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Original research article

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THE STATUS OF THE *COLONI* IN THE MINING DISTRICT OF VIPASCA IN VIEW OF THE PROVISIONS OF THE *LEX METALLIS DICTA*¹

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Abstract – This paper discusses changes in the Roman mining policy that took place during the Empire, based on the provisions found on the second tablet of the *Lex metallis dicta*² (*Vip* II, 1, 2,5,6,7,8,9) from Vipasca. The main stress is placed on the position, rights and obligations of the *coloni* and miners and the status of mining pits after their sale. By examining the efficiency of the indirect model of silver and lead exploitation in the mining district of Vipasca, the authors present their solution to the unresolved issue of the means by which the Roman state obtained large quantities of metals necessary for the operation of state-run factories and imperial mints.

Key words - coloni, miners, Roman mining, procurators, Vipasca, mining law

oman mining legislation from the time of the Republic is sparse despite the continuing development of Roman law over the centuries. The absence of legal sources is a result of the way the Roman state collected revenues from mining. The fiscal regime implied that the collection of tax revenues from customs and mining (ager publicus)³ was carried out by companies of publicans (societates publicano $rum)^4$, to whom lessees of mining concessions paid taxes.⁵ Hence, legal regulations related to the publicans covered the mining sector of the economy as well. This means that the Roman Republic was not directly involved in the mining process at all. The miners, predominantly slaves, were left to the mercy of the lessees⁶, and the latter to the mercy of the societates publicanorum.⁷ The radical changes that were introduced only as late as the time of Vespasian⁸ included the disappearance of associations of publicans⁹, legislation for each aspect of mine exploitation, and a new status for the coloni, the former lessees of mining pits. Owing to the Vipasca laws, we are in a position to follow these changes and to gain an insight into the new mining

¹ We would like to express our deep gratitude to the anonymous readers of *Starinar* for their thoughtful comments and valuable suggestions which greatly improved the manuscript.

² The *Lex metallis dicta* is a mining law inscribed on the second of two bronze tablets unearthed at Vipasca/mod. Aljustrel, Portugal, on May 7, 1906, by the Companhia Mineira Transtagana (*AE* 1906, 151). The original Latin text quoted in this paper is borrowed from Girard, Senn 1977, 586–589. The provisions of the Vipasca laws, *Lex territorio metalli Vipascensis dicta (Vip I)* and *Lex metallis dicta (Vip II)*, presented in the paper have been translated into English by the authors of this paper.

³ Mateo 1999, 96-120.

⁴ Dig. 50, 16, 16: eum qui vectigal populi Romani conductum habet "publicanum" apellamus. Nam "publica" appellatio in compluribus causis ad populum Romanum respicit:civitates enim privatorum loco habentur. Cf. Cic. Ad Atticum 6, 1, 15: in quo est... omnia de publicanis. On the publicans and their associations, see: Badian 1972.

⁵ In the role of the leaseholders of mining pits we found the Italics, mostly from Campania. On their names and the scope of their activites, see: Gabba 1954, 297–305; Wilson 1966, 22–27; Brunt 1971, 204, 209–214; Nicolet 1976, 62–63. Cf. Domergue 1965, 9–27; Domergue 1990, 321–322. On the presence of freedmen as lessees in Spain during the Republic, see: Treggiari 1969, 101–106; Garnsey 1981, 364–367; D'Arms 1981, 103–104, 141–142; Domergue 1985, 202–203.

policy, whose main feature was partnership between the *coloni* and the *fiscus*. ¹⁰ The mining region of Vipasca was constituted as a mining district, with clearly defined boundaries (*fines metallorum*), and governed by a senior administrative official, *procurator metallorum*, who was either an imperial freedman or a member of the equestrian order. ¹¹ The imperial procurator at Vipasca held both executive and judicial powers as a representative of the *fiscus* in the field. ¹² In order to show the position, rights and obligations of the *coloni* as the main carriers of the process of mine exploitation in this region, we will direct our attention to seven provisions of the *Lex metallis dicta*. The first two provisions regulated the procedure of selling mining pits in the mining district of Vipasca:

..... Aug. praesens numerato. Qui ita non fecerit et conuictus erit prius coxisse uenam quam pretium, sicut | supra scriptum est, soluisse pars occupatoris commissa esto et puteum uniuersum proc(urator) metallorum | uendito. Is, qui probauerit ante colonum uenam coxisse quam pretium partis dimidiae ad fiscum pertinen|tis numerasse, partem quartam accipito.¹³

......Aug(ustus), he shall immediately make a payment. Whoever has not done thus and has been accused of smelting ore before the price has been paid, as stated above, the plot that he occupied shall be confiscated and the entire mining pit shall be sold by the procurator of mines. Whoever proves that a *colonus* smelted ore before paying the price for the half belonging to the *fiscus* shall receive a quarter.

