volcanic matter, and also veins of quartz, intersect the beds, and the surfaces of rents are frequently baked by heat ejected from the interior. Faults also occur, and cause displacements of the beds by upheaval or downthrow of one or other side of a rent.

Several varieties of clay slate are met with, and are characterized by the mineral that chiefly prevails. The colour—varying shades of blue, green, and purple being the most common—depends mainly on the presence of iron and the form in which it exists. The common roofing slate of commerce is generally fine-grained, and combines great strength and durability with moderate weight. It is also very dense, 1 cubic foot weighing over 170 lb, while according to Mr Wilkinson it takes on an average 20,000 lb to crush 1 cubic inch.

Certain varieties of slate, however, are soft and perishable, particularly the black carbonaceous kinds. Cubes of iron pyrites frequently occur in slate rock, and are generally deleterious owing to their tendency to decompose and fall out, but this is not always the case, as some of the most durable slates are sprinkled with pyrites without detriment.

The following percentage analysis of an average sample of Welsh roofing slate is given by Prof. Hull:[1]—

Silica	60·50	Magnesia	2·20
Alumina	19·70	Potash	3·18
Iron (protoxide)	7·83	Soda	2·20
Lime	1·12	Water	3·30

Slate has been used for roofing during many centuries, and it is said that some of the old castles of North Wales—such as Carnarvon and Conway—were covered with this material. And no doubt the better class of houses, situated in the neighbourhood of slate beds, would be roofed with slates obtained by rough surface digging, or from blocks exposed by mountain streams and split by the action of the weather, long before regular quarrying operations commenced. The Delabole quarries of Cornwall had acquired considerable importance as far back as the 16th century, and some of the Welsh slate quarries are very old, as are those of Angers in France. But the slate industry belongs mainly to the present century and latter part of the 18th; and since the opening up of the country by sea and land communications the progress and development of slate quarries have been great and rapid. The largest and most valuable quarries of North Wales are worked in the Cambrian and Lower Silurian beds, those of Llanberis and Penrhyn being worked in the former, and the Festiniog quarries in the latter. Important quarries are worked in Cumberland (Lower Silurian), Westmoreland, and Lancashire (Upper Silurian), and also in Devon and Cornwall (Devonian and Carboniferous), the lake districts being specially noted for their rich green slates. Some of the western and midland districts of Scotland—mainly Argyleshire, Dumbartonshire, and Perthshire—produce very strong and durable slates (Lower Silurian and Cambrian), the largest and most important quarries being at Ballachulish in Argyllshire, where 15,000 tons are annually made. The Scotch slates are chiefly blue in colour, but thin beds of green are found in some of the central districts.

Slate is now almost universally used for roofing houses and buildings of every description, and for such purposes it is unequalled, the better sorts possessing all the qualities necessary for protection against wind, rain, and storm. The finer varieties are made into writing slates, and in districts where cross cleavage exists slate pencils are made. Slabs are also manufactured, and, being readily cut, planed, dressed, and enamelled, are used for chimney pieces, billiard tables, wall linings, cisterns, paving, tombstones, ridge rolls, and various other architectural and industrial purposes.

Slate rocks are quarried both above ground and below ground, according as they lie near to or distant from the surface. When they are near the surface, and their dip corresponds with the slope of the ground, they are in the most favourable position, and are worked in terraces or galleries formed along the strike of the beds and having a height of about 50 feet. The galleries are generally carried on in sections of 10 yards, worked across the beds, and may rise to any height or be sunk below the surrounding level by excavations. When the rock is much removed from the surface, or inconveniently situated for open workings, it is quarried in underground chambers reached by levels driven through the intervening mass and across or along the beds. Or it may be necessary to sink shafts as in coal-pits before the rock is arrived at, but the cost of doing so forms a serious drawback. Inclines, waggons, tramways, and other machinery are employed in slate quarries as in other quarries, to suit the special circumstances and position of the operations, and need not be detailed.

The sections of a gallery are generally worked by crews of six men, who undertake to perform all operations of quarrying, splitting, and dressing at fixed rates. The rock is bored by jumper drills directed and turned by the hand and driven by hammers. When the bore is short and of small diameter one man can do the work, holding the jumper with one hand and using the hammer with the other. But when a large mass of rock has to be thrown down a bore 4 to 6 feet deep and a diameter of 2 to 3 inches is required and three men are employed,—one to guide and turn the jumper and two to drive it with heavy hammers. Bores of intermediate size are made by two men, one holding and the other driving the drill. When the boring has to be done on a steep face a staging is fixed to the rock or suspended from the top by means of ropes. The explosive generally used is rock-blasting powder, being the most suitable for the heaving force required to throw out or detach masses of rock without much splintering, which would destroy the blocks for slate making. Advantage is taken of the natural cuts or joints in blasting, as the rock is readily thrown or worked off these. From the mass thrown out by the blast, or loosened so as readily to come away by the use of crowbars, the men carefully select and sort all good blocks and send them in waggons to the slate huts to be split and dressed into slates. Two men are employed at this operation—one splitting and the other dressing, performing their work in a sitting posture. The splitter places a block on end between his knees, and with chisel and mallet splits it into as many plates as possible of the usual thickness for roofing purposes—namely, quarter of an inch more or less according to the size and strength required. These plates are then placed horizontally by the dresser on a vertical iron "stand," and cut with a sharp knife into slates of various sizes suitable for the market (from 30 in. × 16 in. to 10 in. × 6 in.). Certain sizes are designated by names from the peerage, such as princesses (24 in. × 14 ins.), duchesses (24 × 12), marchionesses (22 × 11), countesses (20 × 10), viscountesses (18 × 9), ladies (16 × 10), &c. In every slate rock there is a large amount of waste or bad rock, which is thrown away as rubbish—the proportion of good to bad varying from one in twelve to one in thirty. Attempts are being made at present to have this waste material manufactured into some article of industrial value; and, as it consists chiefly of silica and alumina, these attempts should prove successful.

