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A. H. M. Jones

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SLAVERY IN THE ANCIENT WORLD

BY A. H. M. JONES

I

AS the subject of this paper is the economic importance of slavery, little need be said of domestic servants. It should, however, be emphasized that the proportion of slaves absorbed by domestic service must at all periods have been considerable, for, by and large, personal servants were always slaves, and they were employed in numbers which by modern standards seem very lavish. Moralists continually denounce the luxury of the rich who counted them by the hundred or even the thousand, and if their figures are suspect, we have the well attested case of Pedanius Secundus, prefect of the city under Nero, whose town house was served by a staff of 400.[1] Slaves were, moreover, employed by persons of relatively humble means. In the fourth century B.C., according to Demosthenes, even the poorest of those who paid the war tax, peasant farmers with a holding of six or seven acres, might well own a maidservant.[2] In the fourth century A.D., private soldiers in the Roman army quite commonly owned a slave or two:[3] S. Martin is commended by his biographer for his asceticism in restricting himself to one slave batman.[4] For academic readers, Libanius' plea for his four lecturers is perhaps the most illuminating evidence which can be quoted for the high standard of domestic service prevalent in antiquity. They were, according to Libanius, miserably paid. Those who had a house laboured under a heavy mortgage; others lived in lodgings 'like cobblers'. They could barely afford to marry, and congratulated themselves if they had only one child. They owed money to the baker, and had to sell their wives' trinkets to meet the bill. These unfortunates could afford only three slaves, or even two, who were insolent to their masters because they had not many fellow servants.[5]

Slaves were also commonly employed throughout antiquity in secretarial and managerial posts. In fifth-century Athens, Nicias entrusted his mining interests to a slave, for whom he is alleged to have paid the fantastic price of one talent.[6] In fourth-century Athens, bank managers were often slaves or freedmen of the owners: Archestratus entrusted his bank to his slave Pasion, whom he

[1] Tacitus, *Annals*, XIV, 43.
[2] Dem[osthenes], XXIV, 197; cf. my *Athens of Demosthenes* (Cambridge, 1952), pp. 9–11.
[3] *Cod*[*ex*] *Theod*[*osianus*], VII, xiii, 16, xxii, 2.
[4] Sulpicius Severus, *Vita S. Martini*, 2.
[5] Lib[anius], *Or*[*atio*], XXXI, 11.
[6] Xen[ophon], *Mem*[*orabilia*], II, v, 2.

freed and to whom he ultimately bequeathed the business, and Pasion in his turn, when he retired, leased the bank to his freed slave Phormio.[1] This habit of employing slaves in managerial positions of trust sometimes resulted in curious anomalies. In the early imperial fleet the ratings were free provincials, but the captains of the ships were slaves of the emperor, and the admirals his freedmen.[2] The bailiff or agent of a farm or estate was commonly a slave of the owner, but the working tenants whose rents he collected and whose work he supervised were under the Principate commonly free men.[3]

The reason why slaves and freedmen were preferred for posts of this kind was that self-respecting free men were unwilling to accept positions in which they had to obey the orders of an employer. The point is well put in a dialogue reported by Xenophon between Socrates and a certain Eutherus.[4] Eutherus had lost his property overseas owing to the war, and was reduced to earning his living as a manual labourer. Socrates warns him that his strength will fail with advancing age and no one will be willing to hire him, and suggests that he seek employment as a works manager or estate agent of a wealthy man. Eutherus is shocked: 'I would find it hard to endure slavery' he replies, and after further argument sums up his attitude: 'I absolutely refuse to be liable to be called to account by anyone.' This is a particularly interesting case; Eutherus not only preferred manual labour to blackcoated employment, he was willing to hire his labour to an employer, but not to forfeit his independence by accepting a position which involved personal service to a master.

Employers no doubt also preferred to use in positions of trust men whose characters they knew, and on whose obedience they could rely; slaves could be chastised if they disobeyed instructions, and freedmen had formed the habit of executing their masters' orders. Cicero approved the old custom (still prevalent in his own day) whereby magistrates appointed as their secretaries (*accensi*) their own freedmen, 'to whom they used to give orders not very differently than to their slaves'.[5] During the early Principate this practice produced a glaring anomaly. The emperor's secretaries and accountants (*ab epistulis, a libellis, a rationibus*) became inevitably Secretaries of State and Ministers of Finance, and yet as inevitably these posts had to be filled by imperial freedmen; no Roman of standing would have demeaned himself by becoming the emperor's personal servant. The aristocracy bitterly resented the power and wealth of Pallas, Narcissus and the other great imperial freedmen, but the problem was insoluble until eventually, after over a century had passed, these secretarial posts acquired sufficient status to rank as public offices and to be acceptable to members of the equestrian order—though never to senators.[6]

II

The slave manager or agent is an interesting figure, but it is slave workmen with whom this paper is concerned. What were their numbers at various times and places, compared with the numbers of the free working population? How

[1] Dem. XXXVI, 4–7, 43 *et seq.*; cf. *Econ. Hist. Rev.* VIII (1955), 152, n. 8.

[2] The evidence is given in C. G. Starr, *The Roman Imperial Navy* (Ithaca, N.Y., 1941), pp. 32, 44, 69. *Pace* Professor Starr, I think that the inscriptions which he cites show that the trierarchs were often Imperial slaves.

[3] W. E. Heitland, *Agricola* (Cambridge, 1921), pp. 361 *et seq.*; see *Dig*[*est*], XXXIII, vii, 20, § 3 for a farm bequeathed with its (slave) *actor* and the arrears of its (free) *coloni*.

[4] Xen. *Mem.* II, viii, 1–5.

[5] Cicero, *Epistulae ad Quintum fratrem*, I, i, 13.

[6] A. M. Duff, *Freedmen in the Early Roman Empire* (Oxford, 1928), pp. 143 *et seq.*

were they obtained, by breeding or by purchase, and what did they cost? On what kind of work were they employed and under what conditions? What was the relative cost to the employer of servile and free labour, and how did their standard of living compare?

