seem to have been mutual, for it has been shown that some Pahlavi texts contain quotations from the Qur'ān and mention contemporary Muslim currents of thought such as that of the Mu'tazilah.[35]

But apart from this direct influence, we could more surely admit another kind of *indirect convergence*. The late systematic Mazdaic thought was no doubt influenced by late Hellenism and Gnosticism, in the same way as the first Islamic thought was influenced by Hellenism, Sabaeanism, and Gnosticism during the second and third/eighth and ninth centuries. Hence there resulted, in both the spiritual worlds, a similar functioning that can give the illusion of direct influence, especially when similar languages, Pahlavi and modern Persian, are used.

If these considerations may seem to discourage the exaggerated enthusiasm of some pan-Iranianists (it is sufficiently known that even ancient Iran had been rather strongly "semitized" by Babylonian and old Syrian influences), they also point to the fact that the organic thought of Mazdaism assumed its truer and deeper historical value just because it did not remain the heritage of a single race or a single people, but, being in itself historically a composite product, synthesized itself with the seeds of the extremely original and rich philosophico-theological value, Islam, that was destined in its turn to spread them in their most mature form throughout the entire civilized world.

Note.—The quotations from Avesta and Pahlavic texts are given, modifying here and there some rather contradictory European versions, after comparing them with the original texts. The writer is fully aware of the fact that some of them remain personal and rather conjectural interpretations.

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Chapter IV

GREEK THOUGHT

A

THE EARLY BEGINNINGS

The thinking of the early Greeks, like that of all ancient peoples, Egyptians, Babylonians, Hittites, Phoenicians, and Indians, was more mythological and speculative, more poetical and theogonical than physical or metaphysical. It exhibited more the play of imagination than the working of reason. It is true that the basic effort of the Greeks, as of those other peoples, was to understand the origin and nature of things, but, like children, what they understood was a world of their own make-believe rather than the real world around them. They personified all elements of nature into powerful and immortal divinities, having the same desires, passions, and relationships as themselves, and endowed them with powers more or less proportionate to their magnitude. The sky, the earth, and the indeterminate space between them, the darkness under the earth, the ocean, river, or water supposed to encircle the earth, thunder and lightning, day and night, air and ether, love and soul, were all divinities respectively named as Ouranos, Gaia, Caos, Erebos, Okeanos, Zeus, Day, Night, Air, Aether, Eros, and Psyche. Similarly, the lowest region below the earth was named Tartaros, the god of punishment, and the region above that, Hades, the god of the dead.

For Homer, all gods originated from Okeanos (water) and his sister and wife, Tethys. For Hesiod, in the beginning there was shapeless indeterminate space (Caos) containing the seeds of all things. From him sprang Night, the mother of sleep and subduer of all gods, and the darkness under Mother Earth (Erebos); and the couple produced Day and the upper reaches of space (Aether). Next came into being Mother Earth (Gaia) and love (Eros) the latter of which

rules the hearts of gods and men. Mother Earth then gave birth to Heaven (Ouranos) and then by mating with this son, she produced water (Okeanos). For the Orphics, Night was the first and from her came Heaven and Mother Earth.

Though Eros was produced at a very early stage, reproduction was not always the result of mating. For example, in Hesiodic cosmogony Caos produced Night and Erebos, and these two produced Ether and Day, and Gaia gave birth to Portos, either without mating or without sleeping with their mates. Similarly, in the Orphic account Kronos, the son of Sky (Ouronos), by a deceit as directed by his mother Earth (Gaia) hid himself in a place of ambush and when his father came along with Night and in desiring love spread himself over her, he sheared off his genitals. The drops of blood that fell fertilized Gaia and generated the Furies, Giants, and the Melian Nymphs, and the blood that fell into the sea produced Aphrodite (Venus). This element like many other contents of Greek cosmogony is of pre-Greek origin for its variants are found in the cultures of the Hittites and the Hindus as well. From Kronos all other gods sprang. Zeus (Jupiter), the god of thunder and lightning, was one of his sons from his sister and consort Rhea. Apollo the sun-god, who with his horses and chariot sailed in the golden bowl round the streams of Okeanos, was the son of Zeus from Leto. Apollo's sister Artemis, the hunting goddess, was the mistress of all wild things.

This rough account of the earliest Greek speculation from the dawn of Greek civilization, about 1200 B.C. down to the seventh century B.C., clearly indicates that it concerned itself with (i) the nature of things in the universe, (ii) the nature of gods, and (iii) the origin of the world and the gods. Therefore it can be described to be cosmological, theological, and cosmogonical. Its language was poetry.

B

GREEK PHILOSOPHY IN THE MAINLAND AND THE ISLANDS OF ASIA MINOR

Ionic Philosophy

It goes to the credit of the philosophers of Miletus, the metropolis of Ionia, a Greek colony in Asia Minor ruled by Persia, to have divested Greek thought of theogony and cosmogony and made the phenomena of nature and their origin their chief concern. Their thought was, however, more physical and cosmological than metaphysical. Each of them attempted to discover a single basic material from which everything sprang.

Thales.—The first of this group of thinkers was Thales (b. c. 640 B.C.) of Miletus, in Ionia which was a commercially developed Greek colony in Asia Minor and had close contacts with the relatively advanced peoples of Egypt and Babylonia. He was a man of great practical wisdom and was one of the

seven sages of antiquity. He is said to have visited Egypt and brought geometry from there; foretold solstices and an eclipse, presumably by studying the Babylonian records; measured the height of a pyramid by its shadow; turned the course of a river; and discovered the constellation Little Bear. According to him, the earth floated on water, magnet had life because it could move iron, water is the origin of all things, and all things are full of gods. How he came to these last two conclusions is not known now, nor was it known in antiquity, but the connection of his doctrine of water with Homeric Okeanos is evident. No one knows if he set down these ideas in writing, but if he did, no writing of his has survived.

Anaximander.—The second of these Milesian philosophers was Anaximander, a younger contemporary and disciple of Thales. He and a non-Milesian Pherecydes were the first two Greeks who wrote in prose. For him the first principle from which arose by eternal motion the heavens, the worlds, the divinities that encompass the earth—a cylindrically shaped centre of all these worlds—and all other things indeed, is an infinite, indeterminate, eternal, all-enfolding, and all-controlling stuff. From this indeterminate something are separated off the opposites, dry and moist, warm and cold, and these form nature with its separate elements (air, water, fire, and earth) and opposite qualities which are held in just balance by time.

A sphere of flame formed round the air surrounding the earth, like a bark round a tree, broke off into certain balls, thus forming the sun, the moon, and the stars. All living beings arose on the earth by gradual development out of the elementary moisture under the drying influence of heat. The first living being that appeared thus was a fish.

Anaximenes.—The third Ionian philosopher of Miletus was Anaximander's disciple Anaximenes. He wrote just one book of which only one complete sentence has survived. The originative substance, according to him, is one, infinite, and not indefinite but definite. It is air which changes by condensation and rarefaction. In its finest form it is fire; in being made thicker, it becomes wind, then cloud, then water, then earth, and then stones; and the rest, things and gods, come into being from these. Hot and cold are also due to the same processes, the rarefied being hot and the condensed cold. The earth which is flat and round like a plate rides on air. The heaven is a vault that moves round the earth as a cap round the head. The heavenly bodies are fire raised on high, some fixed like nails in the crystalline vault, others moving like "fiery leaves."

Heraclitus.—With another Ionian philosopher, Heraclitus, the problem of philosophy shifted from the nature of substance to that of change. His home was at Ephesus, one of the twelve cities of Ionia famous for their temples. He was in his prime in about 500 B.C. He is said to have written one book covering all knowledge, metaphysical, scientific, and political, and that in a style unparalleled in its brevity and difficulty of interpretation. This difficulty is embodied in a story that Euripides lent this book to Socrates who, when

asked what he thought of it, replied, "Splendid what I have understood; also, I believe, what I have not understood—exept that it needs a Delian diver." Of this book only 139 fragments have survived out of which 13 are said to be doubtful and spurious. His influence in the history of philosophy cannot be over-estimated.

According to him, while things remain the same, they are yet not the same; they constantly change. In the same river we both step and do not step, for those who step in the same river have different waters flowing ever upon them. Thus, it is not possible to step twice in the same river or touch the same material substance twice. There is a perpetual change, a perpetual becoming in which being and not-being are harmonized. Even God changes.

The universe of change is eternal and everlasting. It is made by no man or god. Its basic substance is fire, which also steers all the changes according to law. There is an exchange—all things for fire and fire for all things, like goods for gold and gold for goods.

There is a *Law* of the universe that is common to all. It is the Law divine and nourishes all other laws. Though all things come into being according to this Law, most men are always incapable of understanding it. The soul has its own law which consists in growing according to the nature of its own seed. Everything issues from and goes back to the basic substance, fire, according to the law of *necessity*.

Fire kindles in measure and is quenched in measure. The sun will not transgress its measure; otherwise the Furies, ministers of Justice, will find him out.

Everything comes about also by way of *strife*, strife between opposites, between cold and hot, dry and wet. We are fundamentally the same whether we are alive or dead, awake or asleep, for the latter of each pair of opposites, having changed by strife, becomes the former and this again having changed becomes the latter. To souls it is death to become water, to water it is death to become earth. From earth comes water and from water soul. Water lives the death of air, air the death of fire, fire the death of earth, and earth the death of water.

That which differs with itself is in agreement; whatever is in opposition is in concert. From opposing tensions like that of the bow and the lyre arises the most beautiful harmony. God (Zeus) is day-night, winter-summer, war-peace, satiety-famine. He changes like fire which when mingled with smoke of incense is named according to each man's pleasure. He alone is wise.

Our knowledge is relative. Everything is known by its opposite. Disease makes health pleasant and good, hunger satisfaction, weariness rest. People would not know right if they did not know wrong. Moderation is the greatest virtue and wisdom is to speak the truth and to act according to nature. A dry soul is the wisest and best. Character, for man, is destiny. Absolute truth is known only to God for whom all things are beautiful, good, and just.

Heraclitus' physics follows from his metaphysics. Fire is the basic material substance from which all things come and into which all things go, and this

cycle of creation and destruction goes on for ever. Earth rarefied becomes water and water rarefied partly remains moist and partly gets akin to fire, and by this process the bright fiery parts become the stars, sun, and moon, and the darker parts, being near earth, form the fiery bodies that shine less brightly. The size of the sun is equal to the breadth of a man's foot.

C

GREEK PHILOSOPHY IN SOUTH ITALY AND SICILY

In about 530 B.C. another centre of Greek speculation arose, and the problem of philosophy shifted from the nature of substance and change to the form and relation of things and permanence. Pythagoras of Samos, an Ionian island in the Aegean Sea off the west coast of Asia Minor, settled down in South Italy at Crotona, a Greek colony, where he formed a society with aims at once political, philosophical, and religious. Xenophanes, an Ionian thinker, who was in the prime of life in 530 B.C., migrated to Elea, a Greek settlement in South Italy. He and his pupil, Parmenides, and grand pupil, Zeno, formed what is generally known as the Eleatic school.

