LATIN SERIES · VOLUME 75

Natural Questions

Seneca

Naturales Quaestiones

Natural Questions

Books I–VII

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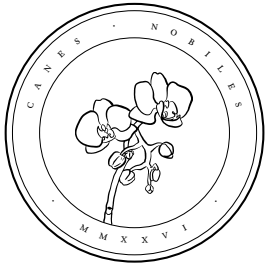
with a word-for-word interlinear English translation

preserving the original word order



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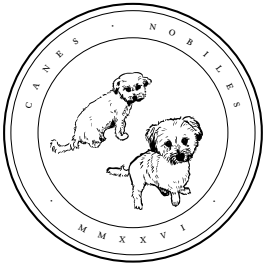

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Artwork by Esther Steves

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BOOK I

PREFACE · THE HIGHER PHILOSOPHY

As far as philosophy stands above the other arts, its part concerning the gods stands above its part concerning men. Without admission to such questions as what the universe is made of and what god is, life would not be worth the sweat. To have escaped the vices is not yet virtue: the mind that rises among the stars sees the earth as a point divided by fire and sword, its armies like ants, and learns that god is the mind of a universe that men, even philosophers, think runs by chance.

Quantum inter philosophiam interest, Lucili virorum optime, 1
As-much-as between philosophy differs Lucilius of-men best
et ceteras artes, tantum interesse existimo in ipsa philosophia
and the-other arts so-much to-differ I-think in itself philosophy
inter illam partem, quae ad homines, et hanc, quae ad deos
between that part which to men and this which to the-gods
pertinet; altior est haec et animosior, multum permisit sibi:
pertains loftier is this and bolder much it-has-allowed to-itself
non fuit oculis contenta, maius esse quiddam suspicata
not it-was with-the-eyes content greater to-be something suspected
est ac pulcrius, quod extra conspectum natura posuisset.
it-has and more-beautiful which outside sight nature had-placed
denique inter duas interest, quantum inter deum et 2
finally between the-two it-differs as-much-as between god and
hominem: altera docet, quid in terris agendum sit, altera,
man the-one teaches what on earth to-be-done should-be the-other
quid agatur in caelo; altera errores nostros discutit et
what is-done in heaven the-one errors our dispels and
lumen admovet, quo discernantur ambigua vitae; altera
light brings-near by-which are-distinguished the-ambiguities of-life the-other

multum supra hanc, in qua volutamur, caliginem excedit
far above this in which we-wallow the-darkness goes-beyond
et e tenebris ereptos perducit illo unde lucet.
and from the-shadows rescued leads thither whence it-shines
3 equidem tunc rerum naturae gratias ago, cum illam non ab
for-my-part then of-things to-the-nature thanks I-give when her not from
hac parte video qua publica est, sed cum secretiora eius
this side I-see by-which public she-is but when the-more-secret-parts her
intravi, cum disco, quae universi materia sit, quis auctor
I-have-entered when I-learn what of-the-universe the-matter may-be who the-maker
aut custos, quid sit deus, totus in se tendat an et
or guardian what may-be god whether-wholly into himself he-tends or also
ad nos aliquando respiciat, faciat cottidie aliquid an semel
to us sometimes he-looks-back whether-he-does daily something or once
fecerit, pars mundi sit an mundus, liceat
has-made whether-a-part of-the-world he-is or the-world whether-it-is-allowed
illi hodieque decernere et ex lege fatorum aliquid
to-him even-today to-decide and from the-law of-the-fates something
derogare, an maiestatis deminutio sit et confessio erroris
to-take-away or of-majesty a-diminution it-is and an-admission of-error
mutanda fecisse (sed necesse est eadem placere
things-to-be-changed to-have-made but necessary it-is the-same-things to-please
ei, cui nisi optima placere non possunt; nec ob hoc
him whom unless the-best to-please not can nor on-account-of this
minus est liber † potens, ipse est enim necessitas sua).
less is-he free (corrupt) powerful himself is for necessity his-own
4 nisi ad haec admitterer, non tanti fuerat nasci. quid
unless to these I-were-admitted not worth-so-much it-had-been to-be-born what
enim erat, cur in numero viventium me positum esse
for was-there why in the-number of-the-living me placed to-be
gauderem? an ut cibos et potiones percolarem? ut hoc
I-should-rejoice or that foods and drinks I-might-strain that this

corpus causarium ac fluidum periturumque, nisi subinde
body sickly and fluid and-going-to-perish unless repeatedly
impletur, farcirem et viverem aegri minister? ut mortem
it-is-filled I-might-stuff and I-might-live of-an-invalid the-attendant that death
timerem, cui uni nascimur? detrahe hoc inaestimabile
I-might-fear for-which alone we-are-born take-away this inestimable
bonum: non est vita tanti, ut sudem, ut aestuem.
good not is life worth-so-much that I-should-sweat that I-should-swelter
o quam contempta res est homo, nisi supra humana 5
O how contemptible a-thing is man unless above human-things
surrexerit! quamdiu cum affectibus colluctamur, quid
he-has-risen as-long-as with the-passions we-struggle what
magnifici facimus? etiamsi superiores sumus, portenta
of-the-magnificent do-we-do even-if superior we-are monsters
vincimus: quid est, cur suspiciamus nosmet ipsos, quia
we-conquer what is-there why we-should-look-up-to us ourselves because
dissimiles deterrimis sumus? non video, quare sibi placeat,
unlike to-the-worst we-are not I-see why himself should-please
qui robustior est, in valetudinario:
who stronger is in the-infirmary
multum interest inter vires et bonam valetudinem. effugisti 6
much it-differs between strength and good health you-have-escaped
vitia animi: non est tibi frons ficta nec in alienam
the-vices of-the-mind not is to-you a-brow feigned nor to another's
voluntatem sermo compositus nec cor involutum nec avaritia,
will speech composed nor a-heart wrapped-up nor avarice
quae, quicquid omnibus abstulit, sibi ipsi neget, nec
which whatever from-all it-has-taken from-itself itself denies nor
luxuria pecuniam turpiter perdens, quam turpius reparet,
luxury money shamefully losing which more-shamefully it-may-recover
nec ambitio, quae te ad dignitatem nisi per indigna non
nor ambition which you to rank except through unworthy-things not

ducet — nihil adhuc consecutus es; multa effugisti,
will-lead nothing as-yet attained you-have many-things you-have-escaped
te nondum. virtus enim ista, quam affectamus, magnifica
yourself not-yet virtue for that which we-aim-at magnificent
est, non quia per se beatum est malo caruisse, sed
is not because in itself blessed it-is evil to-have-lacked but
quia animum laxat et praeparat ad cognitionem caelestium
because the-mind it-frees and prepares for the-knowledge of-heavenly-things
dignumque efficit, qui in consortium deo veniat.
and-worthy makes who into the-fellowship with-god may-come
7 tunc consummatum habet plenumque bonum sortis humanae,
then completed it-has and-full the-good of-the-lot human
cum calcato omni malo petit altum et in interiorem naturae
when trampled every evil it-seeks the-height and into the-inner of-nature
sinum venit. tunc iuvat inter ipsa sidera vagantem divitum
bosom comes then it-delights among the-very stars wandering of-the-rich
pavimenta ridere et totam cum auro suo terram, non illo
the-pavements to-laugh-at and all-the with gold its earth not that
tantum dico, quod egessit et signandum monetae dedit,
only I-say which it-has-cast-up and to-be-stamped to-the-mint has-given
sed et illo, quod in occulto servat posterorum avaritiae.
but also that which in hiding it-keeps of-descendants for-the-avarice
8 non potest ante contemnere porticus et lacunaria ebore
not it-can before despise colonnades and ceilings with-ivory
fulgentia et tonsiles silvas et derivata in domos flumina,
gleaming and clipped woods and diverted into houses rivers
quam totum circumît mundum et terrarum orbem
than the-whole it-has-gone-round world and of-the-lands the-circle
superne despiciens angustum et magna ex parte opertum
from-above looking-down-on narrow and great in part covered
mari, etiam ea qua extat, late squalidum et aut
by-the-sea even in-that where it-stands-out widely squalid and either

ustum aut rigentem, sibi ipse dixit: hoc est illud punctum,
scorched or frozen to-itself itself has-said this is that point
quod inter tot gentes ferro et igne dividitur?
which among so-many nations by-sword and fire is-divided
o quam ridiculi sunt mortalium termini! ultra Istrum Dacus 9
O how ridiculous are of-mortals the-boundaries beyond the-Ister the-Dacian
non exeat, Ister cum Haemo Thraces includat, Parthis
not may-go-out the-Ister with Haemus the-Thracians may-shut-in to-the-Parthians
obstet Euphrates, Danuvius Sarmatica ac Romana
may-stand-in-the-way the-Euphrates the-Danube Sarmatian and Roman-(lands)
disterminet, Rhenus Germaniae modum faciat, Pyrenaeus
may-divide the-Rhine to-Germany a-limit may-make the-Pyrenees
medium inter Gallias et Hispanias iugum extollat, inter
middle between the-Gauls and the-Spains a-ridge may-raise between
Aegyptum et Aethiopas harenarum inculta vastitas iaceat.
Egypt and the-Ethiopians of-sands an-untilled waste may-lie
si quis formicis det intellectum hominis, nonne et 10
if anyone to-ants should-give the-understanding of-a-man not also
illae unam aream in multas provincias divident? cum te
they one threshing-floor into many provinces will-divide when you
in illa vere magna sustuleris, quotiens videbis exercitus
into that truly great have-raised-yourself as-often-as you-will-see armies
subrectis ire vexillis et, quasi magnum aliquid agatur,
with-raised go banners and as-if great something were-being-done
equitem modo ulteriora explorantem, modo a lateribus
the-cavalryman now the-further-parts scouting now from the-flanks
affusum, libebit dicere 'it nigrum campis agmen':
poured-out it-will-please to-say goes black on-the-plains a-column
formicarum iste discursus est in angusto laborantium.
of-ants this running-about is in a-narrow-space of-toilers
quid illis et nobis interest nisi exigui mensura corpusculi?
what to-them and to-us differs except of-a-tiny the-measure of-little-body

11 punctum est istud, in quo navigatis, in quo bellatis, in
a-point is that on which you-sail on which you-make-war on
quo regna disponitis, minima, etiam cum illis utrimque
which kingdoms you-arrange very-small even when to-them on-both-sides
oceanus occurrit: sursum ingentia spatia sunt, in quorum
the-ocean runs-against above vast spaces are into whose
possessionem animus admittitur, et ita, si secum minimum
possession the-mind is-admitted and so if with-itself the-least
ex corpore tulit, si sordidum omne detersit et
of the-body it-has-carried if filth all it-has-wiped-off and
expeditus levisque ac contentus modico emicuit.
unencumbered and-light and content with-little it-has-flashed-up
12 cum illa tetigit, alitur crescit ac velut vinculis
when those-things it-has-touched it-is-nourished it-grows and as-if from-chains
liberatus in originem redit et hoc habet argumentum
freed to its-origin it-returns and this it-has as-a-proof
divinitatis suae, quod illum divina delectant; nec ut alienis
of-divinity its-own that it divine-things delight nor as another's
sed ut suis interest: secure spectat occasus siderum
but as its-own it-is-concerned untroubled it-watches the-settings of-the-stars
atque ortus et tam diversas concordantium vias; observat,
and risings and so diverse of-things-agreeing the-paths it-observes
ubi quaeque stella primum terris lumen ostendat, ubi
where each star first to-the-lands its-light may-show where
columen eius summum cursus sit, quousque descendat;
the-height its highest of-the-course may-be how-far it-may-descend
curiosus spectator excutit singula et quaerit.
a-curious spectator it-examines single-things and inquires
13 quidni quaerat? scit illa ad se pertinere. tunc
why-not should-it-inquire it-knows those-things to itself to-pertain then
contemnit domicilii prioris angustias. quantum est enim,
it-despises of-its-dwelling former the-narrowness how-much is-it for

quod ab ultimis litoribus Hispaniae usque ad Indos iacet?
which from the-farthest shores of-Spain right to the-Indians lies
paucissimorum dierum spatium, si navem suus ferat
of-very-few days a-space if a-ship its-own should-carry
ventus. at illa regio caelestis per triginta annos velocissimo
wind but that region heavenly for thirty years to-the-swiftest
sideri viam praestat numquam resistenti sed aequaliter cito.
star a-way affords never halting but evenly quickly
illic demum discit, quod diu quaesiit, illic incipit deum
there at-last it-learns what long it-has-sought there it-begins god
nosse. quid est deus? mens universi. quid est deus? quod
to-know what is god the-mind of-the-universe what is god what
vides totum et quod non vides totum. sic demum magnitudo
you-see all and what not you-see all so at-last the-greatness
illi sua redditur, qua nihil maius cogitari potest,
to-him his-own is-restored than-which nothing greater to-be-thought can
si solus est omnia, si opus suum et intra et extra tenet.
if alone he-is all-things if work his-own both within and outside he-holds
quid ergo interest inter naturam dei et nostram? nostri melior 14
what then differs between the-nature of-god and ours of-us the-better
pars animus est: in illo nulla pars extra animum est; totus est
part the-mind is in him no part outside the-mind is wholly he-is
ratio, cum interim tantus error mortalia tenet, ut hoc, quo
reason whereas meanwhile so-great error mortal-things holds that this than-which
neque formosius est quicquam nec dispositius nec in proposito
neither more-beautiful is anything nor more-orderly nor in purpose
constantius, existiment homines fortuitum et casu volubile
more-constant they-should-think men fortuitous and by-chance rolling
ideoque tumultuosum inter fulmina, nubes, tempestates et
and-therefore tumultuous among thunderbolts clouds storms and
cetera, quibus terrae ac terris vicina pulsantur.
the-other-things by-which the-earth and to-the-earth neighboring-things are-shaken

15 nec haec intra vulgum dementia est, sed sapientiam quoque
nor this within the-crowd madness is but wisdom also
professos contigit: sunt qui putent ipsis animum
(those)-professing it-has-befallen there-are who think to-themselves a-mind
esse et quidem providum, dispensantem singula et sua
to-be and indeed provident arranging single-things both their-own
et aliena, hoc autem universum, in quo nos quoque sumus,
and another's this however universe in which we also are
expers consilii ferri aut temeritate quadam aut natura
devoid of-counsel to-be-borne either by-a-rashness certain or by-a-nature
nesciente, quid faciat.
not-knowing what it-does

16 quanti aestimas ista cognoscere et rebus terminos
of-how-much do-you-value these-things to-know and to-things limits
ponere, quantum deus possit, materiam ipse sibi formet
to-set how-much god can-do whether-matter himself for-himself he-shapes
an data utatur, utrum utro sit prius, materiae
or given he-uses which-of-the-two than-the-other is prior to-matter
supervenerit ratio an materia rationi, deus quicquid vult
came-over reason or matter to-reason whether-god whatever he-wishes
efficiat an in multis rebus illum tractanda destituant et a
accomplishes or in many things him things-to-be-handled abandon and by
magno artifice prave multa formentur, non quia cessat ars,
a-great craftsman badly many-things are-formed not because fails the-art
sed quia id, in quo exercetur, saepe inobsequens arti est?
but because that in which it-is-exercised often disobedient to-the-art is

17 haec inspicere, haec discere, his incubare nonne
these-things to-inspect these-things to-learn on-these to-brood not
transilire est mortalitatem suam et in meliorem transcribi
to-leap-across is-it mortality its-own and into a-better to-be-transferred

sortem? ‘quid tibi’, inquis, ‘ista proderunt?’ si nil aliud,
lot what to-you you-say these-things will-profit if nothing else
hoc certe: sciam omnia angusta esse mensus deum.
this certainly I-shall-know all-things narrow to-be having-measured god

I · FIRES ACROSS THE SKY

Seneca begins with the fires the air drives crosswise. Aristotle calls one kind a goat; such globes appeared in the war against Perseus, at Augustus’ death, and at Sejanus’ fall. Whether gods send omens waits for another time. Air rubbed hard throws out beams, globes, and torches, and rubbed lightly, shooting stars; Aristotle adds the earth’s varied exhalations. Stars never fall, since each stays in its place, and such fires cross by day unseen. Sailors take the lights on sails in a storm for Castor and Pollux.

Nunc ut ad propositum opus veniam, audi, quid de 1.1
Now that to the-proposed work I-may-come hear what about
ignibus sentiam, quos aër transversos agit. magna illos
the-fires I-think which the-air crosswise drives with-great them
vi excuti argumentum est, quod obliqui feruntur et
force to-be-struck-out a-proof is that slanting they-are-borne and
praerapida celeritate: apparet illos non ire sed proici.
with-headlong speed it-appears them not to-go but to-be-hurled
ignium multae variaeque facies sunt. Aristoteles quoddam 1.2
of-fires many and-various appearances there-are Aristotle a-certain
genus horum capram vocat: si me interrogaveris, quare,
kind of-these the-goat calls if me you-ask why
prior mihi rationem reddas oportet, quare haedi vocentur;
first to-me an-account you-render ought why the-kids are-called
si autem, quod commodissimum est, convenerit inter nos,
if however what most-convenient is it-shall-be-agreed between us

ne alter alterum interroget, quod scit illum respondere
that-not one the-other ask what he-knows him to-answer
non posse, satius erit de re ipsa quaerere quam
not to-be-able better it-will-be about the-matter itself to-inquire than
mirari, quid ita Aristoteles globum ignis appellaverit capram.
to-wonder why so Aristotle a-globe of-fire has-called a-goat
talis enim fuit forma eius, qui bellum adversus Persen
such for was the-shape of-that which the-war against Perseus
Paulo gerente lunari magnitudine apparuit.
Paulus waging with-lunar size appeared

1.3 vidimus nos quoque non semel flammam ingentis pilae
we-have-seen we also not once a-flame of-a-huge ball
specie, quae tamen in ipso cursu suo dissipata est.
with-the-appearance which yet in its-very course its-own dispersed was
vidimus circa divi Augusti excessum simile prodigium,
we-have-seen around of-the-deified Augustus the-death a-similar portent
vidimus eo tempore, quo de Seiano actum est; nec
we-have-seen at-that time in-which about Sejanus dealt it-was nor
Germanici mors sine denuntiatione tali fuit.
of-Germanicus the-death without warning such was

1.4 dices mihi: 'ergo tu in tantis erroribus es, ut existimes
you-will-say to-me then you in such-great errors are that you-think
deos mortium signa praemittere et quicquam in terris esse
the-gods of-deaths signs to-send-ahead and anything on earth to-be
tam magnum, quod perire mundus sciat?' erit aliud
so great that to-perish the-world should-know there-will-be another
istius rei tempus: videbimus an rerum omnium certus
for-that matter time we-shall-see whether of-things all a-fixed
ordo ducatur et alia aliis ita implexa sint, ut quod
order is-drawn and some with-others so entwined are that what
antecedit, aut causa sit sequentium aut signum; videbimus
precedes either the-cause is of-what-follows or a-sign we-shall-see

an diis humana curae sint, an series ipsa, quid
whether to-the-gods human-things for-a-care are or the-series itself what
factura sit, certis rerum notis nuntiet.
about-to-do it-may-be by-fixed of-things signs announces
interim illud existimo, eiusmodi ignes existere aëre vehementius 1.5
meanwhile this I-think of-this-kind fires to-arise the-air more-violently
trito, cum inclinatio † eius in alteram partem facta
rubbed when the-inclination (corrupt) its to the-other side made
est et aër non cessit sed inter se pugnavit: ex hac
has-been and the-air not has-yielded but among itself has-fought from this
vexatione nascuntur trabes et globi et faces et ardores.
disturbance are-born beams and globes and torches and blazes
at cum levius collisus et, ut ita dicam, frictus est,
but when more-lightly struck-together and as so I-may-say rubbed it-has-been
minora lumina excutiuntur, 'crinemque volantia sidera ducunt'.
smaller lights are-struck-out and-a-trail flying stars draw
tunc ignes tenuissimi iter exile designant et caelo 1.6
then fires very-fine a-path slender mark-out and in-the-sky
producunt. ideo nulla sine eiusmodi spectaculis nox est,
draw-out therefore no without of-this-kind spectacles night is
non enim opus est ad efficienda ista magno aëris
not for need there-is for producing these-things of-great of-the-air
motu. denique, ut breviter dicam, eadem ratione fiunt
movement finally as briefly I-may-say by-the-same reason happen
ista, qua fulmina, sed vi minore: quemadmodum
these-things as thunderbolts but with-force lesser as
nubes collisae mediocriter fulgurationes efficient, maiore
clouds struck-together moderately lightnings will-produce with-greater
impetu impulsae fulmina, sic quanto illas minus pressit
impulse driven thunderbolts so by-as-much-as them less has-pressed
vis minoresve, tanto leviora fulmina emittunt.
the-force or-lesser by-so-much lighter thunderbolts they-send-out

1.7 Aristoteles rationem eiusmodi reddit: ‘varia et multa
Aristotle an-account of-this-kind gives various and many-things
terrarum orbis expirat, quaedam umida quaedam sicca,
of-the-lands the-circle breathes-out some moist some dry
quaedam calentia quaedam concipiendis ignibus idonea.’ nec
some warm some for-conceiving fires suited nor
mirum est, si terrae omnis generis et varia evaporatio
strange is-it if of-the-earth of-every kind and various the-evaporation
est, cum in caelo quoque non unus appareat color rerum,
is since in the-sky also not one appears the-color of-things
sed acrior sit Caniculae rubor, Martis remissior, Iovis
but sharper is of-the-Dog-Star the-redness of-Mars more-subdued of-Jupiter
nullus in lucem puram nitore perducto.
none into light pure with-its-brilliance carried

1.8 necesse est ergo in magna copia corpusculorum, quae
necessary it-is therefore in a-great quantity of-tiny-bodies which
terrae eiectant et in superiorem agunt partem, aliqua in
the-lands throw-out and into the-upper drive part some into
nubes pervenire alimenta ignium, quae non tantum collisa
the-clouds to-arrive fuels of-fires which not only struck-together
possint ardere sed etiam afflata radiis solis. nam apud nos
could burn but also blown-on by-the-rays of-the-sun for among us
quoque ramenta sulphure aspersa ignem ex intervallo trahunt.
also shavings with-sulfur sprinkled fire from a-distance draw

1.9 veri ergo simile est talem materiam inter nubes
of-the-truth therefore like it-is such matter among the-clouds
congregatam facile succendi et minores maioresve ignes
gathered easily to-be-kindled and smaller or-greater fires
existere, prout plus illis fuit aut minus virium.
to-arise according-as more to-them there-was or less of-strength

illud enim stultissimum, existimare aut decidere stellas aut
that for most-foolish to-think either to-fall-down stars or
transilire aut aliquid illis auferri et abradi:
to-leap-across or something from-them to-be-taken-away and scraped-off
nam si hoc fuisset, etiam defuissent; nulla enim nox 1.10
for if this had-been even they-would-have-run-out none for night
est, qua non plurimae ire et in diversum videantur
is in-which not very-many to-go and in different-directions seem
abduci. atqui quo solet quaeque invenitur loco,
to-be-led-away and-yet where it-is-accustomed each is-found in-the-place
et magnitudo sua singulis constat: sequitur ergo, ut
and magnitude its-own to-each remains it-follows therefore that
infra illas ista nascantur et cito intercidant, quia sine
below them these-things are-born and quickly perish because without
fundamento et sede certa sunt.
foundation and seat fixed they-are
'quare ergo non etiam interdiu transferuntur?' quid, si 1.11
why then not also by-day are-they-carried-across what if
dicas stellas interdiu non esse, quia non apparent?
you-were-to-say stars by-day not to-be because not they-appear
quemadmodum illae latent et solis fulgore obumbrantur,
as they lie-hidden and by-the-sun's brilliance are-overshadowed
sic faces quoque transcurrunt et interdiu, sed abscondit
so torches also run-across even by-day but hides
illas diurni luminis claritas. si quando tamen tanta
them of-daytime light the-brightness if ever yet so-great
vis emicuit, ut etiam adversus diem vindicare sibi
a-force has-flashed-out that even against the-day to-claim for-themselves
fulgorem suum possint, apparent.
the-brilliance their-own they-can they-appear

1.12 nostra certe aetas non semel vidit diurnas faces, alias ab
our certainly age not once has-seen daytime torches some from
oriente in occidentem versas, alias ab occasu in ortum.
the-east to the-west turned others from the-setting to the-rising
argumentum tempestatis nautae putant, cum multae transvolant
a-sign of-a-storm sailors think when many fly-across
stellae. quod si ventorum signum est, ibi est, unde venti
stars but if of-winds a-sign it-is there it-is whence the-winds
sunt, id est in aëre, qui medius inter lunam terrasque est.
are that is in the-air which midway between the-moon and-the-earth is
1.13 in magna tempestate apparere quasi stellae solent velo
in a-great storm to-appear as-if stars are-wont on-the-sail
insidentes; adiuvari se tunc periclitantes aestimant
settling to-be-helped themselves then those-in-danger think
Pollucis et Castoris numine, causa autem melioris spei est,
of-Pollux and of-Castor by-the-power the-cause however of-better hope is
quod iam apparet frangi tempestatem et desinere ventos:
that already it-appears to-break the-storm and to-cease the-winds
alioquin ferrentur ignes, non sederent.
otherwise would-be-borne the-fires not they-would-settle
1.14 Gylippo Syracusas petenti visa est stella super ipsam
to-Gylippus Syracuse seeking seen was a-star above the-very
lanceam constitisse. in Romanorum castris ardere visa sunt
lance to-have-stood in of-the-Romans the-camp to-burn seemed were
pila, ignibus scilicet in illa delapsis, qui saepe fulminum
the-javelins with-fires of-course into them fallen which often of-thunderbolts
modo ferire solent et arbusta; sed si minore vi
in-the-manner to-strike are-wont even trees but if lesser force
utuntur, defluunt tantum et insidunt, non feriunt nec
they-use they-flow-down only and settle not strike nor
vulnerant. alii autem inter nubes eliduntur, alii sereno,
wound others however among the-clouds are-struck-out others in-clear-weather

si aër ad exprimendos ignes aptus fuit: nam sereno 1.15
if the-air for squeezing-out fires suited has-been for in-clear
quoque aliquando caelo tonat ex eadem causa qua nubilo,
also sometimes sky it-thunders from the-same cause as in-cloudy
aëre inter se colliso, qui, etiamsi est lucidior ac siccior,
the-air among itself struck-together which even-if it-is brighter and drier
coire tamen et facere corpora quaedam similia nubibus
to-come-together yet and to-make bodies certain like to-clouds
potest, quae percussa reddant sonum. quando ergo fiunt
can which struck may-give-back sound when then arise
trabes, quando clipei et vastorum imagines ignium? ubi
beams when shields and of-vast images fires where
in talem materiam similis incidit causa sed maior.
into such matter a-similar falls cause but greater

II · THE HALO

When Augustus entered Rome from Apollonia a ring of many colors was seen round the sun, which the Greeks call halo and Romans a crown. As a stone dropped in a pool makes circles, light striking thick, still air forms rings, near the earth and never near the stars. A ring that fades evenly foretells calm, one broken on a side wind from there, and one torn in many places a storm. They are seen mostly at night, round the moon.