It is easier to ask these questions than to answer them. Reliable population statistics for the ancient world are extremely rare, and there are no trustworthy figures for numbers of slaves. It is however possible to make a rough estimate for Athens in the latter part of the fourth century B.C. We know that the adult male citizens numbered 21,000 and the adult male resident foreigners 10,000. This implies a total adult free population of both sexes of 60,000 or more, and a total free population including children of at least twice that figure. We also know the amount of corn grown in and imported into Attica, and the annual consumption which was considered normal for a man. We can thus calculate the corn consumed by the free population, and by deducting this amount from the total available find how much was left to feed slaves. The maximum possible number of slaves who could have been maintained is on this calculation about 20,000, or one slave to every three adult free persons.[1] A considerable number of the slaves must have been domestic servants. If, as Demosthenes implies, most of the citizens liable to payment of war tax, who numbered about 6,000, owned a servant girl, this would account for say 5,000.[2] Resident foreigners on this basis would have owned another 2,500, and there were, of course, many more prosperous families, both citizen and alien, which had larger domestic staffs. It would probably not be an overestimate to allocate 10,000, or half the slave population, to domestic service, leaving 10,000 to industry and agriculture, or one to three free adult males.

We hear little of agricultural slavery, and slaves were in fact probably little employed on the land. Most of Attica was cultivated by small peasant proprietors who had no need for slave labour, even if they could have afforded it. There was a small class of wealthier landlords who did not work their own land, but their estates often consisted of a number of scattered farms, some of which were let to free tenants. Only the home farm where the landlord resided was normally cultivated by slaves.[3]

Slaves were more commonly employed in industry. To begin at the bottom end of the social scale, a cripple, pleading for the continuation of his public assistance, declares: 'The craft which I practise cannot help me much. I already (he is getting on in years) find difficulty in doing the work myself, and I have not yet been able to acquire anyone to take it over.'[4] As Xenophon puts it, 'those who can, buy slaves so as to have fellow workers'.[5] That is, craftsmen who could afford it bought slaves and trained them as assistants, hoping ultimately to retire and live in their declining years on the proceeds of their work. Socrates cites five contemporaries, including a miller, a baker and a clothier, who lived in some affluence on the labour of their slaves.[6] Industrial slaves were also one of the recognized forms of investment for the wealthy; Socrates couples them with land and house property as possible sources of unearned income.[7] We occasionally meet with comparatively large industrial slave establishments. Demosthenes' father owned thirty-two cutlers and twenty bed-makers.[8] Pasion, besides his bank, had acquired before he died land to the value of 20 talents

[1] *Econ. Hist. Rev.* VIII (1955), 142–3. [2] See p. 185, n. 2 *supra*.
[3] *Past and Present* I (1952), 20–1; *Econ. Hist. Rev.* VIII (1955), 144, 150–1.
[4] Lysias, XXIV, 6. [5] Xen. *Mem.* II, iii, 3.
[6] *Ibid.* II, vii, 3–6. [7] *Ibid.* III, xi, 4. [8] Dem. XXVII, 9.

and a shield factory which brought in a talent a year.[1] The brothers Lysias and Polemarchus owned another shield factory comprising nearly 120 slaves.[2] This is by far the largest industrial establishment of which we know, and was probably exceptional. It had attained this size at the end of the Peloponnesian War, when there had been a prolonged and heavy demand for armaments, and its owners were foreigners, and therefore precluded from investing their money in land or house property. The average wealthy citizen in normal times, to judge by the half dozen estates which Isaeus describes in his speeches, put most of his money into land and houses, and rarely owned more than a dozen industrial slaves.[3]

Industrial slaves might be mere hands, fed and clothed by their owner. Demosthenes senior's slaves were apparently of this type. They seem to have worked in his house, for no factory building is included in the estate, and he bought the raw materials—Demosthenes includes in the valuation of the estate the stock of ivory and iron in hand:[4] he also marketed the finished products.[5] It was, however, also a common practice for owners of industrial slaves to let them work independently, collecting from them a fixed rent and allowing them to keep for themselves whatever they earned in addition. Thus Timarchus owned a little factory of nine or ten shoemakers, whose foreman paid him 3 obols a day and the other hands 2 obols each.[6] Such industrial slaves, who 'lived apart', as the Athenians expressed it, seem to have formed a substantial part of the population; they could on occasion be included in the call-up to man a fleet, together with resident foreigners.[7] Such a slave could be sold as a going concern, with his assets and liabilities—and the latter might exceed the former, as Epicrates found to his cost. Being enamoured of a boy he was bamboozled into buying his father Midas and his brother too and the perfumery which Midas ran, with its stock and outstanding debts. He paid 40 minae ($\frac{2}{3}$ talent) and discovered too late that there were 5 talents owing to sundry creditors.[8]

The great majority of Athenian industrial slaves worked in the silver mines of Laurium. The number fluctuated greatly. In the fifth century, before the occupation of Deceleia by the Spartans in 413, the mines were very intensively worked. Xenophon, writing two generations later, implies that at that period well over 10,000 slaves were employed in them,[9] and this is not impossible. In the fifth century the free population, both citizen and foreign, was much larger than in the fourth, and the total number of slaves was likewise larger; according to Thucydides over 20,000 slaves, mainly industrial, escaped during the Deceleian War.[10] From 413 till about 340 the mines were neglected; Xenophon implies that in his day the number of slaves employed in them was very small, since he thought they could easily absorb 6,000 or even 10,000 additional workers.[11] From the 330's the mines were again very actively exploited, but we have no reliable figures for the number of slaves employed.

