

*The Eclipse that brought the Plague:  
Themistocles, Pericles, Anaxagoras, and the Athenians' War on Science*

Abstract: The biography of Anaxagoras (500–428 BCE), the most brilliant scientist of antiquity, contains many unresolved contradictions, which are best explained as follows. After he ‘predicted’ the fall of the meteorite at Aegospotami in 466, he lived nearby at Lampsacus as the protégé of its ruler Themistocles. In 460 Pericles became his patron at Athens, where he lived for the next thirty years. In 431, Pericles was taking part in an expedition to the Peloponnese when the sun was eclipsed; he tried to dispel his helmsman’s fear by covering his face with his cloak, illustrating Anaxagoras’ correct account of eclipses. In 430 he led a second such expedition, which failed badly; its return coincided with the plague. The seer Dioppeithes brought in a decree that targeted the ‘atheist’ Anaxagoras by banning astronomy. This enabled Thucydides son of Melesias and Cleon to attack Pericles by prosecuting Anaxagoras, on the ground that Pericles’ impiety had angered the gods, thereby causing the plague. Pericles sent Anaxagoras back to Lampsacus, where he soon died; he was himself deposed and fined, in a first triumph for the Athenian populist reaction against the fifth-century Enlightenment.

The most striking evidence of the reaction against the Enlightenment is to be seen in the successful prosecutions of intellectuals on religious grounds which took place in Athens in the last third of the fifth century. About 432 B.C. or a year or two later, disbelief in the supernatural and the teaching of astronomy were made indictable offences. The next thirty-odd years witnessed a series of heresy trials which is unique in Athenian history. The victims included most of the leaders of progressive thought in Athens. (E. R. Dodds)

Anaxagoras of Clazomenae in Ionia was arguably the most consequential of the Presocratics, both for his discoveries in the field of astronomy and for his close links with Athenian leaders like Themistocles and Pericles. Unlike his predecessors, Anaxagoras made major scientific advances that were based on empirical evidence, notably by discovering the correct explanation of eclipses and proving that the heavenly bodies are heavy material objects; he can indeed be called the true founder of science.<sup>1</sup> Yet the details of his life are hotly contested, as the evidence is conflicted and confused.<sup>2</sup> No consensus has yet been reached on many points, and a major rethinking is needed. This article will reexamine the evidence. By rejecting certain *idées reçues* while accepting the validity of more of the testimonia than have previous treatments, it will offer a reinterpretation that sheds a startling light on Pericles’ fall from power and the reaction against science in Athens during and immediately after the Peloponnesian War.

### I. Anaxagoras’ youthful discoveries

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<sup>1</sup> Graham 2013.

<sup>2</sup> Curd 2007, 130–1, who is, however, too sceptical about the veracity of our sources.

Apollodorus of Athens puts Anaxagoras' birth in 500/499 and his death in 428/7;<sup>3</sup> it largely accords with this that Diogenes Laertius states that he died aged seventy-two.<sup>4</sup> (The *Suda* says that he died at seventy.)<sup>5</sup> Democritus declared that he himself was forty years younger than Anaxagoras, from which Apollodorus deduced that Democritus was born in 460, which is consistent with this.<sup>6</sup> He began to practise astronomy at an early age, since we are told that he made astronomical observations from Mount Mimas near Clazomenae.<sup>7</sup> He is said to have studied in Miletus.<sup>8</sup> Our first reasonably secure date for him is that he was aged twenty when Xerxes crossed the Hellespont in 480,<sup>9</sup> which indeed dates his birth to 500. Another source records that he began to philosophise *at Athens* in the archonship of Callias (456/5), when he was aged twenty (ἤρξατο δὲ φιλοσοφεῖν Ἀθήνησιν ἐπὶ Καλλίου ἐτῶν εἴκοσι ὧν).<sup>10</sup> However, as Meursius saw,<sup>11</sup> 'Callias' is a mistake for 'Calliades', who was archon at Athens in 480/479; thus this report indirectly confirms the dating of Anaxagoras' birth to 500. It is simply another way of saying that he was twenty when Xerxes crossed the Hellespont, a nugget of information that may even have come from his own book. However, Anaxagoras cannot have begun to philosophise *at Athens* in 480, since Xerxes invaded and destroyed the city in that year; rather, 'at Athens' will have originally belonged with the archon's name, in the familiar construction 'when X was archon at Athens', for which there are hundreds of parallels. Thus for Ἀθήνησιν ἐπὶ Καλλίου Diogenes' ultimate source must have read ἐπὶ Καλλι(άδ)ου Ἀθήνησιν (ἄρχοντος), as in his parallel expression ἄρχοντος Ἀθήνησι Δαμασίου.<sup>12</sup> Anaxagoras' alleged presence in Athens in 480 is thus an error based on a confusion in word-order.

On the contrary, as an Ionian, Anaxagoras could well have been conscripted to fight in Xerxes' fleet, and thus may well have taken part in the battles of both Salamis in 480 and Mycale in 479. The Ionians' desertion of the Persian side at Mycale brought the Ionian coastal cities their freedom; this reopened these cities to contact with the rest of the Hellenic world, including intellectual currents from as far afield as Magna Graecia. Thus it must have been that Anaxagoras learned of Parmenides' observation that the moon derives its light from the sun,<sup>13</sup> and would have drawn from it the further inferences

<sup>3</sup> *Apld. Chron. FGrH* 244 F 31, in D. L. 2. 7 (fr. A1 VS): φησὶ δ' Ἀπολλόδωρος ἐν τοῖς Χρονικοῖς γεγενῆσθαι αὐτὸν τῇ ἐβδομηκοστῇ Ὀλυμπιάδι, τεθνηκέναι ἐν τῷ πρώτῳ ἔτει τῆς ὀγδοηκόστης (corr. Meursius: ἐβδομηκόστης codd.) ὀγδόης (sc. Ὀλυμπιάδος). Meursius' emendation yields the date 428/7; the uncorrected date 468/7 is evidently impossible, as is Eusebius' statement that he died in 460, in the Armenian version of *Chron.* for that year. Cf. Sider 2005, 2. Hippolytus' claim (*Refut.* 1. 13 = fr. A 3 VS) that he flourished in 428/7 is an error for his date of death. All dates are BCE.

<sup>4</sup> D. L. 2. 7 (fr. A 1 VS).

<sup>5</sup> *Suda* s.v., ἐξήγαγε δὲ τοῦ ζῆν ἑαυτὸν ἐτῶν ο' (fr. A 3 VS).

<sup>6</sup> D. L. 9. 34, 41 (fr. 59 A 5, 68 A 1 VS).

<sup>7</sup> Philostr. *VA* 2. 5 (fr. A 6 VS).

<sup>8</sup> *Gal. Hist. Phil.* 3 (fr. A 7 VS).

<sup>9</sup> λέγεται δὲ κατὰ τὴν Ζέρξου διάβασιν εἴκοσι ἐτῶν εἶναι, D. L. 2. 7 (fr. A 1 VS), corroborated by Cyr. Alex. *Contra Jul.* 1. 12b = Eus. *Chron.* (fr. A 4 VS).

<sup>10</sup> Dem. Phal. *De archont.* = *FGrH* 228 F 2, in D. L. 2. 7 (fr. A 1 VS). Mansfeld (1979, 41, 55–7), wrongly retaining 'Callias', prefers 456–436, but then has to emend the 'thirty' years to 'twenty'.

<sup>11</sup> Meursius 1622, 67.

<sup>12</sup> D. L. 1. 22, where he is citing Demetrius of Phalerum.

<sup>13</sup> Graham 2013, 90–108. Parmenides was probably born about fifteen years before he was, i.e. in c.515, since Plato says that he visited Athens to attend the Great Panathenaea when he was about sixty-five and Socrates was young but eager to hear him (Pl. *Theaet.* 183 E, *Parm.* 127 A, *Soph.* 217 C); since Socrates was born in 470, if we assume that he was

that the moon is opaque, spherical, permanent, and heavy, i.e. a three dimensional solid.<sup>14</sup> These inferences would enable him to develop his theory that solar eclipses occur when the moon blocks the light of the sun, and to propose, in his book, that the heavens contained heavy bodies which could occasionally fall to earth.

Graham and Hintz have shown that Anaxagoras must have based his statement that the sun was a molten lump larger than the Peloponnese<sup>15</sup> on actual observations of the annular eclipse of 17 February 478, when he was twenty-two.<sup>16</sup> In an annular eclipse, a bright circle of the edges of the sun remains visible, e.g. if the eclipse is viewed in a bowl of water when it is otherwise total. Anaxagoras' choice of the Peloponnese as a unit of measurement cannot be gratuitous, but based on astronomical data.<sup>17</sup> In fact it reflects the area which was covered by that particular eclipse; the entire Peloponnese, except for its far north-western corner, was obscured as the track of the eclipse passed across the Mediterranean, including Clazomenae.<sup>18</sup> Anaxagoras somehow learned that this eclipse covered the whole of the Peloponnese, and deduced that the sun was therefore larger than it, since it exceeded the size of the shadow cast by the moon.<sup>19</sup> Wherever Anaxagoras was when he observed the eclipse himself, he would have needed to find Peloponnesian informants who recalled that they were at, for instance, Olympia, Sparta, or Cythera when this memorable eclipse occurred. However, it does not follow, as Graham argues, that Anaxagoras must have obtained his information about this eclipse in Athens. Graham holds that this will explain how he could have had access to multiple informants while memories were still fresh, given the difficulty of communications in wartime; his supposed presence in Athens from 480 onwards would also explain his alleged links with Themistocles.<sup>20</sup> However, Anaxagoras' success in conducting this piece of *ιστορίη* in 478 does not prove that he was already in Athens or linked with Themistocles; he was surely too young and obscure to have been introduced to the latter in the early 470s.<sup>21</sup> Instead Anaxagoras could readily have learned of the extent of the eclipse on the Greek mainland from *Peloponnesians* who were serving with the allied fleet while it was led by Pausanias, regent of Sparta, in the summer of 478; for Pausanias sailed with twenty Peloponnesian, thirty Athenian and many other allied ships first to Cyprus and then to Byzantium, necessarily passing through Ionia on the voyage between these two destinations.<sup>22</sup> Perhaps Anaxagoras himself served in the fleet, during this critical year; or, if he was studying in Miletus, the fleet would surely have stopped there, giving him the opportunity to talk to a great many Peloponnesians (twenty triremes needed over 4,000 rowers). In the winter of 478/7, the Ionians joined the Confederacy of Delos under

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aged twenty during this visit Parmenides' birth was in c.515. Athenaeus denied that this meeting was possible (11. 505 F).

<sup>14</sup> Graham 2013, 111–17.

<sup>15</sup> Plut. *Mor.* 932 A; Hipp. *Ref.* 1. 8.8, = VS 59 A 42; D. L. 2. 8 = VS 59 A 1).

<sup>16</sup> Graham and Hintz 2007; Graham 2013, 161–70; NASA Eclipse website, <https://eclipse.gsfc.nasa.gov/SEcat5/SE-0499--0400.html>, with the track of this particular eclipse (no. 03649) at <https://eclipse.gsfc.nasa.gov/5MCSEmap/-0499--0400/-477-02-17.gif>.

<sup>17</sup> So already West 1971, 233 n. 1, and Sider 1973.

<sup>18</sup> Graham and Hintz 2007, 324–7 with fig. 1; Graham 2013, 151–2, fig. 5.1. The path of the eclipse (no. 03649) was 326 km wide, and its central duration was 6 minutes exactly, which is long (<https://eclipse.gsfc.nasa.gov/SEcat5/SE-0499--0400.html>).

<sup>19</sup> Graham and Hintz 2007, 330; Graham 2013, 143–59.

<sup>20</sup> Graham 2013, 154–5.

<sup>21</sup> Themistocles may even have been in Sparta in Feb. 478 when the eclipse took place, since he dallied there pretending to negotiate with the Spartans while the Athenians rebuilt their fortifications (Th. 1. 91).

<sup>22</sup> Th. 1. 94.

Athenian leadership; after Pausanias was removed from his command at Byzantium, the Spartans, retreating into isolationism, undertook no more naval operations,<sup>23</sup> and no Peloponnesian fleet returned to Ionia for many years. Thus Anaxagoras surely formulated his theory by talking to Peloponnesian sailors whom he met in the allied fleet in the summer of 478.

The next event in Anaxagoras' career, as Graham has established,<sup>24</sup> was the publication of his book *On Nature* (others conjecture that it was published in c. 440).<sup>25</sup> In it Anaxagoras announced his findings about the cause of eclipses, and his theory that the heavens contain heavy objects that are maintained there by the centrifugal force of a vortex, which could fall out of orbit if the vortex was disturbed; he posited such invisible 'asteroids' in order to explain how lunar eclipses can occur near the horizon of an earth that he still considered to be flat.<sup>26</sup> When the spectacular fall of meteorites at Aegospotami and Abydos in 466 confirmed the existence of such bodies, he became famous and his ideas were widely accepted. We have already seen why 478 is the *terminus post quem* for its publication. Graham has shown that c.466 is its *terminus ante quem*, for three reasons. (i) The fall of the meteorite at Aegospotami in c.466 (discussed further below) was taken as a decisive confirmation of his theory that heavens contain heavy objects that could sometimes fall to earth, and made him famous.<sup>27</sup> (ii) Since his book's explanation of comets as the conjunction of two planets releasing flames<sup>28</sup> was disproved by the comet of c.466, which far outshone the planetary conjunction that occurred at the same time, the book was written before c.466.<sup>29</sup> (iii) His explanation of why the Nile floods during the drought of late summer, which was also in his book, is already referred to by Aeschylus at *Supplikes* 497 and 641, a play that was first performed in 463, as well as in another fragment.<sup>30</sup> (iv) If it is true that he was the first to publish a book containing a diagram,<sup>31</sup> this too seems to favour an earlier rather than a later date. Graham argues that Anaxagoras must have been in Athens for his book to have gained such acclaim so rapidly,<sup>32</sup> but I would expect Ionia rather than Athens to have dominated the book-trade at such an early date (as witness the early dominance of the Ionic alphabet, as seen in late fifth-century papyri like those from Daphni near Athens and from Callatis in Rumania);<sup>33</sup> Athenian dominance came later. Moreover, Ionia was by no means cut off from Athens by the territory of the Delian League, but had revolted from Persia after Mycale.<sup>34</sup> However, these are only small corrections to Graham's compelling reconstruction of this part of Anaxagoras' scientific career.

## II. Halley's Comet, the Aegospotami Meteorite, and Themistocles

In c.466, according to our sources, Anaxagoras 'predicted' that a rock would fall 'from the sun'. A rock duly fell, in daylight, near Aegospotami on the northern shore of the

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<sup>23</sup> Th. 1. 95.

<sup>24</sup> Graham 2013.

<sup>25</sup> Cf. Curd 2007, 131, following Mansfeld 1979–80.

<sup>26</sup> Hipp. Ref. 1. 8. 8, = VS 59 A 42, with Graham 2013, 122–6.

<sup>27</sup> Curd 2007; Graham 2013, 161–5.

<sup>28</sup> D. L. 2. 9, = VS 59 A 1; Arist. *Meteor.* 1. 6, 342<sup>b</sup>27–9, = VS 59 A 81; Aët. 3. 2. 2, = VS 59 A 81.

<sup>29</sup> Graham 2013, 165–70.

<sup>30</sup> A. fr. 300 Radt (undated), with Graham 2013, 170–4.

