

ROMAN MINING LAW

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The Roman Empire consisted of a number of provinces, like those of Gaul, Spain, and Britain. These provinces were either Senatorial or Imperial, administered by the Senate, or by the Emperor. Basically the more important provinces, or the more troublesome ones where a military presence was a necessity, were under the control of the Emperor (who wasn't going to let the army get into anyone else's hands), and the others by the Senate, the government of Rome. Whenever the Romans took over a new province, that province, because it required an army in residence, usually became an Imperial one. The province of Britain, which was invaded and occupied in AD43 was no exception, and (with four legions stationed here - fourteen per cent of the whole of the Roman army) it immediately became an Imperial province under the control of the Emperor, who was then Claudius (AD 41-54).

Every province in the Roman Empire had a governor, and every province also had a Procurator. The former took charge of the government of that country, whilst the Procurator was responsible (not to the governor, but directly to the Emperor himself) for the finances. It was not uncommon for the governor and the procurator not 'to see eye to eye', and when a dispute between them arose they would often refer to the Emperor for a decision. An example of this occurred after Boudicca's (Boadicea's) revolt in AD 60/61 when the new procurator (his predecessor having fled in terror) used his direct line of communication to the Emperor Nero (AD 54-68) to suggest a Court of Inquiry be convened to investigate the mis-government of the Governor.

The Procurator then had considerable responsibility in the province and supreme authority there for the financial arrangements. He arranged for the necessary expenditure to be made, and ensured that the right income was forthcoming from a number of sources. We are particularly concerned here with the arrangements for the mines in the province of Britain and this was an important aspect of the financial resources here. One hundred years before the Claudian occupation of AD43 Julius Caesar had attempted an invasion on two occasions. He did not succeed, but clearly had minerals in his mind, for he refers to them in his war diaries: *Tin is found inland, and iron near the coast.* (Caesar - *de Bello Gallico* v.12.). 'Inland' will mean that you had to travel quite a way inland from the landing place at Dover before you reached it, whereas the iron deposits in Kent and Sussex were indeed 'near the coast'. The Claudian invasion force arrived on the South East of Britain in AD 43, had reached the banks of the Severn certainly by 47, and, having taken over the lead mines of the Mendips were producing pigs of lead there datable to 49 .

These mines appear to have been initially set up by the army, a practice that was not uncommon. The legions had skilled engineers, just as the modern army has the Royal Engineers, and these will have taken over the Iron Age workings , certainly on the Mendips as well as in South Wales, at Lower Machen, for both areas have produced pigs of lead inscribed with the stamp of the Second Legion, the legion that occupied the South and the South West of the country. Cleere and Crossley (*The Iron Industry of the Weald*) point out that the *Classis Britannica*, the British fleet (and the fleet, the navy, was then the lowest branch of the army!) based in Dover and the South East in later years was closely involved with iron production in the Weald of Kent. Once the mines had been set up under Roman military working and administration they would have been handed over to others, and it is here that we begin to experience difficulties with regard

to the administration for the picture for mineral workings is a confused one.

The writer, Strabo writing during the reign of Emperor Augustus, in the first few years of the first millennium says, of Spain, that *the silver mines are still being worked. They are not state property, however, either at Cartagena or anywhere else, but have passed over to private ownership. But the majority of gold mines are state owned.* (Strabo III.2.10)

The income from the mines was indeed welcome to the treasury, and we find much later in Roman history (in the *Codex Theodosianus* of AD 365) that the government, whilst letting out the surface mine area, held on to the subsoil.

The Procurator of Britain had on his staff a number of other procurators, each responsible for a different aspect of the economy. We find in other parts of the Roman Empire a procurator of the mint (CIL VI 1625b, Dessau 1340), a procurator of various taxes, a procurator for child assistance, for the Games, and for the Imperial Estates (CIL XIV 2922, Dessau 1420). The *procurator metallorum* was in charge of the mines of a province - and below him might also be found *procuratores* in charge of the mines in a particular area. For example, *procuratores ferrariarum* (procurators of the iron mines) are found in the provinces of Pannonia and Noricum, areas which correspond very roughly to Hungary and Austria.