1. Pythagoras

Pythagoras was in the prime of life in 530 B.C. No written work was left by him, but there are references to him in Xenophanes, Heraclitus, Empedocles, Plato, and others. All teaching was done by him by word of mouth, because one of the rules imposed upon the members of the brotherhood founded by him—a rule equally binding on the master and the disciples—was that of secrecy, betrayal being punishable by excommunication.

He is said to have visited Egypt and Babylon where he learnt the mathematical and religio-mystical elements of his philosophy. One of his chief doctrines was transmigration of the soul. His system had an element of asceticism based on taboos prohibiting the eating of beans, killing some kinds of animals for sacrifice and food, and wearing of woollen clothes at religious ceremonies. The school did a mass of work in mathematics, the mechanics of sound, and geometrical theorems, but it is difficult to say how much of this work went to Pythagoras himself. According to him, Number was the First Principle and numbers and their relationships were the essence of all things. This idea made the Pythagoreans base their philosophy on mathematics. The original number was Monad, the Principle of Oneness, which was equated to Limit. They developed a dualistic cosmology founded on the pairs of opposites. These are: One-Two (Monad-Dyad), One being the principle of Limit imposing itself upon Two, the principle of the Unlimited ever-existing Void (empty space made of air or vapour), Odd-Even, One-Many, Right-Left, Male-Female, Rest-Motion, Straight-Curved, Light-Darkness, Good-Bad, and Square-Oblong. Things came into existence by the opposition of the Limiting and the

Unlimited and their harmony. From the Monad, the One or the Limiting, and the Dyad, the Unlimited, came the numbers and their relations, from the numbers came the points, from the points lines, from lines planes, from planes solids, and from solids the perceptible elements, fire, water, earth, air, each consisting of particles or atoms of different shapes. The One by working from within outward created all shapes and by the reverse process of drawing the Unlimited inward created the earth, the counter-earth, a body revolving once a day between the earth and the central fire, the planets, the sun, the moon, the stars, and everything they contained. Everything has a number, the central fire one, the earth two, the sun seven, and so on. Even immaterial substance like the soul and abstract qualities such as justice, courage, right, motion, etc., were assigned numbers.

The school very early saw the relations between the notes of the Octave and the length of the string and designated them as symphonies. The heavens are in harmony and in their motion they make music which Pythagoras alone was said to be able to hear.

2. The Eleatic School

Xenophanes.—The founder of the Eleatic school, Xenophanes, was a contemporary of Pythagoras. He was in the prime of his life in about 530 B.C. He condemned Homer and Hesiod for attributing to the gods all things that are shameful and a reproach to mankind: theft, adultery, and mutual deception. There is, according to him, one God among gods and men, the greatest, and He is not at all like mortals in body and mind. He remains permanently the same, not moving and undergoing change; and without toil He sets everything in motion, by the power of His thought.

Complete knowledge of gods, men, and things is impossible. No man has ever seen certain truth, nor will anyone ever see it. Whatever we can know, we know after long seeking.

Everything comes from earth and goes back to earth at last. Water also contributes to the being and growth of things. The sea is the source of clouds, winds, and rivers, and the sun moves about the earth and gives it warmth.

Parmenides.—Parmenides of Elea was a contemporary of Heraclitus and about twenty-five years his junior in age. He was Xenophanes' disciple and had also a Pythagorean as his teacher. His philosophy like that of his pupil Zeno's was a reaction against the philosophy of Heraclitus. He took up Xenophanes' idea of permanence and developed it by the help of rigorous logic. He gave expression to his thought in a poem addressed to his disciple, Zeno, who was his junior by about twenty-five years. In the prologue of this poem he allegorically relates how in the chariot of the senses, of which the wheels were the ears and steeds the eyes, he was carried to the place of the goddess Night and she revealed to him the way of truth and the way of opinion.

In the way of truth, he is told what reason (Logos) can think, exists; what

it cannot think, does not exist. It is not thinkable that what-is-not *is*. Not-Being, therefore, does not exist and Being alone exists. If Being alone *is*, it follows that it does not come into being, for if it did, it would have to come from something which is Not-Being; but from Not-Being it could not come, for Not-Being does not exist. There being nothing besides it, nothing could bring it into being at one time rather than at another. It is therefore ever present. For it, there is no before and after. It is permanent and eternally continuous. As there is nothing besides it to bring it into being, there is nothing besides it to destroy it. It is one indivisible whole, for there is no Non-Being to lie between its parts. It is all alike. It is also motionless, for there is nothing besides it to move it and there is nothing in which it can move. It is limited, but why it is so is not explained. There being no Not-Being to stop it, it cannot be more or less in any direction. It is therefore a well-rounded sphere, complete on all sides.

The way of opinion is the way of untruth and false belief. The goddess shows it to him to enable him to guard himself against it. The beliefs mentioned in this connection as false are: the opposites of Light and Darkness are the First Causes; to be and not to be are the same; for everything there is a way of opposing stress; the moon shines with light borrowed from the sun; the sun and the moon were separated from the milky way; the earth is rooted in water—beliefs which were held by some of his predecessors and contemporaries.

Parmenides' speculation involved four basic canons: (1) that Being not having sprung from Not-Being was itself ultimate, (2) that Void, being non-existent, could not be, (3) that plurality could not come out of the primal Unity, (4) nor could motion and change. These canons were generally regarded as the last word on philosophy till the time of Plato who was the first to expose their fallacies.

Zeno.—Zeno of Elea wrote a book called *Attacks* in defence of Parmenides' theory of Being as One, indivisible, and permanent. His method was to take the opposite view and reduce it to absurdity by showing that it led to contradictory conclusions. This method, of which he himself was the originator, is called *reductio ad absurdum*. He first took up the proposition: Things are many, and then showed that they must be both finite and infinite. If they are many, they must be of a number; they are neither more nor less. If they are neither more nor less, they are finite. Again, if they are many, they must, on the other hand, be infinite, for there are always other things in between them, and again others between these and so on *ad infinitum*.

If things are many, they must be either without magnitude or with magnitude. If without magnitude, then if a thing is added to another thing there would be no addition in magnitude. The unit added is, therefore, infinitely small, as small as nothing. If anything has magnitude, it follows that part of it must also have magnitude and so the part preceding it, and the part that precedes the preceding one and so on *ad infinitum*. Therefore it must be infinitely large.

If a thing moves, it is neither in the place in which it is, nor in that in which it is not, but either alternative is impossible. If a thing is in a place, it is at rest. Nor can anything happen to a thing in a place where it is not.

If everything is in space, space is either something or nothing. If space is something, then space is itself *in* something and that something *in* something else and so on *ad infinitum*.

Zeno argued similarly against motion. In this connection he advanced four arguments: (1) You cannot traverse a given length, for to traverse it you must reach the half-way position and then the half-way position of the remaining half, and so on *ad infinitum*. Again, motion is impossible because it is impossible to pass through infinite positions in finite time. (2) If the tortoise is given a start, Achilles cannot catch up with it, for while he runs that distance, the tortoise will have got further, and so on *ad infinitum*. (3) If you shoot an arrow at a target, it cannot reach the target, because it has to pass through an infinite number of positions and that cannot be done in finite time. (4) Suppose there are three sets of solids A, B, and C: A at rest, B moving in one direction, and C moving in the opposite direction at equal speeds. Solids in B and C would pass one another twice as quickly as they pass those in A. Therefore equal speeds are at unequal speeds which is absurd.

These dilemmas of Zeno have puzzled the philosophers all through the ages, but the real solution has been found only in the physico-mathematical developments of modern times.

Melissus.—Melissus of Samos was younger than Zeno by about ten years. He did not actually live in Elea or any other Greek part of South Italy, yet he belonged to the Eleatic school, because he accepted most of the views of Parmenides. He wrote a poem *On Being* some fragments of which have survived. According to him, Being or the One cannot come into being, and change, move, have pain or any multiplicity or divisibility. If Being had a beginning, it would have been from Not-Being, but nothing can come out of Not-Being. If Being had no beginning, it cannot have an end, for if nothing can come out of Not-Being, nothing can go into Not-Being. Therefore, Being has been from eternity and is everlasting. There is no creation and no destruction. Being is also infinite in magnitude, for if limited, it must be limited by Not-Being which is impossible. In Being there is no change, for if Being altered, then what was before must have passed away or become Not-Being and what was not before, i.e., Not-Being, must have come into being which both are impossible. Therefore there is no rarefaction and no condensation. Being cannot move, for there is no Void for it to move into. Being cannot feel pain, for pain is felt through the addition or subtraction of something, i.e., by not remaining the same, but Being always remains the same.

3. Empedocles

Empedocles of Acragas, a town in Sicily and capital of the south-western province of Italy, was a contemporary of Zeno and of the same age as he. He

wrote two poems entitled *On Nature* and *Purifications*. Like Melissus, he was deeply influenced by Parmenides. Agreeing with Parmenides that Being could not come out of Not-Being, that plurality, divisibility, change, and motion could not spring from Absolute Unity, and that there was no Void, he explained plurality, divisibility, change, and motion by denying the Original Absolute Unity. The original undifferentiated whole, according to him, consisted of four eternally existing elements—fire, air, earth, and water—leaving no Void. Each of the elements is underived and indestructible and of a specific nature. From these elements come all things that were, are, and will be. Change is a mere rearrangement and reshuffling of these elements. It arises from motion and motion cannot arise from Absolute Being. To explain motion he postulated two motive powers, Love and Strife, existing from eternity along with the four elements and having infinite power. He held that there is no absolute generation or absolute decay. What are called creation and destruction are really commingling and separation of the elements, the former being the work of Love and the latter of Strife.

Existence passes through three stages. In the first stage Love alone was active and the elements were mingled together forming one all-inclusive Whole—a Whole which had no feet, no knees, and no genitals, but was a sphere equal to himself from all sides. The middle stage was the one in which Love and Strife were both active, but Strife gradually gained the upper hand. In this stage the elements became separated from the Whole. The first to separate was air that flowed around in a circle and took up the position surrounding the world, and its outermost margin solidified itself to form the firmament. It was followed by fire which ran upwards under the solidified periphery round the air and displaced the air of the upper half. Fire was followed by earth and earth by water. By further commingling appeared solitary limbs, foreheads, eyes, breasts, arms, feet, etc., wandering about and seeking for union. When Love and Strife more or less mingled together, by their action there was a mingling of these limbs into chance combinations forming monsters and deformed organisms, like creatures having faces and breasts on both sides, cattle with the fronts of men, and men with the heads of cattle. Later, those things which were accidentally well fitted to one another survived; the rest disappeared. Those things are most suitable for coming together which are made like one another. It is these which are united by Love. Those things which differ most from one another in their origin, mixture, and form are made so by Strife and are very baneful. At the next stage gradually appeared "whole-natured forms"—first plants, then gradually fish, birds, wild animals, men, and even gods who are the highest in honour—and people said things had come into being. As the process of separation under the influence of Strife continued, the sexes were distinguished. When Love is completely inactive and Strife alone is operative, the last stage of extreme separation is reached and individual things disappear, and men not knowing the truth call this their death.