Some mining entrepreneurs owned their slaves: we know of one who possessed thirty with a workshop for crushing and smelting the ore, and who raised his working capital to buy concessions from the state by loans on their security.[12]

[1] *Idem*, XXXVI, 4–5, 11.
[2] Lysias, XII, 19.
[3] *Econ. Hist. Rev.* VIII (1955), 151, n. 1.
[4] Dem. XXVII, 10, 30–3.
[5] *Ibid.* 19–22.
[6] Aeschines, *in Timarchum*, 97.
[7] Dem. IV, 36.
[8] Hypereides, V, 5 *et seq.*
[9] Xen. *Vect*[*igalia*], IV, 25.
[10] Thucydides, VII, 27, 5.
[11] Xenophon's evidence is confirmed by the inscriptions, see *Hesperia*, XIX (1950), 189 *et seq.*
[12] Dem. XXXVII, 4 *et seq.*

Other entrepreneurs hired their slaves. This was according to Xenophon a common practice in the fifth century. Nicias is said to have owned 1,000 slaves whom he leased to a mining entrepreneur for 1 obol a day, the lessee feeding them and replacing casualties, and two other wealthy Athenians are said to have exploited gangs of 600 and 300 slaves in the same way.[1] Xenophon recommended that the state should go into the business in a large way. It was, according to him, highly profitable. He does not state what unskilled labourers cost, but he does say that if the state bought 1,200 initially, and used the resulting income to build up its stock, in five or six years it would possess 6,000.[2] This calculation, assuming that Xenophon was capable of working out the sum involved in compound interest, is based on a price of between 125 and 150 drachmae. There is some corroborative evidence that this is a plausible figure. Xenophon elsewhere speaks of slaves being worth very different sums, one 2 minae, another not half a mina, others five or ten (these must be skilled men).[3] Demosthenes in a forensic speech mentions a slave being sold for 2 minae,[4] and in another of two being valued at $2\frac{1}{2}$ minae[5] (these were agricultural labourers; the price of 125 drachmae agrees closely with the figure for miners). Finally in 414–413 a batch of sixteen slaves, the confiscated property of an alien residing in the Peiraeus, fetched 2,552 drachmae when auctioned.[6] These included a boy who was sold for only 72 drachmae, but some, who fetched figures like 300 or 240, were doubtless skilled men, and most will have been of superior quality to miners. The average price is nevertheless only 160 drachmae each.

A rent of an obol a day (60 drachmae a year) for a slave costing 125 or 150 drachmae would give the owner a net return of at least 40 per cent per annum, or perhaps nearly 50 per cent, on his capital. This does not allow for periods of unemployment, for Xenophon insists that the silver mines have a virtually inexhaustible capacity for absorbing labour. Nor does it allow for amortization; though the lessee replaced casualties, the time would come when some of the men would grow too old to find a hirer. But if a slave had an average useful life of twenty years it would not at the low prices prevailing make much difference. To amortize a slave worth 150 drachmae would require $7\frac{1}{2}$ drachmae a year, and if this sum is deducted from his rent of 60 drachmae a year, the return drops from 40 to 35 per cent.

The lessee seems also to have done well out of the transaction. The Eleusis accounts of 329 and 326 B.C. show that the state paid $1\frac{1}{2}$ drachmae a day for unskilled labour and allowed 3 obols ($\frac{1}{2}$ drachma) a day for feeding public slaves, also unskilled labourers.[7] On these figures a mining entrepreneur would pay 9 obols a day for free labour, as against 4 obols (3 for food and 1 for hire) for slave labour; he would also have to make some allowance for replacement of clothes and for making good casualties, but the margin seems ample for this. In Xenophon's day the figures may have been rather lower, for prices rose rapidly in the second half of the fourth century. Demosthenes in 351 reckoned the cost of feeding a standing army, partly citizen and partly mercenary, at only 2 obols a day.[8] This figure is rather suspect, as he is trying to persuade the

[1] Xen. *Vect.* iv, 14–15.
[2] *Ibid.* iv, 23.
[3] Xen. *Mem.* II, v, 2.
[4] Dem. XLI, 8.
[5] *Idem*, LIII, 1.
[6] M. N. Tod, *Greek Historical Inscriptions*[2] (Oxford, 1948), no. 79.
[7] *I*[*nscriptions*] *G*[*raecae*], II–III[2], 1672, ll. 4–5, 42–3, 117–18, 141–2.
[8] Dem. IV, 28.

people that his project will not be too expensive, but he can hardly have proposed giving less than a slave ration to soldiers without making himself ridiculous. On the other hand, wages at the end of the fifth century were only 1 drachma a day.[1] On this basis the cost of free labour would be 6 obols as against 3 for servile.

Skilled slave craftsmen do not seem to have brought in quite so high a return. Demosthenes declares that his father's cutlers were worth 5 or 6 minae each, or at the lowest reckoning 3 minae, and that his group of thirty-two or thirty-three brought in a net income of 30 minae a year. On the lowest valuation the return is 30 per cent, on the higher figures 15 or 20 per cent. He does not state the value of the twenty bed-makers, but as they were held as a pledge for a loan of 40 minae, they must have been worth well over 2 minae each. They brought in a net income of 12 minae a year, which is 30 per cent on the amount of the loan for which they were pledged, but less on their real value.[2] Timarchus' shoemakers who paid him 2 obols a day will have brought him in 120 drachmae a year each, or 40 per cent, if they cost only 3 minae, from 20 to 25 per cent if they cost 5 or 6. As one could normally get 12 per cent on loans with good security, such as mortgages, investment in skilled industrial slaves does not seem to have been very profitable, when allowance is made for amortization, which was a more serious matter when valuable skilled slaves were concerned, and for market risks. Demosthenes' guardians alleged, whether truly or not, that since his father's death the slaves had often been idle as their products were unsaleable.[3]

III

It is often stated that the competition of slave labour depressed the standard of living of free workers. It is impossible to disprove this statement, since we cannot know how much free workers would have earned if there had been no slaves, but the probabilities are against it. A slave craftsman 'living apart' was in no position to undercut his free neighbour, since he had not only, like him, to maintain himself and his family, if any, but also to pay his rent to his master. There is no evidence that owners of slave factories undercut free craftsmen. They seem to have preferred to sell their products at prevailing prices, and make as large a profit as they could: Demosthenes' guardians did not claim that they had sold off the products of his factory cheap, owing to the alleged glut, but that they did not sell them at all, or alternatively suspended the slaves' work. With hired labour the case was rather different. Where there was continuous employment, as in the mines, slave labour, whether owned by the entrepreneur or hired by him from a big slave owner like Nicias, was so much cheaper than free that it displaced it altogether. We hear of poor Athenians working their own claims with their own hands,[4] but never of hired free miners. But in casual employment, such as building or harvesting,[5] hired slaves and free men were employed indifferently. We do not know what the practice of private employers was, but the Athenian state, as the temple building accounts prove, paid the same rate (which was two or three times the cost of maintaining a slave) to

[1] *IG*, I^2, 373–4, analysed by R. H. Randall in *American Journal of Archaeology*, LVII (1953), 199–210.

