

**Introductory address read before the Cuvierian Natural History Society, at its first meeting in the University, November 1837 / by James Macaulay.**

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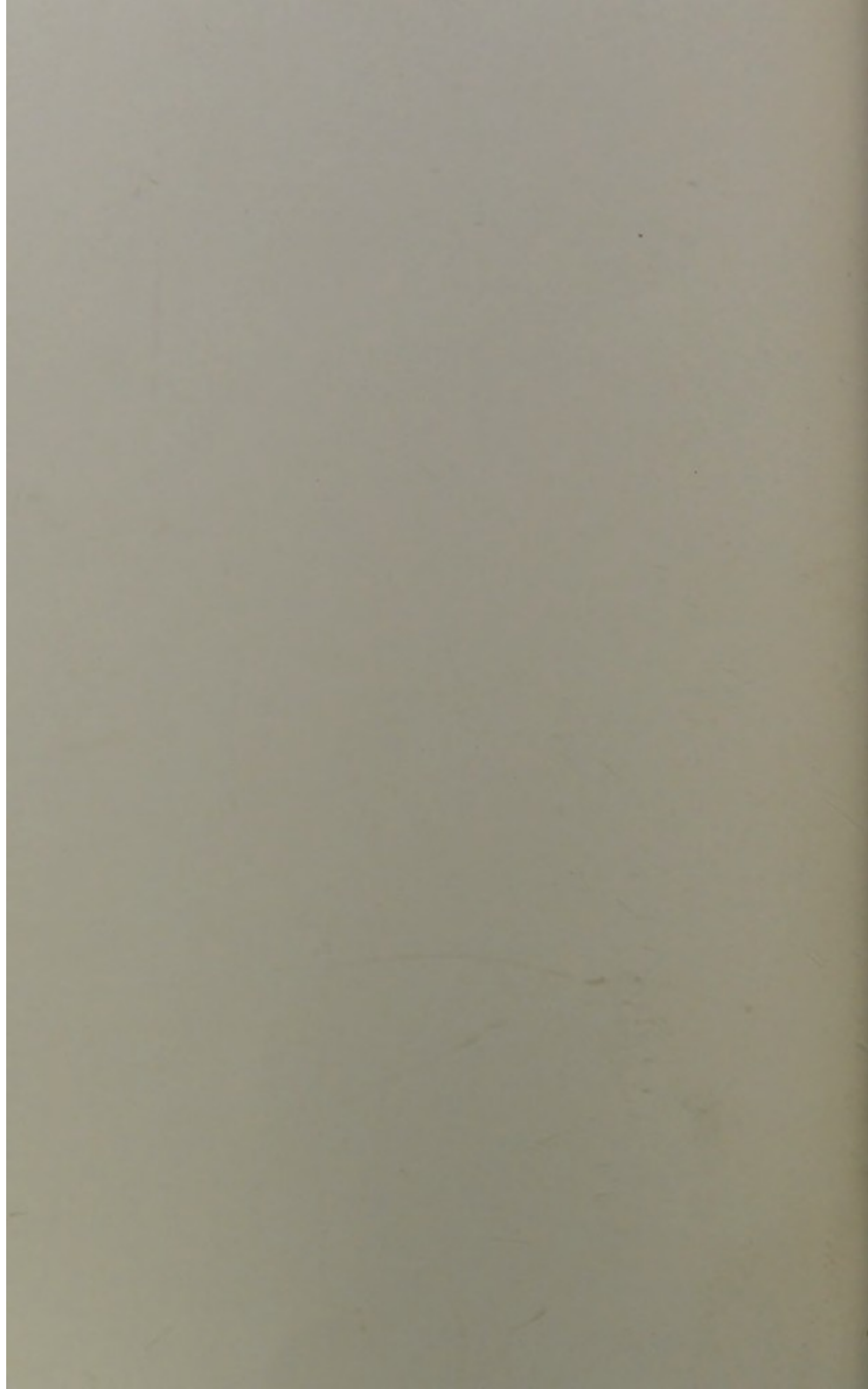
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INTRODUCTORY ADDRESS

READ BEFORE THE

CUVIERIAN NATURAL HISTORY SOCIETY,

AT ITS FIRST MEETING IN THE UNIVERSITY,

NOVEMBER 1837.