The slate industry of the British Isles is now of very considerable importance, that of North Wales in particular being immense. According to the census of 1881 the number of slate quarriers in the United Kingdom amounted to 15,765, while over half a million tons of slates and slabs are produced annually, the value of which may be estimated at or over £1,250,000. The number of slates exported in 1884 exceeded 49 millions, the declared value being £251,824, of which over 35 millions went to Germany, valued at £163,321, over 5¾ millions to Australasia, valued at £37,474, and over 3 millions to Denmark, valued at £34,304.

Good slate beds are also worked in the south of Ireland, particularly in the counties of Wicklow, Tipperary, Cork, and Kerry (Lower Silurian, Devonian, and Carboniferous). On the continent of Europe slate rock is worked in Devonian and other formations—in France (Lower Silurian and Devonian), Belgium, Sweden, Norway, Germany, Austria, and Italy (Oolitic). In North America immense slate beds extend from Newfoundland westwards to the Great Lakes and southwestwards to Arkansas (U.S.); and slate quarries are successfully worked in Newfoundland, Canada, and in the States of Maine, Vermont, Massachusetts, New York, Pennsylvania, &c. Writing and roofing slates and slabs of every variety of size and colour are manufactured in these; but none of the quarries have hitherto reached the immense developments of the principal ones in North Wales, and yet, with characteristic enterprise, roofing slates have been within recent years imported to Great Britain from Newfoundland and the United States. (D. C.)

SLAUGHTER HOUSE. See ABATTOIR.

[1] *Building and Ornamental Stones of Great Britain and Foreign Countries*, 1872.

SLAVERY

IT appears to be true that, in the words of Dunoyer, the economic régime of every society which has recently become sedentary is founded on the slavery of the industrial professions. In the hunter period the savage warrior does not enslave his vanquished enemy, but slays him; the women of a conquered tribe he may, however, carry off and appropriate as wives or as servants, for in this period domestic labour falls almost altogether on their sex. In the pastoral stage slaves will be captured only to be sold, with the exception of a few who may be required for the care of flocks or the small amount of cultivation which is then undertaken. It is in proportion as a sedentary life prevails, and agricultural exploitation is practised on a larger scale, whilst warlike habits continue to exist, that the labour of slaves is increasingly introduced to provide food for the master, and at the same time save him from irksome toil. Of this stage in the social movement slavery seems to have been, as we have said, a universal and inevitable accompaniment.

But wherever theocratic organizations established themselves slavery in the ordinary sense did not become a vital element in the social system. The members of the lowest class were not in a state of individual subjection: the entire caste to which they belonged was collectively subject. It is in the communities in which the military order obtained an ascendency over the sacerdotal, and which were directly organized for war, that slavery (as the word is commonly understood) had its really natural and appropriate place. And, as war performed an indispensable function in human history, our just horror for some aspects of slavery must not prevent us from recognizing that that institution as a necessary step in social progress. It is not merely that in its first establishment slavery was an immense advance by substituting for the immolation of captives, often accompanied by cannibalism, their permanent occupation in labour for the benefit of the victor. This advantage, recalled by an old though erroneous[1] etymology, is generally acknowledged. But it is not so well understood that slavery discharged important offices in the later social evolution—first, by enabling military action to prevail with the degree of intensity and continuity requisite for the system of incorporation by conquest which was its final destination; and, secondly, by forcing the captives, who with their descendants came to form the majority of the population in the conquering community, to an industrial life, in spite of the antipathy to regular and sustained labour which is deeply rooted in human nature, especially in the earlier stages of the social movement, when insouciance is so common a trait, and irresponsibility is hailed as a welcome relief. With respect to the latter consideration, it is enough to say that nowhere has productive industry developed itself in the form of voluntary effort; in every country of which we have any knowledge it was imposed by the strong upon the weak, and was wrought into the habits of the people only by the stern discipline of constraint. From the former point of view the freeman, then essentially a warrior, and the slave were mutual auxiliaries, simultaneously exercising different and complementary functions—each necessary to the maintenance and furthering the activity of the other, and thus co-operating, without competition or conflict, towards a common public end. In modern slavery, on the other hand, where the occupations of both parties were industrial, the existence of a servile class, instead of rendering the citizens disposable for social service in a different field, only guaranteed for some of them the possibility of self-indulgent ease, whilst it imposed on others the necessity of indigent idleness.

It was in the Roman state that military action—in Greece often purposeless and, except in the resistance to Persia, on the whole fruitless—worked out the social mission which formed its true justification. Hence at Rome slavery also most properly found its place, so long as that mission was in progress of accomplishment. As soon as the march of conquest had reached its natural limit, slavery began to be modified; and when the empire was divided into the several states which had grown up under it, and the system of defence characteristic of the Middle Ages was substituted for the aggressive system of antiquity, slavery gradually disappeared, and was replaced by serfdom, which again, with the rise of modern industrial life, gave way to personal freedom.

We have so far dealt with the *political* results of ancient slavery, and have found it to have been in certain respects not only useful but indispensable. When we consider its moral effects, whilst endeavouring to the utmost to avoid exaggeration, we must yet pronounce its influence to have been profoundly detrimental. In its action on the slave it marred in a great measure the happy effects of habitual industry by preventing the development of the sense of human dignity which lies at the foundation of morals, whilst the culture of his ideas and sentiments was in most cases entirely neglected, and the spontaneous education arising from the normal family relations was too often altogether denied him. On the morality of the masters—whether personal, domestic, or social—the effects of the institution were disastrous. The habit of absolute rule, always dangerous to our nature, was peculiarly corrupting when it penetrated every department of daily life, and when no external interference checked individual caprice in its action on the feelings and fortunes of inferiors. It tended to destroy the power of self-command, and exposed the master to the baneful influences of flattery. As regards domestic morality, the system offered constant facilities for libertinism, and tended to subvert domestic peace by compromising the just dignity and ruining the happiness of the wife. The sons of the family were familiarized with vice, and the general tone of feeling of the younger generation was lowered by their intimate association with a despised and degraded class. On social morality, properly so called, the habits of cruelty, or at least of harshness, engendered by the relation, had a powerful reaction. Hume observes on "the little humanity commonly observed in persons accustomed from their infancy to exercise so great authority over their fellow-creatures and to trample upon human nature. . . . Nor," he adds, "can a more probable reason be assigned for the severe, I might say, barbarous manners of ancient times than the practice of domestic slavery, by which every man of rank was rendered a petty tyrant, and educated amidst the

