TITUS LUCRETIUS CARUS ON THE NATURE OF THINGS
Translated by Alban D. Winspear

Introduction

In most departments of creative activity and artistic achievement, the Romans regarded themselves as inferior to the Greeks. In the field which Lucretius made his own -- the poetical exposition of philosophical doctrine -- they have no need to hang their heads in shame. For majesty of theme and subject matter, for sustained eloquence of exposition, for acuteness of philosophical insight and argumentation, for poetical imagery and musical cadence, and for the sheer enthusiasm of scientific passion, the Greeks -- despite the philosophical contributions of Leucippus, Democritus, and Epicurus -- produced nothing to rival Lucretius. Indeed I am not sure that, as regards all these qualities, Lucretius is not the greatest poet that ever lived.

Of Lucretius the man, apart from what we can infer from his great poem, we know singularly little. There is a legend of dubious validity and perhaps scandalous intent, that he was driven mad by a love philtre administered by a jealous woman, composed his poems in the lucid intervals of insanity, and died at the zenith of his ripened powers by his own hand. There is a debatable connection with Cicero (the renowned Marcus or his less famous brother) who may or may not have revised or edited the manuscript. At all events Marcus shows a proper appreciation, commendable in a philosophical opponent, of Lucretius' poem -- "many flashes of genius and yet much art." The poem itself gives us a picture of an educated and aristocratic Roman familiar with the life of the haut monde, its luxurious palaces and country houses, its ostentation and vulgarity, its boredom with the banquet of externals. Yet Lucretius does not show much awareness of the exciting world around him -- the crucial days of Rome's greatest civil wars. At one point he appeals to his goddess patron for peace,

I cannot carry out this task of mine with mind at peace At such a crisis of my country's fate.

Negatively, the troubled times sent him to a creed of escape, a passionate opposition to the desire for wealth and power, a residence in what, following Lucretius, we have come to call the ivory tower.

Lucretius was before all things the poet of the scientific outlook, of philosophical materialism, of opposition to religion in creed and rite and myth. This opposition was his deepest passion; it gave rise to some of his most moving poetry, two passages of which are reproduced below. In his consideration of human evolution in general, this opposition leads him to some of his most majestic speculations -- they are of the kind which we should now call anthropological -- as to how this belief in the gods originated. It leads him to his most profound philosophical speculations. Against religion and a belief in the supernatural, which so many put forward to explain the origins of the universe and its government, he puts forward his atomic philosophy. And this opposition to religion, finally, accounts for his central ethical philosophy, his teaching about how man ought to live.

"There are two moments in Lucretius' zoology" writes Leonard, "that are notably Darwinian: the effect of organic adaptation and of domestication upon the preservation of the species; the survival value of swift legs, for instance, and of man's cooperation, both of which kept the earth stocked with animal life...[and] the Lucretian reiteration against teleology, that is, design in Nature, a favorite idea of Aristotle and of Lucretius' own much-scorned Stoics. Not only are there no Gods planning ahead from without; but Nature herself, he says, from within herself is not planning ahead: she merely grows, and things happen and particular functions develop out of what happens."

The theory of special creation Lucretius sharply attacked, as well as any notion of design in nature. The earth is mortal, made without divine intervention and destined in its time to perish. In good naturalistic terms he explains what force and what cause started the various courses of the sun, the journeys of the moon, the position of the earth in the center of the universe, the cause for day and night, the reasons for eclipses. Then he discusses the origins of animal and vegetable life. His exposition deals with the origin of man, the ways of life of primitive folk, without fire or tillage or the arts of Lucretius' own relatively advanced civilization. Nature taught man language. Out of gesture and speechlessness man evolved the habit of speech. Men learned to control fire out of the original gift of the lightning. Fire was not, as in the old Greek myth, the supernatural gift of a semidivine, though rebellious, Prometheus.
Lucretius' account of the rise of civilization is interesting. Kings founded cities and citadels as a refuge and stronghold for themselves. Gold was discovered and this destroyed honor; men will always follow the party of the rich. Then there came the rebellion of the poor and revolutions. And so magistrates were devised to temper the stubborn clash of rich and poor. Just as he denied that fire had been given to any semidivine Prometheus, so he believed it was not a goddess Athena who gave to men control of the various arts—to metal working, of warfare and all its various techniques. weaving, agriculture with its various skills, music and the knowledge of the stars. It was the race of men, toiling endlessly, that created these advances in technique and civilization. And this, little by little, has advanced life to its high level and has stirred up from its depths the great tides of war. In his account of evolution, Lucretius ponders deeply the origin of religion and belief in the gods. His conclusions are reproduced in the passages selected for translation below.

