

Lecture 3^d - Nat^l History

Spring 1804

ground work for a quarter

Jan 25

We gave you, in our last Lecture, the outlines of the ancient corpuscular system of philosophy, which owed its origin to Democritus of Abdera. so old & so humble is the commencement of that superb structure of philosophy by which we have been able to ascertain the laws of the celestial bodies; to describe their paths, measure the Earth and weigh the Sun!

We next spoke of that profound philosopher Aristotle, whom we will venture to hold up to you as the first of philosophers among ^{the ancients,} notwithstanding he has a different character among some modern writers. We do not give sufficient credit to those pioneers in science; those who first broke the road ^{to knowledge} & left to inferior men the easy task of smoothing it. Neither Bacon, Lock or Newton surpassed, for strength of intellect, this renowned philosopher.

We decline saying any thing of Plato till after we have treated of the primary m. because his theory illustrates this abstruse subject. It is not amiss :: to say a word of

Zeno, the founder of the sect of Stoics, because we profess to admire & venerate them beyond all the moral philosophers of antiquity. The several sects of philosophy among the ancients were a species of religion. These Stoics held one supreme

supreme GOD, incorruptable, unoriginated, immortal, rational, and perfect in intelligence & happiness: unsusceptible of all evil, governing the Universe, & all things in it by his superintending providence. These Stoics were not so absurd as to believe him of human form, but by the several names of Jupiter, Apollo, Minerva, Neptune & Ceres, they only denoted different exertions of the Supreme Creator's power in the different parts of the world. They held the eternity of matter, as a passive principle, but that it was reduced from Chaos into order by the Maximus, Optimus. Of all the antient philosophers, these Stoics were the clearest & the most zealous assertors of a particular providence.

Never were principles, says the great Montesquieu, more worthy of human nature, & more proper to form the good man, than those of the Stoics; and if says he, I could but for a moment ^{cease} forget to think that I am a Christian, I should not be able to hinder myself from ranking the destruction of the sect of Jens among the greatest misfortunes that have befallen the human race. The Stoics carried to excess only those things in which there is true greatness, the contempt of pleasure & of pain. Under the oppression of tyranny, they indeed carried it to the rigid & criminal excess of the contempt of life, which they sometimes threw away. — As you all know that Virgil, Cicero,

Cicero, Pliny, Plutarch, & Epicurus, as well as Cato, Brutus, Trajan & Antoninus were among the first characters of antiquity, it is natural to imagine, you would wish to know what sort of religion they professed. Know then, that the greatest & best men among the Romans were Stoics; and the leading principles of this sect were such as we have just related.

We ^{informed you} related in our last lecture, how the Greek and Roman learning was almost totally abolished in Europe, by the Goths & by the Saracens. The one overrunning the eastern & the other the western Empire. We related that nearly a million Greek & Latin MSS. were destroyed by these disciples of Mahomed, at Alexandria, in Egypt, a city recently made the theatre of war by the French & English!

While the Goths were destroying learning & taste in the western Empire, the Arabians overran the eastern. These Arabians were followers of the famous Mahomed and were at first as great enemies to learning of all kinds as the Goths themselves. But at length they applied themselves to the study of several sciences, particularly Medicine & Nat. History. They were indeed, for the most part, only copiers, or translators of

of the Greeks; for by overrunning Greece they monopolised all the greek writings w. had escaped the flames. The world is :: indebted to them for several improvements. They were the first who introduced chemical remedies into medicine; but they mixed in with it a no small quantity of the deleterious science of astrology. They also gave to the world those common figures now used in arithmetic, v. the love of ~~money~~ money has spread around the globe, and which has contributed not a little to form that golden chain, by which the merchant binds the world together.

By reason of the general decay of learning in the western parts of the world, the greek writers became totally forgotten, because at this period, no one could read their writings; and these Arabians, who were in possession of the greek authors, enjoyed a far greater reputation than they deserved, because they were merely translators.

When Muhammed & his successors carried their Empire with the rapidity of a torrent over most parts of Asia, Africa, through Persia, Arabia, Egypt & Palestine, they gave, as it were, a new face to the world. But when this extraordinary personage founded the great Empire of the Arabs, he was far

was far from neglecting the arts & sciences; for in the college of Bagdad, (a city w^h stands where ancient Babylon once did) there were it is said 12,000 students!

