

The First Solvay: 350 BC Aristotle's Assault on Plato

by Susan J. Kokinda

May 11—If one looks at the principles embedded in Plato's scientific masterwork, *Timaeus*, especially from the vantage point of the work of Einstein and Vernadsky in the Twentieth Century, one can understand why the oligarchy had to carry out a brutal assault on Plato and his Academy, an assault led by Aristotle, which ultimately resulted in the imposition of Euclid's mind-deadening geometry on the world, and the millennia-long set-back of Western civilization.

That the oligarchical enemy of mankind responds with brute force to those philosophers and scientists, who act on the basis of human creativity, was captured in the opening of Aeschylus' great tragedy, "Prometheus Bound." On orders from Zeus, the Olympian ruler, Kratos (might) and Bios (force) oversaw Prometheus' punishment. In the opening scene, Kratos and Bios force Prometheus' fellow god, Hephaestus to impale him with nails and chain him to a mountainside, in retribution for the crime of imparting to mankind the knowledge of fire, astronomy, agriculture, and the other arts and sciences which distinguish man from beast.

From Philolaus to Kepler

Plato's great dialogue on ontology, the *Timaeus*, presents a universe which can be known by man, because man, like the universe, is ensouled and noëtic. Space is not empty, but rather a function of physical space, which Plato struggles to communicate using a "bastard" concept. Time is not a yardstick outside of the universe, but rather a moving image of eternity. Man cannot know this universe through his senses. But, through his mind, he can discover the principles of the universe by examining the shadows cast by the geometry of the Platonic solids and the harmonies of music. It is a living universe, created by a single God who created it to be good, and God was happy in its creation.

Lurking in the shadows of the future, one sees Ein-

stein's relativity, Planck's quantum, and Vernadsky's noösphere. But in the immediate foreground was Philolaus of Croton (in Italy), the earliest Pythagorean from whom any fragments survive. (Fortunately, Philolaus himself survived the arson-murder of most of the second generation of Pythagoreans in Croton, and relocated to Greece.) In the footprints of those fragments walks the *Timaeus*.

Philolaus' fragments are like a prelude to the investigations which fill the *Timaeus*. And so, astronomy, geometry, and harmony were at the core of the work of Plato's Academy. Indeed, every member was given the assignment of developing an hypothesis to account for the motions of the heavenly bodies.

And it is to Philolaus that Johannes Kepler refers, in his denunciation of Aristotle's *On the Heavens*.¹ Referring to Philolaus' assertion that the earth travels around a central fire, Kepler said "They [the Pythagoreans] spoke in a veiled way, by fire they understood the Sun, and I agree with them, that the Sun is in the center of the world and never moves away from this place, and that on the other hand, the Earth moves once in one year around the Sun, . . . as otherwise also five other wandering stars (the planets), with this order. . . ."

We will hear Kepler speak again on the subject of Aristotle.

It's NOT Academic

One of the greatest ironies embedded in the modern use (or, perhaps, perversion) of a word, is the concept of "academic." Plato's Academy, from whence the word comes, was anything but "academic."² Nothing could

1. First translated into English in *21st Century Science & Technology*, George Gregory, translator, [Winter 2001-2002](#)

2. Indeed, the funds that Plato used to found the Academy in 388 BC were ultimately unneeded ransom funds that had been raised to save Plato from being sold into slavery by the Syracusan tyrant Dionysius I.



A mosaic of Plato's academy, found in Pompeii.

capture this more poignantly than the mortal wounding of Theaetetus, the great geometer and member of the Academy, in a battle against Persia's allies in 369 BC.

Never forget that Plato's thinking was shaped, not only by the life of Socrates, but also by his death at the hands of the Athenian *democracy* in 399 BC. One can relive the impact on Plato of both that life and death, in the extraordinary *Phaedo* dialogue, where he describes Socrates' final hours, as Socrates engages in an extraordinary dialogue on the immortality of the human soul with two of Philolaus' students, Cebes and Simmias.

And so, from Socrates' death until his own in 348 BC, Plato and his forces led a strategic, political, and most important, intellectual battle against the Zeussian oligarchy.

After the death of Socrates, Plato left Athens for twelve years, on a scientific and strategic mission. After visiting Megara, he traveled to Egypt, the wellspring of ancient scientific and astronomical knowledge, as Plato identifies it in the *Timaeus* through the person of Solon. Egypt was also a key ally in the fight against Persia. From Egypt, Plato traveled to Sicily, to embark on the first of three attempts to develop a "philosopher king," or at least a competent ally within the ruling family of Syracuse. His "Italian project" was coordinated with the third-generation Pythagorean, Archytas of Tarentum, who, at Plato's request, provided him the works of Philolaus.

