THE COSMOLOGY OF ARCHELAUS OF ATHENS
AND HIS THEORY ABOUT THE ORIGINS OF SOCIAL INSTITUTIONS

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One advantage of working on the Presocratics is that you can be fairly sure that you will be over with your talk early at a conference. Of course, if you want to be really certain, you’d better work on Thales. But, on this occasion, a paper on Archelaus, arguably the very last of the Presocratics, did the job for me.

As a matter of fact, our ancient sources standardly point out that Archelaus was the last Presocratic natural philosopher. This is for instance how Diogenes Laertius introduces him [T1]:

Archeleus of Athens or Miletus, son of Apollodorus or, according to some, of Midon. He was a pupil of Anaxagoras and teacher of Socrates. He was the first to transfer natural philosophy from Ionia to Athens, and he was called a natural philosopher, so natural philosophy also came to an end with him as Socrates introduced moral philosophy (D.L. 2.16 = A1 DK).

Hippolytus, our other main source on Archelaus, closes his account in a similar vein [T2]:

So, then, natural philosophy continued to exist from Thales until Archelaus; it is of this latter that Socrates became the disciple. (Hip. Ref. 1.10 = A4 DK)

Of course, Archelaus’ role as the presumed teacher of Socrates makes him almost analytically the last Presocratic. Yet, as I shall argue, Archelaus was not merely the last in the line of Presocratic cosmologists in a chronological sense, but in a remarkable way he already stepped outside this tradition. In fact, this is also noted by our ancient sources. This is how D.L. continues his introduction [T3]:

But he [s.c. Archelaus], too, seems to have touched upon ethics. For he advanced also a philosophical theory about laws and about the fine and the just. Socrates took this over from him, but developed it to such an extent that he was supposed to have invented it.

That Archelaus, alone among the Presocratics, combined natural philosophy and ethics is stated also in Sextus Empiricus’ discussion of the three parts of philosophy [T4]:

Of those who maintained that philosophy has two parts, Xenophanes, as some people say, pursued the physical and the logical parts, whereas Archelaus of Athens pursued the physical and the ethical parts; with him some people also classify Epicurus as rejecting logical reflection (Sextus Empiricus Μ 7.14 = A6)
The question I am interested in is not whether Sextus and his source were right in claiming that Archelaus was the only one to pursue natural philosophy and ethics among the Presocratics. What I find worth investigating is rather what feature, or features, of Archelaus’ work marked him out for this role in the eyes of the ancients. I will argue that this distinguishing trait is that Archelaus appended to his cosmogonical narrative – as we shall see not terribly innovative in itself – a story about the origins of social, political, and cultural institutions – or, as you call it in English, a *Kulturentstehungslehre*. (I can’t pronounce this word many times in a row, so if you don’t mind, I will henceforth use the acronym KL.) It appears thus that if Archelaus has a claim to fame on his own right, apart from the honour of being the purported teacher of Socrates, it lies precisely in the conjunction of cosmogony and KL.

I emphasise the ‘if’, because apparently most specialists of Presocratic philosophy consider nowadays that Archelaus has simply no claim to fame. He had at least a brief discussion in Guthrie and a five-page long chapter in Kirk–Raven–Schofield. Yet not a word about him in more recent publications. Not a single mention in the bulky *Oxford Handbook of Presocratic Philosophy*, and he is completely left out from Patricia Curd’s Presocratic reader, and Richard McKirahan’s more comprehensive Hackett Presocratics. He is missing from Dan Graham’s even more extensive selection of Presocratic fragments, and his name occurs only in a single footnote in the *Cambridge Companion to Early Greek Philosophy*. No mention of him in the two excellent recent introductions to the Presocratics, the one by James Warren and the other by Giannis Stamatellos. And the phenomenon is not limited to English language publications. For instance, Archelaus is not included in either Christof Rapp’s *Vorsokratiker* or the new Reclam *Vorsokratiker* of Jaap Mansfeld and Oliver Primavesi. Nor does he appear in Maria Michela Sassi’s remarkable recent book on early Greek philosophy. And the list could be continued.

This admittedly tedious overview of the current literature on Archelaus – or more precisely the complete lack thereof – was also meant to reassure you that if don’t know a thing about Archelaus, you are not to be blamed. Anyone who studies the Presocratics with the help of these perfectly respectable publications will simply not encounter his name. At the same time, this review was also meant to put my presentation in context. For I am not suggesting that Archelaus was a philosophical genius by any standards. On the other hand, I do wish to drag him out of the blind spot of scholarship by showing that he might have had a non-negligible role in the philosophical and intellectual life of fifth-century Athens. So, I suggest, he should receive at least the slimmest of chapters in future handbooks of Presocratic philosophy as he once had in Guthrie and KRS.

Let me start then with what we can know about the status of KL in Archelaus’ theory. So for the time being I skip the earlier stages of Archelaus’ cosmogony and pick up the narrative when the macrocosmic structure is already in place, the flat earth is fixed in the centre, and the heavenly bodies are carried around it by the whirling air. Everything is thus there for life to develop on earth, and indeed, from the earth.

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1 Nor is Archelaus remembered as Socrates’ purported teacher. Again, not a single mention of him in the *Cambridge Companion to Socrates*, and two passing references to him in the more than 500 pages of the *Blackwell Companion to Socrates*. 
I am quoting Hippolytus [T5]:

On the topic of the animals he says that when the earth was first warmed up in the lower part, where the hot and the cold were mixing, many other animals as well as human beings appeared, all of which had the same regimen, given that they all were nourished by the mud. But they were short-lived. Later on generation from one another was established (Hippolytus Ref. 1.9.5).

Hippolytus then continues [T6]:

And human beings got separated from the other animals, and leaders and laws and crafts and cities were established.