This stage of extreme separation is followed by a period when Love regains its ascendancy and reunites the separate elements, and individual things reappear. But when Love alone rules and Strife is inactive, these things again disappear and the original stage of one all-inclusive Unity is re-established. This cycle of One changing into many and many changing into One is endlessly repeated as appointed by Fate.

In *Purifications*, Empedocles deals with the relation of man to the universe. He identifies the soul with fire. The soul first existed mingled in the original undifferentiated Whole (God). Then Strife detached it from the Whole. It passes through the stages of plants, wild animals, and men and then, if purified by fasting and continent living, it is taken back by Love to the original Whole and becomes one with God.

In man all the elements, air, fire, earth, water, and Love and Strife are present; and since like perceive like, he can perceive all the elements in the surrounding world through the senses. His blood also contains all the elements. His thought-consciousness resides chiefly in the blood round the heart. All things give off effluences and when the effluences of two bodies are of the right size to fit into the pores of their respective organs, sensation of the one in the other takes place. All sense-organs are equally reliable, and it is a mistake not to trust sense-experience.

Thus, to Empedocles goes the credit of basing knowledge on experience and recognizing observation expressly as a method of inquiry. Some of his cosmological, botanical, and embryological findings are remarkable.

The sun, according to him, is not in its nature fire, but rather a reflection of fire like that which comes from water. It is collected in a ball which travels round the great sky. The moon, which is composed of air shut in by fire and solidified like hail, gets its light from the sun. When in her movement round the earth, the moon comes below the sun, she cuts off its rays, and shadow is thrown as much on the earth as the breadth of the moon. The earth makes night by coming in the way of the sun's rays. The earth is stable in the midst of revolving heavens, like water in a revolving bowl.

Plants are living things and they combine both sexes in One. The substance of the child's limbs is divided between the parents, and the child resembles whichever of the parents has contributed most. All things inhale and exhale. There are bloodless channels in the flesh of them all, stretched over their bodies' surface, and at the mouths of these channels the outermost surface of the skin is pierced right through with many a pore, so that blood is kept in, but an easy path is cut for the air to pass through.

D

GREEK PHILOSOPHY BACK TO ASIA MINOR

1. Anaxagoras and Diogenes of Apollonia

Anaxagoras.—Anaxagoras was a contemporary of Zeno and Empedocles, about ten years older than both. At the age of twenty he migrated to Athens and stayed there for thirty years and, being prosecuted for impiety because he maintained that the sun was a red-hot mass of metal, he withdrew to Lampsacus in Asia Minor where he died in about 428 B.C. He was an associate of Anaximenes and Protagoras and teacher of Euripides and Pericles by the latter of whom he was defended in his prosecution which resulted, according to some, to a fine and his exile and, according to others, to condemnation to death in his absence. He wrote only one book some fragments of which are still extant.

Anaxagoras could not see how Empedocles drew an infinite variety of things from only four elements and two motive forces, Love and Strife. He, therefore, postulated that the first undifferentiated whole contained mixed together all the opposites of Anaximander, Heraclitus, and the Pythagoreans, all the four elements of Empedocles, and, besides, seeds, infinite in number and smallness and in every respect different from one another, of *all* things that were ultimately to emerge. For explaining the separation of things and their growth from their seeds he substituted Empedocles' motive forces of Love and Strife by the single intellectual motive force of Mind. Mind is infinite, all alike, self-ruled, and all alone by itself. Though it is mixed with nothing, it is none the less present where everything else is, whether as mixed or separated off. If it were mixed with things, they would have limited it from controlling everything the way it does. Mind has knowledge of all things, mixed and separated, past, present, and future; has the greatest power; controls everything that has life; and sets everything in order, including the rotation of the air, aether, the sun, and the moon. It is the finest and the purest of all that is.

He agreed with Parmenides and Empedocles that nothing can come out of nothing. As the seeds of all things are present in the Original Whole, nothing new comes into existence. Nor is anything destroyed. Change means only mixture and separation.

He held that all things are infinitely great and infinitely small—infinitely great because they contain an infinite number of parts, and infinitely small because even the smallest of parts is infinitely divisible into smaller and still smaller parts.

His cosmogonical findings were as follows. The Mind imparted at first a rotary movement to the mixed Whole (Caos) and this movement caused the separation of all bodies in the Cosmos. The first things to emerge were air and aether the latter of which he identified with fire. The dense was then separated

off from the rare, the hot from the cold, the bright from the dark, and the dry from the moist, the light, hot, and dry bodies occupying the upper position and the dense, moist, cold, and dark taking the lower position where the earth is. But nothing was completely separated off from the other except Mind. Air is solidified into cloud, cloud into water, water into earth, and earth into stones under the agency of cold. The sun, the moon, and all the stars are red-hot stones which the rotation of the aether carried round it. The heat of the stars is not felt by us because they are far from us. The moon is beneath the sun and nearer to us. She has no light of her own but derives it from the sun. The stars in their revolution pass beneath the earth. The eclipse of the moon is due to its being screened by the earth, and that of the sun to its being screened by the moon when it is new. The moon is made of earth and has plains and ravines on it.

The earth is flat and stays suspended where it is because of its size, because there is no void, and because the air keeps it afloat. Rivers owe their origin partly to rain and partly to the waters under the earth which is hollow and in its hollow contains water. The reflection of the sun in the clouds forms the rainbow. The moisture of the cloud either creates a wind or spills forth rain.

First after separation air contained the seeds of all things and those seeds, when carried down by the rain, gave rise to plants. Animals first arose from moisture and then from one another. All living things, plants at the bottom and man at the top, have a portion of Mind. Anaxagoras formulated two principles which enabled him to propound his theory of nourishment and growth. These principles are: (1) that a portion of everything is in everything[1] and (2) that things alike attract one another. Things that are eaten already contain the ingredients which are produced in an organism, e.g., blood, sinews, bones, flesh. and so on. These ingredients reason alone can know. Those seeds in which blood predominates proceed, by the attraction of like to like, to join the blood of the body, and those in which flesh predominates proceed by the same principle to join the bodily flesh. The same holds true of all other parts.

Diogenes of Apollonia.—Diogenes of Apollonia, a town in Asia Minor or Crete, lived in the later half of the fifth century B.C. He was an eclectic thinker chiefly influenced by Anaximenes, Anaxagoras, and Heraclitus. He first laid down two principles, one with regard to energy, the other to the language used. He said, one must begin one's investigation with something incontrovertible and one's expression should be simple and dignified. Well within the Milesian tradition he held that all things must be modifications of one basic substance, for if they were different in nature and were not fundamentally the same, they could neither mix with one another, nor influence one another favourably or adversely, nor could one thing grow out

[1] Rather inconsistently he also holds that natural substances consist solely of parts which are like the whole and like one another.

of another. This basic substance for him as for Anaximenes is air which is infinite and eternal and generative of the worlds. From its condensation and rarefaction—guided by its purposive intelligence—all things come into being and become of different kinds at different times, and to it they return. Air is, in short, God who has power over, steers, inheres in, and disposes all things. It is the soul of all living things, for when they cease breathing, they die. It is air that creates all sensations. When air is mixed with blood, it lightens it and, penetrating the body through and through, produces pleasure. When it does not mix with blood, the blood gets thicker and coagulates, then pain results. Diogenes also gave quite an acute account of the anatomy of veins.

2. The Atomists

Lucippus.—Lucippus who belonged to Miletus in Asia Minor was in his prime of life in 430 B.C. He was a pupil of Zeno and is said to have associated with Parmenides, though their philosophies were poles apart. He evolved the theory of atoms which was accepted and further refined by Democritus, who belonged either to Miletus, or according to some accounts to Abdera, and was in the prime of his life in 420 B.C. Democritus had met Lucippus and perhaps also Anaxagoras to whom he was junior by about forty years. He visited Egypt, Chaldaea, Persia, some say even India and Ethiopia. He was a prolific writer, though nothing of his works has survived except about 290 fragments mostly from his ethical writings.

Democritus.—In Democritus the scientific spirit of Ionia found its culmination. His theory became the basis of all subsequent materialism right down to the present day. The Atomists made their theory explain our experience of the coming-into-being, perishing, and motion of things and their multiplicity; and this they did by postulating, against the Eleatics, the existence of Void, a Not-Being which nevertheless exists as much as Being. Both Being and Void or Not-Being are the material causes of all existing things. Being is not one, but consists of invisible, small atoms of infinite number and shapes. The atoms are to be regarded of infinite shapes, because there is no reason why an atom should be of one shape rather than another. They are indivisible because they are very small. They are compact and full, because there is no Void within them. They move in the Void, and by coming together they effect coming-into-being, and by their separation, perishing. They differ from one another not in quality but in shape, arrangement, and position and, according to Aristotle's reading, also in weight. These differences are responsible for all the qualitative differences in objects.

The whole of existence is infinite; a part of it is filled with atoms and a part is Void. A large number of atoms of different shapes move in the infinite Void. They come together there like to like and produce, in the same way as the Mind of Anaxagoras, a whirl in which colliding with one another and revolving in all manner of ways, they begin to separate, like to like. But when

their multitude prevents them from rotating any longer in equilibrium, those that are fine go out towards the surrounding Void, while the rest get entangled, abide together, unite their motions, and make the first spherical structure. Thus the earth came into being when the bulkier atoms stayed together. It is flat but tilted downward towards the south. Some of these bodies that get entangled form a structure that is first moist and muddy but as they revolve with the whirl of the whole they dry out and then ignite to form the substance of the heavenly bodies. Thus arise innumerable worlds which differ in size and are resolved again into atoms.

In some worlds there are no sun and moon, in some they are larger than those in our world and in others more numerous. The intervals between the worlds are unequal, in some parts there are more worlds, in others fewer, some are increasing, some at their height, some decreasing, in some parts they are arising, in others falling. They are destroyed by collision with one another. Some worlds are devoid of living creatures or plants or any moisture.

In compound bodies the lighter is one that contains more Void, the heavier that which contains less. The soul consists of spherical atoms spread through the body. We inhale and exhale soul-atoms, and life continues so long as this process goes on.

All objects animate or inanimate flock together with their kind, dove with dove, crane with crane, and pebbles with pebbles on the seashore.

The process by which the worlds come into existence and everything moves is not random. Nothing occurs at random; every change in existence is for a reason and only by necessity.