Videamus nunc, quemadmodum fiat is fulgor, qui sidera 2.1
Let-us-see now how arises that glow which the-stars
circumvenit. memoriae proditum est, quo die urbem
surrounds to-memory handed-down it-is on-which day the-city
divus Augustus Apollonia reversus intravit, circa solem
the-deified Augustus from-Apollonia returned entered around the-sun
visum coloris varii circulum, qualis esse in arcu solet.
seen of-color varied a-circle such-as to-be in a-rainbow is-wont

hunc Graeci halo vocant, nos dicere coronam aptissime
this the-Greeks halo call we to-call a-crown most-fittingly
possumus. quae quemadmodum fieri dicatur, exponam.
can which how to-arise is-said I-shall-set-out

2.2 cum in piscinam lapis missus est, videmus in multos orbes
when into a-fishpond a-stone thrown is we-see into many circles
aquam discedere et fieri primum angustissimum orbem,
the-water to-part and to-arise first a-very-narrow circle
deinde laxiorem ac deinde alios maiores, donec evanescat
then a-wider and then others greater until fades-away
impetus et in planitiem immotarum aquarum solvatur;
the-impulse and into the-flatness of-unmoved waters is-dissolved
tale quiddam cogitemus fieri etiam in aëre: cum spissior
such something let-us-think to-arise also in the-air when denser
factus est, sentire plagam potest; lux solis aut lunae
made it-is to-feel a-blow it-can the-light of-the-sun or of-the-moon
vel cuiuslibet sideris incurrens recedere illum in circulos
or of-any-you-like star striking-on to-recede it into circles
cogit. nam umor et aër et omne, quod ex ictu formam
compels for moisture and air and all which from a-blow a-shape
accipit, in talem habitum impellitur, qualis est eius, quod
receives into such condition is-driven as is of-that which
impellit; omne autem lumen rotundum est: ergo et aër
drives all however light round is therefore also the-air
in hunc modum lumine percussus exibit.
in this manner by-light struck will-go-out

2.3 ob hoc tales splendores Graeci areas vocaverunt,
on-account-of this such brightnesses the-Greeks threshing-floors have-called
quia fere terendis frugibus destinata loca rotunda sunt. non
because usually for-threshing grain designated places round are not
est autem, quod existimemus istas, sive areae sive
there-is however reason-why we-should-think these whether threshing-floors or

coronae sunt, in vicinia siderum fieri. plurimum enim
crowns they-are in the-neighborhood of-the-stars to-arise very-far for
ab his absunt, quamvis cingere ea et coronare videantur:
from these they-are-distant although to-encircle them and to-crown they-may-seem
non longe a terra fit talis effigies, quam visus noster
not far from the-earth arises such an-image which sight our
solita imbecillitate deceptus circa ipsum sidus putat positam.
by-its-usual weakness deceived around the-very star thinks placed
in vicinia autem stellarum et solis nihil tale fieri 2.4
in the-neighborhood however of-the-stars and of-the-sun nothing such to-arise
potest, quia illic tenuis aether est. nam formae crassis
can because there thin the-ether is for shapes on-thick
demum spissisque corporibus imprimi solent, in subtilibus
only and-dense bodies to-be-imprinted are-wont on fine-ones
non habent, ubi consistant aut haereant: in balneis quoque
not they-have where they-may-stand or stick in baths also
circa lucernam tale quiddam aspici solet ob aëris
around a-lamp such something to-be-seen is-wont on-account-of of-the-air
densi obscuritatem, frequentissime autem austro, cum
dense the-murkiness most-often however with-the-south-wind when
caelum maxime grave et spissum est.
the-sky most heavy and dense is
nonnumquam paulatim diluuntur et desinunt, nonnumquam 2.5
sometimes little-by-little they-are-dissolved and cease sometimes
ab aliqua parte rumpuntur et inde ventum nautici
on some side they-are-broken and from-there the-wind sailors
expectant, unde contextus coronae perît: si a
expect whence the-texture of-the-crown has-perished if from
septemtrione discessit, aquilo erit, si ab occidente,
the-north it-has-parted the-north-wind there-will-be if from the-west
favonius. quod argumentum est intra eam partem caeli
the-west-wind which a-proof is within that part of-the-sky

has fieri coronas, intra quam venti quoque esse solent:
these to-arise crowns within which winds also to-be are-wont
superiora non habent coronas, quia ne ventos quidem.
the-higher-parts not have crowns because not winds even
2.6 his argumentis et illud adice, numquam coronam colligi
to-these proofs also this add never a-crown to-be-gathered
nisi stabili aëre et pigro vento: aliter non solet aspici.
except with-steady air and sluggish wind otherwise not it-is-wont to-be-seen
nam qui stat aër, impelli et diduci et in aliquam
for which stands air to-be-pushed and to-be-spread-apart and into some
faciem fingi potest; is autem qui fluit, ne feritur
appearance to-be-shaped can that however which flows not is-struck
quidem lumine (non enim resistit nec formatur, quia prima
even by-light not for it-resists nor is-formed because the-first
quaeque pars eius dissipatur):
each part of-it is-scattered
2.7 numquam ergo ullum sidus talem sibi effigiem circumdabit,
never therefore any star such about-itself an-image will-set-around
nisi cum aër erit densus atque immotus et ob hoc
except when the-air shall-be dense and unmoved and on-account-of this
custodiens incidentem in se rotundi lineam luminis. nec
keeping falling into itself of-round the-line of-light nor
sine causa; repete enim exemplum, quod paulo ante proposui:
without cause recall for the-example which a-little before I-set-forth
lapillus in piscinam aut lacum et alligatam aquam missus
a-pebble into a-fishpond or a-lake and confined water thrown
circulos facit innumerabiles; at hoc idem non faciet in flumine
circles makes innumerable but this same not it-will-do in a-river
(quare? quia omnem figuram fugiens aqua disturbat): idem
why because every shape fleeing the-water disturbs the-same
ergo in aëre evenit, ut ille, qui manet, possit figurari,
therefore in the-air happens that that which stays can be-shaped

at ille, qui rapitur et currit, non det sui potestatem
but that which is-swept-along and runs not gives of-itself the-power
et omnem ictum venientemque formam ex eo turbet.
and every blow and-the-coming shape out-of it disturbs
hae, de quibus dixi, coronae cum dilapsae sunt 2.8
these about which I-have-spoken crowns when dissolved they-have
aequaliter et in semet ipsae evanuerunt, significatur quies
evenly and into them themselves have-vanished is-signified the-calm
aëris et otium et tranquillitas; cum ad unam partem
of-the-air and the-leisure and the-tranquility when to one side
cesserunt, illinc ventus est, unde finduntur; si ruptae
they-have-given-way thence the-wind is whence they-are-split if broken
pluribus locis sunt, tempestas fit.
in-many places they-are a-storm arises
quare id accidat, ex his, quae iam exposui, intellegi 2.9
why this happens from these-things which already I-have-set-out to-be-understood
potest. nam si facies universa subsedit, apparet
can for if the-appearance whole has-sunk-down it-appears
temperatum esse aëra, et sic placidum; si ab una parte
tempered to-be the-air and thus calm if on one side
intercisa est, apparet inde aëra incumbere: et ideo illa
cut-off it-is it-appears from-there the-air to-press and therefore that
regio ventum dabit. at cum undique lacerata et concerpta
region wind will-give but when on-all-sides torn and plucked-apart
est, manifestum est a pluribus partibus in illam impetum
it-is clear it-is from many sides against it an-attack
fieri et inquietum aëra hinc atque illinc assilire: itaque ex
to-arise and restless the-air hither and thither to-leap-on and-so from
hac inconstantia caeli tam multa temptantis et undique
this inconstancy of-the-sky so many-things attempting and on-all-sides
laborantis apparet futura tempestas ventorum plurium.
laboring appears a-coming storm of-winds several

2.10 hae coronae noctibus fere circa lunam et alias stellas
these crowns at-night usually around the-moon and other stars
notantur; interdiu raro, adeo ut quidam ex Graecis negaverint
are-noted by-day rarely so-much that certain of the-Greeks have-denied
omnino eas fieri, cum illos historiae coarguant. causa autem
altogether them to-arise though them histories refute the-cause however
raritatis haec est, quod solis fortius lumen est et aër
of-the-rarity this is that of-the-sun stronger the-light is and the-air
ipse agitatus ab illo calefactusque solutior: lunae inertior
itself stirred by it and-warmed looser of-the-moon more-inert
vis est ideoque facilius a circumposito aëre sustinetur;
the-force is and-therefore more-easily by the-surrounding air it-is-held-up
2.11 aeque cetera sidera infirma sunt nec perrumpere aëra vi
equally the-other stars weak are nor to-break-through the-air with-force
sua possunt: excipitur itaque illorum imago et in materia
their-own can is-caught and-so their image and in matter
solidiore ac minus cedente servatur. debet enim aër nec
more-solid and less yielding is-kept ought for the-air neither
tam spissus esse, ut excludat ac summoveat a se lumen
so dense to-be that it-shuts-out and removes from itself the-light
immissum, nec tam tenuis aut solutus, ut nullam venientibus
sent-in nor so thin or loose that no to-the-coming
radiis moram praebeat. haec noctibus temperatura contingit, cum
rays delay it-affords this at-night tempering occurs when
sidera circumiectum aëra luce leni non pugnaciter nec aspere
the-stars the-surrounding air with-light gentle not combatively nor harshly
feriunt spissioremque, quam solet esse interdiu, inficiunt.
strike and-denser than it-is-wont to-be by-day they-tinge

III · HOW THE RAINBOW IS MADE

A rainbow seldom forms at night, since the moon is too weak to color the clouds. Some explain it by uneven cloud mixing light and shade, but light and shade make two colors, not a thousand shading into each other. Others make each raindrop a mirror and the bow a blur of countless suns, as a thousand basins give a thousand images, and our sight deceives us at a distance. The bow is the sun's image in a hollow, dewy cloud, always opposite the sun.

At contra arcus nocte non fit aut admodum raro, quia 3.1
But on-the-contrary a-rainbow at-night not arises or very rarely because
luna non habet tantum virium, ut nubes transeat et
the-moon not has so-much of-strength that clouds it-may-pass-through and
illis colorem suffundat, qualem accipiunt sole perstrictae. sic
on-them color may-suffuse such-as they-receive by-the-sun grazed so
enim formam arcus discoloris efficiunt: quia aliae partes in
for the-shape of-the-rainbow many-colored they-produce because some parts in
nubibus tumidiores sunt aliae summissiores quaedam crassiores,
the-clouds more-swollen are others lower some thicker
quam ut solem transmittant, aliae imbecilliores, quam ut
than that the-sun they-may-let-through others weaker than that
excludant, haec inaequalitas alternis lucem umbramque
they-may-shut-out this inequality by-turns light and-shadow
permiscet et exprimit illam mirabilem arcus varietatem.
mixes and expresses that wonderful of-the-rainbow variety
altera causa arcus eiusmodi redditur: videmus, cum fistula 3.2
another cause of-the-rainbow of-this-kind is-given we-see when a-pipe
aliquo loco rupta est, aquam per tenue foramen elidi,
in-some place burst is water through a-thin hole to-be-squeezed-out
quae sparsa contra solem oblique positum faciem arcus
which scattered against the-sun obliquely placed the-appearance of-a-rainbow
repraesentat. idem videbis accidere, si quando volueris
represents the-same you-will-see to-happen if ever you-wish

observare fullonem: cum os aqua implevit et vestimenta
to-observe a-fuller when his-mouth with-water he-has-filled and the-garments
tendiculis diducta leviter aspergit, apparet varios edi
on-stretchers spread-out lightly sprinkles it-appears various to-be-given-out
colores in illo aëre asperso, quales fulgere in arcu solent.
colors in that air sprinkled such-as to-gleam in a-rainbow are-wont
3.3 huius rei causam in umore esse ne dubitaveris (non fit
of-this thing the-cause in moisture to-be not you-should-doubt not arises
enim umquam arcus nisi nubilo); sed quaeramus,
for ever a-rainbow except in-cloudy-weather but let-us-inquire
quemadmodum fiat. quidam aiunt esse aliqua stillicidia,
how it-arises certain say to-be some drops
quae solem transmittant, quaedam magis coacta, quam ut
which the-sun let-through some more condensed than that
transluceant: itaque ab illis fulgorem reddi, ab his
they-should-shine-through and-so from those brilliance to-be-given-back from these
umbram, et sic utriusque intercursu effici arcum,
shadow and thus of-both by-the-intermingling to-be-produced a-rainbow
in quo pars fulgeat, quae solem recipit, pars obscurior sit,
in which part gleams which the-sun receives part darker is
quae exclusit et ex se umbram proximis fecit.
which has-shut-out-(it) and from itself shadow on-the-nearest has-made

hoc ita esse quidam negant. poterat enim verum videri, 3.4
this so to-be certain deny it-could for true seem
si arcus duos tantum haberet colores, si ex lumine
if the-rainbow two only had colors if of light
umbraque constaret: sed nunc, ut ait poeta,
and-shadow it-consisted but now as says the-poet

diversi niteant cum mille colores,
different they-shine though a-thousand colors
transitus ipse tamen spectantia lumina fallit:
the-transition itself yet the-watching eyes deceives
usque adeo quod tangit idem est, tamen ultima distant.
so far what touches the-same is yet the-extremes differ

videmus in eo aliquid flammei aliquid lutei aliquid caerulei
we-see in it something of-flame something of-yellow something of-blue
et alia in picturae modum subtilibus lineis ducta, ut,
and other-things in of-a-painting the-manner by-fine lines drawn so-that
an dissimiles colores sint, scire non possis, nisi cum
whether unlike colors they-are to-know not you-can unless when
primis extrema contuleris: nam commissura decipit, usque
with-the-first the-last you-have-compared for the-joining deceives so
eo mira arte naturae; quod a simillimo coepit, in
far with-wonderful art of-nature what from the-most-like has-begun in
dissimillimo desinit. quid ergo istic duo colores faciunt lucis
the-most-unlike ends what then there two colors do of-light
atque umbrae, cum innumerabilium ratio reddenda sit?
and of-shadow when of-innumerable-ones an-account to-be-rendered may-be
quidam ita existimant arcum fieri: in ea parte, in qua 3.5
certain thus think the-rainbow to-arise in that part in which
iam pluit, singula stillicidia pluviae cadentis singula esse
already it-rains the-single drops of-the-rain falling single to-be

specula, a singulis ergo reddi imaginem solis.
mirrors from single-ones therefore to-be-given-back an-image of-the-sun
deinde multas imagines, immo innumerabiles, et devexas et
then many images nay innumerable and sloping and
in praeceps euntes confundi: itaque arcum esse multarum
into headlong going to-be-confused and-so the-rainbow to-be of-many
solis imaginum confusionem.
of-the-sun images a-confusion

3.6 hoc sic colligunt: pelves, inquiunt, mille sereno die pone:
this thus they-infer basins they-say a-thousand on-a-clear day set-out
omnes habebunt imagines solis; in singulis foliis dispone
all will-have images of-the-sun on single leaves arrange
guttas: singulae habebunt imaginem solis. at contra
drops single-ones will-have an-image of-the-sun but on-the-contrary
ingens stagnum non amplius habebit quam unam imaginem
a-huge pool not more will-have than one image
— quare? quia omnis circumscripta levitas et circumdata
why because every bounded smoothness and surrounded
suis finibus speculum est. itaque piscinam ingentis
by-its-own limits a-mirror is and-so a-fishpond of-huge
magnitudinis insertis parietibus divide: totidem illa habebit
size with-inserted walls divide as-many it will-have
imagines solis, quot lacus habuerit; relinque illam sic ut
images of-the-sun as-many-as pools it-shall-have-had leave it so as
est: diffusa semel tibi imaginem reddet. nihil refert, quam
it-is spread-out once to-you an-image it-will-return nothing it-matters how
exiguus sit umor aut lacus: si determinatus est, speculum
small may-be the-moisture or the-pool if bounded it-is a-mirror
est. ergo stillicidia illa infinita, quae imber cadens defert,
it-is therefore drops those infinite which a-shower falling brings-down
totidem specula sunt, totidem solis facies habent; hae contra
so-many mirrors are so-many of-the-sun faces they-have these opposite

intuenti perturbatae apparent, nec dispiciuntur intervalla,
to-one-looking confused appear nor are-discerned the-intervals
quibus singulae distant, spatio prohibente discerni; unde
by-which single-ones are-distant the-space preventing to-be-distinguished whence
pro singulis apparet una facies turbida ex omnibus.
for single-ones appears one face blurred out-of all
Aristoteles idem iudicat: 'ab omni', inquit, 'levitate acies 3.7
Aristotle the-same judges from every he-says smoothness the-sight
radios suos replicat; nihil autem est levius aqua et
rays its-own turns-back nothing however is smoother than-water and
aëre: ergo etiam ab aëre spisso visus noster in nos redit.
air therefore even from air dense the-sight our to us returns
ubi vero acies hebes et infirma est, qualislibet aëris ictu
where indeed the-sight dull and weak is with-any-you-like of-air blow
deficiet. quidam itaque hoc genere valetudinis laborant, ut
it-will-fail certain and-so with-this kind of-ill-health labor that
ipsi sibi videantur occurrere, ut ubique imaginem suam
they themselves seem to-run-into that everywhere image their-own
cernant — quare? quia infirma vis oculorum non potest
they-see why because the-weak power of-the-eyes not can
perrumpere ne sibi quidem proximum aëra sed resilit.
break-through not for-itself even the-nearest air but it-springs-back
itaque quod in aliis efficit densus aër, in his facit omnis; satis 3.8
and-so what in others produces dense air in these makes any enough
enim valet qualiscumque ad imbecillam aciem repellendam.'
for is-strong any-kind for weak sight to-be-driven-back
longe autem magis visum nobis nostrum remittit aqua, quia
far however more sight to-us our sends-back water because
crassior est et pervinci non potest, sed radios luminum
thicker it-is and to-be-overcome not can but the-rays of-eyes
nostrorum moratur et eo, unde exierunt, reflectit. ergo
our it-delays and thither whence they-came-out it-bends-back therefore

cum multa stillicidia sint, totidem specula sunt; sed quia
when many drops there-are so-many mirrors there-are but because
parva sunt, solis colorem sine figura exprimunt. deinde cum
small they-are of-the-sun the-color without shape they-express then when
in stillicidiis innumerabilibus et sine intervallo cadentibus
in drops innumerable and without interval falling
reddatur idem color, incipit facies esse non multarum
is-given-back the-same color it-begins a-face to-be not of-many
imaginum et intermissarum, sed unius longae atque continuae.
images and interrupted but of-one long and continuous

3.9 'quomodo', inquis, 'tu mihi multa milia imaginum istic
how you-say you to-me many thousands of-images there
esse dicis, ubi ego nullam video? et quare, cum solis
to-be say where I none see and why when of-the-sun
color unus sit, imaginum diversus est?' ut et haec, quae
the-color one is of-the-images varied it-is that both these-things which
proposuisti, refellam et alia, quae non minus refellenda
you-have-put-forward I-may-refute and others which not less to-be-refuted
sunt, illud dicam oportet: nihil esse acie nostra fallacius
are this I-should-say it-is-proper nothing to-be than-sight our more-deceptive
non tantum in his, a quibus subtiliter pervidendis illam
not only in those from which subtly to-be-examined it
locorum diversitas submovet, sed etiam in his quoque,
of-places the-difference removes but also in those also
quae ad manum cernit: remus tenui aqua tegitur et fracti
which at hand it-discerns an-oar by-thin water is-covered and broken
speciem reddit; poma per vitrum aspicientibus multo
the-appearance gives-back apples through glass to-those-looking much
maiora sunt; columnarum intervalla porticus longior iungit.
bigger are of-columns the-intervals the-colonnade longer joins

ad ipsum solem revertere: hunc, quem toto terrarum orbe 3.10
to the-very sun go-back this which than-the-whole of-the-lands circle
maiorem probat ratio, acies nostra sic contraxit, ut sapientes
greater proves reason sight our so has-contracted that wise
viri pedalem esse contenderent; quem velocissimum omnium
men a-foot-wide to-be contended which the-swiftest of-all-things
scimus, nemo nostrum moveri videt, nec ire crederemus, nisi
we-know none of-us to-be-moved sees nor to-go would-we-believe unless
appareret isse. mundum ipsum praecipiti velocitate labentem
it-appeared to-have-gone the-world itself with-headlong speed gliding
et ortus occasusque intra momentum temporis revolventem
and risings and-settings within a-moment of-time rolling-round
nemo nostrum sentit procedere. quid ergo miraris, si oculi
none of-us perceives to-advance why then do-you-wonder if eyes
nostri imbrium stillicidia non separant et ex ingenti spatio
our of-showers the-drops not separate and from a-huge distance
intuentibus minutarum imaginum discrimen interit?
to-those-looking of-tiny images the-distinction perishes
illud dubium esse nulli potest, quin arcus imago 3.11
this doubtful to-be to-no-one can but-that the-rainbow an-image
solis sit roscida et cava nube concepta. quod ex hoc
of-the-sun is in-a-dewy and hollow cloud conceived which from this
tibi appareat: numquam non adversa soli est, sublimis
to-you may-appear never not opposite to-the-sun it-is high
aut humilis, prout ille se submisit aut sustulit, in
or low according-as he himself has-lowered or has-raised in
contrarium mota; illo enim descendente altior est, alto
the-contrary-direction moved for him descending higher it-is (him)-high
depressior. saepe talis nubes a latere solis est nec arcum
lower often such a-cloud on the-side of-the-sun is nor a-rainbow
efficit, quia non ex recto imaginem trahit.
produces because not from straight-on the-image it-draws

3.12 varietas autem non ob aliam causam fit, quam quia pars
the-variety however not for another cause arises than because part
coloris sole est sparsa, pars nube: in illa umor
of-the-color from-the-sun is sprinkled part from-the-cloud in that the-moisture
modo caeruleas lineas modo virides modo purpurae similes
now blue lines now green now to-purple like
et luteas aut igneas ducit, duobus coloribus hanc varietatem
and yellow or fiery draws two colors this variety
efficientibus, remisso et intento. sic enim et purpura
producing slackened and intense so for also purple
eodem conchylio non in unum modum exit: interest,
from-the-same shellfish not in one way comes-out it-matters
quamdiu macerata sit, crassius medicamentum an aquatius
how-long steeped it-has-been thicker the-dye or more-watery
traxerit, saepius mersa sit et excocta an semel tincta.
it-has-drawn more-often dipped it-has-been and boiled-down or once dyed

3.13 non est ergo mirum, si, cum duae res sint, sol
not it-is therefore strange if when two things there-are the-sun
et nubes, id est corpus et speculum, tam multa genera
and the-cloud that is a-body and a-mirror so many kinds
colorum exprimuntur, quam multis generibus possunt ista
of-colors are-expressed as in-many kinds can these
incitari aut relanguescere: alius est enim color ex igneo
be-excited or grow-faint another is for the-color from fiery
lumine, alius ex obtunso et leniore.
light another from dulled and gentler

3.14 in aliis rebus vaga inquisitio est, ubi non habemus, quod
in other matters wandering the-inquiry is where not we-have what
manu tenere possimus, et late coniectura mittenda est;
in-the-hand to-hold we-can and widely conjecture to-be-sent is
hic apparet duas causas esse arcus, solem nubemque,
here it-appears two causes to-be of-the-rainbow the-sun and-the-cloud

quia nec sereno umquam fit nec nubilo ita, ut sol
because neither in-clear-weather ever it-arises nor in-cloudy so that the-sun
lateat: ergo utique ex his est, quorum sine altero non est.
lies-hidden therefore assuredly from these it-is of-which without the-other not it-is

IV · THE MIRROR'S PROOF

Like a mirror's image, the bow appears only opposite what it shows, and it forms and vanishes in a moment. Artemidorus of Parium adds that the cloud must be hollow like part of a cut sphere, which returns the sun's image nearer the viewer; the fiery color comes from the sun, the blue from the cloud.

Etiamnunc illud accedit, quod aeque manifestum est, speculi 4.1
Still this is-added which equally clear is by-a-mirror's
ratione imaginem reddi, quia numquam nisi e
method the-image to-be-given-back because never except from
contrario redditur, id est nisi ex altera parte stetit
the-opposite-side it-is-given-back that is unless on the-other side has-stood
quod appareret, ex altera quod ostenderet. rationes, quae
what should-appear on the-other what it-should-show reasons which
non persuadent sed cogunt, a geometris afferuntur, nec
not persuade but compel by the-geometers are-brought nor
dubium cuiquam relinquitur, quin arcus imago solis sit
doubt to-anyone is-left but-that the-rainbow an-image of-the-sun is
male expressi ob vitium figuramque speculi: nos interim
badly expressed because-of the-fault and-shape of-the-mirror we meanwhile
temptemus alias probationes, quae de plano legi possint.
let-us-try other proofs which from the-flat to-be-read can
inter argumenta sic nascentis arcus pono, quod celerrime 4.2
among the-proofs thus of-an-arising rainbow I-put that most-swiftly
nascitur. ingens enim variumque corpus intra momentum
it-arises a-huge for and-varied body within a-moment

subtexitur caelo et aeque celeriter aboletur; nihil autem
is-woven-under the-sky and equally swiftly is-abolished nothing however
tam cito redditur quam a speculo imago, non enim
so quickly is-given-back as from a-mirror an-image not for
facit quicquam sed ostendit.
it-makes anything but shows

4.3 Parianus Artemidorus adicit etiam, quale genus nubis esse
the-Parian Artemidorus adds also what kind of-cloud to-be
debeat, quod talem soli imaginem reddit: 'si speculum,'
it-must which such to-the-sun an-image gives-back if a-mirror
inquit, 'concavum feceris, quod sit sectae pilae pars, si
he-says concave you-make which may-be of-a-cut ball a-part if
extra medium constiteris, quicumque iuxta te steterint,
outside the-middle you-stand whoever beside you shall-have-stood
inversi tibi videbuntur et propiores a te quam a speculo;
inverted to-you will-seem and nearer to you than to the-mirror

4.4 idem', inquit, 'evenit, cum rotundam et cavam nubem intuemur
the-same he-says happens when a-round and hollow cloud we-look-at
a latere, ut solis imago a nube discedat propiorque
from the-side so-that of-the-sun the-image from the-cloud departs and-nearer
nobis sit et in nos magis conversa. color illi igneus a
to-us is and toward us more turned the-color to-it fiery from
sole est, caeruleus a nube, ceteri utriusque mixturae.'
the-sun is blue from the-cloud the-others of-both of-the-mixture

A mirror returns a likeness, but the bow has neither the sun's shape, color, nor size; clouds are not smooth, and climbers see no image in them; many drops would give many images, and falling drops pass too quickly to hold one, taking color, not image, like a dove's neck. Seneca rejects one argument of Posidonius but holds with him that the bow is the sun's distorted image in a cloud shaped like a concave mirror, as some mirrors deform.