καὶ διεκρίθησαν ἄνθρωποι ἀπὸ τῶν ζῴων καὶ ἡγεμόνας καὶ νόμους καὶ τέχνας καὶ πόλεις καὶ τὰ ζῷα συνέστησαν.

This last bit is what D.L. apparently refers to when he writes in his introduction that Archelaus ‘advanced also a philosophical theory about laws and about the just’. Regrettably, all we can know about the actual contents of this theory is what D.L. adds a little later, and according to which [T7]

the just and the ignoble are not by nature but by convention (D.L. 16.5)

καὶ τὸ δίκαιον εἶναι καὶ τὸ αἰσχρὸν οὐ φύσει ἀλλὰ νόμῳ.

Then, a further little snippet of information comes from the Suda’s entry on Archelaus [T8]:

He composed a work called Inquiry into Nature and taught that the just and the ignoble are not by nature, but by convention. He also composed some other works (Suidas s.v. Archelaus = A2 DK).

συνέταξε δὲ Φυσιολογίαν καὶ ἐδόξαζε τὸ δίκαιον καὶ αἰσχρὸν οὐ φύσει εἶναι, ἀλλὰ νόμῳ. συνέταξε καὶ ἄλλα τινά.

What might be significant in this testimony is not the title – quite dubious in itself – but rather that the formulation gives support to the point that Archelaus expounded his theory about the origins of moral norms in the work in which he wrote about the origins of the cosmic order. It is this work in which he discussed the just and the ignoble, whereas he wrote some other works too, the contents of which are not specified. (Incidentally, Plutarch informs us that Archelaus composed also poetic works.)

‘Is that all?’ you might ask, ‘Why all the brouhaha over this?’ For, indeed, it seems only natural that once you have conducted your narrative about the history of the cosmos to the point where animal life and human beings emerge, you just don’t stop there, but continue the story and relate the origins of society and political institutions as well.

This was apparently the guiding intuition of Gérard Naddaf, who in his book called The Greek Concept of Nature (originally published in French under the title L’origine et l’évolution concept grec de phusis) made a sustained effort to show that the Presocratic tradition, all through its history from

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3 Incidentally, the origin from life from the earth is probably the basis of yet another account of Archelaus’ material principle. For according to A9 Epiphanius, ‘Archelaus (...) the natural philosopher declared that it is from the earth that everything was born. For this is the principle of the universe, as he said’ (De fide 9.9 (Panarion. 3.2.9 ) = A9 DK). The account apparently ignores the previous stages of Archelaus’ cosmogony, and hence suggests that truncated versions circulated which started only with the emergence of life.
Anaximander to Anaxagoras, from Ionia to Italy, contained not only a cosmogony and a zoogony, but also what Naddaf calls a ‘politogony’ – by and large identical to what I have been calling KL. Naddaf’s attempt, however, remarkably failed. As his reviewers, Malcolm Schofield and Jaap Mansfeld, agree Naddaf’s study has the merit to show negatively that even if one leaves no stone unturned, as Naddaf does, one simply cannot find the traces of ‘politogony’ in standard Presocratic narratives. (It is worth noting that Naddaf does not mention Archelaus.)

So here is the question: if it seems so unremarkable that Archelaus continued his cosmogony with a KL, why can’t we find any sign of a comparable project in the works of previous cosmologists?

3.

Let me start with a historical point. It is often pointed out that the cosmogonical tradition issues from, or even starts with, Hesiod’s *Theogony*. Now the *Theogony* tells us how from an assumed initial stage the gods representative of major structural parts of the physical world emerged, how the family of gods expanded and populated this world, and how Zeus established and cemented his divine rule. The narrative, in its traditional version, stops with the list of goddesses who bore children from mortal partners. This limitation is understandable in so far as with this Hesiod has fulfilled his announced programme of singing about the birth of the deathless gods and goddesses (*Thg.* 21). After all, this is a *theogony*. The result is that even though mortals are occasionally mentioned in the poem, we hear nothing about the way in which their world is organised, and how that structure came about. All that is left to another poem, the *Erga*. It is also in the *Erga* that Hesiod offers an aetiology of the human condition by providing a narrative about its origins. Gods are obviously actively involved in this story as well, yet the focus is on human society. I am not claiming that Hesiod’s division of subjects among the *Theogony* and the *Erga determined*, in the strong sense of the word, the scope of Presocratic cosmogonical narratives – it could, however, have a significant effect also on this aspect of the tradition.

Surely, individual Presocratics could have their own theoretical and other reasons for not going beyond anthropogony. These possible individual motivations notwithstanding, there seems to be at least one overarching consideration, pertaining to the type of ontological and explanatory reductivism that characterizes much of Presocratic natural philosophy. What I mean is this. An explanatory framework which operates with basic stuffs and elements, and the active mechanical forces and dynamism among these elements, can deliver an account not merely of the way in which the large-scale structures of the cosmos got organized, but also how the same stuffs, under the effect of the same forces, build up the anatomy and physiology of human beings and other animal species. Yet it is *prima facie* plausible to say that the explanatory power of this basic ontology stops there. The hot and the cold, air and fire, condensation and rarefaction, have not much purchase when it comes to explain the origin of political and cultural institutions.

Let me illustrate this point by reference to Anaxagoras. In his seminal paper on ‘The Origins of Social Contract Theory’, Charles Kahn also examined the question when or by whom KL got appended to cosmogony for the first time. He admits that as far as the doxographical evidence goes, Archelaus is clearly the first on record. Kahn, however, firmly denies Archelaus’ originality, and claims, in a way comparable to Naddaf, that KL had *always* been part of Ionian narratives from the time of Anaximander. For this claim Kahn’s principal piece of evidence is Anaxagoras B4a DK – nothing earlier comes into view. It will be worthwhile to quote the fragment *in toto* [T9]:

> These things being so, one must believe (1) that many and varied things are in all the things that are combined, and seeds of all things, having all sorts of shapes, colours, and savours; (2) that humans were also compounded and all the other animals that have souls. And also (3) that human beings,
for their part, have cities that have been constructed, and works that have been produced, just as with us; and (4) that they have sun and moon and the rest, just as with us, and their earth grows many different things, of which they collect the most beneficial and bring them into their houses to make use of them. This is, then, what I had to say about separation – that it would not happen only where we are, but elsewhere too.

