

George Grote



# PLATO AND THE OTHER COMPANIONS OF SOKRATES

*(Vol. 1-4)*

**George Grote**

# **Plato and the Other Companions of Sokrates (Vol. 1-4)**

e-artnow, 2021

Contact: [info@e-artnow.org](mailto:info@e-artnow.org)

EAN: 4066338129116

# Table of Contents

[Volume 1](#)

[Volume 2](#)

[Volume 3](#)

[Volume 4](#)

# Volume 1

## Table of Contents

PREFACE.

CHAPTER I. SPECULATIVE PHILOSOPHY IN GREECE,  
BEFORE AND IN THE TIME OF SOKRATES.

CHAPTER II. GENERAL REMARKS ON THE EARLIER  
PHILOSOPHERS—GROWTH OF DIALECTIC—ZENO AND  
GORGIAS.

CHAPTER III.\* OTHER COMPANIONS OF SOKRATES.

CHAPTER IV. XENOPHON.

CHAPTER V. LIFE OF PLATO.

CHAPTER VI. PLATONIC CANON, AS RECOGNISED BY  
THRASYLLUS.

CHAPTER VII. PLATONIC CANON AS APPRECIATED AND  
MODIFIED BY MODERN CRITICS.

CHAPTER VIII. PLATONIC COMPOSITIONS GENERALLY.

CHAPTER IX. APOLOGY OF SOKRATES.

CHAPTER X. KRITON.

CHAPTER XI. EUTHYPHRON.

# **PREFACE.**

## [Table of Contents](#)

The present work is intended as a sequel and supplement to my History of Greece. It describes a portion of Hellenic philosophy: it dwells upon eminent individuals, enquiring, theorising, reasoning, confuting, &c., as contrasted with those collective political and social manifestations which form the matter of history, and which the modern writer gathers from Herodotus, Thucydides, and Xenophon.

Both Sokrates and Plato, indeed, are interesting characters in history as well as in philosophy. Under the former aspect, they were described by me in my former work as copiously as its general purpose would allow. But it is impossible to do justice to either of them—above all, to Plato, with his extreme variety and abundance—except in a book of which philosophy is the principal subject, and history only the accessory.

The names of Plato and Aristotle tower above all others in Grecian philosophy. Many compositions from both have been preserved, though only a small proportion of the total number left by Aristotle. Such preservation must be accounted highly fortunate, when we read in Diogenes Laertius and others, the long list of works on various topics of philosophy, now irrecoverably lost, and known by little except their titles. Respecting a few of them, indeed, we obtain some partial indications from fragmentary extracts and comments of later critics. But none of these once celebrated philosophers, except Plato and Aristotle, can be fairly appreciated upon evidence furnished by themselves. The Platonic dialogues, besides the extraordinary genius

which they display as compositions, bear thus an increased price (like the Sibylline books) as the scanty remnants of a lost philosophical literature, once immense and diversified.

Under these two points of view, I trust that the copious analysis and commentary bestowed upon them in the present work will not be considered as unnecessarily lengthened. I maintain, full and undiminished, the catalogue of Plato's works as it was inherited from antiquity and recognised by all critics before the commencement of the present century. Yet since several subsequent critics have contested the canon, and set aside as spurious many of the dialogues contained in it—I have devoted a chapter to this question, and to the vindication of the views on which I have proceeded.

The title of these volumes will sufficiently indicate that I intend to describe, as far as evidence permits, the condition of Hellenic philosophy at Athens during the half century immediately following the death of Sokrates in 399 B.C. My first two chapters do indeed furnish a brief sketch of Pre-Sokratic philosophy: but I profess to take my departure from Sokrates himself, and these chapters are inserted mainly in order that the theories by which he found himself surrounded may not be altogether unknown. Both here, and in the sixty-ninth chapter of my History, I have done my best to throw light on the impressive and eccentric personality of Sokrates: a character original and unique, to whose peculiar mode of working on other minds I scarcely know a parallel in history. He was the generator, indirectly and through others, of a new and abundant crop of compositions—the "Sokratic dialogues": composed by many different authors, among whom Plato stands out as unquestionable coryphæus, yet amidst other names well

deserving respectful mention as seconds, companions, or opponents.

It is these Sokratic dialogues, and the various companions of Sokrates from whom they proceeded, that the present work is intended to exhibit. They form the dramatic manifestation of Hellenic philosophy—as contrasted with the formal and systematising, afterwards prominent in Aristotle.

But the dialogue is a process containing commonly a large intermixture, often a preponderance, of the negative vein: which was more abundant and powerful in Sokrates than in any one. In discussing the Platonic dialogues, I have brought this negative vein into the foreground. It reposes upon a view of the function and value of philosophy which is less dwelt upon than it ought to be, and for which I here briefly prepare the reader.

