SCANT EVIDENCE. Greek philosophy has survived only in tantalizing fragments. The works of only one philosopher, Plato, have survived in their entirety. Much of Aristotle has been lost, and the scientific and philosophic treatises that have survived were not written for publication. Socrates who lived in Athens in the fifth century B.C.E., wrote nothing, although he gave Greek philosophy a new direction. Modern knowledge of him is dependent on two very different disciples, Plato and Xenophon, and a burlesque of his teachings by the comic poet, Aristophanes. The works of the philosophers before Socrates, the so-called “Presocratics” who speculated about the nature of the universe, are all lost. They are known by reputation, and by fragments of what they wrote, which are mostly quotations by later writers. One late writer in particular, Diogenes Laertius, wrote a work that is indispensable to modern knowledge of ancient Greek philosophy: A History of Philosophy, or on the Lives, Opinions and Maxims of Famous Philosophers, dating to the third century C.E. This work, plus the surviving fragments from the actual writings, provide enough information to recreate the thought of these Greek thinkers with some confidence and to demonstrate their importance. They began the long progression of speculation and philosophic thought that was continued in medieval and modern Europe as well as the world of Islam, and has now become the dominant intellectual tradition everywhere. In reconstructing the thought-world of the Greek philosophers, however, there is a strong temptation to “fill in the blanks” in such a way as to render their ideas too modern. Ancient criticism of the conventional Greek religion, for instance, should not be interpreted in such a way as to suggest that the author was irreligious or an atheist. They belonged to the background of their own day, and this was particularly true when they approached favorite subjects of speculation, such as the nature of the ideal state, and the character and education of the ideal ruler. Yet the contribution of Greek thought has been enormous: in the history of science it made the first steps towards the modern scientific method, and in the fields of ethics and politics it is the underpinning of modern speculation.

THE BEGINNINGS IN IONIA. Greek philosophy began with speculation in the region of Ionia about the nature of the physical world. Miletus, located on the south-west coastline of modern Turkey, was the most important of the Ionian cities and it was there that Thales—an engineer, astronomer, mathematician, and a statesman, as well as a natural philosopher—had the intuition that a single substance underlay everything in the world that can be perceived with the senses. His hypothesis was that this substance was water. His disciple, Anaximander, suggested instead that it was something that he called the apeiron—the “Infinite” (or “Indefinite”)—a substance without boundaries. His follower, Anaximenes, in turn suggested that the underlying substance was aer (air), but with substance and weight. There was no place for traditional Greek religion in the theories of these Milesian thinkers, though it would be inaccurate to call them atheists. There is no denying, however, that their ideas challenged traditional religion with its anthropomorphic gods such as Zeus and his wife Hera, because they pinpointed natural causes for the physical world. A poet named Xenophanes from Colophon, a city neighboring Miletus asserted that the gods of the poets Homer and Hesiod were unsatisfactory as explanations of how creation happened. There is, he asserted, one supreme deity who never moves but who knows all and controls everything without effort by his thought.

THE PROBLEM OF CHANGE. Heraclitus of Ephesus, who was prominent around 500 B.C.E., continued in the footsteps of the Milesians. His underlying substance was not water or air, but fire. All things in the world, he argued, come into being in exchange for fire, in the same way as one buys goods in exchange for gold coin. The cause of movement in the world is the conflict of opposites that is controlled by eternal Justice. Conflict, therefore, is a creative force by which everything is constantly changing. The result of this constant state of impermanence is the only knowledge that matters—in fact, the only knowledge that is possible—is self-knowledge. Wisdom consists of comprehending the logos, by which Heraclitus seems to mean the rationale that underlies nature.

THE RUTHLESS LOGIC OF Parmenides. The Milesians and their followers all assumed that the universe was made of matter. Matter was the stuff from which everything was made. Thales’ hypothesis was that this stuff was water, and Anaximenes suggested a substance like air, but whatever it was, it had weight and substance. Even the fire of Heraclitus was matter. It
remained for Parmenides to point out the logical consequences of this assumption. Parmenides, who lived in the Greek colony of Elea (modern Velia) in southern Italy in the first half of the fifth century B.C.E., argued that everything is matter. He believed there could be no movement in the universe, for an object that moves must have empty space into which it can move, and there was no empty space. “What exists,” he pointed out, is all matter, and “what does not exist” is nothing. There is no such thing as “nothing” so space containing nothing cannot exist. Parmenides founded the Eleatic School on this theory, and argued that the perceived movement in the universe was a deception of human senses. According to Parmenides, no true knowledge can be gained from sensory perception.