The metal stamp of the procurator metallorum which impressed into objects the letters M.P.BR. (M(etalla) P(rovinciae) BR(itanniae)) (Merrifield R., *Roman London* London 1969) has been found in London , and is in the New Museum of London.

The procurators were the main officials in a mining area, and held responsibility for ensuring that the due taxes were collected and passed on to the *fiscus*, the Imperial treasury.

Most of our information about Roman mining law comes from two bronze tablets that were found at Aljustrel in Portugal, and I shall refer to these frequently. In the second of the two tablets - in the first paragraph, we read that the procurator of mines was responsible for the sale of the mine, and that if a new occupier dared to smelt any of the ore that came from the mine before he had paid his part of the purchase, then his share would be forfeited - and the whole mine sold by the procurator. We read immediately below that of a mine for which the price of 4000 sesterces was to be paid, but rather than assume that this was a price paid for all mines, the price of each mine will have varied, depending on its location or other factors.

We also read that having purchased a mine, or a share of a mine, the new occupier had to start work within twenty-five days, and that if the mine lay idle for six consecutive months then it could be occupied by another, but that he, like the original occupier - would have to surrender to the *fiscus*, the treasury, one half of the extracted ore. The lessees could work the mines either solely or with partners, *socii*, forming a *societas*, a society, or company. The partners would purchase shares in the *societas* and be responsible for the expenses in proportion to their share in the mine. Anyone who did not 'pull his weight' and make the correct contribution was liable to have his share confiscated and re-allocated to the other partners in proportion to the amount that they had made good.

Mines were acquired by the state by purchase from the conductor, or obtained by default. A criminal conviction could also lead to the forfeiture of the mine (Tacitus Annals VI, p18).

The lessees, who took the mine under a five-year tenure, could sub-contract, or sell their shares for profit. They just informed the procurator of their intention and the procurator would allow the sale to go ahead so long as the vendor was not in debt to the *fiscus*. A debtor was not allowed to give away his share.

Why do we find different types of inscription on the pigs of lead? Why does the name of the Emperor appear on some, and why on others do we read the name of an individual, usually (from his *cognomen* or last name) a freedman? Why are some names moulded on the surface of the pig, and why on others is the name stamped in on the side when the pig was cold?

Oliver Davies in his book, *Roman Mines in Europe* (Oxford 1935) suggested that there were two different types of lessees, *conductores*, large and small. The senior, large, lessees will have had their names moulded on the pig surface, whereas the smaller lessees working on their own, or in partnerships will have their names stamped cold into the side or end of the pig. The smaller lessees will have been closely supervised by a local procurator of the mines.

It is interesting to observe that on the face of almost all the lead ingots from the Mendips the name of the Emperor appears. This implies that these mines belonged to the State and that when they were leased out the lessees, the *conductores*, did not have the right to have their own names inscribed on the surface of the pig. In contrast, the mines of Derbyshire produce very few pigs bearing the name of any emperor, and instead they have the name of a lessee or of a company on the surface. These lessees moved around, and on two occasions we meet the same men in different mining areas. In one case a lessee from the Mendips, Gaius Nipius Ascanius, had his name hammered into the side of a pig, and then we meet the same man, who appears now to have more important status as a senior lessee in Flintshire. In parallel we find that Tiberius Claudius Triferia, whose name is on four Mendip pigs, also moved from Somerset as a lesser lessee, to Derbyshire as a senior lessee and his name, exceedingly hard to decipher, is on four ingots which were found in Sussex.

On some of the Mendip pigs we find other inscriptions that appear to be Imperial checks - like IMP and LRAD or a reticulated hammer mark - and these could well be the check marks of the supervisors at the mining area - possibly the mark of the local procurator.