Philosophy is, or aims at becoming, reasoned truth: an aggregate of matters believed or disbelieved after conscious process of examination gone through by the mind, and capable of being explained to others: the beliefs being either primary, knowingly assumed as self-evident—or conclusions resting upon them, after comparison of all relevant reasons favourable and unfavourable. “Philosophia” (in the words of Cicero), “ex rationum collatione consistit.” This is not the form in which beliefs or disbeliefs exist with ordinary minds: there has been no conscious examination—there is no capacity of explaining to others—there is no distinct setting out of primary truths assumed—nor have any pains been taken to look out for the relevant reasons on both sides, and weigh them impartially. Yet the beliefs nevertheless exist as established facts generated by traditional or other authority. They are sincere and often earnest, governing men’s declarations and conduct. They



represent a cause in which sentence has been pronounced, or a rule made absolute, without having previously heard the pleadings.<sup>1</sup>

Now it is the purpose of the philosopher, first to bring this omission of the pleadings into conscious notice—next to discover, evolve, and bring under hearing the matters omitted, as far as they suggest themselves to his individual reason. He claims for himself, and he ought to claim for all others alike, the right of calling for proof where others believe without proof—of rejecting the received doctrines, if upon examination the proof given appears to his mind unsound or insufficient—and of enforcing instead of them any others which impress themselves upon his mind as true. But the truth which he tenders for acceptance must of necessity be *reasoned truth*; supported by proofs, defended by adequate replies against preconsidered objections from others. Only hereby does it properly belong to the history of philosophy: hardly even hereby has any such novelty a chance of being fairly weighed and appreciated.

When we thus advert to the vocation of philosophy, we see that (to use the phrase of an acute modern author<sup>2</sup>) it is by necessity polemical: the assertion of independent reason by individual reasoners, who dissent from the unreasoning belief which reigns authoritative in the social atmosphere around them, and who recognise no correction or refutation except from the counter-reason of others. We see besides, that these dissenters from the public will also be, probably, more or less dissenters from each other. The process of philosophy may be differently performed by two enquirers equally free and sincere, even of the same age and country: and it is sure to be differently performed, if they belong to ages and countries widely apart. It is essentially relative to the individual reasoning mind, and to the medium by which



the reasoner is surrounded. Philosophy herself has every thing to gain by such dissent; for it is only thereby that the weak and defective points of each point of view are likely to be exposed. If unanimity is not attained, at least each of the dissentients will better understand what he rejects as well as what he adopts.

The number of individual intellects, independent, inquisitive, and acute, is always rare everywhere; but was comparatively less rare in these ages of Greece. The first topic, on which such intellects broke loose from the common consciousness of the world around them, and struck out new points of view for themselves, was in reference to the Kosmos or the Universe. The received belief, of a multitude of unseen divine persons bringing about by volitions all the different phenomena of nature, became unsatisfactory to men like Thales, Anaximander, Parmenides, Pythagoras, Anaxagoras. Each of these volunteers, following his own independent inspirations, struck out a new hypothesis, and endeavoured to commend it to others with more or less of sustaining reason. There appears to have been little of negation or refutation in their procedure. None of them tried to disprove the received point of view, or to throw its supporters upon their defence. Each of them unfolded his own hypothesis, or his own version of affirmative reasoned truth, for the adoption of those with whom it might find favour.

The dialectic age had not yet arrived. When it did arrive, with Sokrates as its principal champion, the topics of philosophy were altered, and its process revolutionised. We have often heard repeated the Ciceronian dictum—that Sokrates brought philosophy down from the heavens to the earth: from the distant, abstruse, and complicated phenomena of the Kosmos—in respect to which he adhered

to the vulgar point of view, and even disapproved any enquiries tending to rationalise it—to the familiar business of man, and the common generalities of ethics and politics. But what has been less observed about Sokrates, though not less true, is, that along with this change of topics he introduced a complete revolution in method. He placed the negative in the front of his procedure; giving to it a point, an emphasis, a substantive value, which no one had done before. His peculiar gift was that of cross-examination, or the application of his Elenchus to discriminate pretended from real knowledge. He found men full of confident beliefs on these ethical and political topics—affirming with words which they had never troubled themselves to define—and persuaded that they required no farther teaching: yet at the same time unable to give clear or consistent answers to his questions, and shown by this convincing test to be destitute of real knowledge. Declaring this false persuasion of knowledge, or confident unreasoned belief, to be universal, he undertook, as the mission of his life, to expose it: and he proclaimed that until the mind was disabused thereof and made painfully conscious of ignorance, no affirmative reasoned truth could be presented with any chance of success.

Such are the peculiar features of the Sokratic dialogue, exemplified in the compositions here reviewed. I do not mean that Sokrates always talked so; but that such was the marked peculiarity which distinguished his talking from that of others. It is philosophy, or reasoned truth, approached in the most polemical manner; operative at first only to discredit the natural, unreasoned intellectual growths of the ordinary mind, and to generate a painful consciousness of ignorance. I say this here, and I shall often say it again throughout these volumes. It is absolutely indispensable to

the understanding of the Platonic dialogues; one half of which must appear unmeaning, unless construed with reference to this separate function and value of negative dialectic. Whether readers may themselves agree in such estimation of negative dialectic, is another question: but they must keep it in mind as the governing sentiment of Plato during much of his life, and of Sokrates throughout the whole of life: as being moreover one main cause of that antipathy which Sokrates inspired to many respectable orthodox contemporaries. I have thought it right to take constant account of this orthodox sentiment among the ordinary public, as the perpetual drag-chain, even when its force is not absolutely repressive, upon free speculation.