**The Atomic Theory.** The challenge of Parmenides never received a completely satisfactory answer. One philosopher, Empedocles, argued that there were four elements—air, earth, fire, and water—that moved through each other through pores like the holes in sponges, always propelled by the alternating forces of Desire and Hate, that is, attraction and repulsion. But two thinkers developed another hypothesis that sounds almost modern. Leucippus and his follower Democritus argued that the universe was made up of atoms and void. The atoms were tiny particles of matter, like our molecules, which moved about in a void like the specks of dust (or “motes”) that can be seen moving in a sunbeam. Atoms had a skin like velcro, and so when they collided, they stuck together, thus forming the objects that we see about us. Trees, animals, even people, were all made of tightly packed atoms. Yet the atomic theory could remain only an hypothesis. There was no way of proving it, and “void,” which was nothingness, continued to seem illogical to many philosophers.

**The Sophists.** The Sophists mark a new departure in Greek philosophy. They were itinerant teachers who appeared upon the scene to meet a demand for higher education. Education had been an aristocratic preserve in archaic Greece—a young man of good family learned the rudiments of reading and writing. He learned and sometimes memorized the poems of the epic poet Homer, and might also learn how to play the lyre and perhaps some basic arithmetic. In the fifth century B.C.E. this education expanded to include speech making, particularly before the law courts and public assemblies. The itinerant teachers claimed to be able to impart that type of knowledge, and the art of “sophistry” came to be centered in Athens. Although none of the early Sophists were from that city, most of them spent some time there and gave lectures for which they charged fees. In their teachings and speeches, the Sophists turned philosophy from an examination of the workings of the physical universe to issues of ethics and behavior, including the nature of goodness and justice.

**Socrates.** The Sophists provided the intellectual matrix which produced Socrates in Athens in the fifth century B.C.E. Socrates was born in Athens; his father was a stonemason and his mother a midwife. He was sufficiently well-to-do, allowing him to fight in the Athenian army as a hoplite—a heavily-armed infantryman who had to have the wherewithal to supply his own armor. He was at first attracted to the theories of Anaxagoras, a philosopher who continued in the Milesian tradition, arguing that the source of creation was Nous (“Mind” or “Intelligence”), but Socrates soon found Anaxagoras’ theories unsatisfying because they could not be applied to everyday life. Socrates turned to ethical questions. He could be seen almost everyday in the public places in Athens, walking barefoot and conversing with people he encountered. He accosted Athenians who thought they knew how to define what was right or wrong, and cross-examined them. The conversations ended often with Socrates’ interlocutor discomfited and annoyed. Yet Socrates attracted large numbers of followers who appreciated his sharp mind. Sometimes they were only ambitious young men who wanted to improve their skill at argument, but among them were genuine disciples, and much of modern knowledge about Socrates comes from two of them: Plato and Xenophon. Xenophon was a voluminous writer who wrote a memoir on Socrates called the *Memorabilia* which provides valuable information about Socrates’ everyday life. Plato was a great philosopher in his own right, and in his many works Socrates acted as the spokesman for Plato’s ideas.

