

can be no doubt, that, in whatever part of this quarter of the globe the system of alphabetic characters originated, they were readily and rapidly introduced into every other part. Abraham might, hence, have learned them in Chaldea, or in Canaan, and communicated them wherever he sojourned; as Ishmael, probably, communicated them shortly afterward to Arabia, upon his exile from his father's house.

The proper Phœnician alphabet seems to have consisted of not more than thirteen letters at first; it afterward had three added to it, making sixteen in the whole, and in this number it seems to have been earliest employed by many of the adjoining countries, and is distinguished by the name of the Samaritan, or ancient Hebrew, the terms and characters being nearly the same as the Phœnician. The Chaldeans introduced some kind of change into the form of the letters, made them more elegant, and added six other letters, since the Samaritan alphabet did not seem sufficiently full to express all the articulations of their speech. And in this manner, with various changes and augmentations, the Phœnician alphabet can be traced throughout every part of ancient and modern Europe; every region of Africa, where writing of any kind is current, and the western countries of Asia.

Over a very extensive portion of this last continent, however, we meet with an alphabet that has no common origin or conformity of principle with any hitherto described. This is the Nagari, or Deva-nagari, as it is called by way of pre-eminence. It consists of not less than fifty letters, of which sixteen are vowels and thirty-four consonants, all arranged in the order of the alphabet, with a systematic precision that is to be found nowhere else. The vowels take the lead, beginning with those most easily uttered, and terminating with those which approach towards the consonant sound. The consonants then follow in five regular series of gutturals, compounds, palatines, dentals, and labials: the whole closing with letters expressive of sounds that do not exactly enter into any of the preceding series, and which may be regarded as forming a general appendix. This alphabet is asserted by many learned Bramins to be of a higher antiquity than any other; and there can be no doubt that it has a just claim to a very remote date. But its very perfection is a sufficient confutation of its having been invented first of all: something far more rude and incondite must have preceded and paved the way for it; and in the complex characters of which it consists, we seem to have the relics of that emblematic or picture-language, which I have thus endeavoured to prove has laid a foundation for alphabetic writing in every part of the world. With a few trifling variations, this correct and elegant alphabet extends from the Persian Gulf to China; but it has no pretensions to rival the antiquity of the Phœnician. It is unborrowed, but of later origin.

Such is a brief history of the noblest art that has ever been invented by the unassisted efforts of human understanding; an art that gives stability to thought, forms a cabinet for our ideas, and presents, in imperishable colours, a speaking portraiture of the soul. Without this, hard indeed would be the separation of friends; and the traveller would become an exile from his native home,—vainly languishing for the consolatory information that his wife, his children, his kinsmen, his country, were in a state of health and prosperity, and himself still embalmed in their affections. Without this, what to us would be the wisdom of past ages, or the history of former states? The chain of nature would be broken through all its links, and every generation become an isolated and individual world, equally cut off, as by an irremovable abyss, from its ancestors and from posterity. While the language of the lips is fleeting as the breath itself, and confined to a single spot as well as to a single moment, the language of the pen enjoys, in many instances, an adamantine existence, and will only perish amid the ruins of the globe. Before its mighty touch time and space become annihilated; it joins epoch to epoch, and pole to pole; it gives unity to the works of creation and Providence, and enables us to trace from the beginning of things to the end. It is the great sun of the moral world, that warms, and stimulates, and vivifies, and irradiates, and develops, and matures the best virtues of the heart, and the best

faculties of the intellect. But for this, every thing would be doubt, and darkness, and death-shade; all knowledge would be traditionary, and all experience local; civilized life would relapse into barbarism, and man would have to run through his little, and comparatively insignificant round of existence, the perpetual sport of ignorance and error, uninstructed by science, unregulated by laws, and unconsolated by Revelation. Have I not, then, justly characterized it as the noblest art that has ever been invented by the unassisted efforts of human understanding?

LECTURE XI.

ON THE LITERARY EDUCATION OF FORMER TIMES; AND ESPECIALLY THAT OF GREECE AND ROME.

WE have taken a brief survey of the nature of oral language, and of the means devised in different ages and parts of the world to render the transitory ideas it communicates permanent, by means of picturesque or symbolical signs; so that what is once spoken may conveniently be copied or written down, and treasured up for future ages.

It yet remains for us to take some notice of the chief methods, that have been adopted in different eras, to turn this accumulating treasure or bank of intellectual knowledge to the best account; or, in other words, to develop the mode of education adopted among those nations that have been most celebrated for literary and scientific acquirements, especially in Greece and Rome; and to compare them with the means possessed in our own day, and the general and laudable desire of improvement manifested in every quarter, and prospective of no small addition to the best sort of wealth and prosperity with which a nation can ever be enriched.

We have already traced whatever degree of art or science may have descended from the antediluvian to the postdiluvian race, through the narrow link of human beings preserved in the ark, or whatever the earliest generations of the postdiluvians may have been able to strike out for themselves, to the plains of Babylon as their centre; and observed that, in their radiations from this central point, they have been peculiarly influenced by the political character of the people who cultivated them, and that of the country and the climate in which they took up their abode.

