

EMPEDOCLES

In antiquity, Empedocles (ca. 495-435 BCE) was characterized as active on the democratic side in the politics of his native city of Acragas in Sicily, and as a physician, as well as a philosopher and poet. His philosophical and scientific theories are mentioned and discussed in several dialogues of Plato, and they figure prominently in Aristotle's writings on physics and biology and, as a result, also in the later Greek commentaries on Aristotle's works. Diogenes Laertius devotes one of his *Lives of Eminent Philosophers* to him (VIII, 51-77). His writings have come down to us mostly in the form of fragments preserved as quotations in the works of these and other ancient authors. Extensive fragments, some of them not previously known, were recently found preserved on a papyrus roll from Egypt in the Strasbourg University library (see Martin and Primavesi 1999). (Stanford Encyclopedia of Ancient Philosophy).

LUCRETIUS

Titus Lucretius Carus (died c. 50 BC) was an Epicurean poet writing in the middle years of the first century BC. His six-book Latin hexameter poem *De rerum natura* (*DRN* for short), variously translated *On the nature of things* and *On the nature of the universe*, survives virtually intact, although it is disputed whether he lived to put the finishing touches to it. As well as being a pioneering figure in the history of philosophical poetry, Lucretius has come to be our primary source of information on Epicurean physics, the official topic of his poem. Among numerous other Epicurean doctrines, the atomic 'swerve' is known to us mainly from Lucretius' account of it. His defence of the Epicurean system is deftly and passionately argued, and is particularly admired for its eloquent critique of the fear of death in book 3. (Stanford Encyclopedia of Ancient Philosophy).

On Nature

Peri Physeôs, selected fragments
Empedocles

Trans. E. Leonard, *The Fragments of Empedocles* (Chicago, 1908).

The Elements.

6.
And first the fourfold root of all things hear!—
White gleaming Zeus, life-bringing Here, Dis,
And Nestis whose tears bedew mortality.

Birth and Death.

8.
More will I tell thee too: there is no birth
Of all things mortal, nor end in ruinous death;
But mingling only and interchange of mixed
There is, and birth is but its name with men.

9.
But when in man, wild beast, or bird, or bush,
These elements commingle and arrive
The realms of light, the thoughtless deem it "birth";
When they dispart, 'tis "doom of death;" and though
Not this the Law, I too assent to use.

Ex nihilo nihil.

11.
Fools! for their thoughts are briefly brooded o'er.
Who trust that what is not can e'er become,
Or aught that is can wholly die away.

12.
From what-is-not what-is can ne'er become;
So that what-is should e'er be all destroyed,
No force could compass and no ear hath heard—
For there 'twill be forever where 'tis set.

The Plenum.

13.
The All hath neither Void nor Overflow.

14.
But with the All there is no Void, so whence
Could aught of more come nigh?

Our Elements Immortal.

15.
No wise man dreams such folly in his heart,
That only whilst we live what men call life
We have our being and take our good and ill,
And ere as mortals we compacted be,
And when as mortals we be loosed apart,
We are as nothing.

Love and Hate, the Everlasting.

16.
For even as Love and Hate were strong of yore,
They shall have their hereafter; nor I think
Shall endless Age be emptied of these Twain.

The Cosmic Process.

17.
I will report a twofold truth. Now grows
The One from Many into being, now
Even from the One disparting come the Many.
Twofold the birth, twofold the death of things:
For, now, the meeting of the Many brings
To birth and death; and, now, whatever grew
From out their sundering, flies apart and dies.
And this long interchange shall never end.
Whiles into One do all through Love unite;
Whiles too the same are rent through hate of Strife.
And in so far as is the One still wont
To grow from Many, and the Many, again,
Spring from primeval scattering of the One,
So far have they a birth and mortal date;
And in so far as the long interchange
Ends not, so far forever established gods
Around the circle of the world they move.
But come! but hear my words! For knowledge gained
Makes strong thy soul. For as before I spake,
Naming the utter goal of these my words,
I will report a twofold truth. Now grows
The One from Many into being, now
Even from the One disparting come the Many,—
Fire, Water, Earth and awful heights of Air;
And shut from them apart, the deadly Strife
In equipoise, and Love within their midst
In all her being in length and breadth the same.
Behold her now with mind, and sit not there
With eyes astonished, for 'tis she inborn
Abides established in the limbs of men.
Through her they cherish thoughts of love, through her
Perfect the works of concord, calling her
By name Delight or Aphrodite clear.
She speeds revolving in the elements,
But this no mortal man hath ever learned—
Hear thou the undelusive course of proof:
Behold those elements own equal strength
And equal origin; each rules its task;
And unto each its primal mode; and each
Prevailing conquers with revolving time.
And more than these there is no birth nor end;
For were they wasted ever and evermore,
They were no longer, and the great All were then
How to be plenished and from what far coast?
And how, besides, might they to ruin come,

Since nothing lives that empty is of them?—
No, these are all, and, as they course along
Through one another, now this, now that is born—
And so forever down Eternity.

Love and Hate in the Organic World.

20.

The world-wide warfare of the eternal Two
Well in the mass of human limbs is shown:
Whiles into one do they through Love unite,
And mortal members take the body's form,
And life doth flower at the prime; and whiles,
Again dissevered by the Hates perverse,
They wander far and wide and up and down
The surf-swept beaches and drear shores of life.
So too with thicket, tree, and gleaming fish
Housed in the crystal walls of waters wide;
And so with beasts that couch on mountain slopes,
And water-fowls that skim the long blue sea.

From the Elements is All We See.

21.

But come, and to my words foresaid look well,
If their wide witness anywhere forgot
Aught that behooves the elemental forms:
Behold the Sun, the warm, the bright-diffused;
Behold the eternal Stars, forever steeped
In liquid heat and glowing radiance; see
Also the Rain, obscure and cold and dark,
And how from Earth streams forth the Green and Firm.
And all through Wrath are split to shapes diverse;
And each through Love draws near and yearns for each.
For from these elements hath budded all
That was or is or evermore shall be—
All trees, and men and women, beasts and birds,
And fishes nourished in deep waters, aye,
The long-lived gods, in honors excellent.
For these are all, and, as they course along
Through one another, they take new faces all,
By varied mingling and enduring change.

Similia Similibus.

22.

For amber Sun and Earth and Heaven and Sea
Is friendly with its every part that springs,
Far driven and scattered, in the mortal world;
So too those things that are most apt to mix
Are like, and love by Aphrodite's hest.
But hostile chiefly are those things which most
From one another differ, both in birth,
And in their mixing and their molded forms—
Unwont to mingle, miserable and lone,
After the counsels of their father, Hate.

The Law of the Elements.

26.

In turn they conquer as the cycles roll,
And wane the one to other still, and wax
The one to other in turn by olden Fate;
For these are all, and, as they course along
Through one another, they become both men
And multitudinous tribes of hairy beasts;
Whiles in fair order through Love united all,
Whiles rent asunder by the hate of Strife,
Till they, when grown into the One and All
Once more, once more go under and succumb.
And in so far as is the One still wont
To grow from the Many, and the Many, again,
Spring from primeval scattering of the One,
So far have they a birth and mortal date.
And in so far as this long interchange
Ends not, so far forever established gods
Around the circle of the world they move.

