Episode Ninety - Recap Of Atomism In Preparation for Details of Magnetism

Post by “Cassius” of September 23, 2021 at 9:54 AM

Welcome to Episode Ninety of Lucretius Today.

I am your host Cassius, and together with my panelists from the EpicureanFriends.com forum, we'll walk you through the six books of Lucretius' poem, and 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.

For anyone who is not familiar with our podcast, please visit EpicureanFriends.com where you will find our goals and our ground rules. If you have any questions about those, please be sure to contact us at the forum for more information.

In this Episode 90 we will read approximately Latin lines 906-998 as we discuss the hot and cold springs and similar phenomena.

Today we have with us a guest panelist, Joshua, who is a regular member of the EpicureanFriends.com forum. Now let's join Joshua reading today's text.

Munro Notes-

906-916: to discuss now the magnet, a stone which has the power of attracting iron, and communicating this power to a series of pieces of iron.

917-920: but many points have to be cleared up, before we come to the actual question.

921-935: we have said already that particles are constantly streaming from all things, which affect in various ways all the senses.

936-958 let me repeat that all things in being are of rare and porous bodies, so that particles can and do pass through them in all directions : this is proved by the whole of nature.

959-978: again particles emitted from bodies act very differently on different things: fire hardens one thing, melts another; and so does water; what is pleasant to one creature is hateful to another.

979-997: once more, the pores of things differ, as well as the particles which things emit; so that by different kinds of pores the different senses receive each its own object : thus too one

thing will pass through a metal, another through wood, and so on; and one thing will pass more quickly than another through the same pore or opening.

Browne 1743

[906] And now I shall begin to show by what power of nature it is that the stone (which the Greeks call a magnet, from the country that produces it, for it is found in the region of the Magnetes) has the virtue to attract iron. Men are amazed at the qualities of this stone, for it will make a chain of several little rings of iron, without a link between, to hang together entirely from itself. You may sometimes see five or more hanging straight down, and play in the gentle air, as they stick close and depend at the bottom one upon another; the ring that follows feels the attraction and power of the stone from that above it. So strongly is the virtue of the magnet communicated to the several rings; it acts with so great a force.

[917] In inquiries of this nature many things are to be first proved before we can fix upon the true cause; we must trace the subject through many long and intricate difficulties; and therefore I beg you will hear me with a willing mind, and with the closest attention.

[921] And first, certain seeds must necessarily flow, be sent out, and continually dispersed abroad, from all things whatever we see, which must strike upon the eye and affect the sight. From some bodies a train of smells are always flying off. So cold is emitted from the rivers; heat from the sun; a salt vapor from the water of the sea that eats through walls along the shore, and various sounds are always flying through the air. And as we walk upon the strand, a briny taste frequently offends our mouth, and when we see a bunch of wormwood bruised, the bitterness strikes upon the palate. So plain it is that something is continually flowing off from all bodies, and is scattered about. There is no intermission, the seeds never cease to flow, because the sense is continually affected, we still continue to feel, to see, to smell and hear.

[936] Now I shall repeat what I have proved at large in the first book of this poem, that no bodies are perfectly solid, for though it is proper to know this upon many accounts, yet it is of principal use in the subject I now offer to explain. In this place it is necessary to establish this truth, that there is nothing in Nature but body mixed with void. And first, in the deep caverns of the earth, the rocks above will sweat with moisture, and weep with flowing drops; and sweat will flow from all our bodies and through every pore. The beard will grow, and hairs spread over our members and our limbs. Nature divides our food through all the veins; it feeds and nourishes the extreme parts, our very nails. We find that cold and heat will pass through brass, will make their way through gold and silver. We know, by feeling the outside of a cup, whether the juice within be hot or cold. And lastly, sounds will pierce stone walls of houses, and so will smells, and cold, and heat. The force of fire, thrown from without, will pass through iron, and scorch the soldiers limbs, though armed about with coats of mail. And tempests, rising from the earth or skies, and sent from thence, will strike through every thing before them, for nothing in nature is without some void.

[959] Besides, all seeds that are thrown off from bodies are not the same in quality and shape, nor do therefore they equally agree to things they strike or act upon; for first the sun burns up and dries the earth, but thaws and melts the snows so deep upon the mountaintops. And wax will drop when placed before the fire, and brass will run, and gold dissolve by heat, but skin and flesh it shrinks and shrivels up. Water will harden steel made weak by fire, but softens skin and flesh made hard by heat. Leaves of wild olive please the bearded goats as if they flowed with juice of nectar or ambrosia, when nothing is more bitter than that leaf to us. The swine fly every strong perfume, and fear the smell of every ointment; 'tis the sharpest poison to the bristly race, but cheers our spirits with a sweet delight. And then, to roll in the mud is the most odious filthiness to us, to them a cleanly pleasure; they are never tired of wallowing in the mire.

