

# Natural History

Sep<sup>r</sup> 3<sup>d</sup> 1797 & '98.

## Introductory Lecture

The ~~intention~~ <sup>with a view</sup> of the course of Lectures w<sup>ch</sup> we are <sup>now</sup> <sup>commence</sup> about to ~~begin~~ <sup>disguise</sup> to promote a taste for the study of Nature, or what is commonly called Natural History; a study of the first im-  
-portance in such a country as this. <sup>Nat. History</sup> It is the most extensive, <sup>& we may add the</sup> instructive & entertaining of all the Sciences. It forms in <sup>or pleasure</sup> fact, their very basis. To recommend it from motives of utility, were to affront the understanding of mankind: I might as well labour to convince you of the blessings of health, or the advantages of sobriety.

of all the <sup>various</sup> methods, adopted for cultivating the under-  
-standing of young persons, none produces more lasting & beneficial effects by properly exciting their curiosity respecting the works of nature. This desire of knowledge, this "thirst of the soul," called curiosity, exerts itself with remarkable efficacy in youth, when the mind seizes w<sup>th</sup> peculiar avidity every object pre-  
-sented to it: hence it is observed that where curiosity most predominates, it is a certain sign of a vigorous intellect.

That the youthfull mind may receive all the benefit of this happy disposition, the Teacher should be carefull to direct it to such objects, as are equally qualified to engage the mind by pleasure, and at the same time to fill it with clear & in-  
-structive ideas; for this is the very <sup>essence</sup> of education, whose object is not to give abilities, but to rouse the dormant energies of the <sup>youthfull</sup> mind, & encourage it to a constant exercise of those powers, w<sup>ch</sup> the <sup>creator</sup> has endowed it. The

Wonder of the effect of Novelty upon Ignorance. John

The objects w.<sup>ch</sup> first excite our curiosity are - the Earth on w.<sup>ch</sup> we live, and its innumerable inhabitants; - the beautiful carpet of vegetables, w.<sup>ch</sup> covers & adorns its surface; - the boundless ocean; - the Sun, Moon & Stars; - the regular successions of day & night, and the agreeable vicissitudes of the seasons, with their beautiful train of consequences! - These subjects, compose, what is called by a rhetorical figure, the "Great Book of Nature"; a book w.<sup>ch</sup> comprehends the objects of every science, whose ample & splendid pages, must charm all who have eyes to see, and hearts to feel! The relationship, & conformity w.<sup>ch</sup> these objects bear to one another, and to ourselves, are so many voices calling loudly & affectionately for our <sup>examination</sup> attention.

The study of this Book, or what is commonly called Natural History, is one of the most pleasing occupations that can exercise the rational mind, and it has this peculiar to it, - no frequency of contemplation, closeness of inspection; or keenness of investigation ever brings weariness or disgust. The study of nature, is a pleasure w.<sup>ch</sup> differs from all others, from its bringing <sup>no</sup> satiety, for here gratification & appetite, are perpetually interchanging.

Natural History is not here recommended, merely to amuse the imagination, & gratify the fancy. There is a period in our lives when the mind should be turned from words to things; a time when it should be turned from the vehicle of knowledge, to knowledge itself. - not that we would <sup>infringe</sup> wish to divert the attention from the <sup>science of demonstration & proof</sup> beauties of language. On the contrary we wish you to make use of this powerful assistant in acquiring the elegant accomplishment of a fine style. The two studies mutually assist each other, like the <sup>heart & digestive organs</sup> heart & the brain in the human system. From the great Volume of Nature, is drawn all that

Transcribed in 1804 to here

that is beautiful in poetry, or captivating in composition; for the world has long noticed, that those <sup>who</sup> addicted themselves to the study of nature, most commonly acquired the happiest faculty of delineating her charms. Theocritus & Homer, among the Greeks; Virgic & Pliny among the Romans; Buffon & St. Pierre, among the French; Linnaeus, in the north of Europe, and Goldsmith among the English, are so many illustrious examples of our assertion. But to dwell longer on the advantages, & utility of the study of Nat<sup>e</sup> History, w<sup>o</sup> be a reflection on your understandings, we, therefore pass on to give you a prospectus of the course before us.