When, in the prosecution of the present subject, we shall come hereafter to examine more particularly into the furniture and faculties with which the mind is endowed, we shall have to show that its chief trains, as well of feelings as of ideas, of passions, and rational pursuits, have derived a strong tinge from these circumstances.

Of the birth or first growth of the Grecian states we know little or nothing, though we are made acquainted with the region from which they sprang. The exquisite beauty of the country in which they had the good fortune to fix themselves; its rich and picturesque variety of hill and dale, the spontaneous fertility of its soil, the sweetness of its temperature, the almost unbroken serenity of its skies, and the smooth and glassy sea that surrounded and deeply indented its coasts, harmonized all the ruder passions, and called forth the noblest and finest feelings of the soul. They soon became enamoured of the graceful and the beautiful; their language was melody, and they were led by nature to delight in music, poetry, and painting, from the first. Hence these are the eldest employments we find them cultivating; the earliest historians were their rhapsodists, Homer, Hesiod, and the writers whose works constituted the very valuable *EPIC CYCLE* of Greece; a work, unhappily, long lost to the world, and from which Statius is supposed to have drawn the materials of his *Thebaid*.* Their earliest artists were their musi-

* For the particulars of this celebrated work, see note in vol. ii. p. 262, 263, of the author's translation of Lucretius.

cians; as Orpheus, and the priests of Cybele, and others of like power; the first of whom is represented, not only as having harmonized the passions of men, but broken the ferocity of the beasts of the forests, and even tranquillized the tortures of the infernal regions. And of their early knowledge of colours and the art of designing we have a sufficient proof in various passages of the Cyclic poets that have reached us; while in Homer we have occasional references to their being applied, and by ladies, through the medium of tapestry, to the most important subjects of history. Thus Iris, in the third book of the Iliad, finds Helen occupied in representing in tapestry the evils which the Greeks and Trojans had suffered on her account in their battles; and when Andromache first heard the melancholy tidings of the death of Hector, she was engaged in a similar occupation. These, indeed, were employments of Trojan ladies, but what was common to them must have been common also to their neighbours of Greece.

Among the Greek states, however, that of Athens was by far the most renowned for its love of letters and science; and amid the different eras which the Athenian history comprises, that of Pericles may be selected as affording the fairest specimen of the manner in which education was conducted, general learning and a knowledge of the arts acquired and disseminated, philosophy taught, and society cultivated and polished. This era may be regarded as contemporary with the reign of Artaxerxes the First of Persia, and Alexander the Second of Macedon, the rebuilding of the temple at Jerusalem under Nehemiah, and the establishment of the decemvirs at Rome: and if we extend its range through an entire century, as, for example, from the middle of the fourth to the middle of the third century before the birth of our Saviour, it will just reach from Herodotus to Demosthenes, and will, besides these celebrated characters, include the existence of Euripides, Sophocles, and Aristophanes, among the poets; Thucydides, Xenophon, and Marsyas, among the historians; Lycias, Isæus, Isocrates, and Æschines, among the orators and rhetoricians; Socrates, Timæus Ocellus, Aristippus, Diogenes, Plato, Aristotle, and Epicurus, among the philosophers; Eudoxus, among the astronomers; and Apelles, among the painters.

The elementary branches of education were acquired among the Athenians, as among ourselves, sometimes by private instruction, but more generally by public schools; many of which, at the period I am now adverting to, had attained a very high degree of reputation, and were crowded with youths from other Grecian states, and even from foreign countries. For the first five or six years, however, not the smallest effort was made to improve the mind; the whole of this period of time being devoted, agreeably to the advice of Plato, and even of many earlier sages, to sports and pastimes, for the purpose of giving strength to the body; exercises which were even afterward continued with the greatest punctuality, under particular regulations, and constituted a very important branch of Athenian education. In this respect they seem to have imitated the example of the Persians, who never commenced training their children till they were five or six years old, not even those of royal birth. At the age of five or six, the rising generation of Persia were placed under the care of their magi, or men of letters, and combined a course of gymnastics with a course of moral science: the former consisted in learning to ride, to shoot with the bow, and to fight on horseback; the latter embraced and inculcated the valuable habits of honesty and speaking the truth, patience, sobriety, reverence to parents, and the practice of every other virtue. With them literature was subservient to morals.

The general circle of study among the Greeks is well known to have comprised the seven liberal arts of grammar, rhetoric, logic, arithmetic, music, geometry, and astronomy. Of these the first two, or grammar and rhetoric, were commenced earliest, and occupied by far the greatest attention of the scholar: for poetry and declamation were now the most fashionable pursuits, and the Greek language was criticised with an accuracy amounting even to fastidiousness, for new niceties and turns of expression, both in prose and verse; the sense itself being often sacrificed to the sound as a matter of sub-

ordinate consideration. Nor was the time of the student allowed to be infringed upon by the acquisition of any other language; the vanity of the Greeks inducing them to regard almost all other nations as barbarians; and only a few of their philosophers thinking it worth while to make any sort of inquiry into the literature of remote countries.