[2] Dem. XXVII, 9.

[3] Dem. XXVII, 19–21.

[4] Xen. *Vect.* iv, 22; Dem. XLII, 20.

[5] See Dem. LIII, 19–21 and LVII, 45 for hired slaves and free persons in harvesting. For building, see next note.

free workers or hired slaves[1]. Slave owners who hired out their slaves evidently preferred to make a handsome profit by charging full current wage rates for their services rather than to undercut free workmen: they had after all to cover themselves against the periods of unemployment inevitable in casual work, when the slaves would be earning nothing but still had to be fed.

The reason that unskilled slave labour was so profitable to the owner was that slaves were fantastically cheap. The price of an unskilled man was, we have seen, from 125 to 150 drachmae. The cost of feeding him was, at Demosthenes' figure of 2 obols a day, 120 drachmae a year, or at the rate of 3 obols actually paid in 329 by the Athenian state to its slave labourers 180 drachmae a year: and a slave had to be clothed and shod as well as fed. A slave, that is, cost initially about a year's keep at the outside. Slave merchants could hardly have made a profit unless they acquired their wares for nothing or next to nothing and sold them very rapidly. Piracy and kidnapping were in fact common at this period, and there were large backward and unsettled areas nearby, where continual inter-tribal warfare produced a glut of prisoners. It was only in such conditions that slave labour was cheap enough to play the not inconsiderable role that it did in Athenian economy. Yet even here it was only when the slave was put to work as an unskilled labourer in the mines that he undercut the free man.

IV

Another time and place where slavery played an important role was Italy and Sicily during the last two centuries of the Republic. It was a period of constant wars, ruthlessly conducted, which threw many thousands of prisoners on to the market. It was also a period when piracy flourished unchecked until it became so intolerable a nuisance that in 67 B.C. Pompey was voted a vast fleet and army to clear the seas. He did so temporarily, but during the civil wars that followed piracy revived. Slaves should have been dirt cheap and very plentiful. Price figures are unfortunately almost entirely lacking for the western Mediterranean. After the battle of Cannae (216 B.C.) Hannibal offered to release his prisoners on the following scale of ransoms: 500 quadrigati for a Roman cavalryman, 300 for a Roman infantryman, 200 for an Italian ally, and 100 for a slave.[2] This scale is incidentally a warning against using ransoms as equivalent to slave prices; a free captive (or his relatives) could be expected to pay substantially more (according to his status) for his freedom than his commercial value. The figure for slaves is presumably roughly the current market price. In silver content 100 quadrigati were equivalent to about 150 Athenian drachmae, so that the price is low even by Athenian standards. In the eastern Mediterranean we have the Delphic manumission records for the last two centuries B.C. Here, out of about 700 prices, some 58 per cent range from 3 to 4 minae and another 14 per cent up to 5. Above 5 minae (mostly 6, 8 or 10) are 12 per cent, and below 3 minae (mostly 2–2½) are 14 per cent.[3] These figures represent select slaves of good quality, who alone would be likely to earn their manumission, the overwhelming majority adults. It is not improbable also that manumission prices were higher than the market rate; for masters were in a strong bargaining position and slaves might have been willing to pay more for their freedom than they would fetch on the open market. Taking these

[1] *IG*, I², 373–4. See p. 190, n. 1 *supra*. [2] Livy, XXII, 52 and 58.
[3] A. Calderini, *La manomissione e la condizione dei liberti in Grecia* (Milan, 1908), p. 214.

factors into account, the figures suggest a range of slave prices not dissimilar from that prevailing at Athens in the fourth century B.C. where skilled adults cost 3 to 5 minae.

As at Athens in the fifth and fourth centuries B.C. servile labour was employed on a large scale in the mines: Polybius records that in his day 40,000 worked in the great silver mines near Carthagena in Spain.[1] According to Diodorus, who draws his information from a contemporary source, Posidonius, the slaves were ruthlessly driven, and only the hardiest lived long.[2] This implies that the supply was abundant and very cheap. There were however limits beyond which the employment of slave labour became unprofitable. Strabo tells us of a realgar mine in Paphlagonia where the mortality among the workers was so high, owing to the poisonous atmosphere, that the contractors, although they used the dregs of the slave market (slaves sold off because of their crimes), often abandoned their operations.[3]

The novelty of this period is the extension of slave labour in a big way to agriculture. The reasons for this are well known. The Roman aristocracy, both senatorial and equestrian, were acquiring vast money fortunes from the exploitation of the empire, and investing them in land. The peasant proprietors of Italy were hard hit by long term military service, and were compelled to sell their plots. Great estates thus grew up at the expense of small holdings, and as slaves were very cheap, the owners used them in preference to free labour. It is impossible to estimate how far the process went. The peasant proprietor was certainly never eliminated in Italy, but the reduction in their numbers was sufficiently serious to alarm the more thoughtful members of the aristocracy. The succession of agrarian laws, begun by Tiberius Gracchus, did something to check the process, but the great servile revolt under Spartacus shows that agricultural slaves must still have been very numerous in Italy in the 70's.

Cato's and Varro's treatises on agriculture imply that landlords used slave labour for all types of farming, for arable, vineyards, oliveyards and cattle ranches alike, but that they also hired labour for the peak periods, the harvest, the vintage and the olive-picking:[4] Varro also recommends the use of hired labour on unhealthy farms.[5] It appears then that the maintenance of a slave was a sufficiently serious item in the landlord's budget to make him keep a small permanent staff only, and that the cost of a slave was high enough to make frequent replacements uneconomic. Not all great landlords cultivated their estates with slave labour: in the Civil War Domitius manned six ships with his shepherds, who were slaves, and with his free tenants (*coloni*).[6] There seems to have been a considerable landless rural population, presumably dispossessed peasants, who continued to make a living as hired labourers, mainly in the harvest and vintage season. Tiberius Gracchus was able to command an overwhelming majority of voters when he proposed his land distribution bill in the winter, but, we are told, when he stood for re-election in the summer and tried to call on the rural voters, they did not respond, being busy with the harvest, and he was defeated.[7] It was from this class that the armies of the late Republic