From his return from Syracuse and the founding of

the Academy in 388 BC, until his death in 348 BC, and in fact, beyond his death, Plato created a scientific and political force which threatened the very existence of the Persian (better, Babylonian/Persian) Empire.

On the strategic front, his allies in Greece and Egypt engaged the Persians, or their satraps and allies directly in battle. In 356 BC, Plato's Phocian allies seized the Temple of Delphi, from which the oligarchy manipulated leaders and the public alike through its oracles, and into which Greek city-states deposited their treasuries. Delphi was like the Federal Reserve and the mass media all rolled up into one, so its capture and control by the Phocians was a crippling blow. The short-lived success of Plato's

ally Dion in defeating Dionysius II in 357 BC, temporarily put Syracuse into friendly hands.

Enter Aristotle

But most of these victories were holding actions, which ultimately did not last. The real danger, as Zeus understood when he chained Prometheus to the mountainside, was the concept of man as it was developed in the Academy. The proliferation of that power was (and is) ultimately more deadly to oligarchism than military conquest.

As embedded in all of Plato's dialogues, but never so powerfully stated as by the soon-to-be-executed Socrates in the *Phaedo*,—that which makes man immortal is his ability to free himself from the sense-certainties of the body, thereby allowing the mind to discover universal principles. In the conclusion of the *Phaedo*, Socrates chides some of his companions for bewailing his coming death. They, unlike Cebes and Simmias, never seem to grasp the point of the discussion: Socrates is not his mortal body,—he is his mind and his soul, and will not die.

Think of the challenge of this idea to the Imperial systems of the ancient world, based on slavery and the degradation of man to the image of an animal. Think of the threat posed by Plato's *Meno* dialogue, in which Socrates causes a *slave boy* to discover how to double a square, and to thereby discover a power of his own mind.

And, as made clear in the *Timaeus*, that power of mind gives man a grasp of the non-sensual processes which govern the universe, and, in doing so, allows him to act effectively on the world. And with that, Plato made mincemeat of his philosophical opponents throughout his dialogues. Whether it was the sterility of the Eleatic School of Parmenides, or the Nietzschean thuggery of Callicles in the *Gorgias* dialogue, Plato mowed down the ideologies which kept people in a state of mental, if not physical, slavery.

The oligarchy could not tolerate Plato's breakthroughs. Aristotle, the son of a Macedonian court doctor and functionary, was brought into play and dispatched to Athens in 368 BC, while Plato and Xenocrates (a future head of the Academy and a major figure in later battles) were on a second mission to Syracuse to attempt to recruit the son of Dionysius. (They failed.) Aristotle had first passed through the school of Isocrates to get his mission specs. Isocrates, a member of a rich family who had fallen on difficult financial times, founded the first actual "school" of rhetoric. Prior to that, Greece had been beset by traveling sophists, who wandered from city to city, training the children of rich Athenians in the art of convincing people, or lying "prettily." But it was time to establish a command center, out of which to deploy enemy operations. Isocrates himself would later

become the conduit for the idea of splitting up the Persian Empire, into a more manageable Eastern Division, as against a Western Division which was to be ruled by Philip of Macedon. We will see how that turned out below.

For the next two decades, Aristotle "bored from within." The oligarchs' problem was how replace Plato with anti-human nonsense, while maintaining the pretense of preserving his teaching. One of the more ridiculous arguments of so-called scholars, especially of the Leo Strauss school, is that Plato had "hidden teachings." How do we know there were such teachings? Because Aristotle's description, in his own writings, of Plato's ideas is so different from Plato's, that it must represent the "hidden teachings" of the Academy! One modern author, Harold Cherniss, had the good sense to point out that Aristotle either didn't understand Plato, or misrepresented him.

That is putting it too mildly. Aristotle was deployed to destroy Plato.

The ancient historian Aelian describes the following, which took place around 350 BC:

Once when Xenocrates went off on a visit to his homeland (Chalcedon), Aristotle set upon Plato, surrounding himself with a gang of his own partisans, including Mnason of Phocis and people

From the 'Timaeus'

Let us now state the Cause wherefor he that constructed it, constructed Becoming and the All. He was good, and in him that is good no envy ariseth ever concerning anything; and being devoid of envy He desired that all should be, so far as possible, like unto Himself. This principle, then, we shall be wholly right in accepting from men of wisdom as being above all the supreme originating principle of Becoming and the Cosmos. For God desired that, so far as possible, all things should be good and nothing evil; wherefore, when He took over all that was visible, seeing that it was not in a state of rest but in a state of discordant and disorderly motion, He brought it into order out of disorder, deeming that the former

state is in all ways better than the latter. For Him who is most good, it neither was nor is permissible to perform any action save what is most fair. As He reflected, therefore, He perceived that of such creatures as are by nature visible, none that is irrational will be fairer, comparing wholes with wholes, than the rational; and further, that reason cannot possibly belong to any apart from Soul. So because of this reflexion He constructed reason within soul and soul with body as He fashioned the All, that so the work He was executing might be of its nature most fair and most good. Thus, then, in accordance with the likely account, we must declare that this Cosmos has verily come into existence as a Living Creature (Being) endowed with soul and reason owing to the providence of God.