Putei argentari ex form[a] exerceri debent quae || hac lege continetur; quorum pretia secundum liberalitatem sacratissimi imp(eratoris) Hadriani Aug. obser|uabuntur, ita ut ad eum pertineat proprietas partis, quae ad fiscum pertinebit, qui primus pretium puteo fecerit | et sestertia quattuor milia nummum fisco intulerit. ¹⁴

The mining pits containing silver ore shall be exploited according to the provisions of this law. Their prices shall be maintained in accordance with the generosity of the most sacred Emperor Hadrian, so that the ownership over the part which belongs to the *fiscus* shall belong to whoever shall first offer the price for the mining pit, and shall pay to the *fiscus* four thousand sesterces.

In the mining district of Vipasca, there was a sort of contractual relationship between the *coloni* and the *fiscus* in which the latter, respecting the rights of the former, did not impose unfavourable conditions on him and the whole relationship was based on mutual interest. As can be seen from the first and second provisions of the *Lex metallis dicta*, during the Empire, former leaseholders of mining concessions, designated as *coloni* in law, ¹⁵ had the opportunity to become

⁶ Diod. 5. 36, 3; 4. 38; Vitr. 8. 6, 11; Lucr. Rer. Nat. 806.

⁷ Liv. 45, 18, 3-5.

⁸ Literary sources that cover the period from the reign of the emperor Augustus until the beginning of the reign of the emperor Vespasian show an evident lack of a general mining legislation effective throughout the whole empire. Exploitation of gold deposits strongly developed in the newly conquered territories in Hispania, Asturias and Gallaecia (Flor. Epit. 2, 33: Itaque (Augustus) exerceri solum iussit. Sic Astures nitentes in profundo opes suas atque divitias, dum aliis quaerut, nosse coeperunt. Cf. Domergue 2008, 189-190.) and the pacified provinces, such as Dalmatia (Flor. Epit. 2, 25: Augustus perdomandos Vibio mandat, qui efferum genus fodere terras coegit aurumque venis repurgare.), owing to the direct participation of the Roman army and forced domestic labour. On gold and silver exploitation in Britain during the reign of Emperor Claudius, see: Tac. Agr. 12, 19. Cf. CIL VII 1201, 1202. Pliny the Elder praised the mines in the area of Baetica where exploitation was still in progress during Nero's reign, and also the gold deposits in Dalmatia. See: Plin. Nat. Hist. 33, 114, 118. Cf. Cic. Phil. 2, 48; Pliny 33, 21. It seems that Augustus had not completed the reform of the mining system inherited from the Republic, in spite of the fact that Cassius Dio attributed to Maecenas the statement about the necessity to estimate all the revenues derived from mines and also to introduce a new system of taxation. See: Cass. Dio 52, 28, 4.

⁹ Cf. Mateo 1999, 151–156.

¹⁰ The Vipasca laws passed by the emperor Hadrian, most likely represented only a revised addition to the existing mining law that had originally been passed during the reign of Emperor Vespasian. On Vespasian's legal activities and reforms of the management of public domains, see: Mateo 2001, 179–195.

¹¹ *Vip* II, 1, 2; 6, 1. Cf. Hirschfeld 1905, 160; Christol, Demougin 1990, 170.

¹² Vip I and Vip II distinguish between three different territorial units within the area of the mining district: vicus, metallum and territoria metallorum (Vip I, 5, 1; Vip II, 10, 3). Cf. Dušanić 2004, 249; Hirt 2010, 48–49. Roman legal sources, unlike the Vipasca laws, rarely use the term territoria to signify a mining territory (Dig. 50. 16. 239. 8: Territorium est universitatis agrorum intra fines cuiusque civitatis...). On fines metallorum at Vipasca, see: Burian 1955, 49–52; Burian 1957, 535–560; Flach 1979, 440–446.

¹³ *Vip* II, 1. Cf. D'Ors 1953, 103–104; Domergue 1983, 123–126; Mateo 2001, 156–161.

 $^{^{14}\ \}it{Vip}$ II, 2. Cf. D'Ors 1953, 119; Flach 1979, 415; Domergue 1983, 134–137.