BY JAMES MACAULAY, A. M.

VICE-PRESIDENT OF THE SOCIETY.

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INSTITUTIONAL ADDRESS

THE NATIONAL HISTORICAL SOCIETY

DR. JAMES M. MANNING

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## INTRODUCTORY ADDRESS.

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GENTLEMEN,

IN the absence of our last President, the pleasing duty of opening another Session has devolved upon me. Four years have now elapsed since our association was formed, and after slowly but steadily advancing, it now proceeds with better prospects, and under happier auspices. I would not check the pleasure which the founders of the Society must feel in contemplating our present position, by recalling to them the difficulties with which they had at first to contend, the obstacles which they had to surmount, and the labour and anxiety which they formerly bestowed. A few individuals possessing no influence, with no encouragement but an ardent love of their favourite pursuits, and without any patronage or assistance, have succeeded in organizing a Society which has already been the source of much instruction and pleasure, and which we hope may soon lend its aid to the extension of science. Having obtained permission to meet in the University, and received the cordial approval and co-operation of several of the Professors, I am sure that the zeal and perseverance displayed in its establishment will not be permitted to diminish, seeing that we

have every incentive to fresh and higher exertion. All of us must feel proud at being now led by such a Veteran in science;\* and there is so great a disparity between his rank and our own, that any one in considering our appearance before and after his coming amongst us, might compare us to the opponents of Cæsar at the commencement of the Civil War; and as we were formerly an army without a general, we now seem a general without an army.

It would be superfluous for me to say any thing of the general utility of those pursuits, for the prosecution of which you have associated yourselves together. The days have gone by, when the cultivation of science was regarded as a barren and unfruitful study, and when a philosopher was defined to be "a person whose trade it was to do nothing, and to speculate on every thing." We are not so often now annoyed with questions of *cui bono*, or assailed with ridicule for the unprofitable nature of our inquiries, since experience has shewn that researches apparently the most frivolous, and discoveries the most unimportant, are continually giving rise to the most valuable inventions and unexpected improvements. The general diffusion of science,† though derided by narrow-minded men who can conceive no advantage beyond the mere addition to the stock of scientific facts, has gradually worn away much of that ignorance and prejudice which has retarded its progress, and formed an insuperable obstacle to its proper application.

\* Professor Jameson, President.

† The *popular diffusion of science*, and the *diffusion of popular science*, are very different things, and in promoting the former, there is danger of the latter intruding also.

The philosopher may, indeed, assume a tone of haughty dignity, and, setting himself apart from the vulgar, may pursue with success his lofty speculations; but if he be ambitious of being useful either to his country or to mankind, he must descend from his high position, and encourage every means by which the multitude may be made to feel that they have a sympathy with his pursuits, and a personal interest in their success. It is very easy to talk with contempt of the popular diffusion of science; but this is not argument, and when we consider how much the man of science stands in need of every co-operation and assistance in the practical application of his researches, we ought to regard every dispute about this extension of scientific taste and knowledge, as a contest between patriotism and philanthropy on the one hand, against the pride of philosophy on the other.

Nor need I occupy your time with saying any thing of the utility of our studies to Medicine and other arts and professions, since this is now universally admitted; and we have only to wish that much higher qualifications in such subjects were required of those who are to occupy stations at home, and especially abroad, so that they might have the ability as well as the opportunity of being of service to their country and to science.

Most of our number, however, do not cultivate Natural History in connection with professional studies, but merely from the love of science, and in quest of the pleasure which it affords; and from what I know of the taste and pursuits of some of our members, there are other objections which might be referred to, were I not sure that their experience

must have often supplied a sufficient contradiction. It is said, for instance, that to those who take delight in the contemplation of nature, a more intimate acquaintance destroys the charm which a distant survey affords ; that much of the pleasure vanishes before the knowledge of the cold material laws which regulate the changes going on around them, and that in other respects also, there is in much knowledge of these matters, much evil.