Contra haec illa dicuntur. de speculis duae opiniones sunt: 5.1
Against these-things those are-said about mirrors two opinions there-are
alii enim in illis simulacra cerni putant, id est corporum
some for in them images to-be-seen think that is of-bodies
nostrorum figuras a nostris corporibus emissas ac separatas,
our shapes from our bodies sent-out and separated
alii non aiunt imagines in speculo sed ipsa aspici corpora
others not say images in the-mirror but the-very to-be-seen bodies
retorta oculorum acie et in se rursus reflexa. nunc nihil
turned-back of-the-eyes the-sight and on itself again bent-back now nothing
ad rem pertinet, quomodo videamus quodcumque videmus:
to the-matter it-pertains how we-see whatever we-see
sed quomodo imago, similis reddi debet e speculo. 5.2
but how an-image like to-be-given-back ought from a-mirror
quid autem est tam dissimile quam sol et arcus, in quo
what however is so unlike as the-sun and the-rainbow in which
neque figura solis neque color neque magnitudo apparet?
neither the-shape of-the-sun nor the-color nor the-size appears
arcus longe amplior est longeque ea parte, qua fulget,
the-rainbow far ampler is and-far in-that part where it-gleams
rubicundior quam sol, ceteris vero coloribus diversus.
redder than the-sun in-the-other indeed colors different

5.3 deinde cum velis speculum inesse aëri, des oportet
then if you-wish a-mirror to-be-in the-air you-should-give it-is-proper
mihi eandem levitatem corporis, eandem aequalitatem, eundem
to-me the-same smoothness of-body the-same evenness the-same
nitorem. atqui nullae nubes habent similitudinem speculi:
brilliance and-yet no clouds have the-likeness of-a-mirror
per medias saepe transimus nec in illis nos cernimus;
through their-middles often we-pass nor in them ourselves we-see
qui montium summa conscendunt, despectant nubem
those-who of-mountains the-summits climb look-down-on a-cloud
nec tamen imaginem in illa suam aspiciunt.
nor yet the-image in it their-own they-see

5.4 singula stillicidia singula specula sunt. 'concedo; sed illud
the-single drops single mirrors are I-grant but this
nego, ex stillicidiis constare nubem. habent enim quaedam,
I-deny of drops to-consist a-cloud they-have for certain-things
ex quibus fieri stillicidia possint, non ipsa, ne aquam
from which to-arise drops could not themselves not water
quidem habet nubes sed materiam futurae aquae.'
even has the-cloud but the-matter of-future water

5.5 concedamus tibi et guttas innumerabiles nubibus inesse
let-us-grant to-you both drops innumerable in-the-clouds to-be
et illas faciem reddere: non tamen unam omnes reddunt,
and them a-face to-give-back not yet one all give-back
sed singulae singulas. deinde inter se specula coniunge:
but single-ones single-ones then among themselves mirrors join
in unam imagines non coibunt, sed unaquaeque
into one the-images not will-come-together but each
similitudinem in se rei claudet. sunt quaedam specula
the-likeness in itself of-the-thing will-shut there-are certain mirrors
ex multis minutisque composita, quibus si unum ostenderis
from many and-tiny-ones composed to-which if one you-show

hominem, populus apparet unaquaque particula faciem suam
man a-crowd appears each particle face its-own
exprimente; haec cum sint coniuncta et simul collocata,
expressing these though they-be joined and together placed
nihilominus seducunt imagines suas et ex uno quidem
nonetheless they-draw-apart images their-own and from one indeed
turbam efficiunt, ceterum catervam illam non confundunt
a-crowd they-make but throng that not they-confuse
sed diremptam in facies singulas distrahunt: arcus autem
but separated into faces single they-pull-apart the-rainbow however
uno circumscriptus est ductu, una totius est facies.
by-one bounded is by-stroke one of-the-whole is the-face
'quid ergo?' inquit: 'non et aqua rupta fistula sparsa 5.6
what then he-says not also water from-a-burst pipe sprinkled
et remo excussa habere quiddam simile his, quos
and by-an-oar shaken-off to-have something like to-those which
videmus in arcu, coloribus solet?' verum est, sed non
we-see in the-rainbow colors is-it-wont true it-is but not
ex hac causa, ex qua tu videri vis, quia unaquaeque stilla
from this cause from which you to-seem wish because each drop
recipiat imaginem solis. citius enim cadunt stillae, quam
receives the-image of-the-sun more-quickly for fall the-drops than
ut concipere imagines possint: standum est, ut id,
that to-conceive images they-could stood-still it-must-be so-that that
quod imitantur, excipiant. quid ergo fit? colorem, non
which they-imitate they-may-receive what then happens color not
imaginem ducunt. alioquin, ut ait Nero Caesar disertissime,
an-image they-draw otherwise as says Nero Caesar most-eloquently

colla Cytheriacae splendent agitata columbae
the-necks of-the-Cytherean shine stirred dove

et variis coloribus pavonum cervix, quotiens aliquo
and with-various colors of-peacocks the-neck whenever somewhere
deflectitur, nitet: numquid ergo dicemus specula eiusmodi
it-is-turned gleams surely-not then shall-we-call mirrors of-this-kind
plumas, quarum omnis inclinatio in colores novos transit?
feathers of-which every inclination into colors new passes
5.7 non minus nubes diversam naturam speculis habent quam
not less clouds a-different nature from-mirrors have than
aves, quas rettuli, et chamaeleontes et reliqua animalia,
the-birds which I-have-mentioned and chameleons and the-other animals
quorum color aut ex ipsis mutatur, cum ira vel
whose color either from themselves is-changed when by-anger or
cupidine incensa cutem suam variant umore suffuso,
by-desire inflamed skin their-own they-vary with-moisture suffused
aut positione lucis, quam prout rectam vel obliquam
or by-the-position of-the-light which according-as straight or slanting
receperunt, ita colorantur.
they-have-received so are-colored
5.8 quid enim simile speculis habent nubes? cum illa non
what for like to-mirrors have the-clouds since those not
perluceant, hae transmittant lucem; illa densa et coacta. hae
are-transparent these let-through light those dense and compacted these
rarae sint; illa eiusdem materiae tota, hae e diversis
thin are those of-the-same material wholly these from different-things
temere compositae et ob hoc discordes nec diu
at-random composed and on-account-of this discordant nor long
cohaesurae. praeterea videmus ortu solis partem
going-to-hold-together besides we-see at-the-rising of-the-sun part
quandam caeli rubere, videmus nubes aliquando ignei
a-certain of-the-sky to-redden we-see clouds sometimes of-fiery
coloris: quid ergo prohibet, quomodo hunc unum colorem
color what then prevents as this one color

accipiunt solis occursu, sic multos ab illis trahi,
they-receive at-the-sun's meeting so many from them to-be-drawn
quamvis non habeant speculi potentiam?
although not they-have of-a-mirror the-power
modo, inquit, inter argumenta ponebas semper arcum 5.9
just-now he-says among the-proofs you-were-putting always the-rainbow
contra solem excitari, quia ne a speculo quidem imago
opposite the-sun to-be-raised because not from a-mirror even an-image
redderetur nisi adverso. hoc, inquit, commune nobis est:
would-be-given-back except to-one-facing this he-says common to-us is
nam quemadmodum opponendum est speculo id, cuius in se
for as to-be-set-opposite it-is to-a-mirror that whose into itself
imaginem transferat, sic, ut nubes infici possint, ita sol
the-image it-may-transfer so that the-clouds be-tinged may so the-sun
ad hoc apte ponendus est; non enim idem facit, si undique
for this fittingly to-be-placed is not for the-same it-does if on-all-sides
effulsit, et ad hoc opus est radiorum idoneus ictus.
it-has-shone-out and for this need is of-the-rays a-suitable stroke
haec dicuntur ab his, qui videri volunt nubem colorari. 5.10
these-things are-said by those who to-seem wish the-cloud to-be-colored
Posidonius et hi, qui speculari ratione talem effici
Posidonius and those who by-a-mirror's method such to-be-produced
iudicant visum, hoc respondent: 'si ullus esset in arcu
judge the-sight this answer if any were in the-rainbow
color, permaneret et viseretur eo manifestius, quo
color it-would-remain and would-be-seen so-much more-clearly the
propius: nunc imago arcus, ex longinquo clara, interit,
nearer now the-image of-the-rainbow from afar bright perishes
cum ex vicino ventum est.'
when from near-at-hand come it-has

5.11 huic contradictioni non consentio, cum ipsam sententiam
with-this contradiction not I-agree though the-very opinion
probem. quare? dicam: quia coloratur quidem nubes, sed
I-approve why I-shall-say because is-colored indeed the-cloud but
ita, ut color eius non undique appareat (nam ne ipsa
so that the-color its not from-everywhere appears for not itself
quidem undique apparet; nubem enim nemo, qui in ipsa
even from-everywhere appears a-cloud for no-one who in it
est, videt): quid ergo mirum, si color eius non videtur ab
is sees what then strange if the-color its not is-seen by
eo, a quo ipsa non visitur? atqui ipsa, quamvis non videatur,
him by whom itself not is-seen and-yet it although not it-is-seen
est: ergo et color. ita non est argumentum falsi coloris,
exists therefore also the-color so not is proof of-false color
quod apparere accedentibus desinit. idem enim in ipsis
that to-appear to-those-approaching it-ceases the-same for in the-very
evenit nubibus, nec ideo falsae sunt, quia non videntur.
happens clouds nor therefore false are-they because not they-are-seen

5.12 praeterea, cum dicitur tibi nubem sole suffectam, non dicitur
besides when it-is-said to-you a-cloud with-sun suffused not it-is-said
tibi colorem illum inustum esse velut duro corpori ac stabili
to-you color that burnt-in to-be as-if on-a-hard body and stable
ac manenti, sed ut fluido et vago et nihil amplius quam
and lasting but as on-a-fluid and wandering and nothing more than
brevem speciem recipienti. sunt etiam quidam colores, qui ex
a-brief appearance receiving there-are also certain colors which from
intervallo vim suam ostendunt: purpuram Tyriam, quo melior
a-distance force their-own show purple Tyrian the better
est saturiorque, eo altius oportet teneas, ut fulgorem suum
it-is and-richer the higher you-must hold-it so-that brilliance its-own

teneat. non tamen ideo non habet colorem illa, quia, quae
it-may-keep not yet therefore not has color that because which
optimum habet, non, quomodocumque explicatur, ostendit.
the-best has not in-any-way-whatever spread-out shows
in eadem sententia sum qua Posidonius, ut arcum iudicem 5.13
in the-same opinion I-am as Posidonius so-that the-rainbow I-judge
fieri nube formata in modum concavi speculi et rotundi,
to-arise in-a-cloud shaped into the-manner of-a-concave mirror and round
cui forma sit partis e pila secta. hoc probari, nisi
to-which the-shape may-be of-a-part from a-ball cut this to-be-proved unless
geometrae adiuverint, non potest, qui argumentis nihil dubii
the-geometers shall-have-helped not can who by-arguments nothing doubtful
relinquentibus docent solis illam esse effigiem non similem.
leaving teach of-the-sun that to-be an-image not a-like-one
neque enim omnia ad verum specula respondent: sunt, 5.14
nor for all to the-truth mirrors correspond there-are-some
quae videre extimescas (tantam deformitatem corrupta facie
which to-see you-would-dread such deformity with-spoiled face
visentium reddunt, servata similitudine in peius); sunt,
of-the-viewers they-give-back kept the-likeness for the-worse there-are-some
quae cum videris, placere tibi vires tuae possint (in
which when you-have-seen to-please you strength your could to
tantum lacerti crescunt et totius corporis super humanam
such-a-degree the-arms grow and of-the-whole body beyond human
magnitudinem habitus augetur); sunt, quae dextras facies
size the-bulk is-increased there-are-some which right faces
ostendant, sunt, quae sinistras, sunt, quae detorqueant
show there-are-some which left-ones there-are-some which twist
et vertant: quid ergo mirum est eiusmodi speculum in
and turn what then strange is-it of-this-kind a-mirror in
nube quoque fieri, quo solis species vitiosa reddatur?
a-cloud also to-arise by-which of-the-sun the-appearance faulty is-given-back

The bow never exceeds a half circle and is smaller the higher the sun. It looks larger than the sun because some mirrors enlarge, and everything seen through water grows, as letters do through a glass globe of water, since sight slips in moisture: a ring at the bottom of a cup shows at the surface. Its round shape copies the sun, and its sudden coming and going belong to a mirror: cover the sun and the bow is gone, a likeness without substance.

6.1 Inter cetera argumenta et hoc erit, quod numquam maior
Among the-other proofs also this will-be that never greater
arcus dimidio circulo apparet et quod eo minor est, quo
the-rainbow than-half a-circle appears and that the smaller it-is the
altior sol ***
higher the-sun (lacuna)

6.2 quare tamen, si imago solis est arcus, longe ipso sole
why yet if the-image of-the-sun is the-rainbow far itself than-the-sun
maior apparet? quia est alicuius speculi natura talis, ut
greater does-it-appear because is of-a-certain mirror the-nature such that
maiora multo, quae vidit, ostendat et in portentuosam
greater by-much what it-has-seen it-shows and into portentous
magnitudinem augeat formas, alicuius invicem talis, ut minuat.
size enlarges shapes of-another in-turn such that it-diminishes

6.3 illud mihi dic, quare in orbem eat facies, nisi orbi
this to-me tell why into a-circle goes the-appearance unless to-a-circle
redditur? dices enim fortasse, unde sit illi color
it-is-given-back you-will-say for perhaps whence may-be to-it color
varius: unde talis figura sit, non dices, nisi aliquod
varied whence such a-shape may-be not you-will-say unless some
exemplar, ad quod formetur, ostenderis. nullum autem quam
model to which it-is-formed you-show none however than
solis est, a quo cum tu quoque fatearis illi colorem
of-the-sun is from which since you also admit to-it color

dari, sequitur, ut et detur forma. denique inter me
to-be-given it-follows that also is-given the-shape finally between me
teque convenit colores illos, quibus caeli regio depingitur,
and-you it-is-agreed colors those with-which of-the-sky the-region is-painted
a sole esse; illud unum inter nos non convenit: tu dicis
from the-sun to-be that one-thing between us not is-agreed you say
illum colorem esse, ego videri: qui sive est, sive videtur,
that color to-exist I to-seem which whether it-is or it-seems
a sole est. tu non expedies, quare color ille subito
from the-sun is you not will-explain why color that suddenly
desinat, cum omnes fulgores † et paulatim discutiantur.
ceases when all brightnesses (corrupt) and gradually are-dispersed
pro me est et repentina eius facies et repentinus interitus: 6.4
for me is both sudden its appearance and sudden disappearance
proprium enim hoc speculi est, in quo non per partes struitur
proper for this of-a-mirror is in which not by parts is-built-up
quod apparet, sed statim totum fit; aeque cito omnis
what appears but at-once whole it-arises equally quickly every
imago aboletur in illo quam ponitur. nihil enim aliud ad
image is-abolished in it as it-is-placed nothing for else for
ista efficienda vel removenda opus est quam ostendi et
these-things to-be-produced or to-be-removed needful is than to-be-shown and
abduci. non est ergo propria in ista nube substantia, nec
to-be-led-away not there-is therefore proper in that cloud substance nor
corpus est sed mendacium, sine re similitudo. vis
a-body is-it but a-lie without substance a-likeness do-you-wish
scire hoc ita esse? desinet arcus, si obtexeris solem. oppone,
to-know this so to-be will-cease the-rainbow if you-cover the-sun set-against
inquam, soli alteram nubem: huius varietas interibit.
I-say to-the-sun another cloud of-this-one the-variety will-perish

6.5 ‘at maior aliquanto est arcus quam sol.’ dixi modo fieri
but greater somewhat is the-rainbow than the-sun I-said just-now to-arise
specula, quae multiplicent omne corpus, quod imitantur.
mirrors which multiply every body which they-imitate
illud adiciam, omnia per aquam videntibus longe esse
this I-shall-add all-things through water to-those-seeing far to-be
maiora: litterae quamvis minutae et obscurae per vitream
greater letters although tiny and obscure through a-glass
pilam aqua plenam maiores clarioresque cernuntur; poma
ball with-water full bigger and-clearer are-seen apples
formosiora quam sunt videntur, si innatant vitro. sidera
more-beautiful than they-are seem if they-float-in glass stars
ampliora per nubem aspicienti videntur, quia acies nostra
larger through a-cloud to-one-looking seem because sight our
in umido labitur nec apprehendere, quod vult, fideliter
on moisture slips nor to-grasp what it-wishes faithfully
potest. quod manifestum fiet, si poculum impleveris
can which evident will-become if a-cup you-fill
aqua et in id conieceris anulum: nam cum in ipso
with-water and into it you-throw a-ring for though on the-very
fundo anulus iaceat, facies eius in summa aqua redditur.
bottom the-ring lies the-image its on the-top of-the-water is-given-back

6.6 quicquid videtur per umorem, longe amplius vero est:
whatever is-seen through moisture far larger than-truth is
quid mirum maiorem reddi imaginem solis, quae in
what wonder bigger to-be-given-back the-image of-the-sun which in
nube umida visitur, cum ex duabus causis hoc accidat? quia
a-cloud moist is-seen when from two causes this happens because
in nube est aliquid vitro simile, quod potest perlucere, est
in a-cloud there-is something to-glass like which can be-transparent there-is

aliquid et aquae, quam, etiamsi nondum habet, iam parat,
something also of-water which even-if not-yet it-has already it-prepares
id est iam eius natura est, in quam ex sua vertatur.
that is already its nature is into which from its-own it-may-be-turned

VII · THE GLASS ROD

An opponent cites the fluted glass rod, which held across the sun gives the bow's colors with no image of the sun. Seneca finds the case on his side: the color comes from the sun off a smooth surface and is false, as on a dove's neck. The rod tries to return the image but is too irregularly made; well made, it would return as many suns as it had faces.

'Quoniam', inquit, 'vitri fecisti mentionem, ex hoc ipso 7.1
Since he-says of-glass you-have-made mention from this very
argumentum contra te sumam. virgula solet fieri vitrea,
a-proof against you I-shall-take a-little-rod is-wont to-be-made of-glass
striata vel pluribus angulis in modum clavae torosa: haec
fluted or with-many angles in the-manner of-a-club knobbed this
si in transversum solem accipit, colorem talem, qualis in
if into crosswise the-sun it-receives color such as in
arcu videri solet, reddit, ut scias non imaginem
a-rainbow to-be-seen is-wont it-gives-back so-that you-may-know not an-image
hic solis esse sed coloris imitationem ex repercussu.'
here of-the-sun to-be but of-color an-imitation from reflection
primum in hoc argumento multa pro me sunt: quod 7.2
first in this proof many-things for me are that
apparet a sole fieri; quod apparet leve quiddam esse debere
it-appears by the-sun to-arise that it-appears smooth something to-be to-have-to
et simile speculo, quod solem repercutiat; deinde quod
and like to-a-mirror which the-sun may-strike-back then that

apparet non fieri ullum colorem sed speciem falsi coloris,
it-appears not to-arise any color but the-appearance of-false color
qualem, ut dixi, columbarum cervix et sumit et ponit,
such-as as I-said of-doves the-neck both takes-on and lays-aside
utcumque deflectitur. hoc autem et in speculo est, cui
however it-is-turned this however also in a-mirror is to-which
nullus inditur color, sed simulatio quaedam coloris alieni.
no is-imparted color but an-imitation certain of-color another's
7.3 unum hoc tantum mihi solvendum est, quod non visitur in
one this only by-me to-be-resolved is that not is-seen in
ista virgula solis imago; cuius bene exprimendae capax non
that little-rod of-the-sun the-image which well to-be-expressed capable not
est: ita conatur quidem reddere imaginem, quia levis est
it-is so it-tries indeed to-give-back the-image because smooth is
materia et ad hoc habilis, sed non potest, quia enormiter
the-material and for this suited but not it-can because irregularly
facta est. si apta fabricata foret, totidem redderet
made it-is if fittingly fashioned it-were as-many it-would-give-back
soles, quot habuisset † inspectores. quae quia vix
suns as it-had (corrupt) viewers which because scarcely
discernuntur inter se nec satis in vicem speculi nitent,
are-distinguished among themselves nor enough in the-place of-a-mirror shine
incohant tantum imagines nec exprimunt et ob ipsam
they-begin only images nor express-them and on-account-of the-very
viciniam turbant et in speciem coloris unius abducunt.
nearness disturb-them and into the-appearance of-color one lead-them-away

VIII · WHY ONLY HALF A CIRCLE

Some say the bow is never more than half a circle because the sun, above the clouds, strikes only their upper part; but the sun pierces the whole cloud, the bow reaches the ground, and even the setting sun makes a half bow. The Stoics' hollow cloud, part of a cut sphere, Seneca accepts as a thesis but not as a proof. Aristotle's observation holds: after the autumn equinox a bow forms at any hour, in summer only early or late, since the high noon sun meets no cloud opposite it.

'At quare arcus non implet orbem, sed pars dimidia eius 8.1
But why the-rainbow not does-fill the-circle but a-part half of-it
videtur, cum plurimum porrigitur incurvaturque?' quidam ita
is-seen when most-of-all it-is-stretched and-curved certain thus
opinantur: sol, cum sit multo altior nubibus, a superiore
think the-sun since it-is much higher than-the-clouds from the-upper
illas tantum percutit parte; sequitur, ut inferior pars earum
them only strikes part it-follows that the-lower part of-them
non tingatur lumine: ergo cum ab una parte solem accipiant,
not is-tinged by-light therefore since from one side the-sun they-receive
unam eius partem imitantur, quae numquam dimidia maior est.
one its part they-imitate which never than-half greater is
hoc argumentum parum potens est. quare? quia, quamvis 8.2
this argument too-little forceful is why because although
sol ex superiore parte sit, totam tamen percutit nubem,
the-sun from the-upper part may-be the-whole yet it-strikes cloud
ergo et tingit. quidni? cum radios transmittere soleat
therefore also tinges-it why-not when rays to-send-through it-is-wont
et omnem densitatem perrumpere. deinde contrariam rem
and all density to-break-through then a-contrary thing
proposito suo dicunt. nam si superior est sol et ideo
to-purpose their-own they-say for if higher is the-sun and therefore

superiori tantum parti nubium affunditur, numquam terra
on-the-upper only part of-the-clouds is-poured never to-the-earth
tenus descendet arcus: atqui usque in humum demittitur.
as-far-as will-descend the-rainbow and-yet right to the-ground it-is-let-down
8.3 praeterea numquam non contra solem arcus est, nihil
besides never not opposite the-sun the-rainbow is nothing
autem ad rem pertinet, supra infrave sit, quia totum
however to the-matter it-pertains above or-below it-may-be because all
quod contra est latus verberatur. deinde aliquando arcum
which opposite is the-side is-struck then sometimes a-rainbow
et occidens facit; tum certe ex inferiori parte nubes
even setting it-makes then certainly from the-lower part the-clouds
ferit terris propinquus: atqui et tunc dimidia pars
it-strikes to-the-earth near and-yet even then half the-part
est, quamvis solem nubes ex humili et sordido accipiant.
is although the-sun the-clouds from low and mean receive
8.4 nostri, qui sic in nube, quomodo in speculo, lumen volunt
our-people who so in a-cloud as in a-mirror the-light wish
reddi, nubem cavam faciunt et sectae pilae partem,
to-be-given-back the-cloud hollow make and of-a-cut ball a-part
quae non potest totum orbem reddere, quia ipsa pars orbis
which not can the-whole circle give-back because itself a-part of-a-circle
est. proposito accedo, argumento non consentio. nam si
it-is to-the-proposition I-assent to-the-argument not I-agree for if
in concavo speculo tota facies oppositi orbis exprimitur,
in a-concave mirror the-whole face of-an-opposite circle is-expressed
et in semiorbe nihil prohibet totam aspici pilam.
also in a-half-circle nothing prevents the-whole to-be-seen ball
8.5 etiamnunc diximus circulos apparere soli lunaeque
still we-have-said circles to-appear to-the-sun and-the-moon
in similitudinem arcus circumdatos: quare ille circulus
in the-likeness of-a-rainbow set-around why that circle

iungitur, in arcu numquam? deinde quare semper concavae
is-joined in the-rainbow never then why always concave
nubes solem accipiunt, non aliquando planae et tumentes?
clouds the-sun receive not sometimes flat and swelling
Aristoteles ait post autumnale aequinoctium qualibet hora 8.6
Aristotle says after the-autumnal equinox at-any-you-like hour
diei arcum fieri, aestate non fieri nisi aut incipiente
of-the-day a-rainbow to-arise in-summer not to-arise except either beginning
aut inclinato die. cuius rei causa manifesta est: primum,
or declining the-day of-which matter the-cause clear is first
quia media diei parte sol calidissimus nubes evincit
because at-the-middle of-the-day part the-sun hottest the-clouds overcomes
nec potest imaginem suam ab his recipere, quas scindit;
nor can image its-own from them receive which it-cleaves
at matutino tempore aut vergens in occasum minus habet
but at-morning time or verging toward the-setting less it-has
virium, ideo a nubibus sustineri et repercuti potest.
of-strength therefore by the-clouds to-be-held-up and to-be-struck-back it-can
deinde cum arcum facere non soleat nisi adversus his, in 8.7
then since a-rainbow to-make not it-is-wont except opposite to-those in
quibus facit, nubibus, cum breviores dies sunt, semper
which it-makes-it clouds when shorter the-days are always
obliquus est: itaque qualibet diei parte, etiam cum
slanting it-is and-so at-any-you-like of-the-day part even when
altissimus est, habet aliquas nubes, quas ex adverso ferire
highest it-is it-has some clouds which from opposite to-strike
possit. at temporibus aestivis super nostrum verticem fertur:
it-can but in-times of-summer above our head it-is-borne
itaque medio die excelsissimus terras rectiore aspicit linea,
and-so at-mid day highest the-earth with-straighter it-looks-at line

quam ut ullis nubibus possit occurri; omnes enim sub se
than that any clouds it-could be-met all for under itself
tunc habet.
then it-has

IX · RODS

Rods, painted streaks also taken as signs of rain, are imperfect bows: the same colors lying straight instead of curved, formed near the sun in a moist cloud already dispersing.

9.1 Nunc de virgis dicendum est, quas non minus pictas
Now about rods to-be-spoken it-is which not less painted
variasque aeque pluviarum signa solemus accipere. in quibus
and-various equally of-rains as-signs we-are-wont to-take in which
non multum operae consumendum est, quia virgae nihil
not much of-effort to-be-spent is because rods nothing
aliud sunt quam imperfecti arcus. nam facies quidem
else are than imperfect rainbows for an-appearance indeed
illis est picta, sed nihil curvati habent: in rectum iacent.
to-them is painted but nothing curved they-have in a-straight-line they-lie
9.2 fiunt autem iuxta solem fere in nube umida et iam se
they-arise however beside the-sun usually in a-cloud moist and already itself
spargente. itaque idem est in illis qui in arcu color,
scattering and-so the-same is in them which in the-rainbow color
tantum figura mutatur, quia nubium quoque, in quibus
only the-shape is-changed because of-the-clouds also in which
extenduntur, alia est.
they-are-stretched another is

Crowns form round any star, bows only opposite the sun, rods only near it. Divide a crown and it is a bow; straighten it and it is a rod. Rods belong to the sun alone, bows to sun and moon, and crowns to every star.

