus were a curator and a centurio, but their task seem to have been different. As two recently published ostraca dating to 189 AD show, the *curator* (a vice-curator in this case) was the person actually responsible for supplying the quarries with grain, water, equipment, men and animals. However, the two documents contain letters addressed to different officials. In the first request, the vice-curator Rufus Aristoteles writes to the prefect Vibius Alexander asking for quarrying equipment (ἐπιχρείας τοῦ μετάλλου), food and water. 16 We do not know the identity of Vibius Alexander, but he was probably one of the prefects of the main auxiliary headquarters on the Nile valley responsible for the numerous praesidia situated in the region.¹⁷ On the same day, Rufus wrote to Tertullus, probably the procurator of the district, about empty cisterns and the lack of men and donkeys.¹⁸ If supply organization seems to have been unified at site level, it clearly wasn't at district level, even if the competences of the two officials could partially overlap. Other documents, in fact, attest that prefects could be informed on the status of work at the quarry and that procurators could receive updates on water supply.¹⁹

Centurions do not seem to have been involved in the organization of supplies. The evidence from the ostraca suggest that they directed the extractive operations, supervised the distribution of water and allocated the workforce among the different quarries. ²⁰ Inscriptions let us know a few legionary centurions who clearly came from units outside Egypt to manage the quarry. They must have been chosen for their technical expertise in the field and in one case we can be sure that the appointment had been requested by Trajan himself. ²¹

We do not know how the prefects and the procurators dealt with their supply demands and if they consulted higher officials. The direct involvement of the Roman army in the administration of the quarries suggests that grain supplies for Mons Claudianus followed more or less the same lines than those for the other military garrisons in Egypt. The local strategos and the *praefectus Aegypti* then probably had a role, as various documents suggest.²²

Phrygia and the Marble Quarries of Dokimeion and Soa

The *pavonazzetto* marble quarries of Bacakale, near the ancient village of Dokimeion, lay at the hearth of the Phrygian highlands, on the northern side of the Kaystros valley. The area covered by the quarry (0,24 km²) is very limited in comparison with Mons Claudianus and the extractive activity was concentrated in a large main site (200 m in length, 80–110 m in width and 40–5 m in depth).²³ The quarries are still in use today and archaeological prospections did not find any administrative/habitative complex. Ancient marble blocks are regularly discovered by the society exploiting the quarry and transported to the nearby town of İscehisar.

Strabo indicates that the quarries were already in use in the first century BC, but that the scale of the operations had augmented massively in his times, particularly due to the production of large monolithic columns for the Roman market.²⁴ This change has been linked to an – at least partial – acquisition by Augustus in the aftermath of the civil war, but documentary evidence about the incorporation in the *patrimonium Caesaris* only emerges under Domitian.²⁵ The most important documents for the study of the Dokimeion quarries are the series of marks on the *pavonazzetto* marble blocks found in Ostia, in Rome or directly *in situ*.²⁶ The quarry labels are dated according to the ordinary consuls and carry information about the responsibilities in the extraction of the block for accountability reasons. The latest dates attested on the blocks correspond to the reign of Severus Alexander, to which the last documents known from Mons Claudianus also refer. A secondary extractive site was located a Soa, in the Upper Tembris valley, some 40 km northwest from Dokimeion, which seems to have been exploited chiefly under Trajan.

As Strabo already points out, Dokimeian marble was also called *Synnadicum*. This is certainly due to the fact that Synnada – one of the major cities of the region and capital of one of the three Phrygian assize-districts – was the place from which the quarries were administered and where shipments were organized.²⁷ Imperial freedmen bearing the title of *procurator* are known in Synnada at least from the time of Trajan, but a dispensator, other officials and imperial freedmen not carrying any special titles are attested from the end of the Julio-Claudian period.²⁸ From Marcus Aurelius onwards, the *procurator* based in Synnada carries the title of *procurator provinciae Phrygiae*.²⁹ Unlike in Simithus or in the Western Egyptian

desert, where *procuratores metallorum* were in charge of the extractive districts, the sphere of responsibility of the Phrygian *procurator* was larger and included also the administration of the numerous landed estates present in the region. This explains also the attestation of the procurator's action outside Synnada and his implication in tasks non directly related to the extraction of marble, like the settlement of boundary disputes.³⁰