The Sphere.

27.

There views one not the swift limbs of the Sun,
Nor there the strength of shaggy Earth, nor Sea;
But in the strong recess of Harmony,
Established firm abides the rounded Sphere,
Exultant in surrounding solitude.

27a.

Nor faction nor fight unseemly in its limbs.

28.

The Sphere on every side the boundless same,
Exultant in surrounding solitude.

29.

For from its back there swing no branching arms,
It hath no feet nor knees alert, nor form
Of life-producing member,—on all sides
A sphere it was, and like unto itself.

30.

Yet after mighty Strife had waxen great
Within the members of the Sphere, and rose
To her own honors, as the times arrived
Which unto each in turn, to Strife, to Love,
Should come by amplest oath and old decree. . .

31.

For one by one did quake the limbs of God.

The Conquest of Love.

35.

But hurrying back, I now will make return
To paths of festal song, laid down before,
Draining each flowing thought from flowing thought.
When down the Vortex to the last abyss
Had foundered Hate, and Lovingness had reached
The eddying center of the Mass, behold

Some with man's form beneath a bovine head,
Mixed shapes of being with shadowed secret parts,
Sometimes like men, and sometimes woman-growths.

62.

But come! now hear how 'twas the sundered Fire
Led into life the germs, erst whelmed in night,
Of men and women, the pitied and bewailed;
For 'tis a tale that sees and knows its mark.
First rose mere lumps of earth with rude impress,
That had their shares of Water and of Warm.
These then by Fire (in upward zeal to reach

Its kindred Fire in heaven) were shot aloft,
Albeit not yet had they revealed a form
Of lovely limbs, nor yet a human cry,
Nor secret member, common to the male.

Similia similibus.

89.

Knowing that all things have their emanations.

90.

Thus Sweet seized Sweet, Bitter on Bitter flew,
Sour sprung for Sour, and upon Hot rode hot.

On the Nature of Things

De Rerum Natura

Lucretius

Translated by William Ellery Leonard

Book 1

Proem

Mother of Rome, delight of Gods and men,
Dear Venus that beneath the gliding stars
Makest to teem the many-voyaged main
And fruitful lands- for all of living things
Through thee alone are evermore conceived,
Through thee are risen to visit the great sun-
Before thee, Goddess, and thy coming on,
Flee stormy wind and massy cloud away,
For thee the daedal Earth bears scented flowers,
For thee waters of the unvexed deep
Smile, and the hollows of the serene sky
Glow with diffused radiance for thee!
For soon as comes the springtime face of day,
And procreant gales blow from the West unbarred,
First fowls of air, smit to the heart by thee,
Foretold thy approach, O thou Divine,
And leap the wild herds round the happy fields
Or swim the bounding torrents. Thus amain,
Seized with the spell, all creatures follow thee
Whithersoever thou walkest forth to lead,
And thence through seas and mountains and swift
streams,
Through leafy homes of birds and greening plains,
Kindling the lure of love in every breast,
Thou bringest the eternal generations forth,
Kind after kind. And since 'tis thou alone
Guidest the Cosmos, and without thee naught
Is risen to reach the shining shores of light,
Nor aught of joyful or of lovely born,
Thee do I crave co-partner in that verse
Which I presume on Nature to compose
For Memmius mine, whom thou hast willed to be
Peerless in every grace at every hour-
Wherefore indeed, Divine one, give my words
Immortal charm. Lull to a timely rest
O'er sea and land the savage works of war,
For thou alone hast power with public peace
To aid mortality; since he who rules
The savage works of battle, puissant Mars,
How often to thy bosom flings his strength
O'er-mastered by the eternal wound of love-
And there, with eyes and full throat backward
thrown,

Gazing, my Goddess, open-mouthed at thee,
Pastures on love his greedy sight, his breath
Hanging upon thy lips. Him thus reclined
Fill with thy holy body, round, above!
Pour from those lips soft syllables to win
Peace for the Romans, glorious Lady, peace!
For in a season troublous to the state
Neither may I attend this task of mine
With thought untroubled, nor mid such events
The illustrious scion of the Memmian house
Neglect the civic cause.
Whilst human kind
Throughout the lands lay miserably crushed
Before all eyes beneath Religion- who
Would show her head along the region skies,
Glowing on mortals with her hideous face-
A Greek it was who first opposing dared
Raise mortal eyes that terror to withstand,
Whom nor the fame of Gods nor lightning's
stroke
Nor threatening thunder of the ominous sky
Abashed; but rather chafed to angry zest
His dauntless heart to be the first to rend
The crossbars at the gates of Nature old.
And thus his will and hardy wisdom won;
And forward thus he fared afar, beyond
The flaming ramparts of the world, until
He wandered the unmeasurable All.
Whence he to us, a conqueror, reports
What things can rise to being, what cannot,
And by what law to each its scope prescribed,
Its boundary stone that clings so deep in Time.
Wherefore Religion now is under foot,
And us his victory now exalts to heaven.
I know how hard it is in Latian verse
To tell the dark discoveries of the Greeks,
Chiefly because our pauper-speech must find
Strange terms to fit the strangeness of the thing;
Yet worth of thine and the expected joy
Of thy sweet friendship do persuade me on
To bear all toil and wake the clear nights through,
Seeking with what of words and what of song
I may at last most gloriously uncloud
For thee the light beyond, wherewith to view
The core of being at the centre hid.

And for the rest, summon to judgments true,
Unbusied ears and singleness of mind
Withdrawn from cares; lest these my gifts, arranged
For thee with eager service, thou disdain
Before thou comprehendest: since for thee
I prove the supreme law of Gods and sky,
And the primordial germs of things unfold,
Whence Nature all creates, and multiplies
And fosters all, and whither she resolves
Each in the end when each is overthrown.
This ultimate stock we have devised to name
Procreant atoms, matter, seeds of things,
Or primal bodies, as primal to the world.

I fear perhaps thou deemest that we fare
An impious road to realms of thought profane;
But 'tis that same religion oftener far
Hath bred the foul impieties of men:
As once at Aulis, the elected chiefs,
Foremost of heroes, Danaan counsellors,
Defiled Diana's altar, virgin queen,
With Agamemnon's daughter, foully slain.
She felt the chaplet round her maiden locks
And fillets, fluttering down on either cheek,
And at the altar marked her grieving sire,
The priests beside him who concealed the knife,
And all the folk in tears at sight of her.
With a dumb terror and a sinking knee
She dropped; nor might avail her now that first
'Twas she who gave the king a father's name.
They raised her up, they bore the trembling girl
On to the altar- hither led not now
With solemn rites and hymeneal choir,
But sinless woman, sinfully foredone,
A parent felled her on her bridal day,
Making his child a sacrificial beast
To give the ships auspicious winds for Troy:
Such are the crimes to which Religion leads.

