

THE
NATURAL HISTORY
OF
PLINY.

TRANSLATED,
WITH COPIOUS NOTES AND ILLUSTRATIONS,

BY THE LATE
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AND
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P R E F A C E.

THE only translation of PLINY'S NATURAL HISTORY which has hitherto appeared in the English language is that by Philemon Holland, published in the latter part of the reign of Elizabeth. It is no disparagement to Holland's merits, as a diligent and generally faithful translator, to say that his work is unsuited to the requirements of the nineteenth century.

In the present translation, the principal editions of Pliny have been carefully consulted, and no pains have been spared, as a reference to the Notes will show, to present to the reader the labours of recent Commentators, among whom stands pre-eminent the celebrated Cuvier. It has been a primary object to bring to the illustration of the work whatever was afforded by the progress of knowledge and modern discoveries in science and art. Without ample illustration, Pliny's valuable work would want much of the interest which belongs to it, and present difficulties scarcely surmountable by any one who has not made the Author his especial study.

In the first two Books, the text of Hardouin, as given in Lemaire's edition (Paris, 1827), has been followed; in the

remainder that of Sillig (Gotha, 1851-3), excepting in some few instances, where, for reasons given in the Notes, it has been deemed advisable to depart from it. The first two Books, and portions of others, are the performance of the late Dr. Bostock, who contemplated a translation of the entire work; but, unfortunately for the interests of science, he was not permitted to carry his design into execution.

Upwards of a hundred pages had been printed off before the present Translator entered on his duties; and as they had not the advantage of Dr. Bostock's superintendence through the press, some trifling oversights have occurred. These are, for the most part, corrected in a short Appendix.

THE
LIFE AND WRITINGS OF PLINY.

CAIUS PLINIUS SECUNDUS was born either at Verona or Novum Comum¹, now Como, in Cisalpine Gaul, in the year A.U.C. 776, and A.D. 23. It is supposed that his earlier years were spent in his native province; and that he was still a youth when he removed to Rome, and attended the lectures of the grammarian Apion. It was in about his sixteenth year that he there saw Lollia Paulina², as in the following she was divorced by Caligula, and it was probably in his twentieth that he witnessed the capture of a large fish at Ostia, by Claudius and his attendants³, and in his twenty-second that he visited Africa⁴, Egypt, and Greece.

In his twenty-third year Pliny served in Germany under the legatus Pomponius Secundus, whose friendship he soon acquired, and was in consequence promoted to the command of an *ala*, or troop of cavalry. During his military career he wrote a treatise (now lost) "On the Use of the Javelin by Cavalry," and travelled over that country⁵ as far as the shores of the German Ocean, besides visiting Belgic Gaul. In his twenty-ninth year he returned to Rome, and applied himself for a time to forensic pursuits, which however he appears soon to have abandoned. About this time he wrote the life of his friend Pomponius, and an account of the "Wars in Germany," in twenty books, neither of which are extant. Though employed in writing a

¹ The weight of testimony inclines to the latter. The mere titles of the works which have been written on the subject would fill a volume.

² At a wedding feast, as mentioned by him in B. ix. c. 58. She was then the wife of Caligula.

³ Related in B. ix. c. 5.

⁴ Here at Tusdrita, he saw L. Coisicius, who it was said had been changed from a woman into a man. See B. vii. c. 3. Phlegon Trallianus and Ausonius also refer to the story.

⁵ See B. xvi. c. 2, and B. xxxi. c. 19.

continuation of the "Roman History" of Aufidius Bassus, from the time of Tiberius, he judiciously suspended its publication during the reign of Nero, who appointed him his procurator in Nearer Spain, and not improbably honoured him with equestrian rank. It was during his sojourn in Spain that the death of his brother-in-law, C. Cæcilius, left his nephew C. Plinius Cæcilius Secundus (the author of the Letters) an orphan; whom immediately upon his return to Rome, A.D. 70, he adopted, receiving him and his widowed mother under his roof.

Having been previously known to Vespasian in the German wars, he was admitted into the number of his most intimate friends, and obtained an appointment at court, the nature of which is not known, but Rezzonico conjectures that it was in connexion with the imperial treasury. Though Pliny was on intimate terms also with Titus, to whom he dedicated his Natural History, there is little ground for the assertion, sometimes made, that he served under him in the Jewish wars. His account of Palestine clearly shows that he had never visited that country. It was at this period that he published his Continuation of the History of Aufidius Bassus.