Next to a critical initiation into their native language under the most celebrated grammarians, the chief object of Athenian education was, as I have just observed, to strengthen the body, and give pliancy to the muscles by athletic exercises; for which purpose three magnificent establishments were instituted and supported at the public expense, consisting of an extensive range of buildings surrounding gardens that were defended by groves, porticoes, and shady walks, from the rays of the midday sun, and still farther cooled and embellished by sheets of limpid water. These schools were called gymnasia, and comprised the Lyceum, the Cynosarges, and the Academy. Here the Athenian youth were instructed in the arts of wrestling, leaping, boxing, tennis, and foot-racing. In different parts of the buildings, large and commodious halls, duly provided with seats, were allotted to the philosophers, rhetoricians, and sophists; and in these halls the students were completed in the higher branches of instruction. At the age of eighteen, the young Athenian had his name formally enrolled in the register of that division of the curia or militia of which his father was a member; and at twenty, was admitted to all the rights and privileges of citizenship, and might plunge, as soon as he chose, into a contest for its honours and emoluments; or, if he were able, set up a magnificent establishment, and endeavour to distinguish himself at the chariot and horse-races.

The education of Athenian females was for the most part very limited. Those of the middle ranks of life were seldom taught any thing more than to read, write, sew, prepare wool for clothing, and superintend domestic concerns; while even the higher ranks, or those who were educated with more refinement, independently of this general knowledge, were only instructed how to take some part in the public festivals and other religious ceremonies of the country: such as that of carrying the sacred baskets on their heads, or of joining in the hymns and sacred dances. Upon this point, however, no expense was deemed too costly, that could endow them with the requisite arts of modulating their voices and measuring their steps; no pains or sacrifice too extravagant, that could bestow upon them elegance of shape and gracefulness of motion. Nor is this to be wondered at, since, excepting on such occasions, Athenian females, above the lower classes, seldom appeared abroad, and perhaps never without having their faces veiled. The married women, indeed, were allowed to receive and return visits among themselves, but even these were never permitted to be present at their husbands' parties, though the latter occasionally joined them at their own houses, and had the liberty of introducing their more intimate friends and companions. So that, among the female sex, none but those of acknowledged licentious manners had even an opportunity of becoming acquainted with the general literature, or literary characters, of their own times; whence, with a singular subversion of the very principles of their system of ethics, such persons were often noticed and even visited by philosophers and moralists.

Education, therefore, among the Athenians appears rather to have been directed to purposes of elegance and accomplishment than to the acquisition of useful knowledge. To possess the first dignities of the state; to be applauded in the assemblies of the people, or at the bar; to bear away the prize tripods at the palestra, or public places for games of exercise among men, as the gymnasia were for youths, or the prize crowns at the theatre, were the chief objects of ambition among the more active. While the great body of citizens idled away almost the whole of their leisure hours by sauntering on the pleasant banks of the Ilissus, or in the agora, or great square of the city, frequenting every shop in succession, and especially those of the perfumers, in quest of news, for which they had an insatiable thirst; indulging their

well-known vein of wit and keen satire upon passers and passing events, or listening to the declamations of sophists, and other noisy disputants.

A few clubs of wits are occasionally to be met with in the present epoch of the history of this people; and a few select assemblies for polite literature and elegant conversation: of which last the most remarkable, perhaps, was that held at the house of the celebrated Aspasia: since it was attended by Socrates and Alcibiades, as well as by almost every other scholar or philosopher of reputation, and by all the most renowned artists of the day. But we meet with no public establishment for a general course of science like that of the universities or the Institutions (as they called) of our own times, excepting their schools, nor with any public library of much note, except that of Pisistratus, which was carried away by Xerxes into Persia before the epoch to which our attention is now directed commenced.

Private libraries, however, were not uncommon, though seldom extensive. Those of Aristotle, of Theophrastus, and of Euclid, the founder of the school of Megara, were perhaps the largest and most valuable. The art of printing being unknown, books were rare, and copied with great difficulty and expense; sometimes by individuals for their own benefit; but more generally by professional transcribers, who formed a distinct trade. The great mass of Athenians, moreover, though of exquisite taste and elegance, and certainly wealthier than most of the other Grecian states, seldom displayed those splendid fortunes which were so common in Persia. A freehold of the value of fifteen or twenty talents (about four or five thousand pounds sterling), raised a man considerably above the middle ranks of life. The father of Demosthenes was esteemed rich, the whole of whose property on his death amounted to not more than fourteen talents, or £3150 sterling. Plato appears to have given a hundred minæ, or £375 for three small treatises by Philolaus.* But this was a costly purchase: for Aristotle bought the whole library of Speusippus, small indeed, but select, for three talents, or £675.†

Hence the trade of bookselling at Athens was generally upon a limited scale, and usually engaged in by persons of but little property, whose stock consisted mostly of books of mere amusement; a part of which, however, was often sent to the adjacent countries, and sometimes as far as to the Greek colonies on the coast of the Euxine.*

In respect to books, and the possession of public libraries, ROME was far more fortunate than Athens; and I shall now hasten to a brief survey of its literary and scientific character in what may be regarded as its most classical and cultivated era; not the Augustan age, which has usually been contemplated as such, but that which immediately preceded it, reaching from the dictatorship of Sylla to the establishment of Augustus, and of course terminating a few years before the birth of our Saviour.