What Anaxagoras argues for in these sentences is that his cosmological, physical explanatory theory has universal application. Given that the initial conditions are the same at all regions of the original mixture, the same cause will bring about the same effect at different locations. First, it will result in the same astronomical macro-structure: there will be earth, sun, and moon and all the rest, at other locations as well. Then, since the mixture contains the same variety of seeds, the same life-forms will develop elsewhere as well. Furthermore, given that human beings have the same type of rationality at other possible locations as well, in the same environment they will form communities and develop the same material culture. The final sentence of the fragment is crucial. For it shows that Anaxagoras has still been focusing on the effects of cosmic separation, and that his aim is to show to what extent its outcomes are uniform. His claim is that the existence of cities and agriculture is derivable from the initial spin in the primeval mixture. What he is not interested in, however, are the actual reasons for which human beings endowed with mind started to organise their communities, established their laws, and began to consider some things just, others ignoble. In theories of social contract, and more generally in KL’s, another level of explanation is operative, precisely because the focus is not any longer on cosmic forces, but on agency and agents’ reasons – why people find it beneficial to agree on certain social norms, or why one person considers it useful to subdue others by persuasion, manipulation, or force, and so on. Or, alternatively, how the different gods taught humans different skills, established cultural, political and religious institutions, and set the norms for societies. All this is missing from Anaxagoras’ text. Note also that the last sentence brings a closure – this is how much Anaxagoras wanted to say about the topic. Anaxagoras thus mentions the emergence of cities and the material culture of human beings only in so far as these are related to cosmological processes, and is not interested them for their own sake. And this, I suggest, is precisely why D.L.’s characterisation of Archelaus – i.e. that he ‘seems to have touched upon ethics. For he advanced also a philosophical theory about laws and about the fine and the just’ – cannot apply to Anaxagoras.

Before I move on to the next section, let me add one further point. One could object that at least some cosmologies, from the time of Anaximander, operated also with ethical and political concepts – and most notably with the notion of cosmic justice. It seems to me however that even that will not pave the way for a KL, precisely because such a cosmological account will still lack agency and the normative reasons of agents what appears central to KL.

4.

At this point, it will be worthwhile to take a brief look at the *Timaeus–Critias* complex. It is a commonplace that the *Timaeus* is Plato’s reflection on the Presocratic cosmogonic tradition, and in a sense the culmination of that tradition. Remarkably, Timaeus’ narrative also ends with anthropogony and
zoogony. Even more remarkably, the dialogue does contain a KL, but put into the mouth of another character, Critias. As Critias initially states the distribution of topics [T10]:

Timaeus ... should speak first, beginning with the origin of the world and concluding with the nature of human beings. Then I'll go next, once I'm in possession of Timaeus' account of the origin of human beings etc. (Tim. 27A2-8, trans. Zeyl)

Plato thus sticks to the traditional scope of the cosmogonical discourse and makes the cut at zoogony and anthropogony even if he wants his dialogue to include a KL. The distribution of topics in the *Timaeus* is a further strong indication that the traditional cosmogonic narratives extend only to zoogony and anthropogony, and do not continue with a KL.

The articulation between the respective speeches of Timaeus and Critias has received a penetrating analysis in Sarah Broadie's recent book. The remarks I will make on the topic owe much to her study and are meant to be largely continuous with her conclusions. My focus will however be somewhat different: what I am interested in the present context is not the relationship between cosmogony and history, but rather the relationship between cosmogony and *pre*-history.

One of the starting-points of Broadie's analysis is the keen observation that Critias' speech on antediluvian Athens offers considerably more than what Socrates originally requested. For Socrates did not ask for a 'true' story, and did not expect the story to be about Athens (Broadie 2012: 126). Let me now add a further point to this. Socrates did not ask for a story about the origins of the city either; he only wanted to see the city – already established and fully functional – to interact with other cities in war and peace. The Egyptian priest, and following him Solon and Critias, nonetheless also tell the story of the foundation of Athens and the origin of its inhabitants and the ways their political system and laws were first established, and their education introduced.

This part of the narrative is present in both Critias' brief preliminary summary preceding Timaeus' speech and the full, although unfinished, account he offers as a sequel to Timaeus' grand monologue. After some methodological provisos (109B–C), Critias relates in the longer version how the inhabited earth was divided up among the gods, peacefully and by common consent, for strife would not be fitting to gods. In the next step, the gods, each at their allotted land, started to breed, shepherd, and guide human beings, not by force, but by persuasion. ³ We then learn that Athena and Hephaestus received a region in common, because of the closeness of their natures and especially because of their shared love of arts and wisdom. Athena was also given the seeds of the people of the land from the earth and Hephaestus (Tim. 23E). Then, either all by herself (as we have it in the preliminary summary) or with the help of Hephaestus (according to the longer version in the *Critias*) she nurtured the people of Attica, founded the city of Athens, educated the people, and 'gave them a conception about the political order' (Crit. 109D ἐπὶ νοῦν ἔδειξαν τὴν τῆς πολιτείας τάξιν). It soon turns out that Athena not merely taught the arts and sciences to prehistoric Athenians, but that it was the goddess who instructed them to establish a socio-political organization based on the separation of classes that characterizes the city Socrates depicted on the previous day. And not only the bare outlines of the social structure are due to Athena. For instance, it can be derived from the martial nature of the goddess that the city gives the same military training to men and women.