From the titles which he gives to Titus in the dedicatory preface, it is pretty clear that his Natural History was published A.D. 77, two years before his death.

In A.D. 73 or 74, he had been appointed by Vespasian præfect of the Roman fleet at Misenum, on the western coast of Italy. It was to this elevation that he owed his romantic death, somewhat similar, it has been remarked, to that of Empedocles, who perished in the crater of Mount Ætna. The closing scene of his active life, simultaneously with the destruction of Herculaneum and Pompeii, cannot be better described than in the language employed by his nephew in an Epistle to his friend Tacitus the historian¹:—"My uncle was at Misenum, where he was in personal command of the fleet. On the ninth² day before the calends of September, at about the seventh hour, 1 P.M., my mother, observing the appearance of a cloud of unusual size and shape, mentioned it to him. After reclining in the sun he had taken his cold bath; he had then again lain down and, after a slight repast, applied himself to his studies. Immediately upon hear-

¹ Plinii Ep. B. vi. Ep. 16.

² Twenty-fourth August.

ing this, he called for his shoes, and ascended a spot from which he could more easily observe this remarkable phenomenon. The cloud was to be seen gradually rising upwards; though, from the great distance, it was uncertain from which of the mountains it arose; it was afterwards, however, ascertained to be Vesuvius. In appearance and shape it strongly resembled a tree; perhaps it was more like a pine than anything else, with a stem of enormous length reaching upwards to the heavens, and then spreading out in a number of branches in every direction. I have little doubt that either it had been carried upwards by a violent gust of wind, and that the wind dying away, it had lost its compactness, or else, that being overcome by its own weight, it had decreased in density and become extended over a large surface: at one moment it was white, at another dingy and spotted, just as it was more or less charged with earth or with ashes.

“To a man so eager as he was in the pursuit of knowledge, this appeared to be a most singular phenomenon, and one that deserved to be viewed more closely; accordingly he gave orders for a light Liburnian vessel to be got ready, and left it at my option to accompany him. To this however I made answer, that I should prefer continuing my studies; and as it so happened, he himself had just given me something to write. Taking his tablets with him, he left the house. The sailors stationed at Retina, alarmed at the imminence of the danger—for the village lay at the foot of the mountain, and the sole escape was by sea—sent to entreat his assistance in rescuing them from this frightful peril. Upon this he instantly changed his plans, and what he had already begun from a desire for knowledge, he determined to carry out as a matter of duty. He had the gallies put to sea at once, and went on board himself, with the intention of rendering assistance, not only to Retina, but to many other places as well; for the whole of this charming coast was thickly populated. Accordingly he made all possible haste towards the spot, from which others were flying, and steered straight onwards into the very midst of the danger: so far indeed was he from every sensation of fear, that he remarked and had noted down every movement and every change that was to be observed in the appearance of this ominous eruption.

The ashes were now falling fast upon the vessels, hotter and more and more thickly the nearer they approached the shore; showers of pumice too, intermingled with black stones, calcined and broken by the action of the flames: the sea suddenly retreated from the shore, where the debris of the mountain rendered landing quite impossible. After hesitating for a moment whether or not to turn back, upon the pilot strongly advising him to do so:—"Fortune favours the bold¹," said he, "conduct me to Pomponianus." Pomponianus was then at Stabiæ, a place that lay on the other side of the bay, for in those parts the shores are winding, and as they gradually trend away, the sea forms a number of little creeks. At this spot the danger at present was not imminent, but still it could be seen, and as it appeared to be approaching nearer and nearer, Pomponianus had ordered his baggage on board the ships, determined to take to flight, if the wind, which happened to be blowing the other way, should chance to lull. The wind, being in this quarter, was extremely favourable to his passage, and my uncle soon arriving at Stabiæ, embraced his anxious friend, and did his best to restore his courage; and the better to re-assure him by evidence of his own sense of their safety, he requested the servants to conduct him to the bath. After bathing he took his place at table, and dined, and that too in high spirits, or at all events, what equally shows his strength of mind, with every outward appearance of being so. In the mean time vast sheets of flame and large bodies of fire were to be seen arising from Mount Vesuvius; the glare and brilliancy of which were beheld in bolder relief as the shades of night came on apace. My uncle however, in order to calm their fears, persisted in saying that this was only the light given by some villages which had been abandoned by the rustics in their alarm to the flames: after which he retired to rest, and soon fell fast asleep: for his respiration, which with him was heavy and loud, in consequence of his corpulence, was distinctly heard by the servants who were keeping watch at the door of the apartment. The courtyard which led to his apartment had now become filled with cinders and pumice-stones, to such a degree, that if he had remained any longer in the room, it would have been quite impossible for him to