Similis varietas in coronis est, sed hoc differunt, quod coronae 10.1
A-similar variety in crowns is but in-this they-differ that crowns
ubique fiunt, ubicumque sidus est, arcus non nisi contra
everywhere arise wherever a-star is the-rainbow not except opposite
solem, virgae non nisi in vicinia solis. possum et
the-sun rods not except in the-neighborhood of-the-sun I-can also
hoc modo differentiam omnium reddere: coronam si diviseris,
in-this way the-difference of-all render a-crown if you-divide
arcus erit, si direxeris, virga. in omnibus color multiplex,
a-rainbow it-will-be if you-straighten a-rod in all color manifold
ex caeruleo fulvoque varius. virgae soli tantum adiacent,
from blue and-tawny varied rods to-the-sun only lie-near
arcus solares lunaresque sunt, coronae omnium siderum.
rainbows solar and-lunar are crowns of-all stars

Rays through gaps in the clouds also foretell rain. Historians tell of two or three suns at once, the parhelia: the sun's image in a thick, near cloud, as in a still pool.

11.1 Aliud quoque virgarum genus apparet, cum radii per angusta
Another also of-rods kind appears when rays through narrow
foramina nubium tenues et intenti distantesque inter se
holes of-clouds thin and taut and-distant among themselves
diriguntur: et ipsi signa imbrium sunt. quomodo nunc
are-directed and they-themselves signs of-rains are how now
me hoc loco geram? quid vocem? imagines solis?
myself in-this place shall-I-conduct what shall-I-call the-images of-the-sun
11.2 historici soles vocant et binos ternosque apparuisse memoriae
historians suns call-them and two and-three to-have-appeared to-memory
tradunt; Graeci parhelia appellant, quia in propinquo fere a
hand-down the-Greeks parhelia name-them because in nearness usually to
sole visuntur aut quia accedunt ad aliquam similitudinem
the-sun they-are-seen or because they-approach to some likeness
solis. non enim totum imitantur sed magnitudinem eius
of-the-sun not for the-whole they-imitate but the-size its
figuramque: ceterum nihil habent ardoris hebetes et languidi.
and-shape but nothing they-have of-heat dull and faint

his quod nomen imponimus? an facio quod Vergilius? qui
to-these what name do-we-give or shall-I-do what Vergil who
dubitavit de nomine, deinde id, de quo dubitaverat, posuit:
doubted about the-name then that about which he-had-doubted set-down

et quo te nomine dicam,
and by-what you name shall-I-call
Rhaetica? nec cellis ideo contende Falernis.
Rhaetic nor with-the-cellars therefore contend Falernian

nihil ergo prohibet illas parhelia vocari. sunt autem imagines 11.3
nothing therefore prevents them parhelia to-be-called they-are however images
solis in nube spissa et vicina in modum speculi. quidam
of-the-sun in a-cloud dense and near in the-manner of-a-mirror certain
parhelion ita definiunt: nubes rotunda et splendida similisque
parhelion thus define a-cloud round and bright and-like
soli. sequitur enim illum nec umquam longius relinquitur,
to-the-sun it-follows for him nor ever farther is-it-left
quam fuit, cum apparuit. numquis nostrum miratur, si
than it-was when it-appeared surely-not-anyone of-us wonders if
solis effigiem in aliquo fonte aut placido lacu vidit? non,
of-the-sun the-image in some spring or calm lake he-has-seen not
ut puto. atqui tam in sublimi facies eius quam inter nos
as I-think and-yet as in the-height the-appearance its as among us
potest reddi, si modo idonea est materia, quae reddat.
can be-given-back if only suitable is the-material which may-give-it-back

XII · THE ECLIPSE IN A BASIN

To watch an eclipse men set out basins of oil or pitch, whose thick liquid holds the image still, and see the moon cover the sun in part or wholly, a total eclipse showing the stars. So the air, when thick and clear, can take the sun's face; clouds that move, are thin, or are dirty let it pass, as a stained mirror returns no image.

12.1 Quotiens defectionem solis volumus deprehendere, ponimus
As-often-as an-eclipse of-the-sun we-wish to-detect we-set
pelves, quas aut oleo aut pice implemus, quia pinguis
basins which either with-oil or with-pitch we-fill because a-fatty
umor minus facile turbatur et ideo quas recipit imagines
liquid less easily is-disturbed and therefore what it-receives images
servat; apparere autem imagines non possunt nisi in liquido
it-keeps to-appear however images not can except in liquid
et immoto. tunc solemus notare, quemadmodum luna
and unmoved then we-are-wont to-note how the-moon
soli se opponat et illum tanto maiorem subiecto
to-the-sun herself opposes and him so-much greater with-her-interposed
corpore abscondat, modo ex parte, si ita competît, ut in
body hides now in part if so it-chances that on
latus eius incurreret, modo totum; haec dicitur perfecta
side his she-should-run-against now wholly this is-called a-total
defectio, quae stellas quoque ostendit et intercipit lucem,
eclipse which stars also shows and intercepts the-light
tunc scilicet cum uterque orbis sub eodem libramento stetit.
then of-course when each disk under the-same level has-stood

12.2 quemadmodum ergo utriusque imago in terris aspici
as therefore of-each the-image on the-earth to-be-seen
potest, ita in aëre, cum sic coactus aër et limpidus constitit,
can so in the-air when so compacted the-air and clear has-settled

ut faciem solis acciperet. quam et aliae nubes accipiunt
that the-face of-the-sun it-might-receive which also other clouds receive
sed transmittunt, si aut mobiles sunt aut rarae aut sordidae:
but let-through if either mobile they-are or thin or dirty
mobiles enim spargunt illam, rarae emittunt, sordidae turpesque
the-mobile for scatter it the-thin let-it-out the-dirty and-foul
non sentiunt, sicut apud nos imaginem maculosa non reddunt.
not perceive-it just-as among us an-image spotted-surfaces not give-back

XIII · TWO MOCK SUNS

Two mock suns form in the same way, and there may be as many as there are clouds fit to show the sun. Some judge that one is the sun's image and the other the image of an image, as facing mirrors fill each other. The clouds must be dense, smooth, bright, and flat, and placed neither too near nor too far. These suns foretell rain, especially in the south, and on both sides of the sun, Aratus says, a storm.

Solent et bina fieri parhelia eadem ratione. quid enim 13.1
Are-wont also two to-arise parhelia by-the-same reason what for
impedit, quominus tot sint, quot nubes fuerint
prevents that so-many there-be as-many-as clouds shall-have-been
aptae ad exhibendam solis effigiem? quidam in illa
suited to displaying of-the-sun the-image certain in that
sententia sunt, quotiens duo simulacra talia existunt, ut
opinion are as-often-as two images such arise that
iudicent in illis alteram solis imaginem esse alteram
they-judge in them one of-the-sun the-image to-be the-other
imaginis. nam apud nos quoque cum plura specula disposita
of-the-image for among us also when several mirrors arranged
sunt ita, ut alteri sit conspectus alterius, omnia implentur,
are so that to-one may-be the-sight of-the-other all are-filled

et una imago vera est, ceterae imaginum effigies sunt;
and one image true is the-others of-images images are
nihil enim refert, quid sit quod speculo ostendatur:
nothing for it-matters what may-be what to-the-mirror is-shown
quicquid videt, reddit. ita illic quoque in sublimi, si sic
whatever it-sees it-gives-back so there also in the-height if so
nubes fors aliqua disposuit, ut inter se conspiciant,
the-clouds chance some has-arranged that among themselves they-look-at
altera nubes solis imaginem altera imaginis reddit.
one cloud of-the-sun the-image the-other of-the-image gives-back

13.2 debent autem hae nubes, quae hoc praestant, densae esse
ought however these clouds which this perform dense to-be
leves splendidae planae, naturae † solis. ob
smooth bright flat of-nature (corrupt) of-the-sun on-account-of
hoc omnia eiusmodi simulacra candida sunt, et similia
this all of-this-kind images white are and like
lunaribus circulis, quia ex percussu oblique accepto sole
to-lunar circles because from a-stroke obliquely received the-sun
resplendent: nam si infra solem nubes fuerit et propior,
they-reflect for if below the-sun the-cloud shall-be and nearer
ab eo dissipatur; longe autem posita radios non remittet
by it it-is-dispersed far however placed rays not it-will-send-back
nec imaginem efficiet. sic apud nos quoque specula, cum
nor an-image will-produce so among us also mirrors when
procul a nobis abducta sunt, faciem non reddunt, quia
far from us led-away they-are the-face not give-back because
acies nostra non habet usque ad nos recursum.
sight our not has right to us a-return

13.3 pluviarum autem et hi soles (utar enim historica lingua)
of-rains however also these suns I-shall-use for of-historians the-language
indicia sunt, utique si a parte austri constiterunt, unde
signs are especially if on the-side of-the-south they-have-stood whence

maxime nubes ingravescunt; cum utrimque solem cinxit
most clouds grow-heavy when on-both-sides the-sun has-encircled
talis effigies, tempestas, si Arato credimus, surgit.
such an-image a-storm if Aratus we-believe rises

XIV · PITS, JARS, AND CHASMS

Other fires take many shapes: pits, hollow recesses ringed by light; jars, vast round flames like a cask; chasms, where a stretch of sky sinks and shows flame inside, in many colors. A shooting star seems to trail a long fire only because our slow sight sees at once where it leapt from and where it reached, as with lightning. Fire kindled by rubbed air, or by dry, hot matter aloft, runs down after its fuel; such falls foretell wind from where they burst out.

Tempus est alios quoque ignes percurrere, quorum diversae 14.1
Time it-is other also fires to-run-through whose different
figurae sunt. aliquando emicat stella, aliquando ardores sunt,
shapes are sometimes flashes-out a-star sometimes blazes there-are
hi nonnunquam fixi et haerentes nonnumquam volubiles.
these sometimes fixed and clinging sometimes rolling
horum plura genera conspiciuntur: sunt putei, cum velut
of-these several kinds are-seen there-are pits when as-if
corona cingente introrsus ingens caeli recessus est similis
by-a-crown encircling inwardly a-huge of-the-sky recess there-is like
effossae in orbem specus; sunt pithiae, cum magnitudo
to-a-dug into a-circle cave there-are jars when the-size
vasti rotundique ignis dolio similis vel fertur vel uno
of-a-vast and-round fire to-a-cask like either is-borne or in-one
loco flagrat; sunt chasmata, cum aliquod spatium caeli
place blazes there-are chasms when some space of-the-sky
desedit et flammam velut dehiscens in abdito ostentat.
has-sunk and flame as-if gaping in hiding displays

14.2 colores quoque horum omnium plurimi sunt: quidam
the-colors also of-these all very-many are some
ruboris acerrimi, quidam evanidae ac levis flammae, quidam
of-redness very-sharp some of-fading and light flame some
candidae lucis, quidam micantes, quidam aequaliter et sine
of-white light some flickering some evenly and without
eruptionibus aut radiis fulvi; videmus ergo
outbursts or rays tawny we-see therefore

flammarum longos a tergo albescere tractus.
of-flames long from behind to-whiten trails

14.3 hae velut stellae exiliunt et transvolant videnturque longum
these as-if stars leap-out and fly-across and-seem a-long
ignem porrigere propter immensam celeritatem, cum acies
fire to-stretch-out on-account-of immense speed since sight
nostra non discernat transitum earum sed, quacumque
our not distinguishes the-passage of-them but wherever
cucurrerunt, id totum igneum credat. tanta est enim velocitas
they-have-run that whole fiery believes so-great is for the-speed
motus, ut partes eius non dispiciantur, summa prendatur:
of-the-motion that the-parts of-it not are-discerned the-whole is-grasped
intellegimus magis, qua ierit stella quam qua eat.
we-understand rather where has-gone the-star than where it-goes

14.4 itaque velut igne continuo totum iter signat, quia visus
and-so as-if with-fire continuous the-whole path it-marks because of-sight
nostri tarditas non subsequitur momenta currentis, sed videt
our the-slowness not follows the-moments of-the-runner but it-sees
simul et unde exiluerit et quo pervenerit. quod fit in
at-once both whence it-leapt-out and where it-arrived which happens in
fulmine: longus nobis videtur ignis eius, quia cito spatium
a-thunderbolt long to-us seems the-fire its because quickly space

suum transilit, et oculis nostris occurrit universum per
its-own it-leaps-across and to-eyes our presents-itself whole through
quod deiectus est: at ille non est extenti corporis per
which hurled-down it-was but it not is of-an-extended body through
omne, qua venit. neque enim tam longa et extenuata
all where it-comes nor for so long and thinned-out-things
in impetum valent. quomodo ergo prosiliunt?
in impetus are-strong how then do-they-leap-forth
attritu aëris ignis incensus vento praeceps impellitur; 14.5
by-the-rubbing of-the-air fire kindled by-the-wind headlong is-driven
non semper tamen vento attrituve fit, nonnumquam et
not always yet by-wind or-rubbing it-arises sometimes also
aliqua oportunitate aëris nascitur: multa enim sunt in
by-some opportuneness of-the-air it-is-born many-things for there-are in
sublimi sicca calida terrena, inter quae oritur et pabulum
the-height dry hot earthy among which it-rises and fuel
suum subsequens defluit ideoque velociter rapitur.
its-own following flows-down and-therefore swiftly is-swept-along
'at quare color diversus est?' quia refert, quale sit 14.6
but why the-color different is-it because it-matters of-what-kind may-be
id, quod incenditur, quantum et quam vehemens, quo
that which is-kindled how-much and how violent that-by-which
incenditur. ventum autem significant eiusmodi lapsus et
it-is-kindled wind however signify of-this-kind falls and
quidem ab ea parte, qua erumpunt.
indeed from that side where they-burst-out

Glows may come from winds, from the heat of the upper sky, or from the stars' motion. Some dart like shooting stars, some stand and light the night until their fuel is spent, and the brief ones strike like lightning. Those that last and move are comets, with their bearded and cypress kinds. Skies seen burning belong here too: under Tiberius cohorts ran to rescue Ostia from a fire in the sky. These have real flame; the bow and the crown are a mirror's deceit.

15.1 'Fulgores', inquis, 'quomodo fiunt, quos Graeci σέλα
Glows you-say how do-they-arise which the-Greeks sela
appellant?' multis, ut aiunt, modis: potest illos ventorum
call in-many as they-say ways can them of-the-winds
vis edere, potest superioris caeli fervor (nam cum late fusus
the-force produce can of-the-upper sky the-heat for since widely spread
sit ignis, inferiora aliquando, si sunt idonea accendi,
may-be the-fire the-lower-things sometimes if they-are suited to-be-kindled
corripit); potest stellarum motus cursu suo excitare ignem
it-seizes can of-the-stars the-motion by-course its-own excite fire
et in subiecta transmittere. quid porro? non potest
and into the-things-below transmit what further not can
fieri, ut aër vim igneam usque in aethera elidat,
to-happen that the-air a-force fiery right into the-ether may-squeeze-out
ex qua fulgor ardorve sit vel stellae similis excursus?
from which a-glow or-blaze may-be or of-a-star like a-sally
15.2 ex his fulgoribus quaedam praeceps eunt similia prosilientibus
of these glows some headlong go like to-leaping-forth
stellis, quaedam certo loco permanent et tantum lucis
stars some in-a-fixed place remain and so-much of-light
emittunt, ut fugent tenebras ac diem repraesentent, donec
send-out that they-put-to-flight the-darkness and day represent until
consumpto alimento primum obscuriora sint, deinde flammae
consumed the-fuel first darker they-become then of-a-flame

modo, quae in se cadit, per assiduam deminutionem
in-the-manner which in itself falls by continual diminishing
redigantur ad nihilum. ex his quaedam in nubibus apparent,
they-are-reduced to nothing of these some in the-clouds appear
quaedam supra nubes, cum aër spissus ignem, quem
some above the-clouds when the-air dense the-fire which
propior terris diu paverat, usque in sidera expressit.
nearer to-the-earth long it-had-fed right into the-stars has-squeezed-out
horum aliqua non patiuntur moram sed transcurrunt aut 15.3
of-these some not endure delay but run-across or
extinguntur subinde, qua reluxerant: haec fulgura dicuntur,
are-extinguished immediately where they-had-shone-out these lightnings are-called
quia brevis illorum facies et caduca est nec sine iniuria
because brief their appearance and fleeting is nor without harm
decidens; saepe enim fulminum noxas ediderunt. ab his
falling often for of-thunderbolts the-damage they-have-produced by these
tacta nos dicimus fulgurata, id est icta sine fulmine,
things-struck we call lightning-struck that is struck without a-thunderbolt
quae ἀστερόπληκτα Graeci vocant.
which lightning-struck the-Greeks call
at quibus longior mora est et ignis fortior motumque 15.4
but those-for-which longer the-delay is and the-fire stronger and-the-motion
caeli sequens aut etiam proprios cursus agunt, cometas
of-the-sky following or even their-own courses they-pursue comets
nostri putant, de quibus dictum est. horum genera
our-people think-them about which said it-has-been of-these kinds
sunt pogoniae et cyparissiae et lampades et alia omnia,
there-are bearded and cypress-like and torches and others all
quorum ignis in exitu sparsus est; dubium, an inter
whose fire at the-end scattered is doubtful whether among
hos ponantur trabes et pithiae raro visi, multa enim
these may-be-placed beams and jars rarely seen much for

conglobatione ignium indigent, cum ingens illorum orbis
massing of-fires they-need since the-huge their disk
aliquantum matutini amplitudinem solis exuperet.
somewhat of-the-morning the-breadth of-the-sun may-exceed
15.5 inter haec licet ponas et quod frequenter in historiis legimus
among these you-may place also what often in histories we-read
caelum ardere visum, cuius nonnumquam tam sublimis ardor
the-sky to-burn seen whose sometimes so lofty the-blaze
est, ut inter sidera ipsa videatur, nonnumquam tam
is that among the-stars themselves it-seems sometimes so
humilis, ut speciem longinqui incendii praebeat. sub Tiberio
low that the-appearance of-a-distant fire it-affords under Tiberius
Caesare cohortes in auxilium Ostiensis coloniae cucurrerunt
Caesar cohorts to the-aid of-the-Ostian colony ran
tamquam conflagrantis, cum caeli ardor fuisset per
as-if burning when of-the-sky the-blaze had-been through
magnam partem noctis parum lucidus crassi fumidique ignis.
a-great part of-the-night little bright of-thick and-smoky fire
15.6 de his nemo dubitat, quin habeant flammam, quam
about these no-one doubts but-that they-have the-flame which
ostendunt: certa illis substantia est. de prioribus quaeritur
they-show fixed to-them substance is about the-former it-is-asked
(de arcu dico et coronis), decipiant aciem et
about the-rainbow I-speak and crowns whether-they-deceive the-sight and
mendacio constent an in illis quoque verum sit, quod apparet.
of-a-lie consist or in them also true may-be what appears
15.7 nobis non placet in arcu aut corona subesse aliquid
to-us not it-is-pleasing in the-rainbow or crown to-underlie something
corporis certi, sed illam iudicamus speculi esse fallaciam
of-body fixed but it we-judge of-a-mirror to-be a-deception
alienum corpus nihil aliud quam mentientis. non est enim
another's body nothing else than of-one-falsifying not is for

in speculo quod ostenditur, alioquin non exiret nec
in the-mirror what is-shown otherwise not it-would-go-out nor
alia protinus imagine obduceretur, nec innumerabiles
by-another straightway image be-overlaid nor innumerable
modo interirent modo exciperentur formae.
now perish now be-caught shapes
quid ergo? simulacra ista sunt et inanis verorum corporum 15.8
what then images these are and an-empty of-true bodies
imitatio, quae ipsa a quibusdam ita compositis, ut hoc
imitation which themselves by certain-mirrors so composed that this
possint, detorquentur in pravum. nam, ut dixi, sunt
they-can are-twisted into the-crooked for as I-said there-are
specula, quae faciem prospicientium obliquent, sunt quae
mirrors which the-face of-those-looking-in distort there-are-some which
in infinitum augeant, ita ut humanum habitum modumque
into infinity enlarge so that human form and-measure
excedant nostrorum corporum.
they-exceed of-our bodies

XVI · THE MIRRORS OF HOSTIUS QUADRA

Hostius Quadra, depraved with both sexes, set magnifying mirrors round himself to watch his own vices at false sizes; murdered by his slaves, he was judged unworthy of vengeance.

Hoc loco volo tibi narrare fabellam, ut intellegas, quam 16.1
At-this place I-wish to-you to-tell a-little-story that you-may-understand how
nullum instrumentum irritandae voluptatis libido contemnat
no instrument of-provoking pleasure lust despises
et ingeniosa sit ad incitandum furorem suum. Hostius fuit
and ingenious it-is for inciting madness its-own Hostius there-was

Quadra, obscenitatis in scaenam usque productae. hunc
Quadra of-an-obscenity onto the-stage even brought-forth this
divitem avarum, sestertii milies servum, divus
rich-man miser of-sesterces a-hundred-million-(worth) the-slave the-deified
Augustus indignum vindicta iudicavit, cum a servis occisus
Augustus unworthy of-vindication judged when by slaves killed
esset, et tantum non pronuntiavit iure caesum videri.
he-had-been and all but he-declared rightly cut-down to-seem
16.2 non erat ille ab uno tantummodo sexu impurus, sed tam
not was he by one only sex impure but as-much
virorum quam feminarum avidus, fecitque specula huius notae,
of-men as of-women greedy and-he-made mirrors of-this kind
cuius modo rettuli, imagines longe maiores reddentia, in quibus
of-which just-now I-told images far greater giving-back in which
digitus brachii mensuram et crassitudinem excederet. haec
a-finger of-an-arm the-measure and thickness exceeded these
autem ita disponebat, ut cum virum ipse pateretur, aversus
however so he-arranged that when a-man he-himself was-suffering turned-away
omnes admissarii sui motus in speculo videret ac deinde
all of-the-stud his the-motions in the-mirror he-might-see and then
falsa magnitudine ipsius membri tamquam vera gaudebat.
in-the-false size of-the-very member as-if real he-rejoiced
16.3 in omnibus quidem balneis agebat ille dilectum et aperta
in all indeed baths he-held he a-levy and by-open
mensura legebat viros, sed nihilominus mendaciis quoque
measure chose men but nonetheless with-lies also
insatiabile malum oblectabat: i nunc et dic speculum
insatiable evil he-delighted go now and say a-mirror
munditiarum causa repertum. foeda dictu sunt, quae
for-elegance's sake devised foul to-say are-the-things which
portentum illud ore suo lancinandum dixerit feceritque,
portent that with-mouth his-own to-be-torn said and-did

cum illi specula ab omni parte opponerentur, ut ipse
when to-him mirrors on every side were-set-opposite that he-himself
flagitiorum suorum spectator esset et, quae secreta
of-crimes his-own the-spectator might-be and the-things-which secret
quoque conscientiam premunt quaeque et sibi quisque
also the-conscience weigh-down and-which even to-himself each
fecisse se negat, non in os tantum sed in oculos
to-have-done himself denies not into his-mouth only but into eyes
suos ingereret.
his-own he-might-thrust
at hercule scelera conspectum sui reformidant. in 16.4
but by-Hercules crimes the-sight of-themselves dread in
perditis quoque et ad omne dedecus expositis tenerrima
the-ruined also and to every disgrace exposed most-tender
est oculorum verecundia: ille, quasi parum esset inaudita et
is of-the-eyes the-modesty he as-if too-little it-were unheard-of and
incognita pati, oculos suos ad illa advocavit nec quantum
unknown-things to-suffer eyes his-own to them summoned nor how-much
peccabat videre contentus, specula sibi per quae flagitia
he-sinned to-see content mirrors for-himself through which crimes
sua divideret disponeretque circumdedit; et quia non tam
his-own he-might-divide and-arrange set-around and because not so
diligenter intueri poterat, cum caput merserat inguinibusque
carefully to-look he-could when his-head he-had-plunged and-to-the-groin
alienis obhaeserat, opus sibi suum per imagines offerebat.
of-another had-clung work to-himself his-own through images he-offered
spectabat illam libidinem oris sui, spectabat admissos 16.5
he-watched that lust of-mouth his-own he-watched admitted
sibi pariter in omnia viros; nonnumquam inter marem et
to-himself equally into all-things men sometimes between a-male and
feminam distributus et toto corpore patientiae expositus
a-female divided and with-his-whole body to-submission exposed

spectabat nefanda: quidnam homo impurus reliquit, quod
he-watched unspeakable-things what man impure has-left which
in tenebris faceret? non pertimuit diem, sed illos concubitus
in darkness he-might-do not he-dreaded the-day but those couplings
portentuosos sibi ipse ostendit sibi ipse approbavit: quem
portentous to-himself himself he-showed to-himself himself he-approved whom
† non putes in ipso habitu pingi voluisse?
(corrupt) not you-would-think in that-very posture to-be-painted to-have-wished
16.6 est aliqua etiam prostitutis modestia et illa corpora publico
there-is some even in-prostitutes modesty and those bodies to-public
obiecta ludibrio aliquid, quo infelix patientia lateat
exposed mockery something by-which unhappy submission may-lie-hidden
obtendunt: adeo in quaedam lupanar quoque verecundum
they-hold-before so-much in certain-things a-brothel also modest
est. at illud monstrum obscenitatem suam spectaculum
is but that monster obscenity his-own a-spectacle
fecerat et ea sibi ostentabat, quibus abscondendis
had-made and those-things to-himself displayed for-which to-be-hidden
nulla satis alta nox est.
no enough deep night is
16.7 'simul', inquit, 'et virum et feminam patior, nihilominus
at-once he-says both a-man and a-woman I-submit-to nonetheless
illa quoque supervacua mihi parte alicuius †
with-that also superfluous to-me part with-someone's (corrupt)
contumelia marem exerceo; omnia membra stupris
insult a-male I-exercise all limbs with-debaucheries
occupata sunt: oculi quoque in partem libidinis veniant
occupied are the-eyes also into a-share of-lust let-them-come
et testes eius exactoresque sint; etiam ea, quae a
and witnesses of-it and-overseers let-them-be even those-things which from

conspectu corporis nostri positio submovit, arte visantur,
the-sight of-body our the-position has-removed by-art let-them-be-viewed
ne quis me putet nescire, quid faciam.
that-not anyone me may-think not-to-know what I-do
nil egit natura, quod humanae libidini ministeria tam 16.8
nothing has-done nature in-that to-human lust services so
maligna dedit, quod aliorum animalium concubitus melius
niggardly it-gave in-that of-other animals the-couplings better
instruxit: inveniam, quemadmodum morbo meo et imponam
it-equipped I-shall-find how to-disease my both I-may-impose
et satisfaciam. quo nequitiam meam, si ad naturae
and I-may-satisfy for-what wickedness my if according-to nature's
modum pecco? id genus speculorum circumponam mihi,
measure I-sin that kind of-mirrors I-shall-set-around myself
quod incredibilem magnitudinem imaginum reddat.
which incredible size of-images may-give-back
si liceret mihi, ad verum ista perducerem: quia non 16.9
if it-were-allowed to-me to reality these-things I-would-bring because not
licet, mendacio pascar. obscenitas mea plus quam capit
it-is-allowed on-a-lie I-shall-feed obscenity my more than it-holds
videat et patientiam suam ipsa miretur.' facinus indignum!
let-it-see and submission its-own itself let-it-wonder-at a-deed unworthy
hic fortasse cito et antequam videret occisus est: ad
this-man perhaps quickly and before he-should-see killed was before
speculum suum immolandus fuit.
mirror his-own to-be-sacrificed he-was

XVII · WHAT MIRRORS ARE FOR

Nature did not make mirrors for plucking beards, but so that weak eyes could see the sun's true form, dimmed in water, and its eclipses, and so that a man might know himself: the handsome to avoid disgrace, the ugly to make up for it with virtue, the young to learn, and the old to think of death. A spring or a smooth stone served the simpler age. Luxury then made mirrors of gold and silver the size of a body, one costing more than Scipio's daughters' dowry, and now even soldiers carry them.