[1] *Servus* is not cognate with *servare*, as has often been supposed; it is really related to the Homeric εἴρερος and the verb εἴρω, with which the Latin *sero* is to be connected. It may be here mentioned that *slave* was originally a national name; it meant a man of Slavonic race captured and made a bondman to the Germans. "From the Euxine to the Adriatic, in the state of captives or subjects, . . . they [the Slavonians] overspread the land, and the national appellation of the *Slaves* has been degraded by chance or malice from the signification of glory to that of servitude" (Gibbon, *Decline and Fall*, ch. lv.). The historian alludes to the derivation of the national name from *slava*, glory. See Skeat's *Etym. Dict.*, *s.v.*; see also SLAVS.

flattery, submission, and low debasement of his slaves." These deplorable results were, of course, not universally produced; there were admirable exceptions both amongst masters and amongst slaves—instances of benevolent protection on the one side and of unselfish devotion on the other, which did honour to human nature; but the evil effects without doubt greatly preponderated.

We proceed to a closer study of the institution of slavery as it existed in the Greek and Roman societies respectively.

We find it already fully established in the Homeric period. The prisoners taken in war are retained as slaves, or sold (*Il.*, xxiv. 752) or held at ransom (*Il.*, vi. 427) by the captor. Sometimes the men of a conquered town or district are slain and the women carried off (*Od.*, ix. 40). Not unfrequently free persons were kidnapped by pirates and sold in other regions, like Eumæus in the *Odyssey*. The slave might thus be by birth of equal rank with his master, who knew that the same fate might befall himself or some of the members of his family. The institution does not present itself in a very harsh form in Homer, especially if we consider (as Grote suggests) that "all classes were much on a level in taste, sentiment, and instruction." The male slaves were employed in the tillage of the land and the tending of cattle, and the females in domestic work and household manufactures. The principal slaves often enjoyed the confidence of their masters and had important duties entrusted to them; and, after lengthened and meritorious service, were put in possession of a house and property of their own (*Od.*, xiv. 64). Grote's idea that the women slaves were in a more pitiable condition than the males does not seem justified, except perhaps in the case of the *aletrides*, who turned the household mills which ground the flour consumed in the family, and who were sometimes overworked by unfeeling masters (*Od.*, xx. 110–119). Part of the agricultural work was sometimes done by poor hired freemen (*thetes*), who are spoken of as a wretched class (*Od.*, xi. 490), and were perhaps employed almost exclusively by the smaller landholders. Having no powerful protector to whom they could look up, and depending on casual jobs, they were probably in a less desirable position than the average slave. Homer conceives the lot of the latter as a bitter one (*Od.*, viii. 528; *Il.*, xix. 302); but it must be remembered that the element of change from a former elevated position usually enters into his descriptions. He marks in a celebrated couplet his sense of the moral deterioration commonly wrought by the condition of slavery (*Od.*, xvii. 322).

Historic period. It is, however, in historic Greece, where we have ample documentary information, that it is most important to study the system of slavery,—and especially at Athens, where the principal work of Greek civilization found its accomplishment. The case of Sparta, in some respects peculiar, must be separately considered.

Sources of slavery. The sources of slavery in Greece were:—1. Birth, the condition being hereditary. This was not an abundant source, women slaves being less numerous than men, and wise masters making the union of the sexes rather a reward of good service than a matter of speculation (Xen., *Œcon.*, ix. 5). It was in general cheaper to buy a slave than to rear one to the age of labour. 2. Sale of children by their free parents, which was tolerated, except in Attica, or their exposure, which was permitted, except at Thebes. The consequence of the latter was sometimes to subject them to a servitude worse than death, as is seen in the plays of Plautus and Terence, which, as is well known, depict Greek, not Roman, manners. Freemen, through indigence, sometimes sold themselves, and at Athens, up to the time of Solon, an insolvent debtor became the slave of his creditor. 3. Capture in war. Not only Asiatics and Thracians thus became slaves, but in the many wars between Grecian states, continental or colonial, Greeks were reduced to slavery by men of their own race. Thus Spartans were slaves at Tegea, and Gelon sold out of their country the commonalty of Hyblæan Megara. At Platæa, at Scione, in Melos, the men were massacred or deported, the women enslaved. Athenians were sold at Samos, and in Sicily after the failure of the expedition. In the struggle of parties at Corcyra, each faction, when triumphant, condemned the other to massacre or slavery. Callicratidas pronounced against the enslavement of Greeks by Greeks, but violated his own principle, to which, however, Epaminondas and Pelopidas appear to have been faithful. Philip sold his Olynthian captives, and, after Thebes was taken by Alexander, 30,000 women and children are said to have been sold. 4. Piracy and kidnapping. The descents of pirates on the coasts were a perpetual source of danger; the pirate was a gainer either by the sale or by the redemption of his captives. If ransomed, the victim became by Athenian law the slave of his redeemer till he paid in money or labour the price which had been given for him. Kidnappers (*andrapodistæ*) carried off children even in cities, and reared them as slaves. Whether from hostile forays or from piracy, any Greek was exposed to the risk of enslavement; it was a sword of Damocles suspended over all heads. 5. Commerce. Besides the sale of slaves which took place as a result of the capture of cities or other military operations, there was a systematic slave trade. Syria, Pontus, Lydia, Galatia, and above all Thrace were sources of supply. Egypt and Ethiopia also furnished a certain number, and Italy a few. Of foreigners, the Asiatics bore the greatest value, as most amenable to command, and most versed in the arts of luxurious refinement. But Greeks were highest of all in esteem, and they were much sought for foreign sale. Greece proper and Ionia supplied the petty Eastern princes with courtesans and female musicians and dancers. Athens was an important slave-market, and the state profited by a tax on the sales; but the principal marts were those of Cyprus, Samos, Ephesus, and especially Chios.