Lucretius and his school, the Epicureans, were pioneers in the development of the atomic theory. His position was quite simple. The whole universe could be explained in terms of atoms and space without postulating the intervention of the gods. Atoms, he thought, were falling endlessly in space, infinite space, combining, clinging together, forming infinitely rich and infinitely various combinations of things, to explain all the rich complexity and variety of the world as we know it. The whole material universe, the world of life and human activity, too, is in constant flux and change—some things coming into being and some passing away. But the sum of all things remains the same. The only reality is the changing world of matter. Even man's institutions and his thoughts are reflections of the changing material scene. The only changeless is the material substratum—the stuff from which the world and all that is in it is made. There is no ideal unity beyond the many. The universality of the world lies precisely in its materiality. Change is uniform and predictable and can, therefore, be reduced to law. There is no room in the world of Lucretius for surprising or supernatural occurrences, for miracle or divine caprice. "Nothing can come to be from nothing by divine decree." All change is slow change, everything proceeded by slow and imperceptible degrees; nihil per saltum facit natura, nature does nothing by leaps (though the poet, as opposed to the philosopher, does ample justice to the explosive moments in nature and history when, of a sudden, in the twinkling of an eye, the old is swept away, the new is born).

Two postulates were necessary for this school of thinkers in explaining the physical and social universe—atoms and space. Granted these two principles, they felt that everything in the world could be explained without bringing in the gods at all. The atoms (which he calls by many names) were solid, indestructible, and invisible. They are constantly in motion, begetting and destroying worlds and all that is in them. They are of many sizes and shapes; this accounts for differences of quality, texture, and shape in the world of things. Lightning will penetrate where fire will not, because it is composed of finer atoms. Light will pass through horn (the ancient equivalent of glass) on the side of a lantern when water will not; wine through a strainer when oil will not, for the same reason. Condiments and pickles tickle rather than wound our senses because their atoms are not smooth nor altogether hooked with jagged barbs, but slightly angled out. Hard substances are composed of hooked atoms; fluids of round smooth atoms which will not easily cohere (he uses a heap of poppy seed as an example). The sea is at once fluid and bitter. Its atoms must, therefore, be mixed—some smooth and round, but with painful rough ones mixed therein. This explains why it is possible to separate the salt from the water; why salt water can be purified and freshened if it filters through the ground.

The number of atomic shapes was, he held, limited; the number of each shape, infinite. Although the texture, hardness, softness, etc., of things are dictated by atomic shapes, their color, odor, taste and temperature are not. Worlds are infinite in number but finite in time. Our world is already in old age, has passed its creative prime.

In all this the reader may detect many crudities, may signs of inadequate theory or control of fact. He may be tempted to compare modern atomic theories to Lucretius' disadvantage. It would be more just, I think, to reflect how extraordinary is the insight; how exciting these analytical anticipations of the modern scientific world outlook, in spite of the inadequate scientific apparatus with which these men worked, in spite of their relatively primitive concepts of scientific method.

Lucretius was at one with the materialists of all ages in his concept of scientific method. He wanted his thinking to be understandable to the common man. He was careful to use simple, strong, plain, direct words and to use them in their natural meaning. He apologizes to his reader when he is forced to use a technical term from Greek philosophy for which there was no natural Latin equivalent. Logic chopping and the --to him-- niggling arguments of his idealistic opponents he most heartily despised. When he contemplated the power of the senses to give knowledge to men he experienced a tremendous emotional uplift. All knowledge come ultimately from sense experience. Reason cannot test or judge the senses because it owes its existence to them. And yet his atomic theory, involving unobservable entities, is sheer poetry unless reasoning connects it with sense experience. This is one of the many contradictions inherent in Lucretius' strange personality. One sense cannot correct another, sight, hearing, and so on. Nor can one sensation correct another, for they are all equally true.