And there shall come the time when even thou,
Forced by the soothsayer's terror-tales, shalt seek
To break from us. Ah, many a dream even now
Can they concoct to rout thy plans of life,
And trouble all thy fortunes with base fears.
I own with reason: for, if men but knew
Some fixed end to ills, they would be strong
By some device unconquered to withstand
Religions and the menacings of seers.
But now nor skill nor instrument is theirs,
Since men must dread eternal pains in death.
For what the soul may be they do not know,
Whether 'tis born, or enter in at birth,
And whether, snatched by death, it die with us,
Or visit the shadows and the vasty caves
Of Orcus, or by some divine decree
Enter the brute herds, as our Ennius sang,
Who first from lovely Helicon brought down

A laurel wreath of bright perennial leaves,
Renowned forever among the Italian clans.
Yet Ennius too in everlasting verse
Proclaims those vaults of Acheron to be,
Though thence, he said, nor souls nor bodies fare,
But only phantom figures, strangely wan,
And tells how once from out those regions rose
Old Homer's ghost to him and shed salt tears
And with his words unfolded Nature's source.
Then be it ours with steady mind to clasp
The purport of the skies- the law behind
The wandering courses of the sun and moon;
To scan the powers that speed all life below;
But most to see with reasonable eyes
Of what the mind, of what the soul is made,
And what it is so terrible that breaks
On us asleep, or waking in disease,
Until we seem to mark and hear at hand
Dead men whose bones earth bosomed long ago.

Substance is Eternal

This terror, then, this darkness of the mind,
Not sunrise with its flaring spokes of light,
Nor glittering arrows of morning can disperse,
But only Nature's aspect and her law,
Which, teaching us, hath this exordium:
Nothing from nothing ever yet was born.
Fear holds dominion over mortality
Only because, seeing in land and sky
So much the cause whereof no wise they know,
Men think Divinities are working there.
Meantime, when once we know from nothing still
Nothing can be create, we shall divine
More clearly what we seek: those elements
From which alone all things created are,
And how accomplished by no tool of Gods.
Suppose all sprang from all things: any kind
Might take its origin from any thing,
No fixed seed required. Men from the sea
Might rise, and from the land the scaly breed,
And, fowl full fledged come bursting from the
sky;
The horned cattle, the herds and all the wild
Would haunt with varying offspring tilth and
waste;
Nor would the same fruits keep their olden trees,
But each might grow from any stock or limb
By chance and change. Indeed, and were there
not
For each its procreant atoms, could things have
Each its unalterable mother old?
But, since produced from fixed seeds are all,
Each birth goes forth upon the shores of light
From its own stuff, from its own primal bodies.
And all from all cannot become, because
In each resides a secret power its own.

Again, why see we lavished o'er the lands
 At spring the rose, at summer heat the corn,
 The vines that mellow when the autumn lures,
 If not because the fixed seeds of things
 At their own season must together stream,
 And new creations only be revealed
 When the due times arrive and pregnant earth
 Safely may give unto the shores of light
 Her tender progenies? But if from naught
 Were their becoming, they would spring abroad
 Suddenly, unforeseen, in alien months,
 With no primordial germs, to be preserved
 From procreant unions at an adverse hour.
 Nor on the mingling of the living seeds
 Would space be needed for the growth of things
 Were life an increment of nothing: then
 The tiny babe forthwith would walk a man,
 And from the turf would leap a branching tree-
 Wonders unheard of; for, by Nature, each
 Slowly increases from its lawful seed,
 And through that increase shall conserve its kind.
 Whence take the proof that things enlarge and feed
 From out their proper matter. Thus it comes
 That earth, without her seasons of fixed rains,
 Could bear no produce such as makes us glad,
 And whatsoever lives, if shut from food,
 Prolongs its kind and guards its life no more.
 Thus easier 'tis to hold that many things
 Have primal bodies in common (as we see
 The single letters common to many words)
 Than aught exists without its origins.
 Moreover, why should Nature not prepare
 Men of a bulk to ford the seas afoot,
 Or rend the mighty mountains with their hands,
 Or conquer Time with length of days, if not
 Because for all begotten things abides
 The changeless stuff, and what from that may spring
 Is fixed forevermore? Lastly we see
 How far the tilled surpass the fields untilled
 And to the labour of our hands return
 Their more abounding crops; there are indeed
 Within the earth primordial germs of things,
 Which, as the ploughshare turns the fruitful clods
 And kneads the mould, we quicken into birth.
 Else would ye mark, without all toil of ours,
 Spontaneous generations, fairer forms.
 Confess then, naught from nothing can become,
 Since all must have their seeds, wherefrom to grow,
 Wherefrom to reach the gentle fields of air.
 Hence too it comes that Nature all dissolves
 Into their primal bodies again, and naught
 Perishes ever to annihilation.
 For, were aught mortal in its every part,
 Before our eyes it might be snatched away
 Unto destruction; since no force were needed
 To sunder its members and undo its bands.
 Whereas, of truth, because all things exist,

With seed imperishable, Nature allows
 Destruction nor collapse of aught, until
 Some outward force may shatter by a blow,
 Or inward craft, entering its hollow cells,
 Dissolve it down. And more than this, if Time,
 That wastes with eld the works along the world,
 Destroy entire, consuming matter all,
 Whence then may Venus back to light of life
 Restore the generations kind by kind?
 Or how, when thus restored, may daedal Earth
 Foster and plenish with her ancient food,
 Which, kind by kind, she offers unto each?
 Whence may the water-springs, beneath the sea,
 Or inland rivers, far and wide away,
 Keep the unfathomable ocean full?
 And out of what does Ether feed the stars?
 For lapsed years and infinite age must else
 Have eat all shapes of mortal stock away:
 But be it the Long Ago contained those germs,
 By which this sum of things recruited lives,
 Those same infallibly can never die,
 Nor nothing to nothing evermore return.
 And, too, the selfsame power might end alike
 All things, were they not still together held
 By matter eternal, shackled through its parts,
 Now more, now less. A touch might be enough
 To cause destruction. For the slightest force
 Would loose the weft of things wherein no part
 Were of imperishable stock. But now
 Because the fastenings of primordial parts
 Are put together diversely and stuff
 Is everlasting, things abide the same
 Unhurt and sure, until some power comes on
 Strong to destroy the warp and woof of each:
 Nothing returns to naught; but all return
 At their collapse to primal forms of stuff.
 Lo, the rains perish which Ether-father throws
 Down to the bosom of Earth-mother; but then
 Upsprings the shining grain, and boughs are
 green
 Amid the trees, and trees themselves wax big
 And lade themselves with fruits; and hence in
 turn
 The race of man and all the wild are fed;
 Hence joyful cities thrive with boys and girls;
 And leafy woodlands echo with new birds;
 Hence cattle, fat and drowsy, lay their bulk
 Along the joyous pastures whilst the drops
 Of white ooze trickle from distended bags;
 Hence the young scamper on their weakling
 joints
 Along the tender herbs, fresh hearts afrisk
 With warm new milk. Thus naught of what so
 seems
 Perishes utterly, since Nature ever
 Upbuilds one thing from other, suffering naught
 To come to birth but through some other's death.