¹⁵ Vip I and Vip II use two terms to designate those individuals who exploited mining pits: occupator, at the moment of occupation of a mining pit, and colonus, after ore had been discovered and the

owners of mining pits (ita ut ad eum pertineat proprietas partis, quae ad fiscum pertinebit), and they became owners after paying the price for one half of a mining pit belonging to the fiscus. 16 A colonus first occupied a mining pit and then invested his own financial resources, labour and material in the search for ore. This investment was precisely the reason why the fiscus claimed ownership solely on one half of the mining pit (partis dimidiae ad fiscum pertinen|tis), which was put up for sale only after it had been established that the mining pit was productive, i.e., after the colonus had found ore. Coloni were forbidden to start melting ore before they had obtained *proprietas* over the mining pit. ¹⁷The penalty for this violation was confiscation of the mining pit and its re-sale. 18 Those who reported such a violation were rewarded by being given a quarter of the pit's total value. 19 The price at which the procurator of the mines sold the part belonging to the fiscus varied and was based on its mineral wealth, i.e., on an assumption of its future yield.²⁰ The sale of a mining pit was effected at an auction²¹ and the *colonus* who had previously occupied it had the pre-emptive right to purchase the part belonging to the fiscus. If he decided to buy it, he obtained ownership of it. The generosity of the emperor Hadrian, mentioned in the second paragraph, refers to the permission given to a colonus to immediately pay four thousand sesterces for the pars fisci and the rest of the amount when he began to smelt ore, i.e., after the first profit was made. 22 Two days after the auction, the *colonus* had to make the payment, as well as pay the pittacium fee, thus officially becoming the full owner.²³ If the price for the half of the mining pit was too high, he could refrain from the purchase or find a partner willing to buy it at the price set by the fiscus. If he failed to find a partner, he could initiate the sale of his own part of the mining pit, pars occupatoris, whereby the entire mining pit would be sold, i.e., both the pars occupatoris and the pars fisci.²⁴ After buying a mining pit, a colonus became entitled to smelt ore, but he could also, if he wanted, re-sell it at the highest price. This is clearly stated in the eighth provision of the law:

Colonis inter se eas quoque partes puteorum, quas | a fisco emerint et pretium soluerint, uendere quanti quis potuerit liceto. Qui uendere suam partem | quiue emere uolet, aput proc(uratorem), qui metallis praeerit, professionem dato ; aliter emere aut uendere | ne liceto. Ei qui debitor fisci erit, donare partem suam | ne liceto.²⁵

The *coloni* shall have the right to sell among themselves at the highest price those parts of the mining pits which they have bought from the *fiscus* and for which they have paid the price. Whoever wishes to sell his share, or who wishes to purchase it, shall make a declaration before the procurator of mines; otherwise he shall neither have the right to buy nor sell it. Whoever is indebted to the *fiscus* is not permitted to give away his share.

process of exploitation had started. See: Flach 1979, 415–417; Domergue 1983, 128–131; Hirt 2010, 267. On *colonus* in the sense of any inhabitant of the mining district of Vipasca, see: D'Ors 1953, 109.

¹⁶ Various interpretations of the provisions related to the sale of mining pits owned by the *fiscus* and also those related to sales among the *coloni* themselves have given rise to a long discussion among the scholars. See: Cuq 1907, 87–133; Mispoulet 1908, 345–391, 491–537; D'Ors 1953, 71–133; Flach 1979, 399–448; Domergue 1983, 134–137. Cf. Mateo 2001, 87–166; Domergue 2004, 221–236; Domergue 2008, 198–201; Mateo 2012, Cherchi 2014, 63–101.

¹⁷ Vip II, 1, 2.

¹⁸ Vip II, 1, 2–4.

¹⁹ Alice Cherchi considers that the reward for a denunciator was a quarter of the value of the extracted material, but such amount would be rather small, taking into account that it was the very beginning of the exploitation process. If the legislator wanted to motivate other colons to report and to prove fraud to the fiscus the reward for such activity must have been much higher. See: Vip II, 1, 5. Cf. Cherchi 2014, 70.

²⁰ Mateo 2001, 166.