Lucretius' opposition to religion is the key to his views on ethics, on the question how is it best for man to live. His answer to this question is twofold—positive and negative. On the negative side, Lucretius' answer is clear, articulate,
resolute. Men must not live as most men now do, in a constant struggle for power and wealth. Avarice, ambition, lust, he thought, brought men no lasting happiness. No man has ever been more sensitively aware of the haunting dissatisfaction that dogs mankind even in the midst of wealth and plenty and success. Most men do not know what they want for themselves. Man's greatness, well-being and happiness cannot be found in a multitude of possessions. He cannot find happiness or a well-nourished ego in wealth or success or pride of birth. Man's yearning for all these things is an expression of fear, of insecurity, and consequent inner dissatisfaction. If only mankind could banish fear of insecurity! And here Lucretius makes a remarkable assumption. All these fears and agonies and strivings can be reduced to one fear--the fear of death. And the fear of death is poignant because men fear eternal torments after death. If then, Lucretius argues, we can banish once and for all the fear of unending torments which men think await them when they die, then all fears will be done away and man can live in perfect peace, happiness, tranquillity. Here then is the reason, deep, urgent, compelling, for the study of philosophy. All human life is in question, not what one is to do in the next hour. To put his point of view briefly, bluntly, Lucretius believes that for the attainment of tranquillity of mind the most important single thing was the study of physics, a knowledge of the atomic philosophy. Out of this study would proceed the full emotional and intellectual realization of universal law, cause and effect, operative everywhere in the universal law, cause and effect, operative everywhere in the universe. Man would come to realize that nothing ever comes from nothing by divine decree but that all things are governed by order, regularity, consistency--in a word, by law. And so, he thought, fear would be banished, fear of the gods, of death, and of the torments after death. Thus mankind, embracing the "passionless bride, divine tranquillity," would come to lead a life that was altogether godlike. Was not that how the blessed gods themselves believed in the spaces between the stars? Not in a multitude of possessions, not in wealth, fame, eminence, or power could man find his inner satisfaction. Rather by renouncing all these things he might find peace. In passage after fervent passage our poet sings the praises of the simple life.

As an ethical thinker (at this particular stage of social and intellectual development) Lucretius was conscious of a paradox between his ethical teaching, which demanded freedom of the will for its realization, and his physics, which postulated the universal rule of law. This paradox he tried to solve, not too satisfactorily, by the doctrine of the swerve of the atoms. The atom swerve serves a twofold purpose in his system--it accounts for creation, for the passage from the homogeneous world of atoms to the heterogeneous world of things, and it accounts for freedom of the will by introducing an element of caprice into the very heart of things. In so brief an introduction to Lucretius' great poem there is no space for a discussion of this paradox. To many it has seemed a blemish on his system -- notably to Cicero, who dismissed it as a puerile fiction. But whatever one's conclusion on this particular matter, there can be no doubt of Lucretius' general position in the history of thought. He has given us the most mature expression of philosophical materialism to come down to us from classical antiquity, and the most eloquent and poetical exposition of that creed of all time.

In this rendering of select passages from De Rerum Natura, mindful of Plato's admonition that the musical man in tuning a lyre does not try to outdo the musical man who has achieved perfection of pitch, I have not hesitated to borrow occasional phrases and even lines from Keats, Shelley, Gray, Tennyson, Cyril Bailey, and William Ellery Leonard where these seem to me to have attained perfection of rendering. No regular verse form can hope to reproduce the cadence of the Lucretian hexameter, and the attempt to use one can only result in distorting the thought by fitting it to the English meter. Prose, on the other hand, abandons any suggestion of the original poetic form without making possible the emphasis of verse. The translation of the De Rerum Natura has therefore been rendered in rhythmical lines of irregular length in order to adapt the verse to the ideas of the original rather than to expand or contract the thought of the poet to fit the verse scheme.