In fact, it is by starting with a narrative of foundation, or KL, that Critias can make good his original promise of picking up Timaeus' story at the point when human beings get created; without a KL, there

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³ For a closely parallel account of divine shepherds of early peoples, see *Laws* 10.713A–714A.
would be a temporal, and also an explanatory, gap between the two narratives. In important ways, Critias’
prehistory seamlessly continues Timaeus’ narrative.

Note, however, that the main agents of Critias’ KL – as opposed to the rest of his story – are not the
human beings created by the demiurge and his auxiliaries in Timeaus’ account, but the gods. These gods,
moreover, are not the cosmic, or cosmological, gods, but the traditional Olympians, Athena, Hephaestus,
and their relatives. To be sure, the traditional gods do make their appearance already in Timaeus’
narrative; the account about the origin and natures of them is however explicitly demarcated from
Timaeus’ own discourse in so far as it lays outside the purview of both rational proof and likely reasoning.
As Timaeus says [T11]:

As for the other divine beings, it is beyond our task to know and speak of how they came to be. We
should accept on faith the assertions of those figures of the past who claimed to be the offspring of
gods. They must surely have been well informed about their own ancestors. So we cannot avoid
believing the children of gods, even though their accounts lack plausible or compelling proofs
(ἀνευ τε εἰκότων καὶ ἀναγκαίων ἀποδείξεων). Rather, we should follow custom and believe them, on
the ground that what they claim to be reporting are matters of their own concern. Accordingly, let
us accept their account of how these gods came to be and state what it is. (Tim. 400D-4E)

Περὶ δὲ τῶν ἄλλων δαιμόνων εἰπέν καὶ γνώναι τὴν γένεσιν μείζον ἢ καθ’ ἡμᾶς, πειστέον δὲ τοῖς εἰρήκοσιν
ἐμπροσθέν, ἐκγόνοις μὲν δεόν ὦσιν, ὡς ἔρασιν, σαφῶς δὲ ποὺ τοὺς γε αὐτῶν προγόνους εἰδόσιν ἀδύνατον
οὖν δεόν παισίν ἀπιστεῖν, καὶ περὶ ἄνευ τε εἰκότων καὶ ἀναγκαίων ἀποδείξεων λέγουσιν, ἀλλ’ ὡς οἰκεία
φασικόντως ἀπαργέλλειν ἐπομένους τῷ νόμῳ πιστεύτων. οὖτως οὖν καὶ ἐκείνους ἡμῖν ἢ γένεσις περὶ
tούτων τὸν δεόν ἐχέτω καὶ λεγέσθω.

Most commentators assume that Timaeus strikes an ironical tone here. I, for one, cannot believe this to
be the case. Timaeus – and at this point we can just as well speak of Plato – has no intention of getting
rid of the traditional gods, even if he is eager to purify the traditional myths from all that is in conflict
with his theological principles about the supreme goodness of the gods.

The result is thus double. Critias’ narrative about the foundation of the city is continuous with
Timaeus’ narrative in so far as all the main actors of Critias’ story are already put on the scene in Timaeus’
account. Critias’ KL is however discontinuous with Timaeus’ account in so far as the principal characters
of the pre-history will be precisely those divine beings whose origin and individuated characteristics are
not derivable from the rest of the cosmological account, and are clearly flagged as external additions. In a
way, what Plato expresses by Timaeus’ caveats is parallel to what we have seen in Anaxagoras: the same
explanatory framework is not applicable to cosmology and KL. However, what the articulation between
Timaeus’ cosmogony and Critias’ pre-history shows is that the difference between the two explanatory
schemes cannot be reduced to the difference between a mechanical, physical framework on the one
hand, and a rational agency based model on the other. In the Platonic context both sides are
fundamentally based on rational, goal–directed agency. Yet, the two domains as it turns out still resist
explanatory unification.

I shan’t be able to give a full elucidation of this fact here. Let me, nonetheless, offer a few
considerations. First, in so far as Critias’ narrative is continuous not only with Timaeus’, but even more so
with Socrates’ description of the just city, its status will be necessarily different. Timaeus’ account is
meant to be aetiological and explanatory of the way things are in the natural world around us and
constituting us. As opposed to this, Critias’ narrative may only have a comparable aetiological force
for the Egyptian society of the fiction world where things are supposed to be still such as they were once
established by the goddess. Because of the series of cataclysms and other factors, nothing remains of this
in Athens – Critias’ KL can thus have no explanatory force there. On the other hand, his narrative puts an
ought on current–day Athenians by displaying their divinely instituted and sanctioned original, but
forgotten, social order is. And it is at this point that Critias' story might rejoin, at another level, Timaeus' explanation of the cosmic order, which also puts an ought on us, at the level of the individual, by uncovering the original, divinely instituted order in the rational souls of each of us, an order to which we as individuals should return.

Furthermore, Critias' account can explain the differences among various constitutions without the charge of relativism. All of them ultimately derive from gods, shepherding and educating human beings, but the different Olympians have different characteristics. Thus, the pre-historic Athenians could obtain the most philosophical political system, because they received it from the goddess of wisdom. Although Critias does not mention it, we can well imagine that a city established, for instance, on the lot of Ares, the god of war, was organised according to different principles. And, the constitution and characteristics of Atlantis are related to the fact that their god is not Athena, but Poseidon. It is however not easy to see how such individualising features of divine beings – as opposed to humans – could issue from Timaeus' top–down account. Yet, the cultural and political identity of the polis is based not on its relation to some abstract cosmic divinities, but to its own personalised ancestral gods. The story related by the Egyptian priest is meant to be to some extent revisionary and is presented as a corrective to the Athenian popular tradition. Nonetheless, it preserves those elements that were considered fundamental to Athenian identity, such as the autochthony of Athenians, and, even more crucially, their privileged relation to Athena.