²¹ The first provision of *Vip* I stipulates that all sales within the mining district of Vipasca must be carried out through an auction that was leased out. See *Vip* I, 1: *Conductor ea[rum uenditionum, quae per auctio]|nem intra fines metalli Vipascensis fient, exceptis iis, quas proc(urator) metallorum iu[ssu imp(eratoris) faciet, centesimam a uendito]|re accipito.* ("The lessee of these sales by auction within the boundaries of the mining district of Vipasca shall receive one percent from the seller, except to those sales made by the procurator of mines at the command of the emperor") Cf. *Vip* I, 2: *Si quas [res proc(urator) metallorum nomine] fisci uen|det locabitue, iis rebus conductor socius actorve eius praeconem praestare debeto.* ("If the procurator of mines sells or leases out any property on behalf of the *fiscus*, for this property the lessee, his partner or representative shall provide an auctioneer") Cf. Domergue 1983, 68–73.

²² Mateo 2001, 158.

²³ Pittacium was a fee paid to the lessee by a *colonus* on the second day after his purchase of a mining pit, or after taking over those mining pits that had been abandoned. This is clearly stated in the ninth provision of *Vip* I entitled: *Usurpationes puteorum sive pittaciarium*. The fee was named after the lead tablet that was placed at the very entrance of the mining pit. Cf. D'Ors 1953, 105; Domergue 1983, 100.

²⁴ Mateo 2001, 166.

²⁵ Vip II, 8. Cf. Domergue 1983, 142–145.

According to this provision, the coloni at Vipasca were allowed to make great profit by selling mining pits among themselves, but, at the same time, the fiscus strived to prevent such resales without the presence of the procurator of the mines because, otherwise, the coloni would be able to avoid paying taxes. The inclusion of this provision into the law best testifies to the extent to which resales were causing financial damage to the *fiscus*. Antonio Mateo thinks that this provision refers to both the case of reselling mining pits and the case of selling the pars occupatoris when a colonus refrained from the purchase of the pars fisci. 26 The shares of the mining pits mentioned in this provision imply the existence of business associations of the coloni at Vipasca who acted as legal entities at auctions. They should not be identified with the associations (corpora) of coloni whose activities were of a social and cultural character.²⁷ These business partnerships were probably rather common and justified by the high price that needed to be paid for one half of a mining pit belonging to the *fiscus*. ²⁸ The agreement of partnership between coloni obliged them to exploit a mining pit jointly in order to make profit. For a *colonus* to be considered a partner, it was necessary that he contribute a certain amount of money to the partnership and participate in the distribution of the profit and the expenditures commensurate with his share.²⁹ The sixth and seventh provisions of the Lex metallis dicta established the rules according to which coloni were allowed to establish business partnerships both prior to buying a mining pit and after they gained proprietas.³⁰ These provisions also regulated the methods of resolving disputes, fraud and financial issues arising among partners.

[Occ]u|patori puteorum socios quos uolet habere liceto, ita ut, pro ea parte, qua quis socius erit, impensas | conferat. Qui ita non fecerit, tum is qui impensas fecerit rationem impensarum factarum a se || continuo triduo in foro frequentissimo loco propositam habeto et per praeconem denuntiato | sociis ut pro sua quisque portione inpensas conferat. Qui non ita contulerit, quiue quid dolo | malo fecerit quominus conferat, quoue quem quosue ex sociis fallat, is eius putei partem ne | habeto, eaque pars socii sociorumue qui inpensas fecerint esto.³¹

Whoever occupies a mining pit is permitted to have as many partners as he wishes, provided that each one shall bear the expenses in proportion to the amount of his share. Whoever fails to do this, the one who has borne the expenses shall make out a statement of the expenses borne by himself and place it for three consecutive days in the most frequented spot in the forum, and shall demand through the public crier that each partner must bear the expenses for his share. The partner who does not contribute, or who wilfully does anything to avoid bearing the expenses or who deceives one or more of his partners, shall not retain his share of the mining pit and his share shall belong to the partner, or partners, bearing his expenses.

[V]el ii coloni qui impensam fecerint in eo puteo, in quo plures socii fuerint, repetendi a sociis quod \parallel bona fide erogatum esse abparuerit ius esto. ³²

The *coloni* who bear the expenses of a mining pit, where there are several partners, shall be entitled to reclaim from their partners what they have evidently spent in good faith.

By this rather detailed provision, the legislator wanted to avoid, or resolve as soon as possible, any disputes that might arise between the members of a business association of *coloni* in order to ensure that excavation of mining pits ran smoothly. This

²⁶ Domergue 1983, 142–146. Cf. Mateo 2001, 162–166.