Procurators are rarely attested on the quarry labels. Only marks inscribed in 136 and 194 add to the commonly attested formulas also the indication that the block was extracted *sub cura* of the procurator, suggesting a direct involvement of the imperial administration in the production and shipment of the marble in these two years. What exactly were their ordinary responsibilities and who were their representatives on the site is hard to say. One of their main duties must have been contracting out the extraction and dressing work to the holders of *caesurae* and *officinae* attested on the quarry labels from 136 onward. Unfortunately, the nature of the documentation for Phrygia does not allow to reconstruct how the *procurator* and his staff were involved in the organization of the supplies and to understand what similarities and differences there were in respect of Egypt. A few inferences can nonetheless be drawn.

We have no clue about the size of the workforce present at Dokimeion and can only rely on comparative data. Given the dimensions of the quarry and its intense exploitation from the end of the first and the middle of the second century, it is not unreasonable to think that the site hosted between 700 and 1.000 workers. A part of this workforce could be found directly in Phrygia, but many seasonal workers coming even from distant regions must have been employed during the quarrying season (February-October approximately).³³ The estimated workforce would still need between 40.000 and 60.000 *modii* of wheat a year, not including animals.³⁴

Logistics must have been less complicated in respect to Mons Claudianus, since the Kaystros and the Upper Tembris valleys were inhabited and productive areas, and water surely was available nearby. Nonetheless, this part of Phrygia was sparsely populated and little urbanized during the first century and therefore the accommodation of such a large workforce could not happen without a centralized coordination effort.³⁵ The nearest city, Prymnnessos, lays at some 25 km and Synnada at 50 km away. Most of the workforce must have been housed near the vicinity of the quarry and this makes the existence of storage facilities and a centralized management of grain reserves a necessity.

There is no epigraphic evidence for the presence of military personnel at Dokimeion or even at Synnada.³⁶ This constitutes a significant difference from Egypt, but also from the mining district of northwest Spain. This indicates that the involvement of the military in the supply was very limited or absent and that private contractors must have been responsible for the supplies under the supervision of the *procurator* of Phrygia.³⁷ This difference is partially explained by the lesser degree of complexity

in the organization of the supply, but also by the fact that the use of "pavonazzetto" – unlike the Egyptian granodiorite and porphyry – was not exclusively reserved for the emperor.³⁸ The *patrimonium Caesaris* still controlled who could access to the quarry, but was not interested in obtaining all the stone extracted from it. Hence the lesser need for directly controlling the operation through the military.

Another hint at a general procuratorial supervision in the supplies is the sphere of responsibility of the *procurator* himself. Managing at the same time the quarries and the imperial estates situated in the valleys of the Kaystros, the Upper Tembris and beyond, the *procurator Phrygiae* directly controlled part of the grain production (and stocks) of the region and could more easily organize shipments. The evidence about imperial estates constantly grows during the second and the early third century and their concentration was deemed sufficient enough to organize them in a patrimonial subdistrict, the *regio Ipsina et Moetana*.³⁹

As shown by an inscription from Sülümenli, between Dokimeion and Prymnessos, the Phrygian *procurator* was involved in the maintenance of roads, since he was hearing a dispute between two villages over the financial burden allocated for the ordinary repair works. ⁴⁰ The procurator's intervention could simply be explained by the possibility that the two villages belonged to an imperial estate, but if it refers to a broader competence it would signal that another crucial aspect for the grain supply fell under his supervision.

What Does the Comparison Tell Us?