The slaves were employed either in domestic service—as household managers, attendants, or personal escorts—or in work of other kinds, agricultural or urban. In early Attica, and even down to the time of Pericles, the landowners lived in the country. The Peloponnesian War introduced a change; and after that time the proprietors resided at Athens, and the cultivation was in the hands of slaves. In manufactures and commerce, also, servile gradually displaced free labour. Speculators either directly employed slaves as artisans or commercial and banking agents, or hired them out, sometimes for work in mines or factories, sometimes for service in private houses, as cooks, flute-players, &c., or for viler uses. There were also public slaves; of these some belonged to temples, to which they were presented as offerings, amongst them being the courtesans who acted as *hierodules* at Corinth and at Eryx in Sicily; others were appropriated to the service of the magistrates or to public works; there were at Athens 1200 Scythian archers for the police of the city; slaves served, too, in the fleets, and were employed in the armies,—commonly as workmen, and exceptionally as soldiers.

The number of slaves in Greece, or even at Athens, can scarcely be determined with any tolerable approach to certainty. It is stated by Athenæus (vi. 20), on the authority of Ctesicles, that the census of Demetrius Phalereus gave for Athens 21,000 citizens, 10,000 metics (resident foreigners), and 400,000 slaves. It is also stated by the same author that Corinth had possessed 460,000 slaves and Ægina 470,000. Hume, in his *Essay* "On the Populousness of Ancient Nations," maintained that the assertion of Athenæus respecting Athens is quite incredible,—that the number of Athenian slaves "is at least augmented by a whole cipher, and ought not to be regarded as more than 40,000." Boeckh and Letronne have since made the question the subject of fresh studies. The former has fixed the number of Attic slaves at about 365,000, the latter at 100,000 or 120,000. M. Wallon has revised the labours of these scholars, and adduced further considerations of his own.[1] He estimates the number of slaves employed in all Attica in domestic service at 40,000; in agriculture at 35,000; in the mines at 10,000; in manufactures and commerce at 90,000. To these must be added, for old people and children under twelve years of age, 6000 and 20,000 respectively, and also the public slaves, of whom, as we have said, 1200 were Scythian archers. He thus arrives at the conclusion that the servile population of Attica was comprised between the limits of 188,000 and 203,000 souls, the free population being about 67,000, and the metics amounting to 40,000. The slaves thus bore to the free native population the ratio of 3 to 1. The numbers given by Athenæus for Corinth and Ægina, though accepted by Boeckh, appear to be excessive, and are rejected by Clinton and by M. Wallon; the true numbers were no doubt large, but we have no means of determining them even approximately. Next after these cities in the magnitude of their slave population came, on the mainland, Megara, and, amongst the insular states, Chios and Rhodes. Miletus, Phocæa, Tarentum, Sybaris, and Cyrene also had numerous bodies of slaves.

The condition of slaves at Athens was not in general a wretched one. Demosthenes (*In Mid.*, p. 530) says that, if the barbarians from whom the slaves were bought were informed of the mild treatment they received, they would entertain a great esteem for the Athenians. Plautus in more than one place thinks it necessary to explain to the spectators of his plays that slaves at Athens enjoyed such privileges, and even licence, as must be surprising to a Roman audience. The slave was introduced with certain customary rites into his position in the family; he was in practice, though not by law, permitted to accumulate a private fund of his own; his marriage was also recognized by custom; though in general excluded from sacred ceremonies and public sacrifices, slaves were admissible to religious associations of a private kind; there were some popular festivals in which they were allowed to participate; they had even special ones for themselves both at Athens and in other Greek centres. Their remains were deposited in the family tomb of their master, who sometimes erected monuments in testimony of his affection and regret. They often lived on terms of intimacy either with the head of the house or its younger members; but it is to be feared that too often this intimacy was founded, not on mutual respect, as in the heroic example of Ulysses and Eumæus, but on insolent self-assertion on the one side and a spirit of unworthy compliance on the other, the latter having its *raison d'être* in degrading services rendered by the slave. Aristophanes and Plautus show us how often resort was had to the discipline of the lash even in the case of domestic slaves. Those employed in workshops, whose overseers were themselves most commonly of servile status, had probably a harder lot than domestics; and the agricultural labourers were not unfrequently chained, and treated much in the same way as beasts of burden. The displeasure of the master sometimes dismissed his domestics to the more oppressive labours of the mill or the mine. A refuge from cruel treatment was afforded by the temples and altars of the gods and by the sacred groves. Nor did Athenian law leave the slave without protection. He had, as Demosthenes boasts, an action for outrage like a freeman, and his death at the hand of a stranger was avenged like that of a citizen (Eurip., *Hec.*, 288), whilst, if caused by his master's violence, it had to be atoned for by exile and a religious expiation. Even when the slave had killed his master, the relatives of the house could not themselves inflict punishment; they were obliged to hand him over to the magistrate to be dealt with by legal process. The slave who had just grounds of complaint against his master could demand to be sold; when he alleged his right to liberty, the law granted him a defender and the sanctuaries offered him an asylum till judgment should be given. Securities were taken against the revolt of slaves by not associating those of the same nationality and language; they were sometimes fettered to prevent flight, and, after a first attempt at escape, branded to facilitate their recovery. There were treaties between states for the extradition of fugitives, and contracts of mutual assurance between individuals against their loss by flight. Their inclination to take advantage of opportunities for this purpose is shown by the number that escaped from Athens to join the Spartans when occupying Decelea. There were formidable revolts at the mines of Laurium, and more than once in Chios. The evidence of slaves—women as well as men—was often, with the consent of their masters, taken by torture; and that method is generally commended by the orators as a sure means of arriving at the truth, though sometimes, when it suits their immediate object, they take a different tone. The several forms of the "question" are enumerated in the *Frogs* of Aristophanes. If the slave was mutilated or seriously injured in the process, compensation was made, not to him, but to his master by the person who had demanded the use of torture.