According to the Atomists, knowledge is of two forms, genuine and obscure, sensuous knowledge being of the latter type. They explain sensation by a kind of effluence that is said to proceed from everything. In the case of sight it proceeds both from the object seen and the observer's eye and produces an impression on the air, the solid part of which remains outside but the finer and lighter part, the image, enters the pupil of the eye if the eye also throws out a like image. Other sensations are explained by the size and shape of the atoms. Sensible qualities being the result of this process show how things affect us, not what they are. As later on held by Locke, shape, arrangement, size, and weight are the qualities of things, and are therefore objective, but colour, sound, taste, smell, etc., are subjective.

The ethical fragments of Democritus which have come down to us in the form of aphorisms are mostly sparkling jewels of wisdom and common sense. According to him, happiness is the highest good. In theology he believed in the existence of gods, but the gods, he holds, are made of atoms and are as material and mortal as men. Only they live longer and have greater power and higher reason. They do not interfere in men's affairs and, therefore, need not be feared.

E

PHILOSOPHY AT ATHENS

1. Early Record

So far all philosophical development took place in Greek settlements in the islands and the mainland of Asia Minor which were under the imperial rule of Persia and in Magna Graecia (the Greek cities of South Italy and Sicily). Before the beginning of the fifth century B.C. Athens had not produced a single great man in the spheres of art, science, literature, and philosophy except the lawgiver Solon. Archelaus (c. 450 B.C.) did belong to Athens but he was a minor thinker who followed the principles of Anaxagoras with some modifications based on Anaximander's primacy of hot and cold, Anaximenes' condensation and rarefaction of air, and Empedocles' four elements. His chief claim to a place in the history of Greek philosophy is that he was a pupil of Anaxagoras and teacher of Socrates.

However, the victory of Athens against the Persian King Darius in 490 B.C. and of the combined Greek navies under Athenian leadership against his son Xerxes in 480 B.C. brought Athens politically to the forefront. Political predominance brought with it flourishing trade and commerce which resulted in great prosperity. During Pericles' wise rule of thirty years from 460 to 430 B.C. Athens was at the height of her glory. It was during this period that Aeschylus, Sophocles, and Euripides produced their tragedies, Aristophanes his comedies, and Pheidias his statues—all masterpieces of unsurpassed beauty. Herodotus by writing the history of the Persian wars became the father of history and Thucydides by producing his *History of the Peloponnesian War* secured for himself the rank of the greatest historian of antiquity.

In philosophy, however, the record of Athens up to the end of the fifth century was far from brilliant. She produced only one great philosopher, Socrates, and suffered another from Asia Minor, Anaxagoras, to live and teach there. But her people by bringing up the charge of impiety and corruption of the Athenian youth against them condemned the former to death and the latter, despite Pericles' defence to banishment for life. Besides, it was here that the sceptical movement started by the Sophists brought philosophy, partly justly and partly unjustly, under the shadow of disrepute.

2. The Sophists

The Problem of Knowledge and the Study of Man

While great but conflicting philosophical systems were being developed with almost equal force by the Asian Greeks in the islands and the mainland of Asia Minor, and the Western Greeks in South Italy and Sicily, by about 450 B.C. dissatisfaction began to appear with system-building in a certain section of talented men. The paradoxical conclusion of these systems made this

group of thinkers sceptical about philosophy as a truth-finding discipline. The leader of this group was Protagoras of Abdera in Thrace who was at the prime of his life in the later half of the fifth century B.C. He was a friend of Pericles and used to teach in Athens. He doubted the existence of gods and, therefore, like Anaxagoras, was banished from Athens on a charge of impiety. In addition, his books were burnt in the market-place.

According to Protagoras, we experience neither the ultimate principles of the schools of Ionia or the First Cause of the school of Elea, nor the "atoms" of Democritus or the "seeds" of Anaxagoras. At best they are unverifiable hypotheses. Therefore, all talk about them is idle. Instead of wasting energy on discussion regarding the nature of the objective world a man should occupy himself with *himself*. All knowledge, for what it is worth, depends upon the senses. But our sense-experience is deceptive. It reveals only what passes away and yields no universal truth. Nor can we rely on reason, for reason is also based on sense-experience and is a mere continuation of it. As all knowledge is based on a man's sensations, it is true only for him, and not for all. A proposition may at the same time be both true and false, true for one, false for others. There being no absolute truth, each "man" as an individual "is the measure of all things."

Ethical truths are equally relative. What is of benefit to me may harm another, and thus what is good for one may be bad for others. The individual's good is only what he considers good for himself. With everyone personal benefit alone should count. Although one opinion cannot be truer than another, it can yet be better than another. As sensuous knowledge, however uncertain, is alone possible for us, it should be acquired for use in practical life. Similarly, it is not known whether the gods exist or not; they should nevertheless be worshipped.

Protagoras only doubted the possibility of certain knowledge, but his contemporary Gorgias went to the extent of maintaining that nothing whatever exists, and if anything exists, it is not knowable and if it is knowable, it is not communicable.

Following these leaders all Sophists became sceptical about the universality and objectivity of truth itself and began to concern themselves mainly with teaching the practical arts of arguing and speaking with effect for success in public life, and receiving payment in return. The subjects they taught with this end in view were logic, rhetorics, and grammar. As there was no regular system of education only the sons of aristocracy could afford to take lessons from them. They were hated by the masses because of their relations with aristocracy and their radicalism in matters of religious beliefs, and by the philosophers of other schools because, against the prevailing practice, they charged fees for giving instruction. They were called by their opponents the *Sophists*. Though the word "sophist" means a wise or learned man, it was used for them as a term of reproach to mean a quibbler who used fallacious arguments to make truth appear falsehood and falsehood truth, and argued not to find

the truth but only to win a point against a disputant. This reproach was definitely justified, at least in the case of the later Sophists.

From the purely philosophical point of view, the sceptical movement of the Sophists was not an unmixed evil. It was quite a natural movement and of positive gain in two ways. A period of feverish intellectual activity resulting in great systems is naturally followed by a period of criticism—a criticism which paves the way for further developments. The critical scepticism of the Sophists led to the philosophies of Socrates, Plato, and Aristotle which represented the highest point that Greek speculation could reach.

There was another gain. The main problems to which the system-builders paid attention were the problems of Being and Not-Being, substance and number, permanence and change, One and many; and man did not figure in the picture at all. The Sophists made the study of man, as an individual and as a member of the State, their chief concern. This turn in Greek speculation widened the horizon and partly determined the course of subsequent Greek thought.

3. Socrates

Socrates was born at Athens in 469 or 470 B.C. and was condemned to death in 399 B.C. He spent most of his time in high philosophical discussions in public places.

"In the case of Socrates," says Bertrand Russell, "the uncertainty is as to whether we know very little or a great deal."[2] The reason is that for his teaching he used the method of conversation and wrote no book. All our knowledge of him is based on the writings of his pupils, Xenophon, a soldier whose philosophical equipment was not high enough to enable him fully to appreciate his teacher's ideas, and Plato who idealized him and made him the chief character of his Dialogues, but left no hint to the extent to which the contents of the Dialogues relate to his own ideas and to what extent to those of Socrates. Socrates was the greatest thinker of his generation. He was high-minded, eminently pious, frank to a fault, amazingly indifferent to worldly success and comforts of life, and remarkably high in the estimation of youth. Physically, he was extremely ugly and went about shabbily dressed and barefoot.

Although he never took any fees for his teaching and was opposed to the Sophistic way of thinking, he was sometimes mistaken for a Sophist. This was due to the fact that, like the Sophists, he discarded metaphysics, natural science, and mathematics, made the study of man as a citizen his main concern, and regarded the individual's culture as the goal of education, irrespective of its effect on State, religion, and traditional beliefs.

Socrates believed in God, immortality of the soul, and, for the noble and the great, a happy life after death. He was religious to the extent of being

[2] Bertrand Russell, *History of Western Philosophy*, p. 102.

superstitious, for he went to the Delphic Oracle to find out who was the wisest man in Athens. The Oracle's reply that it was he himself came to him as a complete surprise, for, he thought, a god could not be wrong, and yet he who knew nothing had been declared to be the wisest man. To see that there was no error he visited all the men reputed for great wisdom, engaged them in discussion only to be disappointed and to discover that the Oracle was right, because those who claimed knowledge actually knew nothing, while he who claimed no knowledge knew at least one truth, the truth that he knew nothing. He also claimed that ever since his childhood he had heard a divine voice that always told him what not to do and that he was commissioned by God to fulfil the philosopher's mission by searching into himself and other men.

In spite of his religious-mindedness and his ennobling influence on the youth, he was prosecuted for denying the gods of the State, worshipping new divinities, and corrupting the young, and was in the end condemned to death by poison.

Socrates used and developed the Dialectical Method invented by Zeno. It is the method of seeking knowledge through the clarification of ideas by questions and answers. It is a useful method for discovering logical inconsistencies in order to reach what is logically consistent. It is suitable for the clarification and definition of non-empirical ideas and the right usage of words, but, as Bertrand Russell says, is of no use in the discovery of new facts.[3]

He was interested neither in physical nor in mathematical or metaphysical speculation. His interest lay mainly in ethics, of which he is rightly said to be the founder.

Opinions greatly differ in moral matters, but for Socrates it is the philosopher's duty to dig out the eternal and universal truths hidden beneath the confused mass of opinion. Beginning with real or professed ignorance (his irony) and making self-consistency as the criterion of truth, he brought under discussion opinions about such matters as good, beauty, ugliness, nobility, wisdom, justice, courage, friendship, State, and citizenship, in order to know their real moral significance and to arrive at their precise definitions.

He was convinced that all evil-doing is due to ignorance. If people knew what was right, they would do no wrong. As knowledge alone is needed to make people virtuous, he declared that knowledge is virtue. It is the highest good and the sole end of life and its pursuit is the only source of abiding happiness.

By over-emphasizing one aspect or another of Socrates' system, his followers developed divergent lines of thought. The school of the Cyrenaics, founded by Aristippus of Cyrene, lay hold of his idea of happiness and joy in the pursuit of knowledge, and made the greatest amount of pleasure the highest good for man, a view later on taken and modified by the Epicureans. His emphasis on knowledge as virtue, as the supreme good worthy of being sought for its own sake, irrespective of the joy that it brings, made the school of the Cynics, established by Antisthenes, couple their doctrine of virtue and

[3] *Ibid.*, p. 113.

duty with asceticism, i.e., with extreme self-restraint, self-renunciation, and freedom from want—a doctrine later on developed by the Stoics. Euclides and Plato combined his idea of the highest good with the Eleatic conception of the unity of Being and developed the doctrine that matter and change and motion are unreal, and the one ultimate Being—the Good—is the essence of all things.