The comparison between Mons Claudianus and Dokimeion has not been conducted in order to take advantage of the richer documentation of the former to fill the gaps in that of the latter context. On the contrary, the main benefit of such an approach is to understand the uniqueness of each context, to see how similar problems were solved in different ways and why. If the number and the quality of the sources for Mons Claudianus is exceptional and reveals a complex administration, it does not mean that the management of other quarries did not require a similar degree of sophistication. As I argued above, the size of the workforce and the relative isolation of the Bacakale quarry from major urbanized areas also required a complex, centralized organization of the supplies. This was certainly placed under the responsibility of the freedman procurator Phrygiae residing in Synnada, but differently from Mons Claudianus - relied more on private actors rather than the military.41 Since the procurator also administered the imperial estates present in the region, he could easily be informed about grain production and stock levels. Since in Egypt the recruitment of the workforce fell under the responsibilities of the procurator, this must also have been the case in Phrygia, but unfortunately we have no evidence in this regard.

Notes

- ¹ Russell 2013, 38-53; Pensabene Gasparini 2015, 99-100.
- ² Suet. Tib. 49.2: plurimis etiam civitatibus et privatis veteres immunitates et ius metallorum ac vectigalium.
- ³Hirt 2010, 84-90.
- ⁴ Fant 1993; on the rationale behind imperial patrimonial acquisition in general, cf. Maiuro 2012, 88–92; Lo Cascio 2015.
- ⁵ For additional information, cf.<patrimonium.huma-num.fr> (08.06.2020)
- ⁶ In this respect, the project will follow the path opened by the influential work of Hirt 2010.
- ⁷On methodology issues, cf. Bang 2003; Dalla Rosa 2012.
- ⁸ Fant 1988, 153; Hirt 2010, 223-225; Dalla Rosa 2016.
- ⁹Cuvigny 2000; Peacock Maxfield 1997.
- ¹⁰ Peacock Maxfield 1997; Peacock Maxfield 2001; for a more concise overview, cf. Hirt 2010, 12-16.
- ¹¹ Data is available for the Myrismos quarry, for which O. Claud. inv. 1538 attests 46/47 workers, among which 36 paganoi and 8 fameliarioi; O. Claud. inv. 2676: 45 workers, among which 30 paganoi; O. Claud. inv. 2809: 89 workers; O. Claud. inv. 3385: 109, among which 42 paganoi and 59 fameliaroi. The Myrismos quarry corresponds to the no. 22 of the list given by Peacock Maxfield 1997, 178–189. Unfortunately, the authors do not report any measurement, but only state that the extraction site is large. Other large quarries of the site measure about 40–50 m across (cf. nos. 42, 51, 55, 59, 75, 84). On workforce and salaries at Mons Claudianus see Serafino 2009.
- ¹² Bruno 2017.
- ¹³Cuvigny 2000.
- 14 Hirt 2010, 160.
- 15 Hirt 2010, 15.
- 16 O.Claud. inv. 7295, l. 1-8.
- ¹⁷ Cuvigny 2002.
- ¹⁸O.Claud. inv. 7295, l. 10-25.
- 19 Hirt 2010, 204-206.
- ²⁰ Hirt 2010, 181. 183-184.
- ²¹ I.Pan 39. Maxfield 2000.
- ²² Hirt 2010, 220–221. As an equestrian governor, the prefect of Egypt was ultimately responsible for the imperial properties in his province. The fact that Sulpicius Similis, prefect under Trajan, visited Mons Claudianus does not come as a surprise (O.Claud. 130).
- ²³ Röder 1971; Fant 1989.
- ²⁴ Strabo 12.8.14.
- ²⁵ Fant 1989, 8-9.
- ²⁶ Pensabene 2010. Quarry labels are also attested on pavonazzetto elements found in Lepcis Magna (Bruno 2009).
- ²⁷ Christol Drew-Bear 2005.
- ²⁸ Dalla Rosa 2016, 323-328.
- ²⁹ IGR 4.702; 704; 789; CIL 3.348.