17.1 Derideantur nunc philosophi, quod de speculi natura
Let-them-be-laughed-at now philosophers because about the-mirror's nature
disserant, quod inquirant, quid ita facies nostra nobis et
they-discourse because they-inquire why so face our to-us and
quidem in nos obversa reddatur, quid sibi rerum natura
indeed toward us turned is-given-back what for-itself of-things nature
voluerit, quod, cum vera corpora edidisset, etiam simulacra
wished in-that when real bodies it-had-produced also images
eorum aspici voluit,
of-them to-be-seen it-wished

17.2 quorsus pertinuerit hanc comparare materiam excipiendarum
to-what-end it-has-tended this to-provide matter of-receiving
imaginum potentem — non in hoc scilicet, ut ad speculum
images capable not for this of-course that at a-mirror
barbam velleremus aut ut faciem viri poliremus: in nulla
beard we-should-pluck or that the-face of-a-man we-should-polish in no
re illa luxuriae negotium gessit, sed primum omnium,
thing she of-luxury the-business has-conducted but first of-all
quia imbecilli oculi ad sustinendum cominus solem
because weak the-eyes for enduring at-close-range the-sun
ignoraturi erant, formam eius hebetato lumine ostendit.
going-to-be-ignorant were the-form its with-dulled light she-showed-it
quamvis enim orientem occidentemque eum contemplari
although for rising and-setting it to-contemplate

liceat, tamen habitum eius ipsum, qui verus est, non
it-be-allowed yet the-appearance its very which true is not
rubentis sed candida luce fulgentis nesciremus, nisi in
of-one-reddening but with-white light gleaming we-would-not-know unless in
aliquo nobis umore lenior et aspici facilior occurreret.
some to-us moisture gentler and to-be-looked-at easier it-met
praeterea duorum siderum occursum, quo interpolari dies 17.3
besides of-the-two stars the-meeting by-which to-be-interrupted the-day
solet, non videremus nec scire possemus, quid esset, nisi
is-wont not we-would-see nor to-know could what it-was unless
liberius humi solis lunaeque imagines videremus.
more-freely on-the-ground of-the-sun and-the-moon the-images we-saw
inventa sunt specula, ut homo ipse se nosset, multa ex 17.4
invented were mirrors that man himself him might-know many-things from
hoc consecuturus, primum sui notitiam, deinde ad quaedam
this going-to-gain first of-himself knowledge then for certain-things
consilium: formosus ut vitaret infamiam, deformis ut
counsel the-handsome that he-might-avoid infamy the-ugly that
sciret redimendum esse virtutibus quicquid corpori deesset,
he-might-know to-be-redeemed to-be by-virtues whatever to-the-body was-lacking
iuvenis ut flore aetatis admoneretur illud tempus esse
the-young that by-the-flower of-age he-might-be-reminded that time to-be
discendi et fortia audendi, senex ut indecora canis
for-learning and brave-things to-dare the-old that unseemly-things to-gray-hairs
deponeret, ut de morte aliquid cogitaret: ad haec
he-might-lay-aside that about death something he-might-think for these-things
rerum natura facultatem nobis dedit nosmet ipsos videndi.
of-things nature the-means to-us gave us ourselves to-see

17.5 fons cuique perlucidus aut leve saxum imaginem reddit:
a-spring to-each clear or smooth stone an-image gives-back

nuper me in litore vidi,
lately myself on the-shore I-saw
cum placidum ventis staret mare.
when calm by-the-winds stood the-sea

qualem fuisse cultum putas ad hoc se speculum
of-what-sort to-have-been the-grooming do-you-think at this themselves mirror
comentium? aetas illa simplicior et fortuitis contenta
of-those-adorning age that simpler and with-chance-things content
nondum in vitium beneficia detorquebat nec inventa
not-yet into vice benefits twisted nor the-inventions
naturae in libidinem luxumque rapiebat.
of-nature into lust and-luxury did-it-snatch

17.6 primo faciem suam cuique casus ostendit. deinde cum insitus
first face his-own to-each chance showed then when innate
sui mortalibus amor dulcem aspectum formae suae faceret,
of-self in-mortals the-love sweet the-sight of-form their-own made
saepius ea despexere, in quibus effigies suas
more-often those-things they-looked-down-into in which images their-own
viderant. postquam deterior populus ipsas subît terras
they-had-seen after a-worse people the-very went-under earth
effossurus obruenda, ferrum primum in usu fuit (et
going-to-dig-out things-to-be-buried iron first in use was and
id impune homines eruerant, si solum eruissent),
it with-impunity men would-have-dug-out if alone they-had-dug-it-out
tunc deinde alia terrae mala, quorum levitas aliud
then next the-other of-the-earth evils whose smoothness something-else
agentibus speciem suam obtulit, quam hic in poculo
to-those-doing appearance their-own offered which this-one in a-cup

ille in aere ad aliquos usus comparato vidit; et mox
that-one in bronze for some uses provided saw and soon
huic proprie ministerio praeparatus est orbis nondum argenti
for-this specially service prepared was a-disk not-yet of-silver
nitor sed fragilis vilisque materia.
the-gleam but a-fragile and-cheap material
tunc quoque, cum antiqui illi viri incondite viverent, 17.7
then also when ancient those men roughly lived
satis nitidi, si squalorem opere collectum adverso flumine
enough neat if the-squalor by-work gathered in-a-facing river
eluerant, parva cura comere capillum fuit ac prominentem
they-had-washed-off small care to-dress the-hair was and the-projecting
barbam depectere, et in hac re sibi quisque, non
beard to-comb-out and in this matter for-himself each not
alter alteri in vicem, operam dabat; ne coniugum quidem
one for-another in turn effort gave not by-wives' even
manu crinis ille, quem effundere olim mos viris fuit,
hand hair that which to-let-flow once the-custom for-men was
attrectabatur, sed illum sibi ipsi sine ullo artifice
was-handled but it to-them themselves without any craftsman
formosi quatiebant, non aliter quam iubam generosa animalia.
handsome they-shook not otherwise than the-mane noble animals
postea iam rerum potiente luxuria specula totis paria 17.8
afterward at-length of-things possessing luxury mirrors to-whole equal
corporibus auro argentoque caelata sunt, gemmis deinde
bodies with-gold and-silver engraved were with-gems then
adornata; et pluris unum ex his feminae constitit,
adorned and more one of these to-a-woman cost
quam antiquarum dos fuit illa, quae publice dabatur
than of-ancient-women the-dowry was that which publicly was-given
imperatorum pauperum liberis. an tu existimas auro
of-generals poor to-the-children or you think with-gold

inditum habuisse Scipionis filias speculum, cum illis
set to-have-had of-Scipio the-daughters a-mirror when to-them
dos fuisset aes grave?
the-dowry had-been bronze heavy
17.9 o felix paupertas, quae tanto titulo locum fecit! non
O happy poverty which to-so-great a-title room made not
cepissent illam dotem, si habuissent. at quisquis
they-would-have-taken that dowry if they-had-had-one but whoever
ille erat, cui soceri loco senatus fuit, intellexit
he was to-whom of-a-father-in-law in-the-place the-senate was understood
accepisse se dotem, quam fas non esset reddere. iam
to-have-received himself a-dowry which right not would-be to-give-back now
libertinorum virgunculis in unum speculum non sufficit illa
of-freedmen for-the-little-girls for one mirror not suffices that
dos, quam dedit pro † aīo † se.
dowry which gave for (corrupt) aio (corrupt) himself
17.10 processit enim paulatim in deterius opibus ipsis invitata
it-advanced for gradually into the-worse by-wealth itself invited
luxuria, et incrementum ingens vitia ceperunt, adeoque
luxury and increase huge vices took and-so
omnia indiscreta sunt diversissimis artibus, ut quicquid
all-things undistinguished are by-most-diverse arts that whatever
mundus muliebris vocabatur, sarcinae viriles sint: omnes
the-toilet of-women used-to-be-called the-baggage of-men are all
dico, etiam militares. iam speculum ornatus tantum causa
I-say even soldiers' now the-mirror of-adornment only for-the-sake
adhibetur? nulli non vitio necessarium factum est.
is-applied to-no not vice necessary made it-has-been

BOOK II

I · THE THREE PARTS OF THE INQUIRY

The study of the universe divides into the heavenly, the aerial, and the earthly: the stars and the sky; what passes between sky and earth, clouds, rain, snow, winds, earthquakes, lightning, and thunder; and waters, lands, and plants. Earthquakes belong with thunder, since they are caused by air. Even the earth itself is in part a heavenly question, where its place in the universe is asked.

Omnis de universo quaestio in caelestia, sublimia, 1.1
Every about the-universe inquiry into heavenly lofty
terrena dividitur. prima pars naturam siderum scrutatur et
earthly-things is-divided the-first part the-nature of-the-stars examines and
magnitudinem et formam ignium, quibus mundus includitur,
the-size and the-form of-the-fires by-which the-world is-enclosed
solidumne sit caelum ac firmae concretaeque materiae an ex
whether-solid may-be the-sky and of-firm and-compacted matter or of
subtili tenuique nexum, agatur an agat, et infra sese sidera
fine and-thin woven it-is-driven or drives and below itself the-stars
habeat an in contextu sui fixa, quemadmodum anni vices
may-have or in the-texture of-itself fixed how of-the-year the-changes
servet, solem retro flectat, cetera deinceps his similia.
it-keeps the-sun back it-bends the-other-things in-turn to-these like
secunda pars tractat inter caelum terramque versantia; haec 1.2
the-second part treats-of between sky and-earth things-moving these
sunt nubila imbres nives venti terrae motus fulgura
are clouds showers snows winds of-the-earth quakes lightnings

et humanas motura tonitrua mentes:
and human going-to-move thunders minds

quaecumque aër facit patiturve, haec sublimia dicimus,
whatever the-air does or-suffers these lofty we-call
quia editiora imis sunt. tertia illa pars de aquis
because higher than-the-lowest they-are the-third that part about waters
terris arbustis satis quaerit et, ut iurisconsultorum verbo
lands trees crops inquires and that of-the-jurisconsults the-word
utar, de omnibus, quae solo continentur.
I-may-use about all-things which by-the-soil are-held

1.3 ‘quomodo’, inquis, ‘de terrarum motu quaestionem eo
how you-say about of-the-earth quake the-question in-that
posuisti loco, quo de tonitribus fulguribusque dicturus
have-you-put place in-which about thunders and-lightnings going-to-speak
es?’ quia cum motus spiritu fiat, spiritus autem aër sit
you-are because since movement by-breath arises breath however air is
agitatus, etiamsi subît terras, non ibi spectandus est:
stirred even-if it-goes-under the-earth not there to-be-viewed it-is
cogitetur in ea sede, in qua illum natura disposuit.
let-it-be-thought-of in that seat in which it nature has-arranged

1.4 dicam, quod magis mirum videbitur: inter caelestia de
I-shall-say what more strange will-seem among heavenly-things about
terra dicendum erit. ‘quare?’ inquis. quia cum propria
the-earth to-be-spoken it-will-be why you-say because when the-proper-things
terrae ipsius excutimus suo loco, utrum lata sit et
of-the-earth itself we-examine in-their-own place whether broad it-be and
inaequalis et enormiter proiecta an tota in formam pilae
uneven and irregularly projected or whole into the-form of-a-ball
spectet et in orbem partes suas cogat, alliget aquas
it-tends and into a-circle parts its-own compels whether-it-binds the-waters
an aquis alligetur, ipsa animal sit an iners corpus
or by-the-waters is-bound itself an-animal it-be or an-inert body
et sine sensu, plenum quidem spiritus sed alieni, et
and without sense full indeed of-breath but another's and

cetera huiusmodi, quotiens in manus venerint, terram
the-other-things of-this-kind as-often-as into our-hands they-come the-earth
sequentur et in imo collocabuntur:
will-follow and in the-lowest will-be-placed
at ubi quaeretur, quis terrae situs sit, qua parte 1.5
but when it-shall-be-asked what of-the-earth the-position may-be in-what part
mundi consederit, quomodo adversus sidera caelumque
of-the-world it-has-settled how against the-stars and-the-sky
posita sit, haec quaestio cedet superioribus et, ut ita
placed it-may-be this question will-yield to-the-higher-ones and as so
dicam, meliorem condicionem sequetur.
I-may-say a-better condition will-follow

II · BODIES JOINED AND UNITED

Some bodies are one, some continuous, and some joined: joining is the contact of two bodies, continuity an unbroken linking of parts, and unity continuity with no seam. Rope, grain, and a ship are composite, a tree or a stone is not, so among bodies grasped by reason and not by sense, some have unity, and air, which holds together by its own unity, is one of them. Seneca spares Lucilius the philosophers' jargon and asks the favor back.

Quoniam dixi de partibus, in quas omnis rerum 2.1
Since I-have-spoken about the-parts into which all of-things
naturae materia dividitur, quaedam in commune dicenda
of-nature the-matter is-divided certain-things in common to-be-said
sunt; et hoc primum praesumendum, inter ea corpora,
are and this first to-be-assumed among those bodies
quibus unitas est, aëra esse.
to-which unity is the-air to-be

2.2 quid sit hoc et quare praecipiendum fuerit, scies,
what may-be this and why to-be-stated-first it-has-been you-will-know
si paulo altius repetiero et dixero esse aliquid unum,
if a-little higher I-go-back and say to-be something one
aliquid continuum, aliquid commissum. etenim commissura
something continuous something joined for joining
est duorum coniunctorum inter se corporum tactus,
is of-two joined to each-other bodies contact
continuatio est partium inter se non intermissa
continuity is of-parts among themselves not interrupted
coniunctio, unitas est sine commissura continuatio.
conjunction unity is without joining continuity

2.3 numquid dubium est, quin ex his corporibus, quae videmus
surely-not doubtful is-it but-that of these bodies which we-see
tractamusque, quae aut sentiuntur aut sentiunt, quaedam
and-handle which either are-perceived or perceive some
sint composita (illa constant aut nexu aut acervatione aut
are composite those consist either by-tying or by-heaping or
compactione, ut puta funis frumentum navis), rursus
by-compacting as for-instance a-rope grain a-ship again
non composita, ut arbor lapis? ergo concedas oportet, ex
not composite as a-tree a-stone therefore you-should-grant it-is-proper of
his quoque, quae sensum quidem effugiunt, ceterum ratione
these also which perception indeed escape but by-reason
prenduntur, esse in quibusdam unitatem corporum.
are-grasped to-be in some unity of-bodies

2.4 vide, quomodo auribus tuis parcam; expedire me poteram, si
see how ears your I-spare to-free myself I-could if
philosophorum lingua uti voluissem, ut dicerem unita
of-philosophers the-language to-use I-had-wished so-that I-should-say unified
corpora; hoc cum tibi remittam, tu invicem mihi refer
bodies this since to-you I-remit you in-turn to-me pay-back

gratiam. ‘quare istud?’ si quando dixero unum, memineris
thanks wherefore this if ever I-say one remember
me non ad numerum referre sed ad naturam corporis
me not to number to-refer-it but to the-nature of-a-body
nulla ope externa sed unitate sua cohaerentis: ex hac nota
by-no aid external but by-unity its-own cohering of this mark
corporum aër est.
of-bodies the-air is

III · PARTS AND MATERIAL

Of all the universe contains, some things are its parts and some are left as material, since all nature needs material, as every handcraft does. The eye, the hand, and the bones are parts of us; the juice of fresh food is material; and blood is both, material for the vital parts and yet counted among what makes up the whole body.

Omnia, quae in notitiam nostram cadunt aut cadere possunt, 3.1
All-things which into knowledge our fall or to-fall can
mundus complectitur; ex his quaedam partes eius sunt,
the-world embraces of these some parts of-it are
quaedam materiae loco relicta: desiderat enim omnis
some of-matter in-the-place left needs for all
natura materiam sicut ars omnis, quae manu constat.
nature matter just-as art all which by-hand consists
quid sit hoc, apertius faciam: pars est nostri oculus 3.2
what may-be this more-openly I-shall-make part is of-us the-eye
manus ossa nervi, materia sucus recentis cibi iturus in
the-hand bones sinews matter the-juice of-fresh food going-to-go into
partes. rursus quasi pars est sanguis nostri, quia pars et
parts again as-if part is the-blood of-us because part and

tamen est materia: praeparat enim vitalia et nihilominus
yet it-is matter it-prepares for the-vital-parts and nonetheless
in numero eorum est, quibus totum corpus efficitur.
in the-number of-those it-is by-which the-whole body is-made

IV · AIR A PART OF THE UNIVERSE

Air is a necessary part of the universe: it joins sky and earth while it separates them, sending up what it receives from below and pouring the stars' force down. A kind of animal or tree is a part of the whole; one animal or tree is a part as it were. Air clings to both sky and earth, and whatever is a native part has unity.

4.1 Sic mundi pars est aër et quidem necessaria. hic
So of-the-world a-part is the-air and indeed a-necessary-one this
est enim, qui caelum terramque conectit, qui ima ac
is for which sky and-earth connects which the-lowest and
summa sic separat, ut tamen iungat: separat, quia medius
highest so separates that yet it-joins it-separates because in-the-middle
intervenit; iungit, quia utrique per hunc inter se
it-comes-between it-joins because to-both through it with each-other
consensus est: supra se dat, quicquid accepit a
agreement there-is above itself it-gives whatever it-has-received from
terris, rursus vim siderum in terrena transfundit.
the-earth again the-force of-the-stars into earthly-things it-pours-over

4.2 hunc quasi partem mundi voco ut animalia et arbusta: nam
it as-if a-part of-the-world I-call as animals and trees for
genus animalium arbustorumque pars universi est, quia in
the-kind of-animals and-trees part of-the-universe is because to
consummationem totius assumptum, et quia non est
the-completion of-the-whole taken-up and because not there-is
sine hoc universum; unum autem animal et una arbor quasi
without this a-universe one however animal and one tree as-if

pars est, quia quamvis perierit, tamen id, ex quo perît,
part is because although it-has-perished yet that from which it-perished
totum est. aër autem, ut dicebam, et caelo et terris
whole is the-air however as I-was-saying both to-sky and to-earth
cohaeret: utrique innatus est; habet autem unitatem quicquid
coheres in-both inborn it-is it-has however unity whatever
alicuius rei nativa pars est: nihil enim nascitur sine unitate.
of-some thing a-native part is nothing for is-born without unity

V · EARTH PART AND MATERIAL

Earth is both a part of the universe and its material. From it nourishment is dealt out to every animal, plant, and star, and it supplies the universe, which has seized enough to last forever, as an egg holds just the moisture the creature to hatch from it needs.

Terra et pars est mundi et materia. pars quare sit, 5.1
The-earth both a-part is of-the-world and matter a-part why it-may-be
non puto te interrogaturum, ut † aeque interrogas,
not I-think you going-to-ask as (corrupt) equally you-ask
quare caelum pars sit: quia scilicet non magis sine
why the-sky a-part may-be because of-course not more without
hoc quam sine illa universum potest esse. aliqua terrae
this than without that the-universe can be some of-the-earth
materiae loco sunt, quod cum † his universis
of-matter in-the-place are which since (corrupt) with-these all
est ex quibusdam: ex hac alimenta omnibus animalibus
is out-of certain-things from this foods to-all animals
omnibus satis omnibus stellis dividuntur:
to-all crops to-all stars are-distributed

5.2 hinc viritim singulis hinc ipsi mundo tam multa
hence individually to-each hence to-the-world itself so many-things
poscenti subministrantur; hinc profertur, quo sustineantur
demanding are-supplied hence is-brought-forth that-by-which may-be-sustained
tot sidera tam exercita tam avida per diem noctemque ut
so-many stars so exercised so greedy through day and-night as
in opere ita in pastu. omnium quidem rerum natura, quantum
in work so in feeding of-all indeed things nature as-much-as
in nutrimentum sui satis sit, apprehendit; mundus autem,
for the-nourishment of-itself enough may-be grasps the-world however
quantum in aeternum desiderabat, invasit. pusillum tibi
as-much-as for eternity it-needed has-seized a-tiny for-you
exemplar magnae rei ponam: ova tantum complectuntur
example of-a-great thing I-shall-set eggs as-much embrace
umoris, quantum ad effectum animalis exituri sat est.
of-moisture as for the-production of-an-animal going-to-come-out enough is

VI · THE TENSION OF THE AIR

Air fills whatever place it leaves and is unstable, yet it is one united body, not atoms: its tension shows in winds, in voice and horns, and in seeds that split rocks.

6.1 Aër continuus terrae est et sic appositus, ut statim
The-air continuous with-the-earth is and so placed-beside that at-once
ibi futurus sit, unde illa discesserit. pars totius est mundi;
there going-to-be it-is whence that has-departed a-part of-the-whole it-is world
sed tamen, quicquid terra in alimentum caelestium
but yet whatever the-earth for the-food of-the-heavenly-bodies

misit, recipit, ut scilicet materia, non pars, intellegi
has-sent it-receives so-that of-course matter not a-part to-be-understood
debeat: ex hoc omnis inconstantia eius tumultusque est.
it-should from this all inconstancy its and-turmoil is
hunc quidam ex distantibus corpusculis ut pulverem struunt 6.2
this certain from separate tiny-bodies like dust build
plurimumque a vero recedunt. numquam enim nisi contexti
and-very-far from the-truth depart never for except of-the-woven
per unitatem corporis nisus est, cum partes consentire ad
through unity of-a-body effort there-is since the-parts to-agree for
intentionem debeant et conferre vires; aër autem, si in atomos
tension ought and to-combine strength the-air however if into atoms
inciditur, sparsus est; tendi vero disiecta non possunt:
it-is-cut scattered it-is to-be-stretched indeed things-scattered not can
intentionem aëris ostendent tibi inflata nec ad ictum 6.3
the-tension of-the-air will-show you things-inflated nor to a-blow
cedentia, ostendent pondera per magnum spatium ablata
yielding will-show weights through a-great distance carried
gestante vento; ostendent voces, quae remissae claraeque
bearing-them the-wind will-show voices which slack and-clear
sunt, prout aër se concitavit. quid enim est vox nisi
are according-as the-air itself has-roused what for is a-voice except
intentio aëris, ut audiatur, linguae formata percussu?
a-tension of-air that it-may-be-heard of-the-tongue shaped by-the-stroke
quid cursus et motus omnis?
what running and motion all
nonne intenti spiritus opera sunt? hic facit vim nervis, 6.4
not of-taut breath works are-they this gives strength to-sinews
velocitatem currentibus; hic cum vehementer concitatus ipse se
speed to-runners this when violently roused itself it

torsit, arbusta silvasque convolvit et aedificia tota corripiens
has-twisted trees and-woods rolls-up and buildings whole seizing
in altum frangit; hic mare per se languidum et iacens incitat.
into the-height breaks this the-sea in itself sluggish and lying-still stirs-up
6.5 ad minora veniamus: quis sine intentione spiritus cantus
to smaller-things let-us-come what without tension of-breath song
est? cornua et tubae et quae aquarum pressura
is horns and trumpets and the-things-which by-the-waters' pressure
maiorem sonitum formant, quam qui ore reddi
a-greater sound form than what by-the-mouth be-given-back
potest, nonne aëris intentione partes suas explicant?
can not by-the-air's tension parts their-own unfold
consideremus quae ingentem vim per occultum agunt:
let-us-consider what-things a-huge force through hidden-ways exert
parvula admodum semina, et quorum exilitas in commissura
very-little quite seeds and of-which the-thinness in the-joint
lapidum locum invenit, in tantum convalescunt, ut ingentia
of-stones a-place finds to such-a-degree grow-strong that huge
saxa deturbent et monumenta dissolvant; scopulos interim
rocks they-dislodge and monuments dissolve cliffs meanwhile
rupesque radices minutissimae ac tenuissimae findunt. hoc
and-crags roots very-tiny and very-thin split this
quid est aliud quam intentio spiritus, sine qua nihil
what is-it else than the-tension of-breath without which nothing
validum et contra quam nihil validum est?
strong and against which nothing strong is
6.6 esse autem unitatem in aëre vel ex hoc intellegi potest,
to-be however unity in the-air even from this to-be-understood can
quod corpora nostra inter se cohaerent: quid enim est aliud,
that bodies our among themselves cohere what for is-it else
quod tenet illa, quam spiritus? quid est aliud, quo animus
which holds them than breath what is-it else by-which mind

noster agitatur? quis est illi motus nisi intentio? quae intentio
our is-stirred what is to-it motion except tension what tension
nisi ex unitate? quae unitas, nisi haec esset in aëre? quid autem
except from unity what unity unless this were in the-air what however
aliud producit fruges et segetem imbecillam ac virentes erigit
else brings-forth crops and the-corn weak and green raises
arbores ac distendit in ramos quam spiritus intentio et unitas?
trees and spreads-them into branches than of-breath the-tension and unity

VII · NO VOID IN THE AIR

Some break air into particles mixed with void, since birds and all bodies pass through it so easily. Water allows the same ease and is surely a unity: it closes behind whatever enters it, the Greeks' antiperistasis, and air does the same, so no void is needed.

Quidam aëra discerpunt et in particulas diducunt ita, ut 7.1
Certain the-air tear-apart and into particles divide so that
illi inane permisceant; argumentum autem existimant non
with-it void they-mix a-proof however they-think not
pleni corporis sed multum vacui habentis, quod avibus in
of-a-full body but much of-void having that for-birds in
illo tam facilis motus, quod maximis minimisque per
it so easy movement that for-the-greatest and-smallest through
illum transcursus est.
it a-passage there-is
sed falluntur. nam aquarum quoque similis facilitas est, 7.2
but they-are-mistaken for of-waters also a-similar ease is
nec de unitate illarum dubium est, quae sic corpora
nor about the-unity of-them doubt is-there which so bodies
accipiunt, ut semper in contrarium acceptis refluant.
receive that always in the-contrary-direction from-those-received they-flow-back

hanc nostri circumstantiam, Graeci ἀντιπερίστασιν appellant,
this our-people circumstance the-Greeks antiperistasis call
quae in aëre quoque sicut in aqua fit; circumsistit enim
which in the-air also just-as in water arises it-surrounds for
omne corpus, a quo impellitur: nihil ergo opus erit
every body by which it-is-pushed no therefore need will-there-be
admixto inani. sed haec alias.
of-mixed void but these-things another-time

VIII · THE FORCE OF BREATH

Nothing is more violent than a thing's own tension, and nothing can be put under tension by another unless something has tension of itself. Breath has it most of all, as anyone sees who watches it shake lands with their mountains, cities with their peoples, and seas with their shores.