1. This natural query occurs to the minds of all of us in the earlier periods of life viz, "what are we?" and "whence came we?" For this reason, we shall commence our career by discanting on the primordia, or beginning of all things. But what mind can fathom the depths of this abyss? what thought can comprehend that power w<sup>o</sup> calls things that are not, into existence? - This awful subject, will be discussed with the reverence w<sup>o</sup> it inspires!

We shall then treat of the origin of organized beings; that is, to say, of Vegetables & Animals. We shall begin by giving you some idea of the structure, or anatomy of a seed; and then <sup>an account</sup> of its expansion into a root & stem; or, in one word, we shall trace the process of vegetation, from the sowing, of the seed, to the formation of the root; - the trunk, the branch, the leaf, the flower, the completion of the fruit; and last of all to the seed again; the formation of which, is <sup>the constant endeavor</sup> the perfection of the vegetative process. After speaking, of the formation, we shall next treat of the economy, and food <sup>of vegetables particularly of their</sup> of plants - w<sup>o</sup> knowledge forms the basis of the noble art of agriculture. Then we

Then we shall speak of the primordium of animals, and shall en-  
-deavour to show you, that, as every Vegetable <sup>arose</sup> ~~arose~~ from a seed,  
so, every animal is derived from an Egg. We shall <sup>then</sup> trace the  
development of the egg as we did the unfolding of the plant,  
(In discussing the economy of <sup>Vegetables</sup> ~~Plants~~, we shall be led to give  
you a curious description of that grand apparatus, w.<sup>c</sup> produces,  
among manifold other things, Vegetables for the use of animals.  
This will lead us to contemplate that <sup>never ceasing</sup> circulation, w.<sup>c</sup> subsists  
between the Ocean, the Atmosphere & the Earth. There you will  
see that the whole terraqueous-globe, sea as well as land,  
together with the whole region of the atmosphere, is contrived,  
and disposed in such a manner, as to afford us currents  
of fresh waters; all of which have a special & ultimate re-  
-ference to the propagation of Vegetables, w.<sup>c</sup> is either the  
habitation, or food of all terrestrial-animals.

When we have entertained ourselves with a view of this grand  
apparatus, we shall give you some idea of the Linnaean system  
of Botany, or artificial arrangement of those numerous tribes of  
Plants w.<sup>c</sup> cover, & adorn the Earth. Then we shall proceed to con-  
-sider the Springs & Miners, w.<sup>c</sup> cherish & vivify the whole, afterwards  
we shall try to disclose the <sup>secret</sup> sources whence they are derived; and  
then we shall treat of the structure & use of mountains, w.<sup>c</sup> collect  
the waters, & distribute them over the face of the earth, and which  
finally convey these streams of fresh-water <sup>to</sup> that immense Basin,  
or Reservoir, the Salt Ocean, whence they originally sprung. There  
is nothing which stands detached, and alone in the great Temple of

Nature, <sup>but</sup> all is systematical, affinity and connection. We shall perceive in this part of our course, from that relationship, and aptitude, or fitness, w<sup>ch</sup> one thing has for another, that there is an unity of design throughout this vast fabric of the world.

In this part of our course we shall speak of Minerals, ~~and~~ that collection of precious treasures w<sup>ch</sup> lies buried under our feet. Here we shall show you <sup>among other things</sup> that the history of Iron, is in fact, the history of civilization. That is to say - the nation who knows not how to dig & smelt the ore is in a state of barbarism, but the nation, ~~who~~ no sooner does a people search the Earth for ores, especially Iron, but they smelt them, form them into instruments & by the help of them, emerge from barbarism.