And now, since I have taught that things cannot
 Be born from nothing, nor the same, when born,
 To nothing be recalled, doubt not my words,
 Because our eyes no primal germs perceive;
 For mark those bodies which, though known to be
 In this our world, are yet invisible:
 The winds infuriate lash our face and frame,
 Unseen, and swamp huge ships and rend the clouds,
 Or, eddying wildly down, bestrew the plains
 With mighty trees, or scour the mountain tops
 With forest-crackling blasts. Thus on they rave
 With uproar shrill and ominous moan. The winds,
 'Tis clear, are sightless bodies sweeping through
 The sea, the lands, the clouds along the sky,
 Vexing and whirling and seizing all amain;
 And forth they flow and pile destruction round,
 Even as the water's soft and supple bulk
 Becoming a river of abounding floods,
 Which a wide downpour from the lofty hills
 Swells with big showers, dashes headlong down
 Fragments of woodland and whole branching trees;
 Nor can the solid bridges bide the shock
 As on the waters whelm: the turbulent stream,
 Strong with a hundred rains, beats round the piers,
 Crashes with havoc, and rolls beneath its waves
 Down-toppled masonry and ponderous stone,
 Hurling away whatever would oppose.
 Even so must move the blasts of all the winds,
 Which, when they spread, like to a mighty flood,
 Hither or thither, drive things on before
 And hurl to ground with still renewed assault,
 Or sometimes in their circling vortex seize
 And bear in cones of whirlwind down the world:
 The winds are sightless bodies and naught else-
 Since both in works and ways they rival well
 The mighty rivers, the visible in form.
 Then too we know the varied smells of things
 Yet never to our nostrils see them come;
 With eyes we view not burning heats, nor cold,
 Nor are we wont men's voices to behold.
 Yet these must be corporeal at the base,
 Since thus they smite the senses: naught there is
 Save body, having property of touch.
 And raiment, hung by surf-beat shore, grows moist,
 The same, spread out before the sun, will dry;
 Yet no one saw how sank the moisture in,
 Nor how by heat off-driven. Thus we know,
 That moisture is dispersed about in bits
 Too small for eyes to see. Another case:
 A ring upon the finger thins away
 Along the under side, with years and suns;
 The drippings from the eaves will scoop the stone;
 The hooked ploughshare, though of iron, wastes
 Amid the fields insidiously. We view
 The rock-paved highways worn by many feet;
 And at the gates the brazen statues show

Their right hands leaner from the frequent touch
 Of wayfarers innumerable who greet.
 We see how wearing-down hath minished these,
 But just what motes depart at any time,
 The envious nature of vision bars our sight.
 Lastly whatever days and nature add
 Little by little, constraining things to grow
 In due proportion, no gaze however keen
 Of these our eyes hath watched and known. No
 more
 Can we observe what's lost at any time,
 When things wax old with eld and foul decay,
 Or when salt seas eat under beetling crags.
 Thus Nature ever by unseen bodies works.

The Void

But yet creation's neither crammed nor blocked
 About by body: there's in things a void-
 Which to have known will serve thee many a
 turn,
 Nor will not leave thee wandering in doubt,
 Forever searching in the sum of all,
 And losing faith in these pronouncements mine.
 There's place intangible, a void and room.
 For were it not, things could in nowise move;
 Since body's property to block and check
 Would work on all and at an times the same.
 Thus naught could evermore push forth and go,
 Since naught elsewhere would yield a starting
 place.
 But now through oceans, lands, and heights of
 heaven
 By divers causes and in divers modes,
 Before our eyes we mark how much may move,
 Which, finding not a void, would fail deprived
 Of stir and motion; nay, would then have been
 Nowise begot at all, since matter, then,
 Had staid at rest, its parts together crammed.
 Then too, however solid objects seem,
 They yet are formed of matter mixed with void:
 In rocks and caves the watery moisture seeps,
 And beady drops stand out like plenteous tears;
 And food finds way through every frame that
 lives;
 The trees increase and yield the season's fruit
 Because their food throughout the whole is
 poured,
 Even from the deepest roots, through trunks and
 boughs;
 And voices pass the solid walls and fly
 Reverberant through shut doorways of a house;
 And stiffening frost seeps inward to our bones.
 Which but for voids for bodies to go through
 'Tis clear could happen in nowise at all.
 Again, why see we among objects some
 Of heavier weight, but of no bulkier size:

Indeed, if in a ball of wool there be
 As much of body as in lump of lead,
 The two should weigh alike, since body tends
 To load things downward, while the void abides,
 By contrary nature, the imponderable.
 Therefore, an object just as large but lighter
 Declares infallibly its more of void;
 Even as the heavier more of matter shows,
 And how much less of vacant room inside.
 That which we're seeking with sagacious quest
 Exists, infallibly, commixed with things-
 The void, the invisible inane.
 Right here
 I am compelled a question to expound,
 Forestalling something certain folk suppose,
 Lest it avail to lead thee off from truth:
 Waters (they say) before the shining breed
 Of the swift scaly creatures somehow give,
 And straightway open sudden liquid paths,
 Because the fishes leave behind them room
 To which at once the yielding billows stream.
 Thus things among themselves can yet be moved,
 And change their place, however full the Sum-
 Received opinion, wholly false forsooth.
 For where can scaly creatures forward dart,
 Save where the waters give them room? Again,
 Where can the billows yield a way, so long
 As ever the fish are powerless to go?
 Thus either all bodies of motion are deprived,
 Or things contain admixture of a void
 Where each thing gets its start in moving on.
 Lastly, where after impact two broad bodies
 Suddenly spring apart, the air must crowd
 The whole new void between those bodies formed;
 But air, however it stream with hastening gusts,
 Can yet not fill the gap at once- for first
 It makes for one place, ere diffused through all.
 And then, if haply any think this comes,
 When bodies spring apart, because the air
 Somehow condenses, wander they from truth:
 For then a void is formed, where none before;
 And, too, a void is filled which was before.
 Nor can air be condensed in such a wise;
 Nor, granting it could, without a void, I hold,
 It still could not contract upon itself
 And draw its parts together into one.
 Wherefore, despite demur and counter-speech,
 Confess thou must there is a void in things.

And still I might by many an argument
 Here scrape together credence for my words.
 But for the keen eye these mere footprints serve,
 Whereby thou mayest know the rest thyself.
 As dogs full oft with noses on the ground,
 Find out the silent lairs, though hid in brush,
 Of beasts, the mountain-rangers, when but once
 They scent the certain footsteps of the way,

Thus thou thyself in themes like these alone
 Can hunt from thought to thought, and keenly
 wind
 Along even onward to the secret places
 And drag out truth. But, if thou loiter loth
 Or veer, however little, from the point,
 This I can promise, Memmius, for a fact:
 Such copious drafts my singing tongue shall pour
 From the large well-springs of my plenished
 breast
 That much I dread slow age will steal and coil
 Along our members, and unloose the gates
 Of life within us, ere for thee my verse
 Hath put within thine ears the stores of proofs
 At hand for one soever question broached.