²⁷ Dig. 3. 4, 1: ...ut ecce vectigalium publicorum sociis permissum est corpus habere vel aurifodinarum vel argentifodinarum et salinarum. Inscriptions testifying to the existence of such associations of *coloni* were found in the mining districts in Upper Moesia. A society of coloni in the territory of municipium D.D. at Sočanica (coloni argentariarum) built a temple dedicated to Antinous, Hadrian's lover, after his deification. (Čerškov 1970, 65, n. 15). An association of coloni is presumably mentioned at the end of the epitaph of a son of the decurio of the colony of Scupi and the municipium Ulpiana, l(oco) d(ato)d(ecreto)co(lonorum) found on a tombstone erected at Sočanica. (Čerškov 1970, 62, n. 3. Cf. Dušanić 1977, 87.) Associations of *coloni*, i.e., [cor]porib(us) suis, are also mentioned in the fragmentary inscription erected by the emperor Caracalla on the occasion of his renovating a building for them (balneum, scholae or basilica) at Sočanica. See: Dušanić 1997, 35. Cf. ILIug 505.

²⁸ Domergue 1983, 141.

²⁹ D'Ors 1953, 124.

³⁰ On a different interpretation of the mining companies at Vipasca based on the provisions of the Vip II, 6, 7, 8 see: A. Cherchi 2014, 63–101. Starting from the premise that the terms *occupator* and *colonus*, mentioned in the provisions, designated two different legal categories, A. Cherchi tries to explain their presumably different status within the mining *societates* at Vipasca, and consequently their obligations towards the fiscus.

³¹ Vip II, 6. Cf. Domergue 1983, 141–142.

³² Vip II, 7.

provision refers to those *coloni* who did not take their obligations and responsibilities seriously, or those who even attempted to defraud their partners. The importance of a continuous process of excavation to the *fiscus* is revealed by the fact that a *colonus*' ownership of a mining pit was limited, not because of his obligation to share ore with the *fiscus* after the purchase, as has long been believed,³³ but because of the legal provision that enabled the *fiscus* to confiscate the mining pit and regain ownership in the case of a six-month interruption of excavation of the mining pit. This also implied its resale to a new buyer at auction.³⁴

Puteum a fisco uenditum continuis sex mensibus intermissum alii occupandi ius | [es]to, ita ut, cum uenae ex eo proferentur, ex more pars dimidia fisco salua sit.³⁵

Others shall have the right to occupy a mining pit sold by the *fiscus* in which excavation is interrupted for six consecutive months, provided that, when ore has been extracted, one half shall be reserved for the *fiscus*, according to custom.

The essential question that must be raised here is: what was the reason for the great interest of the fiscus in the continuous process of mining excavation, given that the coloni did not share half of the extracted ore with the fiscus after their purchase of mining pits? The importance of this particular matter is shown by the legal provision which allowed other coloni to take over a mining pit that was already in the initial phase of excavation if the colonus who had first occupied it stopped his operations for ten consecutive days.³⁶ Confiscation of a mining pit, referred to in the fifth provision of the law, was more than a radical measure, as coloni purchased mining pits at very high prices. Claude Domergue, after adopting Mateo's thesis on the sale of mining pits in the mining district of Vipasca, suggesting that coloni were under no obligation to share ore with the fiscus, justifiably raises the question of the model through which the Roman state was obtaining large amounts of metals necessary for the operation of state-run factories and imperial mints.³⁷ Perhaps the answer to both questions lies in the very process of silver and lead production in the mining district of Vipasca. After it had been excavated, the ore was transported to smelters and workshops (officinae), where final products, i.e., silver and lead ingots, were produced.³⁸ Smelters situated in the vicinity of mining pits were owned by the fiscus

and the process of production was carried out under the strict control of state officials, mostly members of the *familia Caesaris*.³⁹ The State held a monopoly over the production of metals, because *coloni* had to lease smelters in the district where the ore was being excavated, and the price for the rent was likely paid with finished products, i.e., silver and lead ingots. It was easier for the *coloni* to pay the rent with products

