1: Aristarchus in the *Sand-Reckoner*, trans: Ivor Thomas:

Aristarchus in the *Sand-Reckoner* 1, Archim. ed. Heiberg ii. 218. 7–18:

Ἀρίσταρχος δὲ ὁ Σάµιος ὑποθεσίων τινῶν ἐξέδωκεν γραφάς, ἐν αἷς ἐκ τῶν ὑποκειµένων συµβαίνει τὸν κόσµον πολλαπλάσιον εἴµεν τοῦ νῦν εἰρηµένου. ὑποτίθεται γάρ τὰ μὲν ἄπλανέα τῶν ἀστρων καὶ τὸν ἄλιον μένειν ἀκίνητον, τὰν δὲ γὰν περιφέρεσθαι περὶ τὸν ἄλιον κατὰ κύκλου περιφέρειαν, ὡς ἐστὶν ἐν μέσῳ τῷ δρόµῳ κείµενος, τὰν δὲ τῶν ἄπλανέων ἀστρων σφαῖραν περὶ τὸ

But Aristarchus brought out a book consisting of some hypotheses, wherein it appears, as a consequence of the assumptions made, that the universe is many times greater than the “universe” just mentioned. His hypotheses are that fixed stars and the sun remain unmoved, that the earth revolves about the sun in the circumference of a circle, the sun lying in the middle of the orbit, and that the sphere of the fixed stars, situated about the same center as the sun, is so great that the circle in which he supposed the earth to revolve has such a proportion to the distance of the fixed stars as the center of the sphere bears to its surface.

2: An Outline of Kuhn’s Model:

Pre-paradigm ➔ Normal Science ➔ Crisis ➔ Revolution

3: References to Hegesias:

A. Diog Laert. *Aristippus* 2.82:

Ἡγησίας ὁ πεισιθάνατος

Hegesias the death-persuader

B. Cic. *Tusc.* 1.82, trans: J. E. King:

Et quidem hoc a Cyrenaico Hegesia sic copiose disputatur, ut is a rege Ptolemaeo prohibitus esse dicatur illa in scholis dicere, quod multi iis auditis mortem sibi ipsi consciscerent.

Indeed this thought is discussed by Hegesias the Cyrenaic with such wealth of illustration that the story goes that he was stopped from lecturing on the subject by King Ptolemy, because a number of his listeners afterwards committed suicide.

C. Val. Max. 8.9.3, trans: D. R. Shackleton Bailey:

Quantum eloquentia valuisse Hegesian Cyrenaicum philosophum arbitramur? qui sic mala vitae repraesentatub ut eorum miseranda imagine audientium pectoribus inserta multis voluntariae mortis oppetendae cupiditatem ingeneraret: ideoque a rege Ptolomaeo ulterior hac de re disserere prohibitus est.
What power do we imagine was in the eloquence of the Cyrenaic philosopher Hesegias? He made the evils of life so vivid that when their pitiful image was thrust into the hearts of his hearers he generated in many the desire for suicide. And on that account he was forbidden by King Ptolemy to discourse any further on the subject.

4. Cleanthes’ Impiety Accusation:

A. Plut. Mor. De fac. 6 (923A), trans. Harold Cherniss, W.C. Helmbold:
καὶ ὁ Λεύκιος γελάσας “μόνον” εἶπεν “οὐ τάν, μὴ κρίσιν ἡμῖν ἁσβείας ἐπαγγεύλης, ὡσπερ Ἀρίσταρχον ὦτον δεῖν Κλεάνθης τὸν Σάμιον ἁσβείας προσκαλεῖσθαι τοῦς ὡς Ἑλληνικά ἡς κινοῦσι τοῦ κόσμου τὴν ἑστίαν ὅτι ὑποτιθέμενος ἔξελιττεσθαι δὲ κατὰ λοξοῦ κύκλου τὴν γῆν ἃμα καὶ περὶ τὸν αὐτῆς ἄξονα δινομένην.

Thereupon Lucious laughed and said: “Oh, sir, just don’t bring suit against us for impiety as Cleanthes thought that the Greeks ought to lay an action for impiety against Aristarchus the Samian on the ground that he was disturbing the hearth of the universe because he sought to save phenomena by assuming that the heaven is at rest while the earth is revolving along the ecliptic and at the same time is rotating about its own axis.”

Works Cited


-------. The Birdcage of the Muses: Patronage of the Arts and Sciences at the Ptolemaic Imperial Court, 305-222 BCE. Leuven: Peeters, 2017.

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