Proceeding upon this general view, I have interpreted the numerous negative dialogues in Plato as being really negative and nothing beyond. I have not presumed, still less tried to divine, an ulterior Affirmative beyond what the text reveals—neither *arcana cœlestia*, like Proklus and Ficinus,<sup>3</sup> nor any other *arcanum* of terrestrial character. While giving such an analysis of each dialogue as my space permitted and as will enable the reader to comprehend its general scope and peculiarities—I have studied each as it stands written, and have rarely ascribed to Plato any purpose exceeding what he himself intimates. Where I find difficulties forcibly dwelt upon without any solution, I imagine, not that he had a good solution kept back in his closet, but that he had failed in finding one: that he thought it useful, as a portion of the total process necessary for finding and authenticating reasoned truth, both to work out these unsolved difficulties for himself, and to force them impressively upon the attention of others.<sup>4</sup>

Moreover, I deal with each dialogue as a separate composition. Each represents the intellectual scope and

impulse of a peculiar moment, which may or may not be in harmony with the rest. Plato would have protested not less earnestly than Cicero,<sup>5</sup> against those who sought to foreclose debate, in the grave and arduous struggles for searching out reasoned truth—and to bind down the free inspirations of his intellect in one dialogue, by appealing to sentence already pronounced in another preceding. Of two inconsistent trains of reasoning, both cannot indeed be true—but both are often useful to be known and studied: and the philosopher, who professes to master the theory of his subject, ought not to be a stranger to either. All minds athirst for reasoned truth will be greatly aided in forming their opinions by the number of points which Plato suggests, though they find little which he himself settles for them finally.

There have been various critics, who, on perceiving inconsistencies in Plato, either force them into harmony by a subtle exegêsis, or discard one of them as spurious.<sup>6</sup> I have not followed either course. I recognise such inconsistencies, when found, as facts—and even as very interesting facts—in his philosophical character. To the marked contradiction in the spirit of the *Leges*, as compared with the earlier Platonic compositions, I have called special attention. Plato has been called by Plutarch a mixture of Sokrates with Lykurgus. The two elements are in reality opposite, predominant at different times: Plato begins his career with the confessed ignorance and philosophical negative of Sokrates: he closes it with the peremptory, dictatorial, affirmative of Lykurgus.

To Xenophon, who belongs only in part to my present work, and whose character presents an interesting contrast with Plato, I have devoted a separate chapter. To the other less celebrated Sokratic Companions also, I have endeavoured to do justice, as far as the scanty means of

knowledge permit: to them, especially, because they have generally been misconceived and unduly depreciated.

The present volumes, however, contain only one half of the speculative activity of Hellas during the fourth century B.C. The second half, in which Aristotle is the hero, remains still wanting. If my health and energies continue, I hope one day to be able to supply this want: and thus to complete from my own point of view, the history, speculative as well as active, of the Hellenic race, down to the date which I prescribed to myself in the Preface of my History near twenty years ago.

The philosophy of the fourth century B.C. is peculiarly valuable and interesting, not merely from its intrinsic speculative worth—from the originality and grandeur of its two principal heroes—from its coincidence with the full display of dramatic, rhetorical, artistic genius—but also from a fourth reason not unimportant—because it is purely Hellenic; preceding the development of Alexandria, and the amalgamation of Oriental veins of thought with the inspirations of the Academy or the Lyceum. The Orontes<sup>7</sup> and the Jordan had not yet begun to flow westward, and to impart their own colour to the waters of Attica and Latium. Not merely the real world, but also the ideal world, present to the minds of Plato and Aristotle, were purely Hellenic. Even during the century immediately following, this had ceased to be fully true in respect to the philosophers of Athens: and it became less and less true with each succeeding century. New foreign centres of rhetoric and literature—Asiatic and Alexandrian Hellenism—were fostered into importance by regal encouragement. Plato and Aristotle are thus the special representatives of genuine Hellenic philosophy. The remarkable intellectual ascendancy acquired by them in their own day, and maintained over

succeeding centuries, was one main reason why the Hellenic vein was enabled so long to maintain itself, though in impoverished condition, against adverse influences from the East, ever increasing in force. Plato and Aristotle outlasted all their Pagan successors—successors at once less purely Hellenic and less highly gifted. And when Saint Jerome, near 750 years after the decease of Plato, commemorated with triumph the victory of unlettered Christians over the accomplishments and genius of Paganism—he illustrated the magnitude of the victory, by singling out Plato and Aristotle as the representatives of vanquished philosophy.<sup>8</sup>

1. Napoléon, qui de temps en temps, au milieu de sa fortune et de sa puissance, songeait à Robespierre et à sa triste fin—interrogeait un jour son archi-chancelier Cambacérès sur le neuf Thermidor. “*C’est un procès jugé et non plaidé,*” répondait Cambacérès, avec la finesse d’un jurisconsulte courtisan. — (Hippolyte Carnot—Notice sur Barère, p. 109; Paris, 1842.)
2. Professor Ferrier, in his instructive volume, ‘The Institutes of Metaphysic,’ has some valuable remarks on the scope and purpose of Philosophy. I transcribe some of them, in abridgment.

