The Greek Philosophers
The founders of Western Thought
(The Original Dead White Males)
Pre-Socratics
(7th - 5th century B.C.)

• Milesian School

• The power of the elements rather than just the gods.

• Developed at the same time as Democracy—rationalization rather than biological
  - Where Did everything come from?
  - How Do Things Come into being
  - Primary Substance?
• **Thales of Miletus (624-560 B.C.)** Considered water to be the basis of all matter. Measured the height of the great pyramid.

• **Anaximander (610-545 B.C.).** Greek astronomer and philosopher, pupil of Thales. Introduced the *apeiron* (infinite element). Formulated a theory of origin and evolution of life, according to which life originated in the sea from the *moist element* which evaporated from the sun (*On Nature*). Was the first to model the Earth according to scientific principles. Separates concrete and infinite.
• According to him, the Earth was a cylinder with a north-south curvature, suspended freely in space, and the stars were attached to a sphere that rotated around Earth.

• Anaximenes (570-500 B.C.). Pupil of Anaximander. According to him, the rainbow is a natural phenomenon, rather than the work of a god. Basic principle of the universe is air.
From the city of Ephesus,

- **Heraclitus** (535-475 B.C.): It is not possible to step into the same river twice—ceaseless transformation and change. Considered fire to be the primary form of the real world. According to him, everything *is in the process of flux* (*panta rhei*). Everything fights against the other (almost Ying and Yang)
From the Island of Samos:

- **Pythagoras**: (569-500 B.C.). Mathematician and philosopher. Was to first to believe that the Earth was a sphere rotating around a central *fire*. He believed that the natural order could be expressed in numbers. Known for the *Pythagorean theorem* which was however known much earlier (From the Babylonians and perhaps earlier from the Chinese). Numbers are the true reality of reality.
Most famous of the Sophists
Believed that reason and knowledge should be used to achieve a comfortable, safe, and happy life.
Teachings to equip citizens for life in the polis:
1. Public speaking – oratory and rhetoric
2. Politics
3. Grammar – language
4. The art of being respectable

Plato named one of his dialogues after him.
Hippocrates
460-377 B.C.

- Founded a school of medicine
- Rejected that sickness comes from the gods
- Careful observations of symptoms
  - Acute
  - Chronic
- “Holistic” healing
  - Hygiene
  - Diet
  - Curative powers of nature
- The Hippocratic Oath
Democritus
460? - 360 B.C.

- Developed the atomic theory.
- Taught that the universe was formed out of chaos through the joining of atoms of like shape and size.
- Atoma = indivisible particles.
- “the laughing philosopher”
Euclid
c. 300 B.C.

- One of the most prominent mathematicians
- Wrote The Elements
  - Widely used till about 1903.
  - 2nd only to the Bible in numbers of translations, publications, and study
  - Greek – Arabic – Latin
- Said to Ptolemy: “There is No Royal Road to geometry!”
Archimedes
287 - 212 B.C.

- Greek mathematician – Geometry
- War machines and other devices
- Theory of buoyancy - “Eureka!”
- Law of the lever
- Archimedean screw
Archimedean Screw
Modern application of the Archimedean Screw
Who Were the Sophists?

- In the modern definition, a sophism is a confusing or illogical argument used for deceiving someone.
- But in Ancient Greece, the sophists were a group of teachers of philosophy and rhetoric.
- The Greek words sophos or sophia had the meaning of "wise" or "wisdom" since the time of the poet Homer, and originally connoted anyone with expertise in a specific domain of knowledge or craft.
- Gradually the word came to denote general wisdom and especially wisdom about human affairs (in, for example, politics, ethics, or household management).
• Many of them taught their skills for a price. Due to the importance of such skills in the litigious social life of Athens, practitioners often commanded very high fees.

• The practice of taking fees, along with the sophists' practice of questioning the existence and roles of traditional deities (this was done to make "the weaker argument appear the stronger") and investigating into the nature of the heavens and the earth prompted a popular reaction against them.