This relationship is at the same time closely parallel to what we can observe in Plato's Laws. In his address to the citizens of the new city, the Athenian explicitly circumscribes the groups of gods who will be worshiped in the city: the Olympians, the chthonians, daimones, heroes, and ancestral gods. However, the cosmological argument of Laws 10, even if successful, will not deliver these gods and other divine beings who are worshiped in the public rites of the polis and who have a key role in providing the cohesion and cultural identity of the community.

With this, we have of course arrived at the well-worn distinction between theologia naturalis and theologia civilis. Yet, the way we have reached this point, starting from the question of the discontinuity between cosmogony and KL, might give some further shades to the picture. In particular, it might show a further facet of the often-remarked phenomenon that the public showed no intolerance towards the de-mythologised explanations of the physical world in Presocratic cosmologies prior to Anaxagoras' trial in Athens. What ultimately counts for the polis is its special relation to its ancestral gods: how they founded the city, what role these gods played in the aetiological myths about the city's cultic places and practices, ancestral institutions, and skills. Yet, as we have just seen, cosmologists were not supposed to say anything on these topics, in so far as their narratives stopped before they reached these acts of foundation. Moreover, at least theoretically, cosmologists could leave open the question whether and if so how the traditional gods of the city can be incorporated in their world, just as Timaeus could incorporate the traditional gods, without nonetheless integrating them into his explanatory framework.

At this point Anaxagoras B4a we considered above becomes significant again. For even if – as I have argued – it does not constitute a KL proper, the reference to the role of cosmic separation in the emergence of cities, agriculture, and crafts, leaves very little room – if any – for the involvement of gods in the organisation of human culture. Apparently, these cities do not need gods for their foundation, and farming and viticulture can be learnt without Demeter and Dionysus. It would obviously be foolish to suggest that fragment B4a was the corpus delicti in the charge of asebeia against Anaxagoras. But, at any rate, it must have rendered the task of the defence more difficult.
If the fusion of cosmogony and KL was such a notable and consequential innovation as I have argued, and Archelaus was indeed the first, or one of the first, to practice it, as I have also argued, wouldn't we expect that his innovation was noted by his contemporaries? But is there any sign of this? If you had any lingering doubts – I will duly try to show that there are indeed strong indications. Let me however preface my attempted demonstration with a preliminary remark. For it is always tricky to try to attribute a signal achievement to an apparently minor thinker. Note, however, that all the evidence I have marshalled and all the points I have thus far made do not commit me to an image of Archelaus who carefully thought through all these difficulties and factors, and made a break with the tradition on the basis of thorough theoretical considerations. It is just as possible that he learnt about Ionian theories becoming fashionable around Anaxagoras, but he got also acquainted with the narratives of some sophists about origins of societies and the differences among them, and simply stitched the two types of narratives together, without giving much thought to it. Yet, even on such an uncharitable scenario some other people could realise what the stakes and possible ramifications are.

So, back to the question whether there are any signs that the contemporaries understood the significance of the innovation. Now, as André Laks has emphasised in a recent paper, we have two major documents in which the Presocratic cosmological tradition is criticised for its deleterious consequences for ethics and theology: Aristophanes' *Clouds*, and Plato's *Laws* 10. I would like to submit that Archelaus is material to both of these texts.

I examine the presence of Archelaus in the *Clouds* in a separate paper; so let me now limit myself to a brisk summary of my principal conclusions. First, it is customarily held that even if the doctrines Aristophanes puts into the mouth of Socrates are a ragbag of comically distorted doctrines coming from different sources, Socrates' central physical doctrines – i.e. the divinisation of air, and its identification with mind – comes from Diogenes of Apollonia. There is, however, good ancient evidence to the effect that Archelaus, too, taught all the relevant doctrines. Just to quote Aëtius [T12]:

Archelaus (maintained that) the god is air and mind (Aëtius 1.7.14)

\[ \text{τὸ ὁ θεός Ἀρχέλαος ἀέρα καὶ νοῦν τὸν θεόν,} \]

Similarly for further details, such as that Dinos or the whirling air holds the earth aloft, and so forth. On this basis, I argue that if the same, or closely similar, physical doctrines can be attributed to both Diogenes of Apollonia and Archelaus, it is much more economical to relate these to Archelaus. Archelaus was after all well-known to the Athenian public as the first local natural philosopher, and was moreover held to be, already by his contemporaries, as a companion and teacher of Socrates. What is more, precisely for his unique involvement with ethical questions, Archelaus is germane not only to the physical part of the *Clouds*, but also to the ethical views that enter the scene in the second part of the play. For instance, Archelaus' views about the conventional origin of ethical norms and political institutions find expression in what young Phidippides learns from the Weaker Argument. But Phidippides echoes more specific doctrines of Archelaus, for instance that human beings differ from other animal species only in that humans introduced political institutions (cf. *Clouds* 1421-9, with Hippolytus, *Ref*. 1.9.5–6). Thus, with Archelaus we find an Athenian philosopher, who held both the relevant physical doctrines and the relevant political and ethical views in conjunction, and who was suitably related to Socrates. My claim is not that Archelaus is the unique source of the ideas put into Socrates' mouth by Aristophanes, but I think I have been able to show that he is particularly relevant to the Aristophanean portrayal of Socrates.

