

# Episode One Hundred Twenty-Three: Letter to Herodotus 12 - Events and Time

Post by "Cassius" of May 20, 2022 at 5:20 PM

Welcome to Episode One Hundred Twenty Three of Lucretius Today.

This is a podcast dedicated to the poet Lucretius, who wrote "On The Nature of Things," the only complete presentation of Epicurean philosophy left to us from the ancient world.

I am your host Cassius, and together with our panelists from the EpicureanFriends.com forum, we'll walk you through the ancient Epicurean texts, and we'll discuss how Epicurean philosophy can apply to you today. We encourage you to study Epicurus for yourself, and we suggest the best place to start is the book "Epicurus and His Philosophy" by Canadian professor Norman DeWitt.

If you find the Epicurean worldview attractive, we invite you to join us in the study of Epicurus at EpicureanFriends.com, where you will find a discussion thread for each of our podcast episodes and many other topics.

Today we continue in [Epicurus' letter to Herodotus](#), and address some difficult material about the properties and qualities of atoms and bodies and what it means to exist. We probably raise more issues than we answer in this episode, so please review the show notes and we will come back to these issues in the next show.

Now let's join Martin reading today's text:

Bailey

All these properties have their own peculiar means of being perceived and distinguished, provided always that the aggregate body goes along with them and is never wrested from them, but in virtue of its comprehension as an aggregate of qualities acquires the predicate of body.

[70] Furthermore, there often happen to bodies and yet do not permanently accompany them accidents, of which we must suppose neither that they do not exist at all nor that they have the nature of a whole body, nor that they can be classed among unseen things nor as incorporeal. So that when according to the most general usage we employ this name, we make it clear that accidents have neither the nature of the whole, which we comprehend in its aggregate and call body, nor that of the qualities which permanently accompany it, without which a given body

cannot be conceived.

[71] But as the result of certain acts of apprehension, provided the aggregate body goes along with them, they might each be given this name, but only on occasions when each one of them is seen to occur, since accidents are not permanent accompaniments. And we must not banish this clear vision from the realm of existence, because it does not possess the nature of the whole to which it is joined nor that of the permanent accompaniments, nor must we suppose that such contingencies exist independently (for this is inconceivable both with regard to them and to the permanent properties), but, just as it appears in sensation, we must think of them all as accidents occurring to bodies, and that not as permanent accompaniments, or again as having in themselves a place in the ranks of material existence; rather they are seen to be just what our actual sensation shows their proper character to be.

[72] Moreover, you must firmly grasp this point as well; we must not look for time, as we do for all other things which we look for in an object, by referring them to the general conceptions which we perceive in our own minds, but we must take the direct intuition, in accordance with which we speak of "a long time" or "a short time," and examine it, applying our intuition to time as we do to other things. Neither must we search for expressions as likely to be better, but employ just those which are in common use about it.

Nor again must we predicate of time anything else as having the same essential nature as this special perception, as some people do, but we must turn our thoughts particularly to that only with which we associate this peculiar perception and by which we measure it.

[73] For indeed this requires no demonstration, but only reflection, to show that it is with days and nights and their divisions that we associate it and likewise also with internal feelings or absence of feeling, and with movements and states of rest; in connection with these last again we think of this very perception as a peculiar kind of accident, and in virtue of this we call it time.

HICKS

They all have their own characteristic modes of being perceived and distinguished, but always along with the whole body in which they inhere and never in separation from it; and it is in virtue of this complete conception of the body as a whole that it is so designated.

[70] Again, qualities often attach to bodies without being permanent concomitants. They are not to be classed among invisible entities nor are they incorporeal. Hence, using the term 'accidents' in the commonest sense, we say plainly that 'accidents' have not the nature of the whole thing to which they belong, and to which, conceiving it as a whole, we give the name of body, nor that of the permanent properties without which body cannot be thought of.