(Sections 1-8) “A system of philosophy is bound by two main requisitions: it ought to be true—and it ought to be reasoned. Philosophy, in its ideal perfection, is a body of reasoned truth. Of these obligations, the latter is the more stringent. It is more proper that philosophy should be reasoned, than that it should be true: because, while truth may perhaps be unattainable by man, to reason is certainly his province and within his power. ... A system is of the highest value only when it embraces both these requisitions—that is, when it is both true, and reasoned. But a system which is reasoned without being true, is always of higher value than a system which is true without being reasoned. The latter kind of system is of no value: because philosophy is the attainment of truth *by the way of reason*. That is its definition. A system, therefore, which reaches the truth but not by the way of reason, is not philosophy at all, and has therefore no scientific worth. Again, an unreasoned philosophy, even though true, carries no guarantee of its truth. It may be true, but it cannot be certain. On the other hand, a system, which is reasoned without being true, has always some value. It creates reason by exercising it. It is employing the proper means to reach truth, though it may fail to reach it.” (Sections 38-41)—“The student will find that the system here

submitted to his attention is of a very polemical character. Why! Because philosophy exists only to correct the inadvertencies of man's ordinary thinking. She has no other mission to fulfil. If man naturally thinks aright, he need not be taught to think aright. If he is already in possession of the truth, he does not require to be put in possession of it. The occupation of philosophy is gone: her office is superfluous. Therefore philosophy assumes and must assume that man does not naturally think aright, but must be taught to do so: that truth does not come to him spontaneously, but must be brought to him by his own exertions. If man does not naturally think aright, he must think, we shall not say wrongly (for that implies malice prepense) but inadvertently: the native occupant of his mind must be, we shall not say falsehood (for that too implies malice prepense) but error. The original dowry then of universal man is inadvertency and error. This assumption is the ground and only justification of the existence of philosophy. The circumstance that philosophy exists only to put right the oversights of common thinking—renders her polemical not by choice, but by necessity. She is controversial as the very tenure and condition of her existence: for how can she correct the slips of common opinion, the oversights of natural thinking, except by controverting them?" Professor Ferrier deserves high commendation for the care taken in this volume to set out clearly Proposition and Counter-Proposition: the thesis which he impugns, as well as that which he sustains.

3. F. A. Wolf, Vorrede, Plato, Sympos. p. vi.

"Ficinus suchte, wie er sich in der Zueignungsschrift seiner Vision ausdrückt, im Platon allenthalben *arcana cœlestia*: und da er sie in seinem Kopfe mitbrachte, so konnte es ihm nicht sauer werden, etwas zu finden, was freilich jedem andern verborgen bleiben muss."

4. A striking passage from Bentham illustrates very well both the Sokratic and the Platonic point of view. (Principles of Morals and Legislation, vol. ii. ch. xvi. p. 57, ed. 1823.)

"Gross ignorance describes no difficulties. Imperfect knowledge finds them out and struggles with them. It must be perfect knowledge that overcomes them."

Of the three different mental conditions here described, the first is that against which Sokrates made war, *i.e.* real ignorance, and false persuasion of knowledge, which therefore describes no difficulties.

The second, or imperfect knowledge struggling with difficulties, is represented by the Platonic negative dialogues.

The third—or perfect knowledge victorious over difficulties—will be found in the following pages marked by the character τὸ δύνασθαι λόγον διδόναι καὶ δέχεσθαι. You do not possess "perfect knowledge," until you are able to answer, with unfaltering promptitude and consistency, all the questions of a Sokratic cross-examiner—and to administer effectively the like cross-



examination yourself, for the purpose of testing others. Ὅλως δὲ σημεῖον τοῦ εἰδότος τὸ δύνασθαι διδάσκειν ἔστιν. (Aristotel. Metaphys. A. 981, b. 8.)

Perfect knowledge, corresponding to this definition, will not be found manifested in Plato. Instead of it, we note in his latter years the lawgiver's assumed infallibility.

5. Cicero, Tusc. Disp. v. 11, 38.

The collocutor remarks that what Cicero says is inconsistent with what he (Cicero) had written in the fourth book De Finibus. To which Cicero replies:—

“Tu quidem tabellis obsignatis agis mecum, et testificaris, quid dixerim aliquando aut scripserim. Cum aliis isto modo, qui legibus impositis disputant. Nos in diem vivimus: quodcunque nostros animos probabilitate percussit, id dicimus: itaque soli sumus liberi.”

6. Since the publication of the first edition of this work, there have appeared valuable commentaries on the philosophy of the late Sir William Hamilton, by Mr. John Stuart Mill, and Mr. Stirling and others. They have exposed inconsistencies, both grave and numerous, in some parts of Sir William Hamilton's writings as compared with others. But no one has dreamt of drawing an inference from this fact, that one or other of the inconsistent trains of reasoning must be spurious, falsely ascribed to Sir William Hamilton.

Now in the case of Plato, this same fact of inconsistency is accepted by nearly all his commentators as a sound basis for the inference that both the inconsistent treatises cannot be genuine: though the dramatic character of Plato's writings makes inconsistencies much more easily supposable than in dogmatic treatises such as those of Hamilton.

7. Juvenal iii. 62:—

“Jampridem Syrus in Tiberim defluxit Orontes,” &c.

8. The passage is a remarkable one, as marking both the effect produced on a Latin scholar by Hebrew studies, and the neglect into which even the greatest writers of classical antiquity had then fallen (about 400 A.D.).