We shall give you a lecture upon Insects, <sup>the most captivating part of N. History</sup> and upon the Instinct of Birds, and some other animals. Then we shall speak of the Chain of Beings, <sup>terrestrial</sup> at the top of which stands the great master of all, Man; whose wondrous frame and economy will, we hope, arrest your attention. - We may possibly extend our view still further, and glance at that immense Chain, w<sup>ch</sup> unites all beings, connects all worlds, & comprehends all the Spheres! That astonishing chain, out of which is excluded only one Being, and that is He, <sup>who</sup> ~~that~~, made it!

2. Previously to all this, we shall give you a concise history of Philosophy from the days of Pythagoras to the discovery of the art of printing. We do this in order to show you how one sys-  
-tem

System has grown out of another, and that the present superb  
<sup>not the work of a party of one hundred men but</sup>  
structure of Philosophy is the result of the joint labour, and  
continued exertions of a vast number of industrious <sup>Philosophers</sup> men, in the  
different ages of the world; each one, <sup>seeing further, by</sup> standing (if we may so  
speak) on the shoulders of his predecessors. — We, moreover  
give you this history, chiefly to prevent your over rating the  
powers of the human mind, and to cure you of that wonder  
and admiration for great names, & celebrated works, <sup>is a common</sup>  
to youth. (Wonder is the <sup>effect of novelty upon ignorance</sup> suspension of reason) and no human  
production ought to excite it. — We would not have any of  
you think, that you are incapable of performing any thing, that  
ever man performed, under the same circumstances, & with  
the like helps. Perhaps all men, organized in the same  
manner, have an equal aptitude for understanding:  
This aptitude is a dead, or latent power within us, when it  
is not roused & vivified by those energies of the soul,  
called the passions. — Now the passion of glory, or the love  
of fame, or in other words "the ruling passion," is that w.  
most commonly sets this latent ability, or aptitude, in action:  
and all men are susceptible of this stimulus in countries where  
glory leads to power (~~hence you will find in the course of your~~  
~~reading, that a larger number of great men have appeared in~~  
~~Republics than under monarchies.~~) We find in the course of  
education of youth, that we have not to lament the want of na-  
-tural abilities, but the want of energy: — that the difficulty is  
not to make them comprehend a thing, but to make them de-  
sirous of comprehending it. Should

Should any one enquire, why we give three lectures on the history of philosophy, part of which is as applicable to moral philosophy as natural history; we w<sup>d</sup>. inform him, that we originally gave but one, but have been solicited, from reason to reason, to extend, rather than contract them. — It has been found that students know the general character of Shales, Pythagoras, Heraclitus, Democritus, Aristotle & Plato, and of Bacon, Lock & Newton, but are not so well acquainted with the order of time, and with that improvement which one philosopher made on the labours of his predecessors; and with those different faces w<sup>ch</sup>. philosophy assumed in different ages, together with the causes of this change of countenance. — We may add another reason: you have all different tastes, aims, & pursuits, but few of you, very few, I hope, but what would wish to employ some of your liberal leisure, in contemplating the history of the progress of the human mind; for in every pursuit, and in every profession, this knowledge is called for; and none of you have sufficient leisure to call out from various authors such an history as we mean to lay before you: It indeed supposes a more extensive reading than your present occupations can possibly allow of. — We go on then, to give you such an history of philosophy as would be proper for persons of your age, and by no means improper to precede such a course as ours. — We would observe to you at the beginning

beginning, that there has, and always will be two Empires  
commanding the world. The first is the Empire of Kings, and  
Rulers of States, with those who act under them, as Generals, of  
Armies, ministers & magistrates. The second is the Empire  
of Learning, or Philosophy. This is a species of eminence, in  
which distinction arises not from birth, riches, authority, nor  
elevation of place, but from superior Knowledge alone.  
This forms a new species of Empire, or command, infinitely  
more extensive than all others, and which lasts when Kings,  
Congregators & Legislators are returned to their native dust.