The Romans, who had hitherto devoted themselves altogether to arms and agriculture, and who had even despised eloquence, and paid no attention to the improvement of their native tongue, became attached to literature all of a sudden. The Achæans were accused by the Roman people of having acted hostilely towards them; and a thousand of them were sent as deputies, or rather as hostages, to plead their cause, and obtain the best terms they could for their country before the senate of this aspiring republic. Contrary, however, to the engagement stipulated with them, they were not allowed to enter upon their defence; were scattered over different parts of the republic; forbidden to appear before the senate; and detained, in a state of captivity, for not less than seventeen years. For the most part these Achæans were men of taste and elegant accomplishments, and many of them were scholars of profound and diversified erudition. Such, more especially, was Polybius, who was soon introduced into public favour under the patronage of Scipio Æmilianus, and whose elegant Greek writings were now read and studied by every one. The whole republic became enamoured of the various acqui-

* Diog. Laert. in Plat. lib. iii. sec. 9, viii. 85. † Diog. Laert. in Speus. lib. iv. sec. 5. Aul. Gell. iii. 17. Xenoph. Exped. Cyr. lib. vii. p. 412. Travels of Anacharsis (Engl. vers.), iii. 120.

tions of its new, but mistreated visitants: and in matters of polite literature the conquerors soon yielded to the conquered. Hence schools for the study and exercise of rhetoric and eloquence, superintended by native Greeks, became in a short time so frequent, that scarcely a Roman youth was to be found who would engage in any other avocation; and the whole body of Greek philosophers and rhetoricians, that remained after the return of the Achæan deputies, were expelled by a decree of the senate during the consulship of Caius Fannius Strabo and Valerius Messala, in the year of the city 592, in consequence of the ascendancy they had acquired over the public mind.

This expulsion, however, was too late; a general taste for Grecian literature had been caught, and the classical contagion had spread universally. Polybius was still studied, and the consul Rutilius Rufus had published, in elegant Greek, a history of his own country. The Greek scholars, indeed, were still farther avenged a few years afterward, by the general comparison which was drawn between their own genuine taste and that of the tribe of Latin sophists and declaimers, who, in consequence of their banishment, had sprung up and occupied their place: men who were bloated with conceit, instead of being inspired by wisdom; and who substituted the mere tinsel of verbiage for the sterling gold of perspicuous argument and fair induction. With this foppery of learning the Roman government soon became far more disgusted than with the seductive talents of the Greek teachers; and hence, in the year of the city 661, during the censorship of Crassus, the Latin declaimers shared the fate of their predecessors, and were formally banished from Rome.

In their own language, therefore, we meet with but few successful specimens of prosaic eloquence down to this period: yet Cato the censor, Lælius, and Scipio were orators of no inconsiderable powers, and eminently, as well as deservedly, esteemed in their day. In poetry, however, the republic had already a right to boast of its productions; for Andronicus, Nævius, and Ennius had long delighted their countrymen with their dramatic as well as their epic labours: Pacuvius and Accius, Plautus, Cæcilius, and Afranus had improved upon the models thus offered them in the former department, and Terence had just carried it to its highest pitch of perfection.*

Public museums, also libraries, and collections of valuable curiosities of all kinds, from Greece, Syracuse, Spain, and other parts of the world, were, at this period, becoming frequent and fashionable. Italy was never more emptied of its elegancies and ornaments by Buonaparte, than Syracuse was by Marcellus, when stratagem and treachery at length gave him an admission into the city. In the forcible words of Livy, "he left nothing to the wretched inhabitants, but their walls and houses." Spain and Africa were in the same manner ransacked by the elder Scipio; Macedon and Lacedæmon by Flaminius; Carthage by Scipio Africanus; and Corinth, in the very same year, by Mummius. Nothing, however, can afford a stronger proof of the general want of taste for the fine arts among the Romans, even at this period, than the threat given by Mummius to the masters of the transports to whom he committed his invaluable pillage of the best pictures and statues of Achæia, that if they lost or injured any of them he would oblige them to find others at their own cost. In addition to which I may also observe, that Polybius, who was at this time with the Roman army, found a party of Roman legionaries, shortly after the capture of Corinth, playing at dice on the Bacchus of Aristides; a picture so exquisitely finished as to be accounted one of the wonders of the world. Not knowing the value of it they were readily persuaded to part with it for a more convenient table; and when the spoils of Corinth were afterward put up to sale, Attalus, king of Pergamus, a much better judge of painting than the Roman soldiers, offered for it six hundred thousand sesterces, or about five thousand pounds sterling. Mummius, the Roman consul and general, disbelieving that a picture of any kind could be so valuable of itself, thought it must contain some magical virtue in it; and