<sup>31</sup> D. L. 2. 11, where I prefer Ruestow's emendation *ὀν γραφαῖς* for the *συγγραφῆς* of the MSS.

<sup>32</sup> Graham 2013, 164–5.

<sup>33</sup> For the papyrus from Callatis see Janko under submission.

<sup>34</sup> Hdt. 9. 105.

Hellespont, and other rocks fell at Abydus nearly and at Potidaea, which lies in an arc from the Hellespont across the North Aegean. Pliny the Elder tells the story:<sup>35</sup>

*celebrant Graeci Anaxagoran Clazomenium Olympiadis LXXVIII secundo anno praedixisse. caelestium litterarum scientia, quibus diebus saxum casurum esset e sole, idque factum interdiu in Thraciae parte ad Aegos flumen, qui lapis etiam nunc ostenditur magnitudine vehis, colore adusto, comete quoque illis noctibus flagrante. quod si quis praedictum credat, simul fateatur necesse est, maioris miraculi divinitatem Anaxagorae fuisse solvique rerum naturae intellectum et confundi omnia, si aut ipse sol lapis esse aut umquam lapidem in eo fuisse credatur. decidere tamen crebro non erit dubium. in Abydi gymnasium ex ea causa colitur hodieque modicus quidem, sed quem in media<m> (correxī) terrarum casurum idem Anaxagoras praedixisse narretur. colitur et Cassandriae, quae Potidaea <quondam> (add. Mayhoff) vocitata est, ob id deductus (correxī: deductae secunda manus ap. cod. Par. 6795: deducta codd. alii).*

The Greeks praise Anaxagoras because, in the second year of the 78th Olympiad (467/6), he predicted, from his knowledge of the literature on astronomy, on what days a rock would fall from the sun. This occurred in daylight in the part of Thrace by Aegospotami (this stone is still shown, as big as a cartload and of a burnt colour), while a comet too was blazing in those nights. If anyone believes that this was predicted, he must at the same time allow that Anaxagoras' power of divination was even more marvellous, and that our understanding of the universe is annihilated and everything is thrown into confusion, if it is believed either that the sun itself is a stone or ever had a stone in it. But it will not be doubted that stones do frequently fall. For this reason, a smallish one is still conserved in the gymnasium at Abydus; the same Anaxagoras is said to have predicted that it would fall onto the middle of the continents. Another is kept at Cassandria (which was <once> called Potidaea) that was brought down on this account.<sup>36</sup>

A meteorite as big as a cartload would have measured perhaps one cubic metre in volume, and, to judge by the Hoba meteorite in Namibia, which is mainly composed of iron and is about twice that size, would have weighed about 30 tonnes; its impact would have been very dramatic. The original meteoroid must have been huge, since most of it would have burnt up on entry to the earth's atmosphere; even so it would have left a large crater, which, like the meteorite itself, has yet to be found.<sup>37</sup> Pliny is quite correct that Anaxagoras could not have predicted this particular fall of this particular object; generally, comets do not shed meteorites (although Halley's may do so), but, as he notes, meteorites do fall. In his own account, Plutarch makes clear, from his knowledge of Anaxagoras' writings, that in fact Anaxagoras did not predict this individual event. Rather, as Graham has shown,<sup>38</sup> the meteorite's fall dramatically exemplified and confirmed his theory that the heavens contain heavy stones ('asteroids') that are held invisibly aloft by a vortex unless that vortex weakens:

<sup>35</sup> Their geographical coordinates are: Aegospotami 40°19'30"N 26°35'30"E (by the mouth of the river Bağlar Deresi near Sütluce), Abydos 40°11'43"N 26°24'18"E, and Potidaea 40°11'37"N 23°19'40"E. If these three meteorites all fell at the same time and originated from the comet (West 1960), their coordinates would help to retrodict its trajectory more precisely, but meteorites rarely originate from comets—except from Halley's.

<sup>36</sup> Plin. *NH* 2. 149–50.

<sup>37</sup> It is surprising that it has yet to be located. A search for it by remote sensing was promised by Kocahan et al. 2005, but no announcement of any discovery has been made.

<sup>38</sup> Graham 2013, 161–3.

οἱ δὲ καὶ τὴν τοῦ λίθου πτώσιν ἐπὶ τῷ πάθει τούτῳ σημεῖόν φασι γενέσθαι· κατηνέχθη γάρ, ὡς ἡ δόξα τῶν πολλῶν, ἐξ οὐρανοῦ παμμεγέθης λίθος εἰς Αἰγὸς ποταμούς. καὶ δείκνυται μὲν ἔτι νῦν, σεβομένων αὐτὸν τῶν Χερρονησιτῶν· λέγεται δὲ Ἀναξαγόραν προειπεῖν ὡς τῶν κατὰ τὸν οὐρανὸν ἐνδεδεμένων σωμάτων, γενομένου τινὸς ὀλισθήματος ἢ κάλου, ῥῖψις ἔσται καὶ πτώσις ἐνὸς ἀπορραγέντος· εἶναι δὲ καὶ τῶν ἄστρων ἕκαστον οὐκ ἐν ἡ πέφυκε χώρα· λιθώδη γὰρ ὄντα καὶ βαρέα λάμπειν μὲν ἀντερείσει καὶ περικλάσει τοῦ αἰθέρος, ἔλκεσθαι δὲ ὑπὸ βίας σφιγγόμενα δίνῃ καὶ τόνῳ τῆς περιφορᾶς, ὡς πού καὶ τὸ πρῶτον ἐκρατήθη μὴ πεσεῖν δεῦρο, τῶν ψυχρῶν καὶ βαρέων ἀποκρινομένων τοῦ παντός.

But some say that the fall of the stone occurred as a sign with regard to this event (sc. the battle of Aegospotami). For a huge stone was brought down from the sky, in most people's opinion, at Aegospotami; it is exhibited even now, since the people of the Chersonese revere it. Anaxagoras is said to have stated that, 'since stones are bound into the sky, when some slippage or surge occurs, if one breaks away it will be thrown and fall. Each of the heavenly bodies is not in the position where it belongs by nature; for since they are stony and heavy, they shine by resistance and drag of the ether, but are drawn by force, squeezed by a whirl and tension in their rotation, as of course they were originally kept in place so as not to fall to earth when the cold and heavy elements were separated out from the universe.'<sup>39</sup>

Plutarch appends a full account by the historian Daïmachus of Plataea of the fourth century BCE, which confirms Pliny's statement that a comet was visible at the time:

τῷ δ' Ἀναξαγόρᾳ μαρτυρεῖ καὶ Δαίμαχος ἐν τοῖς Περὶ εὐσεβείας, ἱστορῶν ὅτι πρὸ τοῦ πεσεῖν τὸν λίθον ἐφ' ἡμέρας ἑβδομήκοντα καὶ πέντε συνεχῶς κατὰ τὸν οὐρανὸν ἐωρᾶτο πύρινον σῶμα παμμέγεθες, ὡς περ νέφος φλογοειδές, οὐ σχολάζον, ἀλλὰ πολυπλόκου καὶ κεκλασμένας φορὰς φερόμενον, ὥστε ὑπὸ κάλου καὶ πλάνης ἀπορρηγνύμενα πυροειδῆ σπάσματα φέρεσθαι πολλαχοῦ καὶ ἀστράπτειν, ὡς περ οἱ διάττοντες ἀστέρες. ἐπεὶ δὲ ἐνταῦθα τῆς γῆς ἔβρισε καὶ παυσάμενοι φόβου καὶ θάμβου οἱ ἐπιχώριοι συνῆλθον, ὥφθη πυρὸς μὲν οὐδὲν ἔργον οὐδ' ἴχνος τοσοῦτο, λίθος δὲ κείμενος, ἄλλως μὲν μέγας, οὐθέν δὲ μέρος, ὡς εἶπεῖν, ἐκείνης τῆς πυροειδοῦς περιοχῆς ἔχων.

Daïmachus in his *On Piety* also bears witness for Anaxagoras, recounting that before the stone fell an immense fiery body had been visible in the sky for seventy-five days on end, resembling a flame-like cloud, not inactive, but being borne with complex, forked motions, so that fire-like fragments were detached from it, were carried in all directions, and flashed, like shooting-stars. When it had crashed there onto the earth, and, getting over their fear and amazement, the local people had gathered round, no action of fire or even trace of it was seen, but a stone lying there, big indeed, but with almost no share in that fiery environment.<sup>40</sup>

<sup>39</sup> Plut. *Lys.* 12. 1–2, = *VS* 59 A 12.

<sup>40</sup> Plut. *Lys.* 12. 4–5, citing Daïmachus, *FGrH* 65 F 8, = *VS* 59 A 12.

As Schove first suggested,<sup>41</sup> this was most probably the first recorded sighting Halley's comet, which is first securely attested in 240 BCE. Already in 1917 Viljev calculated the date of its appearance as -465.73 (i.e. c.23 Sept. 466), and two independent retrodictions of it each determined that its perihelion occurred within eight hours of each other on 18 July 466.<sup>42</sup> The comet would have been visible for as many as eighty days, from about 4 June to 27 August; the meteorite fell after 18 July, when the comet would have moved into the western sky.<sup>43</sup> Although it came within 0.46 astronomical units (AU) of the Earth, which is not particularly close, the Earth probably passed through its field of debris.<sup>44</sup>

The reports of this event have been doubted,<sup>45</sup> but there is too much evidence to dismiss them. Anaxagoras' own interpretation of it is given by Silenus of Callatis,<sup>46</sup> but the date that is supplied is corrupt:

φησὶ δὲ Κιληνὸς ἐν τῇ πρώτῃ τῶν Ἱστοριῶν ἐπὶ ἄρχοντος †Διμύλου (cod. P: Δη- cod. B: Λυκανίου Scaliger) λίθον ἐξ οὐρανοῦ πεσεῖν· τὸν δὲ Ἀναξαγόραν εἰπεῖν, ὡς ὄλος ὁ οὐρανὸς ἐκ λίθων συγκέοιτο· τῇ σφοδρᾷ δὲ περιδινηθεὶς συνεστάναι, καὶ ἀνεθέντα κατενεχθήσεσθαι.

Silenus in the first book of his *Histories* says that a rock fell from the sky in the archonship of †Dimylus. Anaxagoras said that the whole sky was composed of rocks that were held together by their rapid rotation, and would be carried down if it slackened.

The relevant Athenian archons were Theagenides in 468/7,<sup>47</sup> Lysistratos in 467/6, Lysanias in 466/5, whose name seems closest palaeographically to that given by Silenus or his copyists,<sup>48</sup> and Lysitheos in 465/4. As comet was seen in China in 467,<sup>49</sup> according to the *Shi Ji* by Sima Qian,<sup>50</sup> the date remains somewhat uncertain, since its reappearance is rendered irregular by interference from the gravitational fields of the heaviest outer planets, Jupiter and Saturn. But given Pliny's Olympiadic dating, the best way to reconcile the conflicting evidence is to suppose that the stone fell in 466, after

<sup>41</sup> Schove 1948, 181; cf. West 1960.

<sup>42</sup> Viljev 1917; Yeomans and Kiang 1981, 643; Landgraf 1986, 258–9 (but he thought the Aegospotami comet could not have been Halley's comet, as he was misled by erroneous dates in some of ancient sources); Graham 2013, 167.

<sup>43</sup> Arist. *Meteor.* 1. 7, 344<sup>a</sup>31, with Graham and Hintz 2010. As they write, '[i]ts orbital period typically varies between 75 and 76 years, but [it] can return in as few as 74 or as many as 79 years'. If its orbit was 76 years, it should have appeared in 316, 392, and 468 BCE. If its orbit was 75 years, it should have appeared in 315, 390, and 465.

<sup>44</sup> Graham 2013, 169.

<sup>45</sup> West 1960; id. 1971, 232–3.

<sup>46</sup> *FGrH* 27 F 2, in D. L. 2. 11; he wrote on the Hannibalic war.

<sup>47</sup> The *Marmor Parium* ep. 57 (*FGrH* 239A 57 ii. 1000) dates the fall of the stone to this year.

<sup>48</sup> ΛΥΣΑΝΙΟΥ is closer to ΔΙΜΥΛΟΥ than are the other archons' names (Dorandi wrongly prints Λυκανίου in his critical apparatus to the passage).

<sup>49</sup> Graham 2013, 167.

<sup>50</sup> In Sima Qian's *Records of the Grand Historian* (*Shi Ji* in Chinese), vol. 15 ('The Chronological Table of the Six Countries', in Han's edition of 2010, 410–13), the passage of comets is recorded in both the seventh year of Duke Ligong of Qin (470) and in his tenth year (467). Sima Qian completed the *Shi Ji* in c.94 BCE after it had been started by his father, Sima Tan, Grand Astrologer of the Imperial Court. I thank Tao Tao for valuable help on this point.

midsummer when the Olympic games were held and after the inauguration of the new Athenian archon Lysanias in July/August (the month of Hecatombaeon), when the comet had already been visible for two and a half months.

Anaxagoras must have inspected the meteorite of Aegospotami soon after it fell; his base would have been the city closest to Aegospotami, which is Lampsacus opposite on the southern shore of the Hellespont, where he would die many years later. He also studied another meteorite that had fallen on the south shore of the Hellespont, namely at Abydos.<sup>51</sup> The fact that Pericles would eventually rescue Anaxagoras from the Athenians by sending him into exile at Lampsacus suggests that the astronomer already had an association with that city, which was to honour him after his death (see §IV below). At some stage in his career he attracted Metrodorus of Lampsacus as a disciple; he is more likely to have done so at this time than during his dying years in Lampsacus, when he was a broken man. These considerations lead me to offer a new explanation for the stories that link Anaxagoras with Themistocles (524–c.459), the Athenian statesman, who was, I believe, Anaxagoras' first patron.

Despite the best efforts of Aeschylus in his *Persians*, with the young Pericles as his *chorēgos*, to remind the Athenians that Themistocles was the victor of Salamis, they ostracised him from Athens in 472 or 471. He lived in Argos for about three years, but the Spartans intrigued against him. When, as a result, the Athenians condemned him *in absentia* for treason, he fled via a circuitous route to Ionia, learned the Persian language and customs, and eventually went over to the Great King. Artaxerxes I had just ascended the throne,<sup>52</sup> which took place in 465/4, according to oriental sources.<sup>53</sup> According to Thucydides, the King gave him the revenues of Magnesia on the Maeander for his grain, nearby Myus for his fish, and Lampsacus on the Hellespont for his wine.<sup>54</sup> Neanthes of Cyzicus and Phantias of Eresus report that he was also given the benefice of two more minor cities, Palaescepsis and Percote for bedding and clothing;<sup>55</sup> Palaescepsis is in the Troad, while Percote is the next town along the coast from Lampsacus.

Our Greek sources make Themistocles' situation clear without being explicit about it, as if they were squeamish about the extent of his compromise with the King. The latter assigned him the revenues from five Greek cities along the coast of Ionia, Aeolis, and the Hellespont. These cities were so readily accessible from landward that they had not dared to throw off the Persian allegiance, or at least not openly. In Persian terms, Themistocles was in effect the King's tyrant over them, just as Xerxes had given some towns in Aeolis to Gongylus of Eretria and his descendants, and others to the Spartan Demaratus and his.<sup>56</sup>

The defeat of the Persian navy at the battle of the River Eurymedon had left the Persians gravely weakened in western Asia Minor. To the King, the opportunity to put the best Greek admiral, who manifestly could not return to his homeland, in charge of cities in this vulnerable area must have seemed like a gift from heaven. Themistocles too would have found this an attractive solution to his problems: he could use his talents for government, earn a good many (silver) talents on the side (the revenue from Magnesia

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<sup>51</sup> Plin. *NH* 2. 150.