—*Timaeus*, Loeb Edition,
R.G. Bury translation, 29E



like that. Speusippus at that time was ill, and for this reason was unable to stand by Plato. Plato was by now eighty years of age, and at the same time, because of his age, was to some extent losing his memory. So Aristotle devised a plot and set an ambush for him, and began to put questions to him very aggressively and in a way ‘elenctically,’ and was plainly behaving unjustly and unfeelingly. For this reason, Plato left the con-course outside, and walked about inside with his companions. (Cited in Aelian, *Varia Historia* 3.19)



Alexander the Great

tempted 350 BC coup at the Academy, the battle between the oligarchical forces and Plato’s networks had been intense, with the tactical situation shifting back and forth. The year 353 BC saw the defeat of some of Plato’s allies. Philip defeated the Phocians, thus re-establishing Delphi, and Dion was assassinated, ending his short-lived rule in Syracuse.

Thus, from this position of growing strength, Aristotle rode out the failed Academy coup, and waited for Plato’s death in 348 BC. At that point, Aristotle left the Academy to launch the attack from the outside,—an attack which, a generation later, resulted in the creation of Euclid’s *Elements*

Aelian reports that Xenocrates returned and rallied the pro-Plato forces, returned Plato to his position, and scolded Speusippus for failing to defend Plato.

Aristotle’s boldness had undoubtedly been bolstered by the ascension of Philip of Macedon to the throne in 359 BC, since Philip and those who sponsored him, had been the patrons of Aristotle’s family. In the years between Philip’s taking power and Aristotle’s at-

ments (and possibly the creation of “Euclid” himself, since absolutely nothing is known of his life).

Alexander versus Aristotle

With the death of Plato in 348 BC, Aristotle left the Academy to go on permanent diplomatic assignment for Philip, often accompanied by his nephew Callisthenes. In 346 BC, Isocrates, Aristotle’s real teacher,

penned the “Isocrates Plan” urging Philip to take over from the now-incompetent Persians, as ruler of the “Western Division” of the Empire.

But while Aristotle was running around doing Philip’s dirty work, Plato’s networks had another plan,—recruit Philip’s son, Alexander. *Indeed, one of the most enduring lies of history, is the claim that Alexander the Great was tutored by Aristotle.*³ *The truth is that Alexander the Great was an intellectual project of Plato’s Academy,—in particular, of the very Xenocrates who had defended Plato from Aristotle in 350 BC.* In the list of the titles of Xenocrates’ works (of which not one fragment exists) are four books dedicated to Alexander,

3. As historian A.H. Chroust writes in his exhaustive work on Aristotle, there are no contemporary claims that Aristotle tutored Alexander. This rewriting of history emerged several centuries later.

and written at his request. Other members of the Academy traveled to Macedon to tutor Alexander directly. Alexander’s reign from 336 BC, when he took over from Philip, whom he probably had killed, to 323 BC, fell entirely within Xenocrates’ leadership of the Academy (339 to 314 BC).

Not only was Alexander not a student of Aristotle, *he was almost poisoned by Aristotle’s nephew, Callisthenes, whom Aristotle had placed in Alexander’s retinue. Alexander executed Callisthenes in 327 BC.*

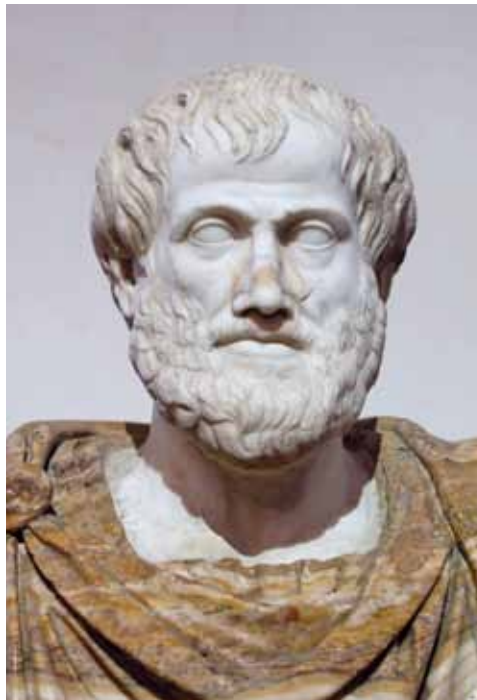
In the thirteen years of his rule, Alexander crushed Persian rule, from Egypt, through Greece and Asia Minor, to Persia itself, and beyond to India. Isocrates’ plan had failed. There was no Eastern and Western Division of the Persian Empire, because there was no Persian Empire. Instead, a student of Plato’s heirs had conquered much of the known world.