Let me now turn to Plato's *Laws*. As commentators customarily note, the arguments against the three versions of irreligion in *Laws* 10 present some puzzling peculiarities. For instance, one would expect that the first argument, the one against proper atheism, be directed against the pernicious theological assumptions of Ionian--type naturalised cosmologies in general. On the other hand, as David Sedley has
demonstrated in a recent paper, the Athenian presents a very specific theory as his principal target, and gives strong indications that he is thinking about a particular cosmological theory, and not about such theories in general. However, commentators agree that this specific cosmological theory presented by the Athenian is difficult to relate to any of the prima facie relevant late Presocratic theories. As you have already guessed, I would like to suggest that the Athenian has Archelaus in mind. Yes, you are right, this is indeed my purpose. Yet, I would like to emphasise that I do not mean to claim that Plato was slavishly concentrating on that one theory. He could perfectly well take one particularly relevant theory as the core of his presentation, but then introduce some modifications and shifts here and there as his argument necessitated it.

The first clue is this. The Athenian expresses repeatedly that the type of atheism he is describing, and the cosmological doctrines that are the immediate causes of it, are concentrated in Athens (cf. 886B) and are moreover fairly recent. The Athenian doubts whether his interlocutors are acquainted with such texts and people, whereas, as he says, he himself has met them personally. This description would obviously fit best to those natural philosophers who pursued their activity in Athens – such as Anaxagoras, and his presumed Athenian disciple, Archelaus, famous for propagating Ionian philosophy in Athens.

Next, the most patent sign of their scandalous doctrines is that they treat the heavenly bodies – that all peoples honour as gods – to be of mere stones and earth. Now, many details about the trial of Anaxagoras are unclear and controversial, but if we can say anything about it with a fair degree of certainty, it is that the main indictment against him was his theory about the heavenly bodies, and in particular that the sun and the moon are earth and stones. This is also the view that, according to Plato's Apology, Meletus attributed, apparently falsely, and by contamination, to Socrates (Apol. 26D). Indeed, taking the sun a stone or clod remained synonymous with atheism. Even in such de-theologized contexts as the Placita literature, authors could indicate the outrage by inserting in otherwise factual inventories of doxai an ἐτολµήσαν when they arrived to Anaxagoras' view. And even those authors who for their own Judeo-Christian theological commitments did not treat the heavenly bodies gods (e.g. Philo in Aet. 47 and Augustine D. civ. D. 18.41) could still find Anaxagoras' view about the material constitution of heavenly bodies particularly repugnant and an obvious indication of atheism.4

Now, apparently, Archelaus followed Anaxagoras on this specific point. As Aëtius informs us [T13]:

Archelaus (declares that the heavenly bodies are) clumps of iron, but inflamed (Aëtius 2.13.6 = A15 DK)

Ἀρχέλαος μύδρους [ἐφησεν εἶναι τοὺς ἀστέρας], διαπύρους δὲ.

It is remarkable, by the way, that the Sisyphus fragment, that, as David Sedley has argued, might be crucial in identifying the primary targets of Laws 10, uses the very same word μύδρος, 'clump of iron' or 'ingot', to describe the sun (l. 35). At the same time, this point can exclude some other possible candidates, such as Antiphon, who apparently took the sun to be fire (cf. F26).

Now, surely, the kernel of the Athenian's argument concerns the priority and motor function of soul and mind – and this will be central to my argument as well. As the Athenian complains, these outrageous and injurious thinkers teach that soul is derivative of physical stuffs, the opposites and the elements, and 'deny the priority of what was in fact the first cause of the birth and destruction of all things, and regard it as a later creation' (891E, trans. Saunders). To illustrate that these thinkers deny the motor function of soul, the Athenian gives some details of their theory. These theorists, says the Athenian, posit a stage of the cosmos when everything comes together in a standstill: [T14] εἰ στὰχι πῶς τὰ πάντα ὅμοι γενόμενα 895B. The Athenian then points out the absurdity of trying to introduce motion

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4 Note also, that when a little later, at 899A, the Athenian speaks about the bodies of the heavenly gods, he says that it must be fire or some kind of air (σῶμα αὐτῆ πορισαμένη πυρός ἢ τινος ἄέρος).
into this motionless mixture not by the effect of the self-moving soul, but by the mechanical interaction of physical stuffs.

The expression τὰ πάντα ὡμοίῳ, and the image of the motionless initial stage, obviously reminds the reader of Anaxagoras. Indeed, the conjunction of the earthy/stony sun and moon, and the τὰ πάντα ὡμοίῳ strongly suggests that the target must be someone close to Anaxagoras. Yet, just as clearly, Anaxagoras himself is not a suitable target because in Anaxagoras' theory Mind is not posterior to, or derived of, the elements and the opposites, and, moreover, it is precisely not the elements and the opposites that initiate motion, but the Mind. At the same time, the argument is ill-suited against the atomists as well, for they explicitly deny that there ever was or will be such a motionless state.

Let me try to show now that these worries do not arise in the case of Archelaus. For this purpose I will need to have a closer look at the cosmological and physical fragments. The evidence is lamentably scarce. The testimonies however do provide the outlines and make up a fairly coherent narrative. As usual, the ultimate source is probably Theophrastus, who according to the catalogue of his works in Diogenes Laertius, devoted a book-length study to Archelaus (D.L. 5.42).

The starting-point of most doxographies is Archelaus' dependence on his presumed teacher Anaxagoras. Simplicius, quoting Theophrastus, presents him as a rather unimaginative epigone [T15]:

Archelaus of Athens, of whom they say that Socrates was an associate, and who was himself a pupil of Anaxagoras, tried to bring in some personal contribution in cosmogony and other subjects, but gave the same account of the principles as did Anaxagoras. So these men say that the principles are unlimited in number and different in kind, and posit the homoeomeries as principles. (Simplicius, in Phys. 27.23 = Theophrastus, Phys. op. 228A FHS&G (ad fine) = A5 DK).