[1] Cited by Strabo, III, 147.
[2] Diodorus, V, 36.
[3] Strabo, XII, 562.
See W. E. Heitland, *Agricola* (Cambridge, 1921), pp. 164 *et seq.*, 178 *et seq.*
[5] Varro, *de re rustica*, I, 17.
[6] Caesar, *de bello civili*, I, 34 and 56. Varro (*op. cit.* I, 2, 17; II, 3, 7) also alludes casually to tenancy agreements.
[7] Appian, *Civil Wars*, I, 14, 2–3.

must have been largely recruited, particularly after Marius introduced voluntary enlistment and waived the minimum property qualification for service.[1]

The wars of Augustus in Spain, Germany, the Alpine areas and Illyricum and Pannonia put large numbers of prisoners on the slave market, but with the cessation of great wars of conquest after his death this source of slaves dried up. From the beginning of the Principate the establishment of law and order within the empire cut off the other main source of supply, piracy and brigandage. Most slaves must have been bred during this period. This proposition is not susceptible of proof, but there are some indications in its favour. Of the slaves whose provenance is known the great majority come from within the empire, usually from the same area in which they lived, and few from beyond the frontiers.[2] The law took an increasing interest in the offspring of slaves. By the *senatusconsultum Claudianum* of A.D. 52, if a free woman cohabited with a slave, his owner was empowered to claim her (and her subsequent offspring) as his slave.[3] The legal position of infants who were exposed and brought up as slaves became an important issue: Trajan upheld the old principle that their free status was unprejudiced, but other emperors ruled that the parents could not reclaim them or could do so only if they repaid the cost of their upbringing.[4] In the *familia Caesaris*, the great body of imperial slaves and freedmen who filled the lower grades of the bureaucracy, hereditary service seems to have been the normal rule. Countless tombstones record freedmen of Augustus whose sons are also freedmen of Augustus, and must have been born in servitude. The emperor apparently did not free his slaves until they had produced slave sons to succeed them in the service.[5]

Home bred slaves must in the nature of things be rather expensive articles. The master has to allow his slave enough to keep his wife, who may be economically superfluous, and his children, who will be of little use until they reach their 'teens, and many of whom, under ancient conditions, will have died before reaching working age. Cato's ideal olive farm and vineyard were manned by twelve and sixteen male workers respectively, of whom only one, the bailiff, was allowed a wife.[6] The food and clothing bill would have been doubled or trebled, and no more work done, if he had allowed all his hands to keep a family to maintain the human stock of the farm.

In these circumstances one could *a priori* expect slaves to become scarce and dear. The recorded prices of slaves are in fact high. In Dacia in the middle of the second century a girl of six fetched 205 denarii, a woman (a Cretan) 420, and a man (a Greek) 600.[7] At the same period a boy of seven (from beyond the Euphrates) was sold at Seleucia of Syria for 200, a girl of twelve (a Phrygian) at Side of Pamphylia for 350 and an adult woman (from Marmarica) at Ravenna for 625 denarii.[8] The literary allusions are consistent with the documents. Petronius[9] speaks of 300 denarii as a bargain price for a sharp-witted Jewish boy, Horace[10] quotes 500 drachmae as a typical price for an ordinary

[1] Cf. Appian, *op. cit.* I, 29, 4; Sallust, *Jugurtha*, 73, 6.

[2] M. Bang in *Mitteilungen des kaiserlichen deutschen archaeologischen Instituts, Römische Abteilung*, XXV (1910), 223–55.

[3] Tacitus, *Annals*, XII, 53.

[4] Pliny, *Ep[istulae]*, X, 65–6.

[5] *Journal of Roman Studies*, XXXIX (1949), 43.

[6] Cato, *de re rustica*, 10, 11, cf. Varro, *de re rustica*, I, 18.

[7] S. Riccobono, *F[ontes] I[uris] R[omani ante Justiniani]*[2] (Florence, 1943), III, 87, 89, 88.

[8] *Op. cit.* III, 132–4.

[9] *Satyricon*, 68.

[10] *Satires*, II, vii, 43. At this date denarius and drachma are equivalent, except in Egypt where four Alexandrian drachmae were equal to one denarius.

slave of poor quality, and Martial[1] records a bid (refused) of 600 denarii for a prostitute. This is a consistent range of prices, which prevails throughout the empire with one exception, Egypt. Here we find one comparable price, a home born youth of seventeen sold at Alexandria in A.D. 154 for 2,800 local drachmae (=700 denarii).[2] The other prices (eight adults) range from 1,500 to 1,000 drachmae (=375–250 denarii).[3] The export of home born slaves from Egypt was prohibited by the Roman government[4] and the local demand was low—almost only for domestic service. Egypt was thus, in this as in many other things, economically segregated from the rest of the empire, and followed its own rules.

The range of prices from the rest of the empire indicate that 500 to 600 was a normal price for an unskilled adult. In fact we know that much larger sums were paid for skilled men: Horace[5] quotes 2,000 denarii for a handsome boy, educated in Greek, and Columella,[6] writing under Nero, recommends paying the same sum for a trained vinedresser. The figure of 500 to 600 denarii is then comparable with the 125 to 150 drachmae paid for an unskilled slave at Athens. In silver content 600 denarii are equivalent to 450 drachmae, so that the Roman price reckoned in silver is about three times the Athenian. But the purchasing power of the denarius was much higher than that of the drachma. Wheat at Athens was cheap at 5 drachmae to the medimnus,[7] in the Roman empire at 2 sesterces to the modius:[8] that is 5 drachmae would buy the same quantity as 3 denarii. The minimum ration allowance allowed by Demosthenes for his proposed standing away was 2 obols a day or 120 drachmae a year. A Roman soldier had 60 denarii a year deducted from his pay for rations.[9] On this basis a slave in the second century cost eight to ten times his annual keep as against a year or a year and a quarter's keep in fourth-century Athens.