¹ "Fortes fortuna juvat."

leave it. On being awoke he immediately arose, and rejoined Pomponianus and the others who had in the meanwhile been sitting up. They then consulted together whether it would be better to remain in the house or take their chance in the open air; as the building was now rocking to and fro from the violent and repeated shocks, while the walls, as though rooted up from their very foundations, seemed to be at one moment carried in this direction, at another in that. Having adopted the latter alternative, they were now alarmed at the showers of light calcined pumice-stones that were falling thick about them, a risk however to which as a choice of evils they had to submit. In taking this step I must remark that, while with my uncle it was reason triumphing over reason, with the rest it was only one fear getting the better of the other. Taking the precaution of placing pillows on their heads, they tied them on with towels, by way of protection against the falling stones and ashes. It was now day in other places, though there it was still night, more dark and more profound than any ordinary night; torches however and various lights in some measure served to dispel the gloom. It was then determined to make for the shore, and to ascertain whether the sea would now admit of their embarking; it was found however to be still too stormy and too boisterous to allow of their making the attempt. Upon this my uncle lay down on a sail which had been spread for him, and more than once asked for some cold water, which he drank; very soon however, they were alarmed by the flames and the sulphurous smell which announced their approach, upon which the others at once took to flight, while my uncle arose leaning upon two of the servants for support. Upon making this effort, he instantly fell to the ground; the dense vapour having, I imagine, stopped the respiration and suffocated him; for his chest was naturally weak and contracted, and often troubled with violent palpitations. When day was at last restored, the third after the closing one of his existence, his body was found untouched and without a wound; there was no change to be perceived in the clothes, and its appearance was rather that of a person asleep than of a corpse. In the meantime my mother and myself were at Misenum—that however has nothing to do with the story, as it was only your wish to know the

details connected with his death. I shall therefore draw to a conclusion. The only thing that I shall add is the assurance that I have truthfully related all these facts, of which I was either an eye-witness myself, or heard them at the time of their occurrence, a period when they were most likely to be correctly related. You of course will select such points as you may think the most important. For it is one thing to write a letter, another to write history;—one thing to write for a friend, another to write for the public. Farewell.”

Of the mode of life pursued by Pliny, and of the rest of his works, an equally interesting account has been preserved by his nephew, in an Epistle addressed to Macer¹. We cannot more appropriately conclude than by presenting this Epistle to the reader:—“I am highly gratified to find that you read the works of my uncle with such a degree of attention as to feel a desire to possess them all, and that with this view you inquire, What are their names? I will perform the duties of an index then: and not content with that, will state in what order they were written: for even that is a kind of information which is by no means undesirable to those who are devoted to literary pursuits. His first composition was a treatise ‘on the use of the Javelin by Cavalry,’ in one Book. This he composed, with equal diligence and ingenuity, while he was in command of a troop of horse. His second work was the ‘Life of Q. Pomponius Secundus,’ in two Books, a person by whom he had been particularly beloved.—These books he composed as a tribute which was justly due to the memory of his deceased friend. His next work was twenty Books on ‘the Wars in Germany,’ in which he has compiled an account of all the wars in which we have been engaged with the people of that country. This he had begun while serving in Germany, having been recommended to do so in a dream. For in his sleep he thought that the figure of Drusus Nero² stood by him—the same Drusus, who after the most extensive conquests in that country, there met his

¹ B. iii. Ep. 5.