<sup>52</sup> Th. 1. 137. 3; cf. Charon of Lampsacus *FGrH* 262 F 11. Plut. *Them.* 27. 1–2 cites other sources who say that Xerxes was still King, in which case Themistocles went to the Persian court a year or two earlier, but Thucydides' account seems preferable (Frost 1980, 209–12).

<sup>53</sup> Artaxerxes came to the throne in year 284 of the Babylonian Nabonassar era (starting in December 465); the chronology is complicated by the brief and officially unrecognized reign of Xerxes' assassin Artabanus.

<sup>54</sup> Th. 1. 138. 5.

<sup>55</sup> Plut. *Them.* 29. 7, citing Neanthes of Cyzicus (*FGrH* 84 F 17ab) and Phantias of Eresus, fr. 28 Wehrli.

<sup>56</sup> Frost 1980, 220–1, citing X. *Hell.* 3. 1. 6, *Anab.* 7. 8. 8, and



alone was 50 talents),<sup>57</sup> ensure a good future for his numerous progeny, who had mostly joined him, and act as an intermediary buffer between the Athenians and their allies on the one hand and the Great King on the other. To the Ionians, he was a tyrant in the neutral sense, on the model of Histiaeus in Darius' time or Mausolus in the fourth century; we hear of no complaints about his rule. To himself, he remained, as always, his own man, no less proud than his biographers record: for he even struck silver coins at Magnesia, which bore, for the first time in history, the head of an individual ruler on them—his own, wearing either an Attic helmet or a Phrygian bonnet—together with his own name or initials, ⊙E,<sup>58</sup> a nice reproach to the Athenians, whose coins bore the initials A⊙E. Were the larger denominations of these coins, which partly conform to the Attic standard of weight (some of his small denominations even bear an owl),<sup>59</sup> struck in order to make payments to the Delian League? By 454/3 Lampsacus, Myus, and two cities controlled by Gongylus' family had formally joined the Athenian Empire, as the Athenian Tribute List shows;<sup>60</sup> but loyalties were not in any case mutually exclusive.<sup>61</sup> Following Themistocles' precedent, later satraps of this heavily monetized region, like Pissuthnes, Tissaphernes and Pharnabazus, struck coinage bearing their portraits and their names in Greek;<sup>62</sup> they also sometimes showed considerable independence from the King in their actions. Themistocles must have boldly calculated that, if at some point he could not maintain his semi-independent position, he could always lead the Ionians into a revolt against the King, which might well succeed, given the skilful use of his new-found riches and the backing of both the anti-Persian and the pro-Themistoclean factions at Athens. If such was his typically bold, well-founded and far-sighted plan, it was destined never to be put into action.

Thucydides gives us the sense that Themistocles ruled these cities for only a few years, because the historian's next sentence is about the difficulty that his relatives had in burying his remains in Attica, since, being a traitor, he could not be interred there.<sup>63</sup> Themistocles most probably died in 460 or 459. In 460 the Athenians aided the rebellion of Inaros in Egypt, a development that threatened Themistocles' ability to continue his balancing-act between the King and the Athenians. Plutarch says he died aged sixty-five in 459/8 or perhaps a year earlier, a date that suits the story that he committed suicide in order to avoid having to act as general against Athens.<sup>64</sup> Such a story, whether true or false, would of course have helped Pericles to rehabilitate his reputation in Athens. Such a date for his death turns out to coincide with the date, arrived at on other grounds, when Anaxagoras went to Athens, viz. 460/59.<sup>65</sup> Themistocles and his son Cleophantus were remembered with such gratitude by the Lampsacenes that a festival in their honour was

<sup>57</sup> Th. 1. 138. 5.

<sup>58</sup> Almost no rulers had put their name on coins before (Cahn and Gerin 1988, 18).

<sup>59</sup> Cahn and Gerin 1988, 17.

<sup>60</sup> List 4. iv. 5, with Meiggs 1972, 53–4; Frost 1980, 221.

<sup>61</sup> So Frost 1980, 220–1; Cahn and Gerin 1988, 18 n. 22, with further references; Hornblower 1993–2008 on Th. 1. 138. 5.

<sup>62</sup> Cahn and Gerin 1988, 20.

<sup>63</sup> One wonders whether Sophocles' *Ajax* relates to the controversy over his burial. The author of [Lys.] 6. 10, possibly Socrates' prosecutor Meletus, says that Pericles once told a jury to enforce the unwritten laws expounded by the Eumolpidae; cf. Sophocles' *Antigone*, where unwritten laws are preferred to king Creon's decree (*Ant.* 453–5). Cf. Ostwald 1986, 531; Hornblower 1991–2008 on Th. 1. 138. 6, with bibliography.

<sup>64</sup> Plut. *Them.* 31. 4–7, cf. *Cim.* 18. 6–7.

<sup>65</sup> For a convincing analysis of the conflicting evidence see Davies 1971, 214–15. Woodbury 1981, 313, held that Anaxagoras went to Lampsacus in 450 and would have found Themistocles still alive or recently dead.

still celebrated two and a half centuries later;<sup>66</sup> this must have been because he had persuaded Artaxerxes to reduce their tribute to him, or indeed to remit their hereditary right to it.<sup>67</sup>

Stesimbrotus of Thasos, writing in the 420s BCE, says that Themistocles was a student of Anaxagoras and Melissus;<sup>68</sup> this would have been in his book *On Themistocles, Thucydides and Pericles*.<sup>69</sup> This and the similar claim that Pericles was Anaxagoras' student must not be taken literally, but means that the politicians both discoursed with Anaxagoras on intellectual matters. Plutarch ridicules the chronology of Stesimbrotus' assertion.<sup>70</sup> However, as Pelling remarks, 'it is hard to believe that this is all there was to it, as Stesimbrotus was after all talking about contemporaries and must have known better'.<sup>71</sup> The dating of Melissus is certainly compatible with his claim. Although Melissus commanded the Samian fleet during their war with Athens in 440, which is why Apollodorus put his *floruit* in Olympiad 84 (444–441),<sup>72</sup> he may have been quite old by that time: for we also hear that he was a pupil of Parmenides and met Heraclitus.<sup>73</sup> This is compatible with a lifespan of perhaps 510–435. In theory, Themistocles could have associated with Anaxagoras and Melissus either in the 470s in Athens, if Anaxagoras was there (but he would only have been in his 20s and would not have been famous),<sup>74</sup> or in c.465–460 in Asia Minor. The latter theory makes much more sense,<sup>75</sup> and also provides a more plausible context for him to have met Melissus.<sup>76</sup> The meteorite fell at Aegospotami only a year or two before the inauguration of Themistocles' rule just across the Hellespont in Lampsacus and Percote: he would certainly have heard of Anaxagoras' celebrated 'prediction' from locals who had witnessed that event. It seems probable that, on the strength of such reports, he invited the philosopher to join his court, like the poets Simonides, Lasus of Hermione and Onomacritus at that of the Pisistratids or Pindar and Bacchylides at that of Hiero.<sup>77</sup>

Anaxagoras' association with Themistocles also explains why he was accused of 'Medism', which was a constant charge against the Athenian statesman. Satyrus of Oxyrhynchus claims that Thucydides son of Melesias prosecuted Anaxagoras for Medism

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<sup>66</sup> See the proxeny-decree of Lampsacus of c.200 BCE in Lolling 1881, 103–5, and Hill 1951, 324, no. B 122, with Woodbury 1981, 311.

<sup>67</sup> [Themist.] *Ep.* 20, p. 761 Hercher. The fact that this letter is a forgery need not make this detail in it false.

<sup>68</sup> *FGrH* 107 F 1 = Plut. *Them.* 2.5.

<sup>69</sup> *FGrH* 107 F 10a.

<sup>70</sup> Plut. *Them.* 2.5–6; Frost agrees (1980, 20, 67).

<sup>71</sup> Pelling 2016, 117–18; he rightly holds that Themistocles associated with these intellectuals in his old age.

<sup>72</sup> *Apld.* *FGrH* 244 F 72.

<sup>73</sup> D. L. 9. 1, 9. 23.

<sup>74</sup> Graham and Hintz (2007, 330) have argued that they were together in Athens, because only thus could Anaxagoras have learned that the eclipse of 17 February 478 covered the whole of the Peloponnese and that the sun was therefore larger than it, since the war made communications across the Aegean difficult. However, even if the latter assumption were correct (in fact, as Hornblower 1993–2008 notes on Th. 1. 95. 1, the mainland Ionians were largely liberated from Persian rule in 478), Anaxagoras would still have been able to find plenty of informants in the summer of 478 among the Peloponnesian crews of the allied fleet, as we have seen.

<sup>75</sup> So Sider 2005, 6.

<sup>76</sup> Woodbury 1981, 305, objects that after 470 Themistocles had gone over to Persia, while Melissus represented allied disaffection after 440; but Melissus must have been teaching philosophy well before 440.

<sup>77</sup> For this point I thank the journal's anonymous referee, who compared Archelaus of Macedon and Hermias' and Philip's patronage of Aristotle.

as well as for impiety.<sup>78</sup> The sobriquet of Medizer, which had no legal standing, was still bandied about in Athens for many decades after the Persian Wars.<sup>79</sup> Anaxagoras' association with Themistocles also lies at the origins of Anaxagoras' close relationship to Pericles. In spring 472 the latter, aged only twenty, sponsored Aeschylus' *Persians*,<sup>80</sup> in which Themistocles' role in the Greek victory at Salamis is highly praised, even though the Athenian leader is not named.<sup>81</sup> Pericles' policies of subjugating Athens' allies, supporting her fleet, and opposing the Spartans continued directly those of Themistocles; his ascent to power with Ephialtes in 461 entailed their resumption.<sup>82</sup> Equally, Pericles' enthusiasm for learning continued Themistocles' interest in the ideas of Anaxagoras and Melissus attested by Stesimbrotus;<sup>83</sup> even if he was uneducated in the liberal arts, Themistocles was a highly intelligent man. Anaxagoras' move from Lampsacus to Athens, for which I have argued here, coincides perfectly with his change of patron from Themistocles to Pericles.

### III. Anaxagoras in Athens

Anaxagoras lived in Athens for thirty years;<sup>84</sup> no ancient source says that he lived there for only twenty.<sup>85</sup> There has been great controversy as to which thirty years these were.<sup>86</sup> Diogenes Laertius, citing Demetrius of Phalerum, says that he began to study philosophy in Athens in the archonship of Callias (456/5) when he was aged twenty,<sup>87</sup> and that 'they

<sup>78</sup> D. L. 2. 12 = F 16 Schorn: Κάτυρος δ' ἐν τοῖς Βίοις ὑπὸ Θουκυδίδου φησὶν εἰσαχθῆναι τὴν δίκην, ἀντιπολιτευομένου τῷ Περικλεῖ· καὶ οὐ μόνον ἀσεβείας, ἀλλὰ καὶ μηδικμοῦ. Schorn follows Dover 1975, Wallace 1994, 133, and Raaflaub 2000 in rejecting the historicity of all trials of intellectuals except Socrates.

<sup>79</sup> Isocrates, writing his *Panegyricus* in 380, notes that 'even now' Medizers are cursed in the assembly before any other business is done (Isoc. 11. 157): πολλῶν μὲν οἱ πατέρες ἡμῶν μηδικμοῦ θάνατον κατέγνωσαν, ἐν δὲ τοῖς συλλόγοις ἔτι καὶ νῦν ἀρὰς ποιοῦνται, πρὶν ἄλλο τι χρηματίζειν.

<sup>80</sup> Pericles was choregus for Aeschylus in the archonship of Menon (473/2), i.e. for the *Persai* in spring 472 (Didascaliae A 1,1 = A. T 55b *TrGF*). He successfully rehabilitated Themistocles' reputation in the 450s after the latter's death.

<sup>81</sup> A. *Pers.* 355–63, with Broadhead 1960, 324–7.

<sup>82</sup> The three politicians and Aeschylus all belonged to the same circle and shared similar views (Rhodes 1981, 312, 319–20). The story in Arist. *Ath. Pol.* 25. 3–4 that Ephialtes and Themistocles together curtailed the powers of the Areopagus must be conflating a failed attempt before Themistocles' exile with the achievement of this reform by Ephialtes and Pericles in 462/1.

<sup>83</sup> *FGH* 107 F 1, in Plut. *Them.* 2.

<sup>84</sup> D. L. 2. 7.

<sup>85</sup> Pace Curd 2007, 129, 131.

<sup>86</sup> 480–450 (A. E. Taylor 1917, and Woodbury 1981, 313) or 464–434 (Sider 2005, 6). Schofield (1980, 33–5) claims that his residence in Athens lasted only a decade and was over by 460. This rests primarily on two arguments: (i) Anaxagoras' doctrines are reflected in Aeschylus' *Supplikes* of 463 and *Eumenides* of 458, from which he rightly concludes that Anaxagoras was influential by that date, and Stesimbrotus' attempt (*FGH* 107 F 1) to link Anaxagoras with Themistocles points to the same conclusion; and (ii) Socrates in the *Phaedo* (97b–99c) first learned of Anaxagoras' thought in his youth from a book, from which he infers that Anaxagoras was no longer in Athens from c.460. This latter inference seems both hazardous and unduly sceptical of the other evidence.

<sup>87</sup> Dem. Phal. *De archont.* = *FGH* 228 F 2, in D. L. 2. 7 (fr. A 1 *VS*): ἤρξατο δὲ φιλοσοφεῖν Ἀθήνησιν ἐπὶ Καλλίου (codd. BP: Καλλι(άδ)ου Meursius) ἑτῶν εἴκοσι ὧν. Mansfeld (1979, 41, 55–7), wrongly retaining 'Callias', prefers 456–436, but then has to

say that he spent thirty years there'.<sup>88</sup> As Meursius saw,<sup>89</sup> Demetrius has confused the archonship of Callias with the report that he was aged twenty in the archonship of *Calliades*, i.e. in 480/479, when Xerxes sacked Athens. Demetrius does not say that he came to Athens when Callias was archon; had he said that, it would imply that he stayed until 426/5, which is incompatible with the other information about his death, and would place his trial and exile after Pericles' death, whereas these events are almost unanimously dated to the 430s. Hence it is most unlikely that Anaxagoras came to Athens in 480 and stayed until 450.<sup>90</sup> It is an extraordinary understatement to say that, if he had arrived in 480, 'he would have had a bad audience and poor accommodation';<sup>91</sup> he could hardly have entered a war-zone in 480 without being a combatant! Instead, we must accept that Anaxagoras was twenty in 480,<sup>92</sup> but came to Athens only later. A passage in Aeschylus' *Supplikes* of 463 refers to Anaxagoras' theory about the cause of Nile's flood,<sup>93</sup> but this need not entail that he reached Athens before 463. Instead, it shows that his book and its contents were already famous.<sup>94</sup>

An important but obscure event in Anaxagoras' life is dated to 462/1 (Olympiad 79.3) or 460/59 (Olympiad 80.1). The Armenian version of Eusebius' *Chronicle* dates his *death* to either the former year (together with an eclipse of the sun, which actually happened on 30 April 463)<sup>95</sup> or to the latter.<sup>96</sup> It is of course impossible that he died in the late 460s. Instead, the first of these records probably refers to the eclipse of 463 and Anaxagoras' role in explaining it, and the second to Anaxagoras' arrival in Athens, which I would date to precisely 460, since he left Athens in autumn 430 (§IV below). As we saw in §II, if Anaxagoras arrived in Athens in 460, this also correlates well with the date of Themistocles' death, which is reported by Plutarch as 459/8 or a year or two earlier, and with the high degree of continuity between the policies, both political and cultural, of Themistocles and Pericles. As Isocrates noted,<sup>97</sup> Pericles associated with various intellectuals (*sophistai*) who were later called his 'teachers', notably Anaxagoras and Damon. Anaxagoras is said to have taught Pericles rhetoric and high-mindedness.<sup>98</sup>

Plentiful evidence confirms Anaxagoras' presence in Athens after 460.<sup>99</sup> He had there as 'pupils', in addition to Pericles, the playwright Euripides, the physicists Archelaus<sup>100</sup> and Diogenes of Apollonia, and the historian Thucydides; Apollodorus adds Socrates to the list.<sup>101</sup> The claim that he taught Thucydides<sup>102</sup> is usually dismissed as fiction, but explains his remark about the eclipse of 431 (Th. 2. 28) and his general attitude

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emend the 'thirty' years to 'twenty'. Whitmarsh 2015, 64, holds that Anaxagoras arrived in Athens only in the 430s, but gives no evidence in support of this view.