I am aware that to some it may seem impertinent to challenge comparison with Leonard's masterly verse rendering of the poem. I can only plead that if Leonard were here, he would be the first to applaud and encourage the attempt.

THE TEXT translated is that of W.E. Leonard and S.B. Smith (Madison, 1942).

From Book I

Invocation to Venus

In this magnificent exordium or introduction to the poem as a whole the poet addresses the goddess Venus, as founder and patron of the Roman race, as the traditional goddess of love, as the symbol of fertility in nature, and as a deity who has power to give peace, because she had influence with her lover, Mars, the god of war.
Mother of Aeneas' clan, of men and gods delight,
Venus, all-fostering, who under gliding stars
in sky,
Dost make to teem ship-bearing sea, fruit-bearing earth;
Since every race of living things, through thee
Conceived, is born and sees the light of sun;
Thee, goddess, thee the winds do flee, and heaven's clouds,
Thee and thine advent;
For thee the checkered earth pours forth its lovely flowers,
For thee expanses of the sea do smile,
And tranquil sky does gleam when bathed in light.
When first the vernal face of day is seen,
The living breath of Zephyr is unlocked and strongly blows.
Then first the birds in sky give word of thee,
Thee and thy coming,
Touched as they are in heart with power divine.
And then the beasts of field are driven wild,
To leap gay meadows and to swim swift streams.
And so, a captive of thy charm, each thing in hot desire,
Will follow thee wherever thou dost go to lead them on.
Yes, and through seas and hills and headlong streams,
The leafy homes of birds and grassy fields,
Thou dost put sweet love in the hearts of all,
And make them reproduce their race,
Kind after kind.

Since thou alone art Nature's queen,
Without thy help can nothing come to shining shores of light.
Nothing is gay without thee, nothing beautiful.
I want thy help in writing verse,
The verse I try to write for Memmius, my friend.
(Hast thou not willed that he excel at every time, in every thing?)
So, goddess, give eternal beauty to my words;
Grant me that while I write
Fierce war on land and sea may sleep and rest.
For thou alone canst grant to mortal man
Peace and its blessings,
Since Mars, in arms all-powerful, rules the fierce works of war,
Thy lover, Mars, who often sinks upon thy breast,
Completely overcome by love's eternal wound,
And so, in thine embrace,
His shapely head pillowed upon thy breast,
He gazes on thee, feeds his eager eyes with love,
His whole soul hangs upon thy lips.
Do thou, Divine, embracing him reclined, with holy frame,
Pour out sweet whispered words, O Goddess famed,
And beg the quiet of peace for Roman folk.
I cannot carry out my task with mind at peace
At such a crisis of my country's fate,
Nor could my Memmius betray his stock,
Or heedless be, and fail the country's safety.

Lucretius gives reasons for his opposition to Roman institutional religion.

When human life lay foully prone upon the ground
Conspicuous to see,
Crushed by creed and myth, like ponderous weights,
Which like incarnate horror from the skies looked down
And lowered over men with visage grim,
A man of Greece first dared to raise his mortal eyes against,
And even stand against and fight.
And him no fables told of gods could daunt,
Nor heaven with lightning flash or thunderbolt dismay;
But only stirred the more the valorous splendor of his mind.
He longed to be the first to crack the cramping bonds of nature.
And so his splendid strength of soul prevailed.
Outside he went, beyond the flaming ramparts of the world,
And ranged the infinite whole in mind and thought's imagining.
And from his mental voyages to us brought back,
Like conqueror crowned in victory, the news of nature's laws,
Of what could come to be and what could not,
The code that binds each thing, its deep-set boundary stone.
And so religion in its turn
Is trampled under foot and trodden down
And man is made like god by one man's victory.