In Spain we also find similar arrangements. Here we have no examples of pigs bearing the Imperial name or titles, and this corresponds with Strabo's assertion that they were all, in

Augustus's day, in private ownership. On the surface of many pigs can be read the name of the lessee, presumably the senior lessee of the mine, or a company of lessees, often together with a symbol, an anchor, a dolphin, or some other sign. *Societates*, partnerships of lessees are known in several areas, in Spain, and also on the Mendips, and in Derbyshire, where the name of the area LUTUDARON is included on many pigs, as well as in the title of the local company - the SOC. LVT. On the Mendips we know of one company, the NOVAEC. company, which is recorded on two pigs, one found at Syde in Gloucestershire, and the other, the survivor of two that were dredged out of the river Itchen at Bitterne, Southampton.

The lessee, be he working on his own or in a partnership - held his five-year lease for both the mine and for the area around it as well. The iron mines in Noricum, roughly Austria, have produced coins from the METALLA NORICA, and since these are official Roman coins, it seems that here the settlement was under State control.

The *procuratores metallorum* had assistants, also called *conductores*. These *conductores* were tax officials, responsible for gathering the taxes due to the Emperor, or to the government, from their particular field. They had taken over from the companies of tax-collectors who had been quite powerful. (Rostovtzeff 389) These earlier officials had been called *publicani*, the hated publicans who feature in books of the New Testament.

Besides the procurators and the *conductores*, there were other officials at the mines:

- assessors* - to be in charge of justice in the area.
- A *iudex* (judge) resolving disputes over state money
- a *vilicus* - a steward of the mine - not a very high post
- praeses fodinae* - foreman of works
- machinatores* - engineers
- probatores* - inspectors of mines
- commentarienses* - mine registrars
- a *tabularius* - to keep records up to date
- dispensatores* and *arcarii vectigalis* - acting as treasurers for the mines
- an *actor ferrariarum* who collected taxes.

As for the taxes due to the state, we find in the Aljustrel tablet that the *colonus*, or the operator of the mine had to pay to the *fiscus*, the treasury, a half share.

The settlement around the mine was strictly controlled by by-laws and here again we must consult the Aljustrel tablets for the rulings that applied here. The pithead baths had to be run efficiently. Mornings were for women, and from one o'clock until eight in the evening was the time allocated for men. Slaves, freedmen (ex-slaves), children and soldiers were allowed in free, and others were charged. Women had to pay one *As*, whereas men only paid half an *As*. The lessee of the baths had to keep water flowing and hot. He had to ensure that the valves were all greased, and he had to keep several days supply of wood on hand for the furnace and if he sold any of this on the side he would be fined. In fact he would be fined if he did not run the establishment efficiently.

One Shoemaker only in the *vicus*, the settlement, had the right to ply his trade, though individuals were allowed to repair their own shoes and those of their family. Noone was allowed to set up a barber's trade except the one man who had bought the lease. Likewise the right to clean clothes was leased out to one man alone. The law in the mine area looked after the education of the young by decreeing that Schoolmasters should be exempt from taxes.

Whereas we have a good idea of the amount of gold and silver produced in a twenty year period in the second century BC, (between ten and fifty thousand pounds of silver per year, and from ten pounds to 2450 pounds of gold)(Tenney Frank iii.129) we do not have good or any information for later periods - nor for production in Britain. We do know, however, that when the lead mines opened in Somerset the mine owners in Spain became particularly concerned, since the amount produced here so easily by opencast methods was putting them out of business. They complained to the Emperor Vespasian (AD 69-79) and he issued an edict restricting the amount produced from this province. We read: *...Lead is mined with great toil in Spain and in all the divisions of Gaul, but occurs in Britain in the surface stratum of the ground and in such abundance that the amount refined is actually limited by law* (Pliny NH xxxiv 164). Judging by the number of extant Mendip pigs of lead from Vespasian's reign compared with those from other reigns, the Spanish authorities might well have been concerned.

The workers were sometimes freemen who elected to work in the mines, and very often they were slaves and prisoners. Prisoners convicted of crimes of violence could suffer the *damnatio ad metalla* - being condemned to the mines - which for a lot of them was a sentence of death. They were not treated well under the Romans and it was sometimes (in Spain) cheaper to buy a new slave than to look after the ones you already had. The author Strabo tells us that 40,000 were employed at the mines at Cartagena (Strabo III.2.10). In Greece, at Laurion, south of Athens, the mining population was between 10,000 and 20,000.

