

# ON THE NATURE OF THINGS

TITUS LUCRETIUS CARUS

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## **BOOK I**

## Proem

Lines 1-145

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, Foretoken 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'ermastered 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, Glowering 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

#### Lines 146-328

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 guicken 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

#### Lines 329-417

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,

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 for sooth. 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

#### Lines 418-482

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 Upblown 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

#### Lines 483-634

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 guench; 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 We see around from nothing had been born— But since I taught above that naught can be From naught created, nor the once begotten To naught be summoned back, these primal germs Must have an immortality of frame. And into these must each thing be resolved, When comes its supreme hour, that thus there be At hand the stuff for plenishing the world.

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So primal germs have solid singleness
Nor otherwise could they have been conserved
Through aeons and infinity of time
For the replenishment of wasted worlds.

Once more, if Nature had given a scope for things To be forever broken more and more, By now the bodies of matter would have been So far reduced by breakings in old days That from them nothing could, at season fixed, Be born, and arrive its prime and of life. For, lo, each thing is quicker marred than made; And so what'er the long infinitude

Of days and all fore-passed time would now By this have broken and ruined and dissolved, That same could ne'er in all remaining time Be builded up for plenishing the world. But mark: infallibly a fixed bound Remaineth stablished 'gainst their breaking down; Since we behold each thing soever renewed, And unto all, their seasons, after their kind, Wherein they arrive the flower of their age.

Again, if bounds have not been set against The breaking down of this corporeal world, Yet must all bodies of whatever things Have still endured from everlasting time Unto this present, as not yet assailed By shocks of peril. But because the same Are, to thy thinking, of a nature frail, It ill accords that thus they could remain (As thus they do) through everlasting time, Vexed through the ages (as indeed they are) By the innumerable blows of chance.

So in our programme of creation, mark
How 'tis that, though the bodies of all stuff
The ways whereby some things are fashioned soft—
Air, water, earth, and fiery exhalations—
And by what force they function and go on:
The fact is founded in the void of things.
But if the primal germs themselves be soft,
Reason cannot be brought to bear to show
The ways whereby may be created these
Great crags of basalt and the during iron;
For their whole nature will profoundly lack
The first foundations of a solid frame

But powerful in old simplicity, Abide the solid, the primeval germs; And by their combinations more condensed, All objects can be tightly knit and bound And made to show unconquerable strength. Again, since all things kind by kind obtain Fixed bounds of growing and conserving life; Since Nature hath inviolably decreed What each can do, what each can never do: Since naught is changed, but all things so abide That ever the variegated birds reveal The spots or stripes peculiar to their kind, Spring after spring: thus surely all that is Must be composed of matter immutable. For if the primal germs in any wise Were open to conquest and to change, 'twould be Uncertain also what could come to birth And what could not, and by what law to each Its scope prescribed, its boundary stone that clings So deep in Time. Nor could the generations Kind after kind so often reproduce The nature, habits, motions, ways of life, Of their progenitors. And then again, Since there is ever an extreme bounding point

Of that first body which our senses now Cannot perceive: That bounding point indeed Exists without all parts, a minimum Of nature, nor was e'er a thing apart, As of itself,—nor shall hereafter be, Since 'tis itself still parcel of another, A first and single part, whence other parts And others similar in order lie

In a packed phalanx, filling to the full
The nature of first body: being thus
Not self-existent, they must cleave to that
From which in nowise they can sundered be.
So primal germs have solid singleness,
Which tightly packed and closely joined cohere
By virtue of their minim particles—
No compound by mere union of the same;
But strong in their eternal singleness,
Nature, reserving them as seeds for things,
Permitteth naught of rupture or decrease.

Moreover, were there not a minimum. The smallest bodies would have infinites. Since then a half-of-half could still be halved. With limitless division less and less. Then what the difference 'twixt the sum and least? None: for however infinite the sum. Yet even the smallest would consist the same Of infinite parts. But since true reason here Protests, denying that the mind can think it, Convinced thou must confess such things there 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

Lines 635-920

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 clashings, 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.

THE WORLD INTO WHICH Titus Lucretius Carus was born around 99 B.C. was a chaotic one. The Roman Republic was in shambles, and there was not yet a Julius Caesar or an Octavian to take the reins of power and bring the bolting horse to rest. Roman virtues—patriotism, justice, loyalty, self-control—were collapsing as well. In such a world, it is no wonder that a philosopher such as Lucretius would be attracted to the promise of the teachings of the Greek philosopher Epicurus.

Epicurus and Lucretius believed that the gods took little notice of human beings. If we think that our souls die with our bodies, then we are going to live, and die, in a particular way. *On the Nature of Things* is all about that way of death, and life.