* See the author's Life of Lucretius, prefixed to his translation of the poem De Rerum Naturâ.

hence would not allow it to be parted with, notwithstanding the remonstrances of Attalus. He did not, however, appropriate it to his own use, but placed it in the temple of Ceres, where Strabo informs us he had the pleasure of seeing it not long before it was consumed in the fire by which that temple was reduced to ashes.*

But the library and museum of most importance at this period, and which most attracted the attention of the Romans, was that established under the patronage and superintendence of the illustrious L. Æmilius Paulus; and consisted of an immense number of volumes, statues, and paintings, which he had imported from Epirus, upon the general plunder and destruction of that unfortunate country, in consequence of its adherence to Perses, king of Macedon, and which had been accumulating ever since the reign of Alexander the Great. This early and valuable collection was continually augmented by presents of other books from men of letters or warriors, into whose hands they occasionally fell as a part of the public spoil: but was more indebted to Lucullus, who had studied philosophy under Antiochus the Ascalonite, than to any one else; and who, about the middle of the seventh century of the city, added to it the whole of the royal library he had seized from Mithridates upon his conquest of Pontus.

Yet the transplantation into the Roman capital of the extensive and invaluable libraries of Aristotle and Theophrastus contributed, perhaps, more than any other circumstance, to inflame the Roman people with a love of Grecian literature. This was effected by the conquest of Sylla, and anteceded the public present of Lucullus by about fifteen years. These unrivalled libraries were the property of Apellicon of Teia, who had accumulated an immense collection of books of intrinsic value at an incredible expense. Apellicon does not appear to have been, in any respect, a scholar: but he was a man of inordinate wealth; and, as it sometimes occurs in the present day, a library was his hobby-horse, and the greater part of his rental was expended in augmenting it. For this purpose he ransacked all the public and private collections of books in Asia: he surpassed, in many instances, the offers even of the kings Eumenes and Mithridates, for valuable volumes that had become scarce; and when he was precluded from purchasing, he frequently induced the librarians, by considerable presents, to steal for him. During the first war, however, between Mithridates and the Roman republic, in which Sylla ultimately triumphed, and acquired a high degree of personal glory, Athens, in an evil hour, had united her fortunes with those of the Asiatic prince; and hence, at the conclusion of the war, was left totally at the mercy of the Roman conqueror. Sylla appears to have thrown a wishful eye upon every thing of value that lay within his reach: and having sacrilegiously invaded the groves of Academus and the Lyceum, the library of Apellicon was one of the next objects that captivated his attention. He was determined to add it to his other treasures. Force, however, was now become unnecessary: for at this very moment the bookworm Apellicon died, and he met with no resistance from his relations.

The Romans, by thus enriching themselves with the spoils of all the world, became possessed of an influx of wealth that enabled most of the citizens to gratify themselves, not only in this respect, but in almost every other that merely depended upon money. Of the wealth of various individuals, we may form some opinion by the following anecdote. Cæsar, by his unlimited liberality in furnishing shows to the people, had incurred a debt to an enormous amount; and when on the eve of setting out for Spain, the province that fell to him after his prætorship, was abruptly stopped by his creditors. On this occasion Crassus stood forward as his surety, for more than two millions of our own money† (bis millies et quingenties), or, in exact English calculation, £2,018,229 3s. 4d. sterling.

But the literature of Greece was, nevertheless, best to be acquired in Greece itself; and the Romans, though they transplanted books, could not equally

* Strab. lib. viii. p. 331.

† Stewart's Life of Sallust, i. p. 125; Plut. in Jul. Cæs. p. 712, ed. Francof. Suet. in Jul. Cæs. xviii.

transplant the taste and spirit that produced them. Athens, although plundered of her richest ornaments, shorn of the glory of her original constitution, and dependent upon Rome for protection, had still to boast of her schools and her scholars. Every scene, every edifice, every conversation, was a living lecture of elegance and erudition. Here was the venerable grove in which Plato unfolded his sublime mysteries to enraptured multitudes;—here the awful Lyceum, in which Aristotle had anatomized the springs of human intellect and action;—here the porch of Zeno, still erect and stately as its founder;—and here the learned shades and winding walks of THE GARDEN of Epicurus, in which he delineated the origin and nature of things, and inculcated tranquillity and temperance. Here Homer had sung, and Apelles painted; here Sophocles had drawn tears of tenderness, and Demosthenes fired the soul to deeds of heroism and patriotic revenge. The monuments of every thing great or glorious, dignified or refined, wise or virtuous, were still existing at Athens; and she had still philosophers to boast of, who were worthy of her fairest days, of her most resplendent reputation.*