4. Plato

Plato (427–347 B.C.) was a descendant of Solon from his mother's side and, if his father's claim is accepted, of the last kings of Athens from the father's side. He was a disciple of Socrates and teacher of Aristotle. He remained attached to the Socratic circle from his own age of twenty to the death of Socrates. His works were exceedingly well preserved. Out of these, twenty-six authentic Dialogues have come down to us. At the age of forty or forty-one he founded an educational institution known as the Academy, where he taught till his death at the age of eighty. The Academy flourished till 529 A.D. when, 926 years after its inception, Justinian, Emperor of the Eastern Roman Empire, which had been converted to Christianity nearly two centuries before, closed it "because of his religious bigotry" and brought Greek philosophy officially to an end "and the Dark Ages descended upon Europe."[4]

After more than half a century of sceptical criticism, Greek thought went back to system-building and produced two of the most comprehensive and integrated systems the world has ever seen. Of these Plato's was one and the other was that of his disciple, Aristotle. The fundamentals of Plato's system are the same in all his Dialogues, but, owing to development of his thought, the details differ from Dialogue to Dialogue. An exceedingly well-written passage in Frank Thilly's *History of Philosophy* brings out very clearly Plato's relations to his predecessors. It runs as follows:

"Within the framework of the Platonic system, we have a combination and transformation of the teachings of the leaders of Greek thought. With the Sophists, Plato agrees that knowledge—if knowledge be restricted to appearances—is impossible; with Socrates, that genuine knowledge is always by concepts; with Heraclitus, that the world is in constant change (sensuous appearances are characterized by change); with the Eleatics, that the real world—for Plato the world of ideas—is unchangeable; with the atomists, that being is manifold (Plato admits a plurality of ideas); with the Eleatics, that it is one (the form of the Good is a unity): with nearly all the Greek thinkers, that it is basically rational; with Anaxagoras, that mind rules it and that mind is distinct from matter. His system is the mature fruit of the history of Greek philosophy down to his time."[5]

Knowledge, according to Plato, is grasping the true being of a thing. As

[4] *Ibid.*, p. 80.
[5] Frank Thilly, *History of Philosophy*, p. 73.

the Sophists have conclusively shown, the true nature of a thing cannot be known through sense-perception. The true being of a thing is its idea, its eternal, unchangeable, and universal nature and it can be known only by a special method of inquiry.

The method he employs for acquiring the knowledge of true beings is the Dialectical Method of Socrates; but not only that; he also developed the theory of this method. Dialectic is not discussion for the sake of discussion. Its procedure of questions and answers is aimed at examining opinions based upon the apprehension of particulars in sense-perception in order to discover, by the help of reason, their true nature, the universal idea that is true of all such particulars. It is a gradual process by the aid of which we pass from the sensible to the ideal. After these universal ideas have been discovered, their sub-divisions (species) are ascertained. Thus, by a process of synthesis and analysis we pass upward and downward from idea to idea and view the whole range of ideas.

Theory of Ideas.—Ordinarily, it is thought that the idea or concept of a horse is formed by abstracting the common qualities shared by all particular horses. This idea or concept is regarded as a piece of knowledge existing in the mind of the knower. This is not Plato's view. He holds that this universal idea which is true of all horses is not a piece of knowledge but a piece of reality. It transcends particular horses and lives in a separate world, the world of ideas. It is present in its transient, changing appearances in sense-perception only in so far as they participate in it. What is true of the idea of a horse is true of all other ideas. They all exist in the world of ideas and, by viewing the world of ideas in this way, we apprehend the whole of reality, the whole of rational cosmos. In this rational cosmos, there are ideas of all things (even such things as tables and chairs), qualities, relations, virtues, and values. The highest idea is the Idea of the Good which is identical with the Beautiful and the highest knowledge is to apprehend the Idea of the Good.

Plato illustrates the relation between the rational cosmos, the world of ideas, and the world of sensuous experience by his famous allegory of the cave. Imagine a cave with an opening at one end outside which there is burning a bright fire. At the other end there is a screen and between the fire and the screen there are men facing the screen so chained from childhood that they can make no movement of legs and necks, but can see only what is in front of them on the screen. As these men cannot turn their heads round, they will see only the shadows of one another and of the things they carry, which the fire throws on the screen, and will consider them real objects. But suppose one of them is released and goes out of the cave; first he will be dazzled by the glare of light, but soon his eyes will get adjusted to light and enable him to see, then he will see the shadows of objects on water, then the objects themselves, then he will gaze upon the light of the moon and the stars and the spangled heaven by night, and last of all he will be able to see the sun by day and will contemplate it as it is. And when he remembers his condition when he was

imprisoned in the cave and the condition of his fellow-prisoners, he will felicitate himself on the change and pity them.[6] The cave is the world of sight, the light of fire is the sun, and the man's journey is like the upward ascent of the soul into the intellectual world, the world of ideas. "The Idea of the Good," like the sun, "appears last of all" and, "when seen, is inferred to be the universal author of all things beautiful and right, parent of light in the visible world and the immediate source of reason and truth in the intellect; and this is the power upon which he who would act rationally either in public or private life must have his eyes fixed."[7]

If eternal ideas are the only pure beings and the world of ideas is the only real world, from where has appeared the changing world of sense? To explain this Plato postulates another principle—the principle of Not-Being which means what is *other than* Being.[8] Not-Being is the same thing as matter. It is unreal and yet exists as a formless substratum of the phenomenal world. When this formless Not-Being receives the impression of ideas, the world of sense-perception appears. It has reality only in so far as it has the impress of ideas. In so far as it is material, it is unreal. It is, therefore, wrong to call it the *real* world. It is merely a world of shadows.

Cosmology.—In the sphere of cosmology Plato does not find himself on solid ground and, therefore, claims only probability for his cosmological views.

God, the maker of the world, fashioned its body out of the four elements leaving no part of them outside, after the pattern of the world of ideas. In order to make it as perfect as possible, He put intelligence into it and placed in its centre the world-soul, which had been created earlier to be its ruler and mistress. Thus, the world became a veritable living creature endowed with intelligence and soul. As there could be only one best possible copy of the original, there is only one world and it is in the best of all forms, the spherical form.

Then by some mathematical manipulation of the parts of the world, the Creator made the orbits of the seven heavens. He sought to make the world eternal so far as it might be. Now, to bestow eternity, an attribute of the ideal world, in its fullness upon a creature was impossible. Therefore He created time as the moving image of eternity. He then made the sun to measure the movement of the planets, and thus brought about day and night. This was followed by the creation of the heavenly race of the gods (the stars and planets) and the species in air and water and the wild animals on land. This having been done, the Creator Himself, made the divine part of man, reason, mixed it with the four elements, divided the mixture into souls equal in number to the stars, and assigned each soul to a star. He then ordered the gods, His children, to do the rest to complete the universe by interweaving the mortal

[6] *Republic*, VII, 514–16.
[7] *Ibid.*, 517.
[8] *Sophist*, 258.

with the immortal. These children of the Creator, obeying the Father's order, made each separate body by welding the portions of the four elements, temporarily borrowed and to be restored in due course, and fastened the immortal souls to these mortal bodies which are perpetually in flux.

It is remarkable that this mythical account of the creation of the universe, about which Plato himself was uncertain, exerted an extraordinary influence on medieval thought.

Psychology.—The soul is immaterial and prior to the body. The body is intended by nature to be its servant and to listen to its commands. Once the soul lived with God in the world of ideas. Owing to its desire for the sensuous world, it was brought down and encaged in a material body and condemned to pass through a stage of purification. On release from the body it has to give an account of itself before the judgment-seat. Those who have been virtuous in this world are sent after death to the Isles of the Blessed, to their respective stars, and the wicked to Tartarus to suffer punishment. A few great sinners like potentates are, however, kept in Hades as a salutary terror to others.[9] If after undergoing full punishment a soul becomes wiser, it has a better lot; but if it still persists in folly and does not see the truth, it goes down lower and lower transmigrating from the body of one animal to that of another, never passing into human form.[10] The middling souls may pass from human to animal form and, *vice versa*, from animal to human form.

As the soul can know pure and eternal ideas and only like can know like, it must also be pure and eternal, at least in part. Its pre-existence in the world of ideas is proved by the fact that it is originally endowed with certain principles and axioms which are not given by sense-experience and therefore can only be explained as recollections from the previous life of the soul occasioned by sense-experience.[11] The soul is also immortal. Its immortality has to be accepted on these grounds: (1) The soul is simple and indivisible; therefore, it can neither be produced by composition nor destroyed by decomposition.[12] (2) The soul is a principle of life; it, therefore, cannot become its contradictory, death.[13] (3) Everything is destroyed by its peculiar evil. Ignorance, injustice, and intemperance are the peculiar evils of the soul, but they do not destroy the vicious soul; the soul is therefore indestructible and immortal.[14] (4) The soul is self-moving and ever in motion and that which is ever in motion is immortal.[15] (5) The soul is rational and moral. It must have an after-life in which by rewards and punishments the injustices and imperfections of this life may be rectified. (6) In yearning for the eternal ideas of beauty and truth,

[9] *Phaedo*, 113 E; *Gorgias*, 525.
[10] *Phaedrus*, 249.
[11] *Meno*, 86; *Phaedo*, 73.
[12] *Phaedo*, 78.
[13] *Ibid.*, 80.
[14] *Republic*, X, 609.
[15] *Phaedrus*, 245.

the soul is yearning for immortality, since what is passionately desired and cannot be fully achieved in this life must be attainable in the life hereafter.

The soul has three parts: reason, spirit, and appetite. The spirited part sometimes sides with reason and obeys its commands. Spirit includes such impulses as ambition, anger, and righteous indignation, and appetite includes desire for sensuous pleasure, wealth, and all forms of bodily satisfaction. Sometimes appetite gets the better of it and the two conspire and rebel against reason. The harmonious soul is that in which all the three parts work harmoniously, each discharging its own function, the rational part commanding and the spirited and appetitive parts obeying its commands.

Ethics.—The soul is in essence rational and immortal. The world of true beings, the world of ideas, is the source of all its goodness. The body is material and Not-Being and is the ground of all evil. It is only a temporary prison-house. Release from the body and contemplation of the beautiful realm of ideas is the ultimate goal of life. The embodied soul is wise if reason rules all its impulses. It is brave if its spirited part aids and obeys the rational part, temperate, if both spirit and appetite obey the dictates of reason, and just if all the three parts perform their respective functions in unison. The ideal of this life is achieved when a man is wise, brave, temperate, and just. The highest good of life is the harmony of the soul which is attained by the exercise of all the four virtues, wisdom, courage, temperance, and justice, under the guidance of reason. The greatest happiness attends the life that achieves the highest good and contemplates the highest ideas.

Aesthetics.—All art is functional. Its function is to imitate, but not to imitate the objects of experience, but ideal realities. The artist, therefore, must learn to contemplate the ideal world. Sensible objects only participate in the ideas. They are only shadows of reality. If art were to imitate these objects, it would produce nothing better than the shadows of shadows, and if it created illusions and distortions it would be thrice removed from reality.