³³ J. B. Mispoulet, E. Cuq, J. Vendeuvre, M. Rostovtzeff, D. Flach and Cl. Domergue believed, with minor differences in their interpretations, that the main characteristic of the legal regime at Vipasca was sharecropping, i.e., the division of ore into halves between the fiscus and the coloni (colonia partiaria). Such a relationship between the *fiscus* and the *coloni* would have been identical to the one in force in the fiscal domains in northern Africa (saltus Africanus). See: Mispoulet 1907, 20–32; Mispoulet 1908, 345–391, 491–537; Cuq 1907, 87-133; Vendeuvre 1910, 46-87, 106-117; Rostovtzeff 1910, 353-360; Flach 1979, 99-448; Flach 1989, 133-137; Domergue 1983. Alvaro D'Ors was one of the major advocates of the idea that mining pits were being sold to the *coloni* at Vipasca. His rather extensive thesis on the issue was presented in: Epigrafía jurídica de la España romana (D'Ors 1953, 71-133) and was later adopted by many scholars. On the latest conclusions on the status of mining pits after their sale, see: Mateo 2001, 62–66, 131–145, 161–166, 178–187; Domergue 2004, 221-236; Domergue 2008, 198-201; Mateo 2012, 245-254.

³⁴ Mateo 2001, 166.

 $^{^{35}\ \}it{Vip}$ II, 5. Cf. Mispoulet 1907, 368; D'Ors 1953, 123; Domergue 1983, 139; Mateo 2001, 131–138.

³⁶ Vip II, 4: Qui post dies XXV praeparationi impensarum datis opus quidem || statim facere coeperit, diebus autem continuis decem postea in opere cessauerit, alii occupandi | [i]us esto. ("Whoever starts excavating after the twenty-five days granted for the collection of funds but thereupon stops the work for ten consecutive days, the right of occupancy shall be granted to another."

³⁷ Domergue 2004, 221–236; Domergue 2008, 211.

³⁸ The *Lex territorio metalli Vipascensis dicta* strongly forbade *coloni* to carry the ore out of the mining district of Vipasca or bring ore to the district from other mining areas. *Vip* I, 7, 2: *Qui ex alis locis ubertumbis ae[raria argentariaue ru]tramina in fines metallorum inferet, in p(ondo) C X I conductori socio actoriue eius d(are) d(ebeto).* ("Whoever brings copper or silver ore from another place to within the boundaries of the mines shall pay to the lessee, his partner, or his representative one denarius per one hundred pounds.") Cf. Domergue 1983, 92–94.

³⁹ There is ample epigraphic evidence on the presence of imperial freedmen (*vilici, dispensatores, tabularii, commentarii*) in the mining *officinae* in the areas of gold mines in Dacia (e.g. *CIL* III 1301, 7837, 1286, 1297; *AE* 1959, 305), iron mines in Dalmatia (e.g. *ILlug* 158, 161, 162, 779, 781), and silver mines in Upper Moesia (e. g. CIL III 14 209, 8279. Cf. Mocsy 1970, 16; Dušanić 1977, 89, n. 232). During the reigns of the emperors Trajan and Hadrian, special coins, the so-called *nummi metallorum*, were minted for the employees of the mining administration in the area of Illyricum. See: BMC III, 234, 235: *Metalli Pannonici*; BMC III, 534, 1854, 1856: *Metal(lis) Delm(aticis)*; BMC III, 53: *Metal(lis) Pannonicis*. Cf. Dušanić 1971, 535–554; Dušanić 1977, 57, 79.

rather than cash, and for the fiscus it was an effective way of obtaining the metals necessary for the operation of state-run factories and imperial mints. This could be the reason why the State confiscated those mining pits that had been sold if they had not been exploited for six consecutive months. 40 The idea was to secure a regular flow of ore to smelters. Michael Hirt believes that the reluctance of the fiscus to give up control of the exploitation of the mines at Vipasca, even after mining pits had been sold, may stem from the necessity to ensure that the market was supplied with sufficient quantities of the desired metals.⁴¹ However, we believe that such a radical measure as confiscation of sold mining pits can only be justified and understood if interrupted excavation caused financial damage directly to the fiscus rather than the market. The entire monetary and economic system depended on the regular flow of ore to smelters, as large quantities of their final products belonged to the fiscus itself. We consider this to be the real reason behind the strict Roman control over all aspects of mining exploitation at Vipasca.