• Their attacks against Socrates (in fictional prosecution speeches) prompted a vigorous condemnation from his followers, including Plato and Xenophon, as there was a popular view of Socrates as a sophist.
• Their attitude, coupled with the wealth garnered by many of the sophists, eventually led to popular resentment against sophist practitioners and the ideas and writings associated with sophism.
Socrates  
(470-399 BC)

• The earliest Greek philosopher widely recognized.

• Living in Athens Greece, Socrates' way of life, character, and thought exerted a profound influence on ancient and modern philosophy.

• Not how does the world work but how does one live a moral life?

• Greek philosopher whose way of life, character, and thought exerted a profound influence on ancient and modern philosophy.
- Socrates was a widely recognized and controversial figure in his native Athens, so much so that he was frequently mocked in the plays of comic dramatists.

- *(The Clouds of Aristophanes author of Lysastrata, produced in 423, is the best-known example.)*

- Although Socrates himself *wrote nothing*, he is depicted in conversation in compositions by a small circle of his admirers—Plato and Xenophon first among them.
The "Socratic Problem"

• As noted earlier, Socrates did not write philosophical texts.

• The knowledge of the man, his life, and his philosophy is based on writings by his students and contemporaries.

• Foremost among them is Plato; however, works by Xenophon, Aristotle, and Aristophanes also provide important insights.
The Socratic Method

1. The method is skeptical.
   1. It begins with Socrates' real or professed ignorance of the truth of the matter under discussion.
   2. This is the Socratic irony which seemed to some of his listeners an insincere pretense, but which was undoubtedly an expression of Socrates' genuine intellectual humility.
   3. This skepticism Socrates shared with the Sophists and, in his adoption of it, he may very well have been influenced by them. But whereas the Sophistic skepticism was definitive and final, the Socratic is tentative and provisional; Socrates' doubt and assumed ignorance is an indispensable first step in the pursuit of knowledge.
2. It is conversational.

1. It employs the dialogue not only as a didactic device, but as a technique for the actual discovery of opinions amongst men, there are truths upon which all men can agree,

2. Socrates proceeds to unfold such truths by discussion or by question and answer.

3. Beginning with a popular or hastily formed conception proposed by one of the members of the company or taken from the poets or some other traditional source, Socrates subjects this notion to severe criticism, as a result of which a more adequate conception emerges.

4. His method, in this aspect, is often described as the “maieutic method.” It is the art of intellectual midwifery, which brings other men's ideas to birth. It is also known as the dialectical method or the method of elenchus.
3. It is conceptual or definitional

1. The Socratic Method sets as the goal of knowledge the acquisition of concepts, such as the ethical concepts of justice, piety, wisdom, courage and the like.

2. Socrates tacitly assumes that truth is embodied in correct definition.

3. Precise definition of terms is held to be the first step in the problem solving process.

4. The Socratic method is empirical or inductive

1. This means that in that the proposed definitions are criticized by reference to particular instances.

2. Socrates always tested definitions by recourse to common experience and to general usages.
5. The method is deductive

1. This means that a given definition is tested by drawing out its implications, by deducing its consequences.

2. This involves the three part arguments called sylagisms.

3. The definitional method of Socrates is a real contribution to the logic of philosophical inquiry.

4. It inspired the dialectical method of Plato and exerted a not inconsiderable influence on the logic Aristotle.
The Apology of Socrates*

• Socrates begins by saying he does not know if the men of Athens (his jury) have been persuaded by his accusers.

• This first sentence is crucial to the theme of the entire speech. Plato often begins his Socratic dialogues with words which indicate the overall idea of the dialogue; in this case, "I do not know".

• Indeed, in the Apology Socrates will suggest that philosophy consists entirely of a sincere admission of ignorance, and that whatever wisdom he has comes from his knowledge that he knows nothing.