[979] But before I enter fully upon the subject before us it is proper first to premise that, since there are many pores of little spaces in all compound bodies, it is necessary that these passages should be of different natures, and should vary severally in their size and figure, for all creatures are formed with different organs, every one of which has an object proper and peculiar to itself. Sounds, we perceive, make their passage one way, and taste another, and smell another, according to the different nature and texture of the things that strike the sense. One thing, we find, will make its way through stones, another through wood, another will pierce through gold, another through silver, and another will fly through glass. This the images flow through, through these the heat, and some seeds will sooner pierce through the same pores than others. This is owing to the different figures of these passages which vary wonderfully in shape, as we said before.

[998] These things therefore, being fully proved and laid down, and every thing made ready and easy for the grand inquiry, we shall easily discovery the reason, and open every cause that moves and invites the iron to the stone.

Munro 1886

[906] Next in order I will proceed to discuss by what law of nature it comes to pass that iron can be attracted by that stone which the Greeks call the Magnet from the name of its native place, because it has its origin within the bounds of the country of the Magnesians. This stone men wonder at; as it often produces a chain of rings hanging down from it. Thus you may see sometimes five and more suspended in succession and tossing about in the light airs, one always hanging down from one and attached to its lower side, and each in turn one from the other experiencing the binding power of the stone: with such a continued current its force flies through all.

[917] In things of this kind many points must be established before you can assign the true law of the thing in question, and it must be approached by a very circuitous road; wherefore all the more I call for an attentive ear and mind.

[921] In the first place from all things whatsoever which we see there must incessantly stream and be discharged and scattered abroad such bodies as strike the eyes and provoke vision. Smells too incessantly stream from certain things; as does cold from rivers, heat from the sun,

spray from the waves of the sea that eats into walls near the shore. Various sounds too cease not to stream through the air. Then a moist salt flavor often comes into the mouth, when we are moving about beside the sea; and when we look on at the mixing of a decoction of wormwood, its bitterness affects us. In such a constant stream from all things the several qualities of things are carried and are transmitted in all directions round, and no delay, no respite in the flow is ever granted, since we constantly have feeling, and may at anytime see, smell and hear the sound of anything.

[936] And now I will state once again how rare a body all things have: a question made clear in the first part of my poem also: although the knowledge of this is of importance in regard to many things, above all in regard to this very question which I am coming to discuss, at the very outset it is necessary to establish that nothing comes under sense save body mixed with void. For instance in caves rocks overhead sweat with moisture and trickle down in oozing drops. Sweat too oozes out from our whole body; the beard grows, and hairs over all our limbs and frame. Food is distributed through all the veins, gives increase and nourishment to the very extremities and nails. We feel too cold and heat pass through brass, we feel them pass through gold and silver, when we hold full cups. Again voices fly through the stone partitions of houses; smell passes through and cold, and the heat of fire which is wont ay to pierce even the strength of iron, where the Gaulish cuirass girds the body round. And when a storm has gathered in earth and heaven, and when along with it the influence of disease makes its way in from without, they both withdraw respectively to heaven and earth and there work their wills, since there is nothing at all that is not of a rare texture of, body.

[959] Furthermore all bodies whatever which are discharged from things are not qualified to excite the same sensations nor are adapted for all things alike. The sun for instance bakes and dries up the earth, but thaws ice, and forces the snows piled up high on the high hills to melt away beneath his rays; wax again turns to liquid when placed within reach of his heat. Fire also melts brass and fuses gold, but shrivels up and draws together hides and flesh. The liquid of water after fire hardens steel, but softens hides and flesh hardened by heat. The wild olive delights the bearded she-goats as much as if the flavor it yielded were of ambrosia and steeped in nectar; but nothing that puts forth leaf is more bitter to man than this food. Again a swine eschews marjoram-oil and dreads all perfumes; for they are rank poison to bristly swine, though they are found at times to give us as it were fresh life. But on the other hand though mire is to us the nastiest filth, it is found to be so welcome to swine that they wallow in it all over with a craving not to be satisfied.

[979] There is still one point left which it seems proper to mention, before I come to speak of the matter in hand. Since many pores are assigned to various things, they must possess natures differing the one from the other and must have each its own nature, its own direction: thus there are in living creatures various senses, each of which takes into it in its own peculiar way its own special object; for we see that sounds pass into one thing, taste from different flavors into another thing, smells into another. Again one thing is seen to stream through stones and another thing to pass through woods, another through gold, and another still to go out through silver and brass; for form is seen to stream through this passage, heat through

that, and one thing is seen to pass through by the same way more quickly than other things. The nature of the passages, you are to know, compels it so to be, varying in manifold wise, as we have shown a little above, owing to the unlike nature and textures of things.