*Bacon*  
~~and the Empire of Learning is the mother, the nurse, the guardian.~~  
The history of Philosophy, is the history of the human Understanding,  
tending to shew the extent of its capacity, the causes of its perversion,  
and the means by which it may be recalled from its unpro-  
fitable wanderings, and made subservient to the happiness of  
mankind. It is moreover, a faithful register of discoveries in the  
world of science, and a <sup>profitable</sup> guide towards unknown regions. It  
shews how far science has been hitherto successfully prosecuted,  
and in what instances imperfectly explored. It instructs the  
student in what is to be avoided, and what yet remains to  
be done. It puts him upon his guard against the repetition of  
fruitless attempts; and enables him to distinguish new doctrines  
from ~~the~~ <sup>old</sup> ones. It detects imposing plagiarists, and assists him  
in the regulation of his <sup>studies</sup> future speculations. A course of twenty  
lectures on this subject, would I conceive be one of the most  
useful & entertaining subjects in the whole circle of education.  
The sketch we shall give, will be calculated, more to excite your



curiosity than gratified. The time may come when we shall <sup>devote</sup> a whole course to it —

3. Altho' the origin of Philosophy be obscure, yet all allow that the Greeks, were the first Philosophers in the world. Not but what some other nations w. existed before them, had a knowledge of some parts of philosophy w. they had been taught by necessity, the mistress of all the sciences. Thus that most antient people, the Egyptians, whose country was periodically overflowed, & whose lands were all in common, without enclosures. they, I say, to make a more equal dividend of their harvests, between those persons who had cultivated the ground, invented the first principles of Geometry, or measuring of the earth.

In Egypt the sciences were taught by signs & symbols. Their Philosophers, or Priests, formed a scientific language similar to what exists at this day in China, w. consists of infinitely written, or depicted symbols. Hence it was, that these Egyptian Teachers, were always searching for similes & allegories; and in process of time, these mere symbols, were confounded with the things <sup>of which</sup> they were meant to be only the signs. They stuck up, e.g. the figures of the Ram, the Bull, the Ox, the Scales, the Goat &c. to inform the illiterate husbandman, when certain general works were to begin in common: for Egypt being without enclosures

without enclosures, and subjected to periodical inundations of  
the Nile, it was necessary to inform the common people  
of the approaching floods, by such figures, for they were  
unable to read letters. — They stuck up, then, the figures  
of the Ox, the Bull, the Swins, the Crab &c., to notify the  
husbandman, when to begin their various agricultural  
labors: and while the farmer made this use of these figures,  
stuck up on the banks of the Rivers & high-ways, the  
astronomer, or Philosopher used them in his study, to ex-  
-press the place the Sun occupied in the Zodiac, which  
- <sup>you know</sup> is one of the imaginary circles of the Heavens. For they di-  
vided the Stars behind which, they saw the Sun pass & re-  
- pass into 12 equal portions, called Aries, Taurus, Gemini,  
Cancer &c., and w.<sup>c</sup> were represented by as many figures.  
In process of time, the use of figures became exceedingly  
multiplied, & at length a species of writing arose which  
had for its basis the nature of the thing expressed. Hence  
originated metaphors & figures of speech — a great  
warrior was called a Sword, a conqueror a Lion, or an  
Eagle; the Supreme being the Sun, or a flame of fire, and  
Eternity a Circle, <sup>i.e. something</sup> without beginning or end. This figurative  
language runs thro' not only their writings on Natural  
Philosophy, but is intimately mixed with the sublime truths  
of Religion, w.<sup>c</sup> give their writings an odd mixture of Super-  
-stition & philosophy, of <sup>serious</sup> truth & <sup>disgusting</sup> absurdity. The Chal-  
dians