² Nero Claudius Drusus, the son of Livia, afterwards the wife of Augustus. He was the father of the Emperor Claudius, and died in Germany of the effects of an accident.

death. Commending his memory to Pliny's attentive care, Drusus conjured him to rescue it from the decaying effect of oblivion. Next to these came his three books entitled 'The Student'¹, divided, on account of their great size, into six volumes. In these he has given instructions for the training of the orator, from the cradle to his entrance on public life. In the latter years of Nero's reign, he wrote eight books, 'On Difficulties in the Latin Language'²; that being a period at which every kind of study, in any way free-spoken or even of elevated style, would have been rendered dangerous by the tyranny that was exercised. His next work was his 'Continuation of the History of Aufidius Bassus,' in thirty-one books; after which came his 'Natural History,' in thirty-seven books, a work remarkable for its comprehensiveness and erudition, and not less varied than Nature herself. You will wonder how a man so occupied with business could possibly find time to write such a number of volumes, many of them on subjects of a nature so difficult to be treated of. You will be even more astonished when you learn, that for some time he pleaded at the bar as an advocate, that he was only in his fifty-sixth year at the time of his death, and that the time that intervened was equally trenched upon and frittered away by the most weighty duties of business, and the marks of favour shewn him by princes. His genius, however, was truly quite incredible, his zeal indefatigable, and his power of application wonderful in the extreme. At the festival of the Vulcanalia³, he began to sit up to a late hour by candle-light, not for the purpose of consulting⁴ the stars, but with the object of pursuing his studies; while, in the winter, he would set to work at the seventh hour of the night, or the eighth at the very latest, often indeed at the sixth⁵. By nature he had the faculty of being able to fall asleep in a moment; indeed, slumber would sometimes overtake him in his studies, and then leave him just as suddenly. Before daybreak, he was in the habit of attending the Emperor Vespasian,—for he, too, was one who made an excellent use of his nights,—and then betook him-

¹ "Studiosus." This work has perished.

² "De Dubia Sermones." A few scattered fragments of it still survive.

³ 23rd of August.

⁴ For astrological presages.

⁵ At midwinter, this hour would answer at Rome to our midnight.

self to the duties with which he was charged. On his return home, he devoted all the time which was still remaining to study. Taking an early repast, after the old fashion, light, and easy of digestion, in the summer time, if he had any leisure to spare, he would lie down in the sun-shine, while some book was read to him, he himself making notes and extracts in the meanwhile; for it was his habit never to read anything without making extracts, it being a maxim of his, that there is no book so bad but that some good may be got out of it. After thus enjoying the sunshine, he generally took a cold bath; after which he would sit down to a slight repast, and then take a short nap. On awaking, as though another day had now commenced, he would study till the hour for the evening meal, during which some book was generally read to him, he making comments on it in a cursory manner. I remember, on one occasion, a friend of his interrupting the reader, who had given the wrong pronunciation to some words, and making him go over them again. "You understood him, didn't you?" said my uncle. "Yes," said the other. "Why, then, did you make him go over it again? Through this interruption of yours, we have lost more than ten lines." So thrifty a manager was he of time! In summer he rose from the evening meal by daylight; and, in winter, during the first hour of the night¹, just as though there had been some law which made it compulsory on him to do so. This is how he lived in the midst of his employments, and the bustle of the city. When in retirement in the country, the time spent in the bath was the only portion that was not allotted by him to study. When I say in the bath, I mean while he was in the water; for while his body was being scraped with the strigil and rubbed, he either had some book read to him, or else would dictate himself. While upon a journey, as though relieved from every other care, he devoted himself to study, and nothing else. By his side was his secretary, with a book and tablets; and, in the winter time, the secretary's hands were protected by gloves, that the severity of the weather might not deprive his master for a single moment of his services. It was for this reason also that, when at Rome, he would never move about except in a litter. I remember that on

¹ At midwinter, this would be between six and seven in the evening.

one occasion he found fault with me for walking—"You might have avoided losing all those hours," said he; for he looked upon every moment as lost which was not devoted to study. It was by means of such unremitting industry as this that he completed so many works, and left me 160 volumes of notes¹, written extremely small on both sides, which in fact renders the collection doubly voluminous. He himself used to relate, that when he was procurator in Spain, he might have parted with his common-place book to Largius Licinius for 400,000 sesterces; and at that time the collection was not so extensive as afterwards. When you come to think of how much he must have read, of how much he has written, would you not really suppose that he had never been engaged in business, and had never enjoyed the favour of princes? And yet, on the other hand, when you hear what labour he expended upon his studies, does it not almost seem that he has neither written nor read enough? For, in fact, what pursuits are those that would not have been interrupted by occupations such as his? While, again, what is there that such unremitting perseverance as his could not have effected? I am in the habit, therefore, of laughing at it when people call me a studious man,—me who, in comparison with him, am a downright idler; and yet I devote to study as much time as my public engagements on the one hand, and my duties to my friends on the other, will admit of. Who is there, then, out of all those who have devoted their whole life to literature, that ought not, when put in comparison with him, to quite blush at a life that would almost appear to have been devoted to slothfulness and inactivity? But my letter has already exceeded its proper limits, for I had originally intended to write only upon the subject as to which you made inquiry, the books of his composition that he left. I trust, however, that these particulars will prove no less pleasing to you than the writings themselves; and that they will not only induce you to peruse them, but excite you, by a feeling of generous emulation, to produce some work of a similar nature.—Farewell."