8.1 Esse quaedam in † rerum natura vehementia magnique
To-be certain-things in (corrupt) of-things nature violent and-of-great
impetus nunc sic colligendum: nihil sui intentione
impetus now thus to-be-inferred nothing than-its-own tension
vehementius est, tam mehercule quam nihil intendi ab
more-violent is as by-Hercules as nothing to-be-stretched by
alio poterit, nisi aliquid per semet fuerit intentum
another will-be-able unless something by itself shall-have-been stretched
(dicimus enim eodem modo non posse quicquam ab
we-say for in-the-same way not to-be-able anything by
alio moveri, nisi aliquid fuerit mobile ex semet);
another to-be-moved unless something shall-have-been mobile from itself
quid autem est, quod magis credatur ex se ipso habere
what however is-there which more may-be-believed from it itself to-have
intentionem, quam spiritus? hunc intendi quis negabit,
tension than breath this to-be-stretched who will-deny

cum viderit iactari terram cum montibus, tecta murosque,
when he-has-seen to-be-tossed the-earth with mountains roofs and-walls
magnas cum populis urbes, cum totis maria litoribus?
great with peoples cities with whole seas shores

IX · HOW AIR PASSES THROUGH ALL

Breath's tension shows in its speed and its spreading: sight reaches miles at once, a voice strikes a whole city, and light pours over everything together. Air drives the spray that climbs from the arena floor to the top of the amphitheater, holds up laden ships, and bounces a discus off a pool. A voice passes through walls because air is in the solid too; walls and mountains bar our way through the air, not its own.

Ostendit intentionem spiritus velocitas eius et diductio: 9.1
Shows the-tension of-breath the-speed its and the-spreading
oculi statim per multa milia aciem suam mittunt;
the-eyes at-once through many thousands sight their-own send
vox una totas urbes simul percutit; lumen non paulatim
a-voice one whole cities at-once strikes light not gradually
prorepit sed semel universis rebus infunditur.
creeps-forward but at-once on-all things is-poured
aqua autem quemadmodum sine spiritu posset intendi? 9.2
water however how without breath could be-stretched
numquid dubitas, quin sparsio illa, quae ex fundamentis
surely-not do-you-doubt but-that spray that which from the-foundations
mediae harenae crescens in summam usque amphitheatri
of-the-middle arena growing to the-top right of-the-amphitheater
altitudinem pervenit, cum intentione aquae fiat? atqui nec
the-height reaches with tension of-water arises and-yet neither
manus nec ullum aliud tormentum aquam potest mittere
hands nor any other engine water can send

aut agere quam spiritus: huic se commodat, hoc attollitur
or drive than breath to-this itself accommodates by-this it-is-raised
inserto et cogente, contra naturam suam multa conatur
inserted and compelling against nature its-own many-things it-attempts
et ascendit, nata defluere.
and it-climbs born to-flow-down

9.3 quid? navigia sarcina depressa parum ostendunt non aquam
what ships by-cargo weighed-down little do-they-show not water
sibi resistere, quo minus mergantur, sed spiritum?
to-themselves to-resist by-which less they-be-sunk but breath
aqua enim cederet nec posset pondera sustinere, nisi ipsa
water for would-yield nor could weights sustain unless itself
sustineretur. discus ex loco superiore in piscinam missus non
were-sustained a-discus from a-place higher into a-fishpond thrown not
descendit sed resilit: quemadmodum, nisi spiritu referiente?
descends but rebounds how unless with-breath striking-back

9.4 vox autem qua ratione per parietum munimenta
a-voice however by-what reason through of-walls the-defenses
transmittitur, nisi quod solido quoque aër inest, qui sonum
is-transmitted except that in-the-solid also air is-in which sound
extrinsecus missum et accipit et remittit? scilicet spiritu non
from-outside sent both receives and sends-back of-course with-breath not
aperta tantum intendens sed etiam abdita et inclusa, quod illi
open-things only stretching but also hidden and enclosed which for-it
facere expeditum est, quia nusquam divisus est sed per illa
to-do easy is because nowhere divided it-is but through those
ipsa, quibus separari videtur, coit secum. interponas
very by-which to-be-separated it-seems it-comes-together with-itself you-may-interpose
licet muros et mediam altitudinem montium: per omnia ista
although walls and the-midmost height of-mountains through all these
prohibetur nobis esse pervius, non sibi. id enim intercluditur
it-is-prevented to-us to-be passable not to-itself that for is-shut-off

tantum, per quod illum nos sequi possumus: ipse quidem
only through which it we to-follow can itself indeed
per ipsum transit, quo scinditur, et media non
through that-very passes by-which it-is-cut and the-middle-things not
circumfundit tantum et utrimque cingit sed permeat.
pours-around only and on-both-sides encircles but permeates

X · THE THREE LAYERS OF AIR

Air stretches from the bright ether down to the earth, lighter than earth and water but thicker than ether, cold and dark of itself. Its highest part is driest and hottest from the stars nearby; its lowest, near the earth, thick and misty, warmed by the earth's breath, the sun's reflected rays, the warmth of living things, and fires hidden underground; its middle stays cold, since the nature of air is cold.

Ab aethere lucidissimo aër in terram usque diffusus est, 10.1
From the-ether most-bright the-air to the-earth right spread is
agilior quidem tenuiorque et altior terris nec minus
more-agile indeed and-thinner and higher than-the-earth nor less
aquis, ceterum aethere spissior graviorque, frigidus per
than-the-waters but than-the-ether denser and-heavier cold in
se et obscurus. lumen illi calorque aliunde sunt, sed non
itself and dark light to-it and-heat from-elsewhere are but not
per omne spatium sui similis est: mutatur a proximis.
through all the-space of-itself like it-is it-is-changed by the-nearest-things
summa pars eius siccissima calidissimaque et ob hoc 10.2
the-highest part of-it driest and-hottest and on-account-of this
etiam tenuissima est propter viciniam aeternorum ignium
also most-thin is on-account-of the-neighborhood of-the-eternal fires
et illos tot motus siderum assiduumque caeli circumactum;
and those so-many motions of-the-stars and-the-unceasing of-the-sky revolution

illa pars ima et vicina terris densa et caliginosa est,
that part lowest and near to-the-earth dense and murky is
quia terrenas exhalationes receptat; media pars temperatior,
because earthly exhalations it-receives the-middle part more-temperate
si summis imisque conferas, quantum ad siccitatem
if with-the-highest and-lowest you-compare as-far-as to dryness
tenuitatemque pertinet, ceterum utraque parte frigidior.
and-thinness pertains but than-each part colder
10.3 nam superiora eius calorem vicinorum siderum sentiunt;
for the-upper-parts of-it the-heat of-the-nearby stars feel
inferiora quoque tepent: primum terrarum halitu, qui multum
the-lower also are-warm first by-the-earth's breath which much
secum calidi affert; deinde quia radii solis replicantur
with-itself of-warmth brings then because the-rays of-the-sun are-bent-back
et, quousque redire potuerunt, id duplicato calore benignius
and as-far-as to-return they-could that with-doubled heat more-kindly
fovent; deinde etiam illo spiritu, qui omnibus animalibus
they-warm then also by-that breath which for-all animals
arbustisque ac satis calidus est (nihil enim viveret sine calore);
and-trees and crops warm is nothing for would-live without heat
10.4 adice nunc ignes, non tantum manifestos et certos sed opertos
add now fires not only manifest and certain but covered
terris, quorum aliqui eruperunt, innumerabiles in obscuro
by-the-earth of-which some have-burst-out innumerable in dark
et condito flagrant semper. hae tot partes eius fertiles
and hidden-place blaze always these so-many parts of-it fertile
rerum habent quiddam teporis, quoniam quidem sterile frigus
of-things have something of-warmth since indeed sterile cold
est, calor gignit. media ergo pars aëris ab his summota
is heat begets the-middle therefore part of-the-air from these removed
in frigore suo manet: natura enim aëris gelida est.
in cold its-own remains the-nature for of-the-air icy is

XI · WHY THE AIR IS UNSETTLED

Its lowest part is the most changeable, acting and acted on near the earth, unsettled differently in different places. The way the earth's regions face causes some of the change, and the stars' courses the rest, the sun most, then the moon, and the other stars with their cold, rain, and storms. This had to be said before thunder and lightning, since they happen in the air.

Qui cum sic divisus sit, ima sui parte maxime varius 11.1
Which since thus divided it-is in-the-lowest of-itself part most varied
et inconstans ac mutabilis est: circa terras plurimum audet
and inconstant and changeable is around the-earth most it-dares
plurimum patitur, exagitat et exagitatur, nec tamen eodem
most it-suffers it-harasses and is-harassed nor yet in-the-same
modo totus afficitur sed aliter alibi et partibus inquietus
way wholly is-it-affected but otherwise elsewhere and in-parts restless
ac turbidus est.
and turbulent it-is

causas autem illi mutationis et inconstantiae alias terra 11.2
the-causes however to-it of-change and inconstancy some the-earth
praebet, cuius positiones hoc aut illo versae magna ad
provides whose positions this-way or that turned great for
aëris temperiem momenta sunt, alias siderum cursus, ex
of-the-air the-temper weights are some of-the-stars the-courses of
quibus soli plurimum imputes: illum sequitur annus,
which to-the-sun most you-would-impute him follows the-year
ad illius flexum hiemes aestatesque vertuntur; lunae
at his turning winters and-summers are-turned of-the-moon
proximum ius est. sed ceterae quoque stellae non minus
the-next right is but the-other also stars not less
terrena quam incumbentem terris spiritum afficiunt et
earthly-things than the-pressing on-the-earth breath affect and

cursu suo occursuve contrario modo frigora modo imbres
by-course their-own or-by-meeting contrary now colds now showers
aliasque terris turbide iniurias movent.
and-other on-the-earth turbulently injuries they-set-in-motion

11.3 Haec necessarium fuit praeloqui dicturo de
These-things necessary it-was to-say-first for-one-about-to-speak about
tonitru fulminibusque ac fulgurationibus. nam cum in aëre
thunder and-thunderbolts and lightnings for since in the-air
fiant, naturam eius explicari oportebat, quo facilius
they-arise the-nature its to-be-explained it-was-proper by-which more-easily
appareret, quid facere aut pati posset.
it-might-appear what to-do or to-suffer it-could

XII · WHERE THE FIRE COMES FROM

There are lightnings, thunderbolts, and thunder, which, though made at once, is heard later: lightning shows fire, a thunderbolt hurls it. All agree these arise in clouds and are fire or look like fire. Some say the fire is stored in the clouds, from the sun's rays or, as Anaxagoras holds, dripping from the ether; Aristotle that it springs up when made, as the earth's dry vapor, struck from colliding clouds, crackles like green wood. We see the flash first because sight is quicker than hearing.

12.1 Tria sunt, quae accidunt: fulgurationes, fulmina,
Three are the-things-which happen lightnings thunderbolts
tonitrua quae una facta serius audiuntur. fulguratio ostendit
thunders which at-once made later are-heard lightning shows
ignem, fulminatio emittit; illa (ut ita dicam) comminatio
fire the-thunderbolt sends-it-out that as so I-may-say a-threat
est et conatio sine ictu, ista iaculatio cum ictu.
is and an-attempt without a-blow this a-hurling with a-blow

quaedam sunt, de quibus inter omnes convenit, quaedam 12.2
certain-things there-are about which among all it-is-agreed some
in quibus diversae sententiae sunt. convenit de illis, omnia
in which different opinions there-are it-is-agreed about these all
ista in nubibus et e nubibus fieri, etiamnunc convenit et
these in the-clouds and from the-clouds to-arise still it-is-agreed both
fulgurationes et fulminationes aut igneas esse aut ignea specie.
lightnings and thunderbolts either fiery to-be or of-fiery appearance
ad illa nunc transeamus, in quibus lis est: quidam putant 12.3
to those now let-us-pass in which dispute there-is certain think
ignem inesse nubibus, quidam ad tempus fieri nec prius
fire to-be-in the-clouds certain for the-time to-arise nor before
esse quam mitti; ne inter illos quidem, qui praeparant
to-exist than to-be-sent not among those even who prepare
ignem, convenit, alius enim illum aliunde colligit. quidam
the-fire it-is-agreed one for it from-elsewhere gathers certain
aiunt radios solis introcurrentis recurrentisque et saepius
say the-rays of-the-sun running-in and-running-back and more-often
in se relatos ignem excitare; Anaxagoras ait illum
on themselves brought-back fire to-excite Anaxagoras says it
ex aethere destillare et ex tanto ardore caeli multa
from the-ether to-trickle and from so-great heat of-the-sky many-things
decidere, quae nubes diu inclusa custodiant;
to-fall-down which clouds long enclosed keep
Aristoteles multo ante ignem colligi non putat, sed 12.4
Aristotle long before fire to-be-gathered not thinks but
eodem momento exilire quo fiat. cuius sententia talis
in-the-same moment to-leap-out in-which it-arises whose opinion such
est: ‘duae partes mundi in imo iacent, terra et aqua.
is two parts of-the-world in the-lowest lie the-earth and water
utraque ex se reddit aliquid: terrenus vapor siccus est et
each from itself gives-off something the-earthy vapor dry is and

fumo similis, qui ventos fulmina tonitrua facit; aquarum
to-smoke like which winds thunderbolts thunders makes of-the-waters
halitus umidus est et in imbres et nives cedit.
the-breath moist is and into showers and snows passes
12.5 sed siccus ille terrarum vapor, unde ventis origo est, cum
but dry that of-the-earth vapor whence for-the-winds the-origin is when
coacervatus est, coitu nubium vehementer in altum
heaped-up it-is by-the-meeting of-the-clouds violently into the-height
eliditur; deinde ut † latius nubes proximas feriet.
is-squeezed-out then as (corrupt) more-widely the-clouds nearest it-will-strike
haec plaga cum sono incutitur, qualis in nostris ignibus
this blow with sound is-struck such-as in our fires
redditur, cum flamma vitio lignorum virentium crepat; et
is-given-back when the-flame by-fault of-logs green crackles and
illic spiritus habens aliquid umidi secum conglobatusque
there breath having something of-moist with-itself and-massed
rumpitur flamma eodem modo. demum spiritus ille, quem
bursts in-flame in-the-same way at-last breath that which
paulo ante exprimi collisis nubibus dixi, impactus
a-little before to-be-squeezed-out struck-together by-clouds I-said driven
aliis nec rumpi nec exilire silentio potest.
against-others neither to-burst nor to-leap-out in-silence can
12.6 dissimilis autem crepitus fit ob dissimilitudinem nubium,
unlike however the-crash arises because-of the-unlikeness of-the-clouds
quarum aliae maiorem sinum habent aliae minorem. ceterum
of-which some a-greater hollow have others a-smaller but
illa vis expressi spiritus ignis est, qui fulgurationis
that force of-squeezed-out breath fire is which of-lightning
nomen habet, levi impetu accensus et vanus. ante autem
the-name has with-light impulse kindled and harmless before however

videmus fulgorem quam sonum audimus, quia oculorum
we-see the-flash than the-sound we-hear because of-the-eyes
velocior sensus est et multum aures antecedit.'
swifter the-sense is and much the-ears precedes

XIII · FIRE DOES NOT FALL FROM HEAVEN

The fire is not stored up from heaven: if it fell, it would fall daily, since the sky always burns, and fire rises by nature. Our embers fall because they carry weight, but the pure fire above has nothing to drag it down. Thunderbolts do come downward, but they are driven by a force that does not exist in the ether, where all is ordered and nothing is forced.

Falsam opinionem esse eorum, qui ignem in nubibus servant, 13.1
False the-opinion to-be of-those who fire in the-clouds keep
per multa colligi potest. si de caelo cadit, quomodo non
through many-things to-be-inferred can if from the-sky it-falls how not
cottidie fit, cum tantundem semper illic ardeat? deinde
daily does-it-happen when just-as-much always there burns then
nullam rationem reddiderunt, quare ignis, quem natura sursum
no reason have-they-given why fire which nature upward
vocat, defluat; alia enim condicio nostrorum ignium est,
calls should-flow-down other for the-condition of-our fires is
ex quibus favillae cadunt, quae ponderis aliquid secum
from which embers fall which of-weight something with-themselves
habent: ita non descendit ignis sed praecipitatur et deducitur.
have so not descends the-fire but is-thrown-down and is-drawn-down
huic simile nihil accidit in illo igne purissimo, in quo nihil est, 13.2
to-this like nothing happens in that fire most-pure in which nothing is
quod deprimatur; aut si ulla pars eius exciderit, in periculo
which may-be-pressed-down or if any part of-it has-fallen-out in danger

totus est, quia totum potest excidere, quod potest carpi.
whole it-is because the-whole can fall-out what can be-plucked
deinde illud, quod cadere levitas prohibet, ∗∗∗ illud, quod
then that which to-fall lightness prevents (lacuna) that which
in abdito tenet grave, quomodo illic esse potuit, unde caderet?
in hiding holds heavy how there to-be could-it whence it-might-fall
13.3 'quid ergo? non aliqui ignes in inferiora ferri solent,
what then not some fires into the-lower-regions to-be-borne are-wont
sicut haec ipsa, de quibus quaerimus, fulmina?' fateor.
as these very about which we-inquire thunderbolts I-admit
non eunt tamen sed feruntur: aliqua illos potentia deprimit,
not they-go yet but are-borne some them power presses-down
quae non est in aethere. nihil enim illic iniuria cogitur,
which not is in the-ether nothing for there by-injury is-compelled
nihil rumpitur, nihil praeter solitum evenit:
nothing is-burst nothing beyond the-usual happens
13.4 ordo rerum est, et expurgatus ignis in custodia mundi
an-order of-things it-is and purified fire in the-guard of-the-world
summa sortitus oras operis pulcherrimi circumit: hinc
the-highest allotted the-borders of-the-work most-beautiful goes-around hence
descendere non potest sed ne ab externo quidem deprimi,
to-descend not it-can but not by an-external even be-pressed-down
quia in aethere nulli incerto corpori locus est, certa et
because in the-ether for-no uncertain body place is fixed and
ordinata non pugnant.
ordered-things not fight

When the Stoics say air draws fire from above for shooting stars, they mean not that fire falls from the ether but that heat leaps from it and kindles what lies below, as in a great fire some houses catch flame of themselves. The lowest ether and the highest air are so alike that you might doubt which is which.

‘Vos’, inquit, ‘dicitis, cum causas stellarum transvolantium 14.1
You he-says say when the-causes of-stars flying-across
redditis, posse aliquas aëris partes ad se trahere
you-give to-be-able some of-the-air parts to themselves to-draw
ignem ex locis superioribus et sic accendi’. sed plurimum
fire from places higher and so to-be-kindled but very-much
interest, utrum aliquis dicat ignem ex aethere decidere,
it-matters whether one says fire from the-ether to-fall
quod natura non patitur, an dicat ex ignea vi calorem
which nature not allows or says from fiery force heat
in ea, quae subiacent, transilire. non enim illinc ignis
into those-things which lie-below to-leap-across not for thence fire
cadit, quod non potest fieri, sed hic nascitur.
falls which not can to-happen but here it-is-born
videmus certe apud nos late incendio pervagante quasdam 14.2
we-see certainly among us widely a-fire roaming certain
insulas, quae diu concaluerunt, ex se concipere flammam:
blocks which long have-grown-hot from themselves to-conceive flame
itaque verisimile est etiam in aëre summo id, quod ignis
and-so likely it-is also in the-air highest that which of-fire
rapiendi naturam habet, accendi calore aetheris superpositi.
of-seizing the-nature has to-be-kindled by-the-heat of-the-ether lying-above
necesse est enim, ut et imus aether habeat aliquid aëri
necessary it-is for that both the-lowest ether have something to-air

simile et summus aër non sit dissimilis imo aetheri,
like and the-highest air not be unlike to-the-lowest ether
quia non fit statim in diversum ex diverso transitus:
because not happens immediately into the-different from the-different a-passage
paulatim ista in confinio vim suam miscent ita, ut dubitare
gradually these in the-border force their-own mix so that to-doubt
possis, aër an hoc iam aether sit.
you-could air or this already ether it-be

XV · AIR KINDLES ITSELF

Some Stoics think air, which can change into fire and water, needs no outside cause for its flames: it kindles itself by its own motion and thunders when it tears through dense clouds, the clouds' resistance helping as a hand helps the iron, though cutting belongs to the iron.

15.1 Quidam ex nostris existimant aëra, cum in ignem et aquam
Certain of ours think the-air since into fire and water
mutabilis sit, non detrahere aliunde causas flammarum
changeable it-is not to-draw from-elsewhere the-causes of-flames
novas: ipse enim se movendo accendit et, cum densos
new itself for itself by-moving kindles and when the-dense
compactosque nubium sinus dissipat, necessario vastum in
and-compacted of-the-clouds hollows it-scatters necessarily a-vast in
tam magnorum corporum diruptione reddit sonum. illa
so great bodies' bursting gives-back sound that
porro nubium difficulter cedentium pugna aliquid confert
moreover of-the-clouds hardly yielding fight something contributes
ad concitandum ignem, sic, quemadmodum ferro ad
to rousing fire so as to-the-iron for
secandum aliquid manus confert, sed secare ferri est.
cutting something the-hand contributes but to-cut of-the-iron is

Lightning is fire spread wide; a thunderbolt is fire packed and hurled. As water squirts from hands pressed together, the clouds squeezed together drive out the breath between them, set it on fire, and shoot it out like an engine of war.

Quid ergo inter fulgurationem et fulmen interest? dicam. 16.1
What then between lightning and the-thunderbolt differs I-shall-say
fulguratio est late ignis explicitus, fulmen est coactus
lightning is widely fire unfolded the-thunderbolt is compressed
ignis et in impetum iactus. solemus duabus manibus inter
fire and into an-impetus hurled we-are-wont with-two hands to
se iunctis aquam concipere et compressa utrimque
each-other joined water to-take-up and pressed on-both-sides
palma in modum siponis exprimere; simile quiddam et
the-palm in the-manner of-a-siphon to-squeeze-out like something also
illic fieri puta: nubium inter se compressarum
there to-happen suppose of-the-clouds against each-other compressed
angustiae medium spiritum eiciunt et hoc ipso inflammant
the-narrows the-middle breath throw-out and by-this very inflame-it
ac tormenti modo emittunt; nam ballistae quoque
and of-an-engine in-the-manner send-it-out for catapults also
scorpionesque tela cum sono expellunt.
and-scorpions missiles with sound expel

Some think fiery breath thunders as it passes through cold, wet cloud, as hot iron hisses in water; so Anaximenes, for whom breath striking the clouds thunders and kindles fire by its own flight.

17.1 Quidam existimant igneum spiritum per frigida atque umida
Certain think fiery breath through cold and moist-things
meantem sonum reddere, nam ne ferrum quidem ardens
passing sound to-give-back for not iron even glowing
silentio tinguitur sed, si in aquam fervens massa descendit,
in-silence is-dipped but if into water a-hot mass descends
cum multo murmure extinguitur. ita, ut Anaximenes ait,
with much murmur it-is-extinguished so as Anaximenes says
spiritus incidens nubibus tonitrua edit et, dum luctatur per
breath falling-on the-clouds thunders produces and while it-struggles through
obstantia atque interscissa vadere, ipsa ignem fuga accendit.
obstacles and broken-places to-go its-very fire by-flight kindles

Anaximander referred everything to breath: thunder is the sound of a struck cloud, unequal as the blows are unequal; it thunders in clear weather when breath bursts through thick air; lightning is weak fire laid bare, and a thunderbolt a rush of keener, denser breath.

Anaximandrus omnia ad spiritum rettulit: 'tonitrua', inquit, 18.1
Anaximander all-things to breath referred thunders he-says
'sunt nubis ictae sonus. quare inaequalia sunt? quia et ipse
are of-a-cloud struck the-sound why unequal are-they because also the-very
ictus inaequalis est. quare et sereno tonat? quia
blow unequal is why even in-clear-weather does-it-thunder because
tunc quoque per crassum et scissum aëra spiritus prosilit.
then also through thick and split air breath leaps-forth
at quare aliquando non fulgurat et tonat? quia spiritus
but why sometimes not does-it-lighten and thunders because breath
infirmior non valuit in flammam, in sonum valuit. quid
weaker not was-strong for flame for sound was-strong what
est ergo ipsa fulguratio? aëris diducentis se corruentisque
is then the-very lightning of-the-air separating itself and-collapsing
iactatio languidum ignem nec exulturum aperiens. quid
a-tossing a-sluggish fire and-not going-to-leap-out opening what
est fulmen? acrioris densiorisque spiritus cursus.'
is a-thunderbolt of-a-sharper and-denser breath the-course

XIX · ANAXAGORAS

Anaxagoras says a force descends from the ether: fire striking cold clouds thunders, cutting through them it flashes, and the lesser force makes lightnings, the greater thunderbolts.

19.1 Anaxagoras ait omnia ista sic fieri, ut ex aethere
Anaxagoras says all these-things thus to-arise that from the-ether
aliqua vis in inferiora descendat: ita ignis impactus
some force into the-lower-regions descends so fire dashed-against
nubibus frigidis sonat; at cum illas interscindit, fulget, et
clouds cold sounds but when them it-cuts-through it-flashes and
minor vis ignium fulgurationes facit, maior fulmina.
a-lesser force of-fires lightnings makes a-greater thunderbolts

XX · DIOGENES OF APOLLONIA

Diogenes of Apollonia says some thunder comes from fire, some from breath. Seneca grants that either may act alone, but holds that each can produce both effects: breath can kindle fire, and fire smothered in heaped clouds can turn to breath. A thunderbolt drives breath before it, so everything trembles before the stroke.