[71]And in virtue of certain peculiar modes of apprehension into which the complete body always enters, each of them can be called an accident. But only as often as they are seen actually to belong to it, since such accidents are not perpetual concomitants. There is no need to banish from reality this clear evidence that the accident has not the nature of that whole – by us called body – to which it belongs, nor of the permanent properties which accompany the whole. Nor, on the other hand, must we suppose the accident to have independent existence (for this is just as inconceivable in the case of accidents as in that of the permanent properties); but, as is manifest, they should all be regarded as accidents, not as permanent concomitants, of bodies, nor yet as having the rank of independent existence. Rather they are seen to be exactly as and what sensation itself makes them individually claim to be.

[72]There is another thing which we must consider carefully. We must not investigate time as we do the other accidents which we investigate in a subject, namely, by referring them to the preconceptions envisaged in our minds; but we must take into account the plain fact itself, in virtue of which we speak of time as long or short, linking to it in intimate connexion this attribute of duration. We need not adopt any fresh terms as preferable, but should employ the usual expressions about it.

Nor need we predicate anything else of time, as if this something else contained the same essence as is contained in the proper meaning of the word 'time' (for this also is done by some). We must chiefly reflect upon that to which we attach this peculiar character of time, and by which we measure it.

[73] No further proof is required: we have only to reflect that we attach the attribute of time to days and nights and their parts, and likewise to feelings of pleasure and pain and to neutral states, to states of movement and states of rest, conceiving a peculiar accident of these to be this very characteristic which we express by the word 'time.' [He says this both in the second book "On Nature" and in the Larger Epitome.]

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## **Post by “Cassius” of May 28, 2022 at 8:58 AM**

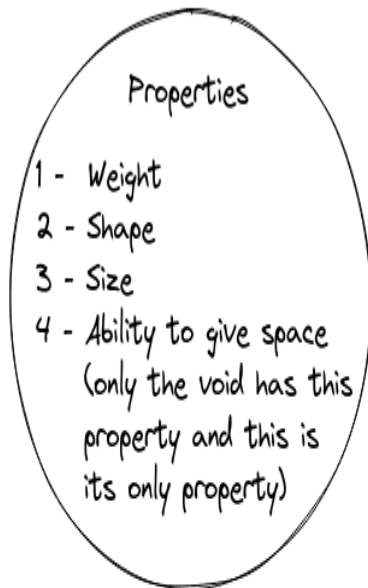
Sorry for the delay in getting this week's episode posted, but it should be up later today. In the meantime as it goes through editing, here are some comments;

1 - Joshua brought up the highly useful idea of using Venn Diagrams to illustrate issues involving the relationship between Properties and Qualities. I'm going to slap together a preliminary version for discussion purposes but it's likely to be either wrong or woefully incomplete. It would be an EXCELLENT idea to get a good one however.

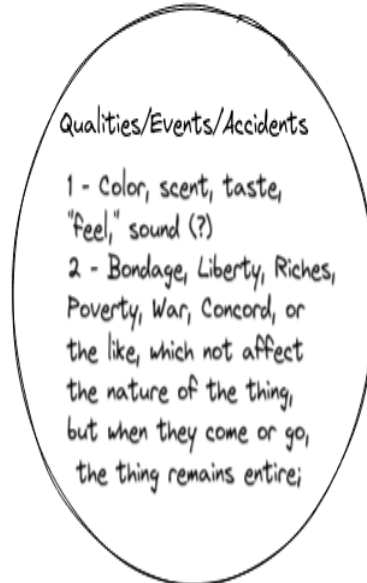
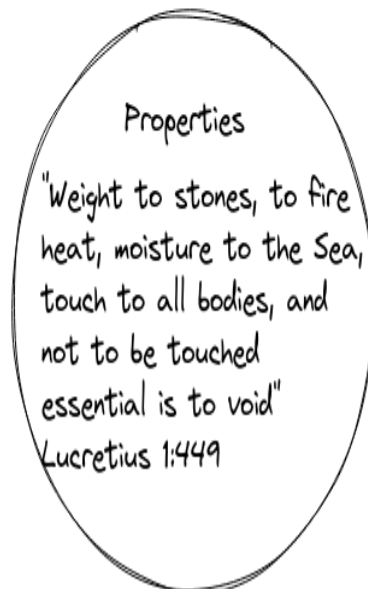
This one needs to be torn apart and put back together but it is a starting point for thought / discussion:

## The Relationship of Properties and Qualities in Epicurean Philosophy - DRAFT!!! Lucretius 1:418 et seq.; Letter to Herodotus 67 et seq.