Hieronymus—Comment. in Epist. ad Galatas, iii. 5, p. 486–487, ed. Venet. 1769:—

“Sed omnem sermonis elegantiam, et Latini sermonis venustatem, stridor lectionis Hebraicæ sordidavit. Nostis enim et ipsæ” (*i.e.* Paula and Eustochium, to whom his letter is addressed) “quod plus quam quindecim anni sunt, ex quo in manus meas nunquam Tullius, nunquam Maro, nunquam Gentilium literarum quilibet Auctor ascendit: et si quid forte inde, dum loquimur, obrepit, quasi antiqua per nebulam somnii recordamur. Quod autem profecerim ex linguæ illius infatigabili studio, aliorum judicio derelinquo: *ego quid in meâ amiserim, scio*... Si quis eloquentiam quærit vel

declamationibus delectatur, habet in utrâque linguâ Demosthenem et Tullium, Polemonem et Quintilianum. Ecclesia Christi non de Academiâ et Lyceo, sed de vili plebeculâ congregata est.... Quotusquisque nunc Aristotelem legit? Quanti Platonis vel libros novêre vel nomen? Vix in angulis otiosi eos senes recolunt. Rusticanos vero et piscatores nostros totus orbis loquitur, universus mundus sonat."

# **PLATO. PRE-SOKRATIC PHILOSOPHY.**

---

## **CHAPTER I. SPECULATIVE PHILOSOPHY IN GREECE, BEFORE AND IN THE TIME OF SOKRATES.**

[Table of Contents](#)

The life of Plato extends from 427–347 B.C. He was born in the fourth year of the Peloponnesian war, and he died at the age of 80, about the time when Olynthus was taken by the Macedonian Philip. The last years of his life thus witnessed a melancholy breach in the integrity of the Hellenic world, and even exhibited data from which a far-sighted Hellenic politician might have anticipated something like the coming subjugation, realised afterwards by the victory of Philip at Chæroneia. But during the first half of Plato's life, no such anticipations seemed even within the limits of possibility. The forces of Hellas, though discordant among themselves, were superabundant as to defensive efficacy, and were disposed rather to aggression against foreign enemies, especially against a country then so little formidable as Macedonia. It was under this contemplation of Hellas self-acting and self-sufficing—an aggregate of cities, each a political unit, yet held together by strong ties of race, language, religion, and

Change in the political condition of Greece during the life of Plato.

common feelings of various kinds—that the mind of Plato was both formed and matured.

In appreciating, as far as our scanty evidence allows, the circumstances which determined his intellectual and speculative character, I shall be compelled to touch briefly upon the various philosophical theories which were propounded anterior to Sokrates—as well as to repeat some matters already brought to view in the sixteenth, sixty-seventh, and sixty-eighth chapters of my History of Greece.

To us, as to Herodotus, in his day, the philosophical speculation of the Greeks begins with the theology and cosmology of Homer and Hesiod. The series of divine persons and attributes, and generations presented by these poets, and especially the Theogony of Hesiod, supplied at one time full satisfaction to the curiosity of the Greeks respecting the past history and present agencies of the world around them. In the emphatic censure bestowed by Herakleitus on the poets and philosophers who preceded him, as having much knowledge but no sense—he includes Hesiod, as well as Pythagoras, Xenophanes, and Hekataëus: upon Homer and Archilochus he is still more severe, declaring that they ought to be banished from the public festivals and scourged.<sup>1</sup> The sentiment of curiosity as it then existed was only secondary and derivative, arising out of some of the strong primary or personal sentiments—fear or hope, antipathy or sympathy—impression of present weakness—unsatisfied appetites and longings—wonder and awe under the presence of the terror-striking phenomena of nature, &c. Under this state of the mind, when problems suggested themselves for solution, the answers afforded by Polytheism gave more satisfaction than could have been

Early Greek mind, satisfied with the belief in polytheistic personal agents as the real producing causes of phenomena.

afforded by any other hypothesis. Among the indefinite multitude of invisible, personal, quasi-human agents, with different attributes and dispositions, some one could be found to account for every perplexing phenomenon. The question asked was, not What are the antecedent conditions or causes of rain, thunder, or earthquakes, but Who rains and thunders? Who produces earthquakes?<sup>2</sup> The Hesiodic Greek was satisfied when informed that it was Zeus or Poseidon. To be told of physical agencies would have appeared to him not merely unsatisfactory, but absurd, ridiculous, and impious. It was the task of a poet like Hesiod to clothe this general polytheistic sentiment in suitable details: to describe the various Gods, Goddesses, Demigods, and other quasi-human agents, with their characteristic attributes, with illustrative adventures, and with sufficient relations of sympathy and subordination among each other, to connect them in men's imaginations as members of the same brotherhood. Okeanus, Gæa, Uranus, Helios, Selênê—Zeus, Poseidon, Hades—Apollo and Artemis, Dionysus and Aphroditê—these and many other divine personal agents, were invoked as the producing and sustaining forces in nature, the past history of which was contained in their filiations or contests. Anterior to all of them, the primordial matter or person, was Chaos.

Hesiod represents the point of view ancient and popular (to use Aristotle's expression<sup>3</sup>) among the Greeks, from whence all their philosophical speculation took its departure; and which continued throughout their history, to underlie all the philosophical speculations, as the faith of the ordinary public who neither frequented the schools nor conversed with philosophers.