[998] Therefore now that these points have all been established and arranged for us as premises ready to our hand, for what remains, the law will easily be explained out of them, and the whole cause be laid open which attracts the strength of iron.

Bailey 1921

[906] For what follows, I will essay to tell by what law of nature it comes to pass that iron can be attracted by the stone which the Greeks call the magnet, from the name of its native place, because it has its origin within the boundaries of its native country, the land of the Magnetes. At this stone men marvel; indeed, it often makes a chain of rings all hanging to itself. For sometimes you may see five or more in a hanging chain, and swaying in the light breezes, when one hangs on to the other, clinging to it beneath, and each from the next comes to feel the binding force of the stone: in such penetrating fashion does its force prevail.

[917] In things of this kind much must be made certain before you can give account of the thing itself, and you must approach by a circuit exceeding long: therefore all the more I ask for attentive ears and mind.

[921] First of all from all things, whatsoever we can see, it must needs be that there stream off, shot out and scattered abroad, bodies such as to strike the eyes and awake our vision. And from certain things scents stream off unceasingly; even as cold streams from rivers, heat from the sun, spray from the waves of the sea, which gnaws away the walls by the seashore. Nor do diverse sounds cease to ooze through the air. Again, moisture of a salt savour often comes into our mouth, when we walk by the sea, and on the other hand, when we behold wormwood being diluted and mixed, a bitter taste touches it. So surely from all things each several thing is carried off in a stream, and is sent abroad to every quarter on all sides, nor is any delay or respite granted in this flux, since we perceive unceasingly, and we are suffered always to descry and smell all things, and to hear them sound.

[936] Now I will tell “over again of how rarefied a body all things are; which is clearly shown in the beginning of my poem too. For verily, although it is of great matter to learn this for many things, it is above all necessary for this very thing, about which I am essaying to discourse, to make it sure that there is nothing perceptible except body mingled with void. First of all it comes to pass that in caves the upper rooks sweat with moisture and drip with trickling drops. Likewise sweat oozes out from all our body, the beard grows and hairs over all our limbs and members, food is spread abroad into all the veins, yea, it increases and nourishes even the extreme parts of the body, and the tiny nails. We feel cold likewise pass through bronze and warm heat, we feel it likewise pass through gold and through silver, when we hold full cups in our hands. Again voices fly through stone partitions in houses, smell penetrates and cold and the heat of fire, which is wont to pierce too through the strength of iron. Again, where the breastplate of the sky closes in the world all around \[the bodies of clouds and the seeds of

storms enter in\], and with them the force of disease, when it finds its way in from without; and tempests, gathering from earth and heaven, hasten naturally to remote parts of heaven and earth; since there is nothing but has a rare texture of body.

[959] There is this besides, that not all bodies, which are thrown off severally from things, are endowed with the same effect of sense, nor suited in the same way to all things. First of all the sun bakes the ground and parches it, but ice it thaws and causes the snows piled high on the high mountains to melt beneath its rays. Again, wax becomes liquid when placed in the sun's heat. Fire likewise makes bronze liquid and fuses gold, but skins and flesh it shrivels and draws all together. Moreover, the moisture of water hardens iron fresh from the fire, but skins and flesh it softens, when hardened in the heat. The wild olive as much delights the bearded she-goats, as though it breathed out a flavor steeped in ambrosia and real nectar; and yet for a man there is no leafy plant more bitter than this for food. Again, the pig shuns marjoram, and fears every kind of ointment; for to bristling pigs it is deadly poison, though to us it sometimes seems almost to give new life. But on the other hand, though to us mud is the foulest filth, this very thing is seen to be pleasant to pigs, so that they wallow all over in it and never have enough.

[979] This too remains, which it is clear should be said, before I start to speak of the thing itself. Since many pores are assigned to diverse things, they must needs be endowed with a nature differing from one another, and have each their own nature and passages. For verily there are diverse senses in living creatures, each of which in its own way takes in its own object within itself. For we see that sounds pass into one place and the taste from savours into another, and to another the scent of smells. Moreover, one thing is seen to pierce through rocks, another through wood, and another to pass through gold, and yet another to make its way out from silver and glass. For through the one vision is seen to stream, though the other heat to travel, and one thing is seen to force its way along the same path quicker than others. We may know that the nature of the passages causes this to come to pass, since it varies in many ways, as we have shown a little before on account of the unlike nature and texture of things.

[998] Wherefore, when all these things have been surely established and settled for us, laid down in advance and ready for use, for what remains, from them we shall easily give account, and the whole cause will be laid bare, which attracts the force of iron.