Atomic Level  
(individual atoms in  
the void)



"Body" Level  
(atoms and void  
aggregated into people  
and trees and all that is  
in the observable world  
around us)



Takeaways:

1 - Nothing has permanent unchanging existence except atoms and void (no realm of Platonic ideals or Aristotelian Essences)

2 - The atoms have no unchanging eternal properties other than shape, weight, and size. The void has only one eternal and unchanging property: it provides space in which bodies exist.

3 - Human senses cannot penetrate to observe directly the level of unchanging atoms - our sensations occur on the level of "bodies" that we see in the world around us, and therefore our level of existence is subject to change.

3 - Some bodies we consider to have "properties," which are aspects like weight to stones which cannot be changed at our level of existence without destroying what we perceive to be its essence.

4 - Bodies also have "qualities" which can and do change without changing their essence, which include slavery, poverty, riches, war, peace, rest, motion. (See Loeb / Hicks edition of Dlogenes Laertius, page 600.)

5 - Successful living requires being able to understand how the world we live in arises from the atomic level, and how some things change while others do not change, all without the creation or supervision of supernatural gods.

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### **Post by “Cassius” of May 28, 2022 at 9:01 AM**

OK I recognize that the circles in the diagram above don't intersect, so maybe it's not really a Venn diagram. That's where we need an improved version, because one of the points is that the word "properties" appears to be used in Epicurean texts as referring in some contexts to both (1) the unchanging aspects of atoms (weight, shape, and size) and in other contexts to (2) the essential aspects of some bodies which, if lost, lead to what we consider to be the destruction of the body, like loss of weight to a stone, or loss of moisture to the sea, or loss of heat to fire, which events would destroy that object at least in our perception of it.

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### **Post by “Cassius” of May 28, 2022 at 9:19 AM**

To amplify on this one:

4 - Bodies also have "qualities" which can and do change without changing their essence, which include slavery, poverty, riches, war, peace, rest, motion. (See Loeb / Hicks edition of Dlogenes Laertius, page 600.)

Are in fact rest, motion, and TIME properly considered to be Qualities / Events? I think so based on what I am reading. I point this out because it seems to me it is one thing to consider bondage/liberty/riches/poverty etc to be "qualities" but to consider "time" and "motion" and "rest" to be qualities stretches our normal use of the word "quality."

"Event" seems a much more appropriate word for time and motion and rest than "quality" or "accident," and that's likely another argument for using the term "Event" to describe this category.

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### Post by “Don” of May 28, 2022 at 9:30 AM

#### [Quote from Cassius](#)

OK I recognize that the circles in the diagram above don't intersect, so maybe it's not really a Venn diagram.



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### Post by “Cassius” of May 28, 2022 at 9:38 AM

Don laughs, but wait til you hear the episode and it will REALLY be confusing! 😊 However, the first step toward unraveling things is to at least "put it out there" what we want to talk about! 😊 If intersecting circles is the essence of a Venn diagram, then this is really tricky.

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### Post by “Cassius” of May 28, 2022 at 12:26 PM

Episode 123 of the Lucretius Today Podcast is now available. This week we tackle the implications of "properties" and "qualities" of matter in the context of "time."

<https://www.spreaker.com/episode/49978156>

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## Post by “Julia” of October 11, 2024 at 10:11 AM

### How I Think About Time

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We've all seen projections of 3D objects onto 2D planes, such as this arch. It is reasonably easy for us to understand what we see is supposed to be a three-dimensional building, even though we really only see strange lines on a flat screen, even though all we see is in 2D. Paintings, photographs and motion pictures are such 3D-onto-2D projections, after we're born, we start practising them as soon as we can say "Crayon!" 😊 and by the time we're grown up, we know them well.