The native populations in the Roman provinces hated being forced to work for the Romans. Tacitus gives us an insight into this when he attributes to a native British leader the words: *we have no fertile lands, no mines, no harbours, which we might be spared to work . . . and exhorts his men to fight . . . here before us is their general, here his army; behind are the tribute, the mines and all the other whips to scourge slaves.* Tacitus *Agricola* 31-32.

It would not be accurate to say that the safety of the workers was of paramount importance, but it is interesting to read of the laws relating to this aspect. In the Aljustrel tablet again we read of the penalties imposed on those guilty of moving pit-props - *'he who shall have done anything wilfully to render the mine unsafe, shall be beaten with rods and sold'*. A freeman would lose his property to the state and be banished from the mining area.

Drainage was also a problem and a danger, and the lessee was forbidden to misuse the water drainage tunnel in the mines. In fact in a silver mine he had to keep his workings sixty feet away from it on either side, but only 15 feet away in a copper mine. Transgressors of the law were punished as above. Drainage was catered for by various methods, either by the kaduff, by manual pump. or by the water-lifting wheel, of which an example has been found at the Dolaucothi gold mine, but better ones at Rio Tinto in Spain. This was a very efficient method, and here sixteen of these wheels arranged as eight pairs succeeded in raising the water 120 feet. The other method was by cochlea or Archimedean screw. There is a Greek terracotta from Egypt in the British Museum of one of these devices being operated by a slave, and a working model in the Science Museum, London.

Air pollution in the mine, however, does not seem to have been catered for, although Lucretius and other ancient authors remark about its effects. Lucretius says:

Do you not see . . . when men are following up the veins of gold and silver, probing with picks deep into the hidden parts of the earth, what stenches Scaptensula breathes out underground? And what poisons

gold-mines may exhale? How strange they make men's faces, how they change their colour; Have you not seen or heard how they are wont to die in a short time, and how the powers of life fail those whom the strong force of necessity imprisons in such work? (Lucretius, *de Rerum Natura* vi. 806.)

Theft of ore was a problem too and the movement of minerals to the smelter was restricted to the daylight hours. *Conductores* who disobeyed this would be fined 1000 *sesterces*. Slaves who stole ore were beaten and sold into chained slavery well away from the mining area. Freeman again had their property confiscated and were banished.

One man who seems to have got away with some deception is Tiberius Claudius Triferna whom we came across earlier. In 1956 four pigs of lead (which had 'fallen off the back of a cart') were discovered deliberately concealed under a cairn of stones on a farm about two miles away from the centre of the mining area at Charterhouse, and on the main road from there to Southampton (via Winchester) from where they presumably were due to be exported. The ingots bear the incuse stamp of Tiberius Claudius Triferna - but one of them has the stamp not stamped in once - but three times. Since this pig contains more silver than any other pig so far discovered in Britain, the suspicion has arisen that the concealed pigs were to be located later and that this one was the one to pay particular attention to, since it had not passed through the cupelling or de-silvering process, as had the other three. Tiberius Claudius Triferna must have got away with his deceptions for we find him later as a senior lessee in the Derbyshire area, and again four of his pigs were discovered together in Sussex. He would indeed have been banished from any mining area, his property confiscated, and he would not have gained similar work anywhere else again.

We have already observed how the legions sometimes opened up the workings before they were taken over by local lessees. Army forts were also sometimes set up besides the workings, and presumably these were to control the local areas and to enforce the law when needed. Military forts are known at the tin mines at Nanstallon in Cornwall, then at Charterhouse in Somerset, Brough-on-Noe in Derbyshire, Brough-on-Stainmore in Cumbria, all for lead-silver, and at Dolaucothi in Wales for gold. The military presence will also have been useful for preventing miners' strikes, as sometimes occurred!