Belief in such agency continued among the general public, even after the various sects of philosophy had arisen.

While Aristophanes, speaking in the name of this popular faith, denounces and derides Sokrates as a searcher, alike foolish and irreligious, after astronomical and physical causes—Sokrates himself not only denies the truth of the allegation, but adopts as his own the sentiment which dictated it; proclaiming Anaxagoras and others to be culpable for prying into mysteries which the Gods intentionally kept hidden.<sup>4</sup> The repugnance felt by a numerous public, against scientific explanation—as eliminating the divine agents and substituting in their place irrational causes,<sup>5</sup>—was a permanent fact of which philosophers were always obliged to take account, and which modified the tone of their speculations without being powerful enough to repress them.

Even in the sixth century B.C., when the habit of composing in prose was first introduced, Pherekydes and Akusilaus still continued in their prose the theogony, or the mythical cosmogony, of Hesiod and the other old Poets: while Epimenides and the Orphic poets put forth different theogonies, blended with mystical dogmas. It was, however, in the same century, and in the first half of it, that

Thales, the first  
Greek who  
propounded the  
hypothesis of  
physical agency in  
place of personal.  
Water, the  
primordial  
substance, or ἀρχή.

Thales of Miletus (620–560 B.C.), set the example of a new vein of thought. Instead of the Homeric Okeanus, father of all things, Thales assumed the material substance, Water, as the primordial matter and the universal substratum of everything in nature. By various transmutations, all other substances were generated from water; all of them, when destroyed, returned into water. Like the old poets, Thales conceived the surface of the earth to be flat and round; but he did not, like them, regard it as stretching down to the

depths of Tartarus: he supposed it to be flat and shallow, floating on the immensity of the watery expanse or Ocean.<sup>6</sup> This is the main feature of the Thaletian hypothesis, about which, however, its author seems to have left no writing. Aristotle says little about Thales, and that little in a tone of so much doubt,<sup>7</sup> that we can hardly confide in the opinions and discoveries ascribed to him by others.<sup>8</sup>

The next of the Ionic philosophers, and the first who published his opinions in writing, was Anaximander, of Miletus, the countryman and younger contemporary of Thales (570–520 B.C.). He too searched for an Ἀρχή, a primordial Something or principle, self-existent and comprehending in its own nature a generative, motive, or transmutative force. Not thinking that water, or any other known and definite substance fulfilled these conditions, he adopted as the foundation of his hypothesis a substance which he called

Anaximander—laid down as ἀρχή the Infinite or indeterminate—generation of the elements out of it, by evolution of latent fundamental contraries—astronomical and geological doctrines.

the Infinite or Indeterminate. Under this name he conceived Body simply, without any positive or determinate properties, yet including the fundamental contraries, Hot, Cold, Moist, Dry, &c., in a potential or latent state, including farther a self-changing and self-developing force,<sup>9</sup> and being moreover immortal and indestructible.<sup>10</sup> By this inherent force, and by the evolution of one or more of these dormant contrary qualities, were generated the various definite substances of nature—Air, Fire, Water, &c. But every determinate substance thus generated was, after a certain time, destroyed and resolved again into the Indeterminate mass. “From thence all substances proceed, and into this they relapse: each in its turn thus making atonement to the



others, and suffering the penalty of injustice.”<sup>11</sup> Anaximander conceived separate existence (determinate and particular existence, apart from the indeterminate and universal) as an unjust privilege, not to be tolerated except for a time, and requiring atonement even for that. As this process of alternate generation and destruction was unceasing, so nothing less than an Infinite could supply material for it. Earth, Water, Air, Fire, having been generated, the two former, being cold and heavy, remained at the bottom, while the two latter ascended. Fire formed the exterior circle, encompassing the air like bark round a tree: this peripheral fire was broken up and aggregated into separate masses, composing the sun, moon, and stars. The sphere of the fixed stars was nearest to the earth: that of the moon next above it: that of the sun highest of all. The sun and moon were circular bodies twenty-eight times larger than the earth: but the visible part of them was only an opening in the centre, through which<sup>12</sup> the fire or light behind was seen. All these spheres revolved round the earth, which was at first semi-fluid or mud, but became dry and solid through the heat of the sun. It was in shape like the section of a cylinder, with a depth equal to one-third of its breadth or horizontal surface, on which men and animals live. It was in the centre of the Kosmos; it remained stationary because of its equal distance from all parts of the outer revolving spheres; there was no cause determining it to move upward rather than downward or sideways, therefore it remained still.<sup>13</sup> Its exhalations nourished the fire in the peripheral regions of the Kosmos. Animals were produced from the primitive muddy fluid of the earth: first, fishes and other lower animals—next, in process of time man, when circumstances permitted his development.<sup>14</sup> We learn farther respecting the doctrines of Anaximander, that

he proposed physical explanations of thunder, lightning, and other meteorological phenomena:<sup>15</sup> memorable as the earliest attempt of speculation in that department, at a time when such events inspired the strongest religious awe, and were regarded as the most especial manifestations of purposes of the Gods. He is said also to have been the first who tried to represent the surface and divisions of the earth on a brazen plate, the earliest rudiment of a map or chart.<sup>16</sup>