There are some branches of science in which I would consider a minute knowledge to be both useless and dangerous to the general mind ; such as the study of Physiology, where science, in trying to arm us with new defences against natural inconveniences, works far more evil by imprinting on the fancy their greatness and their weight, than can be concealed by all its reasonings, or warded off by all its resources.

But, to the admirer of nature, the closer the inspection of the landscape, the clearer view is obtained of its harmony and beauty, and every new recess which is explored opens up a new field of pleasure and improvement. The poet may here drink of springs of perpetual freshness ; and he who seeks for amusement may here find stores as varied as they are inexhaustible. Every addition to this knowledge, while it strengthens the judgment, at the same time yields new materials for imagination to weave her pleasures without destroying any which she previously possessed. The knowledge of the cause and composition of the rainbow does not prevent the eye of fancy from still regarding it as the smile of weeping heaven, “ risus plorantis Olympi ;” nor dispel the happy dreams of childhood, and all the pleasing tales of

mythology associated with the name of Iris. However much we may be indebted to philosophers for their ingenious researches, they have not been such mighty magicians as to dissolve the charm by which poetry persuades us to regard the dew-drops as the tears shed by the flowers over the departed sun, or the orient pearl sown o'er the earth by the morn advancing from the climes of the east. This is the region of the intellectual atmosphere in which romance and reality are best tempered together, and the mind may be intently fixed on the object of sense, and at the same time all awake to the soul and the sentiment of poetry.

And so it is with regard to the higher lessons which we should derive from the contemplation of these studies. The knowledge of the laws which regulate the great movements in the elements around us, is likely to impress upon the mind far loftier and purer ideas of all the attributes of the Creator, than when these laws were entirely involved in mystery,—when the lightning was regarded as the glance of divine vengeance, and the thunder trembled at as the present voice of the Deity.

But our occupations are exposed to attacks more severe and difficult to be borne from those who affect to despise and neglect them as unworthy of consideration, though at the same time this contempt and arrogance is more generally the result of ignorance and indolence than of real greatness of mind. We would never for a moment compare our pursuits, either in nobility or importance, with the study of mental or moral science and other higher departments of philosophy; nor would we expect men capable of invention or endowed with capacious understandings to enter zealously

into the minuter researches of the naturalist. But we do profess to find in these more humble and sequestered vales of science, just as pure and ennobling a pleasure as can be found in more elevated regions, and are content

*Sylvas inter reptare salubres,  
Curantes quidquid dignum sapiente bonoque est.*

In studying the works of nature, we are not continually meeting with the melancholy effects of human passions and discord, nor have we those temptations to envy and other bad feeling which experience shews is seldom wholly avoided by men much occupied in judging of the works of art. We know that there are few who can look upon even the noblest monuments of human industry and genius without some lurking feeling of dissatisfaction: we know that even Homer had his Zoilus, and Michael Angelo his detractors.

But in the works of nature there is no ground for criticism, no room for amendment; each object bears on its front the impress of a divine Artificer, and every page of this great volume alike tells of the power, and the wisdom, and the goodness of its Author. In this the studies of the naturalist and the sublimer researches of the astronomer lead to the same conclusion; and the mechanism of the minutest of creatures speaks home as forcibly as the mechanism of the systems of the firmament.

Nor can the one penetrate a step beyond the mysteries which check the progress of the other. He who has travelled along the more humble paths of inquiry, meets at the last with him who has come over the mountain-tops of philosophy, both at length reaching a place where the light of

reason can guide them no farther, where even Newton found himself, after all his daring excursions, on the shore of the great ocean of eternal truth that lies unexplored beyond them.

It must be confessed that naturalists themselves often give good ground for reproach, and by their own follies expose their pursuits to ridicule. There are some employments (to take the department of Botany for illustration), such as the collection of a herbarium, or the study and determination of species, which require little higher qualifications than abundance of pecuniary resources and of stubborn perseverance, and too many assume the title of Naturalists from their possessing these accomplishments. This appetite for the mere external appendages of the science is too often apt to divert the mind from more important considerations; and among the many professed botanists of the present day, it is to be feared that all do not study with right motives, and in a true philosophic spirit. We may suspect this from the looks of serious gravity with which the detection of some trifling character, or the enthusiasm with which the discovery of some new habitat for a plant is announced, while the more important objects of the science, and its application to the arts, meet with the attention of comparatively few.