To this celebrated city, therefore, this theatre of universal learning, the Roman youth of all the first families were sent for education. And at the period we are now contemplating, we meet with the following names, as co-students, and chiefly attendants upon the Epicurean school, forming a most extraordinary concentration of juvenile talents and genius: Tully, and his two brothers Lucius and Quintus, the last of whom was afterward a poet, and as signally distinguished in the profession of arms, as the first was in that of eloquence; Titus Pomponius; from his critical knowledge of the Greek tongue surnamed *Atticus*, but who derives this higher praise from Cornelius Nepos, that “he never deviated from the truth, nor would associate with any one who had done so;” Lucretius, author of the well-known poem on the Nature of Things; Caius Memmius, the bosom friend of Lucretius, of whose talents and learning the writings of Tully offer abundant proofs, and to whom Lucretius dedicated his poem; Lucretius Vespilio, whom Cicero has enumerated among the orators of his day; Marcus Junius Brutus, Caius Cassius, and Caius Velleius, each of whom immortalized himself by preferring the freedom of his country to the friendship of Cæsar. And when to these I add the names of the following contemporaries, most of whom, we have reason to believe, were also co-students at Athens with those just enumerated—Julius Cæsar himself, Crassus, Sulpitius, Calvus, Varro, Catullus, Sallust, Hortensius, Calpurnius, Piso, Marcus, Marcellus, whose son Caius married Octavia, the sister of Augustus, Atheius, and Asinius Pollio, to whom Virgil dedicated his fourth eclogue, and who founded, expressly for the use of his country, one of the most splendid and extensive libraries the republic was ever possessed of, collected from the spoils of all the enemies he had at any time subdued, and still farther enriched by him at a vast expense,—we meet with a galaxy of talents and learning, which neither the Augustan nor any other age in the whole history of the Roman republic can presume to rival.

It was the son of Octavia whose ripening virtues and untimely death Virgil is so well known to have referred to in the pathetic tribute introduced into the vision of Æneas:

Heu miserande puer! si quæ fata aspera rumpas,
Tu Marcellus eris.†

Ah, couldst thou break, lov'd youth! thro' fate's decree,
A new Marcellus should arise in thee.

This accomplished youth, the delight of the Roman people, appears to have been well entitled to so high a compliment. It was the intention of his uncle Augustus that he should succeed him, and Virgil received from Octavia, for the verses that related to Marcellus, a pecuniary present of the value of £2500.

Cicero acted wisely, therefore, in sending, as he expressly declares he did, all his young friends to Greece, who evinced a love of study, “that they

* See the author's Life of Lucretius, prefixed to his Translation of the Nature of Things, p. xxix.
† Æneid. vi. 851.

might drink from fountains rather than from rivulets."—"Meos amicos, in quibus est studium, in Græciam mitto: id est ad Græciam ire jubeo: ut ea à fontibus potius hauriant, quàm rivulos consecretur."*

Horace alludes to the same seat of learning, and nearly the same habit of studying there in his own case, by way of finishing his education, after having read Homer at home:—

Rome nutriti mihi contigit, atque doceri,
Iratus Grajis quantum nocuisset Achilles.
Adjicere bonæ paulò plus artis Athenæ:
Scilicet ut possem curvo dignoscere rectum,
Atque inter silvas Academi querere verum.†
At Rome I first was bred, and early taught
What woes to Greece Achilles' anger wrought.
Famed Athens added some increase of skill
In the great art of knowing good from ill;
And led me, yet an inexperienced youth,
To academic groves in search of truth.
BOSCAWEN.

Nor were other branches of science, or even the extensive circle of arts and manufactures, forgotten in the midst of the fashionable study of philosophy and literature, either at Rome or in the Greek states. We have not time to enter into a survey of the very extensive and, in various respects, accurate views that were taken of many of the most important pursuits of our own day, and the activity with which they were followed up. In statuary and architecture, as well as in poetry and eloquence, the models of ancient Rome, as well as of ancient Greece, are still the models of our own times. We have already touched upon the skill of the Greek masters in the art of designing; which they practised with great perfection in every diversity, from simple outline or linear drawing, to every variety of silhouette, or light and shadow, as well as every kind of painting with colours; while in one or two varieties they went far beyond our own day, as in encaustic painting, both on wax and on ivory; a branch of the art which has, unfortunately, been lost for ages, yet the most valuable of all, as being the most durable. Their acquirements are truly astonishing in almost every ramification of invention or execution that the mind can follow up; and the progress which we have still proofs of their having exhibited in metallurgy, crystallography, mirrors, mineralogy, chemistry, mechanics, navigation, optics and catoptrics, weaving, dyeing, pottery, and a multiplicity of other manufacturing or handicraft trades, must appear incredible to those who have not deeply entered into the subject. Their splendid purple cloths—Babylonica magnifico colore—have, perhaps, never been equalled since; the immense and fearful machinery invented by Archimedes, at Syracuse, for laying hold of the largest and most formidable Roman galleys with its ponderous and gigantic arms, and whirling them with instantaneous destruction into the air, as they approached the walls of this famous city during its siege;—the burning-glasses contrived by him for setting them on fire at a distance, by a concentration of the sun's heat alone;—their knowledge of the existence and fall of meteoric stones—not many years ago laughed at as a chimera among ourselves;—and the admiration, to call it by no stricter term, with which the grand principles of the Copernican system of the heavens was approached by Nicetas, Philolaus, Aristarchus, and other disciples of the Copernican school,—are, I trust, sufficient proofs of the truth of this remark, though hundreds of other examples might be added to the list.‡