The slave could purchase his liberty with his peculium by agreement with his master. He could be liberated by will, or, during his master's life, by proclamation in the theatre, the law courts, or other public places, or by having his name inscribed in the public registers, or, in the later age of Greece, by sale or donation to certain temples—an act which did not make the slave a hierodule but a freeman. Conditions were sometimes attached to emancipation, as of remaining for life or a definite time with the former master, or another person named by him, or of performing some special service; payments or rights of succession to property might also be reserved. By manumission the Athenian slave became in relation to the state a metic, in relation to his master a client. He was thus in an intermediate condition between slavery and complete freedom. If the freedman violated his duties to his patron he was subject to an action at law, and if the decision were against him he was again reduced to slavery. He became a full member of the state only, as in the case of foreigners, by a vote in an assembly of six thousand citizens; and even this vote might be set aside by a *graphe paranomon*. Slaves who had rendered eminent services to the public, as those who fought at Arginusæ and at Chæronea, were at once admitted to the status of citizens in the class of (so-called) Platæans. But it would appear that even in their case some civic rights were reserved and accorded only to their children by a female citizen. The number of freedmen at Athens seems never to have been great.

It is well known that Aristotle held slavery to be necessary and natural, and, under just conditions, beneficial to both parties in the relation—views which were correct enough from the political side, regard being had to the contemporary social state. His practical motto, if he is the author of the *Economics* attributed to him, is—"no outrage, and no familiarity." There ought, he says, to be held out to the slave the hope of liberty as the reward of his service. Plato condemned the practice, which the theory of Aristotle also by implication sets aside as inadmissible, of Greeks having Greeks for slaves. In the *Laws* he accepts the institution as a necessary though embarrassing one, and recommends for the safety of the masters that natives of different countries should be mixed and that they should all be well treated. But, whilst condemning harshness towards them, he encourages the feeling of contempt for them as a class. Xenophon also, in urging a mild treatment of them, seems to have in view, not their own well-being, but the security of the masters. The later moral schools of Greece scarcely at all concern themselves with the institution. The Epicurean had no scruple about the servitude of those whose labours contributed to his own indulgence and tranquillity; he would at most cultivate an easy temper in his dealings with them. The Stoic regarded the condition of freedom or slavery as an external accident, indifferent in the eye of wisdom; to him it was irrational to see in liberty a ground of pride or in slavery a subject of complaint; from intolerable indignity suicide was an ever-open means of escape. The poets—especially the authors of the New Comedy—strongly inculcate humanity, and insist on the fundamental equality of the slave. The celebrated "homo sum" is a translation from Alexis, and the spirit of it breathes in many passages of the Greek drama. A fragment of Philemon declares, as if in reply to Aristotle, that not nature, but fortune, makes the slave. Euripides, as might be expected from his humanitarian cast of sentiment, and the "premature modernism" which has been remarked in him, rises above the ordinary feelings of his time in regard to the slaves. As Mr Paley says, he loves "to record their fidelity to their masters, their sympathy in the trials of life, their gratitude for kindness and considerate treatment, and their pride in bearing the character of honourable men. . . . He allows them to reason, to advise, to suggest; and he even makes them philosophize on the follies and the indiscretions of their superiors" (compare *Med.*, 54; *Orest.*, 869; *Hel.*, 728; *Ion*, 854; *Frag. Melan.*, 506; *Phrix.*, 823). But we are not to suppose that even he, latitudinarian and innovator as he was, could have conceived the possibility of abolishing an institution so deeply rooted in the social conditions, as well as in the ideas, of his time.

The case of the Helots of Laconia was different from that of the slaves in most Grecian communities. The origin of this class is disputed, and we cannot here enter into the controversy. They were regarded as the property of the state, which gave their services to individuals but kept in its own hands the power of emancipating them. The domestic servants of the Spartans were all Helots, and they waited on their masters at the *syssitia* or public meal. But they were in the main serfs, living in small country villages or in detached farms, cultivating the lands of the Spartan proprietors, and paying to those proprietors a proportion of the produce which could not be increased. They enjoyed their homes, wives, and families, could acquire property, were not to be sold out of the country, and perhaps could not be sold at all. They were, doubtless, employed in public works; in war they commonly acted as light-armed troops attending on the Spartan or Periœcic hoplites, but in particular emergencies themselves served as hoplites (Thucyd., iv. 80). They were sometimes rewarded for good service by emancipation, which, however, did not make them Periœci, but introduced them into a special class known as *neodamodeis*. The condition of the Helot does not seem to have been economically onerous; but his consciousness of Grecian lineage, which Grote regards as an alleviation of his lot, must surely have been one of its bitterest elements, whilst it constantly kept alive the fear and consequent hatred of his Spartan masters, and made the relation between the two classes less natural than that of the ordinary Greek masters with slaves of foreign and less civilized races. By the ruling powers of Sparta the Helots were never trusted, and in one memorable case some two thousand of them, selected for special military merit, were massacred in secret (Thucyd., iv. 80). According to Plutarch, whose statement, however, has not always been credited, the ephors declared war against the Helots every year, and there was a practice, known as the *krypteia*, of detailing a number of young Spartan citizens for the purpose of assassinating such of them as were considered formidable. Wallon estimates the number of the Helots at 220,000, that of the Spartans being 32,000. The Penestæ in Thessaly and the Clarotæ in Crete seem to have occupied a position somewhat similar to that of the Helots in Laconia.

We have already observed that the Roman system of life was that in which slavery had its most natural and relatively legitimate place; and accordingly it was at Rome that, as Blair has remarked, the institution was more than anywhere else "extended in its operation and methodized in its details." Not only on this ground is it especially deserving of our study, but because out of the slave-class, as it was organized by the Romans in the countries subject to the empire, the modern proletariate has been historically evolved.