V

Columella, writing a handbook for the gentleman farmer under Nero, still recommends the use of slaves in the home farm, but advises letting outlying properties to free tenants, especially if they are arable.[10] For vineyards he appears to assume that slave labour will be used, expensive though it is.[11] Pliny, a generation later, often speaks of his troubles with his tenants: they demand remissions of rent, but nevertheless fall into arrears, he thinks of letting his farms on a share of the crop instead of a fixed money rent, he has difficulty in finding suitable tenants.[12] He never speaks of slaves, and says in fact that he nowhere used chained slaves.[13] As, however, he sold the crops of his vineyards to contractors[14] he must have cultivated these by direct labour, which probably means slaves. The third-century lawyers reveal a similar mixture:

[1] VI, 66, 9.
[2] *Journal of Egyptian Archaeology*, XVII (1931), 4.
[3] *Aegyptische Urkunden aus den staatlichen Museum zu Berlin, Griechische Urkunden* (=*BGU*), III, 805; IV, 1114, 1128. *Oxyrhynchus Papyri* (=*P. Oxy.*), 95. *Aegyptus*, XIII (1933), 230. *Griechische Papyrusurkunden der Hamburger Staats- und Universitätsbibliothek*, 63. *Sammelbuch Griechische Urkunden aus Aegypten*, 6016. *P. Col. inv.* 512 (unpublished, cited by W. L. Westermann. *The Slave Systems of Greek and Roman Antiquity* (Philadelphia, 1955), p. 101, n. 116).
[4] *BGU*, V, 65–7, 69.
[5] *Epodes*, II, ii, 5.
[6] *Ibid.* III, 3, 6.
[7] Dem. XXXIV, 39.
[8] *Econ. Hist. Rev.* V (1953), 295.
[9] H. M. D. Parker, *The Roman Legions* (Oxford, 1928), p. 217.
[10] Columella, I, 7, 8.
[11] *Idem*, III, 3, 6.
[12] Pliny, *Ep.* III, 19; VII, 30; IX, 37; X, 8; cf. IX, 36.
[13] *Ibid.* VII, 19.
[14] *Ibid.* VIII, 2; cf. IX, 20.

the bequest of an estate might include agricultural slaves,[1] and also the arrears of free tenants.[2] They also show that the slaves commonly had families.[3] One gains the general impression that slaves were used on the home farm attached to a residential villa and for more highly skilled jobs, like vinedressing, but that ordinary arable farming was left to free tenants: and, moreover, that agricultural slaves were normally bred.

This evidence applies mainly to Italy. For the provinces our evidence is very scanty save for two areas, Egypt and Africa. In Egypt, where agricultural slavery had never existed, the land continued to be cultivated by free peasants as tenants either of the state, the temples, or private landlords. In Africa we know from literary and legal sources of private landlords who owned agricultural slaves,[4] but a series of inscriptions reveal that on the great imperial estates the head tenants (*conductores*) sublet most of the land in small lots to free working tenants (*coloni*). They must have kept some land in hand, no doubt cultivating it with slaves, for the *coloni*, in addition to their rent—a share, normally a third, of the crop—owed labour services—six to twelve days a year at the three peak periods of ploughing, hoeing and harvest.[5]

There is a change in mining also. Some mines and quarries were worked by convict labour: it is significant that *damnatio ad metallum* under the Principate becomes a common alternative to the death penalty, especially for the lower classes.[6] But free labour was also employed. We possess a number of second-century indentures in which free men leased their labour for six months or a year in the Dacian gold mines: in the only specimen where all the relevant figures are preserved the rate of pay is 70 denarii plus food for six months.[7] This is equivalent to 200 denarii a year, or two-thirds of what a private in the army received at that period. In the *Lex Metalli Vipascensis* of Hadrianic date the mines are no longer leased as a whole to contractors (*conductores*) who employ large gangs of slaves, but individual shafts are let or sold by the resident imperial agent (*procurator*) to tenants (*coloni*) who appear to be working miners, often grouped in partnerships, sometimes employing slave or hired labour.[8]

On the other hand slaves seem to have been extensively used in commerce and industry, in Italy at any rate. This is implied by the elaborate rules which were evolved to define the legal responsibility of owners for their slaves' commercial transactions. The law held the owner, unless he expressly and publicly disclaimed responsibility, liable in full for the debts and contracts of his *institor*, the slave whom he put in charge of a shop or business.[9] If the owner had disclaimed responsibility, creditors had two alternative remedies, the *actio peculii* and the *actio tributoria*.[10] Under the former they could recover from the slave's *peculium*, the sum which was by his master's consent under his control; but the master in this case had a prior claim to recover debts owing to himself by his slave. Under the latter, all creditors, including the owner, could recover in proportion to their claims from the *merces peculiaris*, the stock of the business

[1] *Dig.* XXXIII, vii, 3, § 1; 8; 12, §§ 2–9, 35, 37, 46; 18, §§ 6–7, 11, 13; 19; 20, §§ 3, 5–6, 9, etc.

[2] *Ibid.* XXXII, 78, § 3; 91, pr. §1; 97; 101, § 1; XXXIII, ii, 32, § 7; vii, 20, pr. §§ 1, 3; 27, § 1.

[3] *Ibid.* XXXIII, vii, 12, §§ 7, 33. Trimalchio is represented as breeding slaves on a vast scale on his estates (Petronius, *Satyricon*, 53).

[4] Apuleius, *Apologia*, 93 (400 slaves, most probably agricultural, being associated with lands, crops and stocks), cf. 17 and 47 for allusions to agricultural slaves; Herodian, VII, iv, 3; *Dig.* XXXIII, vii, 27, § 1.

[5] *FIR*, I, 100–3.

[6] This penalty is first recorded under Trajan (Pliny, *Ep.* X, 58) and Hadrian (Pomponius in *Dig.* XL., iv, 46).

[7] *FIR*, III, 150.

[8] *FIR*, I, 104.

[9] *Dig.* XIV, iii.

[10] *Dig.* XIV, iv.

which the slave carried on, which might be less than the *peculium*, as it did not include the slave's personal assets.