Still, however, the observation I have made with respect to the education and study of the Athenians applies with considerable, though not altogether with equal, force to those of the Romans. Elegance and accomplishment seem rather to have been the chief objects of attainment than deep physical

* Acad. Quest. 1. 2.

† Epist. Lib. II. li. 41.

‡ On a former occasion the author had an opportunity of following up and developing this interesting subject at considerable length; and those who are desirous of pursuing it with him, may turn to the running commentary to his Translation of Lucretius, vol. i. p. 335. 414; vol. ii. p. 50. 131. 135. 154. 159. 401. 491. 568.

and analytical science. Polite literature and statistics were almost swallowed up in the vortex of natural philosophy; and logic, or rather dialectics, usurped the place of induction. Rome, moreover, like Athens, does not appear to have been possessed of any public establishment for a general course of science, similar either to the universities or the Institutions of the present day.

There are various writers who have endeavoured to draw up lists of Greek and Roman names, from the books that have descended to us of persons who were celebrated, in their respective eras, in different branches of the arts and sciences. Among the most complete of these are the tables of the Baron de Sainte Croix, of the Academy of Belles Lettres: and as nothing can give us a clearer idea of the prevailing taste and inclination of a people, than a comparison of the numbers of those engaged in one department with those engaged in others, I have taken some pains to form, from these tables, an estimate to this effect. The tables extend through nearly the whole range of Grecian history (though they are confined to that history), from the uncertain times of Orpheus and Cadmus to that of Euclid; or, in other words, from the commencement of the twelfth or thirteenth to the close of the third century before the Christian era.

They contain the names of 863 persons, as artists or men of literature: and upon arranging them into their different classes, I find the relative proportion as follows:—

Legislators and Philosophers	152
Orators, Rhetoricians, and Sophists	54
Grammarians, Editors of earlier works, and Critics	13
Astronomers, Mathematicians, and Geometers	38
Physicians	28
Zoologists, and Agricultural Writers	12
Geographers and Navigators	17
Mechanics	9
Founders and Metallurgists	6
Engravers	7
Architects	32
Statuaries and Sculptors	95
Poets, Painters, and Musicians	400
	863

Hence it appears, that far more persons were engaged in the two last classes, or those of poetry, music, and painting, and of statuary and sculpture, than in all the other classes collectively; that next to these, the legislators and philosophers were most numerous, and then the orators, rhetoricians, and sophists; that, but little comparative attention was paid to natural history and agriculture, and still less to mechanics; and that not a single name has reached us in the departments of mineralogy, statics, hydrostatics, trades, and manufactures; to say nothing of chemistry and pneumatics, which may principally be regarded as sciences of modern times.

That several of these latter departments were studied to a certain extent is unquestionable; but it is also unquestionable that that extent must have been very limited, since otherwise the names of those who had studied or cultivated them must have descended to the present day in some of the writings that have reached us.

This comparative view of the arts and sciences of Greece may, with little variation, be applied to those of Rome. The study of the fine arts, however, was here less extensive; and the race of orators and political demagogues, in consequence of the peculiar character of the government and of the people, more numerous. Natural history and agriculture, moreover, appear to have made more progress, and various branches of trade and manufacture to have been cultivated with more success.

Upon the whole, however, Rome added but little to what she derived from Greece: nor has much been added in any subsequent era, or by any nation amid which the variable fortunes of science and literature have compelled them to take shelter, till within the course of the last two centuries; towards

the beginning of which period Lord Bacon observed, with not more severity than correctness, that "the sciences which we profess have flowed almost entirely from the Greeks; for those which the Roman or Arabian, or still later writers, have added, are but few, and these few of but little moment; and, whatever they may be, are built upon the foundation of what the Greeks invented; so that the judgment, or rather the prophecy of the Egyptian priest, concerning the Greeks, is by no means inapplicable, 'that they should always continue boys, nor possess either the antiquity of science, nor the science of antiquity.'"¹

It remained for this extraordinary character, who thus fairly estimated in his own day the value of ancient and modern learning, to break through the spell which fatally pressed upon it, and seemed to prohibit all farther progress. It is to Bacon, and almost to Bacon alone, that we are indebted, if not for the scientific discoveries that have enriched the last two centuries, and struck home to every man's business and bosom, at least for that mode of generalizing the laws of nature, and of connecting the various branches of the different arts and sciences, which have chiefly contributed to those discoveries; which have called mankind from the study of words to the study of things, and have established from the book of nature the truth of that maxim, which had hitherto only loosely floated in the books of the poets, that

All are but parts of one stupendous whole.