The workers hauled the ore away either in baskets like those of esparto grass which can be seen in Madrid Museum, or in back packs, similar to the one found in the salt mines at Hallstatt in Austria, or else the ore-rock was dragged away on sledge-hods, an example of which can be seen in Madrid Museum.

In Britain it must have been fairly difficult to steal the pigs of lead for these were manufactured to produce a weight of 200 Roman lbs (=144 English lbs, or 65 kg), which was double the size of the pigs manufactured in Spain. Excess weights were often recorded on the actual pig, the numerals being stamped on the end or side. Gaius Nipius Ascanius's pig had XXX stamped on the side, and this weighs exactly 230 Roman *librae*. Three of the four Tiberius Claudius Triferna pigs, now in Wells Museum, have LXV, LXIIX, LXXIIX, all of which correspond very closely with their present-day weights if you add the statutory 200 *librae*, Roman pounds. The fourth pig, the one on which Triferna's name is inscribed three times, should also have LXV stamped on the end. It doesn't!

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APPENDIX 1: THE ALJUSTREL TABLET

Of the One per Cent Sales Tax

The lessee of these sales by auction within the boundaries of the mining district of Vipasca shall receive one per cent from the seller, exception being made to those sales made by the procurator of mines at the command of the Emperor. The lessee shall receive from the purchaser one per cent of the price of the mines which the procurator of mines shall sell.

If, after the auction has begun, everything shall be purchased with one bid, the seller shall nevertheless pay one per cent to the lessee, his partner, or his agent. The seller shall announce beforehand to the lessee, his partner or his agent, if he wishes any articles withheld from auction. The lessee, his partner, or agent shall exact also one per cent of the value of that which has been withdrawn during the auction.

With reference to him who shall have placed goods in the hands of a crier. If the crier shall not have sold them at auction, but if, within ten days during which they shall have been in the crier's hands, he shall have sold them at the price agreed upon, the owner shall nevertheless give one per cent to the lessee, his partner, or his agent.

Unless that which, in accordance with this section of the law is due the lessee, his partner or agent is paid, settled or secured within three days after the debt shall have been contracted, the seller shall pay double.

Of the Auctioneer's Fee

He who has leased the auctioneering concession shall furnish an auctioneer within the boundaries of this district. From him for whom sale of one hundred denarii or less is completed, the lessee shall receive two per cent, for a sale of over one hundred denarii, one per cent.

He who shall have given slaves to the auctioneer for sale shall give to the lessee, his partner, or his agent, if five or a smaller number be sold . . . denari for each slave; if a greater number be sold three denarii for each slave.

If the procurator of mines shall sell, or lease, any property in the name of the fiscus, for this property the lessee, his partner or his agent shall furnish an auctioneer.

He who shall have published a list with the name of each thing to be sold shall give to the lessee, his partner or his agent one denarius.

Of the mines which the procurator of mines shall have sold, the purchaser shall pay to the lessee one per cent of the price. If he shall not have paid this within three days he shall pay double. The lessee, his partner or his agent shall have the right to take security for this.

He who shall have sold through an auctioneer mules, asses or horses of either sex shall pay for each animal three denarii.

He who shall have offered for sale through an auctioneer slaves or any other property, and the latter shall have sold them at the price agreed upon within thirty days, the seller shall pay the regular fee to the lessee, his partner or his agent.

Of the Bath Management

The lessee of the baths, or his partner, shall entirely at his own expense warm and keep open the baths, which he shall thereby hold in lease until the following June 30th, from sunrise until noon for women and from one in the afternoon until eight in the evening for men, subject to the approval of the procurator who will be in charge of the mines. He shall properly furnish water running into the tank over the heating chambers, up to the highest mark, and in the plunge, for the women as well as for the men. The lessee shall charge each man half an as, and each woman an as. Freedmen and slaves of the Emperor who shall be in the service of the procurator, or receiving pay from him, shall be exempted; likewise minors and soldiers. The lessee, his partner or his agent, at the termination of the lease, shall hand over in good repair the equipment of the bath and everything which was assigned to him, except that which has been worn away with age. The bronze articles which he shall use he shall properly wash and dry and coat with fresh grease at least once every thirty days. If any necessary repairs should