The Acquisitiveness of the Botanist, and the Secretiveness of the Virtuoso, or, in plain language, the selfish rapacity of the one, and the covetousness of the other, are now almost proverbial; and in the passion for the accumulation of their treasures, they sometimes are apt to forget the objects for which they are amassed. "One is a collector of plants of which he knows no other use than to shew them, and

when he has stocked his own repository, grieves that the specimens which he has left behind him should be picked up by another." This was the remark of Dr Johnson; and whoever comes much in contact with these naturalists, will have cause to lament the existence of a portion of the spirit which he observed.

Nor can any thing be more apt to disgust a liberal mind, than to hear long and elaborate discussions on some casual variety of some minute and uninteresting object of natural history, which by no possible deduction of consequences can be brought to bear on the illustration of any general principle, or the advancement of any practical improvement. Let it not be supposed, that we are falling into the error already described, of contemning the pursuits of our neighbour as trivial; it is fortunate that the taste and power of men are so different, and that there are always some willing to undertake the labour, and reap the honour of such performances. Cuvier used to recommend the study of Entomology, for the purpose of acquiring the power of minute and detailed investigation, and frequently spoke of the advantage he thence derived in his more elevated researches. A young student of medicine came to him one day, to announce a new and remarkable discovery which he had made in dissecting the human body. Cuvier, without listening to what he had to say, asked him if he was an entomologist, and on being answered in the negative; "Go," he said, "and study the anatomy of an insect, it matters not which, the largest you can find, and if, on reconsidering your observation, you still think it correct, I will believe you upon your word." The young man submitted cheerfully to the proof,

and having acquired more skill and judgment, returned to M. Cuvier to thank him for his advice, and to confess his error. To whatever science we direct our attention, patience and perseverance are essential to success, and every study by which these can be acquired or strengthened, is worthy of attention and deserving of honour.

Another folly to be lamented, is the tacit, and often the expressed, ridicule of one class of naturalists for the pursuits of another. The collector of insects wonders that any one can waste his time upon the vegetable creation, while the habits and instincts of many tribes of animals yet remain unstudied. The Botanist derides the taste of him, who can leave the warm and cheerful precincts of vitality, to fix his mind and affections on the study of lifeless matter. The Geologist, when he draws back the veil which time has thrown over the mysteries of creation, decyphers the rocky characters in which the great mutations of the globe are recorded, and contemplates those venerable monuments of antiquity, beside which the Pyramids are as pillars of snow, and all the ages of history a moment,—stands amazed that any one can turn his attention to the trifles of the passing scenes around him. Every one becomes ardent in his own pursuit, and is surprised that others are not inspired with the same enthusiasm. Like the kings of Persia, who bound themselves never to drink water except that of their own river Choaspes, they confine themselves to one particular fountain of science, till the whole constitution of their minds becomes defaced by contracted prejudices. The correction of any tendency to this, is one of the principal advantages of an association like the present. While it

affords all the benefits resulting from intercourse with those whose pursuits are different, and who have studied nature under different aspects from ourselves, we are reminded that beyond the happy valley where our own thoughts dwell, are scenes as rich and lovely, and pleasures as varied, and that many an unknown land of science lies beyond the horizon which bounds our own contemplation.

It is my duty, Gentlemen, to lay before you an account of our proceedings during the past session, and as I had not the pleasure or advantage of attending many of its meetings, I have of course referred to your transactions for materials. Here, I am sorry to say, there is a great paucity of recorded matter; but as I am sure the members did not fail in zealously performing their duty to the Society, I know not whether to ascribe the deficiency to your discussions being of so subtle, and refined, and spiritual, a nature, as to defy the fixation even of your acute and laborious Secretary, or to your having arrived at such a height of philosophical feeling, as to imitate the celebrated Academy of Ispahan. There was at Ispahan an academy, of which the first law was, "The Academicians shall think much, shall write little, and shall speak as little as possible." It was called the silent academy, and there was not a true philosopher in all Persia who was not ambitious of obtaining admission. Dr Zeb, the author of an excellent work on Silence, heard in the distant province where he dwelt, that there was a place vacant in the academy. He set out immediately, arrived at Ispahan, and presenting himself before the hall where the Academicians were assembled, requested the officer to hand this billet to the

President, "Doctor Zeb humbly begs the vacant place." The officer executed his commission without delay; but the Doctor and his billet arrived too late, and the place was already filled up.