Nothing Exists Per Se Except Atoms and the Void

But, now again to weave the tale begun,
 All nature, then, as self-sustained, consists
 Of twain of things: of bodies and of void
 In which they're set, and where they're moved
 around.
 For common instinct of our race declares
 That body of itself exists: unless
 This primal faith, deep-founded, fail us not,
 Naught will there be whereunto to appeal
 On things occult when seeking aught to prove
 By reasonings of mind. Again, without
 That place and room, which we do call the inane,
 Nowhere could bodies then be set, nor go
 Hither or thither at all- as shown before.
 Besides, there's naught of which thou canst
 declare
 It lives disjoined from body, shut from void-
 A kind of third in nature. For whatever
 Exists must be a somewhat; and the same,
 If tangible, however fight and slight,
 Will yet increase the count of body's sum,
 With its own augmentation big or small;
 But, if intangible and powerless ever
 To keep a thing from passing through itself
 On any side, 'twill be naught else but that
 Which we do call the empty, the inane.
 Again, whate'er exists, as of itself,
 Must either act or suffer action on it.
 Or else be that wherein things move and be:
 Naught, saving body, acts, is acted on;
 Naught but the inane can furnish room. And
 thus,
 Beside the inane and bodies, is no third
 Nature amid the number of all things-
 Remainder none to fall at any time
 Under our senses, nor be seized and seen
 By any man through reasonings of mind.
 Name o'er creation with what names thou wilt,

Thou'lt find but properties of those first twain,
Or see but accidents those twain produce.

A property is that which not at all
Can be disjoined and severed from a thing
Without a fatal dissolution: such,
Weight to the rocks, heat to the fire, and flow
To the wide waters, touch to corporal things,
Intangibility to the viewless void.
But state of slavery, pauperhood, and wealth,
Freedom, and war, and concord, and all else
Which come and go whilst Nature stands the same,
We're wont, and rightly, to call accidents.
Even time exists not of itself; but sense
Reads out of things what happened long ago,
What presses now, and what shall follow after:
No man, we must admit, feels time itself,
Disjoined from motion and repose of things.
Thus, when they say there "is" the ravishment
Of Princess Helen, "is" the siege and sack
Of Trojan Town, look out, they force us not
To admit these acts existent by themselves,
Merely because those races of mankind
(Of whom these acts were accidents) long since
Irrevocable age has borne away:
For all past actions may be said to be
But accidents, in one way, of mankind,-
In other, of some region of the world.
Add, too, had been no matter, and no room
Wherein all things go on, the fire of love
Uplown by that fair form, the glowing coal
Under the Phrygian Alexander's breast,
Had ne'er enkindled that renowned strife
Of savage war, nor had the wooden horse
Involved in flames old Pergama, by a birth
At midnight of a brood of the Hellenes.
And thus thou canst remark that every act
At bottom exists not of itself, nor is
As body is, nor has like name with void;
But rather of sort more fitly to be called
An accident of body, and of place
Wherein all things go on.

Character of the Atoms

Bodies, again,
Are partly primal germs of things, and partly
Unions deriving from the primal germs.
And those which are the primal germs of things
No power can quench; for in the end they conquer
By their own solidness; though hard it be
To think that aught in things has solid frame;
For lightnings pass, no less than voice and shout,
Through hedging walls of houses, and the iron
White-dazzles in the fire, and rocks will burn
With exhalations fierce and burst asunder.
Totters the rigid gold dissolved in heat;

The ice of bronze melts conquered in the flame;
Warmth and the piercing cold through silver
seep,
Since, with the cups held rightly in the hand,
We oft feel both, as from above is poured
The dew of waters between their shining sides:
So true it is no solid form is found.
But yet because true reason and nature of things
Constrain us, come, whilst in few verses now
I disentangle how there still exist
Bodies of solid, everlasting frame-
The seeds of things, the primal germs we teach,
Whence all creation around us came to be.
First since we know a twofold nature exists,
Of things, both twain and utterly unlike-
Body, and place in which an things go on-
Then each must be both for and through itself,
And all unmixed: where'er be empty space,
There body's not; and so where body bides,
There not at an exists the void inane.
Thus primal bodies are solid, without a void.
But since there's void in all begotten things,
All solid matter must be round the same;
Nor, by true reason canst thou prove aught hides
And holds a void within its body, unless
Thou grant what holds it be a solid. Know,
That which can hold a void of things within
Can be naught else than matter in union knit.
Thus matter, consisting of a solid frame,
Hath power to be eternal, though all else,
Though all creation, be dissolved away.
Again, were naught of empty and inane,
The world were then a solid; as, without
Some certain bodies to fill the places held,
The world that is were but a vacant void.
And so, infallibly, alternate-wise
Body and void are still distinguished,
Since nature knows no wholly full nor void.
There are, then, certain bodies, possessed of
power
To vary forever the empty and the full;
And these can nor be sundered from without
By beats and blows, nor from within be torn
By penetration, nor be overthrown
By any assault soever through the world-
For without void, naught can be crushed, it
seems,
Nor broken, nor severed by a cut in twain,
Nor can it take the damp, or seeping cold
Or piercing fire, those old destroyers three;
But the more void within a thing, the more
Entirely it totters at their sure assault.
Thus if first bodies be, as I have taught,
Solid, without a void, they must be then
Eternal; and, if matter ne'er had been
Eternal, long ere now had all things gone
Back into nothing utterly, and all

are

As have no parts, the minimums of nature.
And since these are, likewise confess thou must
That primal bodies are solid and eterne.
Again, if Nature, creatress of all things,
Were wont to force all things to be resolved
Unto least parts, then would she not avail
To reproduce from out them anything;
Because whate'er is not endowed with parts
Cannot possess those properties required
Of generative stuff- divers connections,
Weights, blows, encounters, motions, whereby things
Forevermore have being and go on.

Confutation of Other Philosophers

And on such grounds it is that those who held
The stuff of things is fire, and out of fire
Alone the cosmic sum is formed, are seen
Mightily from true reason to have lapsed.
Of whom, chief leader to do battle, comes
That Heraclitus, famous for dark speech
Among the silly, not the serious Greeks
Who search for truth. For dolts are ever prone
That to bewonder and adore which hides
Beneath distorted words, holding that true
Which sweetly tickles in their stupid ears,
Or which is rouged in finely finished phrase.
For how, I ask, can things so varied be,
If formed of fire, single and pure? No whit
'Twould help for fire to be condensed or thinned,
If all the parts of fire did still preserve
But fire's own nature, seen before in gross.
The heat were keener with the parts compressed,
Milder, again when severed or dispersed-
And more than this thou canst conceive of naught
That from such causes could become; much less
Might earth's variety of things be born
From any fires soever, dense or rare.
This too: if they suppose a void in things,
Then fires can be condensed and still left rare;
But since they see such opposites of thought
Rising against them, and are loath to leave
An unmixed void in things, they fear the steep
And lose the road of truth. Nor do they see,
That, if from things we take away the void,
All things are then condensed, and out of all
One body made, which has no power to dart
Swiftly from out itself not anything-
As throws the fire its light and warmth around,
Giving thee proof its parts are not compact.
But if perhaps they think, in other wise,
Fires through their combinations can be quenched
And change their substance, very well: behold,
If fire shall spare to do so in no part,
Then heat will perish utterly and all,
And out of nothing would the world be formed.