Fortunately for mankind that altho' the greatest part of the then known world, by Goths, Vandals, & equally furious Mahometans, and all literary knowledge & cultivation destroyed, — luckily Constantinople together with some of the parts of the eastern Empire remained, by which fortunate circumstance the Greek & Roman learning was preserved from total extinction.

† If you wish to know what occupied the attention of the human race during 600 years, a period distinguished by the dismal name of "the dark ages", when learning, taste, & morals lay prostrate in the dust, you have only to read the rise & progress of the Popes, especially of Gregory VIIth, when the expedition commenced against the holy land under that detestable wretch Peter the Hermit, w^h we have already related.

Such was the deplorable state of that part of the human race called Christianity in the VIth century! Europe was one large field of battle. Fighting & devotion divided the world!

The Princes & Nobles who flocked from all nations to this holy war intermixed with the poor remains of the conquered Greeks

conquered greeks & romans, and, admiring their superior learning, arts & cultivation, not only formed a friendship with these subjugated people, but appeared absolutely to shrink back with horror from their own barbarity, when contrasted with these learned and polished emigrants. The Princes & Nobles who led this immense host to battle, were finally seized with a thirst after the knowledge of the greeks & romans, whom they had conquered. It therefore happened that the destruction of Constantinople threw these learned men into the arms of those who were glad to receive them, as tutors for their children; for since their campaigns in the greek and roman territories, they knew how to value the arts & learning of the antients. By such means & circumstances greek & latin were brought down ~~from~~ to us; otherwise they would have shared the fate of the antient Egyptian language, w.^{ch} is totally extinct.

A remarkable epoch in human affairs is that called the revival of letters. Literature & the arts began first to revive in Italy, where Petrarch, Boccaccio, Politian, and Lorenzo de Medici appeared like so many bright stars in a dark hemisphere.

Some distinguish all those who lived prior to the revival of letters by the name of the antients, & posterior to that period, moderns. It is more accurate: to call all those who have lived since

lived since the revivance of letters modernas; and to call the
600 years that preceded it the middle, or dark ages;
and all those who lived prior to the dark ages, the antients.
With the dawn of literature arose the courteous
spirit of chivalry. In this era, the warlike nobility,
from motives of religion, undertook to combat the
moors in Spain, & the Saracens in Asia; and, from
motives of refined gallantry, to fight the tyrants of
castles & strong holds in Germany & France.

The chaste & generous spirit of gallantry wrought
a wonderful change in the customs, manners, and
policy of the world. The excess of it, as ridiculed
in the person of Don Quixote, was only reprehensible.
It was in fact, a noble spirit of justice & heroism,
which delighted in the protection of the weak. "It
mingled politeness with the use of the sword, and
exalted the human character by softening the
empire of force. The world soon felt the good
effects of chivalry. —

The two systems of philosophy most prevalent imme-
diately after the revival of letters, was the philosophy
of Aristotle, and the philosophy of Plato. Aristotle's
works were referred to, as oracles in the Universities and
monasteries; while the poets & sentimental writers were
admirers

admirers of the sublime & splendid Plato. But there was little advanced, during the long space of five centuries, in Nat Hist. Politics, Logic & Metaphysics, but what was agreeable to the doctrines of the renowned Aristotle.

Soon after this period there happened another mighty change in the affairs of men; three seemingly mean, inglorious, mechanical discoveries influenced human affairs more than any Empire, Sect, or Conqueror ever did; and these were the Mariner's compass, the discovery of Gun powder, and the art of printing.

For want of the mariner's compass the ancients dwelt in darkness, as it regarded the terraqueous globe. As their knowledge of the habitable world was confined to a small space, so their prejudices were narrow, their notions ridiculous, and their pride excessive. The wise Greeks, who considered all nations but themselves barbarians, called all the northern nations Scythians, and all the western Celtæ, indiscriminately. They had no knowledge of Africa beyond the nearest part of Athiopia, nor of Asia beyond the Ganges. As for this vast continent where we dwell, they never had even a tradition of it. They even pronounced many Zones & climates uninhabitable, where infinite numbers of people are now found with all the comforts & luxuries of life. As to the travels of Democritus, Plato, Pythagoras, Anacharsis & others
so much

so much celebrated, it was travelling within their own walls compared with those of modern days.