20.1 Diogenes Apolloniates ait quaedam tonitrua igne quaedam
Diogenes of-Apollonia says some thunders by-fire some
spiritu fieri: illa ignis facit, quae ipse antecedit et nuntiat;
by-breath to-arise those fire makes which it-itself precedes and announces
illa spiritus, quae sine splendore crepuerunt.
those breath which without brightness have-crashed
20.2 utrumque sine altero efficax esse aliquando concedo, ita tamen,
each without the-other effective to-be sometimes I-grant so yet
ut non discreta illis potestas sit sed utrumque ab utroque
that not separate to-them the-power be but each by either

effici possit. quis enim negabit spiritum magno impetu
to-be-produced can who for will-deny breath with-great impetus
latum, cum effecerit sonum, effecturum et ignem? quis autem
carried when it-has-produced sound going-to-produce also fire who however
non et hoc concedet, aliquando ignem quoque irrumpere posse
not also this will-grant sometimes fire also to-burst-into can
nubes et non exilire, si plurium acervo nubium, cum paucas
the-clouds and not to-leap-out if of-several by-a-heap clouds when few
perscidisset, oppressus est? ergo et ignis ibit in spiritum
it-had-cut-through crushed it-was therefore both the-fire will-go into breath
perdetque fulgorem, et spiritus dum secat aëra incendet.
and-will-lose its-brightness and breath while it-cuts the-air will-kindle
adice nunc, quod necesse est impetus fulminis et praemittat 20.3
add now that necessary it-is the-impetus of-a-thunderbolt both sends-ahead
spiritus agatque ante se et a tergo trahat ventum, cum tam
breath and-drives before itself and from behind draws wind when with-so
vasto ictu aëra inciderit: itaque omnia, antequam feriantur,
vast a-blow the-air it-has-cut and-so all-things before they-are-struck
intremescunt vibrata vento, quem ignis ante se pressit.
tremble shaken by-the-wind which the-fire before itself has-pressed

Now Seneca moves on his own, from what is agreed to what is doubted. Agreed: the thunderbolt is fire, and so is lightning, a bolt that lacked force; they differ in impetus, not nature. Their color shows it, and their effects, for bolts have burned forests and parts of cities, and everything struck smells of sulfur. Lightning is a bolt that never reached the earth.

21.1 Dimissis nunc praeceptoribus nostris incipimus per nos
Dismissed now teachers our we-begin by ourselves
moveri et a confessis transimus ad dubia. quid in
to-be-moved and from things-admitted we-pass to doubtful-things what in
confesso est? fulmen ignem esse, et aeque fulgurationem,
admission is-it the-thunderbolt fire to-be and equally lightning
quae nihil aliud est quam flamma, futura fulmen, si
which nothing else is than flame going-to-be a-thunderbolt if
plus virium habuisset: non natura ista sed impetu distant.
more of-strength it-had-had not in-nature these but in-impetus differ
21.2 esse illum ignem color ostendit, qui non est nisi ex
to-be it fire the-color shows which not is except from
***, ostendit effectus: magnorum enim saepe incendiorum
(lacuna) shows the-effect of-great for often fires
causa fulmen fuit, silvae illo concrematae et urbium
the-cause the-thunderbolt has-been woods by-it burnt-up and of-cities
partes; etiam quae non percussa sunt, tamen adusta
parts even which not struck have-been yet scorched
cernuntur, quaedam vero veluti fuligine colorantur. quid,
are-seen certain-things indeed as-if with-soot are-colored what
quod omnibus fulguratis odor sulphuris est?
that in-all things-lightning-struck a-smell of-sulfur there-is

ergo et utramque rem ignem esse constat et utramque 21.3
therefore both each thing fire to-be is-established and each
rem inter se meando distare: fulguratio enim est non
thing from each-other in-their-passage to-differ lightning for is not
perlatum usque in terras fulmen, et rursus licet dicas
carried-through right to the-earth a-thunderbolt and again you-may say
fulmen esse fulgurationem usque in terras perductam.
the-thunderbolt to-be lightning right to the-earth brought
non ad exercendum verba diutius hoc idem pertracto, sed ut 21.4
not for exercising words longer this same I-handle but that
cognata esse ista et eiusdem notae ac naturae probem.
related to-be these-things and of-the-same mark and nature I-may-prove
fulguratio est paene fulmen; vertamus illud: fulmen est
lightning is almost a-thunderbolt let-us-turn it the-thunderbolt is
plus quiddam quam fulguratio.
more something than lightning

XXII · HOW FIRE IS MADE

Fire is made in two ways, by striking, as from flint, or by rubbing, as with two sticks of laurel or ivy, and clouds can give fire either way. Storms and whirlwinds sweep away whatever meets them, so it is no wonder such force strikes fire from elsewhere or from itself.

Quoniam constat utramque rem ignem esse, videamus, 22.1
Since it-is-agreed each thing fire to-be let-us-see
quemadmodum ignis fieri soleat apud nos: eadem enim
how fire to-arise is-wont among us by-the-same for
ratione et supra fiet. fit duobus modis, uno, si excitatur
reason also above it-will-arise it-arises in-two ways in-one if it-is-struck-out
ictu sicut e lapide, altero, si attritu invenitur, sicut cum
by-a-blow as from a-stone in-the-other if by-rubbing it-is-found as when

duo ligna inter se diutius fricta sunt (non omnis
two logs against each-other for-a-long-time rubbed have-been not every
hoc tibi materia praestabit sed idonea eliciendis ignibus,
this to-you material will-provide but suited for-drawing-out fires
sicut laurus hederae et alia in hunc usum nota pastoribus):
as laurel ivies and others for this use known to-shepherds
22.2 potest ergo fieri, ut nubes quoque ignem eodem modo
it-can therefore to-happen that clouds also fire in-the-same way
vel percussae reddant vel attritae. videamus, quantis
either struck give-back or rubbed let-us-see with-how-great
procellae viribus ruant, quanto vertantur impetu turbines:
the-storms strength rush with-how-great are-whirled impetus the-whirlwinds
id quod obvium fuit, dissipatur et rapitur et longe a
that which in-the-way has-been is-scattered and is-snatched and far from
loco suo proicitur.
place its-own is-hurled
22.3 quid ergo mirum, si tanta vis ignem excutit vel aliunde
what then wonder if so-great a-force fire strikes-out either from-elsewhere
vel sibi? vides enim, quantum fervorem sensura sint
or from-itself you-see for how-much heat going-to-feel may-be
corpora horum transitu trita. nec hoc tantum in his debet
the-bodies by-their passage rubbed nor this only in these ought
credi accidere, quorum ingens in confesso potentia est,
to-be-believed to-happen whose huge in admission power is

XXIII · A FIRE WITHOUT FUEL

Clouds driven on clouds by a roaring wind pressing lightly may call out a fire that glows without leaping out, as lightning needs less force than a bolt. Air rubbed hard as it turns to wind throws out a fire that dies at once, lacking solid fuel: it lasts as long as its path.

Sed fortasse nubes quoque in nubes incitatae fremente 23.1
But perhaps clouds also against clouds driven roaring
vento et leviter urgente ignem evocabunt, qui explendescat
the-wind and lightly urging fire will-call-forth which may-flare-up
nec exiliat: minore enim vi ad fulgurandum opus est
and-not leap-out with-lesser for force for lightning need is
quam ad fulminandum.
than for striking-with-thunderbolts
superioribus collegimus, in quantum fervorem quaedam 23.2
above we-have-gathered into how-great heat certain-things
affricta perducerentur: cum autem aër mutabilis in ignem
rubbed were-brought when however the-air changeable into fire
maximis viribus, id est suis, cum in ventum conversus
with-greatest strength that is its-own when into wind turned
est, atteratur, verisimile est ignem excuti caducum et
it-is is-rubbed likely it-is fire to-be-struck-out fleeting and
cito interiturum, quia non ex solida materia oritur nec in
quickly going-to-perish because not from solid matter it-arises nor in
qua possit consistere; transit itaque tantumque habet morae,
which it-could stand-firm it-passes and-so as-much it-has of-delay
quantum itineris et cursus: sine alimento proiectus est.
as of-journey and of-course without food thrown it-is

If fire seeks the heights, why does the bolt seek the earth? Both can be true: fire rises by nature, but a bolt is thrown down by the same force that strikes it out, as a treetop bent to the ground springs back when released. What drives it down is servitude, not nature.

24.1 ‘Quomodo’, inquit, ‘cum dicatis ignis hanc esse naturam,
How he-says when you-say of-fire this to-be the-nature
ut petat superiora, fulmen terram petit? *** aut
that it-seeks the-higher-regions the-thunderbolt the-earth seeks (lacuna) or
falsum est, quod de igne dixistis: est enim illi aeque
false is what about fire you-have-said there-is for to-it equally
sursum iter quam deorsum.’ utrumque verum potest esse.
upward a-path as downward each true can be
ignis enim natura in verticem surgit et, si nihil illum
of-fire for the-nature toward the-top rises and if nothing it
prohibet, ascendit (sicut aqua natura defertur, si tamen
prevents it-ascends as water by-nature is-borne-down if yet
aliqua vis accessit, quae illam in contrarium circumageret,
some force has-come-in which it in the-opposite-direction might-drive-round
illo intenditur, unde imbre deiecta est);
thither it-is-directed whence in-a-shower cast-down it-was

24.2 fulmen autem eadem necessitate, qua excutitur,
the-thunderbolt however by-the-same necessity by-which it-is-struck-out
deicitur (id his ignibus accidit quod arboribus, quarum
is-cast-down that to-these fires happens which to-trees whose
cacumina trahi possunt ita, ut terram spectent; si tenera
tops be-drawn can so that the-earth they-face if tender
sunt, etiam ut attingant; sed cum permiseris, in locum
they-are even that they-touch-it but when you-let-them-go into place

suum exilient): itaque non est, quod eum spectes
their-own they-will-leap and-so not there-is why that you-should-look-at
cuiusque rei habitum, qui illi non ex voluntate est:
of-each thing the-condition which to-it not from will is
si igni permittes ire quo velit, caelum, id est levissimi 24.3
if fire you-allow to-go where it-wishes the-sky that is of-the-lightest
cuiusque sedem, repetet; ubi est aliquid, quod eum
of-each the-seat it-will-seek-again where there-is something which it
feriat et ab impetu suo avertat, id non natura sed
may-strike and from impetus its-own may-turn-aside that not nature but
servitus iussit.
servitude has-ordered

XXV · AN OBJECTION

But clouds are moist, even wet: how can rubbing them give fire, which is no likelier to come from cloud than from water?

'Dicis', inquis, 'nubes attritas edere ignem, cum sint umidae, 25.1
You-say you-say clouds rubbed to-produce fire though they-be damp
immo udae: quomodo ergo possunt gignere ignem, quem non
nay wet how then can-they beget fire which not
magis verisimile est ex nube quam ex aqua nasciturum?'
more likely is from a-cloud than from water going-to-be-born

Clouds hold not water but thick air ready to become it. Even granting moisture, a stronger fire can come from it, as one part of a log burns while another sweats. Posidonius records that in our ancestors' day an island rose in the Aegean: the sea foamed by day, fire flashed by night, rocks were thrown up, and it grew to an island, as again under Valerius Asiaticus. If a depth of two hundred paces could not smother that fire, a cloud's dew cannot. Clear-night lightning comes from clouds below the horizon.

26.1 Primum in nubibus non aqua est sed aër spissus ad
First in the-clouds not water is but air dense for
gignendam aquam praeparatus, nondum in illam mutatus
begetting water prepared not-yet into it changed
sed iam pronus et vergens; non est, quod existimes
but already inclined and verging not there-is reason-why you-should-think
eam colligi tum effundi: simul fit et cadit.
it to-be-gathered then to-be-poured-out at-once it-arises and falls

26.2 deinde si concessero umidam esse nubem conceptis aquis
then if I-grant moist to-be the-cloud with-conceived waters
plenam, nihil tamen prohibet ignem ex umido quoque
full nothing yet prevents fire from moist also
educi, immo ex ipso (quod magis mireris)
to-be-drawn-out nay from the-very which more you-would-wonder
umore. quidam negaverunt in ignem quicquam posse mutari,
moisture certain have-denied into fire anything can be-changed
priusquam mutatum esset in aëra. potest ergo nubes
before changed it-had-been into air it-can therefore the-cloud
salva, quam continet, aqua ignem parte aliqua sui reddere,
safe which it-holds water fire with-part some of-itself give-back
ut saepe alia pars ligni ardet alia sudat.
as often one part of-a-log burns another sweats

nec hoc dico, non contraria inter se ista esse et alterum 26.3
nor this I-say not contrary among themselves these-things to-be and the-one
altero perimi; sed ubi valentior ignis quam umor est,
by-the-other to-be-destroyed but where stronger the-fire than the-moisture is
vincit, rursus cum copia umoris exuperat, tunc ignis sine
it-conquers again when the-abundance of-moisture prevails then the-fire without
effectu est, itaque non ardent virentia: refert ergo, quantum
effect is and-so not burn green-things it-matters therefore how-much
aquae sit, exigua enim non resistet nec vim ignis impediet.
of-water there-be a-scanty for not will-resist nor the-force of-the-fire will-hinder
quidni? maiorum nostrorum memoria, ut Posidonius 26.4
why-not of-ancestors our in-the-memory as Posidonius
tradidit, cum insula in Aegeo mari surgeret, spumabat
has-handed-down when an-island in the-Aegean sea was-rising foamed
interdiu mare et fumus ex alto ferebatur: nox demum
by-day the-sea and smoke from the-deep was-borne night at-last
prodebat ignem, non continuum sed ex intervallis emicantem
betrayed fire not continuous but at intervals flashing
fulminum more, quotiens ardor infernus iacentis super
of-thunderbolts in-the-manner whenever the-heat infernal of-the-lying above
undae pondus evicerat;
of-the-wave the-weight had-overcome
deinde saxa evoluta rupesque partim illaesae, quas spiritus, 26.5
then rocks rolled-out and-crags partly unharmed which the-breath
antequam urerentur, expulerat, partim exesae et in
before they-were-burnt had-expelled partly eaten-away and into
levitatem pumicis versae, novissime cacumen usti montis
the-lightness of-pumice turned at-last the-peak of-a-burnt mountain
emicuit; postea altitudini adiectum, et saxum illud in
flashed-out afterward to-the-height was-added and rock that to
magnitudinem insulae crevit.
the-size of-an-island grew

26.6 idem nostra memoria Valerio Asiatico consule iterum
the-same in-our memory with-Valerius Asiaticus consul a-second-time
accidit. quorsus haec rettuli? ut appareret nec
happened to-what-end these-things have-I-related that it-might-appear neither
extinctum ignem mari superfuso, nec impetum eius
extinguished the-fire by-the-sea poured-over nor the-impetus its
gravitate ingentis undae prohibitum exire; ducentorum
by-the-weight of-the-huge wave prevented to-go-out of-two-hundred
passuum fuisse altitudinem Asclepiodotus auditor Posidonii
paces to-have-been the-depth Asclepiodotus the-pupil of-Posidonius
tradidit, per quam diremptis aquis ignis emersit.
has-handed-down through which parted the-waters the-fire emerged
26.7 quod si immensa aquarum vis flammarum ex imo
but if a-boundless of-waters force of-flames from the-bottom
subeuntem vim non potuit opprimere, quanto minus
coming-up the-force not could overwhelm how-much less
includere poterit ignem nubium tenuis umor et roscidus?
to-shut-in will-be-able the-fire of-the-clouds thin moisture and dewy
adeo res ista non affert ullam moram quae contra
so matter that not brings any delay which against
causa ignium fit. *** quos non videmus emicare nisi
the-cause of-fires is-made (lacuna) which not we-see to-flash except
impendente caelo. serenum sine fulmine est: non habet
overhanging the-sky clear-weather without thunderbolt is not has
istos metus dies purus, ne nox quidem nisi obscura nubibus.
those fears a-day pure not night even unless dark with-clouds
26.8 ‘quid ergo? non aliquando etiam apparentibus stellis et nocte
what then not sometimes even appearing the-stars and on-a-night
tranquilla fulgurat?’ sed scias licet illic nubes esse, unde
calm does-it-lighten but know you-may there clouds to-be whence
splendor effertur, quas videri a nobis terrarum tumor non sinit.
the-brightness is-carried which to-be-seen by us of-the-earth the-swell not allows

adice nunc, quod fieri potest, ut nubes summissae et humiles 26.9
add now that to-happen it-can that clouds lowered and low
attritu suo ignem reddant; qui in superiora expressus
by-rubbing their-own fire may-give-back which into the-higher-regions squeezed
in parte caeli sincera puraque visitur, sed fit in sordida.
in a-part of-the-sky clean and-pure is-seen but it-arises in a-dirty-one

XXVII · KINDS OF THUNDER

Some distinguish a deep rumble, air rolling in the hollows of clouds, from a sharp crack when a massed cloud splits; the crack kills or stuns those it strikes.

Tonitrua distinxere quidam ita, ut dicerent unum esse 27.1
Thunders have-distinguished certain so that they-said one to-be
genus, cuius grave sit murmur, quale terrarum motum
a-kind whose deep is the-rumble such-as of-the-earth the-movement
antecedit clauso vento et fremente. hoc quomodo videatur
precedes shut-in the-wind and roaring this how it-may-seem
illis fieri, dicam:
to-them to-arise I-shall-say
cum spiritum intra se clausere nubes, in concavis 27.2
when breath within themselves have-shut the-clouds in the-hollow
partibus earum volutatus aër similem agit mugitibus
parts of-them rolled the-air a-like drives to-bellowings
sonum, raucum et aequalem et continuum, utique ubi
sound hoarse and even and continuous especially where
etiam umida illa † regio est et exitum claudit; ideo
also moist that (corrupt) region is and the-exit shuts therefore
eiusmodi tonitrua venturi praenuntia imbris sunt.
of-this-kind thunders of-a-coming forerunners shower are

27.3 aliud genus est acre, quod acerbum magis dixerim, quia edit
another kind is sharp which harsh rather I-should-call because it-gives-out
sonum, qualem audire solemus, cum super caput alicuius
a-sound such-as to-hear we-are-wont when over the-head of-someone
dirupta vesica est: talia eduntur tonitrua, cum conglobata
burst a-bladder has-been such are-produced thunders when a-massed
nubes dissolvitur et eum, quo distenta fuerat, spiritum
cloud is-dissolved and that by-which stretched it-had-been breath
emittit. hic proprie fragor dicitur, subitus et vehemens,
sends-out this properly a-crash is-called sudden and violent
quo edito concidunt homines et exanimantur, quidam vero
by-which produced fall men and are-killed certain indeed
vivi stupent et in totum sibi excidunt, quos vocamus
alive are-stunned and in whole from-themselves fall-away whom we-call
attonitos, quorum mentem sonus ille caelestis loco pepulit.
thunderstruck whose mind sound that heavenly from-its-place has-driven
27.4 hic fieri illo quoque modo potest, ut inclusus aër cava
this to-arise in-that also way can that shut-in air in-a-hollow
nube et motu ipso extenuatus diffundatur: deinde, dum
cloud and by-motion itself thinned is-diffused then while
maiorem sibi locum quaerit, a quibus involutus est, sonum
a-greater for-itself place it-seeks by which enfolded it-is sound
patitur. quid autem? non quemadmodum illisae inter se
it-suffers what however not as dashed against each-other
manus plausum edunt, sic illisarum inter se nubium
hands a-clap produce so of-those-dashed against each-other of-clouds
sonus potest esse, magnus, quia magna concurrunt?
the-sound can be great because great-things meet

Clouds striking mountains make no sound, because they must be shaped to sound, as only palm against palm claps, and driven hard. A mountain does not split a cloud but spreads it among trees, branches, and rocks, so its breath escapes in many places, and wind split round a tree hisses and does not thunder. A bladder cut with iron is silent; it must burst.

'Videmus', inquit, 'nubes impingi montibus nec sonum 28.1
We-see he-says clouds to-be-dashed against-mountains and-not sound
fieri.' primum omnium non quocumque modo illisae sunt,
to-arise first of-all not in-whatever way dashed they-are
sonant, sed si apte compositae ad sonum edendum (aversas
they-sound but if fittingly arranged for sound producing turned-away
inter se manus collide: non plaudent, sed palma cum palma
against each-other hands strike not they-will-clap but palm with palm
collata plausum facit; et plurimum interest, utrum cavae
brought-together a-clap makes and very-much it-matters whether hollow
concutiantur an planae et extentae). deinde non tantum
they-are-shaken-together or flat and extended then not only
ire nubes oportet sed agi magna vi et procellosa.
to-go the-clouds it-is-necessary but to-be-driven with-great force and stormy
etiamnunc mons non findit nubem sed digerit et primam 28.2
still a-mountain not splits a-cloud but disperses and the-first
quamque partem eius solvit. ne vesica quidem quocumque
each part of-it dissolves not a-bladder even in-whatever
modo spiritum emisit, sonat; si ferro divisa est, sine ullo
way breath it-has-sent-out sounds if by-iron divided it-is without any
aurium sensu exit: rumpi illam oportet, ut sonet,
of-the-ears perception it-goes-out to-be-burst it it-must that it-may-sound
non secari. idem de nubibus dico: nisi multo impetu
not to-be-cut the-same about clouds I-say unless with-much impetus

dissiluere, non resonant. adice nunc, quod nubes in montem
they-have-burst not they-resound add now that clouds into a-mountain
actae non franguntur sed circumfunduntur et in aliquas
driven not are-broken but are-poured-around and into some
partes montis, in arbores ramos frutices aspera saxa
parts of-the-mountain into trees branches shrubs rough rocks
et eminentia ita diducuntur, ut si quem habent spiritum,
and projecting-ones so are-divided that if any they-have breath
multifariam emittant, qui nisi universus erumpit, non crepat.
in-many-places they-send-it-out which unless whole it-bursts-out not crashes

28.3 hoc ut scias, ventus, qui circa arborem finditur, sibilat,
this that you-may-know the-wind which around a-tree is-split whistles
non tonat: lato, ut ita dicam, ictu et totum globum
not thunders with-a-broad as so I-may-say blow and the-whole mass
semel dissipante opus est, ut sonitus erumpat, qualis
at-once scattering need there-is that a-sound may-burst-out such-as
auditur, cum tonat.
is-heard when it-thunders

XXIX · AIR MADE FOR SOUND

Air is suited to sound by nature, since voice is struck air. Clouds that sound must be hollow and taut, as empty things ring louder than full and taut than slack; drums and cymbals sound for the same reason.

29.1 Praeter haec natura aptus est aër ad voces: quidni,
Besides these-things by-nature suited is the-air for voices why-not
cum vox nihil aliud sit quam ictus aër? debent ergo
when a-voice nothing else is than a-struck air ought therefore
nubes utrimque † inseri, et cavae et intentae; vides
the-clouds on-both-sides (corrupt) to-be-set-in and hollow and taut you-see

enim, quanto vocaliora sint vacua quam plena, quanto
for how-much more-resonant are empty-things than full how-much
intenta quam remissa. item tympana et cymbala sonant,
taut than slack likewise drums and cymbals sound
quia illa repugnantem ex ulteriore parte spiritum pulsant,
because those the-resisting from the-farther side breath strike
haec et ipsa † aera non nisi cavo tinniunt.
these also themselves (corrupt) bronzes not except hollow ring

XXX · THUNDER FROM SAND AND ASH

Asclepiodotus holds that thunder and lightning can come from the collision of other bodies: when Etna poured out burning sand and darkened the day, there was much lightning without clouds, and likewise when the south wind buried Cambyses' army on its way to Ammon. Seneca agrees, since the earth breathes out dry and moist bodies alike; such matter makes a denser cloud, which can then break and sound.

Quidam, inter quos Asclepiodotus est, iudicant sic: 30.1
Certain among whom Asclepiodotus is judge thus
quorumdam quoque corporum concursu tonitrum et fulmina
of-certain also bodies by-the-collision thunder and thunderbolts
excuti posse. Aetna aliquando multo igne abundavit,
to-be-struck-out can Etna once with-much fire abounded
ingentem vim harenae urentis effudit; involutus est dies
a-huge mass of-sand burning poured-out wrapped was the-day
pulvere, populosque subita nox terruit: aiunt tunc plurima
in-dust and-the-peoples a-sudden night terrified they-say then very-many
fuisse fulmina et tonitrua, quae concursu aridorum
to-have-been thunderbolts and thunders which by-the-collision of-dry

corporum facta sunt, non nubium, quas verisimile est in
bodies made were not of-clouds which likely it-is in
tanto fervore aëris nullas fuisse.
so-great heat of-the-air none to-have-been

30.2 aliquando Cambyses ad Ammonem misit exercitum, quem
once Cambyses to Ammon sent an-army which
harena austro mota et more nivis incidens texit,
sand by-the-south-wind moved and in-the-manner of-snow falling covered
deinde obruit: tunc quoque verisimile est fuisse tonitrum
then buried then also likely it-is to-have-been thunder
fulminaque attritu harenae sese affricantis.
and-thunderbolts by-the-rubbing of-the-sand itself rubbing-against

30.3 non repugnat proposito nostro ista opinio; diximus
not conflicts with-the-proposition our that opinion we-have-said
enim utriusque naturae corpora efflare terras et sicci
for of-each nature bodies to-breathe-out the-earth and of-dry
aliquid et umidi in toto aëre vagari: itaque si quid
something and of-moist in the-whole air to-wander and-so if anything
tale intervenit, nubem fecit solidiorem et crassiorem,
such has-come-in a-cloud it-has-made more-solid and thicker
quam si tantum simplici spiritu texeretur.
than if only by-simple breath it-were-woven

30.4 illa frangi potest et edere sonum: ista, quae
that to-be-broken can and to-produce sound those-things which
dixi, sive incendiis vaporantibus aëra repleverunt
I-have-mentioned whether with-fires steaming the-air they-have-filled
sive ventis terras verrentibus, necesse est nubem faciant
or with-winds the-earth sweeping necessary it-is a-cloud they-make
ante quam sonum. nubem autem tam arida quam umida
sooner than sound a-cloud however both dry-things and moist
conserunt: est enim, ut diximus, nubes spissitudo aëris crassi.
weave-together it-is for as we-have-said a-cloud a-thickness of-air dense

The bolt's subtle power: silver melts in an unharmed bag, a sword in its scabbard, wine stands when its jar breaks, and snakes struck by it lose their venom.

Ceterum mira fulminis, si intueri velis, opera sunt 31.1
But wonderful of-the-thunderbolt if to-look-at you-wish the-works are
nec quicquam dubii relinquentia, quin divina sit illius
nor anything doubtful leaving but-that divine is its
ac subtilis potentia: loculis integris conflatur argentum,
and subtle power with-the-purses intact is-melted the-silver
manente vagina gladius ipse liquescit; et inviolato ligno
remaining the-scabbard the-sword itself liquefies and with-unharmed wood
circa pila ferrum omne destillat, stat fracto dolio
around the-javelins the-iron all drips-off stands with-the-broken cask
vinum nec ultra triduum ille rigor durat.
the-wine nor beyond three-days that stiffness lasts
illud aeque inter adnotanda ponas licet, quod et hominum 31.2
this equally among things-to-be-noted put you-may that both of-men
et ceterorum animalium, quae icta sunt, caput spectat
and of-the-other animals which struck have-been the-head looks
ad exitum fulminis, quod omnium percussarum arborum
toward the-exit of-the-thunderbolt that of-all struck trees
contra fulmina astulae surgunt. quid quod malarum
against the-thunderbolts the-splinters rise what that of-bad
serpentium et aliorum animalium, quibus mortifera vis inest,
serpents and of-other animals whom a-deadly force is-in
cum fulmine icta sunt, venenum omne consumitur?
when by-a-thunderbolt struck they-have-been the-poison all is-consumed

'unde', inquit, 'scis?' in venenatis corporibus vermis non
whence he-says do-you-know in poisonous bodies a-worm not
nascitur: fulmine icta intra paucos dies verminant.
is-born by-a-thunderbolt struck within few days they-breed-worms

XXXII · SIGNS OF WHAT IS TO COME

Thunderbolts foretell long chains of fate. The Etruscans, masters of the art, think clouds collide in order to send bolts, since they refer everything to god; Seneca thinks bolts come because clouds collided, and signify all the same, as birds give omens without flying for us. God does not arrange dreams and entrails; the chain of fate sends signs of the future everywhere, some known, some not. The Chaldaeans watch five planets, but all the thousands of stars claim a share in us.