We must distinguish from the later slavery at Rome what Mommsen calls "the old, in some measure innocent" slavery under which the farmer tilled the land along with his slave, or, if he possessed more land than he could manage, placed the slave—either as a steward, or as a sort of lessee obliged to render up a portion of the produce—over a detached farm. Though slaves were obtained by the early victories of Rome over her Italian neighbours, no large number was employed on the small holdings of those periods. But the extension of properties in the hands of the

[1] Dr W. Richter (*Die Sklaverei im Griechischen Altertume*, 1886) maintains the correctness of the statement in Athenæus.

patricians, and the continual absences of citizens required by the expanding system of conquest, necessarily brought with them a demand for slave labour, which was increasingly supplied by captives taken in war. Of the number furnished from this source a few particulars from the time of the mature republic and the first century of the empire will give some idea. In Epirus, after the victories of Æmilius Paullus, 150,000 captives were sold. The prisoners at Aquæ Sextiæ and Vercellæ were 90,000 Teutons and 60,000 Cimbri. Cæsar sold on a single occasion in Gaul 63,000 captives; Augustus made 44,000 prisoners in the country of the Salassi; after immense numbers had perished by famine and hardship and in the combats of the arena, 97,000 slaves were acquired by the Jewish war. But slavery, as Hume has shown, is unfavourable to population, and even the wars of Rome were insufficient to maintain the supply. Hence a regular commerce in slaves was established, which was based on the "systematically-prosecuted hunting of man," and indicated an entire perversion of the primitive institution, which was essentially connected with conquest. The pirates sold great numbers of slaves at Delos, where was the chief market for this kind of wares; and these sales went on as really, though more obscurely, after the successful expedition of Pompey. There was a regular importation at Rome of slaves, brought to some extent from Africa, Spain, and Gaul, but chiefly from Asiatic countries—Bithynia, Galatia, Cappadocia, and Syria. A portorium—apparently one-eighth for eunuchs, one-fortieth for others—was paid on their import or export, and a duty of 2 or 4 per cent. on their sale.

There were other sources from which slavery was alimented, though of course in a much less degree. Certain offences reduced the guilty persons to slavery (*servi pœnæ*), and they were employed in public work in the quarries or the mines. Originally, a father could sell his children. A creditor could hold his insolvent debtor as a slave, or sell him out of the city (*trans Tiberim*). The enslavement of creditors, overwhelmed with usury in consequence of losses by hostile raids or their own absence on military service, led to the revolt of the Mons Sacer (493 B.C.). The Pœtelian law (326 B.C.) restricted the creditor's lien (by virtue of a *nexum*) to the goods of his debtor, and enacted that for the future no debtor should be put in chains; but we hear of debtors *addicti* to their creditors by the tribunals long after—even in the time of the Punic Wars.

There were *servi publici* as well as *privati*. The service of the magistrates was at first in the hands of freemen; but the lower offices, as of couriers, servants of the law courts, of prisons, and of temples, were afterwards filled by slaves. The execution of public works also came to be largely committed to them,—as the construction of roads, the cleansing of the sewers, and the maintenance of the aqueducts. Both kinds of functions were discharged by slaves, not only at Rome, but in the rural and provincial municipalities. The slaves of a private Roman were divided between the *familia rustica* and the *familia urbana*. At the head of the *familia rustica* was the *villicus*, himself a slave, with the wife who was given him at once to aid him and to bind him to his duties. Under him were the several groups employed in the different branches of the exploitation and the care of the cattle and flocks, as well as those who kept or prepared the food, clothing, and tools of the whole staff and those who attended on the master in the various species of rural sports. A slave prison (*ergastulum*) was part of such an establishment, and there were slaves whose office it was to punish the offences of their fellows. To the *familia urbana* belonged those who discharged the duties of domestic attendance, the service of the toilet, of the bath, of the table, of the kitchen, besides the entertainment of the master and his guests by dancing, singing, and other arts. There were, besides, the slaves who accompanied the master and mistress out of doors, and who were chosen for their beauty and grace as guards of honour, for their strength as chairmen or porters, or for their readiness and address in remembering names, delivering messages of courtesy, and the like. There were also attached to a great household physicians, artists, secretaries, librarians, copyists, preparers of parchment, as well as pedagogues and preceptors of different kinds,—readers, grammarians, men of letters and even philosophers,—all of servile condition, besides accountants, managers, and agents for the transaction of business. Actors, comic and tragic, pantomimi, and the performers of the circus were commonly slaves, as were also the gladiators. These last were chosen from the most warlike races—as the Samnites, Gauls, and Thracians. *Familiæ* of gladiators were kept by private speculators, who hired them out; they were sometimes owned by men of high rank.

As to the numbers of slaves belonging to individual masters, though we have no distinct general statement in the Roman writers, several special examples and other indirect indications serve to show that the wealthier men possessed very large *familiæ*. This may be inferred from the *columbaria* of the house of Livia and of other great houses. Vettius armed four hundred of his own slaves when he entered on the revolt which was a prelude to the Second Servile War. The slaves of Pedanius Secundus, who, in spite of a threatened outbreak of the indignant populace, were all put to death because they had been under their master's roof when he was murdered, were four hundred in number. Pliny tells us that Cæcilius, a freedman of the time of Augustus, left by his will as many as 4116. The question as to the total number of slaves at Rome or in Italy is a very difficult one, and it is not, perhaps, possible to arrive with any degree of certainty at an approximate estimate. Gibbon supposes that there were in the Roman world in the reign of Claudius at least as many slaves as free inhabitants. But Blair seems right in believing that this number, though probably correct for an earlier period, is much under the truth for the age to which it is assigned. He fixes the proportion of slaves to free men as that of three to one for the time between the conquest of Greece (146 B.C.) and the reign of Alexander Severus (222–235 A.D.) The entire number of slaves in Italy would thus have been, in the reign of Claudius, 20,832,000, that of the free population being 6,944,000.