Καὶ Ἀρχέλαος ὁ Ἀθηναῖος, ψι καὶ Σωκράτης συγχένασιν φασιν Ἀναξαγόρου γενομένῳ μαθητῇ, ἐν μὲν τῇ γενέσει τοῦ κόσμου καὶ τοῖς ἄλλοις πειράται τι φέρειν ίδιον, τὰς ἀρχὰς δὲ τὰς αὐτὰς ἀποδίδωσιν ἄσπερ Ἀναξαγόρας. οὗτοι μὲν οὖν ἀπερίους τῷ πληθεὶς καὶ ἀνομογενεῖς τὰς ἀρχὰς λέγουσι, τὰς ὁμοιομερεῖς τίθέντες ἀρχάς. 5

It seems fair to say, then, that Archelaus' cosmogonic narrative had the same starting point as Anaxagoras: an immobile mixture that contained the opposites and the homoeomeries – the famous πάντα ὡμοίῳ. Yet, immediately after the initial stage, we encounter the first notable deviation from Anaxagoras. For Archelaus apparently rejected Anaxagoras' most remarkable innovation, namely that Mind introduced motion into the mixture. As Hippolytus informs us [T16]

(Philipus maintained that) the origin of movement is the separation of the hot and the cold from one another, and the hot moves and the cold stays still. (Hip. Ref. 1.9.2)

ἐἶναι δὲ ἀρχῆν τῆς κινήσεως ἄθορυνται ἀπ’ ἀλλήλων τὸ θερμὸν καὶ τὸ ψυχρόν, καὶ τὸ μὲν θερμὸν κινεῖσθαι, τὸ δὲ ψυχρὸν ἄρεμεν.

Phrased somewhat differently, the point occurs in Diogenes Laertius as well [T17]:

He said that there are two causes of generation, hot and cold (…) (D.L. 2.16.5–6)

ἐλεγε δὲ δύο αἵτις εἶναι γενέσεως, θερμὸν καὶ ψυχρόν.

5 Cf. also Hip. Ref. 1.9.1: ‘He spoke about the mixture of matter in a way similar to Anaxagoras, and in the same way about the principles.'
This is obviously precisely the type of account about the origin of motion that the Athenian presents as his target.6

But what about mind, then? In Archelaus’ theory, mind apparently loses not only its motor function, but also its fundamental Anaxagorean characteristic – its purity. As Hippolytus puts it [Ti8]:

There was a certain mixture inhering in mind right from the start

τῷ νῷ [codd. τώ νών] ἐνυπάρχειν τι εὐθέως μίγμα.

This is admittedly not very clear.7 On the other hand, a number of sources clearly state that Archelaus in this respect, too, adhered to the more traditional Ionian view, attested from Anaximenes to Diogenes of Apollonia, and according to which mind – which he may or may not have distinguished from soul – is air or airy (Aëtius 4.3.2.). Most notable among these is the Aëtian chapter on god that I have quoted earlier. At that point, I however left out the final words of the lemma. The full text runs like this [Ti9]:

Archelaus (maintained that) the god is air and mind; mind however is not maker of the cosmos. (Aëtius 1.7.14)

[τίς ὁ θεός Ἀρχέλαος ἀέρα καὶ νοῦν τὸν θεόν, οὐ μέντοι κοσμοποιών τὸν νοῦν.

The last tag – ‘mind however is not maker of the cosmos’ – is highly noteworthy in the present context. It is I think a strong recognition of the fact that Archelaus’ theory was even less teleological than that of Anaxagoras, and used Mind even to a lesser degree than his assumed master did. And we soon understand why the air/mind/god could not function as the operative agent of cosmogony.8 Singling out the separation of hot and cold as the initial step in the cosmogonic process and the origin of motion already suggests that air was not there from the beginning. This is borne out by the admittedly rather obscure descriptions of the later stages of the development of the cosmos in D.L. and Hippolytus [T20]:

(He also maintained that) the origin of movement is the separation of the hot and the cold from one another, and the hot moves, whereas the cold stays still. When water is melted, it flows into the middle, where, having been burnt up, it becomes air and earth, of which the former is carried upwards, whereas the latter settles bellow. (Hip. Ref. 1.9.2)

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6 These report also explain why some later sources, like Hermias in A8 DK could claim that Archelaus’ principles are the hot and the cold. Making the separation of hot and cold from an original mixture the starting–point of the birth of the cosmos is at the same time highly reminiscent of the beginning of Anaximander’ cosmogonic narrative (cf. Ps.–Plut., Stom. 2. = 12 Αθo DK).

7 The report is echoed in Augustine De civ. 8.2: ‘Anaxagoras was succeeded by his disciple Archelaus. The latter also held that the universe is composed of homogeneous particles out of which each individual thing was made. But he also held that mind is inherent in them, which governs the universe by conjoining and separating eternal bodies, that is those particles.’

8 Incidentally, this identification of mind, and god, as air must be the motivation behind the alternative tradition, which takes air, and not the homoeomeries, to be Archelaus’ arkhe. Indeed, the two most important lists of arkhai – Sextus Empiricus M9.360 = A7.1 DK (the most extensive inventory we have) and Aëtius’ chapter περὶ τῶν ἀρχῶν τί εἴσιν – enlist Archelaus among those who teach that the air is the principle. The formulation in Aëtius is particularly noteworthy: Archelaus, the son of Apollodoros, of Athens (held that the principle is) the infinite air with its condensation and rarefaction. Of these the former is which is water, the latter fire (Aëtius 1.3.6 = Α7.2).

[περὶ τῶν ἀρχῶν τί εἴσιν] Ἀρχέλαος Ἀπολλοδώρου Αθηναῖος ἀέρα ἀπέιρον, καὶ τὴν περὶ αὐτῶν πυκνότητα καὶ μάνωσιν, τούτων δὲ τὸ μὲν εἶναι πῦρ τὸ δ’ ὕδωρ.