One fear I have in this long argument,
That even Memmius might think
We're impiously dabbling in profane philosophy
And setting wanton foot on sin's broad way.
Rather religion has itself begot
Impious and bloody deeds.
Think how at Aulis Grecian chiefs, picked leaders of mankind,
Stained altars of the chaste and huntress queen
With maiden's blood in obscene rite and wanton sacrifice.*
And she, poor girl, the fillets on her maiden locks,
Adorning either cheek,
Saw father stand by sacral stone, steadfast but somber;
The slaves of sacrifice with swords concealed
To spare a father's natural sympathy;**
The clansfolk weeping at the doleful spectacle;
In tongueless terror down she fell and swooned.
Poor girl, it could not help at all at such a time
That she had long ere this been first to call him father.
For borne aloft in rough men's hands,
Not tenderly, like bride in husband's grasp
(To altar led the escort, not to wedlock's home),
No wedding hymn but funeral chant accompanied her
Who chastely died by wanton act,
Just when love's consummation should be hers.
And so she died,

* This is Lucretius' account of a well known episode, the sacrifice of Iphigenia by her father, Agamemnon. When the Greek fleet was delayed by contrary winds at Aulis, the soothsayer Calchas announced that the goddess Artemis had been offended, and could only be propitiated by the sacrifice of the child of one of the leaders. Agamemnon summoned his daughter Iphigenia, under pretense of marrying her to Achilles, and offered her up.

**Scholars usually regard this as having only local force, "beside him." I think they miss a characteristic piece of savage Lucretian irony "on account of him," i.e. "out of deference to his feelings."

A sad and sacrificial victim at a father's blow,
That jealous god, by butchery propitiate,
Might grant auspicious voyage to the fleet.
That is religion, these its monstrous acts.

Memmius, you too will want to fall away,
Even you,
Quite vanquished by the fear-provoking words of priests.
How many things can priests invent,
Vain myths to sap a lifetime's reasoning
And muddy fortune's goods with fear!
No wonder; for if men could see
There is to misery a fixed, ordained end,
In some way they'd find strength

To stand against religion and the threats of priests.
But as it is, no principle is there,
No chance to rally and stand fast,
Since fear of endless torments makes us shrink from death.

[80-110]

The creed of religion vs. the creed of science

And so this darkened terror of the mind must
be dispelled,
Not by the rays of sun or gleaming shafts of day,
But Nature's laws, by looking in her face.
Our first beginning must set out from this:
No thing can come from nothing by divine decree.
For, you see,
Fear so possesses every mortal heart
Because so many things are seen to happen
On earth and in the sky for which men find no cause.
They think these happen by divine decree.
Wherefore when we have seen
That nothing comes to be from nothing
Then more clearly we shall see
The object of our search,
And when each thing can be created
And how can come to be
Without the help of gods.

For if everything came to be from nothing
Every species could be random born.
There'd be no need of seeds.
Man could arise form sea,
The scaly rave of fish from earth,
Birds could explode from sky.
And beasts both wild and tame, by random birth
Could roam ploughland and wilderness alike.
And fruits on trees would never stay the same,
But change.
All creatures could produce all offspring.
If all things did not have their procreant seeds,
How could they have a fixed and changeless mother?
But as it is,
Because each thing is made from certain seeds,
From these the thing is born and comes to shores of light,
When stuff appropriate to each
And proper elements are there;
All things cannot come from everything,
Because in everything there is a separate hidden power.

Again, in spring we see the rose,
In summer, corn; the grapes at autumn's prompting.
Why? But that seeds of things together come;
When time is ripe that fashioned thing appears,
When season's right and teeming earth brings forth
The tiny fragile things in safety to the shores of light?
But if they came to be from nothing,
They would suddenly explode to birth
At random times and inappropriate seasons of the year,
Because, you see, there'd be no elements
To keep them from cohering and from birth,
Till time is ripe.
Nor need there'd be of space for things to grow
If they could grow from nothing.
Babies would suddenly be men,
And shrubs would swift and sudden leap from earth.
But nothing now like this occurs
Since all things slowly grow from proper matter,
As is right,
And as they grow retain their natural kind.
So you may know that all things wax
From atom stuff appropriate. This, too, is true:
Without the showers at proper seasons of the year,
Earth could not produce her gay and teeming brood.
Nor without food
Could nature nurture living things in kind,
Nor save their life.
So you must rather think
That in the multiplicity of living things
Are common elements, like alphabet in words,
Than that a thing can come to be without its
atom stuff.