hieroglyphics - holy writing, curious, or engraving

The Chaldeans, who were principally Shepherds, living in an open Champaign-country, and having little or nothing to hinder them from contemplating the stars, were the first who studied their motions. The Phenicians who lived near the sea, drew great advantages from this knowledge of the stars, & converted it to a noble purpose, by observing <sup>those more particularly</sup> whose courses might be of use in Navigation. The Phenicians were the first, who found out that there was a fixed point at the pole (called the North pole) by which pilots might securely steer. These people were acquainted with these things from experience & observation only, having not yet reduced the knowledge they had thus acquired, into any written precepts.

It is said that Orpheus of Thrace, was the first who reduced the ~~then~~ <sup>of his days</sup> knowledge into the form of rules and precepts, and exhibited the whole to the eye by the means of letters. What is said of Orpheus is rendered probable from the very antient fable of this renowned Thracian, who is said to have played so sweetly on the Lyre, that he tamed the very Beasts, & made the woods & stones dance into the form of a city. The explanation of the fable is - that Orpheus by his science, by his abilities as a legislator, and by his eloquence, tamed a rude & savage people, & changed the forests where they roamed at large into regular cities.

Thales & Pythagoras, were the two great founders of Philosophy among the antients. The one in Greece, the other in Italy. (I would just notice as I go on, that young people from being accustomed to hear these old philosophers spoken of in such exalted strains of applause, have been disappointed on examining their writings, & finding what they call, "so few original ideas" without considering the infancy of learning, and how much praise is really due to those who first broke the <sup>road</sup> ~~way~~ to knowledge, and left to those who come after the easy task of smoothing it. At this period of the world none of the common people could read, & but very few of the upper ranks. They had not the advantage of hearing as we have, moral lectures once a week from the pulpit. Each sect of Philosophy however, among these antients were a sort of Religion.

So glorious was the modest & simple title of Philosopher to the learned of antient times, that they preferred it to all others. That love of wisdom, <sup>w. the word implies</sup> and that study of nature, w. they professed, gave them such authority over the minds of men in that day, that their maxims were received as oracles in the world. Great men & governors, applied to them for advice in affairs of the last importance: Cities & Provinces, submitted to their directions, and Princes themselves esteemed it a glory to have been their disciples. (See p. 1. c.)

Chericydes Syrus, who was the first greek ~~to~~ <sup>that</sup> wrote in prose, was also the first who wrote on the Universal principle of Nature, w. we shall shortly speak of. The famous Pythagoras was his scholar, and so was Thales, who was so great a favourite that Pythagoras <sup>he</sup> made

made him heir to his ~~writings~~ <sup>natural</sup> writings. You can form some idea, how dim the light of philosophy was in that day, when we inform you that Anaximander, who studied under Thales was the first who clearly distinguished the <sup>efficacy of</sup> four Elements, (1.) Fire (2.) Air, (3.) Earth & (4.) Water. — He it was, that placed the Earth in the centre of the Universe, & by this situation, was the first who made up a system of the world. From his extraordinary knowledge in the nature of things, at this early period, the Greeks called him "the founder of their philosophy —

Pythagoras arrived at as great, if not greater eminence in Italy, as Anaximander did in Greece. He lived in the year of the world 3360; dating from the Jewish account of the creation. (i. e. about the time that Nebuchadnezzar besieged the Temple of Jerusalem) At this period Egypt was celebrated for learning. Their numerous Priests studied natural knowledge as well as Divinity. Pythagoras travelled into Egypt & long resided there. The Egyptians gave their doctrines an air of mysterious obscurity, & mixed it with their religion. The philosophy of Pythagoras partook of this mystery. His common method of teaching was by geometry & numbers. By geometry, he explained material & sensible things; and intellectual things he explained by numbers, & by music. Teaching philosophy by numbers, so familiar &

to Pythagoras has been a secret ~~existence~~. Being admitted to the recondite, or more hidden doctrines of the Egyptian Priests, he learn'd among other things, that the soul was immortal. But as his first knowledge was but confused & intricate, he was at a great loss to conceive how the soul could possibly exist after its separation from the body, so that he chose rather to believe that it pass'd into the bodies of other animals, than to persuade himself that it could have any existence in a state distinct from, & independant of all matter. Hence first arose the famous doctrine of metempsychosis, or transmigration of the soul out of one body into another whether of man, or beast.