All art, intellectual or useful, must be subordinated to the good of the State and the moral life of its citizens. Only those art-forms should be encouraged in every art which express the simplicity of a rightly and nobly-ordered mind. On their simplicity depend their style, harmony, grace, and rhythm, which qualities elevate the soul and instil true and noble ideas into it. Our artists should be only those who are gifted to discern the true nature of the beautiful and graceful. In poetry only hymns to the gods and praise of famous men should be permitted. Excessive devotion to art is not desirable. It creates effeminacy. Exhibition of vice, intemperance, meanness, and indecency and all that is base and impure should be banished from the State. Sorrowful tunes and tales create weakness in the soul and the comic art turns men into buffoons. Some painting creates illusions and some sculpture and architecture exhibit false proportion. The former creates falsehood and the latter disorder in the soul. All art which shows these tendencies should be banned. To effect this all art-productions should be brought under strict censorship.

Theory of Education.—The Platonic theory of education aims at making the individuals belonging to the two higher classes truly cultured and well equipped for discharging their respective functions in the State by drawing out what is already dimly known to them because of their having lived before birth in the real world, the world of ideas. It envisages a careful selection of the most promising children and their training under a rigorous discipline backed by careful censorship in (1) music, covering everything within the province of the Muses including poetry and literature, and (2) gymnastics, meaning physical culture. The teaching of music forbids stories without moral significance in Homer and Hesiod, because they depict gods as doing evil deeds, and anything that does not inculcate sobriety, temperance, control over laughter, willingness to die for the State, and the belief that slavery is worse than death. Drama should depict only faultless characters of high birth, and any play in which an actor is made to take the part of a villain, a criminal, a woman, or a slave should not be permitted. That music which is expressive of courage and harmony is to be encouraged, and the songs which express sorrow or induce relaxation are to be prohibited. Up to a certain age the young should get no chance of seeing what is bad, ugly, or terrifying. The study of music and gymnastics is to be followed by that of mathematics and dialectics right up to the age of thirty-five. Then come fifteen years of practical experience in subordinate offices leading at the age of fifty to the pure study of philosophy. When this study is completed, only then is a person accomplished enough to hold the highest office of the State and become a philosopher-king.

Theory of the State.—According to Plato, there are five types of political organisations: aristocracy, the rule of the best; timocracy, in which the rulers are motivated by honour; oligarchy, in which the rulers seek wealth; democracy, the rule of the masses; and tyranny, the rule of one man advancing solely his own selfish interests.

In the *Republic* Plato gives an outline of what he regards as the Ideal State. It is a form of intellectual aristocracy. The State is the individual writ large. On the analogy of the tripartite division of the soul, society is stratified into three classes, the rulers, the auxiliary, and the artisans, each class having its own specific virtue: the rulers wisdom, the auxiliary valour, and the artisans self-restraint and willing obedience. To keep people contented in their respective classes the State would have to propagate "a royal lie" that God has created human beings of three kinds: the best are made of gold, the second best made of silver, and the common herd of brass or iron, the first fit to be administrators, the second warriors, and the rest manual workers — a myth which would become a common belief in about two generations. The function of the rulers is to mould the State in the likeness of the State "of which the pattern is laid up in heaven," in the realm of ideas, of the auxiliaries to help the rulers by military service and protect the State in times of war or revolt, and of the artisans to carry on trade, manual labour, and craftsmanship. Since it is only the philosopher who has knowledge of reality, he alone deserves to

be a king. He should be persuaded to accept the office, though he would be generally unwilling to do so. As selfishness is the root of all social evil, the guardians, i.e., the rulers and warriors, are to live a common life with a common mess as one family without any private property, wives, or children. Men between 25 and 55 and women between 20 and 40 (i.e., when they are in the prime of life) are to be brought together on ceremonial occasions specially arranged for intercourse, in numbers suitable for the required population. The pairing on these occasions is to be determined apparently by lots, but actually by secret manipulation in such a way that the braver get the fairer. As in a society of communism of property, wives, and children, no child would know his parents and no parents their children, all those belonging to an older generation would be called fathers and mothers by the younger generation and all those belonging to a younger generation would be addressed as sons and daughters by those of the older generation. Those children who were begotten at the time when their fathers and mothers came together will be called by one another brothers and sisters. The children born will be brought up by nurses in quarters specially provided for them. They should get only the necessities of life, and be so brought up as to be able to bear the roughness and hardships of life. The State on the whole should not be allowed to become too rich or too poor, for both riches and poverty lead to social evils. Nor is the State to be allowed to be too large or too small. Its size "shall not be larger or smaller than is consistent with its unity" which indeed is its greatest good. Women are to take equal part in education and State services as administrators or warriors.

This is an outline of Plato's Ideal State. But he himself acknowledges that it is not fully realizable. Therefore in a later work, the *Laws*, he modifies it in several important ways and gives a more practicable plan of what he regards as the second best State. In this State he places freedom and friendship side by side with reason. All citizens should be free and given a share in government. Of course, slaves who should be only foreigners are not counted among the citizens. The administration he now recommends is a mixture of aristocracy and democracy. Women are now included in the community meals of the guardians. Marriage is also permitted and family life and private property restored.

5. Aristotle

Aristotle (384–322 B.C.) was born at Stagira in Macedon, where his father who belonged to a family of physicians was employed as Court physician to the King. At the age of seventeen he became Plato's pupil at the Academy at Athens which he left twenty years later at Plato's death. In 334 B.C. King Philip of Macedon engaged him as his son Alexander's teacher and he worked in that capacity for seven years. Thereafter he came back to Athens and opened a new educational institution at the Lyceum. Because of Aristotle's habit of walking while teaching, this institution came to be known as the

Peripatetic school. Aristotle remained the head of this school for twelve years during which he wrote most of his works. At the close of this period he was indicted for impiety and compelled to flee to Chalcis in the Greek island Euboea where he died a year later.

Aristotle wrote on every subject then known in the world and most of his writings have come down to us. The collection of his logical works is entitled the *Organon*. His writings on what he called First Principles were collected by a compiler and named *Metaphysica*, for they were placed after the writings on physics. He wrote several works on physics, including the one called *Auscultationes Physicae*, and several on the natural history of animals. On psychology he wrote many treatises, including three on the soul. His chief ethical writing is the *Nicomachean Ethics*, and his works on literary arts are named the *Rhetoric* and the *Poetics*.

According to Aristotle, there are three divisions of philosophy: (1) theoretical studies in which the attempt is made to know the existent, (2) practical, which relate to conduct and the rules of conduct, and (3) poetic, relating to the creative works of art. The first is again divided into mathematics, physics, and the "first philosophy." There is, however, a study which precedes all these as a precondition. That is the study of logic.

Logic.—Aristotle has been justly said to be the founder of logic. The principles of correct reasoning were employed in practice by his predecessors in their search for knowledge, but it was he alone who made their theoretical study, clarified them, and organized them into a well-rounded system which had an amazing influence on subsequent thought both in the East and the West. But for a few spasmodic revolts, the *Organon* ruled supreme for over two thousand years.

In the *Organon*, Aristotle shows that a simple or compound *word* expresses a meaning or a mental representation of a thing. This meaning or mental representation is called a *term*. A proposition consists of a subject word expressing the mental representation of an existent, a predicate word expressing the mental representation of something that is asserted (or denied) of that existent, and the mark of assertion, is (or of denial, is not). A true proposition is the verbal expression of a true *judgment* which is a combination or separation of two terms (expressed by the subject and the predicate) which corresponds with the combination or separation of two real things. A false proposition is the expression of a false judgment which is a combination or separation of two terms which have no such correspondence.

The mental representations of subjects are combined in several ways. These ways are determined by the *categories*, the ten ultimate modes of being. These categories are substance, quality, quantity, relation, where, when, position possession, action, and passion. Nothing can be predicated of any existent which does not fall in one of these categories. Some substances, e.g., first essences and individuals, can be expressed only as subjects of propositions, never as predicates.

Two propositions in one of which a predicate is affirmed of a subject (A is B) and the other in which it is denied (A is not B) are called contradictories. Of such propositions one must be false and the other must be true. This law is called by Aristotle the Law of Contradiction. Again, "one can either deny or affirm every predicate of every subject." Between its denial and affirmation there is no middle course. This principle is called by him the Law of Excluded Middle. Both of these laws are based on the metaphysical principle that "the same thing cannot at the same time and in the same respect belong and not belong to the same thing." This principle is known to us immediately and intuitively and, therefore, requires no demonstration. All demonstration and all certain knowledge depend on this principle.

The mental representations of the essential attributes common to all the individuals in a class constitute a class-concept. The contents of this concept form the definition of the class. The essential attributes of man, rationality and animality, form the concept and constitute the definition of man.

Logic for Aristotle is a necessary process. It is a process of reasoning which consists in proving a proposition by showing that it is such and such and it cannot be otherwise. This proof is provided in the following two ways.

The first way in which a proposition is proved or demonstrated is that of deduction the unit of which is a syllogism, a name given by Aristotle himself to a process by which the truth of a proposition is established by showing that it necessarily follows from its presuppositions called the major and the minor premises, by virtue of their possessing a common term. John's mortality is established by showing that John is a man (minor premise) and man is mortal (major premise), man being a common or middle term by the help of which a connection is established between John and mortality. Thus, by syllogism it is shown that what is true of a whole class (i.e., the universal truth expressed by "all") is true of each individual or a smaller group, on the ground that the individual or the small group belongs to that class. So the fundamental principle of syllogism is "whatever is affirmed (or denied) of an entire class or kind may be affirmed (or denied) of any part" thereof—the principle called the *Dictum de omni et nullo*. This principle, like the basic principles of all sciences, is known intuitively. Its application enables us to derive the particular from the universal. How the conclusions of syllogisms are affected by the differences in quality (affirmation or negation) or quantity (extension to all, some, or only one) of the premises, is worked out with remarkable precision.

All scientific conclusions are ultimately drawn by syllogistic reasoning from premises which are themselves known immediately and intuitively to be absolutely certain, requiring no proof.

The second way of proving a proposition is that of induction, a process by which universal principles are derived from particular experiences by their complete enumeration. In experience, sensuous particulars are prior and more knowable to us, but absolutely prior and more knowable are the concepts which are the most general and the most remote from sensations. Therefore,

deduction which takes us from the universal to the particular is more scientific, prior in nature, and more rigorously demonstrative. Those who cannot follow the deductive way may, however, employ induction. Thus, syllogistic deduction was over-emphasized by Aristotle and induction was given only a secondary place and its details were not worked out by him.