Of all the works written by Pliny, one only, the 'Historia Naturalis' has survived to our times. This work, however,

¹ "Electorum Commentarii."

is not a 'Natural History' in the modern acceptation of the term, but rather a vast Encyclopædia of ancient knowledge and belief upon almost every known subject—"not less varied than Nature herself," as his nephew says. It comprises, within the compass of thirty-seven books, 20,000 matters of importance, collected from about 2000 volumes (nearly all of which have now perished), the works, as Pliny himself states, of 100 writers of authority; together with a vast number of additional matters unknown to those authorities, and many of them the results of his own experience and observation. Hardouin has drawn up a catalogue of the authors quoted by Pliny; they amount in number to between 400 and 500.

The following is a brief sketch of the plan of this wonderful monument of human industry. After a dedicatory Epistle to Titus, followed by a table of contents of the other Books, which together form the First Book, the author proceeds to give an account of the prevailing notions as to the universe, the earth, the sun, the moon, the stars, and the more remarkable properties of the elements (*partes naturæ*). He then passes on to a geographical description of the face of the earth as known to the ancients. After the Geography comes what may in strict propriety be termed "Natural History," including a history of man, replete indeed with marvels, but interesting in the highest degree. Having mentioned at considerable length the land-animals, fishes, birds, and insects, he passes on to Botany, which in its various aspects occupies the larger portion of the work. At the same time, in accordance with his comprehensive plan, this part includes a vast amount of information on numerous subjects, the culture of the cereals and the manufacture of oil, wine, paper (*papyrus*), and numerous other articles of daily use. After treating at considerable length of Medical Botany, he proceeds to speak of medicaments derived from the human body, from which he branches off into discussions on the history of medicine, and magic, which last he looks upon as an offshoot from the medical art; and he takes this opportunity of touching upon many of the then current superstitions and notions on astrology. He concludes this portion of his work with an account of the medicinal properties of various waters and of those of fishes and other aquatic animals.

He then presents us with a treatise on Mineralogy, in which he has accumulated every possible kind of information relative to the use of gold, silver, bronze, and other metals; a subject which not unnaturally leads him into repeated digressions relative to money, jewels, plate, statues, and statuaries. Mineral pigments next occupy his attention, with many interesting notices of the great painters of Greece; from which he passes on to the various kinds of stone and materials employed in building, and the use of marble for the purposes of sculpture, including a notice of that art and of the most eminent sculptors. The last Book is devoted to an account of gems and precious stones, and concludes with an eulogium on his native country, as alike distinguished for its fertility, its picturesque beauties, and the natural endowments and high destinies of its people.

From the writings of Pliny we gather of course a large amount of information as to his opinions and the constitution of his mind. His credulity, it must be admitted, is great in the extreme; though, singularly enough, he severely taxes the Greeks with the same failing¹. Were we not assured from other sources that he was eminently successful in life, was in the enjoyment of opulence, and honoured with the favour and confidence of princes², the remarks which he frequently makes on human life, in the Seventh Book more especially, would have led us to the conclusion that he was a disappointed man, embittered against his fellow-creatures, and dissatisfied with the terms on which the tenure of life is granted to us. He opens that Book with a preface replete with querulous dissatisfaction and repinings at the lot of man—the only ‘tearful’ animal—he says³. He repines at the helpless and wretched condition of the infant at the moment it is ushered into life, and the numerous pains and

¹ B. viii. c. 34. His acrimony may however, in this instance, have outstripped his discretion. Though indebted to them for by far the largest amount of his information on almost every subject, he seems to have had a strong aversion to the Greeks, and repeatedly charges them with lying, viciousness, boasting, and vanity. See B. ii. c. 112; B. iii. c. 6; B. v. c. 1; B. xv. c. 5; B. xix. c. 26; B. xxviii. c. 29; B. xxxvii. c. 74.