It was my intention, in proof of this assertion, to have taken a brief survey, even before we closed the present lecture, of the shifting scenes of science and literature from the decline of the Roman empire to their re-establishment in the fifteenth and sixteenth centuries; to have given a glance at them in their retreat amid the eastern and western caliphats, in what have usually been called the dark ages of the world, extending from the fifth, but especially from the seventh to the fifteenth century; to have contemplated them on their reappearance and first spread, their resurrection and restoration to life and action, under the fostering providence of the illustrious houses of Medici, Urbino, Gonzaga, and Este; from which last, the most ancient and most distinguished of the whole, our own royal family derive their descent; to have surveyed them as basking under the patronage of Leo X.; but especially as they were affected by the wonderful and all-controlling influence of the Reformation which occurred during his papacy; and to have compared the character they then assumed, with that which they exhibit in our own day;—but, interesting as the subject is, I am compelled by want of time to postpone it till our next lecture, when I shall return to the subject, and carry it forward as the period will allow.

I shall only farther observe, that, on the first reviviscence of literature, it was chiefly limited to classical and philosophical subjects, and confined to the courts of princes, or the walls of universities, which were now establishing in almost every state of Europe; the classical or ornamental branches being mostly cultivated in the courts, and the speculative or philosophical in the schools. And such, with little variation, continued to be the course of learning, till the appearance of that great luminary in the hemisphere of letters to whom I have just adverted. No sooner, however, had the writings of Bacon, and of other characters of a similar comprehensiveness of mind, who co-operated in his views, become diffused, than institutions of another class were found wanting:—a something that might fill up the space between the cloistered scholar and the irrecondite citizen: the dry principles of speculative science, and the living practice of the artist and the mechanic. And hence, academies and societies for natural knowledge became organized and incorporated—museums were founded—taste, ingenuity, and invention commenced a happy intercourse—the general results of their communications were, for the most part, periodically published, and the great mass of mankind became more generally enlightened than in any former period of the world.

¹ Nov. Org.

But a mode of acquiring a familiar and systematic initiation into the general circle of the arts and sciences was still felt desirable for the body of the people; a sort of rudimental education, by which they might be able to assist and appropriate the knowledge that was flowing around them in every direction; that might call forth their own energies and resources, and reflect with increased lustre the light in which they were walking. And hence have arisen these scientific schools which are now commonly known by the name of Institutions; and especially, if I mistake not, the school I have the honour of addressing.

An establishment of this kind, to be perfect, should be possessed of a library adequate to every inquiry—a laboratory and a museum of equal extent, and a course of instruction commensurate with the whole circle of the sciences. Such an establishment, however, is not to be expected; and especially in our own country, where the government is seldom solicited for assistance, and the sole endowment results from the joint patronage and contribution of individuals. All that remains for us, therefore, is to make the best use of the means that are in our power, and to carry them to the utmost extent they will reach; and I can honestly congratulate the members of the Institution before me with having, in this respect, conscientiously acted up to the fullest limits of their duty, and of having rather set an example than followed one; for it is a matter of notoriety to the world at large, that there is no other Institution in which the same measure of income has been extended to the same measure of acquiring knowledge, whether by books or by lectures.

LECTURE XII.

ON THE MIDDLE OR DARK AGES.

If we examine the history of Europe in a literary point of view, we shall find it consist of three distinct periods—an era of light, of darkness, and of light restored. To the first of these periods I directed your attention in the preceding lecture. We noticed the general state of literature and the mode of education adopted in Greece and Rome, at the most splendid epochs of these celebrated republics, and briefly compared them with the means of acquiring knowledge in our own day; and we at the same time glanced rapidly at the intervening space, or middle period; or rather only touched upon a few of its leading features, from an impossibility of compressing even a miniature sketch of its history into the limits of a single lecture; though it may be remembered that I threw out a pledge of returning to the subject on the present occasion, and of investigating it in a more regular detail.

A part of that pledge I shall now, by your permission, endeavour to redeem; by taking a survey of the general literature, or ignorance of mankind, which characterized that wonderful era which has usually been described by the name of the DARK, OR MIDDLE AGES; and which extends from the fall of Rome before the barbarous arms of the Goths, in the fifth century, to the fall of Constantinople before the equally barbarous arms of the Turks, in the fifteenth century; thus comprising a long afflictive night of not less than a thousand years; yet occasionally illuminated by stars of the first magnitude and splendour: and big with the important events of the sack of Alexandria and the destruction of its library; the triumph and establishment of the Saracens, and their expulsion from Spain; the devastation of Europe, and the overthrow of its ancient governments in favour of the feudal system, by successive currents of barbarians from the north-west of Asia, pouring down under the various names of Alans, Huns, Ostrogoths, and Visigoths, or Eastern and Western Goths; sometimes in separate tides, and sometimes in one