Metaphysics.—Every object of experience consists of two factors, a substratum (matter) and a universal element common to all objects of the same type (its form or essence), the mental representation of which is its concept. Plato does not deny the existence of this form or essence in individual objects, but there it is only as a copy of the form or essence existing in the world of ideas. Aristotle argues that if, to explain the form of man, it is necessary to postulate the ideal form in the world of ideas, it would be necessary also to postulate a third form of which both of these forms are copies. Besides, these independent essences are not of any help to things in their existence, motion, or change. Again, if the ideas are the essences of things, how can essences exist apart from the things of which they are the essences? He concludes that Plato's world of ideas is an unnecessary duplication of the world of sensible things. It is a mere poetic fiction. The essences or forms of things exist only in those things: they are immanent in them. The world of sensible things is, therefore, the only real world.

There are four fundamental principles which run through all spheres of the real world. These are (1) Matter or Substratum, (2) Form or Essence, (3) Efficient cause, and (4) the End or the Final cause. These principles are according to Aristotle, the causes of everything that exists in the world.

Matter is the principle of imperfection and individuation of things. It is not non-existent as Plato had thought, but exists as a potentiality. Form consists of essential elements common to all individual objects of the same type and is the actualization of material potentiality. As forms are eternal and unchanging, they are the most knowable and the most worthy subjects of knowledge. All movement is change from potentiality to actuality, and for everything in existence there is a moving or efficient cause. In organic things, the essence, the efficient cause, and the end are one. The essence is shape; it shapes, and its own completion is its end. The soul is the form of the body and is also its moving and final cause.

There are things in existence that both move and are unmoved. There are things also which are only moved. Therefore, there is a third something *(tertium quid)* which moves, but is not itself moved. This something, this unmoved mover is God Himself. He is the Pure Eternal Form without any alloy of matter, the absolutely perfect actuality. He is the Absolute Spirit identical with Reason, loved by everything, and sought as the perfect ideal by everything. He produces all motion by being loved, and so is the final cause of all activity. In Him the distinction of the individual and the universal completely disappears.

God is the unmoved mover, but Aristotle is not certain that there is only

one unmoved mover. At another place astronomical considerations lead him to conclude that every sphere has an unmoved moving spirit and there are forty-seven or fifty-two such spirits in all.

Physics.—The earth is the centre of the universe. Around this centre are the concentric layers of water, air, fire, and ether. In the ethereal layer are the celestial spheres, carrying planets, the sun, and the moon. Some of the spheres are backward-moving. The outermost sphere is that of the fixed stars which God touches without being touched, and to which He gives the best of motions, the uniform circular rotation, and that with a purpose, for the motion is not mechanical but teleological. The motion of the outermost sphere determines the motion of all other spheres, which is imperfect in a descending scale. Rather inconsistently Aristotle also assigns a spirit—an unmoved mover—to every sphere.

Motion exists in three categories, quantity (increase or decrease), quality (transformation), and space (change of place). The motion of the universe is not linear but circular. There are two conditions of motion—space and time. Space is the limit by which a body is bound, the boundary by which it is enclosed. From this definition it follows that there is no Void and that space is not unlimited but limited. Beyond the sphere of the stars there is no space. Time is the number and measure of motion according to before and after. It is infinite. The universe which moves in time is also eternal. It has always been and shall always be.

Biology and Psychology.—The soul is the form of the living body as well as the principle of its motion and its end. It determines the structure and movements of its specific body and uses it as an instrument for itself. As each soul develops its own specific body, there is no transmigration of a soul from one body to another. There are different grades of souls as there are different grades of life. The souls of plants determine their functions, of lower animals theirs', and of men theirs'. The functions of plants are assimilation, growth, and reproduction, those of lower animals are, in addition to these, sensitivity, appetite, and locomotion, while those of men are all these together with their specific function, reason. As the human soul combines within itself the function of all animate existence, it is a veritable microcosm. There is development within each species, but there is no evolution from species to species. Each organ has its own end and this end is its specific activity. The heart is the seat of sensations; from sensations arise memory, imagination, and pleasure and pain, and from pleasure and pain, desire. Reason is either passive or active. In passive reason concepts are potentially present; in active reaso nthey are actualized. All lower functions and whatever arises in consequence, being connected with the body, cease with the death of the body. Even passive reason which deals with images that create potentiality for the arousal of concepts, perishes with the body. Only active reason, for it is universal, not individual and personal, remains untouched by death. It alone is imperishable and immortal. How it is related to the individual and to God, is not made quite clear.

Ethics.—In the theory of morality Aristotle raises the question of the good for man[16]—the good which is the end of all human ends. His reply is as follows: As in all living beings, the essence, the principle of activity, and end are identical, the ultimate end or the good of an organism must consist in its essence, in its highest actualization. The highest realization of the essence of man consists in active exercise of the faculty distinctive of him, the faculty of reason. The supreme excellence of man or the good for him, therefore, consists in the proper performance of his functions as a rational being throughout the whole of his life.

The ultimate end of man so defined is called by Aristotle happiness. From this definition of happiness it follows that it is not the same thing as pleasure. Pleasure is only an accompaniment of happiness, as beauty is the accompaniment of the perfect physical development of youth.[17] The highest pleasure attends the highest happiness. While happiness in all its degrees is good, pleasure may be good or bad according as it accompanies good or bad activities. While there is nothing more valuable than happiness, there are things which are more valuable than pleasure. Virtue, for example, is one, truth another.

The ethical goal of happiness cannot be attained without some non-ethical prerequisites, such as the proper discharge of mental and bodily functions and the satisfaction of economic needs. No child or slave or poverty-stricken person can achieve this goal.

Human excellence expresses itself in virtue. By virtue is meant the habitual direction of the will to the guarding of the golden mean, the balance between excess and defect. For example, the virtue of courage is a mean between foolhardiness and cowardice and that of liberality between prodigality and meanness.

Human happiness or excellence manifests itself in two ways: first, in the habitual subordination of the animal side of man's nature, his appetites, desires, and passions, to rational rule; secondly, in the exercise of reason in the search for knowledge and contemplation of truth. In the former case, happiness expresses itself in moral virtues (courage, temperance, liberality, magnanimity, love of honour, mildness, truthfulness, friendship, and, the highest of them all, justice). In the latter case, it manifests itself in intellectual virtues which are of two types: (1) those of theoretical reason which we use in our inquiry in the nature of what is necessary and in the intuitive apprehension of truth (science and reason), and (2) those of practical reason by which we exercise deliberation in such matters as are possible for us to change (art and practical wisdom). Science is used in demonstration, and reason in the immediate apprehension of principles. The highest virtue consists in the exercise of theoretical reason. For virtuous life some non-ethical goods are also needed. Art is productive of something beyond itself and its value lies in the

[16] *Nicomachean Ethics*, 1, 2.
[17] *Ibid.*, X, 4.

product. Practical wisdom relates to conduct which is an end in itself and the worth of which lies in intention; it finds the right means for the end in view and is deliberative, critical, imperative, and formative of judgment by the use of intelligence.

Aristotle's attitude towards some human relations is rather odd. He regards the son as the property of his father and the slave the property of his master.[18] The father may repudiate his son, but the son cannot repudiate his father.[19] The master cannot be a friend to his slave in so far as he is a slave, but he can be so in so far as he is a man.[20] Sympathy for the suffering of mankind, except when it is the suffering of a friend, leaves Aristotle emotionally unmoved.[21]

Politics.—The first natural community for him is the family, which, when complete, consists of father, wife, children, and slaves. The family is based on two relations, the relation between man and woman and that between master and slave, both of which are considered to be natural. To all members of the family the father is an absolute ruler, but he should rule the slaves with mildness, the wife as a free member of the community, and children by right of affection and seniority.[22] The most comprehensive human society is the State. The aim of the State is to produce good citizens, individuals living a virtuous and happy life. As the highest virtues are intellectual, it is the duty of the State not to create warriors, but men capable of making the right use of peace which is conducive to intellectual activity. Yet the State should be strong enough to protect itself. Its size should neither be too large nor too small for its existence as an articulate whole. Its whole territory should be surveyable from a hill-top (which is, of course, possible only in a City-State). The State should wage no wars except in self-defence or to subjugate "natural slaves," i.e., inferior people. The Greeks combine courage with culture and are, therefore, superior people, and the superior people are alone justified in extending their rule over those who are inferior.[23] The State should be self-sufficient and yet have import and export trade—an apparent inconsistency.

The aim of education is virtue, not utility. It should be provided for free children, but not in any skill that might enable them to earn money or give them professional efficiency or deform their bodies, for citizens should neither lead the life of mechanics or tradesmen, which is ignoble and inimical to virtue, nor the life of professional athletes, which is detrimental to health. The slaves may, however, be trained in useful arts such as cooking and farming. The citizens should own land, but the tilling of it should be left to the slaves for it leaves no leisure and the citizens need leisure for their development. They

[18] *Ibid.*, 1134b.
[19] *Ibid.*, 1163b.
[20] *Ibid.*, 1161b.
[21] Bertrand Russell, *op. cit.*, p. 206.
[22] *Politics*, I, 5.
[23] *Ibid.*, VII, 7.

should be made to learn drawing so as to be able to appreciate the beauty of form and of painting and sculpture expressive of moral truth; and to learn music no more than just enough for critical enjoyment. The treatment given to citizens should be determined by the differences of capability, property, birth, and freedom. Equals should be treated as equals and unequals as unequals. Although the individual citizen is prior to the State in point of time, the State is prior to the individual in significance, for the whole is prior to its parts. As man is a social animal, the natural aim of the individual is to live in society. The rational aim of society is the happiness of man. So in a rational society the interests of the individual and the State are harmonized.

The worth of the individual citizens depends on the kind of government under which they are brought up. Governments are good or bad according as they seek the interest of all or only their own interest. Judged by this criterion, there are three forms of good government (monarchy, aristocracy, and polity), and three forms of bad government (tyranny, oligarchy, and democracy), according as the rule is of one man, of a few, or of many. The best form of government is a monarchy in which the ruler is a man of intellectual eminence and moral worth. Next best is aristocracy in which there are a few persons possessed of such qualities. Aristocracy is better than polity in which the citizens are politically, intellectually, and morally nearly equal. The worst form of government is tyranny, for the corruption of the best is worst; next is oligarchy which is the rule of the rich few. Democracy is the least bad of all bad governments.

Art.—Goodness and beauty are different, for the former is found only in conduct and the latter also in things that are not moved.[24] Beauty is created by art. Art is the imparting of formal elements to a material. The formal elements so imparted correspond to two primary impulses of man: (1) imitation, and (2) harmony, rhythm, and melody. Imitation is pleasing to us even when it mirrors the most horrid of objects, for it involves learning and knowing by recognition, and knowing is always pleasant. By harmony, rhythm, and melodies even new-born babies are attracted, because these are natural movements, and natural movements like those of actions are always pleasing. Nature has made man capable of all varieties of artistic skill.