² Of Vespasian and Titus for certain; and probably of Nero, who appointed him “procurator Cæsaris” in Spain.

³ Even on that point he contradicts himself in the next Book. See B. viii. c. 19, and 64, in reference to the lion and the horse.

vices to which it is doomed to be subject.—Man's liability to disease is with him a blemish in the economy of nature:—"life," he says, "this gift of nature, however long it may be, is but too uncertain and too frail; to those even to whom it is most largely granted, it is dealt out with a sparing and niggardly hand, if we only think of eternity¹." As we cannot have life on our own terms, he does not think it worthy of our acceptance, and more than once expresses his opinion that the sooner we are rid of it the better. Sudden death he looks upon as a remarkable phænomenon, but, at the same time, as the greatest blessing that can be granted to us²: and when he mentions cases of resuscitation, it is only to indulge in the querulous complaint, that, "exposed as he is by his birth to the caprices of fortune, man can be certain of nothing; no, not even his own death³." Though anything but⁴ an Epicurean, in the modern acceptation of the word, he seems to have held some, at least, of the tenets of Epicurus, in reference to the immortality of the soul. Whether he supposed that the soul, at the moment of death, is resolved into its previous atoms or constituent elements, he does not inform us; but he states it as his belief, that after death the soul has no more existence than it had before birth; that all notions of immortality are a mere delusion⁵; and that the very idea of a future existence is ridiculous, and spoils that greatest⁶ blessing of nature—death. He certainly speaks of ghosts or apparitions, seen after death; but these he probably looked upon as exceptional cases, if indeed he believed⁷ in the stories which he quotes, of which we have no proofs, or rather, indeed, presumptive proofs to the contrary; for some of them he calls "magna⁸ fabulose-tas," "most fabulous tales."

In relation to human inventions, it is worthy of remark,

¹ See B. vii. c. 51.

² "Summa vitæ felicitas." B. vii. c. 54.

³ B. vii. c. 53.

⁴ He loses no opportunity of inveighing against luxury and sensuality.

⁵ The question as to a future existence he calls "Manium ambages," "quiddities about the Manes." B. vii. c. 56.

⁶ See B. vii. c. 53.

⁷ We have already seen that in his earlier years he was warned in a vision by Drusus to write the history of the wars in Germany; but there is a vast difference between paying attention to the suggestions of a dream, and believing in the immortality of the soul, or the existence of disembodied spirits.

⁸ B. vii. c. 53.

that he states that the first¹ thing in which mankind agreed, was the use of the Ionian alphabet; the second, the practice of shaving² the beard, and the employment of barbers; and the third, the division of time into hours.

We cannot more appropriately conclude this review of the Life and Works of Pliny, than by quoting the opinions of two of the most eminent philosophers of modern times, Buffon and Cuvier; though the former, it must be admitted, has spoken of him in somewhat too high terms of commendation, and in instituting a comparison between Pliny's work and those of Aristotle, has placed in juxtaposition the names of two men who, beyond an ardent thirst for knowledge, had no characteristics in common.

"Pliny," says Buffon³, "has worked upon a plan which is much more extensive than that of Aristotle, and not improbably too extensive. He has made it his object to embrace every subject; indeed he would appear to have taken the measure of Nature, and to have found her too contracted for his expansive genius. His 'Natural History,' independently of that of animals, plants, and minerals, includes an account of the heavens and the earth, of medicine, commerce, navigation, the liberal and mechanical arts, the origin of usages and customs, in a word, the history of all the natural sciences and all the arts of human invention. What, too, is still more astonishing, in each of these departments Pliny shows himself equally great. The grandeur of his ideas and the dignity of his style confer an additional lustre on the profoundness of his erudition; not only did he know all that was known in his time, but he was also gifted with that comprehensiveness of view which in some measure multiplies knowledge. He had all that delicacy of perception upon which depend so materially both elegance and taste, and he communicates to his readers that freedom of thought and that boldness of sentiment, which constitute the true germ of philosophy. His work, as varied as Nature herself, always paints her in her most attractive colours. It is, so to say, a compilation from all that had been written before his

¹ B. vii. c. 58, 59, 60.

² Mankind must surely have agreed before this in making the instruments employed in shaving.

³ "Discours Premier sur l'Histoire Naturelle."

time : a record of all that was excellent or useful ; but this record has in it features so grand, this compilation contains matter grouped in a manner so novel, that it is preferable to most of the original works that treat upon similar subjects."