The third physical philosopher produced by Miletus, seemingly before the time of her terrible disasters suffered from the Persians after the Ionic revolt between 500-494 B.C., was Anaximenes, who struck out a third hypothesis. He assumed, as the primordial substance, and as the source of all generation or transmutation, Air, eternal in duration, infinite in extent. He thus returned to the principle of the Thaletian theory, selecting for his beginning a known substance, though not the same substance as Thales. To explain how generation of new products was possible (as Anaximander had tried to explain by his theory of evolution of latent contraries), Anaximenes adverted to the facts of condensation and rarefaction, which he connected respectively with cold and heat.<sup>17</sup> The Infinite Air, possessing and exercising an inherent generative and developing power, perpetually in motion, passing from dense to rare or from rare to dense, became in its utmost rarefaction, Fire and Æther; when passing through successive stages of increased condensation it became first cloud, next water, then earth, and, lastly, in its utmost density, stone.<sup>18</sup> Surrounding, embracing, and pervading the Kosmos, it also embodied and carried with it a vital principle, which animals obtained from it by inspiration, and

Anaximenes—  
adopted Air as ἀρχή  
—rise of substances  
out of it, by  
condensation and  
rarefaction.

which they lost as soon as they ceased to breathe.<sup>19</sup> Anaximenes included in his treatise (which was written in a clear Ionic dialect) many speculations on astronomy and meteorology, differing widely from those of Anaximander. He conceived the Earth as a broad, flat, round plate, resting on the air.<sup>20</sup> Earth, Sun, and Moon were in his view condensed air, the Sun acquiring heat by the extreme and incessant velocity with which he moved. The Heaven was not an entire hollow sphere encompassing the Earth below as well as above, but a hemisphere covering the Earth above, and revolving laterally round it like a cap round the head.<sup>21</sup>

The general principle of cosmogony, involved in the hypothesis of these three Milesians—one primordial substance or Something endued with motive and transmutative force, so as to generate all the variety of products, each successive and transient, which our senses witness—was taken up with more or less modification by others, especially by Diogenes of Apollonia, of whom I shall speak presently. But there were three other men who struck out different veins of thought—Pythagoras, Xenophanes, and Herakleitus: the two former seemingly contemporary with Anaximenes (550–490 B.C.), the latter somewhat later.

Of Pythagoras I have spoken at some length in the thirty-seventh chapter of my History of Greece. Speculative originality was only one among many remarkable features in his character. He was an inquisitive traveller, a religious reformer or innovator, and the founder of a powerful and active brotherhood, partly ascetic, partly political, which stands without parallel in Grecian history. The immortality

Pythagoras—his life and career—  
Pythagorean brotherhood, great political influence which it acquired among the Greco-Italian cities—  
incurred great

of the soul, with its transmigration (metempsychosis) after death into other bodies, either of men or of other animals—

enmity and was violently put down.

the universal kindred thus recognised between men and other animals, and the prohibition which he founded thereupon against the use of animals for food or sacrifice—are among his most remarkable doctrines: said to have been borrowed (together with various ceremonial observances) from the Egyptians.<sup>22</sup> After acquiring much celebrity in his native island of Samos and throughout Ionia, Pythagoras emigrated (seemingly about 530 B.C.) to Kroton and Metapontum in Lower Italy, where the Pythagorean brotherhood gradually acquired great political ascendancy: and from whence it even extended itself in like manner over the neighbouring Greco-Italian cities. At length it excited so much political antipathy among the body of the citizens,<sup>23</sup> that its rule was violently put down, and its members dispersed about 509 B.C. Pythagoras died at Metapontum.

Though thus stripped of power, however, the Pythagoreans still maintained themselves for several generations as a social, religious, and philosophical brotherhood. They continued and extended the vein of speculation first

The Pythagoreans continue as a recluse sect, without political power.

opened by the founder himself. So little of proclaimed individuality was there among them, that Aristotle, in criticising their doctrine, alludes to them usually under the collective name Pythagoreans. Epicharmus, in his comedies at Syracuse (470 B.C.) gave occasional utterance to various doctrines of the sect; but the earliest of them who is known to have composed a book, was Philolaus,<sup>24</sup> the contemporary of Sokrates. Most of the opinions ascribed to the Pythagoreans originated probably among the successors

of Pythagoras; but the basis and principle upon which they proceed seems undoubtedly his.

The problem of physical philosophy, as then conceived, was to find some primordial and fundamental nature, by and out of which the sensible universe was built up and produced; something which co-existed always underlying it, supplying fresh matter and force for generation of successive products. The hypotheses of Thales, Anaximander, and Anaximenes, to solve this problem, have been already noticed: Pythagoras solved it by saying, That the essence of things consisted in Number. By this he did not mean simply that all things were numerable, or that number belonged to them as a predicate. Numbers were not merely predicates inseparable from subjects, but subjects in themselves: substances or magnitudes, endowed with active force, and establishing the fundamental essences or types according to which things were constituted. About water,<sup>25</sup> air, or fire, Pythagoras said nothing.<sup>26</sup> He conceived that sensible phenomena had greater resemblance to numbers than to any one of these substrata assigned by the Ionic philosophers. Number was (in his doctrine) the self-existent reality—the fundamental material and in-dwelling force pervading the universe. Numbers were not separate from things<sup>27</sup> (like the Platonic Ideas), but *fundamenta* of things—their essences or determining principles: they were moreover conceived as having magnitude and active force.<sup>28</sup> In the movements of the celestial bodies, in works of human art, in musical harmony—measure and number are the producing and directing agencies. According to the Pythagorean Philolaus, “the Dekad, the full and perfect number, was of supreme and universal efficacy as the guide