By the original Roman law the master was clothed with absolute dominion over the slave, extending to the power of life and death, which is not surprising when we consider the nature of the *patria potestas*. The slave could not possess property of any kind; whatever he acquired was legally his master's. He was, however, in practice permitted to enjoy and accumulate chance earnings or savings, or a share of what he produced, under the name of *peculium*. A master could not enter into a contract with his slave, nor could he accuse him of theft before the law; for, if the slave took anything, this was not a subtraction, but only a displacement, of property. The union of a male and female slave had not the legal character of a marriage; it was a cohabitation (*contubernium*) merely which was tolerated, and might be terminated at will, by the master; a slave was, therefore, not capable of the crime of adultery. Yet general sentiment seems to have given a stronger sanction to this sort of connexion; the names of husband and wife are freely used in relation to slaves on the stage, and even in the laws, and in the language of the tombs. For entering the military service or taking on him any state office a slave was punished with death. He could not in general be examined as a witness, except by torture. A master, when accused, could offer his slaves for the "question," or demand for the same purpose the slaves of another; and, if in the latter case they were injured or killed in the process, their owner was indemnified. A slave could not accuse his master, except of adultery or incest (under the latter name being included the violation of sacred things or places); the case of high treason was afterwards added to these. An accused slave could not invoke the aid of the tribunes. The penalties of the law for crime were more severe on guilty slaves than on freemen; "majores nostri," say the legists, "in omni supplicio severius servos quam liberos punierunt." The capital punishment of the freeman was by the sword or the precipice,—of the slave by the axe or the cross. The lex Cornelia punished the murder of a slave or a freeman alike; but the master who killed his own slave was not affected by this law.

Treatment of slaves.

Columella, like Xenophon, favours a certain friendliness and familiarity in one's intercourse with his farm slaves. Cato ate and drank the same coarse victuals as his slaves, and even had the children suckled by his wife, that they might imbibe a fondness for the family. But that rigid old economist had a strict eye to profit in all his dealings with them. He allowed the contubernium of male and female slaves at the price of a money payment from their peculium. Columella regarded the gains from the births as a sufficient motive for encouraging these unions, and thought that mothers should be rewarded for their fecundity; Varro, too, seems to have taken this view. The immense extension of the rural estates (*latifundia*) made it impossible for masters to know their slaves, even if they were disposed to take trouble for the purpose. Effective superintendence even by overseers became less easy; the use of chains was introduced, and these were worn not only in the field during working hours but at night in the ergastulum where the labourers slept—a practice which Pliny lamented as a disgrace to agriculture. Urban slaves had probably often a life as little enviable, especially those who worked at trades for speculators. Even in private houses at Rome, so late as the time of Ovid, the porter was chained. In the *familia urbana* the favourites of the master had good treatment, and might exercise some influence over him which would lead to their receiving flattery and gifts from those who sought his vote or solicited his support. Doubtless there was often genuine mutual affection; slaves sometimes, as in noted instances during the civil wars, showed the noblest spirit of devotion to their masters. Those who were not inmates of the household, but were employed outside of it as keepers of a shop or boat, chiefs of workshops, or clerks in a mercantile business, had the advantage of greater freedom of action. The slaves of the *leno* and the *lanista* were probably in most cases not only degraded but unhappy. The lighter punishments inflicted by masters were commonly personal chastisement or banishment from the town house to rural labour; the severer were employment in the mill (*pistrinum*) or relegation to the mines or

quarries. To the mines speculators also sent slaves; they worked half-naked, men and women, in chains, under the lash and guarded by soldiers. Vedius Pollio, in the time of Augustus, was said to have thrown his slaves, condemned sometimes for trivial mistakes or even accidents, to the lampreys in his fishpond. Cato advised the agriculturist to sell his old oxen and his old slaves, as well as his sick ones; and sick slaves were exposed in the island of Æsculapius in the Tiber; by a decree of Claudius slaves so exposed, if they recovered, could not be reclaimed by their masters.

Though the Roman slaves were not, like the Spartan Helots, kept obedient by systematic terrorism, their large numbers were a constant source of solicitude in the later period of the republic and under the early empire. The law under which the slaves of Pedanius were put to death, probably first made under Augustus and more fully enacted under Nero, is sufficient proof of this anxiety, which indeed is strongly stated by Tacitus in his narrative of the facts. There had been many conspiracies amongst the slaves in the course of Roman history, and some formidable insurrections. We hear of a conspiracy about 500 B.C. and another in 419 B.C.; again just before the sea-fight of Duilius and between the battles of Trasimenus and Cannæ. In 198 B.C. a servile war had almost broken out; in 196 B.C. there was a rising in Etruria and in 185 B.C. in Apulia. The growth of the latifundia made the slaves more and more numerous and formidable. Free labour was discountenanced. Cato, Varro, and Columella all agree that slave labour was to be preferred to free except in unhealthy regions and for large occasional operations, which probably transcended the capacity of the permanent *familia rustica*. Cicero and Livy bear testimony to the disappearance of a free plebs from the country districts and its replacement by gangs of slaves working on great estates. The policy of the Gracchi and their successors of the popular party was opposed to this reduction of the free working population, which they sought to counteract by agrarian laws and by colonization on a large scale—projects which could not be effectively carried out until civil supremacy was united with military power in the hands of a popular chief, and which, even when this condition was satisfied by the establishment of the empire, were inadequate to meet the evil. The worst form of prædial slavery existed in Sicily, whither Mommsen supposes that its peculiarly harsh features had been brought by the Carthaginians. In Sicily, accordingly, the first really serious servile insurrections took place, at once provoked by the misery of the slaves and facilitated by the habits of brigandage which, it is said, the proprietors had tolerated and even encouraged as lightening the cost of subsistence of their slaves. The rising under Eunus in 133 B.C. was with some difficulty suppressed by Rupilius. Partial revolts in Italy succeeded; and then came the second Sicilian insurrection under Trypho and Athenio, which, after a severe struggle, was put down by Aquilius. These were followed by the Servile War in Italy under Spartacus, which, occurring at an otherwise critical period, severely tested the military resources of Rome. In the subsequent civil conflicts the aid of slaves was sought by both parties, even by Marius himself, and afterwards by Catiline, though he finally rejected their services. Clodius and Milo employed bands of gladiators in their city riots, and this action on the part of the latter was approved by Cicero. In the First Civil War they were to be found in both camps, and the murderers of Cæsar were escorted to the Capitol by gladiators. Antony, Octavius, and Sextus Pompeius employed them in the Second Civil War; and it is recorded by Augustus on the Monumentum Ancyranum that he gave back to their masters for punishment about 30,000 slaves who had absconded and borne arms against the state. Under Tiberius, at the death of Caligula, and in the reign of Nero there were threatening movements of the slaves. In the wars from Otho to Vespasian they were employed, as Tacitus tells us, even by the most scrupulous generals.