Then, why could not nature fashion men so huge
That they could pass on foot through ocean's depths
And with their strength of arm tear hills apart?
Or men whose length of life could far surpass
A man's allotted span?
Surely because there is atomic stuff assigned to each,
Determining what can come to be.
And so confess we must
That nothing ever comes to be from nothing,
Since things need "seeds,"
That each created things can be produced
And brought to air's soft breezes.

Last argument:
We see that well-worked fields surpass a wilderness,
That man by toil of hands can bring forth better crops.
Therefore, atomic articles must lurk in earth, Which we, by turning fertile glebe, subduing sod, Can bring to birth.
If there were not, we'd see all things improve, Without the agency of human toil, spontaneously. [146-214]

[The omitted portion describes the properties of atoms, maintains the existence of void, or empty space, and asserts that everything else is wither popery or accident of these two. Rival theories--of Heraclitus, Empedocles, and Anaxagoras--are refuted, and the books ends, after the eloquent passage on the poet's theme, with a proof that the universe is infinite.]

The poet's theme

Come hear the rest, come lend your ears
To more prophetic strain.
I know how difficult my topic is.
Fame is the spur that touched my heart with
hope
And branded breast with burning love of Muses.
Touched with Fame's spur, I feel my spirit glow;
    I tread the trackless heights,
Not trodden earlier by foot of man,
I love to press towards unsullied rills and drink.
    I love to pluck fresh flowers and weave
A splendid garland for my head,
    In those rare height whence ne'er before
The Muse has plucked a flower for any man.

My fame is this: I touched a mighty theme
And burst religion's bonds from human minds.
    Then too, I think, I'm not unreasonable.
As doctors do when they give horrid drugs to boys.
First smear the glass around with honey's golden sweet.
The child's young age, detecting no deceit,
    Drinks goodness down in bitter guise.
    He's cheated, not betrayed.
    He's rather turned to health again.
    Just this do I.
    To some who have not tasted it,
This creed of mine may seem too grim.
    Too many shrink away from it.
And so I wanted to expound for you
    Deep wisdom in Pierian song
And coat the bitter drug of reason with the Muse's charm.
    In this way I might hope to hold your mind
To theme both high and hard,
    Until you'd mastered nature's shape and form.
[920-950]

From Book II

The Tranquil Life

O sweet it is, when, on the mighty sea,
The wind stirs up great billows,
    One's own foot firm on steady earth,
To watch another's troubles.
Not that we find delight in other's strugglings,
    But that it's sweet to look on troubles
From which oneself escapes.
    Sweet, too, to look
When cavalcades of war contend upon the plain,
    And one is safe.
But far surpassing everything in bliss it is
To occupy the high, serene, embattled eminence, The ivory tower,
    Whose battlements are thought and high philosophy,
The wisdom of the wise.
    Here you look down and see, like tiny ants,
Men scurry to and fro, wandering here and there,
    Seeking to find the hidden path of life,
    Well spent and ordered,
You see them battle with their wits,
Pit lineage 'gainst lineage,
Working night and day with sinews and with wits.
To gain the crown of wealth, the pride of power.
Men's wretched minds, men's blinded hearts!
In darkness deep, in peril sore,
This little life of ours is passed,
Not to see that nature asks for nothing
But that, body free from pain and mind from care,
We can enjoy sweet peace of mind and spirit.

Few things we see our body really needs;
Enough to keep us free from pain.
Though these few things can serve up many luxuries--
Pleasant enough at times.
Nature herself feels not the loss
If gilded effigies in sumptuous halls
With flaming torches in their raised right hands
Do not bring light to midnight feasts;
If gold and silver shimmer not and glint;
If music echo not from lacquered and from gilded beam.
Without all these, in grassy nook reclined,
A stream, a shady tree instead of luxury,
Needing no wealth, men tend their bodies' needs
And find sufficient bliss,
Spring on the mountains, flowers in every mead.

