

Episode 128 - The Twelve Fundamentals of Physics

Post by “Cassius” of June 25, 2022 at 7:10 AM

Welcome to Episode One Hundred Twenty Eight 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.

This week we are going to take a detour from the letter to Pythocles while both Joshua and Don are away. For this one week only (unless something unusual develops) we will discuss the Twelve Fundamentals of Nature. Part of the discussion has already begun here: [The Twelve Fundamentals - Discussion on Lucretius Today Podcast](#)

We'll refer to two lists, one by DeWitt and one by Diskin Clay:

The Elementary Principles of Nature below are as set forth by Epicurus and summarized in English by Norman Dewitt in his book "Epicurus And His Philosophy." This list is provided for convenience. For discussion of each item, please [see the forum devoted to each one](#).

[PN 01](#) Matter is uncreatable.

[PN 02](#) Matter is indestructible.

[PN 03](#) The universe consists of solid bodies and void.

[PN 04](#) Solid bodies are either compounds or simple.

[PN 05](#) The multitude of atoms is infinite.

[PN 06](#) The void is infinite in extent.

[PN 07](#) The atoms are always in motion.

[PN 08](#) The speed of atomic motion is uniform.

<https://www.epicureanfriends.com/thread/2573-episode-128-the-twelve-fundamentals-of-physics/?postID=18548#post18548>

[PN 09](#) Motion is linear in space, vibratory in compounds.

[PN 10](#) Atoms are capable of swerving slightly at any point in space or time.

[PN 11](#) Atoms are characterized by three qualities: weight, shape and size.

[PN 12](#) The number of the different shapes is not infinite, merely innumerable.

Thanks to Nate for retrieving these different reconstruction of this list by Diskin Clay: ["Epicurus' Last Will and Testament" - by Diskin Clay](#)

In *Paradosis and Survival* (12), Clay writes:

1. **"Nothing comes into being out of nothing."** (EH 38.8-39.1, DRN I 145-150, 159-160)
2. **"Nothing is reduced to nothing."** (EH 39.1-2, DRN I 215-218, 237)
3. **"The universe always was as it is and always will be."** (EH 39.1-2, DRN II 294-307; V 359-363) (*Atomic Theory; Quantum Field Theory*)
4. **"The universe is made up of bodies and void."** (EH 39.6-40.2, DRN I 418-428)
5. **"Bodies are atoms and their compounds."** (EH 40.7-9, DRN I 483-486)
6. **"The universe is infinite."** (EH 41.6-10, DRN I 958-1001)
7. **"Atoms are infinite in number and space extends without limit"** (EH 41.11-42.4, DRN I 1008-1020)
8. **"Atoms of similar shape are infinite in number, but the variety of their shapes is indefinite, not infinite."** (EH 42.10-43.4, DRN II 522-527)
9. **"Atomic motion is constant and of two kinds."** (EH 43.5-44.1, DRN II 95-102 [I 952])
10. **"Atoms share only three of the characteristics of sensible things: shape, weight, mass."** (EH 54.3-6, DRN II 748-752)

In *Lucretius' Translation of Greek Philosophy* (35-39), Clay writes:

1. **"Nothing is created out of nothing"** (DRN I 145-150, 159-160)
2. **"Nothing is reduced to nothing."** (DRN I 215-218, 237)
3. **"The universe is made up of two components: body and void."** (DRN I 418-428)
4. **"Body is understood as atoms and their compounds."** (DRN I 438-486)
5. **"Atoms share only three of the characteristics of sensible things: shape, weight, mass."** (DRN II 748-752)

6. “Atomic motion is constant and of two kinds.” (DRN I 952)

7. “The universe is infinite.” (DRN I 958-864)

8. “The atoms are infinite in number, and space extends without limit.” (DRN 1008-1020)

9. “Atoms of similar shape are infinite in number, but the variety of their shapes is indefinite, not infinite” (DRN I 1008-1020)