It cannot be necessarily deduced from these legal rules that the conditions for which they provided were widespread, but their evidence is supported, for Italy and to a lesser extent for southern Gaul and Spain, by that of the inscriptions, which show a very large number of freedmen engaged in industry and trade. Some of these freedmen were former domestic slaves, who learned a craft or opened a shop after manumission in order to support themselves,[1] but it seems likely that the majority of them started as slave *institores*, and purchased their *merces peculiaris* together with their freedom. It must, however, be stressed that the evidence which we possess is geographically limited. In Egypt, where our knowledge, thanks to the papyri, is fullest, industrial slavery is almost unknown. In general we find only free independent craftsmen, apart from one allusion to free hired labour in the weaving industry.[2] Elsewhere in the East evidence is scanty, but we know that at Tarsus, a great centre of the linen industry, the weavers were free men, too poor indeed to afford the 500 drachmae fee required for inscription on the local citizen register, but according to Dio Chrysostom[3] otherwise worthy of the citizenship.

It would seem that under the Principate the price of slaves was too high to allow their employment in unskilled labour, but that it was now relatively more profitable to use them in skilled jobs, in agriculture, for instance, as vinedressers, and as craftsmen in industry and agents in trade. This development would have been helped by the growing practice of breeding slaves; for the son of a skilled slave could be early apprenticed to his trade. It may reasonably be doubted whether the employment of slave labour, even in skilled work, was very profitable at this period, and its prevalence in Italy and the neighbouring provinces may be due to special causes. In these areas resided the great majority of Roman senators and *equites*, who filled the lucrative administrative and military posts throughout the empire. There was thus a continuous and considerable inflow of money, in the form of salaries and of less legal perquisites, into Italy, southern Gaul and Spain, and this money sought investment. It went mostly into land, but the amount of land was limited, and prices rose to exorbitant heights. Almost the only alternative investment was slaves, and even if they were not a very profitable investment they brought in something.

From the third century onwards public security deteriorated. In many parts of the empire brigandage became rife; the Isaurians, for instance, continually raided eastern Asia Minor and northern Syria. Constant border warfare brought in its crop of barbarian prisoners, and barbarian invaders carried off thousands of Roman citizens, whom they had sold back to the empire as slaves. Such persons could reclaim their freedom if they could repay their purchasers the price that they had paid for them, but for many this must have been impossible and they remained slaves. Nevertheless the demand for slaves still exceeded the supply, especially at a great centre of consumption like Rome. Symmachus, an immensely wealthy senator, went to the trouble of asking the praetorian prefect of Italy, then resident on the Danube, to buy him twenty slaves for use as stable boys, 'because on the frontier it is easy to find slaves and the price is usually tolerable'.[4] Slaves were normally bred, and there seems to have been a heavy demand for foundlings and for newborn babies (*sanguino-*

[1] *Dig.* XXXVIII, i, 16.
[2] *P. Oxy.* 1414.
[3] XXXIV, 21–3.
[4] Symmachus, *Epistulae*, II, 78.

lenti) sold by their parents. This practice was by now legal,[1] and the sale of older children though illegal was widespread.[2]

In these circumstances slave prices might have been expected to fall somewhat from the high level prevailing in the second century A.D., and in fact they seem to have done so. In a schedule of prices, which Justinian laid down for the compensation payable to the joint owners of a slave whom one of the partners had manumitted, a child (up to ten) is valued at 10 solidi, an unskilled adult (male or female over ten) at 20 solidi, and a skilled man or woman at 30: substantially higher prices are assigned to eunuchs and to specialists such as notaries and doctors.[3] This schedule seems from the meagre evidence available to have been realistic. A Gallic boy of fourteen was sold at Ascalon in 359 for 18 solidi.[4] Palladius[5] tells a story of a man who sold himself for 20 solidi, and Leontius[6] of another who fetched as much as 30 in a similar transaction. As against this high price S. Remigius records in his will that he bought a man for only 14 solidi 'to prevent his being killed'.[7] A Visigothic Law[8] provides an interesting commentary on the price of 10 solidi at which Justinian assessed children under ten, and on the cost of breeding slaves. Parents were entitled to recover children whom they had exposed or sold as infants on payment of one solidus for each year of the child's age up to a maximum of ten. This, it is explained, was to cover his maintenance while he was not yet productive; after ten he was deemed to earn his keep by his work. Slave breeders had to reckon with heavy mortality, both during the first ten years and later, so that the commercial price of 20 solidi for any slave over ten was not so excessive as it might seem. But the wide margin between the cost of breeding slaves and their market price suggests that they had a rarity value. The standard price for an unskilled adult, 20 solidi, was equivalent in gold value to a little over 300 denarii, and four or five times the contemporary ration allowance (*annona*) of a soldier.[9] Slave prices had thus dropped to about half in real value of what they were in the peaceful days of the second century A.D., but were still four or five times as high as in Athens of the fourth century B.C.

In the mines slavery seems by the fourth century to have been extinct; some convict labour was still employed, notably Christian recusants in the Great Persecution,[10] but *metallarii* in the codes are assumed to be free men. In agriculture the codes show that slaves still existed side by side with free tenants. In industry the state weaving mills and dyeworks were manned by public slaves:[11] so also were the mints[12] and the imperial transport service, the *cursus publicus*.[13] In private industry on the other hand slaves seem to have been rare. We hear of one man of means, Thalassius of Antioch, who owned a slave-manned knife factory, precisely like Demosthenes, as Libanius pointed out,[14] and of

[1] *Fragmenta Vaticana*, 34, *Cod. Theod.* v, x, 1.

[2] *Cod. Theod.* III, iii, 1; XI, xxvii, 2; Val[entinian], *Nov*[*ella*], xxxiii; cf. Rufinus. *Historia Monachorum*, 16; Zosimus, II, 38; Lib. *Or.* XLVI, 23; Cassiodorus, *Variae*, VIII, 33.

[3] *Cod*[*ex*] *Just*[*inianus*], VII, vii, 1. [4] *FIR*, III, 135.

[5] *Lausiac History*, 83.

[6] *Life of John the Almoner*, 22. The compensation payable for the murder of an unskilled slave (a ploughman or swineherd) is also 30 solidi in the *Lex Romana Burgundiorum*, ii, 6 (*M*[*onumenta*] *G*[*ermaniae*] *H*[*istorica*], *Legum Sectio* I, II, 127), but here a penal element may enter into the price.

[7] *MGH, Scriptores rerum Merovingicarum* III, 339.

[8] *Lex Visigothorum*, IV, iv, 3 (*MGH, Legum Sectio* I, I, 194).