Doctrine of the  
Pythagoreans—  
Number the  
Essence of Things.

and principle of life, both to the Kosmos and to man. The nature of number was imperative and lawgiving, affording the only solution of all that was perplexing or unknown; without number all would be indeterminate and unknowable."<sup>29</sup>

The first principle or beginning of Number, was the One or Monas—which the Pythagoreans conceived as including both the two fundamental contraries—the Determining and the Indeterminate.<sup>30</sup> All particular numbers, and through them all things, were compounded from the harmonious junction and admixture of these two fundamental contraries.<sup>31</sup> All numbers being either odd or even, the odd numbers were considered as analogous to the Determining, the even numbers to the Indeterminate. In One or the Monad, the Odd and Even were supposed to be both contained, not yet separated: Two was the first indeterminate even number; Three, the first odd and the first determinate number, because it included beginning, middle, and end. The sum of the first four numbers—One, Two, Three, Four = Ten ( $1 + 2 + 3 + 4$ ) was the most perfect number of all.<sup>32</sup> To these numbers, one, two, three, four, were understood as corresponding the fundamental conceptions of Geometry—Point, Line, Plane, Solid. *Five* represented colour and visible appearance: *Six*, the phenomenon of Life: *Seven*, Health, Light, Intelligence, &c.: *Eight*, Love or Friendship.<sup>33</sup> Man, Horse, Justice and Injustice, had their representative numbers: that corresponding to Justice was a square number, as giving equal for equal.<sup>34</sup>

The Monas—ἀρχή,  
or principle of  
Number—  
geometrical  
conception of  
number—  
symbolical  
attributes of the  
first ten numbers,  
especially of the  
Dekad.

The Pythagoreans conceived the Kosmos, or the universe, as one single system, generated out of numbers.<sup>35</sup> Of this system the central point—the determining or limiting One—was first in order of time, and in order of philosophical conception. By the determining influence of this central constituted One, portions of the surrounding Infinite were successively attracted and brought into system: numbers, geometrical figures, solid substances, were generated. But as the Kosmos thus constituted was composed of numbers, there could be no continuum: each numerical unit was distinct and separated from the rest by a portion of vacant space, which was imbibed, by a sort of inhalation, from the infinite space or spirit without.<sup>36</sup> The central point was fire, called by the Pythagoreans the Hearth of the Universe (like the public hearth or perpetual fire maintained in the prytaneum of a Grecian city), or the watch-tower of Zeus. Around it revolved, from West to East, ten divine bodies, with unequal velocities, but in symmetrical movement or regular dance.<sup>37</sup> Outermost was the circle of the fixed stars, called by the Pythagoreans Olympus, and composed of fire like the centre. Within this came successively—with orbits more and more approximating to the centre—the five planets, Saturn, Jupiter, Mars, Venus, Mercury: next, the Sun, the Moon, and the Earth. Lastly, between the Earth and the central fire, an hypothetical body, called the Antichthon or Counter-Earth, was imagined for the purpose of making up a total represented by the sacred number Ten, the symbol of perfection and totality. The Antichthon was analogous to a separated half of the Earth; simultaneous with the Earth in its revolutions, and corresponding with it on the opposite

Pythagorean  
Kosmos and  
Astronomy—  
geometrical and  
harmonic laws  
guiding the  
movements of the  
cosmical bodies.



side of the central fire.

The inhabited portion of the Earth was supposed to be that which was turned away from the central fire and towards the Sun, from which it received light. But the Sun itself was not self-luminous: it was conceived as a glassy disk, receiving and concentrating light from the central fire, and reflecting it upon the Earth, so long as the two were on the same side of the central fire. The Earth revolved, in an orbit obliquely intersecting that of the Sun, and in twenty-four hours, round the central fire, always turning the same side towards that fire. The alternation of day and night was occasioned by the Earth being during a part of such revolution on the same side of the central fire with the Sun, and thus receiving light reflected from him: and during the remaining part of her revolution on the side opposite to him, so that she received no light at all from him. The Earth, with the Antichthon, made this revolution in one day: the Moon, in one month:<sup>38</sup> the Sun, with the planets, Mercury and Venus, in one year: the planets, Mars, Jupiter, and Saturn, in longer periods respectively, according to their distances from the centre: lastly, the outermost circle of the fixed stars (the Olympus, or the Aplanes), in some unknown period of very long duration.<sup>39</sup>

The revolutions of such grand bodies could not take place, in the opinion of the Pythagoreans, without producing a loud and powerful sound; and as their distances from the central fire were supposed to be arranged in musical ratios,<sup>40</sup> so the result of all these separate sounds was full and perfect harmony. To the objection—Why were not these sounds heard by us?—they replied, that we had heard them constantly and without intermission from the hour of our birth; hence they had become imperceptible by habit.<sup>41</sup>

Music of the  
Spheres.