Of the moral influences of slavery we have already spoken. In the particular case of Rome it cannot be doubted that it largely contributed to the impurities which disgraced private life, as seen in the pages of Juvenal, Martial, and Petronius. It is shocking to observe the tone in which Horace, so characterized by geniality and bonhomie, speaks of the subjection of slaves to the brutal passions of their masters (*Sat.*, i. 2, 116). The hardening effect of the system appears perhaps most strikingly in the barbarous spectacles of the amphitheatre, in which even women took pleasure and joined in condemning the gladiator who did not by his desperate courage satisfy the demands of a sanguinary mob. It led, further, to a contempt for industry, even agriculture being no longer held in esteem ("quum sit publice accepta et confirmata jam vulgaris existimatio, rem rusticam sordidum opus," Col., i., præf. 20). The existence of slavery, degrading free labour while competing with freemen for urban employment, multiplied the idle and worthless population of Rome, who sought only "panem et circenses." These had to be supported by public distributions, which the emperors found they could not discontinue, and by the bounty of patrons, and, like the "mean whites" of modern America, formed a dangerous class, purchasable by selfish ambitions and ready to aid in civil disturbances.

Blair, in comparing the Greek and Roman systems of slavery, points with justice to the greater facility and frequency of emancipation as the great superiority of the latter. No Roman slave, he says, "needed to despair of becoming both a freeman and a citizen." Manumission was of two kinds—*justa* or regular, and *minus justa*. Of *manumissio justa* there were four modes:—(1) by adoption, rarely resorted to; (2) by testament, already recognized in the Twelve Tables; (3) by *census*, which was of exceptional use, and did not exist later than the time of Vespasian; and (4) by *vindicta*, which was the usual form. In the last method the master turned the slave round, with the words "liber esto," in the presence of the prætor, that officer or his lictor at the same time striking the slave with his rod. The *manumissio minus justa* was effected by a sufficient manifestation of the will of the master, as by letter, by words, by putting the *pileus* (or cap of liberty) on the slave, or by any other formality which had by usage become significant of the intention to liberate, or by such an act as making the slave the guardian of his children. This extra-legal sort of manumission was incomplete and precarious; even after the lex Julia Norbana (19 A.D.), which assimilated the position of those so liberated to that of the Latin colonists, under the name of Latini juniores, the person remained in the eye of the law a slave till his death and could not dispose of his peculium.

A freedman, unless he became such by operation of law, remained client of his master, and both were bound by the mutual obligations arising out of that relation. These obligations existed also in the case of freedmen of the state, of cities, temples, and corporations. The freedman took his former master's name; he owed him deference (*obsequium*) and aid (*officium*); and neglect of these obligations was punished, in extreme cases even with loss of liberty. Conditions might be annexed by the master to the gift of freedom, as of continued residence with him, or of general service or some particular duty to be performed, or of a money payment to be made. But the prætor Rutilius, about the beginning of the 1st century B.C., limited the excessive imposition of such conditions, and his restrictions were carried further by the later jurists and the imperial constitutions. Failing natural heirs of an intestate freedman, the master, now patron, succeeded to his property at his death; and he could dispose by will of only half his possessions, the patron receiving the other half. Freedmen and their sons were subject to civil disabilities; the third generation became *ingenua* (full citizens). Thus, by a process of constant infiltration, the slave element tended to merge itself in the general popular body; and Scipio Æmilianus could reply to the murmurs of a plebeian crowd, "Taceant quibus Italia noverca est; non efficietis ut solutos verear quos alligatos adduxi" (Val. Max., vi. 2, 3).

It was often a pecuniary advantage to the master to liberate his slave; he obtained a payment which enabled him to buy a substitute, and at the same time gained a client. This of course presupposes the recognition of the right of the slave to his peculium; and the same is implied in Cicero's statement that a diligent slave could in six years purchase his freedom. Augustus set himself against the undue multiplication of manumissions, probably considering the rapid succession of new citizens a source of social instability, and recommended a similar policy to his successor. The lex Ælia Sentia (about 3 A.D.) forbade manumission, except in strictly limited cases, by masters under 20 years of age or of slaves under 30; and the lex Furia Caninia (about 7 A.D.) fixed the proportion of a man's slaves which he could liberate by testament, and forbade more than a hundred being so enfranchised whatever might be the number of the familia. Under the empire the freedmen rose steadily in influence; they became admissible to the rank of equites and to the senate; they obtained provincial governments, and were appointed to offices in the imperial household which virtually placed them at the head of administrative departments. Pallas and Narcissus are familiar types of the unworthy members of this class, and there were doubtless many outside of official life who exhibited the ostentation and insolence of the parvenu; but there were others who were highly deserving of esteem. Freedmen of humbler rank filled the minor offices in the administrative service, in the city cohorts, and in the army; and we shall find that they entered largely into the trades and professions when free labour began to revive. They appeared also in literature; we hear of several historical and biographical memoirs by freedmen under the republic and the early empire; many of them were professors of grammar and the kindred arts, as Tiro, the amanuensis of Cicero, and Hyginus, the librarian of Augustus; and names of a higher order are those of Livius Andronicus, Cæcilius Statius, Terence, Publius Syrus, Phædrus, and Epictetus.

In the 2d century of the Christian era we find a marked change with respect to the institution of slavery, both in the region of thought and in that of law. Already the principles of reason and humanity had been applied to the subject by Seneca who, what-