Celebrated long & wide, as the philosophy of Pythagoras has been, yet not only his researches, but the researches of all the Philosophers of that day, were within narrow limits, in comparison to ours. Their studies extended to the course of the heavenly bodies, the qualities of the four elements, the rules of geometry, logic & music. They divided the inhabitants of the world into four parts, and called all the inhabitants of the East, Indians; and those of the south Ethiopian; those of the west Celta; and those of the north Scythians, indiscriminately.

The Philosophers had composed a sort of Religion in honor of their Gods, yet they had not given to the people

at large, any precepts for the regulation of manners: the glory of this was reserved for Socrates.

There were four, or rather five systems of Nat<sup>l</sup> Philosophy w<sup>ch</sup> divided the attention of the Philosophers soon after the death of Pythagoras, and as they are much oftener quoted <sup>we shall close this lecture by giving</sup> you understood, it ~~would not be a waste~~ to give you a sketch of them. it

You must know, then, that the first principle, or the Uni-  
-versal principle (as they call it) out of which all things in this world were made, and into which they will be turned again, has exercised the intellects of Philosophers in every age, & especially these ancient ones. on reflecting on w<sup>ch</sup> we advanced in our last Lecture (May 1807) -

'Tis evident that all things change; that nothing is truly last; and that the sum total of matter remains perfectly the same at this moment, as it was at the creation. As it was the work of Omnipotence to create something out of nothing, so the same Omnipotence is required to reduce any thing back to nothing: yet in the world w<sup>ch</sup> we inhabit, substances of every kind, either immediately, or mediately, pass one into another, & reciprocal death, dissolution & digestions, support by turns all substances out of each other. So that the birth of each animal, & the fresh growth of a vegetable, is not a new creation, a vocation of something out of nothing, but a mutation, change, or generation of one thing out of another. & so, there must have been some one original or

original, or primary matter, out of which they were all created; and, the ancient philosophers labored to find out what that primary matter was.

Anaxagoras, believed in the eternity of matter, and taught that the first principle of all things was matter uncreated, i. e. he was, Atheist, for his system excludes a Deity. His doctrine is represented by the fable of Cupid produced from an egg hatched by Nox, i. e. darkness, or obscurity. By the fabulous name of Cupid the ancient poets meant, the efficient cause, or energy of Nature.  
Now most of the fables related by Ovid & other ancient poets, are the opinions of these old philosophers couched in fables and dressed in the garb of allegory. — Barrow 133 Vol. 2<sup>d</sup>.

Thales, maintained that Water, was the principle of all things, from observing that matter was chiefly dispensed out in moisture; and he thought it was proper to lay that down for the principle of things, in w.<sup>ch</sup> their virtues, powers, and vigour are principally found. Thus he observed, the seeds of plants, so long as they are in a growing state, are soft, tender and moist: and that a Vegetable will grow to a considerable bulk, by being put into water alone. Minerals, he s.<sup>d</sup> would melt, & appear but as concreted juices of the Earth, or rather as certain concretions of the waters of the Mine. The Earth, itself is made fruitful, refreshed, and recruited by rains & rivers.  
Nay, the Air

To be corrected. See Ed. 150-159 t. (1797)



the air appears to be but an expiration, expansion, or offspring of water. He remarked that the great body of water is diffused as a common matter throughout this lower world; the Earth being every where watered & encircled by the Ocean.