From Aristotle

Perceptions are always true; it is intellect that introduces errors. *De Anima*

Since, according to common agreement, there is nothing outside and separate in existence from sensible spatial magnitudes, the objects of thought are all in sensible forms, both abstract objects and all the states and affections of sensible things. Hence, no one can learn or understand anything in the absence of senses, and when the mind is actively aware of anything, it is necessarily aware of it along with an image, for images are like sensuous contents. . . .

While in respect of all the other senses we fall below many species of animals, in respect to touch we far excel all other species in exactness of discrimination. That is why man is the most intelligent of all animals. *De Anima*



Aristotle

The whole subject of moral virtue and of statecraft is bound up with the question of pleasures and pains; for if a man employs these well he will be good, if badly bad. . . . We have now sufficiently shown that moral virtue consists in observance of a mean . . . of holding a middle position between two vices. . . . As it is hard to hit the exact mean, we ought to choose the lesser of the two evils.”

Nicomachean Ethics

The slave is a living possession and property . . . an instrument. The master is only the master of the slave: He does not belong to him, whereas the slave is not only the slave of his master, but wholly belongs to him. . . . For

that some should rule and others be ruled, is a thing not only necessary, but expedient. From the hour of their birth, some are marked out for subjugation, others for rule.

Politics

But, where Callisthenes had failed, another Aristotle partisan succeeded. One of Philip's chief operatives had been Antipater, whom Philip had made governor of Macedon, and whom Alexander later made governor of Macedon and Greece. Alexander should have known better. Antipater was so close to Aristotle that he was made the executor of Aristotle's will. By 324 BC, Alexander began to suspect Antipater and dispatched troops back to Athens to bring him back to Alexander's camp, probably to execute him. Instead, Antipater sent his son, Cassander, who succeeded in poisoning Alexander in 323 BC. Aristotle could die a happy man in 322 BC.

The Real Coup

But the Imperial oligarchs could not be secure in their success. Plato was dead, Alexander assassinated. Yet, in the words of Socrates in the *Phaedo*, they were not dead. Plato's ideas could yet again give rise to another Alexander. Worse, they might become the basis for developing a population which would not tolerate oligarchical rule, of whatever geographical persuasion. The spread of Aristotle's "ideas" had to be reinforced.

Cassander returned to Greece, after killing Alexander, and appointed one of Xenocrates' political enemies, Demetrius of Phaleron, to rule Athens. In the political turmoil of the post-Alexander era, Demetrius eventually fled Athens in 307 BC, and arrived in Alexandria, Egypt, where he was appointed the head of the Library at Alexandria.

Demetrius of Phaleron, the appointee of that Cassander who was the son of the executor of Aristotle's will and who then killed Alexander, brought Euclid to the Library. Aristotle's assault on Plato's Academy had reached its culmination. Did Euclid even exist? Who knows? But whichever of Aristotle's intellectual heirs put together Euclid's *Elements*, they carried out a monstrous fraud. The geometrical work of Plato's Academy, as well as other work, was gathered together in one place and beaten to death. Euclid reduced the geometrical concepts of the Academy, which were understood to be the shadows of physical processes, to mere formulas and constructs built upon the assumptions of linear space as observed by the senses.

Some centuries later, in his *Commentaries on the First Book of Euclid's Elements*, the neo-Platonist Proclus spilled the beans on Euclid, and identified which of

the Platonic and Pythagorean geometers and scientists had made the actual breakthroughs, which were then beaten to death by Euclid. Among them were Archytas, Theaetetus, Eudoxus, Menaechmus, and Theodius and Athenaeus. The latter two lived at the Academy and made their own arrangement of the *Elements of Geometry*. Proclus' book is not so much a commentary on Euclid, as it is an attempt to re-establish a Platonic understanding of geometry.