The legislator regulating the status of *coloni* also took into account the workforce, i.e., the miners who excavated mining pits. During the Republic, miners, who were predominantly slaves, were deprived of all legal rights and were subjected to ruthless exploitation by the lessees of mining pits, who forced them to work day and night. ⁴² The ninth provision of the *Lex metallis dicta* testifies to the attempt of the *fiscus* to prevent such a practice during the Empire:

Venas, quae ad puteos prolatae || [i]acebunt ab ortu solis in occasum, ii quorum erunt in officinas uehere debebunt; qui post occa|sum solis uel noctu uenas a puteis sustulisse conuictus erit, HS (sestertios) nummos fisco inferre debeto. Venae furem, si seruos erit, procurator flagellis caedito et ea condicione uendito, ut in perpetuis | uinculis sit neue in ullis metallis territorisue metallorum moretur; pretium serui ad dominum | pertineto; liberum procurator comfiscato et finibus metallorum in perpetuum prohibeto. 43

The ore extracted from pits shall be transported to smelting factories by those to whom it belongs from sunrise to sunset; whoever is convicted of having carried ore from the mining pits after sunset, or at night, shall pay one thousand sesterces to the *fiscus*. If an ore thief be a slave, the procurator shall whip him and sell him under the condition that he be perpetually fettered and shall not reside at any mine or

mining territory. The price obtained for a thieving slave shall go to the owner. If the thief be a free man, the procurator shall confiscate his property and expel him for ever from the mining district.

According to this provision, the process of extracting ore from mining pits, as well as its transport to smelters, had to be conducted from sunrise to sunset. Any *colonus* found violating the law had to pay a fine of one thousand sesterces.⁴⁴ The punishment was obviously less severe compared to those listed in the second part of the provision concerning thieves of ore. 45 According to the authors who defend the sharecropping regime at Vipasca, i.e., the fifty-fifty share of ore between the coloni and the fiscus, the ultimate aim of banning the removal of ore from the mines after sunset and at night was to prevent the *coloni* from secretly transporting ore to smelters in order to misrepresent the quantity of excavated ore and reduce the quantity they had to share with the fiscus. 46 However, the disproportion in the punishments points in another direction. It shows that the purpose of this provision was not to prevent coloni from committing fraud, as in that case we would expect a more severe punishment, but rather that it represented a kind of police measure aimed at preventing uncontrolled exploitation of the workforce.⁴⁷ Diodorus⁴⁸ testifies to the inhumane treatment of miners in Spain during the Republic.⁴⁹ The ninth provision of the law shows the efforts of the Roman state to improve general working conditions. In the mining district of Vipasca, besides freedmen, there were also numerous prisoners condemned to penal servitude in the mines, the so-called *damnati ad metalla*. ⁵⁰ For many of them, the punishment was of limited du-

⁴⁰ See n. 35.

⁴¹ Hirt 2010, 367.

⁴² See n. 6.

⁴³ Vip II, 9.

⁴⁴ Vip II, 9, 1.

⁴⁵ Mateo 2001, 139-144.

⁴⁶ Mispoulet 1907, 381; Cuq 1907, 129; Domergue 1983, 181. Cf. Mrozek 1989, 163–165.

⁴⁷ D'Ors 1953, 129. Cf. Mateo 2001, 141-145.

⁴⁸ Diod. 5, 36, 38.

⁴⁹ The reason for high mortality among miners in Spain during the Republic, aside from physical exhaustion, was constant exposure to great quantities of lead, which caused lead poisoning (Lat. *colica pictorum*), with fatal outcomes. See: Retief, Cilliers 2006, 147–164.

⁵⁰ Vip I, 3. Cf. Mateo 2001, 142, n. 134.

ration and the *fiscus* sought to secure adequate working conditions that would ensure the survival of both convicts and slaves. ⁵¹ It should not be forgotten that the primary concern of the *fiscus* was the continuous process of excavation, and the biggest danger was a shortage of available labour. ⁵² This provision of the law was truly progressive because it limited working hours and prohibited all activities in the mines after sunset and during the night. ⁵³

In spite of its fragmentary character, the *Lex metallis dicta* provides highly important information for the research of Roman mining. Its provisions reveal an indirect model of exploitation used by the Roman state as the basic form of silver and lead exploitation founded on a partnership between the *fiscus* as the owner of mining districts and the *coloni* as investors. The Roman state contributed its property to this business partnership, while the *coloni* provided funds and a workforce. By selling mining pits to the *coloni*, the *fiscus* secured a huge influx of money to the state treasury, and on their part the *coloni* were able to make some profit. However, the ownership of mining pits by *coloni* was limited, not because of their obligation to share half of the ore with the *fiscus*, but by the legal provision that allowed the