<sup>88</sup> D. L. 2. 7, = A 1 VS.

<sup>89</sup> Meursius 1622, 67.

<sup>90</sup> A. E. Taylor 1917; Woodbury 1981, 313.

<sup>91</sup> Meiggs 1972, 436.

<sup>92</sup> Sider 2005, 5–6.

<sup>93</sup> A. *Suppl.* 559, 792–3 (cf. *Eum.* 657–66), with Sider 2005, 9–10; Curd 2007, 132 n. 13.

<sup>94</sup> Graham 2013, 170–4.

<sup>95</sup> NASA Solar Eclipse website, <https://eclipse.gsfc.nasa.gov/SEcat5/SE-0499--0400.html>, no. 03686.

<sup>96</sup> Eus. *Chron.* arm. a. Abr. 1554 and 1557.

<sup>97</sup> Isoc. *Antid.* 235 (= fr. A 15 VS). This pairing is paralleled in Libanius' *Apology* (1. 156–7), and confirms that these figures appeared in Polycrates' attack on Socrates.

<sup>98</sup> Pl. *Phaedr.* 269 E, Plut. *Per.* 4, Cic. *De orat.* 3. 138 (= fr. A 15 VS).

<sup>99</sup> *Pace* Woodbury 1981, 295.

<sup>100</sup> Str. 14. 1. 36, Gal. *Hist. phil.* 3, Clem. Alex. *Strom.* 1. 63 (fr. A 7 VS).

<sup>101</sup> *Marm Par.*, FGrH 239 A 60 = Apollod. FGrH 244 F 34 (om. VS): Socrates and Euripides were contemporaries of Anaxagoras.

<sup>102</sup> Marcellin. *Vit. Thuc.* 22, relying on the undated biographer and commentator Antyllus.

towards religion (cf. Whitmarsh 2015, 81–6).<sup>103</sup> Surely, because of their ages, these persons belong to the decades after 450, not earlier. Socrates, born in 470, was ‘young’, presumably under twenty, when he heard Anaxagoras’ book being read.<sup>104</sup> He may have heard his lover Archelaus reading the book;<sup>105</sup> for Socrates’ association with Archelaus is guaranteed by a pre-Platonic source, Ion of Chios. Ion, who died in 422 and is as contemporary a source as we could wish for, says that ‘when he was young Socrates went to Samos with Archelaus’.<sup>106</sup> Plato’s failure to show Socrates meeting Anaxagoras carries no weight, and neither does the silence of the extant remains of old comedy.<sup>107</sup> Plutarch’s famous story of Anaxagoras’ naturalistic explanation of the one-horned ram<sup>108</sup> that supposedly portended Pericles’ supremacy in politics takes place during Pericles’ rivalry with Thucydides son of Melesias, which ended when the latter was ostracized. The alternative, religious interpretation of this portent was offered by the seer Lampon, who took part in the foundation of Thurii in 443. Thucydides’ ostracism is usually dated to that same year, but its date depends on Plutarch’s statement that, after it occurred, Pericles had ‘no less than fifteen years’ of uninterrupted power holding the office of general;<sup>109</sup> if Plutarch is correct, this actually points to 445, since Pericles was deposed only in the autumn of 430.<sup>110</sup> The story of the ram cannot be dated to after Thucydides’ ten-year term of exile ended, because Plutarch’s narrative entails that his ostracism ensued.

#### IV. Anaxagoras’ Exile and the Fall of Pericles

From the autumn of 430 onwards, the Athenians turned towards religion and against intellectuals because of the Spartans’ invasion of Attica and the sudden outbreak of plague in the city.<sup>111</sup> Thucydides records the terrible effects of the war and plague on morale in the city,<sup>112</sup> but the historian chooses to emphasize the immediate collapse of religious belief, whereas in fact expressions of religion were reinforced over the longer term.<sup>113</sup>

Under the pressure of such dire events, Anaxagoras’ indifference to traditional religion became a pretext for Athenian political and religious leaders to attack his friend Pericles by putting the astronomer on trial, and indeed for creating an anti-intellectual climate in Athens that would last far beyond the execution of Socrates in 399. Some have alleged that Plato’s failure to mention Anaxagoras’ trial proves that it never happened;<sup>114</sup>

<sup>103</sup> Th. 2. 28, with Whitmarsh 2015, 81–6; for unconvincing counterarguments see Hornblower 1991–2008, i. 62–4.

<sup>104</sup> Pl. *Phaedo* 98 B. Note that, when Socrates has finished speaking of Anaxagoras, he compares the effect of his teachings to being blinded by a solar eclipse (*Phaedo* 99 D).

<sup>105</sup> Woodbury 1981, 297.

<sup>106</sup> Ion fr. 111 Leirini = *FGrH* 392 F 9, Ἴων δὲ ὁ Χῖος καὶ νέον ὄντα σὺν Ἀρχελάῳ ἀποδημῆσαι (D. L. 2. 23). Graham 2008 proves the authenticity of Ion’s report, and shows that it does not refer to a military expedition but to a journey well before 440.

<sup>107</sup> *Pace* Woodbury 1981, 305.

<sup>108</sup> Plut. *Per.* 6 (Anaxag. fr. A 16 VS).

<sup>109</sup> Plut. *Per.* 16.3, οὐκ ἐλάττω τῶν πεντεκαίδεκα ἐτῶν.

<sup>110</sup> Cf. Andrewes 1977, 6–7.

<sup>111</sup> This argument, adumbrated by Dodds 1951, 189–93, has been developed at length in the important but neglected work of Rubel (2000, 2014). See also Flower 2009; Schaps 2011. My own version of this idea (Janko 2001) appeared to soon to take Rubel 2000 into account.

<sup>112</sup> Thuc. 2. 51–4.

<sup>113</sup> Rubel 2000, 2014.

<sup>114</sup> Rubel 2014, 35–41 (cf. id. 2000, 91–109). Raaflaub follows Dover 1975 and others (listed in Bakola 2010, 215 n. 69) in holding that the only trial of an intellectual that

but he does mention it at *Apology* 26 D, when Socrates asks Meletus ‘do you think you are accusing Anaxagoras?’<sup>115</sup> Sotion, writing in the third century BCE, said that Anaxagoras’ accuser was Cleon, who was targeting his beliefs about the sun:

Ωωτίων μὲν γάρ φησιν ἐν τῇ Διαδοχῇ τῶν φιλοσόφων ὑπὸ Κλέωνος αὐτὸν κριθῆναι, διότι τὸν ἥλιον μύδρον ἔλεγε διάπυρον.

For in his *Succession of the Philosophers* Sotion says that he was tried by Cleon because he held that the sun was a lump of red-hot iron.<sup>116</sup>

Satyrus makes Thucydides the son of Melesias Anaxagoras’ accuser on charges of impiety and medism:<sup>117</sup>

Σάτυρος δ’ ἐν τοῖς Βίοις ὑπὸ Θουκυδίδου φησὶν εἰσαχθῆναι τὴν δίκην, ἀντιπολιτευομένου τῷ Περικλεῖ· καὶ οὐ μόνον ἀσεβείας, ἀλλὰ καὶ μηδικμοῦ· καὶ ἀπόντα καταδικασθῆναι θανάτου.<sup>118</sup>

Satyrus in his *Lives* says [Anaxagoras] was brought to trial by Thucydides, who was opposing Pericles in politics, not only for impiety but also for Medism, and that he was condemned to death *in absentia*.

We will discuss later who the accusers were, but their identities are relevant to the dating of the trial. Since Thucydides was exiled for ten years in 445, it would have occurred before 445 (or as most scholars believe *c.*443) or after 435 (or *c.*433). References in comedy prove that Thucydides did return from his ostracism, albeit in a decrepit state;<sup>119</sup> thus he could have lent his support to a prosecution of Anaxagoras by Cleon or others. Reports that Anaxagoras had different accusers have led scholars to suggest that the philosopher was put on trial twice, once on a charge of Medism before the peace of Callias in 449, and once on a charge of impiety in about 430;<sup>120</sup> this theory must be rejected on the basis of Occam’s razor, as it posits entities unnecessarily. That Anaxagoras was charged with Medism must be technically false, since Medism was never a formal offence in Athenian or other law; it was subsumed under ‘treason’ (προδοσία).<sup>121</sup> It has been argued that no accusation of Medism could have been made after the Peace of Callias between the Athenian and Persian Empires in 449.<sup>122</sup> But that Peace may not have been an openly acknowledged fact,<sup>123</sup> and ‘Medizer’ was still a useful epithet to hurl even after that time.<sup>124</sup> Members of Themistocles’ family were allowed to return to Athens shortly after 459, no doubt encouraged by the radical democrats’ take-

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actually occurred was that of Socrates (2000, 110). There is far too much contrary evidence for this to be a credible position: see Ostwald 1986, 228–38; Janko 2006; Curd 2007, 136; Rubel 2014, 35 (cf. id. 2000, 91–3). Nor can one disbelieve in the prosecutions of Pericles’ friends (Bauman 1990, 37–42).

<sup>115</sup> Mansfeld 1980, 82–3.

<sup>116</sup> D. L. 2. 12 = Sotion fr. 3 Wehrli.

<sup>117</sup> Schorn 2004, 46–52.

<sup>118</sup> D. L. 2. 12 = F 16 Schorn.

<sup>119</sup> Bakola 2010, 219; cf. Olson’s commentary on Ar. *Ach.* 703, where Aristophanes refers to Thucydides’ great age when he was prosecuted by Euathlus son of Cephisodemus.

<sup>120</sup> Meiggs 1972, 283, 435–6.

<sup>121</sup> Graf 1984, 15–16, citing Hdt. 7. 30.

<sup>122</sup> Woodbury 1981, 305.

<sup>123</sup> Thucydides omits it, but his narrative implies it (Hornblower 1991–2008, i. 179–81).

<sup>124</sup> Cf. Isoc. 11. 157 (380 BCE), cited in n. [79] above.

over there;<sup>125</sup> Thucydides may well have learned details of Themistocles' biography from them. But their return does not prove that the jibe of Medism could not have been dragged up later by Pericles' enemies; after all, like Themistocles, Pericles had pursued a policy of peace with Persia and hostility toward Sparta, to which Cimon and his political successor Thucydides son of Melesias were vehemently opposed.

Modern scholars date the trial, together with the decree of Diopeithes that enabled it, to 433/2 or, most influentially, to 438/7,<sup>126</sup> on the ground that ten years would permit Anaxagoras to spend enough time in Lampsacus before his death in c.428 for him to become a 'much-revered public figure'.<sup>127</sup> although a minority have urged that it occurred in 430, since that is when the plague broke out and Pericles was deposed.<sup>128</sup> However, most primary sources place the trial around the start of the Archidamian War in 431. It is entwined with the controversies surrounding the prosecutions of Pericles' two friends, the sculptor Pheidias and his mistress Aspasia, and that of himself.

In Diodorus, who relied on Ephorus,<sup>129</sup> the trials of Pheidias and Anaxagoras immediately precede Pericles' decision to begin the Peloponnesian War.<sup>130</sup> Plutarch offers the same relative sequence as Diodorus. After recounting the negotiations over the Megarian decree, he considers the causes of Pericles' stubborn refusal to rescind it, and gives as a cause Pericles' enemies' prosecution of Pheidias for embezzling precious materials from the statue of Athena Parthenos. Likewise, Aristophanes alleges that Pheidias was in trouble before Pericles set the war in train with his Megarian decree, and stoked the war to distract attention from Phidias' case.<sup>131</sup> Phidias' trial has normally been placed in the mid-430s,<sup>132</sup> because Philochorus is supposed to have dated it to 438/7;<sup>133</sup> in fact, however, this rests on a false emendation, and the correct date 432/1.<sup>134</sup> Thucydides

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<sup>125</sup> Davies 1971, 217–18.

<sup>126</sup> Mansfeld 1979; id. 1980; id. 1990, 264–306; Curd 2007, 131.

<sup>127</sup> Curd 2007, 131.

<sup>128</sup> So already F. E. Adcock in Walker 1927, v. 478, Gomme 1956, 184–8, Horstmanshoff 1989, 226, and Rubel 2014, 35–41 (= 2000, 95–109). None of them mentions the stories of Pericles' helmsman (Plut. *Per.* 35. 2–3) or of the deaths of Anaxagoras' sons (D. L. 2. 12), on which I will rely below.

<sup>129</sup> *FGrH* 70 F 196.

<sup>130</sup> D. S. 12. 39. 1–3.

<sup>131</sup> Ar. *Pax* 605–11.

<sup>132</sup> Plut. *Per.* 31. The chronology of Pheidias' trial, and of his presence in Athens and then Olympia, is also contested: F. E. Adcock in Walker 1927, v. 477–80), Gomme (1956, 184–8), and Bakola (2010, 213–20, 304–12) all put his trial in 430: for supporters of 438/7 see Bakola 2010, 215 n. 70. Olga Palagia states (*pers. comm.* 2015) that Pheidias was in Olympia in the 430s, and was not responsible for the pediments of the Parthenon (Agoracritus his pupil did one of them). Margaret Miles, however (*pers. comm.* 2015), says Pheidias' hand is thought to be present in the pediments, if not also in the frieze, and so he ought to have been in Athens until 433/2 (cf. Stadter 1989, 286, and Delivorrias 1994); the accounts continue until 432, and the famous cup of Pheidias at Olympia which dates his workshop there is of a type that is most common in the last quarter of the fifth century, even though it can be found a little earlier. His presence in Elis after the outbreak of the Peloponnesian War is perfectly possible, since he had then been exiled from Athens.

<sup>133</sup> Nowhere do either Apollodorus of Athens or Demetrius of Phaleron date Anaxagoras' trial to this year, *pace* Curd 2007, 131; for the origin of this error see n. [132].