Out of the Darkness

In his first book, the *Mysterium Cosmographicum*, Johannes Kepler acknowledged exactly what Proclus had done. In a passage cited by Kepler, Proclus says:

...next, we must ascertain what being can fittingly be ascribed to mathematical genera and species. Should we admit that they are derived from sense objects, either by abstraction as is commonly said, or by collection of particulars to one common definition? Or should we rather assign them to an existence prior to sense objects, as Plato demands...? ... *And if we say that the soul produces them by having their patterns in her own essence, and that these offspring are projections of forms previously existing in her, we shall be in agreement with Plato and shall have found the truth with regard to mathematical being (emphasis added).*

Kepler continues:

Proclus Diadochus, in the four books which he published on the First Book of Euclid, explicitly played the part of the theoretical philosopher dealing with a mathematical subject. If he had left to us commentaries on the Tenth Book of Euclid as well, he would both have freed our geometers from ignorance, if he had not been neglected, and relieved me totally from this toil of explaining and distinguishing features of geometrical objects. For from the very outset, it is readily apparent that those distinctions between *entities of the mind* would have been known, since he established the basic principles of the whole essence of mathematics, as the same which also pervade all entities and generate them all from themselves, that is to say the end

and the endless, or the limit and the unlimited, recognizing the limit or boundary as the form, the unlimited as the matter of geometrical objects (emphasis added).

The doctrines of Aristotle and Euclid, to which billions of minds have been subjected, whether in the form of direct indoctrination, or in the form of subjugation to a system created by such ideas, can only be imposed by the forceful elimination of the minds and ideas which stand in opposition to them.

Return again to Kepler's attack on Aristotle's *On the Heavens*. Kepler explains that the breakthroughs of the Pythagoreans, and implicitly the Platonic Academy, were obscured because of persecution, and

...on account of the reputation of Aristotle who

rejected this teaching (although he did not yet fully understand it), this teaching was suppressed, and particularly because it was difficult to understand, it was nearly forgotten over the time of 1800 years; and finally there were no more Pythagorean philosophers, among whom alone this teaching was to be found.

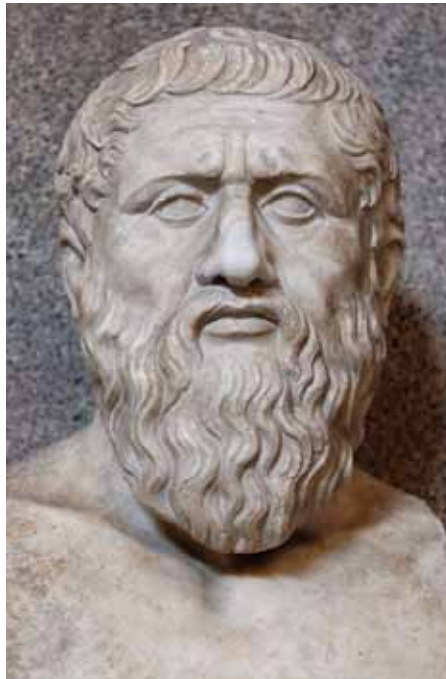
One can lament that the last century was lost to a scientific Dark Age and the ensuing wars and destruction of lives and minds, resulting from the attacks on Einstein and Planck. This is particularly painful because we are living it. But imagine where mankind would be, were it not for the nearly two millennia lost between Plato's *Timaeus* and Kepler. Mankind would not be just discovering the galactic principle,—we would be living it.

Plato's Seventh Letter

Plato, in the great, autobiographical Seventh Letter, written after the death of his friend Dion, ridiculed the assertion by Dionysius II that he had written a book about Plato's philosophy.

There does not exist, nor will there ever exist, any treatise of mine dealing therewith. For it does not at all admit of verbal expression like other studies, but, as a result of continued application to the subject itself and communion therewith, it is brought to birth in the soul on a sudden, as a light that is kindled by a leaping spark, and thereafter it nourishes itself. 341C

Plato puts the reader through an exercise in the discovery of the idea, not the form, of the circle, and then concludes:



Vatican Museum

Plato

For in learning these objects it is necessary to learn at the same time both what is false and what is true of the whole of Existence, and that through the most diligent and prolonged investigation; ... and it is by means of the examination of each of these objects, comparing one with another—names and definitions, visions and sense perceptions—proving them by kindly proofs and employing questionings and answerings that are void of envy—it is by such means, and hardly so, that there bursts out the light of intelligence and reason (nous) regarding each object in the mind of him who uses every effort of which man-

kind is capable. 344B

For the writings of Dionysius were not meant as aids to memory, since *there is no fear lest anyone should forget the truth if once he grasps it with his soul, seeing that it occupies the smallest possible space* (emphasis added). 344