Tortured by sickness and by fever racked,
Does woven tapestry or deep rich purple glow Bring healing quicker, as a bed, than peasant's cloak?
And so, since neither fame nor family nor wealth,
Can heal your body, can they help your mind,
Unless perhaps, when you won legions strengthen self-esteem
(You see them marching swift on open plain in mimic war,
You judge them both alike in arms, in spirit like,
Strengthened with great reserves and power of cavalry),
In face of all their strength do superstitious fears Flee headlong from the mind?
Does marital strength banish the fear of death, Leave mind relaxed, or spirit free from tension?
But if we see that marital strength is only trivial mockery,
That really human fears and carking cares,
Dread not the clash of arms, the javelin flight,
And boldly move 'mid kings and high estate,
Bend not the knee before the sheen of gold,
Not reverence rich tailoring of sumptuous cloth, How can you doubt that freedom from external things,
Is sovereign gift of reason?

Is not all life in darkness spent?
Like tiny boys who tremble in the dark
And think that anything may come,
We, also, tremble in the light,
And shrink from things that in themselves, are
no more terrible,
Than what boys fear in dreams and fancy sure to be.

The movement of the atoms

Come now, I will unfold and tell
What movement of the atom stuff made things
And broke them down again when made,
And what compulsion's brought to bear on them,
And what velocity's assigned to them,
To fall through mighty void.
You lend attentive ears.
Matter assuredly is not close packed;
We know, because we see that things grow small,
And all things, like a river, flow away in time's long lapse;
And yet the sum of things remains the same.
The reason is that bodies moving from a thing
Diminish what they left, augment the thing to which they come.
The one grows old, the other waxes strong,
Yet even with the new they don't remain.
And so the sum of things is ever new
And all things mortal live by give and take.
The generations wax, the generations wane;
In time's brief span all living things are changed,
Like runners in a race they pass life's torch. [1-79]

[The omitted lines deal with the kinetics of the atomic theory: the incessant movement of the atoms, their velocity, and their universal downward motion due to weight.]

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**The swerve of the atoms**

In the system of Lucretius, the swerve of the atoms plays a twofold role. It accounts for the making of the universe of things out of the homogeneous atom stuff; and it accounts for freedom, free will in human beings.

I long that you should grasp this point, too, in our search.

When atoms fall straight downwards through the void, Impelled by their own weight, At some chance time and some chance intervals in space, They swerve a bit, So slightly that you scarce can call it swerve. Unless they did, eternally straight down they'd fall Like raindrops in a storm, Unless they did, There'd be no clash nor clinging in the atom stream. Nothing could nature e'er create.

If any think That weightier atoms swifter through the void are borne. And hence come movements which give shape to things, In this he's clearly wrong. When objects fall straight down through water or thin air, The heavier faster falls, just because the medium Checks not all things in equal measure equally, But rather faster yields to heavier things. And empty space can never, anywhere, check things in flight. Is nature makes it yield. And so both heavy things and light Are borne at equal pace through silent void. The heavy cannot strike the light by swifter flight, Nor cause the clashes nor the variant motion— Nature's way of making things. And so once more, once more, I'm moved to say, Atoms must swerve the tiniest bit. If not, we're forced to think That bodies sideways fall— They clearly don't.

This is apparent, this is manifest.
That bodies of themselves can never sideways move;
But fall straight down, as you yourself can see. But who is there who sees that nothing ever swerves
From straight-down movement of its perpendicular path?

Once more, if movement always is to other movement linked,
And if the new comes ever from the old,
As in determinist argument;
If atoms in their swerve do not fresh start
To break the bonds of Fate;
If cause may follow cause in infinite time,
Whence comes free will for living things on earth?

When comes this power, I say, snatched from the grasp of Fate,
This Will whereby we move wherever fancy prompts?

For move we do
At no fixed times, and no fixed intervals of space, Wherever fancy prompts.
Assuredly at times like these
Man's purpose stirs the motion in his limbs.
You've seen on race tracks, when the barrier's down,
The eager strength of racing horse
Cannot set limbs on motion half so fast
As eager mind conceives.
The total sum of matter through the frame
Must be aroused, and so stirred up
That every limb may follow mind's swift prompting.
So you may see
The start of motion comes from out the heart;
The mind's firm will gives it the starting point.
And thence it spreads through all the frame and limbs.

[216-271]

[The omitted lines discuss the permanence of matter and motion.]

Atoms vary in shape.