Thales in support of his opinion, that water was the element "out of which all things were made"; observed, that there is an immense quantity of sweet, or fresh water, in the subterraneous regions, whence fountains & rivers, like so many veins, <sup>& canals</sup> in the h. body, convey water over the surface & thro' the bowels of the globe; that in the regions of the Atmosphere, there were prodigious collections of water destined to recruit, refresh, & enliven all nature.

This theory impresses us with respect, because it so nearly resembles what we read in Genesis, respecting the vivifying spirit moving upon the waters." Homer calls Oceanus, the parent of Nature.

Heraclitus maintained a very different doctrine; for he said that "fire" was the principle of all things! He allowed that the doctrine of Thales was in a great measure true, but shrewdly observed, that fire had such an Universal sway in nature, that water itself could not exist without it; for water grows hard, & congeals into Ice when fire leaves it, & is only restored to its fluidity by entering it again. He acknowledged that fire did not show itself by any visible effects in the water, because it is as it were kept the do<sup>r</sup> & enveloped in it. He remarked that

that the whole mass of waters in the sea, was in fact an Ocean of fire, seeing there were not two distinct drops of water w. do not owe their fluidity to some particles of fire enclosed within them.

Anaximenes, disciple of Anaximander, contradicted both Thales & Heraclitus, & maintained air to be the sole principle of all things. He observed that altho' the water of Thales could not subsist without the fire of Heraclitus, yet fire itself could not exist without air; and that it so far included Thales's principle, that it was the vehicle of dews & refreshing showers, and with all this, it was the very spirit of fire & flame. all w. is strictly true. — He said that air occupied a great part of the Universe, & was the common link & cement of all things, not only because it was every where at hand, ready to succeed & fill up vacancies, but still more, because it seems to be of a neutral passive, indifferent nature, capable of receiving & transmitting every other substance.

His doctrine of air must not be confined to atmospheric air, but to extend to what modern philosophers call ether. see Eng. 154.

When we consider, what has since been demonstrated, that this subtle fluid penetrates every where & every thing; that there is no liquid that has not air mixed with it; nor any solid out of which air may not be extracted, we cannot but do homage to the penetration of Anaximenes, at such an early period of Knowledge. We at this day know <sup>with</sup> certainty, that this Universal fluid, is so necessary to the existence of not only animals but vegetables, that no eggs of animals, nor seeds of vegetables, be they ever so ripe & pregnant, & cherished with ever so kindly a warmth, will ever bring forth their young, or grow, but will remain inactive & die, if deprived of air.

Jupiter, the vivifying, fecundating power of the air. (poets)

From what has been

Introductory Lecture, delivered Thursday 31. August

1797.

Natural History



From what has been related, you w<sup>d</sup> be led to conclude that Thales, Heraclitus, & Anaximenes, had not left another powerful agent in all nature, to build a system. ~~with~~; yet Democritus, who retired from the society of men, & dwelt among the Tombs, in order more uninterruptedly to study nature, built another, called the Corpufcular System, w<sup>ch</sup> by the help of Mr. Isaac Newton, will probably stand the test of time.

The outlines of the Corpufcular System will be exhibited in our next lectures. when we shall carry the history of philosophy down to the days of the renowned Mahomed.

through the day & dismal night of gothic, barbarity, arabian, & ecclesias.  
tunc barbarity

Finis

It is strange, you will say that Nature should make use of the same agent (fire) to create as to destroy, and that what has only been looked upon as the consumer of things, is in fact the very power that produces them. Broydone V. P. p. 11.

The business of a painter (or naturalist) is to examine not the individual but the species; to remark general properties & large appearances, he does not number the streaks of the tulip, or describe the different shades in the verdure of the forest. He is to exhibit in his portraits of Nature such prominent & striking features as recall the original to his mind, & must neglect the minute discriminations &c. John. Raphael.

Freyberg - in the Electorate of Saxony - Freyberg -