[9] Val. *Nov.* xiii, 3; *Cod. Just.* I, xxvii, i, §§ 22–38.

[10] Eusebius, *Ecclesiastical History*, VIII, 12, etc. [11] *Cod. Theod.* X, xx, 2, 3, 5, 7, 9.

[12] *Ibid.* X, xx, 10. [13] *Ibid.* VIII, v, 58. [14] Lib. *Or.* XLII, 21.

humble persons in the province of Moesia, who though landless might qualify for the decurionate by their wealth in slaves.[1] In general, however, industry was carried on by free craftsmen of humble status grouped in guilds.[2]

What is abundantly clear from the sources is that slavery on the land and in the state industries was hereditary. The laws are much concerned with regulating the tangles which resulted from intermarriage between such slaves and free persons.[3] In the Diocletianic persecution some Christians were as a penalty enslaved and drafted into the state weaving mills,[4] but apart from this there is no hint that the government ever thought of adding to its hereditary stock. Landlords might sometimes restock a derelict farm with slaves,[5] but this was exceptional; indeed the prefect of the city once persuaded the Roman senators to contribute to famine relief by pointing out how disastrous it would be if they were forced to buy slaves to replace their starving peasants.[6] It would seem that on some estates a hereditary servile population had been established: we hear of agricultural slavery mainly in Italy,[7] and some western provinces,[8] where it was no doubt a survival from the conditions of the late Republic and early Principate. The state similarly was able to maintain its slave establishments by breeding. In private industry there was not the same continuity of ownership and the units were too small for hereditary groups to be established.

VI

During this period the social and legal status of slaves and free persons both on the land and in the state industries tended to be assimilated. On the one hand owing to the acute shortage of manpower the government tended to 'freeze' workers in essential occupations, together with their children.[9] On the other hand slaves in the hereditary groups were allowed to hold property, and bequeath it to their children. In the state industries it is difficult to find other than technical differences between the *fabricenses* or arms manufacturers, who were legally soldiers, and the workers in the mints, weaving mills and dyeworks, who were legally slaves. Both were bound with their children to their trades; *fabricenses* were branded to facilitate their detection if they escaped. Both could hold and bequeath property.[10] In agriculture the free tenant was tied with his children to his plot of land from the reign of Diocletian, and later legislation forbade him to alienate his private property without his landlord's consent,[11] and deprived him of his right to bring civil actions against his landlord.[12] Valentinian I prohibited the sale of agricultural slaves apart from the land

[1] *Cod. Theod.* XII, i, 96.

[2] See my article, 'The economic life of the towns of the Roman Empire', *Recueils de la Société Jean Bodin*, VII (1955), 177 *et seq.*

[3] For the state industries see *Cod. Theod.* x, xx, 3, 5, 10, 15, 17 for mixed marriages and also VIII, v, 58 and x, xx, 16 for wives and children. For agricultural slaves see Val. *Nov.* xxxi, 6; *Cod. Just.* XI, xlviii, 21 for mixed marriages; cf. *Cod. Theod.* II, xxv, 1; *Cod. Just.* XI, xlviii, 7, lxviii, 3 and 4 for families.

[4] Eusebius *Vita Constantini*, II, 34.

[5] *Cod. Theod.* V, xiii, 4.

[6] Ambrose, *de officiis*, III, 47.

[7] *Vita Melaniae Junioris*, 10 and 18 (*Analecta Bollandiana*, VIII (1889), 27, 33, XXII (1903), 13); letter of Pope Pelagius in P. Jaffé, *Regesta Pontificum Romanorum*[2] (Leipzig, 1885), I, 127, no. 956 (656).

[8] E.g. Orosius, VII, 40 for Spain, and *Lex Gundobada*, 54 (*MGH, Legum Sectio* I, II, 88) for Gaul.

[9] See my *Ancient Economic History* (1948), pp. 12 *et seq.*

[10] On the *fabricenses* see *Cod. Theod.* x, xxii, on the other groups, *ibid.* x, xx.

[11] *Cod. Theod.* V, xix, 1.

[12] *Cod. Just.* XI, l, 2.

which they cultivated.[1] They possessed their *peculia* or private property, which they could not alienate but which normally passed to their children.[2] Slave and free peasants intermarried freely, and the only practical distinction between them was that the status of their children followed different rules in mixed marriages.

If one may draw any general conclusions from this rather inadequate evidence, it would appear that gang slavery in its crudest form, the use of bought slaves for unskilled labour, flourished only in rather exceptional circumstances, when, owing to the prevalence of wars and piracy, prices stood at a rock bottom level, and then only in work in which they could be continuously employed. In these circumstances slaves tended to replace free labour. At Athens there is no evidence that this caused unemployment among the free population, or that it reduced wages in occupations, such as building, where slave and free unskilled labour were employed concurrently. In Italy, under the late Republic, on the other hand, peasants were thrown out of work by the increasing use of agricultural slaves. In the settled conditions of the Principate gang slavery tended to die out and did not revive in the later empire despite growing insecurity and a consequent fall in the price of slaves. Where agricultural slavery survived it was a heritage of the past, and the social and economic position of slaves on the land had become indistinguishable from that of free persons.

In skilled industrial employment, where the capital value of a slave depended less on his initial price and more on the cost of training him, the use of slaves did not vary so much according to the state of the slave market. In this sphere the profits of the master were not so great, both because of the relatively high capital value of trained slaves, and because it was generally found advisable to give such slaves economic incentives which brought their condition close to that of the free craftsman. As a result slaves do not seem to have competed with free persons by cutting prices. In skilled employments also the use of servile labour seems to become rare in the later empire, except in the large state factories, where the slaves were a hereditary class scarcely distinguishable from free persons.

Jesus College, Cambridge

[1] *Ibid.* XI, xlviii, 7. This rule was revoked in Italy by Theoderic (*Edictum*, 142).

[2] Letters of Pope Gelasius (fr. 28 in A. Thiel, *Epistolae Romanorum Pontificum genuinae* (Brunsberg, 1867) and of Pope Pelagius (Migne, *Patrologia Latina*, LXIX, 418)) mention apparently substantial *peculia* of agricultural slaves of the Roman Church. One had the temerity to make a will; this was disregarded by the Pope, who, however, allowed his property to pass to his sons.