**Plato.** Socrates was put to death in 399 B.C.E. on charges of atheism and corrupting the young, and after his execution, many of his disciples—Plato among them—left Athens for the safety of the neighboring state of Megara. Plato did not stay there long. He traveled, did a couple stints of service in the Athenian army, and wrote his early dialogues. In 390 B.C.E. he visited southern Italy and then Sicily, where he met the powerful tyrant of Syracuse, Dionysius I, who soon tired of him and sent him back to Athens. Once there, he founded a school on the outskirts of Athens in a park sacred to the hero Academus, from whom the “Academy” got its name. It was intended as a school for statesmen, for Plato was deeply concerned about good government where true justice can exist, and his best-known work is his *Republic*, an ideal utopia where government is in the hands of “Guardians” who are trained in philosophy. On
Plato’s death, his nephew Speusippus assumed the headship of the Academy, and it continued to be an intellectual force, though it wandered from Plato’s teachings as time went on and became skeptical about the possibility of men acquiring true knowledge. Among the students at the Academy was a young man from Macedonia, Aristotle, who studied there for twenty years. He left when Plato died, and did not return to Athens until 335 B.C.E. During his absence from Athens, he lived for a period at the court of the Philip II, king of Macedonia, and he tutored Philip’s son, Alexander, who would a few years later change the course of Greek history by conquering the Persian Empire and pushing his victorious army as far as India. Philip was assassinated in 336 B.C.E.; Alexander became king in his stead, and Aristotle returned to Athens to found the Lyceum.

**THE LYCEUM.** The Lyceum was a research institute, a product of Aristotle’s wide-ranging mind. His interests included everything from the dialogues he wrote while a student at the Academy to his groundbreaking treatise on animals—a product of his biology research conducted after his departure from Athens. In the Lyceum he gave lectures, both to his students and to the public, and his surviving works seem to have been notes that he used to prepare his lectures. Those most admired nowadays are his *Ethics* and his *Metaphysics*. In the latter he analyzes the theories of the philosophers who came before him, and he is an important source for modern knowledge of the Presocratics. As much as Aristotle admired Plato, he disagreed fundamentally with him, particularly on the question of perception. Aristotle believed that the senses could provide reliable information about the world.

**EPICUREANS.** After Alexander the Great’s conquests, two great philosophers settled in Athens and attracted students. One was Epicurus, who bought a house with a garden in which he formed a community with his students, both male and female. The aim of the Epicureans was happiness—not sensuous enjoyment, but a happiness based on contentment with one’s situation. The watchword of the Epicureans was *lathe bios*, which means “Live without attracting notice,” and the “Garden,” as Epicurus’ school was called, was a retreat from the vicissitudes of life. Fear of death was banished, for Epicurus borrowed the atomic theory and used it to show that the body and soul were both made of atoms which would dissolve upon death. There was no afterlife and hence no reason to fear any tortures in the Underworld.

**STOICISM.** Stoicism was the philosophical belief that combined the philosophies of the Cynics—those who saw wisdom and knowledge as the key to a perfect society. Stoicism heavily favored the natural world, wanting to enjoy all the things that life had to offer, but believed that this natural world must be tempered by a rational mind. The Stoics believed that institutions such as government, religion, and law were unnecessary if everyone in a society could reach complete rationality (which the Stoics believed should be the goal of every society). Stoicism’s founder, Zeno of Citium, lectured in the *stoa poikile* (Painted Stoa) which stood at the southern edge of the marketplace of Athens, and it was from this spot that Stoicism derived its name. In the second century B.C.E. Stoicism became the dominant philosophy of the Hellenistic world and the Roman Empire. In 144 B.C.E. the Stoic Panathaius came to Rome and joined the Scipionic circle, a group of Roman philhellenes who gathered about the statesman Scipio Aemilianus. These Roman aristocrats became enamored of Stoic doctrines, and Stoicism became the philosophy of choice of the Roman elite. The last great surviving Stoic work is the *Meditations* of Marcus Aurelius, the philosopher-emperor who died in 180 C.E.