make impossible adequate use of the bath, the lessee shall deduct (from his contract price) an amount in proportion to the loss of time. Aside from this, if he does anything else in the course of administering the bath he shall deduct nothing. The lessee shall not be permitted to sell wood except the ends of branches which are not suitable for burning. If he violates this rule, he shall pay one hundred sesterces to the fiscus for each sale. If this bath shall not be properly open for service, the lessee shall pay to the procurator of the mines a fine of not more than two hundred sesterces for each time it shall not be open for service. The lessee shall have wood in reserve at all times to last... days.

Of the Shoemaker

He who shall have made any shoes, or thongs which shoemakers are wont to make, or who shall have nailed in shoemaker's nails, or who shall have sold them or who shall have been convicted of having sold within the boundaries anything else which shoemakers are wont to sell, shall pay to the lessee, his partner, or his agent double the amount of the sale. The lessee shall sell nails in accordance with the law of iron mines. The lessee, his partner, or his agent may take security (from other shoemakers). No one may repair shoes save when he mends or repairs his own or those of his master. The lessee shall offer for sale all varieties of shoes. If he shall not have done this, anyone may have the right to purchase where he wishes.

Of the Barber

The lessee shall have this privilege, that no one in the village of the mining district of Vipasca, or within the district, shall practise barbering for profit. He who shall have practised barbering in this manner shall pay to the lessee, his partner, or his agent, for each use of his razors, . . . denarii, and his razors shall be forfeited to the lessee. Slaves who shall have served their masters, or their fellow-slaves, shall be exempted. Travelling barbers, whom the lessee shall not have sent, have not the right to practise barbering. The lessee, his partner, or his agent may take security from them. He who shall have refused the giving of security, for each refusal shall pay five denarii. The lessee shall furnish one or more workers in proportion to the demand.

Of the Fullers

No one shall have the right to clean and press, for pay, unworn or soiled garments save him to whom the lessee, his partner, or his agent shall have leased or granted this privilege. He who shall have been convicted of having acted contrary to this regulation shall pay to the lessee, his partner, or his agent three denarii for each garment. The lessee, his partner, or his agent may take security.

Of the tax on mining dumps and rock piles

He who within the boundaries of the mining district of Vipasca shall wish to clean, crush, smelt, prepare, break up, separate, or wash silver, or copper dumps, or dust from dumps, or rock fragments purchased by measure or by weight, or who shall undertake work of any nature in the quarries, shall declare within a period of three days the number of slaves and free labourers whom he is sending for this work, and shall pay to the lessee on or before the last day of each month . . . If they shall not do this, they shall make double payment. He who shall bring within the boundaries of the mines copper or silver-bearing rock from other mineral workings shall pay to the lessee, his partner, or his agent one denarius per one hundred pounds. For whatever amount, in accordance with this section of the law, he shall owe to the lessee, his partner, or his agent, and shall not have paid, or have given security for payment on the day on which payment shall have been due, he shall make double payment. The lessee, his partner, or his agent may take security, and whatever part of this dump (or dross) shall have been cleaned, crushed, smelted, prepared, broken up, separated and washed, and whatever prepared stones and slabs shall have been worked up in the quarries may be confiscated unless he shall have paid what he shall owe to the lessee, his partner, or his agent. Slaves and freedmen of operators engaged in smelting silver or copper, who are working in the smelters of their masters or patrons, shall be exempted from this charge.

School Masters

Schoolmasters shall be untaxed by the procurator of mines.

APPENDIX 2: LEX METALLIS DICTA

To Ulpianus Aelianus, greeting

In accordance with the will of the liberal and most sacred Emperor Hadrian Augustus, he shall make immediate payment. He who shall not have done this and who shall be convicted of having smelted ore before the purchase price has been paid in the manner indicated above shall be deprived of the share due to him as occupier, and the entire mine shall be sold by the procurator of mines. He who shall prove that the colonus has smelted ore before he has paid the price for the half share belonging to the fiscus shall receive the fourth part.