Now, imagine for a moment, you meet a 2D creature: Their body is in 2D, their senses can only perceive 2D and their mind's capabilities are also limited to concepts of a maximum of two dimensions. Soon, you might find them in a situation like this:

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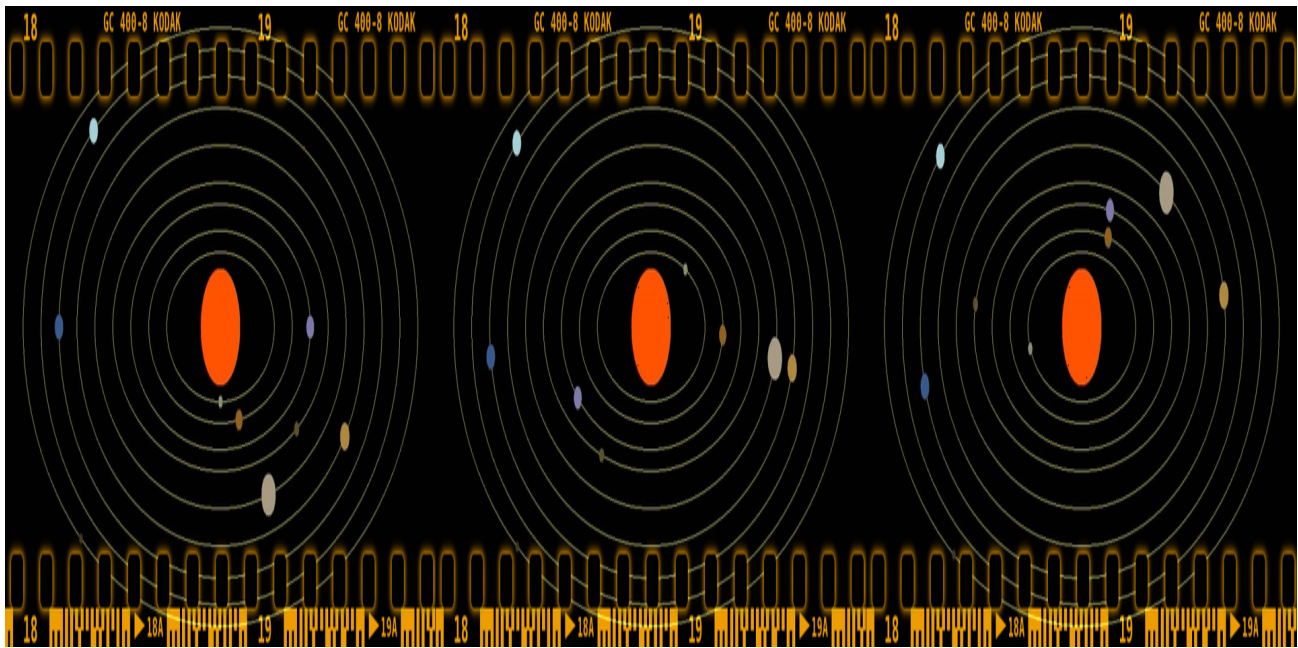
You and I, because we're 3D-capable humans, we see that our new 2D friend is in a 3D world, but they themselves can't make heads or tails of it - they keep bumping into that block, without understanding why, because to them, with their pure 2D perception and understanding, it looks just like all the rest of the world! Eventually, they will reason about their world, use the 2D sense perception they have, and theorise that "Whenever there is a dark spot (shadow) on the floor an invisible obstacle is near!" They will test the theory, see it to be 100% true, call it a law of physics, and it will help them make sense of things; not perfectly, but much better than before.

Just like the third spacial dimension is beyond the sensory abilities and mental conceptualisation capabilities of our 2D friend, any fourth dimension would be beyond the sensory and mental abilities of humans: We cannot visualise or think in four dimensions. We can merely reason about additional dimensions, even reason mathematically and geometrically, but we literally cannot hold dimensions beyond 3D in our mind the same as we can three dimensions; the hardware just isn't there for our brains to do that. The same is true for the sensation of time: Just like UV radiation, we cannot sense it directly. We can sense UV's