<sup>134</sup> Philoch. *FGrH* 328 F 121, in sch. Ar. *Pax* 605a–b Koster, twice gives the archon as Πυθοδώρου (432/1), which Lepaulmier changed each time to Θεοδώρου (438/7); Bakola proved the alterations mistaken (2010, 305–7). The pressure for emending the date arose because in 605a Philochorus discussed both the dedication of the statue in

makes Pericles mention, in a speech that was given in spring 431, the gold plates on the statue of Athena Parthenos as a valuable resource for the city,<sup>135</sup> which would not have been wise if he had already been accused of peculation and temple-robbing in overseeing the precious materials on that statue. The date of the Megarian decree is itself disputed,<sup>136</sup> but Philochorus again gives its date as 432/1.<sup>137</sup> Thus Philochorus' date of 432/1 for the start of Pheidias' trial fits the evidence well; as Bakola notes, the case could have dragged on for a while, as might well happen at Athens,<sup>138</sup> i.e. into the late summer of 430.

'At around this time',<sup>139</sup> Plutarch continues, the comic poet Hermippus unsuccessfully prosecuted Aspasia for impiety and running a brothel; this may of course reflect accusations in comedy rather than in a court of law. But Anaxagoras was certainly impeached while the other cases were going on. The scientist's trial arose, according to Plutarch, when the people accepted the slanders against Pericles and voted for the decree of Diopeithes:

ψήφισμα Διοπείθης ἔγραψεν εἰσαγγέλλεσθαι τοὺς τὰ θεῖα μὴ νομίζοντας ἢ λόγους περὶ τῶν μεταρσίων διδάσκοντας, ἀπεριδόμενος εἰς Περικλέα δι' Ἀναξαγόρου τὴν ὑπόνοιαν.

Diopeithes wrote the decree that those who did not believe in divinities or gave lectures on the heavenly bodies should be impeached before the assembly, fixing suspicion upon Pericles by means of Anaxagoras.<sup>140</sup>

Plutarch interrupts his account of Anaxagoras' trial with a discussion of Dracontides' decree demanding that Pericles furnish accounts of his handling of Pheidias' funds.<sup>141</sup> In the aftermath, Pericles got Aspasia acquitted,<sup>142</sup> removed Anaxagoras from Athens out of fear,<sup>143</sup> but was tripped up in Pheidias' case. Plutarch follows Ephorus in deriving this crisis from Pericles' refusal to revoke the Megarian decree and his willingness to involve the city in the dangers of war;<sup>144</sup> the historian goes on to speak of the curse of the

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438/7 and Phidias' trial in 432/1 under the latter date, and in 605*b* he claimed that the theft occurred in 432/1. Bakola (2010, 312) shows that the accounting in which the discrepancy was found may have occurred in 434 (*IG I<sup>3</sup>* 449.389–94), which confirms that the trial happened in or after that year.

<sup>135</sup> Th. 2. 13. 5.

<sup>136</sup> Bakola 2010, 310 with n. 17.

<sup>137</sup> In sch. Ar. *Pax* 605*b* (Philoch. *FGrH* 328 F 121) Lepaulmier was at least right to alter the *vox nihili* Κυθοδώρου to Πυθοδώρου, which has the effect of dating the Megarian decree to 432/1 when Pythodorus was archon.

<sup>138</sup> Bakola 2010, 309–10.

<sup>139</sup> περὶ τοῦτον τὸν χρόνον (*Per.* 32. 1).

<sup>140</sup> Plut. *Per.* 32. 2. Diodorus too implies that the decree was aimed at Pericles (D. S. 12. 39. 2).

<sup>141</sup> Plut. *Per.* 32. 3, with Stadter 1989, 300–1.

<sup>142</sup> Aeschines the Socratic states that he even wept in court (Ath. 13, 589 E = fr. 11 Krauss).

<sup>143</sup> At *Per.* 32. 5 Flacelière was right to read φοβηθεῖς ἐξέπεμψεν and to omit, as in codex S, the subsequent phrase καὶ προὔπεμψεν, which must be a supralinear textual variant that has entered the text; Emperius' conjecture φοβηθεῖς ἐξέκλεψε and Madvig's insertion of τὸ δικαστήριον are both needless. Cf. Stadter 1989, 303–4.

<sup>144</sup> Plut. *Per.* 32. 3–6. Raaflaub (2000, 101–4) holds that this account of Pericles' motive was based on Aristophanes' jokes in *Ach.* 515–37 and *Pax* 605–11, but the comedian must have based his jokes on a narrative that was current from the beginning (Bakola 2010, 309 n. 12), as can be seen from the *hypothesis* of Cratinus' *Dionysalexandros* (*P.*



Alcmeonidae, which the Spartans brought up at the outbreak of hostilities.<sup>145</sup> These began with the Peloponnesian invasion of Attica in 431, and, according to Plutarch, the plague<sup>146</sup> (he has dated the plague a year too early, since it began in the early summer of 430).<sup>147</sup> There follows his dramatic account of Pericles' expedition against Epidaurus with a hundred and fifty ships.<sup>148</sup> As he tells the story, when Pericles was leading the fleet in this expedition, there was an eclipse of the sun:

ἦδη δὲ πεπληρωμένων τῶν νεῶν καὶ τοῦ Περικλέους ἀναβεβηκότος ἐπὶ τὴν ἑαυτοῦ τριήρη, τὸν μὲν ἥλιον ἐκλιπεῖν συνέβη καὶ γενέσθαι σκότος, ἐκπλαγῆναι δὲ πάντας ὡς πρὸς μέγα σημεῖον. ὁρῶν οὖν ὁ Περικλῆς περίφοβον τὸν κυβερνήτην καὶ διηπορημένον, ἀνέσχε τὴν χλαμύδα πρὸ τῆς ὄψεως αὐτοῦ, καὶ παρακαλύψας ἠρώτησε, μή τι δεινὸν ἢ δεινοῦ τινος οἶεται σημεῖον· ὡς δ' οὐκ ἔφη, "τί οὖν" εἶπεν "ἐκεῖνο τούτου διαφέρει, πλὴν ὅτι μείζον τι τῆς χλαμύδος ἐστὶ τὸ πεποικῶς τὴν ἐπισκότην;" ταῦτα μὲν οὖν ἐν ταῖς σχολαῖς λέγεται τῶν φιλοσόφων. ἐκπλεύσας δ' οὖν ὁ Περικλῆς οὐτ' ἄλλο τι δοκεῖ τῆς παρασκευῆς ἄξιον δρᾶσαι, πολιορκήσας τε τὴν ἱεράν Ἐπίδουρον ἐλπίδα παρασχοῦσαν ὡς ἀλωσομένην, ἀπέτυχεν διὰ τὴν νόσον. ἐπιγενομένη γὰρ οὐκ αὐτοῦς μόνον, ἀλλὰ καὶ τοὺς ὀπωσοῦν τῇ στρατιᾷ συμμίξαντας προσδιέφθειρεν ...

When the ships had already been manned and Pericles had ascended his own trireme, it came about that the sun was eclipsed and darkness fell. Everyone was terrified as if confronted with a great sign. When Pericles saw that his helmsman was fearful and at a loss, he held out his cloak in front of the man's face, and when he had covered it asked him whether he thought it terrible or a sign of something terrible. When the man said no, he said 'how then does this differ from that, save that what caused the eclipse is something bigger than my cloak?' This, at any rate, is what is said in philosophers' lectures. Anyhow, Pericles sailed out but achieved nothing worthy of this outlay, and in particular, when he had laid siege to holy Epidaurus, which was expected to be taken, failed on account of the plague, which broke out and killed not only his men, but also those with whom they came into any kind of contact.<sup>149</sup>

When Pericles tried to prove to his helmsman that the eclipse was only a natural event, Plutarch comments that this is a philosophers' argument; that Pericles was referring specifically to Anaxagoras' theory is proved by the fact that he refers to the relative *sizes* of two bodies, his cloak and the man's face. During Anaxagoras' lifetime there were two other solar eclipses in the Aegean that he would have observed: the annular eclipse of 17 Feb. 478, from which he deduced that the sun is larger than the moon, and the total eclipse of 30 April 463.<sup>150</sup> One source associates him with the latter eclipse,<sup>151</sup> which was

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*Oxy.* 663) of spring 428, in which 'Pericles is satirized very persuasively by innuendo as having brought the war upon the Athenians' (Bakola 2010, 181–8, 320–3).

<sup>145</sup> Plut. *Per.* 33. 1–2, citing Th. 1. 127.

<sup>146</sup> Plut. *Per.* 33. 3–34.

<sup>147</sup> Th. 2. 47.

<sup>148</sup> Plut. *Per.* 35.

<sup>149</sup> Plut. *Per.* 35. 2–3.

<sup>150</sup> Graham and Hintz 2007 (cf. NASA's inventory at <https://eclipse.gsfc.nasa.gov/5MCSEmap/-0499--0400/-462-04-30.gif>, no. 03186); they do not discuss the eclipse of 431.

visible at Lampsacus,<sup>152</sup> when, according to my reconstruction, he was living there. Elsewhere Plutarch tells us that Anaxagoras was first to make a diagram about the illumination of the moon and its shadow.<sup>153</sup> Pericles certainly knew his teachings on eclipses, which influenced his behaviour on the latter occasion. The expedition sailed despite the omen, even though solar eclipses had deterred other commanders,<sup>154</sup> and the lunar eclipse of 28 August 413<sup>155</sup> would have even more disastrous consequences when the superstitious Nicias insisted on delaying the Athenians' escape from the Great Harbour of Syracuse.<sup>156</sup> However, Plutarch tells us that the arrival of the even more terrifying plague seemed like a divine punishment; Pericles was subsequently prosecuted, condemned, fined, and deposed from office, albeit temporarily.<sup>157</sup>

The problem with Plutarch's story is that, as we know from astronomy, the eclipse happened on 3 August 431,<sup>158</sup> whereas the failed attack on Epidaurus and the plague occurred in summer 430.<sup>159</sup> His chronology is impossible. As we might expect, Thucydides duly records this eclipse (which was annular and relatively minor as observed at Athens) in his account of 431, noting that it occurred at the new moon, which 'seems to be' the only time when this can happen;<sup>160</sup> this is indeed so, and was Anaxagoras' doctrine.<sup>161</sup> Typically, Thucydides ignores the religious dimension of this event.<sup>162</sup>

Stadter offered a complex explanation for Plutarch's confusion, based on elaborate hypotheses about his method of work.<sup>163</sup> In fact Plutarch or his sources have simply conflated two expeditions against the Peloponnese, just as he misdates the plague, rather in the way in which elements of each expedition are mingled in Diodorus.<sup>164</sup> We know from Thucydides that there were two such expeditions, the first in 431, led by Carcinus, Proteas, and Socrates son of Antigenes, and the second in 430, led by Pericles.<sup>165</sup>

<sup>151</sup> Eus. *Chron.* under Olympiad 79, third year (462/1), in the Armenian version, gives a solar eclipse and the *death* of Anaxagoras (= fr. A 18 VS).

<sup>152</sup> Graham and Hintz 2007, 324 with fig. 1.

<sup>153</sup> Plut. *Nic.* 23 (fr. A 18 VS).

<sup>154</sup> Thus Cleombrotus refused to lead his army past the Isthmus of Corinth because of the partial solar eclipse of 2 Oct. 480 (Hdt. 9. 10. 3), which is no. 03645 at <https://eclipse.gsfc.nasa.gov/SEcat5/SE-0499--0400.html>.

<sup>155</sup> No. 03842 in NASA's inventory of lunar eclipses at <https://eclipse.gsfc.nasa.gov/LEcat5/LE-0499--0400.html>.

<sup>156</sup> Th. 7. 50. 4.

<sup>157</sup> Plut. *Per.* 35. 4–5. His accuser is named by Idomeneus (*FGrH* 338 F 9) as Cleon, by Theophrastus (fr. 616 Fortenbaugh) as Simmias, and by Heraclides Ponticus (fr. 47 Wehrli = fr. 27 Schüttrumpf) as Lacratides. All three could of course have prosecuted him jointly.

<sup>158</sup> Stephenson 1997, 346; it is no. 03764 in NASA's website, had a central width of only 102 km and a duration of only one minute. Moreover, it was not total at Athens, but only over the western Euxine (cf. <https://eclipse.gsfc.nasa.gov/5MCSEmap/-0499--0400/-430-08-03.gif>).

<sup>159</sup> Th. 2. 56–7; he notes the presence of plague among the troops. On the problems in Plutarch's account see Stadter 1989, 284–9.

<sup>160</sup> Th. 2. 28, τοῦ δ' αὐτοῦ θέρουσ νοσηνιὰ κατὰ κελήνην, ὡσπερ καὶ μόνον δοκεῖ εἶναι γίνεσθαι δυνατόν, ὁ ἥλιος ἐξέλιπε μετὰ μεσημβρίαν καὶ πάλιν ἀνεπληρώθη, γενόμενος μηνσοειδῆς καὶ ἀστέρων τινῶν ἐκφανέντων. Thucydides' claim is astronomically correct.

<sup>161</sup> Hipp. *Ref.* 1. 8. 9 (fr. A 42 VS).

<sup>162</sup> Gomme 1956, 88–9.

<sup>163</sup> Stadter 1989, 320. He does not mention the expedition of 431.

<sup>164</sup> D. S. 12. 42. 7–44, with Gomme 1956, 85.

<sup>165</sup> Th. 2. 23. 2, 25–6, and 2. 56–7; D. S. 12. 42. 7 and 12. 45. 3.

Only the first expedition can have coincided with the eclipse, and only the second attacked Epidaurus and was affected by the plague.<sup>166</sup> Both expeditions consisted of a hundred Athenian triremes (Plutarch's extra fifty were supplied by Chios and Lesbos).<sup>167</sup> However, we may not deduce from the fact that Carcinus and others were in charge in 431 that Plutarch or anyone else invented the story, since Pericles as a trierarch would have been obliged —and eager— to take part in the first expedition also. The story is neatly tidied up, since it makes the 'fulfilment' of the 'evil omen' occur a year sooner than in reality. Once it was clear that the failure at Epidaurus could be laid at the door of the expedition's leader, it could readily be interpreted as a divine punishment for his impious remark on the previous occasion.

The tale Plutarch tells is not good history, but is devastatingly potent as populist religious propaganda. No doubt Diopeithes presented it thus when he argued for making astronomy illegal, since he believed that Anaxagoras' 'atheistic' teaching had prompted Pericles not just to ignore dangerous signs of divine wrath, but actually to provoke it. Diopeithes' decree was the first legislation against astronomy at Athens and the first challenge to freedom of thought and academic freedom there; never before had 'legislation ... sought to govern people's intellectual beliefs about the nature of the world'.<sup>168</sup> The procedure of impeachment before the whole popular assembly (*eisangelia*) was the most intimidating form of trial that existed in Athens, as most such cases led to the death penalty.<sup>169</sup> If the decree was voted not in wartime, when we might expect things to be worse, but during the apogee of Athens under Pericles' leadership, it is puzzling that it was passed. The logical context for the passage of Diopeithes' decree is not c.437, as is usually thought,<sup>170</sup> nor 431, after the eclipse, but later in 430, after the failure of the second expedition against the Peloponnese under Pericles' personal leadership.<sup>171</sup> Pericles' leading position was not seriously challenged until then.<sup>172</sup> That was the only occasion when he was put on trial, resulting in a fine and his deposition from the generalship.<sup>173</sup> Gomme put the attacks on Aspasia and Anaxagoras in 430, 'when hostility to Perikles was at its height and superstition excited by the terrors of the pestilence'. His enemies exploited religion to attack him,<sup>174</sup> but could only do so in the context of the terror induced by the plague. Even the ostracism of Damon fits best late in the year 430.<sup>175</sup>

The language of Diopeithes' decree proves that it was aimed specifically at Anaxagoras and his Ionian followers. For Plutarch gives its wording as εἰσαγγέλλεσθαι τοὺς τὰ θεῖα μὴ νομίζοντας ἢ λόγους περὶ τῶν μεταρτίων διδάσκοντας, i.e. 'those who do not believe in the gods or teach arguments about the heavens are to be tried before the people'.<sup>176</sup> The expression 'atheists and teachers of astronomy' is a hendiadys for 'atheistic astronomers'. μετάρτια is not the Attic word for 'things in the sky', which is μετέωρα: as Stadter says, 'the use of the form is puzzling, as it reflects neither Attic

<sup>166</sup> Th. 2. 56–7.