* "Apology" here has its earlier meaning (now usually expressed by the word "apologia") of a formal defense of a cause or of one's beliefs or actions (from the Greek apologia).
• Socrates asks the jury to judge him not on his oratorical skills, but on the truth. Socrates says he will not use ornate words and phrases that are carefully arranged, but will speak the chance thoughts that come into his head.

• He says he will use the same words that he is heard using at the agora (market place) and the money-tables.

• In spite of his disclaimers, Socrates proves to be a master rhetor who is not only eloquent and persuasive, but who plays the jury like an impresario.
The speech, which has won readers to his side for more than two millennia, does not succeed in winning him acquittal. He is education’s first martyr.

Socrates is famously condemned to death, and has been admired for his calm conviction that the gods are doing the right thing by him.

The Death of Socrates, by Jacques-Louis David (1787).
Plato
(428/427 BC – 348/347 BC)

- Plato, with his mentor, Socrates, and his student, Aristotle, helped to lay the foundations of Western philosophy.

- Plato was also a mathematician, writer of philosophical dialogues, and founder of the Academy in Athens, the first institution of higher learning in the western world.

- He was originally a student of Socrates, and was as much influenced by his thinking as by what he saw as his teacher's unjust death.
• Plato's sophistication as a writer can be witnessed by reading his Socratic dialogues. Some of the dialogues, letters, and other works that are ascribed to him are considered spurious.

• Although there is little question that Plato lectured at the Academy that he founded, the pedagogical function of his dialogues, if any, is not known with certainty.

• The dialogues since Plato's time have been used to teach a range of subjects, mostly including philosophy, logic, rhetoric, mathematics, and other subjects about which he wrote.
Plato (left) and Aristotle (right), a detail of *The School of Athens*, a fresco by Raphael. Aristotle gestures to the earth, representing his belief in knowledge through empirical observation and experience, while holding a copy of his *Nicomachean Ethics* in his hand, whilst Plato gestures to the heavens, representing his belief in *The Forms*.
The Cynics

Diogenes searches for a human being. Painting attributed to J. H. W. Tischbein (c. 1780)

- They were an influential group of philosophers from the ancient school of Cynicism.

- Their philosophy was that the purpose of life was to live a life of Virtue in agreement with Nature.

- This meant rejecting all conventional desires for wealth, power, health, and fame, and by living a life free from all possessions. As reasoning creatures, people could gain happiness by rigorous training and by living in a way which was natural for humans.

- They believed that the world belonged equally to everyone, and that suffering was caused by false judgments of what was valuable and by the worthless customs and conventions which surrounded society.

- Many of these thoughts were later absorbed into Stoicism.
Diogenes of Sinope

• Defied all convention lived in a tub—lived life as an exemplum.

• Cynic actually means “dog” which was a nickname given to him by Plato.

• When Plato defined “man” as a hairless biped, Diogenes tossed in a plucked chicken and said here is Plato’s man!”
Aristotle
(384-322 BC)

- He was the first to create a comprehensive system of Western philosophy, encompassing morality and aesthetics, logic and science, politics and metaphysics.
- Aristotle's views on the physical sciences profoundly shaped medieval scholarship, and their influence extended well into the Renaissance, although they were ultimately replaced by modern physics.
- In the biological sciences, some of his observations were only confirmed to be accurate in the nineteenth century.
• His works contain the earliest known formal study of logic, which were incorporated in the late nineteenth century into modern formal logic.

• In metaphysics, Aristotelianism had a profound influence on philosophical and theological thinking in the Islamic and Jewish traditions in the Middle Ages, and it continues to influence Christian theology, especially Eastern Orthodox theology, and the scholastic tradition of the Roman Catholic Church.

• All aspects of Aristotle's philosophy continue to be the object of active academic study today.
Though Aristotle wrote many elegant treatises and dialogues (Cicero described his literary style as "a river of gold"), it is thought that the majority of his writings are now lost and only about one third of the original works have survived.