latter to regain ownership in the case of an interruption of excavation that lasted six months. A very important question that still needs to be answered is how the Roman state was obtaining such large quantities of metals necessary for the operation of state-run factories and imperial mints. According to the hypothesis presented in this paper, the *coloni* most likely paid the rent for the lease of state smelters situated in the vicinity of the mining pits with finished products, i.e., gold, silver and lead ingots, depending on the ore in question. This could explain the enormous interest of the fiscus in a continuous process of excavation. When regulating the relationship between all the participants involved in the mining process, the Roman state also took miners into account by limiting working hours. This decision made by the *fiscus* was truly progressive compared to the time of the Republic. The fairness and financial efficiency of the indirect model, which emerged from reforms launched under Emperor Vespasian, is best confirmed by its successful application. Mines were exploited using this model not only in Hispania, but also throughout the Roman Empire, especially in the mining districts of Illyricum, where the exploitation process continued until the 4th century AD.

Translated by the authors

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Часопис $C\overline{w}$ аринар је доступан у режиму отвореног приступа. Чланци објављени у часопису могу се бесплатно преузети са сајта часописа и користити у складу са лиценцом Creative Commons – Ауторство-Некомерцијално-Без прерада 3.0 Србија (https://creativecommons.org/licenses/by-nc-nd/3.0/rs/).

⁵¹ Dig. 48, 19, 23: sine praefinito tempore in metallum dato imperitia dantis decennii tempora praefinita videntur.

⁵² This particular problem came to the fore during the Late Empire. On the lack of a sufficient workforce in the mines, testified to by numerous provisions of the *Codex Theodosianus* and the *Codex Iustinianus*. See: Cod. Theod. 10, 19; Cod. Iust. 11, 7. See also: Šajin 2015, 91–105; Cherchi 2017.

⁵³ Mateo 2001, 145. In texts written by St. John Chrysostom we can find testimonies to the limitation of working hours in mines already in the 4th century AD ("Et ad metalla damnati quidem, vespere autem adveniente a laboribus solvuntur...") Translations of his works into Latin are found in Patrologia Graeca, a huge collection of the writings of the Church Fathers and other ecclesiastical writers, published by Jacques Paul Migne. See: Migne 1857–1912, 196–197.

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ПОЛОЖАЈ КОЛОНА У РУДНИЧКОМ ДИСТРИКТУ ВИПАСКЕ У СВЕТЛУ ОДРЕДАБА ЗАКОНА *LEX METALLIS DICTA*

Кључне речи – колони, рудари, римско рударство, прокуратори, Випаска, рудничко право

Lex metallis dicta је закон који, и поред фрагментарности, пружа сазнања од непроцењиве важности за истраживање римског рударства. Одредбе овог закона откривају индиректни модел експлоатације сребра и олова у доба Царства који је почивао на партнерском односу између фиска и колона, главних носилаца експлоатације. У то пословно партнерство римска држава уносила је имовину, а колон је улагао новчана средства и радну снагу. Продајући колонима рудничке јаме, фиск је обезбеђивао огроман прилив новца у царску благајну, а колони су имали прилику да остварују велику добит. Власништво колона над рудничким јамама било је ипак ограниченог карактера, и то не због обавезе да са фиском деле руду напола после куповине, већ законском одредбом која је фиску омогућавала поврат власништва у случају напуштања експлоатације на шест месеци. Једно од питања које је остало неразрешено јесте начин на који је римска држава обезбеђивала велике количине метала неопходних за рад државних фабрика и ковница новца. Сада знамо да након куповине рудничих јама колони нису имали обавезу да руду деле напола са фиском. У складу са хипоте-

зом коју смо изнели у овом раду, велике количине метала неопходних за рад државних фабрика и ковница новца римска држава је добијала на име закупа државних топионица на тлу рудничких дистрикта, јер су колони, највероватније, плаћали закупнину у готовим производима, сребрним и оловним слицима. Отуда можемо да схватимо велико интересовање фиска за непрестани процес рудничке експлоатације. Уређујући положај, права и обавезе колона, законодавац је водио рачуна и о обичној радној снази, рударима, тако што је ограничио радно време забранивши све активности у рудницима након заласка сунца и током ноћи. Ова мера представљала је прави прогрес у поређењу с временом из доба римске Републике. Финансијску ефикасност али и правичност целокупног индиректног модела који је настао реформама управе над јавним добрима у доба цара Веспазијана најбоље потврђује његова успешна примена. По овом моделу експлоатисани су рудници не само на тлу Шпаније већ и широм римске државе, а нарочито на подручју рудничких региона Илирика где ће процес експлоатације потрајати све до четвртог века нове ере.