<sup>167</sup> Th. 2. 56. 2.

<sup>168</sup> Whitmarsh 2015, 118.

<sup>169</sup> Whitmarsh 2015, 117.

<sup>170</sup> Mansfeld 1979, 39–65, and 1980, 84–9. Whitmarsh 2015, 117, opts simply for the 430s.

<sup>171</sup> So Rubel 2014, 37–40 (= 2000, 104–9), who however argues for this date only on the basis of general probability.

<sup>172</sup> Gomme 1956, 185.

<sup>173</sup> Th. 2. 65. 4.

<sup>174</sup> Dodds 1951, 189–91, 201; Finley 1964, 64–5.

<sup>175</sup> Gomme 1956, 186–8, referring to Plut. *Per.* 32. 3 and Pl. *Alc.* I, 118 C, where Alcibiades says that Pericles still associates with Damon 'even though he is so old' (καὶ τηλικούτος ὢν).

<sup>176</sup> Plut. *Per.* 32. 1; cf. *Mor.* 169E; D. S. 12. 39. 2; D. L. 2. 12.

prose usage nor Plutarch's own'<sup>177</sup> —except precisely where Plutarch says that, because of Anaxagoras, Pericles 'was stuffed with so-called μετεωρολογία and μεταρσιολεσχία'.<sup>178</sup> Otherwise μετάρσιος is a poetic and Ionic word, being used by Hecataeus, Herodotus, and Hippocrates.<sup>179</sup> Bolonyai alleges that its use proves that the decree is unhistorical,<sup>180</sup> but it shows exactly the reverse:<sup>181</sup> Diopeithes himself deliberately chose μετάρσια in order to evoke Ionian natural scientists, notably Anaxagoras.<sup>182</sup> In addition, a comic neologism μεταρσιολεσχῆν (fitting nicely into anapaests) was evidently coined in the atmosphere surrounding this decree, since a scholium to Aristophanes' *Clouds* says that Aristophanes based a related word on it,<sup>183</sup> and the pseudo-platonic *Sisyphus* uses μεταρσιολέσχαι as a sobriquet for Anaxagoras and other natural scientists.<sup>184</sup> The word sounds like a comic poet's invention: Plutarch modifies it only slightly when he uses μετεωρολέσχης in the famous passage where he talks about the Athenians' anti-intellectual reaction.<sup>185</sup>

Diopeithes was a *chresmologos*,<sup>186</sup> politician,<sup>187</sup> and associate of the disastrously superstitious Nicias.<sup>188</sup> He was the author of a decree about the privileges of Methone in Macedonia in, precisely, the year 430.<sup>189</sup> Comic poets writing during the Archidamian War describe him as rather crazy,<sup>190</sup> which befits religious fanaticism;<sup>191</sup> as Nilsson noted,<sup>192</sup> a diviner would have had a motive to attack Anaxagoras, since the latter had competed with the seer Lampon to interpret the portent of the one-horned ram,<sup>193</sup> and the whole profession might feel that its standing was under threat. Aristophanes mocks Diopeithes together with Lampon in the *Birds* of 414.<sup>194</sup> The Diopeithes who produced an Apolline

<sup>177</sup> Stadter 1989, 300.

<sup>178</sup> Plut. *Per.* 5. 1.

<sup>179</sup> *LSJ* s.v. μετάρσιος.

<sup>180</sup> Bolonyai 2007, 250 n. 13. Dover rejected the decree entirely (1975, 39–40 = 1988, 146–7). *Contra*: Whitmarsh 2015, 117–18.

<sup>181</sup> Flacelière and Chambry (1964, 235) note that the words εἰσαγγέλλεσθαι and τὰ θεῖα (instead of τοὺς θεοὺς) are also drawn from the decree's original text.

<sup>182</sup> Similarly, Socrates' Thinkery is called a φροντιστήριον because φροντίζειν has the sense 'think' in Ionic, whereas it means 'worry' in Attic (Burnet (1924) on Pl. *Ap.* 18<sup>b</sup>7); for the same reason, Ameipsias' *Connus* of 423 had a chorus of φροντισταί, i.e. intellectuals, which may have included Socrates, unless they rejected him as too disgusting (test. ii in Ath. 5. 218 C, with fr. 9,2 K.–A.). The satire of Ionian science is evident.

<sup>183</sup> Sch. Ar. *Nub.* 320e, cf. 331a, 333g, arg. *Ran.* 4,13.

<sup>184</sup> [Pl.] *Sis.* 389 A, περί τοῦ ἀέρος Ἀναξαγόραν τε καὶ Ἐμπεδοκλέα καὶ τοὺς ἄλλους τοὺς "μεταρσιολέσχας" ἅπαντας οἶσθα ζητοῦντας. This work, which has connections with Thessaly, is dated to the mid-4th cent. BCE (Müller 1975, 94–104).

<sup>185</sup> Plut. *Nic.* 23. 4.

<sup>186</sup> Flower 2008, 124, citing Plut. *Per.* 32. 2; Connor 1963; Ostwald 1986, 528–32; Dover 1988, 146–7; Yunis 1988, 68–70.

<sup>187</sup> ῥήτωρ (sch. Ar. *Av.* 988).

<sup>188</sup> Sch. Ar. *Eq.* 1085.

<sup>189</sup> *IG I<sup>2</sup>* 61 (no. 65 in Meiggs and Lewis 1969).

<sup>190</sup> ὑπομανιώδης (Telecleides, *Amphictyones* fr. 7 *PCG*, paraphrase?); Διοπιέθει τῶ παραμανιομένῳ (Ameipsias, *Connus* fr. 10, performed at the same City Dionysia of 423 where the *Clouds* was staged, again a phrase suited to anapaests).

<sup>191</sup> Dunbar 1995, 550, on Ar. *Av.* 988.

<sup>192</sup> Nilsson 1967, i. 767–8.

<sup>193</sup> Plut. *Per.* 6 (Anaxag. fr. A 16 *VS*).

<sup>194</sup> Ar. *Av.* 988: so Derenne 1930, 19–20; Nilsson 1967, i. 767–8; Schachermeyr 1968, 61–2. *Contra*: Mansfeld 1980, 36 n. 147; Dunbar 1995, 550, on Ar. *Av.* 988.

oracle to support Leotychidas' claim to the throne of Sparta as late as 397 was probably the same man.<sup>195</sup>

The decree's immediate effect was to outlaw the teaching of astronomy by equating it with impiety or atheism.<sup>196</sup> It implies a twofold accusation—that Anaxagoras did not believe in the gods, and that by teaching astronomy he had corrupted others. The fact that Daïmachus of Plataea discussed the fall of the meteorite at Aegospotami and Anaxagoras' interpretation of it in his book *On Piety* proves that his view that heavenly bodies were material was widely considered impious; although Anaxagoras held that divine Nous was the guiding principle of the universe, it was obviously hard to see how Nous was actually involved in his mechanistic account of the cosmos, as Plato makes Socrates observe.<sup>197</sup> Also, although in 399 Socrates was not tried by *eisangelia* as he would have been under the decree of Diopieithes,<sup>198</sup> and it was hard to accuse him of teaching astronomy specifically, the wording of Meletus' *graphē* against him is, minus the reference to astronomy, a reprise of that decree, since it combines a modified accusation of 'atheism' with a charge of corrupting others by his teaching.<sup>199</sup>

By getting his decree passed, Diopieithes was free to denounce Anaxagoras to the people himself, but we are not told that he did so. The confusion as to whether Cleon (so Sotion)<sup>200</sup> or Thucydides son of Melesias (so Satyrus)<sup>201</sup> brought the prosecution may result from later speculation or invention, as has often been assumed. However, rather than jettison what evidence we have, we may do better to save the phenomena by positing a joint prosecution by both politicians, in which Diopieithes could have also have taken part. Thucydides had already returned from his exile,<sup>202</sup> and Cleon was already active by 430.<sup>203</sup> The superannuated aristocrat could well have lent his name to the younger populist's bid to topple Pericles, whom both hated.

The details of the chronology are complex, and the various trials evidently overlapped. As Plutarch put it, 'with Pheidias out of the way, Aspasia about to be tried and Diopieithes' decree carried, οὕτως ἤδη ψήφισμα κυροῦται, Δρακοντίδου γράψαντος ...';<sup>204</sup> the motion of Dracontides led directly to the trial of Pericles. The trials of Pericles' associates were already causing the statesman some difficulty. Although the trial of Aspasia (for impiety?) ended, after some trouble on Pericles' part, in her acquittal, Plutarch makes clear that the case against Pheidias was making Pericles look guilty of peculation. The decree of Dracontides ordered Pericles to submit accounts; this decree was surely related to the case of Pheidias, since it stipulated that the *prytaneis* would use ballots taken from the altar of Athena on the acropolis, as if this were a sacred case.<sup>205</sup> Thus, according to Plutarch, both Anaxagoras and Pericles were in peril from trials

<sup>195</sup> X. *Hell.* 3. 3. 3 with Dillery 2005, 186.

<sup>196</sup> Rubel 2014, 30 (= 2000, 82–4); Whitmarsh 2015, 64–6.

<sup>197</sup> Pl. *Phaedo* 97 B–99 D.

<sup>198</sup> Rubel 2014, 255 n. 11 (= 2000, 345 n. 9). On whether the decree was still in force in 399 see Whitmarsh 2015, 263 n. 3, correcting Brickhouse and Smith 1989, 32–3.

<sup>199</sup> With εἰσαγγέλλεσθαι τοὺς τὰ θεῖα μὴ νομίζοντας ἢ λόγους περὶ τῶν μεταρσίων διδάσκοντας (Plut. *Per.* 32. 2) cf. ἀδικεῖ Ἐωκράτης, οὐκ μὲν ἡ πόλις νομίζει θεοῦς οὐ νομίζων ... καὶ τοὺς νέους διαφθείρων (D. L. 2. 40).

<sup>200</sup> D. L. 2. 12, quoting Sotion fr. 3 Wehrli in his *Succession of the Philosophers*.

<sup>201</sup> D. L. 2. 12 = Satyrus F 16 Schorn.

<sup>202</sup> Above, §III.

<sup>203</sup> Plut. *Per.* 33. 8, quoting Hermippus fr. 47 *PCG*, probably from the *Moirai* of 430; the passage satirizes Pericles' refusal to fight the Spartans, which suits the first half of 430.

<sup>204</sup> Plut. *Per.* 32. 2.

<sup>205</sup> Plut. *Per.* 32. 3, with Stadter 1989, 301.

before the entire assembly, i.e. *eisangelia*,<sup>206</sup> until Pericles' supporter Hagnon passed a motion that Pericles should undergo trial by jury, albeit an extraordinarily large one.<sup>207</sup> Historians have disputed whether the accounting required by Dracontides is the same as that recorded by Thucydides in the late summer of the year 430, after Hagnon had returned from an expedition to Chalcidice,<sup>208</sup> when Pericles was removed from office and fined.<sup>209</sup> It surely was; for, as Gomme noted, 'Pericles' own return from a not very successful expedition will have encouraged his enemies'.<sup>210</sup> Meanwhile, Plutarch continues, Pericles was afraid and spirited Anaxagoras out of Athens;<sup>211</sup> he then recounts how Pericles was deposed and fined.<sup>212</sup> Plutarch even adds that, at the same time, Pericles' eldest son Xanthippus quarreled with his father and exposed to public mockery his father's conversations with intellectuals (*sophistai*) such as Protagoras;<sup>213</sup> this cannot have aided Anaxagoras' prospects. Plutarch certainly implies that the trials of Aspasia, Pheidias, Anaxagoras, and Pericles all happened at the same time, and the onus should fall on the sceptics to prove that his relative chronology is wrong, despite his confusion over the two naval expeditions against the Peloponnese.

Hermippus states that Anaxagoras was imprisoned awaiting execution;<sup>214</sup> 'awaiting trial' must be meant, in a case in which Pericles had to represent him as his *προστάτης*, but everyone clearly expected him to be condemned. He did not fare well in jail. One anecdote says that, while there, he worked on squaring the circle.<sup>215</sup> But a story in Plutarch that Pericles found him lying neglected, old, and close to death may date from his time in jail.<sup>216</sup> Hieronymus says that Pericles led him in to the trial, exhausted and wasted by illness (or plague?).<sup>217</sup> In a newly restored passage, Philodemus states that his pitiful state when he was brought into the trial was a result of torture:

καὶ κυκοφάνται]ς καὶ δυσμενέσιν ἄ[πασιν εὐάλ]ωτο[ι] γείνοντα[ι (sc. οἱ φιλόσοφοι), ὡς] Ἄναξαγόρας, ὃς μ[α]στιγωθεὶς τοὺς μῶλωπας ἐπεδείκνυεν τοῖς δικασταῖς, καὶ Πυθαγόρας, ᾧ Κύλων ὁ Κροτωνιάτης ἐπαγαγὼν

<sup>206</sup> For arguments that Pericles was to be prosecuted by *eisangelia* see Bakola 2010, 217 n. 78.

<sup>207</sup> Plut. *Per.* 32. 4.

<sup>208</sup> So Bakola 2010, 217 with n. 79.

<sup>209</sup> Th. 2. 59–65. 3. Stadter 1989, 301 and 323–4, thinks they are different, but Gomme (1956, 187), Dodds (1959) on Pl. *Grg.* 516 A, and others equate them (Bakola 2010, 216 n. 73). Hagnon was then tried for financial impropriety; his trial was parodied in Cratinus' *Ploutoi* of early in 429 (Bakola 2010, 214–18).

<sup>210</sup> Gomme 1956, 166, on Th. 2. 59. 1.

<sup>211</sup> Plut. *Per.* 35. 5, Ἄναξαγόραν δὲ φοβηθεὶς ἐξέπεμψεν ἐκ τῆς πόλεως.

<sup>212</sup> Plut. *Per.* 35. 4.

<sup>213</sup> Plut. *Per.* 36. 4–5.

<sup>214</sup> D.L. 2. 13, quoting Hermippus' *Lives* (fr. 30 Wehrli).

<sup>215</sup> Plut. *Mor.* 607 F, = VS 59 A 24.

<sup>216</sup> Plut. *Per.* 16. 8–9: τὸν Ἄναξαγόραν αὐτὸν λέγουσιν ἀσχολουμένου Περικλέους ἀμελούμενον κεῖσθαι συγκεκαλυμμένον ἤδη γηραιὸν ἀποκαρτεροῦντα, προσπερόντος δὲ τῶ Περικλεῖ τοῦ πράγματος, ἐκπλαγέντα θεῖν εὐθύς ἐπὶ τὸν ἄνδρα καὶ δεῖσθαι πᾶσαν δέησιν, ὀλοφυρόμενον οὐκ ἐκείνον, ἀλλ' ἑαυτὸν, εἰ τοιοῦτον ἀπολεῖ τῆς πολιτείας σύμβουλον. ἐκκαλυψάμενον οὖν τὸν Ἄναξαγόραν εἶπεῖν πρὸς αὐτόν: „ὦ Περικλεῖς, καὶ οἱ τοῦ λύχνου χρεῖαν ἔχοντες ἔλαιον ἐπιχέουσιν". If this story does pertain to his imprisonment, it may reflect the role of family or *prostatai* in caring for prisoners (cf. Hunter 1997, 12).