Mines of silver shall be exploited in conformity with the regulation which is contained in this law. The price of these mines shall be maintained in accordance with the will of the liberal and most sacred Emperor Hadrian Augustus, namely that the usufruct of that portion which belongs to the fiscus shall belong to him who first shall put up the price for the mine and who shall present to the fiscus four thousand sesterces.

As has been stated above, he who shall have reached ore in only one of five shafts shall continue work in the others without intermission. If he shall not do this the right of occupancy shall go to another.

If anyone after the twenty-five days granted for the collection of working capital shall begin work at once, but shall afterwards cease working for ten consecutive days, the right of occupancy shall revert to another.

If a mine sold by the fiscus shall lie unworked for six consecutive months, the right of occupying it shall be open to anyone, provided that when the ore shall be extracted therefrom, one half shall be reserved to the fiscus, according to custom.

It is permitted that the occupier of mines shall have such partners as he wishes, provided that each one shall undertake expense in proportion to the amount of his share. If a partner shall not do this, then he who has undertaken the expense shall make out a statement of the expenses undertaken by himself, shall place this statement for three consecutive days in the most frequented spot of the forum, and shall announce through the public crier that each partner must bear his share. The partner who shall not contribute, or who shall wilfully do anything to avoid his share or who shall deceive one or more of his partners, that man shall not retain his share in the mine, and his share shall belong to the partner, or partners, in proportion to their payment of the expenses.

And to those coloni who have undertaken an expense in a mine in which many partners are interested there shall be the right in law of regaining from their partners that which shall appear to have been asked for in good faith.

The coloni may sell among themselves, at as great a price as possible, those shares of mines which they have bought from the fiscus and for which they have paid the full price. He who wishes to sell his share, or who wishes to purchase, shall make a declaration before the procurator who is in charge of the mines. In no other way may purchase and sale be effected. It is not permitted him who is indebted to the fiscus to give away his share.

Those to whom the ore belongs shall convey to the smelter from sunrise to sunset that which lies extracted at the minehead. He who shall be convicted of having carried ore from the mines after sunset and before sunrise shall pay to the fiscus one thousand sesterces. If an ore thief be a slave, the procurator shall beat him and shall sell him with the condition that he be kept perpetually in chains and shall not reside in any mining camp or district. The price of the slave shall go to the owner. If the thief be a free man, the procurator shall confiscate his property and banish him for ever from the mining districts.

All mines shall be carefully propped and supported and in place of old material the colonus of each mine shall substitute a new structure.

No one shall touch or injure the pillars or props left for the purpose of strengthening (walls and ceilings), nor shall he wilfully do anything as a result of which these pillars or props shall be less firm and passable. He who shall be convicted of having injured, weakened . . . or having done anything wilfully which shall render the mine unsafe, if he be a slave, shall be beaten with rods at the discretion of the procurator and sold from his master under the condition that he shall not reside in any mining district. The procurator shall seize the property of a freeman for the fiscus and banish him forever from the mining district.

The person who works a copper mine shall avoid the ditch which carries water from the shaft and leave untouched a space not less than fifteen feet on either side. He shall not be allowed to harm the ditch in any way. The procurator shall permit, for the purpose of discovering new deposits, a drift from the ditch, provided that the drift be not greater in depth and in width than four feet. It is not permitted to prospect for or to extract ore within fifteen feet on either side of the ditch. He who shall be convicted of having violated the regulations concerning the drifts, if he be a slave, shall at the discretion of the procurator, be beaten with rods and sold from his master under the condition that he shall not reside in any mining district. If a freeman transgresses, his property shall be taken by the procurator for the fiscus, and he shall be banished forever from mining districts.

He who works silver mines shall avoid the tunnel which carries water from the mines and shall leave untouched not less than sixty feet on either side, and he shall exploit the mines which he has occupied or received in assignment in accordance with the regulations; nor shall he go beyond the boundaries, nor pile up crude ore, nor extend his drifts beyond the limits of the mines assigned..