- ³⁰ Dalla Rosa 2016, 326-327.
- ³¹ Hirt 2010, app. no. 115-116. 302-303. Cf. Christol Drew-Bear 1991.
- ³² On the system, cf. Hirt 2010, 293-299.
- ³³ The beginning of the quarrying season can be inferred from the tituli picti containing calendar dates placed on the quarry front at Bacakale and described by Bruno 2017.
- ³⁴ For the detailed estimation, cf. Dalla Rosa 2016, 319–323.
- ³⁵On the peripheral character of Phrygia under the Romans, cf. Thonemann 2013, 8–24.
- ³⁶ An eirenophylax, an imperial freedman named T. Flavius Helvius, posed a dedication at the sanctuary of Zeus Bennios, in the Upper Tembris valley, in 79 AD. He was responsible of policing a district (eparcheia in the text), that has been identified with the patrimonial regio Ipsina et Moetana attested under the Severans (Drew-Bear Naour 1990, 1967–1981). The proposition has been disputed, but it is improbable that the district guarded by Helvius corresponded with the entire region of Phrygia, as thinks Thonemann 2011, 114.
- ³⁷ Two centurions are however attested on the quarry labels as responsible for extractive operations (caesurae) under Hadrian and Antoninus Pius. Cf. Hirt 2010, 171–174.
- 38 Lazzarini 2004.
- ³⁹ AE 1973.533 = MAMA 11.176; Dalla Rosa 2016, 312-317.
- 40 SEG 13.625.
- ⁴¹Otherwise, we should think that this task fell under the responsibility of the holders of the caesurae and officinae. We do not have parallels for this in Mons Claudianus and since three or four caesurae could work in Bacakale at the same time, this would have further complicated the organization of supplies.

References

Bang 2003

P. F. Bang, Rome and the Comparative Study of Tributary Empires, MHJ 6, 2003, 189-216.

Bruno 2009

M. Bruno, Blocchi, marchi e sigle di cava da Leptis Magna, Marmora 5, 2009, 71-94.

Bruno 2017

M. Bruno, Tituli picti su due fronti di cava nel distretto di Bacakale a Docimium (Iscehisar, Afyonkarahisar), JRA 30, 2017, 469–489.

Christol - Drew-Bear 1991

M. Christol – T. Drew-Bear, Les carrières de Dokimeion à l'époque sévérienne, Epi-graphica 53, 1991, 113–174.

Christol - Drew-Bear 2005

M. Christol – T. Drew-Bear, De Lepcis Magna à Aizanoi: Hesperus procurator de Phrygie et l'administration des carrières de marbre, in: J. Desmulliez – C. Hoët-van Cauwenberghe (eds.), Le monde Romain à travers l'épigraphie: Méthodes et pratiques (Lille 2005) 189–216.

Cuvigny 2000

H. Cuvigny, Mons Claudianus: ostraca Graeca et Latina III. Les reçus pour avances à la familia, Documents de fouilles fouilles de l'Institut français d'archéologie orientale du Caire 38 (Cairo 2000).

Cuvigny 2002

H. Cuvigny, Vibius Alexander, praefectus et épistratège de l'Heptanomie, ChronEg 77, 153–154, 2002, 238–248.

Dalla Rosa 2012

A. Dalla Rosa, Non seulement les empires. Un bref regard critique sur les plus récentes études d'histoire comparée de l'Antiquité, Anabases 15, 2012, 101–114.

Dalla Rosa 2016

A. Dalla Rosa, From Exploitation to Integration: Imperial Quarries, Estates and Freedmen, and the Integration of Rural Phrygia, Studi ellenistici 30, 2016, 305–330.

Drew-Bear - Naour 1990

T. Drew-Bear – C. Naour, Divinités de Phrygie, in: W. Haase – H. Temporini (eds.), Aufstieg und Niedergang der römischen Welt II 18.3 (Berlin 1990) 1907–2045.

Fant 1988

J. C. Fant, The Roman Emperors in the Marble Business: Capitalists, Middlemen or Philantropists?, in: N. Herz – M. Waelkens (eds.), Classical Marble: Geochemis-try, Technology, Trade, NATO ASI Series E: Applied Sciences 153 (Dordrecht 1988) 147–158.