<sup>217</sup> D. L. 2. 14 (διερρηγμένον καὶ λεπτόν ὑπὸ νόσου), quoting Book 2 of his *Miscellaneous notes* (fr. 41 Wehrli).

πρ[άγ]ματα τῆς πόλεως ἐξέβαλε, τοῦ[ς] δὲ μαθητὰς ἀθρόους ἐνέ[π]ρησε,  
καὶ Ἐω[κρά]της, ὧι τὸ μὲν πρό[τερον] ...

(Philosophers) are easily caught by slanderers and all their enemies, like Anaxagoras, who after his flogging showed his welts to the jurors, Pythagoras, whom Cylon of Croton persecuted and expelled from the city, and burned his followers alive *en masse*, and Socrates, for whom at first ...<sup>218</sup>

The torture of citizens was forbidden,<sup>219</sup> but Anaxagoras' alien status as a metic meant that he could be tortured more readily.<sup>220</sup>

Satyrus adds the peculiar detail that, while he was languishing in jail, he was told of his condemnation to death and of the deaths of his sons (plural) at the same time:

ὅτε καὶ ἀμφοτέρων αὐτῷ προσαγγελέντων, τῆς τε καταδίκης καὶ τῆς τῶν παίδων τελευτῆς, εἰπεῖν περὶ μὲν τῆς καταδίκης, ὅτι ἄρα “κάκείνων κάμου ἡ πάλαι ἢ φύσις κατεψηφίσατο,” περὶ δὲ τῶν παίδων, ὅτι “ἦδειν αὐτοὺς θνητοὺς γεννήσας”.

When both pieces of news had been brought to him, that of his condemnation and that of the deaths of his sons, he said regarding his condemnation that after all ‘nature long ago condemned both them and me’, and regarding his sons that ‘I knew I had begotten them as mortals’.<sup>221</sup>

The extraordinary circumstance that more than one of his sons died at the same time suggests that they died of plague in Athens in the year of its greatest virulence, i.e. 430, just as Pericles' own sons died, and that Anaxagoras heard this news together with that of his condemnation from Pericles, who had come to the prison personally to arrange his removal from Athens. This story proves decisively that Anaxagoras was tried in 430. Plutarch's anecdote that Pericles found him close to death as a result of neglect<sup>222</sup> would also suit the time of the plague; perhaps his jailers were ill or caring for others. Demetrius of Phalerum points to the same conclusion by recording that in his old age he buried his sons with his own hands.<sup>223</sup> Satyrus' story implies that Anaxagoras had brought his family to Athens; perhaps some members of it accompanied him to Lampsacus into exile, or indeed his pupil Archelaus, who, according to Eusebius, Archelaus succeeded him there.<sup>224</sup>

Our sources disagree about the outcome of the trial. Hieronymus says that Anaxagoras was released more from pity than judgement.<sup>225</sup> Hermippus says that Pericles came forward and asked whether they (presumably the jurors) had anything to reproach him with in his life [i.e. Anaxagoras was accused of corrupting others]; when they said no, he said ‘I am this man's pupil; so do not rely on slander and kill the man, but take my advice and let him go’, and he was released.<sup>226</sup> Sotion reports that he was fined five talents

<sup>218</sup> Phld. *Rhet.* 4, *P. Herc.* 245 fr. 7 ~ 224 fr. 15 (ii. 175, ii. 180 Sudhaus) = fr. A 20 VS, but with the text improved by David Blank from autopsy of the papyrus (pers. comm.).

<sup>219</sup> And. *Myst.* 43 with MacDowell's n.

<sup>220</sup> Kamen 2013, 49, citing Lys. 13. 27, 54, 59.

<sup>221</sup> D. L. 12. 13, with Mansfeld 1980, 20.

<sup>222</sup> Plut. *Per.* 16. 8–9, quoted above n. [216].

<sup>223</sup> Demetrius of Phalerum, *On Old Age*, fr. 150 Wehrli = fr. 84 Schütrumpf, in D. L. 2. 13.

<sup>224</sup> Mansfeld 1980, 86–7.

<sup>225</sup> D. L. 2. 14 (διερρημένον καὶ λεπτόν ὑπὸ νόσου), quoting Book 2 of his *Miscellaneous notes* (fr. 41 Wehrli).

<sup>226</sup> D.L. 2. 13, quoting Hermippus' *Lives* (fr. 30 Wehrli).

(a huge sum) and exiled.<sup>227</sup> Josephus says that he was condemned to death by a margin of a few votes because he said the sun was a stone.<sup>228</sup> Satyrus states that he was condemned to death *in absentia*;<sup>229</sup> this probably means that he had already been evacuated from Athens after the negative verdict. The contradictory reports of Anaxagoras' punishment may reflect a confusion between the penalty that the prosecutors demanded (death), and Pericles' counter-proposal after the jurors' verdict of condemnation but before the penalty was determined by a further vote. Whatever the decision, it was rendered moot, since Anaxagoras had already left Athens.

Pericles' rescue of Anaxagoras proves that he expected that the jury would condemn the philosopher to death. Why should it have seemed so to him? The reason must be that Pericles was himself in trouble at the time, not only because of the distress of the rural Athenians who were cooped up inside their walls while the Spartans burned their farms, but above all because the plague had broken out both within the confines of the crowded city and in the fleet and army. Only the disastrous effect of the plague on the city's morale<sup>230</sup> and a concomitant outbreak of religious hysteria could have induced the Athenians so greatly to fear astronomy that they, alone among the Greeks so far as we know, voted for legal measures against it, while at the same time deposing their long-trusted leader Pericles, whose fall was satirized in Cratinus' *Ploutoi* of early in 429.<sup>231</sup> Whitmarsh is right that Sophocles' *Oedipus the King* would have evoked his fall to contemporary audiences,<sup>232</sup> however scandalous and tasteless such an interpretation may seem to those of us who revere both Pericles and Sophocles equally. However, both here and in the *Antigone*, Sophocles is unforgiving towards apparently 'enlightened' rulers who disrespect the gods and challenge seers, as Anaxagoras (and through him Pericles) had challenged Lampon. Hence I would date the *Oedipus* too to 429 or thereabouts.<sup>233</sup>

After the trial Pericles had Anaxagoras conveyed to Lampsacus, because the philosopher had lived and taught there before; his follower Metrodorus was still there, and perhaps Anaxagoras even owned a house in the city, which as a metic he could not do in Athens (he had passed his agricultural land in Clazomenae to his family).<sup>234</sup> At Lampsacus Anaxagoras would have found his pupils Metrodorus<sup>235</sup> and, according to Eusebius, Archelaus.<sup>236</sup> The latter's activity in Lampsacus belongs to the period after Anaxagoras' exile, and suggests that Anaxagoras had founded a school there before he moved to Athens. He died in Lampsacus<sup>237</sup> at most two and a half years later, in part because of the mental and physical weakness and illness that resulted from his

<sup>227</sup> D. L. 2. 12, quoting Sotion fr. 3 Wehrli in his *Succession of the Philosophers*.

<sup>228</sup> Ios. *Ap.* 2. 265, where Hudson proposed to emend μύλον 'millstone' to μύδρον 'pig of molten iron'. Is the reference to a few votes based on the case of Socrates' condemnation?

<sup>229</sup> ἀπόντα καταδικασθῆναι θανάτου, in D. L. 2. 12 = F 16 Schorn.

<sup>230</sup> Th. 2. 53–4.

<sup>231</sup> Bakola 2010, 213–20.

<sup>232</sup> Whitmarsh 2015, 102–6.

<sup>233</sup> In the latest major edition of the play, Finglass (2018, 3–6) agrees with others precisely in excluding such a date, on the ground that the impact of the plague was too traumatic for it to have been mentioned.

<sup>234</sup> D. L. 2. 6–7 (fr. A 1 VS); Pl. *Hipp. maj.* 283 A, Plut. *Per.* 16 (fr. A 13 VS); Val. Max. 8. 7. 6 (fr. A 31 VS).

<sup>235</sup> Sider 1997, 137.

<sup>236</sup> Mansfeld 1980, 86–7.

<sup>237</sup> He was asked whether he wanted to be taken back to Clazomenae to die, but declined (Cic. *Tusc.* 1. 43. 104).



imprisonment and torture in Athens.<sup>238</sup> Several reports indicate that Anaxagoras did not live long at Lampsacus, and indeed ended his own life. Hermippus says that he did not endure the outrage and made away with himself,<sup>239</sup> and the *Suda* makes the same point.<sup>240</sup> This confirms that he was tried only shortly before his death, which suits 430 better than a date earlier in that decade.<sup>241</sup> Alternative reconstructions of his life, like that of Meiggs,<sup>242</sup> require their proponents to posit that Anaxagoras did not stay continuously in Athens, so that he could establish a school in Lampsacus at the same time.

Thus we may deduce that the Lampsacenes honoured Anaxagoras after his death because of his decades-long association with their city. The high reputation that he had there cannot have been earned by a broken man: the state funeral and posthumous honours that he received from the citizens, which perhaps were recorded by Charon of Lampsacus<sup>243</sup> and certainly by Alcidas of Elaea,<sup>244</sup> confirm that his relation with the city was of long standing, and imply an earlier sojourn and the kind of lasting contribution to civic life that a dying philosopher could not have made.

To recapitulate Anaxagoras' life, he began to study astronomy at the age of twenty in 480 BC, but in Ionia, not in Athens. The annular eclipse of 478, which obscured the whole Peloponnese, led him to deduce (probably from talking to Peloponnesian sailors that summer) that the sun was a body larger than the Peloponnese and publish it in his book, along with the claim that the heavenly bodies were fiery stones held in place by a vortex and might fall from their orbits if its motion slackened. A year or two later, the latter claim seemed to be vindicated by the fall of the meteorite at Aegospotami near Lampsacus in c.466. He became famous, and Themistocles invited him to his court; he probably lived at Lampsacus until 460, when his patron died. He then moved to Athens, where Pericles, the successor to Themistocles' policies, became his patron. He stayed for thirty years, until the autumn of 430, when the plague had just broken out. Many Athenians blamed its terrifying outbreak on Pericles' acceptance of his 'atheistic' explanations of eclipses and other phenomena. Following Diopithes' decree against 'atheists' who taught astronomy, Anaxagoras was condemned, and Pericles fell with him. The philosopher went into exile in Lampsacus, because he had lived there earlier and was popular there, but he died two years later.

Anaxagoras' condemnation leads to further thoughts about the populist side of Athenian democracy. We might suppose that a democracy would protect freedom of thought and expression, enabling a tiny group of scientists and free-thinkers like Anaxagoras to continue to advance the sum of human knowledge by studying astronomy and similar topics. But Athenian democracy had no statutory protection for freedom of speech or freedom of thought: both slander and impiety were crimes for which extreme penalties could be inflicted if the majority on an Athenian jury saw fit. As, under the extraordinary pressures of the war and the plague, their leaders metamorphosed from leading the people to being led by them, the worse arguments tended to oust the better

<sup>238</sup> Cf. *Suda* s.v. (fr. A 3 VS), καταστρέφει τὸν βίον ἀποκατερήσας. Plutarch's anecdote about how Pericles found him close to death in Athens (*Per.* 16 = fr. A 32 VS) uses the similar phrase ἀμελούμενον κείσθαι συγκεκαλυμμένον ἤδη γηραιὸν ἀποκατερήσας.

<sup>239</sup> D.L. 2. 13, quoting Hermipp. Hist. fr. 30 Wehrli; Hermippus is fond of the motif of suicide, as Mansfeld notes (1980, 21).

<sup>240</sup> *Suda* s.v.

<sup>241</sup> Pace Mansfeld 1980, 21 n. 98.

<sup>242</sup> Meiggs 1972, 283–4, 435–6.

<sup>243</sup> Woodbury 1981, 312 n. 48.

<sup>244</sup> D. L. 2. 14–15 (fr. A 1 VS); Alcidas fr. 10 Avezzù (presumably in his *Mouseion*) in Arist. *Rhet.* 2. 23, 1398<sup>a</sup>15 (fr. A 23 VS), Λαμψακηνοὶ Ἀναξαγόραν ξένον ὄντα ἔθαψαν καὶ τιμῶσιν ἔτι καὶ νῦν.

and the Athenians' real commitment to the rule of law was gradually undermined, beginning with the trials of intellectuals, until the democracy itself collapsed in the oligarchic revolutions of 411 and 404.<sup>245</sup> Following Dover,<sup>246</sup> recent historians have assumed that the trial of Socrates in 399 was an aberration that occurred mainly for political reasons.<sup>247</sup> The political reasons were real; amid the heated atmosphere of the war and the plague, the religious views of men like Diopieithes and Meletus could be exploited by ambitious politicians like Cleon and Anytus in order to settle scores with opponents, i.e., respectively, Pericles and the Thirty. For the last three decades of the fifth century impiety trials were frequent in 'the school of Hellas', with real and drastic effects on intellectual endeavour, as Dodds eloquently documents and cogently explains in a few unsurpassed pages of *The Greeks and the Irrational*.<sup>248</sup> For reasons of space, I will only mention a few salient examples, which are as well known as they are controversial (again, we must keep in mind that fifth-century Athenian democracy lacked the checks and balances that have proved vital to the longevity of modern democracies).

According to Diogenes Laertius, Protagoras was condemned for impiety, and copies of his book were burned in the agora; he had professed agnosticism, since he had dared to publish a book which declared that he did not know whether or not there were gods.<sup>249</sup> In 421 the comic poet Eupolis called him 'a sinner regarding heavenly matters', which is either a reference to his trial for impiety or an incitement to it;<sup>250</sup> we do not know exactly when he was prosecuted, but it was surely in or after 421 (he was in Athens in 421).<sup>251</sup> Two years earlier, Aristophanes had caricatured Socrates in the *Clouds* as another such sinner; just six years later, the Athenians, abolishing the ban on the torture of citizens, sentenced many people to death for parodying or defaming the Eleusinian Mysteries and vandalizing the Herms, and passed a death sentence on Diagoras of Melos for revealing the Mysteries and discouraging people from becoming initiated.<sup>252</sup> Epicurus attests that Diagoras was an atheist intellectual like Prodicus and Critias, who explained away the gods by etymologizing their names: 'Epicurus criticized for their total insanity those who eliminate the divine from reality, as in Book 12 (sc. of *On Nature*) he criticizes Prodicus, Diagoras, Critias and others, saying that they are raving mad, and compares them to Bacchic revellers, telling them not to give us trouble or bother us. For they change the letters in the names of the gods.'<sup>253</sup>

<sup>245</sup> For consideration of what the rule of law meant in classical Athens see Forsdyke 2018; for a different view see Whitmarsh 2015, 119–20.

<sup>246</sup> Dover 1975.

<sup>247</sup> e.g. Parker 1996, 199–217.

<sup>248</sup> Dodds 1951, 189–93; see the epigraph to this article. Scholars' scepticism about Athenian intolerance, both in the nineteenth century and today, results from a failure of imagination: as he put it, with a delicate irony, 'nineteenth-century professors ... had not our advantage of familiarity with this kind of behaviour' (189). This thesis is demonstrated at book-length by Rubel 2000 and 2014.