Once again, this is much more redolent of Anaximenes than of Anaxagoras. As a matter of fact, the return to the Ionian model of the inter-transformation of the elements along some quantitative scale is the denial of the Anaxagoras’ theory of matter based on the principles of ‘everything in everything’ and ‘predominance’
eînai <dè> ἀφηγή τῆς κινήσεως <τό> ἀποκρίνεσθαι ἀπ’ ἀλλήλων τὸ θερμὸν καὶ τὸ ψυχρὸν, καὶ τὸ μὲν θερμὸν κινεῖσθαι, τὸ δὲ ψυχρὸν ἥρεμειν. τηρήμενον δὲ τὸ ὕδωρ εἰς μέσον ἥκει, ἐν ὧν κατακαλύμενον ἄερα γίνεσθαι καὶ γῆν· ὃν τὸ μέν ἄνω φέρεσθαι, τὸ δὲ ψυφίστασθαι κατ’ως.

Making the intelligent and divine air derivative marks Archelaus’ distance from other earlier and contemporary air-theorists, like Anaximenes, Diogenes of Apollonia or the Derveni author who all took their respective divine/air/minds primary, and part of the original ontological furniture of the world. A further indication, I take it, that Archelaus pared down the role of cosmic intelligence. At the same time, this corresponds, once again, remarkably well to the theory presented by the Athenian: soul is derivative and appears only at a later stage of the cosmogonic process.

Admittedly, there is one serious rider: the Athenian emphatically and explicitly targets those who deny that there are gods. As opposed to this, we have just seen that air is also god for Archelaus. I don't want to minimize the force of this caveat. Yet it seems to me that in Archelaus’ account, the air is not only distanced from the traditional gods, but has even lost all the prerogatives that the divine first principles of other Presocratics retained. It is neither prior, nor a source of motion, nor again a principal factor in cosmogony, nor again unmixed. In fact, it is hard to see what could its divinity consist in at all.

Finally Laws 10 leads me back to where I started – the conjunction of cosmogony and KL. For the pernicious theoreticians of Laws 10 clearly add to their physical account an account about the origins of the arts and crafts, as well as of social and political institutions. As the Athenian emphasizes, they declare that all the crafts and all politics and legislation is human creation, even if some of it has some share in nature. Gods, on the other hand, are denied any role in the emergence of human culture. Indeed, the gods themselves are also by the conventions of the different communities, and are arrived at by the agreement of the lawgivers [T21] (899E: The first thing they claim about the gods, my dear friend, is that they exist by art, not by nature but by certain conventions, which are different at different places, according to the way in which the lawgivers agreed among themselves (trans. Mayhew, modified) Θεοὺς, ὁ μακάριε, εἶναι πρῶτον φαινομενον τέχνη, οὗ φύσει ἄλλα τίσι τόνοις, καὶ τούτους ἄλλους ἄλλη, ὅπη ἕκαστοι ἐκατοσί παρὰπαν καὶ υποθετούνται.)

And, continues the Athenian:

And in particular they claim that fine things by nature differ from fine things by conventions, whereas nothing at all is just by nature, but people continue to disagree with one another, and keep altering these things [i.e. what is considered just], and every modification becomes binding at that time, even though it has come into being by art and by conventions, but in no way by any nature. (889E5–890A2)

καὶ δὴ καὶ τὰ καλὰ φύσει μὲν ἄλλα εἶναι, νόμῳ δὲ ἔτερα, τὰ δὲ δὴ δίκαια οὐδ’ εἶναι τὸ παράπαν φύσει, ἄλλ’ ἀμφισβητοῦντας διατελεῖν ἄλληλοις καὶ μετατιθεμένοις ἀεὶ ταῦτα, καὶ δ’ ἄν μεταθωντας καὶ ὅταν, τότε κύρια ἐκαστα εἶναι, γιγνόμενα τέχνη καὶ τοῖς νόμοις ἄλλ’ οὗ δὴ τοις φύσει

I don’t want to claim that our information about Archelaus is very specific. But it seems to me that what the Athenian says once again accords remarkably well with the little we know – the human origin of laws, cities, and crafts, a philosophical theory about the fine and the just, and the view that the just and the ignoble in particular are not by nature but by convention.

Admittedly, the evidence is cumulative, rather than decisive. Yet, remember what we were looking for: a theory current especially in Athens, relatively recent, advancing a specific physical, cosmogonic theory, and continuing in a narrative about the conventional origins of human institutions and norms. All possible caveats notwithstanding, I find the match with Archelaus striking.

Now, the most detailed and well-known surviving conjunction of cosmology and Kulturentslehre comes in Lucretius’ poem. As it happens, we have unmistakable traces that Lucretius – surely following Epicurus – integrated elements of Archelaus’ theory. For instance, all
commentators of Lucretius agree that the image of the earth nourishing the first generation of the newly born animals with a milk-like slime echoes Archelaus' idea that the different animal species that emerged from the hot earth were first fed on milk-like mud [T22 and T 23]

He says that the animals grow from the hot earth, as it spews up mud resembling milk as a sort of nourishment; this is also how it produced human beings. (D.L. 2.16.10)

So, where a suitable place was given, wombs grew fastened to the earth by roots, and when in due time the age of infants had broken these open, meeting the moisture and seeking the breezes, nature redirected there pores of the earth and forced juice like milk to flow from open veins...

But there was apparently more. For as D.L. informs us [T24]:

Of all the ancient philosophers, says Diocles, he [sc. Epicurus] approved of Anaxagoras – even if on some points he contradicted him – and Archelaus, the teacher of Socrates. (D.L. 10.12)

I can't help believing that what earned Epicurus' qualified appreciation of Anaxagoras, and the apparently even fuller approval of Archelaus, were not such particular details of physical theory, as the milk-like mud, but much rather the overall project of giving a unified account of the origin of the cosmos and the origin of human society and culture.