**CICERO.** The Romans never took philosophy very seriously. Young men might have dabbled in it as part of their education, but once they entered the workaday world, they turned to more practical matters. Typical was Seneca the Younger (c. 3 B.C.E.–65 C.E., the emperor Nero’s tutor whom Nero forced to commit suicide when he outgrew his tutelage; on his essays he advocated the precepts of Stoicism and in his own life followed none of them. Still, Rome produced one exceptional student of philosophy: Marcus Tullius Cicero. Cicero (106–42 B.C.E.) was a man of many talents. He was a lawyer and a statesman as well as an accomplished orator, the greatest that Rome produced. He often wrote on political science and rhetoric, and also tried his hand at poetry, but was not as successful. Near the end of his life, beginning in March of 45 B.C.E., he produced a remarkable series of books on various aspects of philosophy. These included works on immortality, perception, Stoic logic, the problem of pain, the possibility of divination, and others. He wrote partly for self-comfort, for his beloved daughter Tullia had just died. He was not an original philosopher, and he tended to pick and choose his philosophies—that is to say, he was an eclectic. If he had any preference, it was for the Sceptics, who denied the possibility of knowledge, though Cicero leaned towards the branch of Scepticism that allowed likelihood, meaning that there were likely or probable truths. Yet most of all, Cicero shows the attitude of a well-read Roman towards philosophy. It was a personal thing, a comfort in time of stress.
The Neoplatonists. The last progeny of Greek philosophy was the Neoplatonic School, founded by an Egyptian, Plotinus, who moved to Rome in the middle of the third century C.E. His starting point was Plato, who had written in his Republic of what he called the “Good.” For Plotinus, the “Good” was the “One,” and between the “One” and the world of material objects there were three levels of reality: the world-intelligence, the world-soul, and nature. With Plotinus, philosophy began to move into the field of theology, and his followers went even further. Neoplatonism rejuvenated the Academy in Athens that claimed to go back to Plato’s Academy, and in this Neoplatonic Academy, pagan philosophy made its last stand. It was closed down by imperial decree in 529 C.E.

Topics in Philosophy

Beginnings of Greek Philosophy

Miletus. Greek philosophy began in a city-state on the coast of south-west Turkey: Miletus, which claimed that it was founded by a city on Crete called Milatos—probably Mallia on the north coast of Crete—in the Minoan period. If so, the Minoan foundation did not survive the catastrophe that overtook the Bronze Age civilization about 1200 B.C.E., and Miletus was refounded by Ionian Greeks during the age of migrations in the eleventh century B.C.E. The city prospered, and civic life was as turbulent as it was in most city-states in the Early Archaic Period of the seventh and sixth centuries B.C.E. Around 600 B.C.E., Miletus’ independence was threatened by her neighbor, the Lydian Empire. The city of Lydia was ruled by a strongman—a “tyrant” as the Greeks called such men—named Thrasybulus, and he led the resistance to Alyattes, king of Lydia, who harried the Milesians for eleven years. In the end Alyattes made peace and alliance with them but soon had to turn his attention to his eastern frontier where he faced the aggressive empire of the Medes who had destroyed the Assyrian Empire with some help from Babylon and were now expanding into Asia Minor. In 585 or 584 B.C.E., the Lydian and Median armies met at the frontier of Lydia, the Halys River which flows into the Black Sea. Just as they were on the verge of battle, there was an eclipse of the sun. A young man from Miletus, Thales, who was there among the Milesian allies supporting Alyattes, was said to have foretold the eclipse. Modern scholars find this story hard to believe, but it is clear that this man would be the founder of Greek natural philosophy—that is, speculation about nature and the natural causes of what occurs in the cosmos.

Thales, Anaximander, and Anaximenes. Thales believed that everything in the world is made of matter which might take various forms, be it solid, liquid or gas. The one matter that he knew could appear in all these forms was water. If heat was applied to ice, it became water, and heat applied to water produced steam that in turn could condense and return to water. Thales’ disciple Anaximander carried Thales’ speculation a step further. He suggested that the substance underlying all natural phenomena was not water but rather something that he called the apeiron—the “Infinite” (or “Indefinite”)—matter that had no boundary. He argued that the world was a cylinder with a flat top that provided men with living space. It floated freely in space, equally distant from all things, and thus without any need of support. Anaximander’s thoughts were daring and almost modern, but his follower Anaximenes abandoned his concept of the apeiron and suggested instead that the primary substance of the universe was aer—the Greek word for “air.” It is clear that Anaximenes’ aer is more than mere “air,” however. Rather, it is a kind of mist out of which denser substances are formed by condensation, much as felt can be made from wool by the process of felting. For Anaximenes, aer was a material substance. Unlike the apeiron of Anaximander, it could be defined, and later natural philosophers who argued that the universe was constructed of matter looked back on Anaximenes as the last great thinker of the Milesian School who brought the speculation that Thales began to its natural conclusion.

Sources


Pythagoras and the Pythagoreans

The Life of Pythagoras. Pythagoras, perhaps best known for his theorem on triangle angles and