For change in anything from out its bounds
Means instant death of that which was before;
And thus a somewhat must persist unharmed
Amid the world, lest all return to naught,
And, born from naught, abundance thrive anew.
Now since indeed there are those surest bodies
Which keep their nature evermore the same,
Upon whose going out and coming in
And changed order things their nature change,
And all corporeal substances transformed,
'Tis thine to know those primal bodies, then,
Are not of fire. For 'twere of no avail
Should some depart and go away, and some
Be added new, and some be changed in order,
If still all kept their nature of old heat:
For whatsoever they created then
Would still in any case be only fire.
The truth, I fancy, this: bodies there are
Whose clashing, motions, order, posture, shapes
Produce the fire and which, by order changed,
Do change the nature of the thing produced,
And are thereafter nothing like to fire
Nor whatso else has power to send its bodies
With impact touching on the senses' touch.

Again, to say that all things are but fire
And no true thing in number of all things
Exists but fire, as this same fellow says,
Seems crazed folly. For the man himself
Against the senses by the senses fights,
And hews at that through which is all belief,
Through which indeed unto himself is known
The thing he calls the fire. For, though he thinks
The senses truly can perceive the fire,
He thinks they cannot as regards all else,
Which still are palpably as clear to sense-
To me a thought inept and crazy too.
For whither shall we make appeal? for what
More certain than our senses can there be
Whereby to mark asunder error and truth?
Besides, why rather do away with all,
And wish to allow heat only, then deny
The fire and still allow all else to be?-
Alike the madness either way it seems.
Thus whosoe'er have held the stuff of things
To be but fire, and out of fire the sum,
And whosoever have constituted air
As first beginning of begotten things,
And all whoever have held that of itself
Water alone contrives things, or that earth
Createth all and changes things anew
To divers natures, mightily they seem
A long way to have wandered from the truth.

Add, too, whoever make the primal stuff
Twofold, by joining air to fire, and earth
To water; add who deem that things can grow

Out of the four- fire, earth, and breath, and rain;
As first Empedocles of Acragas,
Whom that three-cornered isle of all the lands
Bore on her coasts, around which flows and flows
In mighty bend and bay the Ionic seas,
Splashing the brine from off their gray-green waves.
Here, billowing onward through the narrow straits,
Swift ocean cuts her boundaries from the shores
Of the Italic mainland. Here the waste
Charybdis; and here Aetna rumbles threats
To gather anew such furies of its flames
As with its force anew to vomit fires,
Belched from its throat, and skyward bear anew
Its lightnings' flash. And though for much she seem
The mighty and the wondrous isle to men,
Most rich in all good things, and fortified
With generous strength of heroes, she hath ne'er
Possessed within her aught of more renown,
Nor aught more holy, wonderful, and dear
Than this true man. Nay, ever so far and pure
The lofty music of his breast divine
Lifts up its voice and tells of glories found,
That scarce he seems of human stock create.

Yet he and those forementioned (known to be
So far beneath him, less than he in all),
Though, as discoverers of much goodly truth,
They gave, as 'twere from out of the heart's own
shrine,
Responses holier and soundlier based
Than ever the Pythia pronounced for men
From out the tripod and the Delphian laurel,
Have still in matter of first-elements
Made ruin of themselves, and, great men, great
Indeed and heavy there for them the fall:
First, because, banishing the void from things,
They yet assign them motion, and allow
Things soft and loosely textured to exist,
As air, dew, fire, earth, animals, and grains,
Without admixture of void amid their frame.
Next, because, thinking there can be no end
In cutting bodies down to less and less
Nor pause established to their breaking up,
They hold there is no minimum in things;
Albeit we see the boundary point of aught
Is that which to our senses seems its least,
Whereby thou mayst conjecture, that, because
The things thou canst not mark have boundary
points,
They surely have their minimums. Then, too,
Since these philosophers ascribe to things
Soft primal germs, which we behold to be
Of birth and body mortal, thus, throughout,
The sum of things must be returned to naught,
And, born from naught, abundance thrive anew-
Thou seest how far each doctrine stands from truth.
And, next, these bodies are among themselves

In many ways poisons and foes to each,
Wherefore their congress will destroy them quite
Or drive asunder as we see in storms
Rains, winds, and lightnings all asunder fly.
Thus too, if all things are create of four,
And all again dissolved into the four,
How can the four be called the primal germs
Of things, more than all things themselves be
thought,

By retroversion, primal germs of them?
For ever alternately are both begot,
With interchange of nature and aspect
From immemorial time. But if percase
Thou think'st the frame of fire and earth, the air,
The dew of water can in such wise meet
As not by mingling to resign their nature,
From them for thee no world can be create-
No thing of breath, no stock or stalk of tree:
In the wild congress of this varied heap
Each thing its proper nature will display,
And air will palpably be seen mixed up
With earth together, unquenched heat with
water.

But primal germs in bringing things to birth
Must have a latent, unseen quality,
Lest some outstanding alien element
Confuse and minish in the thing create
Its proper being.
But these men begin
From heaven, and from its fires; and first they
feign
That fire will turn into the winds of air,
Next, that from air the rain begotten is,
And earth created out of rain, and then
That all, reversely, are returned from earth-
The moisture first, then air thereafter heat-
And that these same ne'er cease in interchange,
To go their ways from heaven to earth, from earth
Unto the stars of the ethereal world-
Which in no wise at all the germs can do.
Since an immutable somewhat still must be,
Lest all things utterly be sped to naught;
For change in anything from out its bounds
Means instant death of that which was before.
Wherefore, since those things, mentioned
heretofore,

Suffer a changed state, they must derive
From others ever unconvertible,
Lest an things utterly return to naught.
Then why not rather presuppose there be
Bodies with such a nature furnished forth
That, if perchance they have created fire,
Can still (by virtue of a few withdrawn,
Or added few, and motion and order changed)
Fashion the winds of air, and thus all things
Forevermore be interchanged with all?
"But facts in proof are manifest;" thou sayest,

"That all things grow into the winds of air
 And forth from earth are nourished, and unless
 The season favour at propitious hour
 With rains enough to set the trees a-reel
 Under the soak of bulking thunderheads,
 And sun, for its share, foster and give heat,
 No grains, nor trees, nor breathing things can grow."
 True- and unless hard food and moisture soft
 Recruited man, his frame would waste away,
 And life dissolve from out his thews and bones;
 For out of doubt recruited and fed are we
 By certain things, as other things by others.
 Because in many ways the many germs
 Common to many things are mixed in things,
 No wonder 'tis that therefore divers things
 By divers things are nourished. And, again,
 Often it matters vastly with what others,
 In what positions the primordial germs
 Are bound together, and what motions, too,
 They give and get among themselves; for these
 Same germs do put together sky, sea, lands,
 Rivers, and sun, grains, trees, and breathing things,
 But yet commixed they are in divers modes
 With divers things, forever as they move.
 Nay, thou beholdest in our verses here
 Elements many, common to many worlds,
 Albeit thou must confess each verse, each word
 From one another differs both in sense
 And ring of sound- so much the elements
 Can bring about by change of order alone.
 But those which are the primal germs of things
 Have power to work more combinations still,
 Whence divers things can be produced in turn.