Come now, in order learn of atoms, how diverse they are,
How differently they're formed with differing shapes.
Not in the sense that few are like in form,
But generally they're everywhere not all alike.
Nor should we wonder: atoms so many, atoms limitless,
Need not always, everywhere, be similar in size and shape.

Then, too, the race of men,
The voiceless, scaly fish that swim in the seas, Glad herds, wild beasts, the various birds
Which haunt the joyful banks, the springs, the pools,
That flit through distant glades,
Take any one you want as specimen:
You'll find it differs slightly from its kind.
This, too, is how a child can know its mother; mother, child.
We know they can, and beats no less than men.

Often outside the lovely shrines of gods
On incense-breathing stone of altar
A calf is slain
Its breast pours out a hot and reeking stream of blood.
Its mother in her loss wanders the grassy glades And seeks the footprints in the ground of tiny cloven hoof.
And everywhere she turns her longing eyes
For sight of loved one lost.
Nor can green willows or the dew-fresh grass,
Not old familiar streams, up level with their banks,
Bring joy to heart or heal the pang of loss.
The sight of other calves in meadows lush helps not.

Thus every creature loves and needs its own; Horned goats are recognized by tiny kids with
tremulous bleating.
Butting lambs in pasture know their mother's call. Nature demands that each return for milk to
mother's udder.
Grains, too, kind by kind are never quite alike.
Take any one you want as specimen,
You'll find it differs slightly from its kind.
The same in shells that paint the lap of earth,
Where sea with gentle waves
Beats on the thirsty sand of winding shore.
And so I must insist these things must be:
The atoms are by nature made, not all alike, Not turned out by factory's mass production.
Differ then they must. [333-380]

[But through this variety is not infinite, atoms of any given form are infinite, and combine variously. Atoms are without
color, heat, sound, taste, smell, or sensation; they make up infinite worlds which come into being and pass away by
Nature's decree.]

From Book III

In praise of his teacher Epicurus: the moral value of his philosophy

Into thick darkness came of old bright light.
You do I follow, you, who brought the light
To show us what is food and Grecian race,
And in your footsteps firmly plant my own.
Not that I want to rival you; affection makes me
want to imitate.
How can a swallow vie with swans
Or kid with little tottering limbs
On race track vie with mighty practised horse?
You are the father of my mind, discoverer of
nature.
From your books, O seer renowned,
You give a father's precepts in philosophy.
As bees in flowery meadow suck each flower,
So we your golden words repeatedly;
We feed on them and find them golden,
Worthy of eternal life.
Soon as your thought, born of a godlike mind,
Then all terrors from our spirits flee;
The ramparts of the world are torn apart.
I see the atoms' pageant streaming through the void.
The power of godhead is revealed,
The quiet untroubled haunts of deity,
Which are not shaken by the wanton winds,
Nor lashed from cloud with rain.
No snow falls white nor frost assails;
Cloudless the air that covers them, and heaven
bounteously smiles,
And sky is bathed in light.
Nature supplies them all they need for tranquil life
And nothing ever mars "their sacred everlasting calm."
Guided by you, we never catch a glimpse of Hell's recess.
Earth cannot block our vision. We can see
Whate'er goes on in space beneath our feet.
   And so, thinking your thoughts
   And with your guidance mastering science
   A kind of godlike pleasure comes on me.
   Pleasure and horror mixed,
   Because your power of mind has left the works
   of nature naked to my view.

Now since I have discoursed on atoms and have shown
   What kind they are, how different in shape,
   And how, self-moved, they ever fly,
   In motion everlasting e'er impelled,
   And how from atoms every object can be made,
   Now I must tear up by the roots and cast away
   That fear of death,
   That fear that sullies mortal life from end to end
   And pours the murk of death on everything,
   Leaves no man's pleasure pure and unalloyed.

For though men often say disease and infamy
   More dreadful are than deepest depths of Hell
   And though they hold that soul is blood or wind
   (Whichever theory they are clanging to),
   And do they claim they need not our philosophy
   Yourself can judge that this is done for pomp and arrogance
   Rather than deep belief. For these same men,
   Exiled from country, vanish from human sight