By means of the compass, the mind of man, just emerged from darkness, and emancipated from bigotry & ^{sloth} ignorance ~~was~~ ^{was} able to cultivate an acquaintance with the ^{more} distant families of the earth, than which, few things tend more to expand the mind & of course diminish prejudice.

Who, or when ~~the~~ invented, or first used the mariner's compass is uncertain. It is commonly attributed to a Venetian pilot. ~~Others~~ Some assert that the Chinese possessed it 2000 years ago.

Whoever attentively considers the disposition of all things in the Universe, will find that Providence (by which term we mean not merely the Creator, but the Legislator of Nature) will find that Providence makes use of the smallest means & causes to operate the greatest and most powerful effects. In His hands, a pepper corn is the foundation of the power, glory & riches of India. He makes an acorn, & by it communicates power, riches, and naval dominion to that renowned nation whence we of New England sprang!

Some persons, idly diverting themselves with a little red-stone, I mean the magnet, found that it attracted iron; and at length that a needle touched with it would always point to the North-pole. Some lucky mortal took the hint of Nature

this hint of Nature, and with it formed the Manner's comp. by means of which the sailor traverses the trackless ocean, in the darkest night with perfect safety!

It does not belong to us to treat of Commerce, & its manifold advantages. The speculation is, however pleasing. It is by commerce that the whole world is made but one country, & immense family. The rivers of the globe, nay the great Ocean itself, w^{ch} superficial examiners would be apt to think would separate & interrupt, actually promotes the intercourse, & brings all nations together.

As to the effects of the discovery & use of Gun powder, it has stopped the rage of conquest, and arrested the desolating strides of war, by putting all nations nearly on the same level. The world has certainly enjoyed more liberty & happiness since, since battles are terminated by other powers than mere muscular strength.

But what shall we say of the Art of Printing? This is an effectual barrier against a second destruction of learning, or of liberty, and truly it may be called the Ars Artium omnium Conservatrix. Before the discovery of printing, books were so very scarce, & so highly valuable, as to be in the hand of scarce any but Kings & Bishops; whereas this beautiful art has so multiplied them, as to diffuse knowledge over the

the face of the earth. Paintings have been multiplied by
the art of engraving, w^{ch} is a most elegant species of print-
-ing; This sort of printing, alike unknown to the ancients,
has contributed more than you would first suppose
to the advancement of every art & science. Nat Hist
is particularly indebted to this beautiful art for the striking
representations w^{ch} it affords of ~~the~~ various productions of Nature.

Little says Horace Walpole, did the monarchs of
Egypt think, when they erected their enormous pyramids,
that a plant, a weed then growing by their own river Nile,
would one day be converted into more durable registers
of fame than all the stupendous pyramids of they could
erect! Yet you see ^{that} the manufactory of this vegetable
into paper, & the invention of printing, has ensured
endless fame to those who vainly sought it by building
pyramids. The verses of Homer, & the works of the most
eminent Greek philosophers have continued several
thousand years without loss. In which time what number
-less Pallaces, Temples, Castles, Cities, Kingdoms and
Empires have been demolished & swept away! It is
impossible to preserve the images, or statues of Aristotle,
Plato, or Cicero, Virgie or Horace, ^{but} ~~the~~ the images of their
knowledge

minds & ideas, their knowledge remains in books, exempt from the injuries of time, & capable of by the admirable art of printing of perpetual renovation! —

About this period, denominated Revival of Letters, there lived at Oxford in England a singular personage named Roger Bacon

Here follows an account of Bacon in the lecture transcribed by G. Waterhouse entitled The application of the Mariner's compass, Gun Powder & Printing, which with the foregoing pages concluded Lecture 3.rd — April 1804 —

Preface to Lecture 4.th —

Our last Lecture (viz the 3.rd) completed our sketch of a history of Human Learning from the Grecian Commonwealth to the dark ages; and from the revival of letters to the art of printing, and even to the present times. He who is best acquainted with the Greek, Roman, & modern history will more readily see that it is a mere sketch. Our last lecture was principally devoted to certain deductions naturally flowing from the two preceding ones —