<sup>249</sup> D. L. 9. 51–2.

<sup>250</sup> Eupolis, *Kolakes* fr. 157 K.–A.:

ἔνδον μὲν ἔστι Πρωταγόρας ὁ Τήϊος,  
ὅς ἀλαζονεύεται μὲν ἀλιτήριος  
περὶ τῶν μετεώρων, τὰ δὲ χαμᾶθεν ἐσθίει.

<sup>251</sup> Ath. 5. 218 c.

<sup>252</sup> Janko 2002, 5–15. Whitmarsh (2015, 123) dates his condemnation to 416/15, but the evidence of D. S. 13. 6 (T 17 Winiarczyk) and of Al-Mubaššir (T 10) that it occurred when Charias was archon (415/14) is unequivocal.

<sup>253</sup> The crucial evidence, missed by Winiarczyk (1979–80 and 2016) and Whitmarsh 2015, is Epic. *Nat.* 12, quoted by Philodemus, *Piet.* col. 19, lines 518–41 Obbink: [αὐτ]οῖς δὲ καὶ πᾶσαν μ[ανίαν] Ἐ[πίκουρος] ἐμ[έμψα]το τοῖς τὸ [θεῖον] ἐ[κ] τῶν ὄντων

Pericles' embrace of the intellectual and scientific Enlightenment led by Anaxagoras, when combined with the terrible effects of the war and the plague, was exploited by his political and cultural enemies as an excuse to unleash a fundamentalist reaction in Athens against philosophy and science, which began with the exile of Anaxagoras and culminated in the execution of Socrates. Only a tiny minority of freethinkers were prepared to question the apparent realities of our world—whether the earth is a flat disk shaped like a drum, whether the sun is a god who looks down upon mortals in his daily traverse across the sky, and whether an eclipse is an omen sent by supernatural powers. Their willingness to question it, and to think freely enough to do so, was a achievement profoundly important in the history of civilization and in the unmasking of the myths on which populist falsehoods feed. Their existence is an extraordinary testimony to the creativity that the Greek network of numerous, self-governing city-states made possible; but the variety of Greek political institutions also made possible the most extreme repression under the pressure of the plague, which seemed like a divine punishment for which scapegoats needed to be found. Anaxagoras was only the first such scapegoat. According to Plutarch, describing the situation in 413, the Athenians 'could not stand the natural scientists and those who were then called "astronomaniacs", on the ground that they reduced the divine to irrational causes, non-providential powers, and obligatory effects'. As evidence, he adds that 'Protagoras went into exile, Pericles only just saved Anaxagoras who had been imprisoned, and Socrates perished on account of philosophy, even though none of these things had anything to do with him'.<sup>254</sup>

#### Bibliography

- Adcock, F. E., Bury, J. B., and Cook, S. A. (eds.). 1923–39. *The Cambridge Ancient History* (Cambridge).
- Andrewes, A. 1978. 'The Opposition to Perikles', *JHS* 98: 1–8.
- Bakola, E. 2010. *Cratinus and the Art of Comedy* (Oxford).
- Bauman, R. 1990. *Political Trials in Ancient Greece* (London and New York).
- Bolonyai, G. 2007. 'Protagoras the Atheist', *Rhizai* 4: 247–69.
- Brickhouse, T. C., and Smith, N. D. 1989. *Socrates on Trial* (Oxford).
- Broadhead, H. D. 1960. *The Persae of Aeschylus* (Cambridge).
- Burnet, J. 1924. Plato's *Euthyphro*, *Apology of Socrates*, and *Crito* (Oxford).
- Cahn, H. A., and Gerin, D. 1988. 'Themistocles at Magnesia', *NumChron* 148: 13–20.
- Chavannes, É., Kaltenmark, M., and Pimpaneau, J. translators. [1895] (2015), *Les Mémoires historiques de Se-Ma Ts'ien*, 9 vols. (Paris).
- Connor, W. R. 1963. 'Two Notes on Diopieithes the Seer', *CPh* 58: 116–18.
- Curd, P. 2007. *Anaxagoras of Clazomenae: Fragments and testimonia* (Toronto).
- Davies, J. K. 1971: *Athenian Propertied Families, 600–300 B.C.* (Oxford).

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[άναι]ροῦσιν, ὡς κἀ[ν τῶι] δωδεκάτω[ι Προ]δίκωι καὶ Δια[γόρ]αι καὶ Κριτίαι κἀ[λλοις] μέμφ[εται] φᾶς πα[ρα]κόπτειν καὶ μ[αίνας]θαι, καὶ βακχεύουσιν αὐτοῦς [εἰ]κἀ[ζει, κε]λεύσ[ας μ]ὴ πράγμα<θ> ἡμ[ε]ῖν παρέχειν μῆδ' (οὐδ *N: correxi*) ἐνοχλεῖν. κα[ὶ γὰρ] παραγραμμίζ[ουσι] τὰ τ[ῶ]ν θεῶν [όνό]ματα. See further Obbink 1995, 352–3.

<sup>254</sup> οὐ γὰρ ἠνείχοντο (sc. οἱ Ἀθηναῖοι) τοὺς φυσικοὺς καὶ "μετεωρολέσχας" τότε καλουμένους, ὡς εἰς αἰτίας ἀλόγους καὶ δυνάμεις ἀπρονοήτους καὶ κατηναγκασμένα πάθη διατρίβοντας τὸ θεῖον. ἀλλὰ καὶ Πρωταγόρας ἔφυγε, καὶ Ἀναξαγόραν εἰρχθέντα μόλις περιεποιήσατο Περικλῆς, καὶ Σωκράτης, οὐδὲν αὐτῶ τῶν γε τοιούτων προσῆκον, ὅμως ἀπώλετο διὰ φιλοσοφίαν (Plut. *Nic.* 23. 4). Note his simplifying adaptation of the comic coinage μεταρσιολέσχης (above, n. [178]).

- Delivorrias, A. 1994. 'Über die letzte Schöpfung des Phidias in Athen', in Pöhlmann, E., and Gauer, W. (eds.), *Griechische Klassik* (Nuremberg): 263–73.
- Derenne, E. 1930. *Les Procès d'impiété intentés aux philosophes à Athènes au Ve et au IVe siècle avant J.-C.* (Liège).
- Dillery, J. 2005. 'Chresmologues and *Manteis*: Independent Diviners and the Problem of Authority', in Johnston S. I., and Struck, P. T. (eds.), *Mantikê : studies in ancient divination* (Leiden): 167–231.
- Dodds 1951. *The Greeks and the Irrational* (Berkeley and Los Angeles).  
 — — 1959: *Plato. Gorgias* (Oxford).
- Dorandi, T. 2013. *Diogenes Laertius: Lives of Eminent Philosophers* (Cambridge).
- Dover, K. J. 1975. 'The Freedom of the Intellectual in Greek Society', *Talanta* 7: 24–54, reprinted in Dover, *The Greeks and their Legacy* 135–58.  
 — — 1988. *The Greeks and Their Legacy. Collected Papers 2: Prose Literature, History, Society, Transmission, Influence* (Cambridge).
- Dunbar, N. 1995. *Aristophanes, Birds* (Oxford).
- Finglass, P. J. 2018. *Sophocles: Oedipus the King* (Cambridge).
- Finley, M. I. 1964. *Aspects of Antiquity* (London).
- Flacelière, R., and Chambry, É. 1964. *Plutarque, Vies iii* (Paris).
- Flower, M. A. 2008. *The Seer in Ancient Greece* (Berkeley and Los Angeles).  
 — — 2009. 'Athenian Religion and the Peloponnesian War', in O. Palagia (ed.), *Art in Athens During the Peloponnesian War* (Cambridge 2009): 1–23.
- Forsdyke, S. 2018. 'Ancient and Modern Conceptions of the Rule of Law', in Canevaro, M., Erskine, A., Gray, B. D., and Ober, J., *Ancient Greek History and Contemporary Social Science* (Edinburgh): 184–212.
- Frost, F. J. 1980. *Plutarch's Themistocles: a Historical Commentary* (Princeton).
- Gomme, A. W. 1956. *A Historical Commentary on Thucydides II: Books II–III* (Oxford).
- Graf, D. F. 1984. 'Medism: the Origin and Significance of the Term', *JHS* 104: 15–30.
- Graham, D. W. 2008. 'Socrates on Samos', *CQ* 58: 308–13.  
 — — 2013. *Science before Socrates: Parmenides, Anaxagoras, and the New Astronomy* (Oxford and New York).
- Graham, D. W., and Hintz, E. 2007. 'Anaxagoras and the Solar Eclipse of 478 BC', *Apeiron* 40: 319–44.  
 — — 2010. 'An Ancient Greek Sighting of Halley's Comet?', *Journal of Cosmology* 9: 2130–6.
- Hill, G. F. 1951. *Sources for Greek History between the Persian and Peloponnesian Wars* (Oxford).
- Hornblower, S. 1991–2008. *A Commentary on Thucydides*, 3 vols. (Oxford).
- Horstmanshoff, H. F. J. 1989. *De pijlen van de pest. Pestilenties in de Griekse wereld 800–400 v. C.* (Amsterdam).
- Hunter, V. 1997. 'The Prison at Athens: a Comparative Perspective', *Phoenix* 51: 296–326.
- Janko, R. 2001. 'The Derveni Papyrus (Diagoras of Melos, *Apopyrgizontes Logoi?*): a New Translation', *CPh* 96: 1–32.  
 — —. 2006. 'Socrates the Freethinker', *The Blackwell Companion to Socrates*, ed. S. Ahbel-Rappe, Oxford: 48–62.  
 — — under submission. 'Excavating and Conserving Europe's Oldest Books: a Papyrus from Mangalia on the Black Sea (*P. Callatis* 1)'.
- Kamen, D. 2013. *Status in Classical Athens* (Princeton and Oxford).

- Kocahan, Ö., Ozel, M. E., Yildirim, H., Şengül, E., Özmaya, S. 2005. 'Meteorite Impact Crater Inventory of Turkey', conference 'Recent Advances in Space Technologies', July 2005.
- Landgraf, W. 1986. 'On the Motion of Comet Halley', *Astronomy and Astrophysics* 163: 246–60.
- Lolling, H. G. 1881. 'Mittheilungen aus Kleinasien. I. Ehrendekrete aus Lampsakos', *Ath. Mitt.* 6: 95–105.
- Mansfeld, J. 1979. 'The chronology of Anaxagoras' Athenian period and the date of his trial. Part I, The length and dating of the Athenian period', *Mnemosyne* 32: 39–69.
- — 1980. 'The chronology of Anaxagoras' Athenian period and the date of his trial. Part II, The plot against Pericles and his associates', *Mnemosyne* 33: 17–95 (both reprinted in id. 1990, *Studies in the Historiography of Greek Philosophy* (Assen): 264–306).
- Meiggs, R. 1972. *The Athenian Empire* (Oxford).
- Meiggs, R., and Lewis, D. 1969. *A Selection of Greek Historical Inscriptions to the end of the Fifth Century B.C.* (Oxford).
- Meursius, J. 1622. *Archontes Athenienses* (Leiden).
- Müller, C. W. 1975. *Die Kurzdialoge der Appendix Platonica* (Munich).
- Nilsson, M. P. 1967. *Griechische Religion* (Munich).
- Obbink, D. 1995. *Philodemus On Piety Part I* (Oxford).
- Ostwald, M. 1986. *From Popular Sovereignty to the Sovereignty of Law* (Berkeley and Los Angeles).
- Parker, R. 1996. *Athenian Religion: A History* (Oxford).
- Pelling, C. 2016. 'Herodotus, Polycrates — and maybe Stesimbrotus too?', *JHS* 136: 113–20.
- Raaflaub 2000. 'Prozesse in Umkreis des Perikles', in Burckhardt, L., and von Ungern, J. (eds.), *Grosse Prozesse im antiken Athen* (Munich): 96–113.
- Rhodes, P. J. 1981. *A Commentary on the Aristotelian Atheniaion Politeia* (Oxford).
- Rubel, A. 2000. *Stadt in Angst: Religion und Politik in Athen während des Peloponnesischen Krieges* (Darmstadt).
- — 2014. *Fear and Loathing in Ancient Athens: Religion and Politics during the Peloponnesian War* (Durham and Bristol).
- Schachermeyr, F. 1968. *Religionspolitik und Religiosität bei Perikles*, *SBÖA*, Phil.-Hist. Kl. 258, 3 (Vienna).
- Schaps, D. M. 2011. 'The Athenians and their gods in time of crisis', in G. Herman (ed.), *Stability and Crisis in the Athenian Democracy*, *Historia Einzelschriften* 220 (Stuttgart): 127–38
- Schofield, M. 1980. *An Essay on Anaxagoras* (Cambridge).
- Schorn, S. 2004. *Satyros aus Kallatis* (Basel).
- Schöve, D. J. 1948. 'Sunspots and Aurorae', *Journal of the British Astronomical Association* 58: 178–90.
- Sima, Qian (司马迁) 2010 (2008– ). *Shi Ji (史记): Volume 15: The third chronology of the six nations (六国年表第三)*, ed. Han, Zhaoqi (Beijing).
- Sider, D. 1973. 'Anaxagoras on the Size of the Sun', *CPh* 68: 228–9.
- — 1997. 'Heraclitus in the Derveni Papyrus', in Laks, A., and Most, G. W., *Studies in the Derveni Papyrus* (Oxford): 129–48.
- — 2005. *The Fragments of Anaxagoras* (Sankt Augustin).
- Stadter, P. A. 1989. *A Commentary on Plutarch's Pericles* (Chapel Hill).
- Stephenson, F. R. 1997. *Historical Eclipses and Earth's Rotation* (Cambridge).
- Taylor, A. E. 1917. 'On the Date of the Trial of Anaxagoras', *CQ* 11: 81–7.

- Viljev (Вильев), М. А. 1917. "Исследования по теории движения кометы Галлея", *Известия Русского общества любителей мироведения* 6(4): 215–19.
- Wallace, R. W. 1994. 'Private Lives and Public Enemies: Freedom of Thought in Classical Athens', in Boeghold, A. L., and Scafuro, A. C. (eds.), *Athenian Identity and Civic Ideology*, Baltimore: 127–55.
- Walker, E. M. 1927. *The Cambridge Ancient History V. The Fifth Century BC* (Cambridge).
- West, M. L. 1960. 'Anaxagoras and the Meteorite of 467 B.C.', *Journal of the British Astronomical Association* 70: 368–9.
- — 1971. *Early Greek Philosophy and the Orient* (Oxford).
- Whitmarsh, T. 2015. *Battling the Gods: Atheism in the Ancient World* (New York).
- Winiarczyk, M. 1979. 'Diagoras von Melos: Wahrheit und Legende I', *Eos* 67: 191–213.
- — 1980. 'Diagoras von Melos: Wahrheit und Legende II', *Eos* 68: 51–75.
- — 2016. *Diagoras of Melos: A Contribution to the History of Ancient Atheism* (Berlin and Boston).
- Woodbury, L. 1981. 'Anaxagoras and Athens', *Phoenix* 35: 295–315.
- Yeomans, D. K., and Kiang, T. 1981. 'The long-term motion of comet Halley', *Monthly Notices of the Royal Astronomical Society* 197 (3): 633–46.
- Yunis, H. 1988. *A New Creed: fundamental Religious Beliefs in the Athenian polis and Euripidean Drama*, *Hypomnemata* Heft 91 (Göttingen).

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