effect, sense a sun-burn, we can also reason about where it came from, but we cannot directly sense the UV light due to which it occurred, and we cannot see UV light in our mind's eye, either – if we try to, we'll intuitively just end up transposing the colour of UV (which we never saw and never will see...) onto a colour we know – for me it's bright purple. So even though we cannot sense nor hold UV light as a concept (mind's eye), we can sense it's effects and reason about it. Magnetism is the same: Unlike migratory birds or sea-creatures, we cannot sense the earth's magnetic field directly, either. We can, however, use a compass to transpose magnetism onto our visual sense – just like we can transpose UV light to visual light and pretend it's bright purple. And for time, we use a clock to project that dimension onto our other senses: A typical clock allows me to see *the effects of time*, about half my clocks also allow me to hear *the effects of time*, and for a long time I even wore a watch that enabled me to feel haptically the effects of time, but never do I see, hear or otherwise feel or sense *time itself* directly – and this is why, in sensory deprivation, humans gradually loose all sense about time.

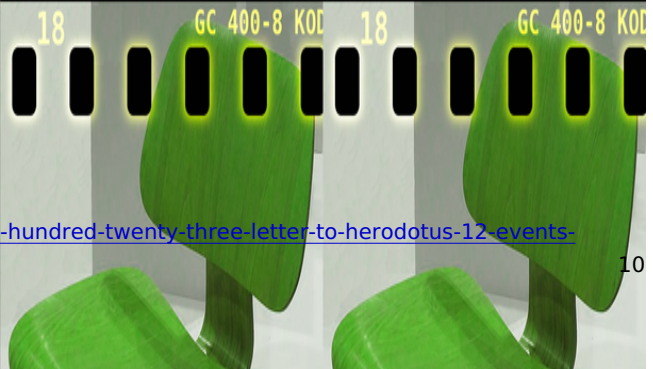
The opposite of sensory deprivation is sensory augmentation; and indeed: Sensory augmentation massively enhances and trains our sense of time – for a while. For example: If you're subjected to a one-minute noise every 15 minutes, after a day or so, you'll know quite precisely when the current 15-minute-interval is up, you'll be able to count down to the beginning of the next noise almost to the second. However, this new-found precision in your *intuition of time* does not last for more than a day or two after the noises stop, because it is precisely that, an *intuition* -- not a sense. (Similar ways exist to, for example, enhance intuitive navigation and spatial reasoning, but they too don't last after the augmentation is stopped.)

So to make sense of a fourth dimension, we need to simplify things first. Personally, I prefer to mentally "step out of the universe". To do that, I artificially limit the infinity of space; for instance, I pretend the universe consists merely of our solar system. I'm floating in space next to it, clicking away at my Kodak. Now, the passage of time is captured as the frame-by-frame progression on film:



Instead of capturing reality in such vastly simplified 2D scenes, I could capture it as perfect 3D-to-2D projections, such as proper photos, or even holograms. And what's more, I could account for the swerve (or quantum probability effects), by adding branches:

Rain



In this scene, at first there was a plain wooden chair, neatly captured on film as a 3D-to-2D projection. During each day, I make one picture at the same time. During the night from the 2nd to the 3rd day, due to the the swerve, complex quantum probabilities and free-willed humans, there will be two choices: Either it starts to rain, or someone comes to paint the chair. The past is a single, simple sequence of events, the future is still undetermined, and branches into different sequences at every swerve/quantum/choice junction. Once any given junction is reached, only one possibility will actually manifest and become a real event in the timeline. The other options, and all they would have led to in turn, will be lost entirely, forever – and just like in a 3D cinema, no matter the tantrum I throw, there are no do-overs, no scenes are ever replayed, and I don't get to press pause, either.

(Another way to think of time is to think of the universe as residing in a cylinder, which is shot through a pneumatic tube mail system: the further it moves ahead, the further time progresses inside the transport cylinder. For every swerve/quantum/choice event, the cylinder reaches a junction box, from where our universe is transported along one lane or another – and the path-not-taken is effectively lost forever (in science fiction, the path-not-taken is usually called alternate timeline).)