Now let us also take for scrutiny
 The homeomeria of Anaxagoras,
 So called by Greeks, for which our pauper-speech
 Yieldeth no name in the Italian tongue,
 Although the thing itself is not o'erhard
 For explanation. First, then, when he speaks
 Of this homeomeria of things, he thinks
 Bones to be sprung from littlest bones minute,
 And from minute and littlest flesh all flesh,
 And blood created out of drops of blood,
 Conceiving gold compact of grains of gold,
 And earth concreted out of bits of earth,
 Fire made of fires, and water out of waters,
 Feigning the like with all the rest of stuff.
 Yet he concedes not an void in things,
 Nor any limit to cutting bodies down.
 Wherefore to me he seems on both accounts
 To err no less than those we named before.
 Add too: these germs he feigns are far too frail-
 If they be germs primordial furnished forth
 With but same nature as the things themselves,
 And travail and perish equally with those,
 And no rein curbs them from annihilation.

For which will last against the grip and crush
 Under the teeth of death? the fire? the moist?
 Or else the air? which then? the blood? the
 bones?

No one, methinks, when every thing will be
 At bottom as mortal as whate'er we mark
 To perish by force before our gazing eyes.
 But my appeal is to the proofs above
 That things cannot fall back to naught, nor yet
 From naught increase. And now again, since food
 Augments and nourishes the human frame,
 'Tis thine to know our veins and blood and bones
 And thews are formed of particles unlike
 To them in kind; or if they say all foods
 Are of mixed substance having in themselves
 Small bodies of thews, and bones, and also veins
 And particles of blood, then every food,
 Solid or liquid, must itself be thought
 As made and mixed of things unlike in kind-
 Of bones, of thews, of ichor and of blood.
 Again, if all the bodies which upgrow
 From earth, are first within the earth, then earth
 Must be compound of alien substances earth.
 Which spring and bloom abroad from out the
 earth.

Transfer the argument, and thou may'st use
 The selfsame words: if flame and smoke and ash
 Still lurk unseen within the wood, the wood
 Must be compound of alien substances
 Which spring from out the wood.

Right here remains
 A certain slender means to skulk from truth,
 Which Anaxagoras takes unto himself,
 Who holds that all things lurk commixed with all
 While that one only comes to view, of which
 The bodies exceed in number all the rest,
 And lie more close to hand and at the fore-
 A notion banished from true reason far.
 For then 'twere meet that kernels of the grains
 Should oft, when crunched between the might of
 stones,

Give forth a sign of blood, or of aught else
 Which in our human frame is fed; and that
 Rock rubbed on rock should yield a gory ooze.
 Likewise the herbs ought oft to give forth drops
 Of sweet milk, flavoured like the uddered sheep's;
 Indeed we ought to find, when crumbling up
 The earthy clods, there herbs, and grains, and
 leaves,

All sorts dispersed minutely in the soil;
 Lastly we ought to find in cloven wood
 Ashes and smoke and bits of fire there hid.
 But since fact teaches this is not the case,
 'Tis thine to know things are not mixed with
 things

Thuswise; but seeds, common to many things,
 Commixed in many ways, must lurk in things.

"But often it happens on skiey hills" thou sayest,
 "That neighbouring tops of lofty trees are rubbed
 One against other, smote by the blustering south,
 Till all ablaze with bursting flower of flame."
 Good sooth- yet fire is not ingraft in wood,
 But many are the seeds of heat, and when
 Rubbing together they together flow,
 They start the conflagrations in the forests.
 Whereas if flame, already fashioned, lay
 Stored up within the forests, then the fires
 Could not for any time be kept unseen,
 But would be laying all the wildwood waste
 And burning all the boscage. Now dost see
 (Even as we said a little space above)
 How mightily it matters with what others,
 In what positions these same primal germs
 Are bound together? And what motions, too,
 They give and get among themselves? how, hence,
 The same, if altered 'mongst themselves, can body
 Both igneous and ligneous objects forth-
 Precisely as these words themselves are made
 By somewhat altering their elements,
 Although we mark with name indeed distinct
 The igneous from the ligneous. Once again,
 If thou suppose whatever thou beholdest,
 Among all visible objects, cannot be,
 Unless thou feign bodies of matter endowed
 With a like nature,- by thy vain device
 For thee will perish all the germs of things:
 'Twill come to pass they'll laugh aloud, like men,
 Shaken asunder by a spasm of mirth,
 Or moisten with salty tear-drops cheeks and chins.

The Infinity of the Universe

Now learn of what remains! More keenly hear!
 And for myself, my mind is not deceived
 How dark it is: But the large hope of praise
 Hath strook with pointed thyrsus through my heart;
 On the same hour hath strook into my breast
 Sweet love of the Muses, wherewith now instinct,
 I wander afield, thriving in sturdy thought,
 Through unpathed haunts of the Pierides,
 Trodden by step of none before. I joy
 To come on undefiled fountains there,
 To drain them deep; I joy to pluck new flowers,
 To seek for this my head a signal crown
 From regions where the Muses never yet
 Have garlanded the temples of a man:
 First, since I teach concerning mighty things,
 And go right on to loose from round the mind
 The tightened coils of dread religion;
 Next, since, concerning themes so dark, I frame
 Songs so pellucid, touching all throughout
 Even with the Muses' charm- which, as 'twould seem,
 Is not without a reasonable ground:
 But as physicians, when they seek to give

Young boys the nauseous wormwood, first do
 touch
 The brim around the cup with the sweet juice
 And yellow of the boney, in order that
 The thoughtless age of boyhood be cajoled
 As far as the lips, and meanwhile swallow down
 The wormwood's bitter draught, and, though
 befooled
 Be yet not merely duped, but rather thus
 Grow strong again with recreated health:
 So now I too (since this my doctrine seems
 In general somewhat woeful unto those
 Who've had it not in hand, and since the crowd
 Starts back from it in horror) have desired
 To expound our doctrine unto thee in song
 Soft-speaking and Pierian, and, as 'twere,
 To touch it with sweet honey of the Muse-
 If by such method haply I might hold
 The mind of thee upon these lines of ours,
 Till thou see through the nature of all things,
 And how exists the interwoven frame.

But since I've taught that bodies of matter, made
 Completely solid, hither and thither fly
 Forevermore unconquered through all time,
 Now come, and whether to the sum of them
 There be a limit or be none, for thee
 Let us unfold; likewise what has been found
 To be the wide inane, or room, or space
 Wherein all things soever do go on,
 Let us examine if it finite be
 All and entire, or reach unmeasured round
 And downward an illimitable profound.