The object of art is imitation, but not merely so. It is the imitation of the universal aspects of things, and an imitation in which the artist can go even as far as to make the copy of the handsome "handsomer" by combining scattered elements and, thus, partly imitating and partly completing what is left by nature incomplete.[25]

The pleasure of art is due to relief by *catharsis* or release of pent-up emotions For example, tragedy, which is the imitation of serious action, morally significant and of some magnitude, affords such relief by the *catharsis* of pity and

[24] *Metaphysica*, XII, 3.
[25] *Physics*, 119a, 15.

fear. Comedy which is the imitation of people inferior in some fault or deformity, which is not painful or a cause of pain to others, liberates laughter. The purgation of emotions in both tragedy and comedy leaves the spectators' minds calm and serene.

Poetry is more important and of greater philosophical significance than history, for it tells us something about the universals, while history speaks of the particulars. The universal with which poetry deals is that which a person would necessarily or probably do or say, and the particular is that which a person actually does or says. The poet is either a man of sensibility or of inspiration. In the first case he has ready sympathies, in the second he is possessed.

6. The Decline

The most glorious period of Athenian cultural and political ascendancy was the age of Pericles. In 430 B.C. Athens was ravaged by plague. In the same year began the Peloponnesian war between Sparta and Athens which after twenty-seven years' struggle ended in the complete overthrow of Athens. This was followed by the defeat of the Athenians and their allies, the Thebans, by Philip of Macedon in 327 B.C. and the annexation of Greece to the Roman Empire in 146 B.C. In the wake of this political decline came the general demoralization of private and public life.

Intellectual activity, however, did not cease with social and political decline. Thinkers of different mental make-up reacted differently to this fall. Some of them reacted positively and sought remedy for all social evils in social change, practice of virtue, and pursuit of truth, and built great philosophical systems. To this group belonged the great *Trio*, Socrates, Plato, and Aristotle, in whom Greek philosophy reached its highest point. Some, like Antisthenes and Diogenes of Sinope, became cynical about the world as a whole; some others, Pyrrho and Timon, became sceptical about the very possibility of knowledge. Zeno and his followers found tranquillity in the life dedicated to virtue, while Epicurus and his followers turned their eyes from the prevailing evils and sought relief in the pursuit of pleasure. Thus, during the period of political decline and social and moral disintegration, besides the great systems of Plato and Aristotle and their trails, there arose four other modes of thought, Cynicism, Scepticism, Stoicism, and Epicureanism. Despite some critical revisions and re-examination, three of them at least were the philosophies of retreat, and all four of them taken together were symptoms of Greek intellectual decline.

The Cynics.—The founder of the Cynical school at Athens was Antisthenes, about twenty years Plato's senior. He despised the pleasures of the senses, dressed like a labourer, and moved amongst the working classes. His motto was "back to nature," by which he meant return to a state of life in which there was no government, no marriage, no private property, no luxury, no established religion. His disciple, Diogenes of Sinope, surpassed him in fame.

Diogenes was about twenty-seven years older than Aristotle and died a year after him. While still very young, he went to Antisthenes in search of wisdom and followed him like a dog. The old cynic did not like him and even beat him with a stick to drive him away, but the lad would not move. His father was a money-changer who had been sent to prison for defacing coins. Diogenes' aim was "to deface all the coinage current in the world. Every conventional stamp was false. The men stamped as generals and kings, the things stamped as honour and wisdom and happiness and riches: all were base metals with lying superscriptions."[26] He discarded all conventions regarding dress and behaviour, procured food by begging, and lived in a tub. He declared brotherhood not only with all human beings but also with animals. It is said that "he once went through the streets holding up a lantern looking for an honest man"; and when Alexander the Great visited him at Corinth and asked him if he could do anything for him he replied, "Yes, stand from between me and the sun."

The Sceptics.—The sceptics were under the influence of the pre-Socratic philosophers of nature. The founder of the school, Pyrrho, was about twenty-three years younger than Aristotle. All our knowledge of him comes from his pupil, Timon, for he himself never wrote any book. He maintained that from the senses we know only what a thing appears and not what it actually is. Nor can we know anything through philosophy, for no two schools agree on any major problem and in every case an affirmation and its denial can be proved with equal force. Philosophy is fruitless because it can create no certainty, and impossible because it leads to endless contradictions. It is equally impossible to know any ethical truth and, therefore, there is no rational ground for the preference of one action to another. Hence in all matters, moral or metaphysical, we should have an attitude of complete indifference.

Timon denied even the possibility of logical reasoning. In order to avoid an endless chain of pro-syllogism to establish a conclusion, we must start from self-evident principles, but there are no self-evident principles and all starting points of reasoning are merely hypothetical. All speculation should, therefore, be suspended.

The school of Pyrrho ended with Timon, but strangely enough his doctrines found their way to the very heart of Plato's institution, the Academy, for they deeply influenced its head, Arcesilaus (316–241 B.C.) and his successor, Carneades (214–129 B.C.). The Academy under the former came to be known as the Middle Academy and under the latter the New Academy. According to Arcesilaus, nothing should be assumed unconditionally. Socrates had said before him that one thing alone he knew and that was that he knew nothing. Arcesilaus went further and declared that he did not even know that with certainty

[26] A. W. Benn, *Philosophy of Greece*, Vol. II, p. 117; Bertrand Russell, *op. cit* p. 254

His successor, Carneades, admitted that although there is no certainty in knowledge, some judgments have a degree of probability and can be made to guide practice. According to him, the idea of God is full of contradictions and the argument that God exists because the world is rational, beautiful, and good is fallacious. He fully mirrored the moral decadence of Attica in maintaining that unjust aggression against a weak neighbour was the right course of action and that it would be foolish if in a dangerous situation the stronger did not save themselves by sacrificing the weak.

The Stoics.—The Stoic school was founded at Athens nineteen years after the death of Aristotle by Zeno of Citium (in Cyprus) who at the time was twenty-eight years of age. His followers were Cleanthes (third century B.C.), Chrysippus (c. 282–209 B.C.), and Diogenes of Babylonia (second century B.C.). It was Chrysippus who perfected the Stoic system on all sides. After Diogenes the Stoic doctrines moved from Athens to Rome. The school acquired its name from *Stoa Poikile* (the Painted Porch) where it used to assemble. Zeno, like Heraclitus, was a pantheist. He maintained that the universe is a perfect sphere floating in empty space and is animated by its own soul, the Logos or Cosmic Reason. Form or the force that moves and matter that is moved are both corporeal; only the former has finer corporeality than the latter. Both are combined in the individual. The soul is material—a spark of divine fire. It is a *tabula rasa*, a blank tablet, which receives impressions from things. It retains these impressions as memory-images, and from these memory-images forms ideas by abstraction. Thus, while things are objective, concepts are subjective. All our knowledge of objects depends upon percepts and the concepts derived from these percepts. Its criterion is the compelling force of impressions.

The range of Stoic interest was rather narrow. It lay chiefly in ethics. Other studies were taken only as ancillary. According to Stoicism, man's highest duty is to regulate life in accordance with the laws of nature, which manifest the rational purpose of the universe, and thereby reach the highest measure of perfection. Neither pleasure nor self-interest should determine any of his personal or social actions. Reason should rule him and everything in him as the Logos rules the world and all its laws. The laws of his life are virtues. He should master all his passions and emotions and lead the life of perfect virtue. Virtue is the only good and vice the only evil, and the life of virtue alone is the life of happiness.

The Epicureans.—The term "epicureans" is nowadays used to mean those who are seekers of sensuous pleasures. There is no such implication when it is used in connection with the school opened by Epicurus at Athens seventeen years after the death of Aristotle. There is no doubt that Epicurus identified happiness with pleasure and regarded it as the natural and rational goal of life, but he maintained that it consists in the pleasures of the mind, the pleasures of rational living or the pleasures which only men of culture can enjoy. These comprise virtuous conduct, aesthetic appreciation, and friendship of the

gifted and the noble. The pleasures consistent with reason bear the marks of moderation, calm, and repose. An intelligent and prudent man can easily see that pleasures of a life-time are preferable to pleasures of the moment, and pleasures of the mind, which include, beside the present ones, those of the past as recollections and those of the future as anticipations, are better than those of the body. Momentary pleasures have to be sacrificed for the abiding ones. The function of society is to secure the self-interest or personal happiness of individuals. The value of all laws and all institutions is to be judged by this criterion.

Epicurus, like the Stoics, subordinated philosophy to ethics. The aim of philosophy, according to him, is to enable men to lead a happy life. To lead a happy life, free from all fear and worry, people must know the criterion of truth (sense-perception) given by philosophy, and the causes of things discovered by physics. In metaphysics the Epicureans followed Democritus in every respect except that they gave the atoms the power to deviate from their determined path, and so introduced an element of contingency in an otherwise mechanically-determined world. They shattered many of the religious beliefs prevalent in their times. According to them, the gods did not create the world, for, being supremely happy, they were not in need of it. Nor is there any reason to believe that they trouble themselves about the affairs of men. The soul is not immortal; it perishes with the body.

To the Epicurean school belonged Metrodorus of Lampsacus (d. before Epicurus), Hermarchus (fl. 270 ? B.C.), Apollodorus (?) and Zeno of Sidon (about 150–78 B.C.). None of them added anything to the teachings of the master. In the first century B.C., Epicureanism, like other philosophical systems, passed down to Alexandria and Rome, Athens lost its position as the intellectual centre of the world, and Greek philosophy in Greece virtually came to an end.

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Chapter V

ALEXANDRIO-SYRIAC THOUGHT

A

THE NEO-PYTHAGOREANS

The great conquering sweep of Alexander the Great eastwards not only destroyed the old, intense and narrow life of the self-contained Greek City-States but also marked a decisive change in the intellectual and spititual life of Greece. With the spread of Greek civilisation over the Near East, the horizons of the individual Greeks were greatly enlarged; but the break-up of the old City-States engendered a sense of isolation and rootlessness which made people look inward for stability and security, rather than outward as hitherto done. Another and a more potent reason for this shift in Greek thinking can be discovered in widespread scepticism after the death of Aristotle. True, scepticism also prevailed when Socrates was born, but the metaphysical speculations of pre-Socratic thinkers led them into the inextricable confusion of doubt. Socrates asked people to look at man instead of nature, for in the domain of human problems the competence of reason could be demonstrated more easily than in that of the physical or the metaphysical. But the protest which scepticism made after Aristotle was more devastating. It was declared by the sceptics that the entire philosophical venture of their predecessors was hopelessly wrong and also that their error was without a remedy.

This was indeed very saddening. It amounted to the confession that not only were the solutions of the so-called perennial problems of philosophy nonsensical but also that no satisfactory solution was possible, at least with the techniques and methods hitherto pursued.

Reason thus assailed could find refuge only in faith. In the period that follows we find philosophy renouncing its independence and becoming merely