This is how I think of time – and this is why I think that Epicurus appeals to our *intuitive* understanding of it: We cannot sense it directly, because we have no such organ. We cannot hold it as a concept mentally, because our senses don't capture it and it is an additional dimension, which is beyond what our brains can do. We can only reason about it, we can only infer it's existence, because our senses don't lie, and they offer perpetual *streams of varying* sensory perceptions. Through the life-long exposure to these, we gain an intuitive – that is: non-sensual, internal, gut – understanding of time, because our brains learn to simulate it to some extent (ie, we can approximately tell when one minute has passed), thanks to various biological cycles ("clocks"); but they each depend on being perpetually re-adjusted based on the *streams of varying* sensory inputs we get.

(In terms of physics, time can reasonably be called a "dimension", however it is not an additional spatial dimension, such as height/width/depth; it is a dimension of its own kind, and behaves differently. However, for ordinary day-to-day life, I still find it very useful to imagine it spatially in the ways outlined above.)

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## **Post by “Cassius” of October 11, 2024 at 10:21 AM**

I'm going to have to reread this to get the most out of it, but I want to state already:

- I am very appreciative of your going through old episodes and adding commentary like this! We're doing a better job nowadays in discussing the episodes in real time, but there are a lot of old episodes with great material but little commentary, and this helps a lot.
- This post immediately strikes me as similar to your excellent and recent [archery post](#) pointing out how the archery researcher went back and looked at very old historical records and reinterpreted them to find out things that most were missing (and how much information had been lost). Developing analogies like this is a great way of understanding the topic and prompting others to think about the parallels and take them even further.

## Post by “TauPhi” of October 12, 2024 at 8:52 PM

[Julia](#) Thank you for taking time 😊 to write such a thorough post. From Epicurean perspective, I don't think there is much material regarding time available, but I want to mention two, maybe not so obvious, sources which I find particularly interesting.

1) Sextus Empiricus "Outlines of Pyrrhonism", Book 3, 137 (I provide two translations for comparison):

### Quote

Epicurus (according to Demetrius the Laconian) [defines time] as "a concurrence of concurrences, concomitant with days and nights and seasons and affections and nonaffections and motions and rests." - **R.G. BURY - "OUTLINES PYRRHONISM" (1990) p. 235**

Epicurus, according to Demetrius the Laconian, [defines time] as an event made up of events, accompanying days and nights, seasons, paths and the opposite, motions and rests. - **BENSON MATES - "THE SKEPTIC WAY Sextus Empiricus's Outlines of Pyrrhonism" (1996), p. 195**

2) Epicurus, On Time (PHerc. 1413/1416)

If I remember correctly, someone has already mentioned this Herculaneum scroll in the forum (sorry, I don't remember exactly where I've seen it). I don't think there's English translation of the scroll available, but there's a summary of a talk from 2022 by Alessia Lavorante in the pdf linked below (pages 7-10) where a lot of information about the scroll is provided. Definitely worth a read.

<http://www.herculaneum.ox.ac.uk/sites/default/files/2022->

<https://www.epicureanfriends.com/thread/2529-episode-one-hundred-twenty-three-letter-to-herodotus-12-events-and-time/>

**Post by “Julia” of October 13, 2024 at 7:17 AM**

Thank you for pointing out those references to me!

"An event made up of events" does fit my visualisation of it quite nicely, because (even though time really is a continuous stream) I think of it as an very infinite series of not-quite-as infinitesimally short moments, such that it is more like what's called a [stop frame animation](#). Then, every frame is one event, and all of the various things which changed with this new frame are also events, making each frame an event of events, and time itself and event of events of events. Considering, now, that my perspective-shift from time being a continuous stream to "frames" was artificial, the middle layer of events was artificial, which makes time a never-ending event, itself comprised of minuscule events; an event of events. That it would be "accompanied" by anything seems rather strange to me...rather, I'd say it "brings with it" or "allows for" everything. Might be a translation issue? Maybe I understand his "event of events" wrong? Or maybe, dare I say it, Epicurus was only human and didn't chose his verb perfectly?



Regarding the Herculaneum scrolls, I skimmed over the article, and I'm genuinely very happy to see people working on these, but I've found I'm better off focusing on actual translations - the scrolls themselves still just breaks my heart...