In our introductory lecture we gave you several reasons why we occupied three lectures in the history of philosophy. We sh^d. if you recollect that it has been found, that students,

altho' they may know the general character of Thales, Pythagoras, Heraclitus, Democritus, Aristotle & Plato, and of Bacon, Boyle, Locke & Newton, yet they were not so well acquainted with the order of time, & with that improvement w.^c one philosopher made on the labors of his predecessors, and with those different faces w.^c philosophy has assumed in different ages, together with a knowledge of the ^{a philosopher} ~~causes~~ ^{causes} of this change of countenance. To judge rightly of

We s.^d in our introductory lecture, that there has, and always will be two Empires commanding the world; that the first was the Empire of kings & Rulers of States, with those who act under them, as Generals of Armies, Ministers and Magistrates. The second was the Empire of Learning, or philosophy. We s.^d that this formed a new species of Empire, or command infinitely more extensive than all others, and w.^c lasts when Kings, Conquerors & Legislators were returned to their native dust, and the sketch of human affairs w.^c have exhibited has proved the ^{truth of the} assertion. For after what we have seen who can doubt the ~~weight~~ ^{weight} of Lord Bacon's aphorism that "Knowledge is power". But when extensive knowledge and great talents unite with extraordinary civil or magisterial power, as in an Alexander, a Cæsar, and a Bonaparte, this combined force has ^{almost} always been found irresistible.

We observed like^{wise} that altho' your tastes, aims & pursuits were all different, yet the history of the progress of the human knowledge was profitable in every profession, & honourable pursuit in life, and that none of you could be supposed to possess sufficient leisure to call out, arrange & correct in the series of cause & effect such an history as we meant to lay before you,

The mode of teaching by lectures is sanctified by the usage of all Europe. By this time you can feel the the difference between this mode of teaching and that of acquiring knowledge by reading. In reading the mind is often passive. The stream passes so rapidly through the brain that little matter is deposited. Hence a discourse directed to 40 students operates by the power of 40, provided they converse among themselves on the subject of it; what one loses another catches & by comparing ideas, they not only retain all they have heard but strike out new ones. I can recollect ~~of~~ but one great man who has disapproved this mode of teaching & that is the learned D. Johnson, and his daily & nightly practice is a striking reputation of the ^{justness} ~~justness~~ of his remark. This eminent man ^{very} rarely conversed in the true sense of that word, but, uttered his moral, critical, & political opinions, with the solemnity of a ^{lecture} ~~sermon~~. He dictated his opinions to a listening audience. Few ventured to question him, none to contradict him. To hear Johnson

"Johnson lecture" was a common phrase among his visitants, and yet, as Boswell tells us, J. affected to ridicule the mode of teaching by the living voice; whereas people of the first rank, undared the spleen, ill humor, and other disgusting circumstances of this learned Hottentot for the sake of his extemporaneous lectures. For sometimes when suffering under melancholy & ill humor, he poured forth "the troubled stream of his eloquence" with accompaniments, & do more honor to the disciples of the Philosopher.

Plato taught his disciples by familiar lectures, but in a manner very different from that cynical mode pursued by the austere and supercilious Johnson. We gave you a specimen of Plato's doctrine & style, in our last lecture. You see with what judgement & taste he mixed material & intellectual things; and you must have noticed the sublimity of his conceptions, and elegance of his diction, as far as diction can be discovered that has passed through two translations, from the Greek to French, & from French to English [Abbe Bartollemi Anacharsis]

Plato closes this lecture by describing the author of all things addressing the angels or Genii to this effect - Ye Gods who owe to me

to me your birth listen to my commands - It remains, in order to give perfection to this grand whole to fill the earth, the air & the seas with inhabitants - Were these creatures to receive their life immediately from me, they would be exempt from the Empire of Death, & become equal to the Gods themselves: to you therefore I commit the care of producing them. Delegates of my power! unite to perish-able bodies, the germs of immortality, w^{ch} you shall receive of me, and form therewith Beings, who may command over other creatures animals & be subject to you, live and increase by your benefactions, & after their death let them be united to you & share in your happiness.

After these immutable decrees the Supreme Being disseminated souls in the different Planets, & having commanded these inferior Gods to cloath them successively with mortal bodies, to provide for their wants, and to govern them, He again entered into his eternal repose! Anacharis Vol. 15th