Thus, then, the All that is is limited
 In no one region of its onward paths,
 For then 't must have forever its beyond.
 And a beyond 'tis seen can never be
 For aught, unless still further on there be
 A somewhat somewhere that may bound the
 same-
 So that the thing be seen still on to where
 The nature of sensation of that thing
 Can follow it no longer. Now because
 Confess we must there's naught beside the sum,
 There's no beyond, and so it lacks all end.
 It matters nothing where thou post thyself,
 In whatsoever regions of the same;
 Even any place a man has set him down
 Still leaves about him the unbounded all
 Outward in all directions; or, supposing
 moment the all of space finite to be,
 If some one farthest traveller runs forth
 Unto the extreme coasts and throws ahead
 A flying spear, is't then thy wish to think
 It goes, hurled off amain, to where 'twas sent
 And shoots afar, or that some object there

Can thwart and stop it? For the one or other
Thou must admit; and take. Either of which
Shuts off escape for thee, and does compel
That thou concede the all spreads everywhere,
Owning no confines. Since whether there be
Aught that may block and check it so it comes
Not where 'twas sent, nor lodges in its goal,
Or whether borne along, in either view
'Thas started not from any end. And so
I'll follow on, and whereso'er thou set
The extreme coasts, I'll query, "what becomes
Thereafter of thy spear?" 'Twill come to pass
That nowhere can a world's-end be, and that
The chance for further flight prolongs forever
The flight itself. Besides, were all the space
Of the totality and sum shut in
With fixed coasts, and bounded everywhere,
Then would the abundance of world's matter flow
Together by solid weight from everywhere
Still downward to the bottom of the world,
Nor aught could happen under cope of sky,
Nor could there be a sky at all or sun-
Indeed, where matter all one heap would lie,
By having settled during infinite time.
But in reality, repose is given
Unto no bodies 'mongst the elements,
Because there is no bottom whereunto
They might, as 'twere, together flow, and where
They might take up their undisturbed abodes.
In endless motion everything goes on
Forevermore; out of all regions, even
Out of the pit below, from forth the vast,
Are hurtled bodies evermore supplied.
The nature of room, the space of the abyss
Is such that even the flashing thunderbolts
Can neither speed upon their courses through,
Gliding across eternal tracts of time,
Nor, further, bring to pass, as on they run,
That they may bate their journeying one whit:
Such huge abundance spreads for things around-
Room off to every quarter, without end.
Lastly, before our very eyes is seen
Thing to bound thing: air hedges hill from hill,
And mountain walls hedge air; land ends the sea,
And sea in turn all lands; but for the All
Truly is nothing which outside may bound.
That, too, the sum of things itself may not
Have power to fix a measure of its own,
Great Nature guards, she who compels the void
To bound all body, as body all the void,
Thus rendering by these alternates the whole
An infinite; or else the one or other,
Being unbounded by the other, spreads,
Even by its single nature, ne'ertheless
Immeasurably forth....
Nor sea, nor earth, nor shining vaults of sky,
Nor breed of mortals, nor holy limbs of gods

Could keep their place least portion of an hour:
For, driven apart from out its meetings fit,
The stock of stuff, dissolved, would be borne
Along the illimitable inane afar,
Or rather, in fact, would never have once
combined
And given a birth to aught, since, scattered wide,
It could not be united. For of truth
Neither by counsel did the primal germs
'Stablish themselves, as by keen act of mind,
Each in its proper place; nor did they make,
Forsooth, a compact how each germ should
move;
But since, being many and changed in many
modes
Along the All, they're driven abroad and vexed
By blow on blow, even from all time of old,
They thus at last, after attempting all
The kinds of motion and conjoining, come
Into those great arrangements out of which
This sum of things established is create,
By which, moreover, through the mighty years,
It is preserved, when once it has been thrown
Into the proper motions, bringing to pass
That ever the streams refresh the greedy main
With river-waves abounding, and that earth,
Lapped in warm exhalations of the sun,
Renews her broods, and that the lusty race
Of breathing creatures bears and blooms, and
that
The gliding fires of ether are alive-
What still the primal germs nowise could do,
Unless from out the infinite of space
Could come supply of matter, whence in season
They're wont whatever losses to repair.
For as the nature of breathing creatures wastes,
Losing its body, when deprived of food:
So all things have to be dissolved as soon
As matter, diverted by what means soever
From off its course, shall fail to be on hand.
Nor can the blows from outward still conserve,
On every side, whatever sum of a world
Has been united in a whole. They can
Indeed, by frequent beating, check a part,
Till others arriving may fulfil the sum;
But meanwhile often are they forced to spring
Rebounding back, and, as they spring, to yield,
Unto those elements whence a world derives,
Room and a time for flight, permitting them
To be from off the massy union borne
Free and afar. Wherefore, again, again:
Needs must there come a many for supply;
And also, that the blows themselves shall be
Unfailing ever, must there ever be
An infinite force of matter all sides round.

And in these problems, shrink, my Memmius, far

From yielding faith to that notorious talk:
That all things inward to the centre press;
And thus the nature of the world stands firm
With never blows from outward, nor can be
Nowhere disparted- since all height and depth
Have always inward to the centre pressed
(If thou art ready to believe that aught
Itself can rest upon itself); or that
The ponderous bodies which be under earth
Do all press upwards and do come to rest
Upon the earth, in some ways upside down,
Like to those images of things we see
At present through the waters. They contend,
With like procedure, that all breathing things
Head downward roam about, and yet cannot
Tumble from earth to realms of sky below,
No more than these our bodies wing away
Spontaneously to vaults of sky above;
That, when those creatures look upon the sun,
We view the constellations of the night;
And that with us the seasons of the sky
They thus alternately divide, and thus
Do pass the night coequal to our days,
But a vain error has given these dreams to fools,
What they've embraced with reasoning perverse
For centre none can be where world is still
Boundless, nor yet, if now a centre were,
Could aught take there a fixed position more
Than for some other cause 'tmight be dislodged.
For all of room and space we call the void
Must both through centre and non-centre yield
Alike to weights where'er their motions tend.
Nor is there any place, where, when they've come,
Bodies can be at standstill in the void,
Deprived of force of weight; nor yet may void
Furnish support to any,- nay, it must,
True to its bent of nature, still give way.
Thus in such manner not all can things
Be held in union, as if overcome
By craving for a centre.
But besides,
Seeing they feign that not all bodies press
To centre inward, rather only those
Of earth and water (liquid of the sea,
And the big billows from the mountain slopes,
And whatsoever are encased, as 'twere,
In earthen body), contrariwise, they teach
How the thin air, and with it the hot fire,
Is borne asunder from the centre, and how,
For this all ether quivers with bright stars,
And the sun's flame along the blue is fed
(Because the heat, from out the centre flying,
All gathers there), and how, again, the boughs
Upon the tree-tops could not sprout their leaves,
Unless, little by little, from out the earth
For each were nutriment...

Lest, after the manner of the winged flames,
The ramparts of the world should flee away,
Dissolved amain throughout the mighty void,
And lest all else should likewise follow after,
Aye, lest the thundering vaults of heaven should
burst

And splinter upward, and the earth forthwith
Withdraw from under our feet, and all its bulk,
Among its mingled wrecks and those of heaven,
With slipping asunder of the primal seeds,
Should pass, along the immeasurable inane,
Away forever, and, that instant, naught
Of wrack and remnant would be left, beside
The desolate space, and germs invisible.
For on whatever side thou deemest first
The primal bodies lacking, lo, that side
Will be for things the very door of death:
Wherethrough the throng of matter all will dash,
Out and abroad.
These points, if thou wilt ponder,
Then, with but paltry trouble led along...

For one thing after other will grow clear,
Nor shall the blind night rob thee of the road,
To hinder thy gaze on Nature's Farthest-forth.
Thus things for things shall kindle torches new.