Fant 1989

J. C. Fant, Cavum antrum Phrygiae: The Organization and Operations of the Roman Imperial Marble Quarries in Phrygia, BAR international series 482 (Oxford 1989).

Fant 1993

J. C. Fant, Ideology, Gift and Trade. A Distribution Model for Roman Imperial Mar-bles, in: W.V. Harris (ed.), The Inscribed Economy: Production and Distribution in the Roman Empire in the Light of Instrumentum Domesticum. Proceedings of the Conference held at the American Academy in Rome, 10–11 January 1992 (Ann Arbor 1993) 145–170.

Hirt 2010

A. M. Hirt, Imperial Mines and Quarries in the Roman World: Organizational Aspects, 27 BC – AD 235, Oxford Classical Monographs (Oxford 2010).

Lazzarini 2004

L. Lazzarini, La diffusione e il riuso dei più importanti marmi romani nelle province imperiali, in: L. Lazzarini (ed.), Pietre e marmi antichi: natura, caratterizzazione, origine, storia d'uso, diffusione, collezionismo (Padua 2004) 101–122.

Lo Cascio 2015

E. lo Cascio, The Imperial Property and its Development, in: P. Erdkamp – K. Verbo-ven – A. Zuiderhoek (eds.), Ownership and Exploitation of Land and Natural Re-sources in the Roman World (Oxford 2015) 61–70.

Maiuro 2012

M. Maiuro, Res Caesaris: ricerche sulla proprietà imperiale nel principato, Pragma-teiai 23 (Bari 2012).

Maxfield 2000

V. A. Maxfield, The Deployment of the Roman Auxilia in Upper Egypt and the Ea-stern Desert During the Principate, in: G. Alföldy – B. Dobson – W. Eck (eds.), Kaiser, Heer und Gesellschaft in

der römischen Kaiserzeit: Gedenkschrift für Eric Birley, Heidelberger Althistorische Beiträge und Epigraphische Studien 31 (Stutt-gart 2000) 407–442.

Peacock - Maxfield 1997

D. P. S. Peacock – V. A. Maxfield, Mons Claudianus. Survey and Excavation I. To-pography and Quarries, Fouilles de l'Institut Français d'Archéologie Orientale du Caire 37 (Cairo 1997).

Peacock - Maxfield 2001

D. P. S. Peacock – V. A. Maxfield, Mons Claudianus: Survey and Excavation 1987 - 1993. Volume II. Excavations: Part 1, Fouilles de l'Institut Français d'Archéologie Orientale du Caire 43 (Cairo 2001).

Pensabene 2010

P. Pensabene, Cave di marmo bianco e pavonazzetto in Frigia. Sulla produzione e sui dati epigrafici, Marmora 6, 2010, 71–134.

Pensabene - Gasparini 2015

P. Pensabene – E. Gasparini, Marble Quarries, in: E. A. Friedland – M. Grunow Sob-ocinski – E. K. Gazda (eds.), The Oxford Handbook of Roman Sculpture (Oxford 2015) 93–106.

Röder 1971

J. Röder, Marmor Phrygium. Die antiken Marmorbrüche von Iscehisar in Westanato-lien, JDAI 86, 1971, 253–312.

Russell 2013

B. Russell, The Economics of the Roman Stone Trade, Oxford studies on the Roman economy (Oxford 2013).

Serafino 2009

C. Serafino, Cave, miniere, salari: il caso del Mons Claudianus, in: A. Storchi Marino – G. D. Merola (eds.), Interventi imperiali in campo economico e sociale: da Au-gusto al Tardoantico, Pragmateiai 18 (Bari 2009) 43–53.

Thonemann 2011

P. Thonemann, The Maeander Valley: A Historical Geography from Antiquity to By-zantium, Greek culture in the Roman world (Cambridge 2011).

Thonemann 2013

P. Thonemann, Phrygia: An Anarchist History, 950 BC – AD 100, in: P. Thonemann (ed.), Roman Phrygia: Culture and Society (Cambridge 2013) 1–40.