The judgment pronounced by Cuvier on Pliny's work, though somewhat less highly coloured, awards to it a high rank among the most valuable productions of antiquity. "The work of Pliny¹," says he, "is one of the most precious monuments that have come down to us from ancient times, and affords proof of an astonishing amount of erudition in one who was a warrior and a statesman. To appreciate with justice this vast and celebrated composition, it is necessary to regard it in several points of view—with reference to the plan proposed, the facts stated, and the style employed. The plan proposed by the writer is of immense extent—it is his object to write not merely a Natural History in our restricted sense of the term, not an account merely, more or less detailed, of animals, plants, and minerals, but a work which embraces astronomy, physics, geography, agriculture, commerce, medicine, and the fine arts—and all these in addition to natural history properly so called; while at the same time he continually interweaves with his narrative information upon the arts which bear relation to man considered metaphysically, and the history of nations,—so much so indeed, that in many respects this work was the Encyclopædia of its age. It was impossible in running over, however cursorily, such a prodigious number of subjects, that the writer should not have made us acquainted with a multitude of facts, which, while remarkable in themselves, are the more precious from the circumstance that at the present day he is the only author extant who relates them. It is to be regretted however that the manner in which he has collected and grouped this mass of matter, has caused it to lose some portion of its value, from his mixture of fable with truth, and more especially from the difficulty, and in some cases, the impossibility, of discovering exactly of what object² he is speaking. But if Pliny possesses little merit as a critic, it is far other-

¹ Biographie Universelle. Vol. 35. Art. *Pline*.

² This, however, is not the fault of Pliny, but the result of imperfect tradition. To have described *every* object *minutely* that he has named,

wise with his talent as a writer, and the immense treasury which he opens to us of Latin terms and forms of expression: these, from the very abundance of the subjects upon which he treats, render his work one of the richest repositories of the Roman language. Wherever he finds it possible to give expression to general ideas or to philosophical views, his language assumes considerable energy and vivacity, and his thoughts present to us a certain novelty and boldness which tend in a very great degree to relieve the dryness of his enumerations, and, with the majority of his readers, excuse the insufficiency of his scientific indications. He is always noble and serious, full of the love of justice and virtue, detestation of cruelty and baseness, of which he had such frightful instances before his eyes, and contempt for that unbridled luxury which in his time had so deeply corrupted the Roman people. For these great merits Pliny cannot be too highly praised, and despite the faults which we are obliged to admit in him when viewed as a naturalist, we are bound to regard him as one of the most meritorious of the Roman writers, and among those most worthy to be reckoned in the number of the classics who wrote after the reign of Augustus."

and of which he has given the peculiar properties, would have swollen his book to a most enormous size, almost indeed beyond conception.



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NATURAL HISTORY OF PLINY.

BOOK I.¹

DEDICATION.

C. PLINIUS SECUNDUS TO HIS FRIEND TITUS VESPASIAN.

THIS treatise on Natural History, a novel work in Roman literature, which I have just completed, I have taken the liberty to dedicate to you, most gracious² Emperor, an appellation peculiarly suitable to you, while, on account of his age, that of *great* is more appropriate to your Father ;—

“ For still thou ne'er wouldst quite despise
The trifles that I write³ ;”

if I may be allowed to shelter myself under the example of Catullus, my fellow-countryman⁴, a military term, which you well understand. For he, as you know, when his napkins had been changed⁵, expressed himself a little harshly, from

¹ Lemaire informs us, in his title-page, that the two first books of the Natural History are edited by M. Alexandre, in his edition.

² “ Jucundissime ;” it is not easy to find an epithet in our language which will correctly express the meaning of the original, affectionate and familiar, at the same time that it is sufficiently dignified and respectful.

³ Lamb's trans. ; Carm. i. 4. of the original.

⁴ “ Conterraneus ;” we have no word in English which expresses the idea intended by the original, and which is, at the same time, a military term. There is indeed some reason to doubt, whether the word now inserted in the text was the one employed by the author : see the remarks of M. Alexandre, in Lem. i. 3 ; also an observation in Cigalino's dissertation on the native country of Pliny ; Valpy, 8.

⁵ “ Permutatis prioribus sœtabis ;” Carm. xii. 14 ; xxv. 7 ; see the notes in Lamb's trans. pp. 135 & 149.

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