The Academy was much vexed at this disappointment, but their laws forbade the increase of their number, and they were compelled to refuse even the learned Dr Zeb. The President, charged with announcing the disagreeable tidings, after pondering a little how he should make the communication, ordered a large glass to be filled with water, so that a single drop more would make it overflow. He then ordered the candidate to be introduced, who appeared with that air of simplicity and modesty which always announces true merit. The President rose, and, without saying a single word, pointed with a most doleful countenance to the emblematical cup. The Doctor understood the symbol, but without losing his presence of mind, he wished to make them understand that one supernumerary academician could produce no derangement. Seeing at his feet the petal of a rose, he picked it up, placed it gently on the surface of the water, and did it so neatly, that not a single drop escaped.

Every one applauded this ingenious reply; the laws were for that day suspended, and Dr Zeb was admitted by acclamation. He was forthwith presented with the register of the Academy; he inscribed his name, and there only remained, that, according to custom, he should deliver a single sentence of acknowledgment. But Dr Zeb, true to the principles of the Academy, returned thanks without saying a word. He wrote on the margin the number 100, which was that of his new associates, and prefixed a cypher (0100),

to signify that the former value was neither increased nor diminished. The President, however, soon politely shifted the modest cypher of the Doctor, to where it indicated that the worth of the Society was raised tenfold (1000).

In this eastern story, we are taught that silence is often the most expressive language of the philosopher, and that humility is the highest of philosophic as well as of Christian virtues. But if a portion of this spirit has been working among our members, so as to deter them from communicating the results of their observations, and reflections and experience, we would beg them to sacrifice a little of their own high feeling to the pleasure and instruction of those with whom they have associated themselves, and assume that frankness which belongs to the cultivators of these pursuits. It was long ago noted by one of the wise men of Greece, that while every art seemed to have its secrets which were concealed from the many, the student of nature seemed always as ready to impart as he was zealous in acquiring knowledge.

Although I have ventured to state a few errors to be avoided, such as have fallen within the reach of my own limited experience, I would not presume to say any thing of the duties to be performed. The system originally pursued by the Society seems to work well; and especially I hope that the plan adopted last session of drawing up reports on the history and progress of particular branches of science will be continued. We are thus not only supplied with charts of the territory already explored, by which our own researches and attempts at discovery may be directed, but, by tracing the workings of those master-minds who have

reared and adorned the sciences, and marking the steps by which they were led on to success, and by which they rose from laborious details to their noble generalizations, our minds are best brought into the discipline and aptitude for original inquiry. For although the book of Nature is ever open to the perusal of all, it is not every mind that can interpret her language, that can trace the happy accidents continually presented, or detect the valuable principles that lie concealed amid common and trivial events.

It required the eye of Malus to see the new field of science which was first illuminated by the ray from the palace of Luxembourg; and thousands gazed on the lamp of the Cathedral of Pisa, without being led to the discoveries which rendered Galileo immortal.

Gentlemen, It has been said that eulogium is always tiresome, and that all panegyrics seem to have been cooked in poppy juice. The subject of every eulogy is, as a matter of course, the most virtuous and benevolent, as well as one of the wisest, of men; and it is not surprising that histories, which are all alike, should be accused of monotony.

Another kind of oration, which, from the nature of the subject, most of us must often have felt as tiresome, is that species of introductory lecture in which the teacher of each class, standing forth as the representative and herald of his own branch of learning, proclaims the superior power, and resources, and dignity of its territory, till he deranges all our notions of what place it should actually occupy in the Geography of Science. It reminds one of Sir Harry Wotton's definition of an ambassador, that he is "a man sent abroad

to tell lies for the good of his country." In the same category I am inclined to rank introductory addresses, and regard this ceremony as the least profitable of the customs of our Society, except some particular topic be allotted as the subject, so as to prevent the infliction of such commonplace generalities as you have now heard.