32.1 Quid quod futura portendunt nec unius tantum
What of-the-fact-that future-things they-portend nor of-one only
aut alterius rei signa dant sed saepe longum fatorum
or of-a-second thing signs they-give but often a-long of-fates
sequentium ordinem nuntiant? et quidem notis evidentibus
following order they-announce and indeed with-signs evident
longeque clarioribus, quam si scriberentur.
and-far clearer than if they-were-written

32.2 hoc inter nos et Tuscos, quibus summa est fulgurum
this between us and the-Etruscans to-whom supreme is of-lightnings
persequendorum scientia, interest: nos putamus, quia nubes
of-interpreting the-knowledge differs we think because clouds
collisae sunt, fulmina emitti; ipsi existimant nubes
struck-together have-been thunderbolts to-be-sent-out they think clouds
collidi, ut fulmina emittantur (nam cum omnia
to-be-struck-together that thunderbolts may-be-sent-out for since all-things
ad deum referant, in ea opinione sunt, tamquam non,
to god they-refer in that opinion they-are as-if not

quia facta sunt, significent, sed quia significatura sunt,
because made they-have-been they-signify but because going-to-signify they-are
fiant): eadem tamen ratione fiunt, sive illis
they-are-made by-the-same yet reason they-are-made whether to-them
significare propositum sive consequens est.
to-signify the-purpose or a-consequence it-is
'quomodo ergo significant, nisi ideo mittuntur?' quomodo 32.3
how then do-they-signify unless therefore they-are-sent how
aves non in hoc motae, ut nobis occurrerent, dextrum
birds not for this moved that to-us they-might-meet favorable
auspicium sinistrumque fecerunt. 'et illas', inquit, 'deus
auspice and-unfavorable have-made and them he-says god
movit.' nimis illum otiosum et pusillae rei ministrum
has-moved too him idle and of-a-tiny thing the-minister
facis, si aliis somnia aliis exta disponit;
you-make if for-some dreams for-others entrails he-arranges
ista nihilominus divina ope geruntur, si non a deo 32.4
these-things nonetheless by-divine aid are-conducted if not by god
pennae avium reguntur nec pecudum viscera sub ipsa
the-feathers of-birds are-directed nor of-cattle the-entrails under the-very
securi formantur: alia ratione fatorum series explicatur
axe are-formed by-another method of-the-fates the-series is-unfolded
indicia venturi ubique praemittens. ex quibus quaedam
signs of-what-is-to-come everywhere sending-ahead of which some
nobis familiaria quaedam ignota sunt: quicquid fit, alicuius
to-us familiar some unknown are whatever happens of-some
rei futurae signum est, fortuita et sine ratione vaga
thing future a-sign is fortuitous-things and without reason wandering
divinationem non recipiunt; cuius rei ordo est, etiam
divination not admit of-what thing order there-is also
praedictio est.
prediction there-is

32.5 ‘cur ergo aquilae hic honor datus est, ut magnarum
why then to-the-eagle this honor given has-been that of-great
rerum faceret auspicia, aut corvo et paucissimis avibus,
affairs it-should-make the-auspices or to-the-raven and to-very-few birds
ceterarum sine praesagio vox est?’ quia quaedam nondum
of-the-others without presage the-voice is because some not-yet
in artem redacta sunt, quaedam vero ne redigi quidem
into an-art brought are some indeed not to-be-brought even
possunt ob nimium remotam conversationem; ceterum
can because-of too remote association but
nullum animal est, quod non motu et occursu suo
no animal is which not by-motion and meeting its-own
praedicat aliquid: non omnia scilicet sed quaedam notantur.
predicts something not all of-course but some are-noted
32.6 auspicium observantis est: ad eum itaque pertinet, qui in
the-auspice of-the-observer is to him and-so it-belongs who on
ea direxit animum; ceterum fiunt et illa quae pereunt.
it has-directed his-mind but happen also those-things which perish
quinque stellarum potestates Chaldaeorum observatio excepit:
of-the-five stars the-powers of-the-Chaldaeans observation has-taken-up
32.7 quid? tu tot illa milia siderum iudicas otiosa lucere?
what you so-many those thousands of-stars do-you-judge idle to-shine
quid est porro aliud, quod errorem maximum incutiat peritis
what is moreover else which error the-greatest strikes-into the-experts
natalium, quam quod paucis nos sideribus assignant, cum
in-nativities than that to-few us stars they-assign when
omnia, quae supra nos sunt, partem nostri sibi vindicent?
all which above us are a-part of-us for-themselves claim
summissiora forsitan propius in nos vim suam dirigunt et
the-lower perhaps more-nearly on us force their-own direct and
ea, quae frequentius mota aliter nos aliterque prospiciunt:
those which more-often moved otherwise on-us and-otherwise look-forth

ceterum et illa, quae aut immota sunt aut propter 32.8
but also those which either unmoved are or because-of
velocitatem universo parem immotis similia, non extra
speed to-the-universe equal to-unmoved-ones like not outside
ius dominiumque nostri sunt. aliud † aspice et
the-right and-dominion of-us are another (corrupt) look and
distributis rem officiis tractas; non magis autem facile est
with-distributed thing duties you-handle not more however easy it-is
scire, quid possint, quam dubitare, an possint.
to-know what they-can-do than to-doubt whether they-can

XXXIII · THE THREE PARTS OF THE ART

The art of thunderbolts has three parts: observing, interpreting, and appeasing, which asks the gods to confirm a good bolt's promises and to withdraw a bad one's threats.

Nunc ad fulmina revertamur, quorum ars in haec tria dividitur: 33.1
Now to thunderbolts let-us-return whose art into these three is-divided
quemadmodum exploremus, quemadmodum interpretemur,
how we-may-examine how we-may-interpret
quemadmodum exoremus. prima pars ad formulam
how we-may-avert-by-prayer the-first part to the-formula
pertinet, secunda ad divinationem, tertia ad propitiandos
pertains the-second to divination the-third to propitiating
deos, quos bono fulmine rogare oportet, malo deprecari:
the-gods whom with-a-good thunderbolt to-ask it-is-proper with-a-bad to-entreat
rogare, ut promissa firment, deprecari, ut remittant minas.
to-ask that their-promises they-confirm to-entreat that they-remit their-threats

The Etruscans hold the bolt supreme, since it cancels what entrails and birds foretell and nothing cancels it. Seneca disagrees: nothing is truer than the true, and two true signs are equal, as smoke shows fire no less than flame. Where a bolt overrides entrails, they were badly read. Fate is one, and a bolt cannot change it, since the bolt itself is part of fate.

34.1 Summam esse vim fulminis iudicant, quia quicquid
Supreme to-be the-force of-the-thunderbolt they-judge because whatever
alia portendunt, interventus fulminis tollit, quicquid ab
other-things portend the-intervention of-a-thunderbolt removes whatever by
hoc portenditur, fixum est nec alterius ostenti significatione
this is-portended fixed is nor by-another portent's signification
mutatur: quicquid exta quicquid aves minabuntur, secundo
is-changed whatever entrails whatever birds will-threaten by-a-favorable
fulmine abolebitur; quicquid fulmine denuntiatum est,
thunderbolt will-be-abolished whatever by-a-thunderbolt announced has-been
nec extis nec ave contraria refellitur.
neither by-entrails nor by-bird contrary is-refuted

34.2 in quo mihi falli videntur. 'quare?' quia vero verius
in which to-me to-be-mistaken they-seem why because than-the-true truer
nihil est: si aves futura cecinerunt, non potest hoc auspicium
nothing is if birds future-things have-sung not can this auspice
fulmine irritum fieri — aut non futura cecinerunt. non
by-a-thunderbolt void be-made or not future-things they-have-sung not
enim nunc avem comparo et fulmen sed duo veri signa,
for now a-bird I-compare and a-thunderbolt but two of-the-true signs
quae si verum significant, paria sunt. itaque quae fulminis
which if the-true they-signify equal are and-so which the-thunderbolt's
interventus submovet extorum vel augurii indicia, male
intervention removes of-entrails or of-augury the-indications badly

inspecta exta male observata auguria sunt. non enim refert,
inspected entrails badly observed auguries are not for it-matters
utrius rei species maior sit vel natura potentior: si
of-which-of-the-two thing the-appearance greater be or the-nature more-powerful if
utraque res veri attulit signa, quantum ad hoc, par est.
each thing of-the-true has-brought signs as-far-as to this equal it-is
si dicas flammae maiorem vim esse quam fumi, non 34.3
if you-say of-flame greater the-force to-be than of-smoke not
mentieris: sed ad indicandum ignem idem valet flamma
you-will-lie but for indicating fire the-same is-worth flame
quod fumus. itaque si hoc dicunt 'quotiens aliud exta
as smoke and-so if this they-say whenever one-thing the-entrails
significabunt aliud fulmina, fulminum erit auctoritas
will-signify another the-thunderbolts of-the-thunderbolts will-be the-authority
maior', fortasse consentiam. si hoc dicunt 'quamvis altera
greater perhaps I-shall-agree if this they-say although the-other
res verum praedixisset, fulminis ictus priora delevit et
thing truth had-foretold the-thunderbolt's stroke the-former has-erased and
ad se fidem traxit', falsum est. 'quare?' quia nihil interest,
to itself belief has-drawn false it-is why because nothing it-matters
quam multa auspicia sint: fatum unum est; quod si bene
how many auspices there-be fate one is but if well
primo auspicio intellectum est, secundo non interit.
by-the-first auspice understood it-has-been by-the-second not it-perishes
ita dico: non refert, an aliud sit, per quod quidem 34.4
so I-say not it-matters whether another-thing be through which indeed
quaerimus, quoniam de quo quaeritur idem est; fatum
we-inquire since about what is-asked the-same is fate
fulmine mutari non potest: quidni? nam fulmen
by-a-thunderbolt to-be-changed not can why-not for the-thunderbolt
ipsum fati pars est.
itself of-fate a-part is

If fate is unchangeable, what use are expiations? The strict school answers that they are only comfort for a sick mind: fate runs its course, moved by no prayer or favor, like a torrent that never runs back, and its first law is to stand by its decree.

35.1 ‘Quid ergo? expiationes procurationesque quo pertinent, si
What then expiations and-averting-rites to-what do-they-pertain if
immutabilia sunt fata?’ permitte mihi illam rigidam sectam
unchangeable are the-fates allow me that rigid sect
tueri eorum, qui † excipiunt ista et nihil esse
to-defend of-those who (corrupt) take-up these-things and nothing to-be
aliud quam aegrae mentis solatia existimant.
else than of-a-sick mind consolations think

35.2 fata aequaliter ius suum peragunt nec ulla commoventur
the-fates evenly right their-own carry-through nor by-any are-they-moved
prece; non misericordia flecti, non gratia sciunt: cursum
prayer not by-pity to-be-bent not by-favor they-know a-course
irrevocabilem ingressa ex destinato fluunt. quemadmodum
irrevocable having-entered from the-appointment they-flow as
rapidorum aqua torrentium in se non recurrit nec
of-rapid the-water torrents into itself not runs-back nor
moratur quidem, quia priorem superveniens praecipitat, sic
halts indeed because the-former the-one-coming-over hurls-on so
ordinem fati rerum aeterna series rotat, cuius haec prima
the-order of-fate of-things the-eternal series rolls of-which this the-first
lex est, stare decreto.
law is to-stand by-the-decree

XXXVI · WHAT FATE IS

Fate is the necessity of all things and actions, which no force breaks. Whoever thinks it is won over by sacrifices or a snow-white lamb does not know the divine: even a wise man's judgment does not change, still less a god's, to whom all is present.

Quid enim intellegis fatum? existimo necessitatem rerum 36.1
What for do-you-understand-by fate I-think the-necessity of-things
omnium actionumque, quam nulla vis rumpat. hanc si sacrificiis
all and-actions which no force can-break this if by-sacrifices
aut capite niveae agnae exorari iudicas, divina non
or by-the-head of-a-snow-white lamb to-be-won-over you-judge the-divine not
nosti: sapientis quoque viri sententiam negatis posse mutari
you-know of-a-wise also man the-judgment you-deny can be-changed
— quanto magis dei? cum sapiens quid sit optimum
how-much more of-god since the-wise-man what may-be best
in praesentia sciat, illius divinitati omne praesens sit.
in the-present may-know to-his divinity all present is

Now Seneca pleads for those who think expiations sometimes avert, lighten, or delay dangers. The Stoics too hold that vows help without breaking fate, since some things are left by the gods to turn out well if prayers are made: this too is within fate. The dilemma that a thing will or will not happen omits the middle case, that it will happen if vows are made.

37.1 Agere nunc causam eorum volo, qui procuranda existimant
To-plead now the-case of-those I-wish who to-be-averted think
fulmina et expiationes non dubitant prodesse aliquando ad
thunderbolts and expiations not doubt to-be-of-use sometimes for
summovenda pericula, aliquando ad levanda, aliquando ad
removing dangers sometimes for lightening sometimes for
differenda.
postponing

37.2 quid sit quod sequatur, paulo post persequar: interim hoc
what may-be what follows a-little later I-shall-pursue meanwhile this
habent commune nobiscum, quod nos quoque existimamus
they-have common with-us that we also think
vota proficere salva vi ac potestate fatorum. quaedam enim
vows to-avail saving the-force and power of-the-fates certain-things for
a diis immortalibus ita suspensa relicta sunt, ut in bonum
by the-gods immortal so suspended left are that to good
vertant, si admotae diis preces fuerint, si vota suscepta:
they-turn if applied to-the-gods prayers have-been if vows undertaken
ita non est hoc contra fatum sed ipsum quoque in fato est.
so not is this against fate but itself also in fate is

37.3 'aut futurum', inquit, 'est aut non: si futurum est, fiet,
either going-to-be he-says it-is or not if going-to-be it-is it-will-happen
etiamsi vota non suscipis. si non est futurum, etiamsi
even-if vows not you-undertake if not it-is going-to-be even-if

susceperis vota, non fiet.' falsa est ista interrogatio,
you-have-undertaken vows not it-will-happen false is that question
quia illam mediam inter ista exceptionem praeteris: futurum
because that middle between these exception you-pass-over going-to-be
hoc est, sed si vota suscepta fuerint.
this is but if vows undertaken shall-have-been

XXXVIII · THE DIVINER IS FATE'S SERVANT

If fate also decides whether vows are made, then they will be made because fate decides it, as a man fated to be eloquent if he learns letters is fated to learn them, and one fated to be rich if he sails is fated to sail. Expiations do not fight fate but are written into its law; how anything is left to our choice he will answer elsewhere. The diviner helps as fate's servant, as health owed to fate is owed also to the doctor.

'Hoc quoque', inquit, 'ipsum necesse est fato comprehensum 38.1
This also he-says itself necessary it-is by-fate comprised
sit, ut aut suscipias vota aut non.' puta me tibi manus
be that either you-undertake vows or not suppose me to-you hands
dare et fateri hoc quoque fato esse comprehensum, ut
to-give and to-admit this also by-fate to-be comprised that
utique fiant vota: ideo fient.
assuredly happen vows therefore they-will-happen
fatum est, ut hic disertus sit, sed si litteras didicerit; 38.2
fated it-is that this-man eloquent will-be but if letters he-learns
at eodem fato continetur, ut litteras discat: ideo docendus
but by-the-same fate it-is-contained that letters he-learn therefore to-be-taught
est. hic dives erit, sed si navigaverit; at in illo fati
he-is this-man rich will-be but if he-sails but in that of-fate
ordine, quo patrimonium illi grande promittitur, hoc
order in-which inheritance to-him a-great is-promised this

quoque protinus adfatum est, ut etiam naviget: ideo
also straightway fated it-is that also he-sail therefore
navigabit. idem tibi de expiationibus dico: effugiet
he-will-sail the-same to-you about expiations I-say he-will-escape
pericula, si expiaverit praedictas divinitus minas; at hoc
dangers if he-has-expiated the-foretold by-the-gods threats but this
quoque in fato est, ut expiet: ideo expiabit.
also in fate is that he-expiate therefore he-will-expiate

38.3 ista nobis opponi solent, ut probetur nihil voluntati
these-things to-us to-be-objected are-wont so-that it-may-be-proved nothing to-will
nostrae relictum et omne ius faciendi alii traditum. cum
our left and all right of-doing to-another handed-over when
de ista re agetur, dicam, quemadmodum manente
about that matter it-shall-be-dealt I-shall-say how remaining
fato aliquid sit in hominis arbitrio: nunc vero id, de
fate something may-be in man's choice now indeed that about
quo agitur, explicui, quomodo, si fati certus est ordo,
which it-is-dealt I-have-explained how if of-fate fixed is the-order
expiationes procurationesque prodigiorum pericula avertant:
expiations and-averting-rites of-prodigies the-dangers may-turn-away
quia non cum fato pugnant, sed ipsa in lege data sunt.
because not with fate they-fight but themselves in the-law given are

38.4 'quid ergo', inquis, 'aruspex mihi prodest? utique enim
what then you-say the-haruspex to-me profits assuredly for
expiare mihi etiam non suadente illo necesse est.' hoc
to-expiate for-me even not urging he necessary it-is this
prodest, quod fati minister est; sic cum sanitas debeatur
he-profits that of-fate the-minister he-is so when health is-owed
fato, debetur et medico, quia ad nos beneficium fati
to-fate it-is-owed also to-the-physician because to us the-benefit of-fate
per huius manus venit.
through his hands comes

Caecina names three kinds of bolts: the counseling, which comes after a plan is formed and urges or dissuades; the confirming, which comes after a deed and shows whether it will end well; and the bolt of state, which comes to men at rest and threatens, promises, or warns. Seneca doubts that the warning bolt differs from the counseling, but grants a distinction: one counsels the deliberating, the other warns those who are not.

Genera fulgurum tria esse ait Caecina, consiliarium, auctoritatis 39.1
The-kinds of-lightnings three to-be says Caecina counseling of-authority
et quod status dicitur. consiliarium ante rem fit sed post
and that-which of-status is-called the-counseling before the-thing arises but after
cogitationem, cum aliquid in animo versantibus aut suadetur
thought when something in mind to-those-turning either it-is-urged
fulminis ictu aut dissuadetur. auctoritatis est, ubi post
by-the-thunderbolt's stroke or it-is-dissuaded of-authority it-is when after
rem factam venit, quam bono futuram malove significat.
a-thing done it-comes which good going-to-be or-bad it-signifies
status est, ubi quietis, nec agentibus quicquam nec 39.2
of-status it-is when to-those-at-rest neither doing anything nor
cogitantibus quidem, fulmen intervenit et aut minatur
thinking even a-thunderbolt intervenes and either threatens
aut promittit aut monet. hoc monitorium vocat, sed nescio,
or promises or warns this the-warning-one he-calls but I-know-not
quare non idem sit quod consiliarium: nam et qui
why not the-same it-may-be as the-counseling for also he-who
monet, consilium dat.
warns counsel gives
sed habeat aliquam distinctionem et ob hoc 39.3
but let-it-have some distinction and on-account-of this
separetur a consiliario, quia illud suadet dissuadetque,
let-it-be-separated from the-counseling because that urges and-dissuades

hoc solam evitationem impendentis periculi continet, ut cum
this only the-avoidance of-an-impending danger contains as when
timemus ignem, fraudem a proximis, insidias a servis.
we-fear fire fraud from those-nearest plots from slaves
39.4 etiamnunc tamen aliam distinctionem utriusque video:
still yet another distinction of-both I-see
consiliarium est, quod cogitanti factum est, monitorium,
the-counseling is that-which to-one-thinking happened has the-warning
quod nihil cogitanti; habet autem utraque res suam
that-which nothing to-one-thinking has however each thing its-own
proprietatem: suadetur deliberantibus, non deliberantes et
property it-is-urged on-those-deliberating not deliberating and
ultro monentur.
unprompted they-are-warned

XL · KINDS OF BOLTS

Caecina's are kinds of meaning, not of bolts. Bolts bore, shatter, or burn: the boring bolt is fine pure flame that escapes through the narrowest gap; the shattering bolt is massed with stormy breath and bursts what it strikes; the burning bolt is earthy and leaves marks of fire. Burning is singeing, burning up, or setting alight, and what a bolt darkens it discolors or colors.

40.1 Primo omnium non sunt fulminum genera sed significationum.
First of-all not they-are of-thunderbolts kinds but of-significations
nam fulminum genera sunt illa: quod terebrat, quod
for of-thunderbolts the-kinds are these that-which bores that-which
discutit, quod urit. quod terebrat subtile est et
shatters that-which burns that-which bores fine is and

flammeum, cui per angustissimum fuga est ob
flaming to-which through the-narrowest-space escape there-is because-of
sinceram et puram flammae tenuitatem.
the-unmixed and pure of-the-flame thinness
quod dissipat conglobatum est et habet admixtam vim 40.2
that-which scatters massed is and has mixed-in the-force
spiritus coacti ac procellosi; itaque illud fulmen per id
of-breath compressed and stormy and-so that thunderbolt through that
foramen, quod ingressum est, redit et evadit: huius late
hole by-which entered it-has returns and escapes of-this widely
sparsa vis rumpit icta, non perforat.
spread the-force bursts things-struck not pierces
tertium illud genus, quod urit, multum terreni habet et igneum 40.3
the-third that kind which burns much of-earthy has and fiery
magis est quam flammeum; itaque relinquit magnas ignium
more is than flaming and-so it-leaves great of-fires
notas, quae percussis inhaereant. nullum quidem sine igne
marks which on-things-struck stick none indeed without fire
fulmen venit, sed tamen hoc proprie igneum dicimus, quod
thunderbolt comes but yet this properly fiery we-call which
manifesta ardoris vestigia imprimit, quod aut urit aut fuscat.
manifest of-heat traces imprints which either burns or darkens
tribus modis urit: aut afflat et levi iniuria laedit 40.4
in-three ways it-burns either it-breathes-on and with-light injury harms
aut comburit aut accendit. omnia ista urunt sed genere et
or it-burns-up or it-sets-alight all these burn but in-kind and
modo differunt: quodcumque combustum est, utique et
in-manner differ whatever burnt-up is assuredly also
ustum est, at quod ustum est, non utique combustum est;
burnt is but what burnt is not assuredly burnt-up is

40.5 item quod † accensum est: potest enim illud ipso
likewise what (corrupt) set-alight is it-can for it by-the-very
transitu ignis ussisse. quis nescit uri quidem nec
passage of-the-fire to-have-burnt who knows-not to-be-burnt indeed and-not
ardere, nihil autem ardere, quod non et uratur? unum
to-blaze nothing however to-blaze which not also is-burnt one
hoc adiciam: potest aliquid esse combustum nec accensum,
this I-shall-add can something be burnt-up and-not set-alight
potest accensum esse nec combustum.
can set-alight be and-not burnt-up

40.6 nunc ad id transeo genus fulminis, quo icta fuscantur;
now to that I-pass kind of-thunderbolt by-which things-struck are-darkened
hoc aut decolorat aut colorat (utrique distinctionem suam
this either discolors or colors to-each the-distinction its-own
reddam): decoloratur id, cuius color vitiatur, non mutatur;
I-shall-render is-discolored that whose color is-spoiled not changed
coloratur id, cuius alia fit quam fuit facies, tamquam
is-colored that whose other becomes than it-was the-appearance as-if
caerulea vel nigra vel pallida.
blue or black or pale

The Etruscans give Jupiter three bolts: a gentle warning sent on his own counsel, a harmful one sent with the twelve gods, and a destroying one sent after the veiled gods.

Haec adhuc Etruscis philosophisque communia sunt: in 41.1
These-things so-far to-the-Etruscans and-philosophers common are in
illo dissentiunt, quod fulmina a Iove dicunt mitti et tres
this they-dissent that thunderbolts by Jupiter they-say to-be-sent and three
illi manubias dant. prima, ut aiunt, monet et placata est
to-him handfuls they-give the-first as they-say warns and gentle is
et ipsius Iovis consilio mittitur. secundam mittit quidem
and own of-Jupiter by-the-counsel is-sent the-second sends indeed
Iupiter sed ex consilii sententia, duodecim enim deos advocat;
Jupiter but by the-council's opinion twelve for gods he-summons
hoc fulmen boni aliquid aliquando facit, sed tunc quoque
this thunderbolt good something sometimes does but then also
non aliter, quam ut noceat: ne prodest quidem impune.
not otherwise than that it-harms not it-profits even with-impunity
tertiam manubiam idem Iupiter mittit sed adhibitis in 41.2
the-third handful the-same Jupiter sends but called into
consilium diis, quos superiores et involutos vocant, quia
council the-gods whom higher and veiled they-call because
vastat in quae incidit et utique mutat statum
it-lays-waste the-things-on which it-falls and assuredly changes the-state
privatum et publicum, quem invenit: ignis enim nihil esse
private and public which it-finds the-fire for nothing to-be
quod fuit patitur.
which it-was allows

Taken at face value, the ancient teaching errs: Jupiter hurling bolts at columns, trees, and his own statues while sparing the sacrilegious and striking innocent cattle, and taking counsel of the gods as if he had too little of his own. The wisest men did not believe it; they set an armed avenger over our heads so that those whom only fear keeps innocent would have something above them to dread.

42.1 In his, prima specie si intueri velis, errat antiquitas. quid
In these at-first sight if to-look-at you-wish errs antiquity what
enim tam imperitum est quam credere fulmina e nubibus
for so ignorant is as to-believe thunderbolts from the-clouds
Iovem mittere, columnas, arbores, nonnumquam statuas suas
Jupiter to-send columns trees sometimes statues his-own
petere, uti impunitis sacrilegis percussoribus incendiariis
to-attack that unpunished temple-robbers murderers arsonists
pecudes innoxias feriat, et adsumi ad consilium a
cattle harmless he-should-strike and to-be-taken-up into counsel by
Iove deos, quasi in ipso parum consilii sit? illa laeta
Jupiter the-gods as-if in himself too-little counsel there-were those happy
esse et placata fulmina, quae solus excutiat, perniciosa,
to-be and gentle thunderbolts which alone he-shakes-out destructive-ones
quibus mittendis maior turba numinum interfuit?
for-which to-be-sent a-greater crowd of-divinities was-present

42.2 si a me quaeris, quid sentiam, non existimo tam hebetes
if of me you-ask what I-think not I-think-(them) so dull
fuisse, ut crederent Iovem iniquae voluntatis aut certe
to-have-been that they-believed Jupiter of-unjust will or certainly
minus paratum: utrum enim tunc, cum emisit ignes, quibus
less able whether for then when he-sent-out the-fires with-which

innoxia capita percuteret, scelerata transiret, noluit
innocent heads he-struck guilty-ones he-passed-over he-did-not-wish
iustius mittere an non successit?
more-justly to-send or not it-succeeded
quid ergo secuti sunt, cum haec dicerent? ad coercendos 42.3
what then followed have-they when these-things they-said for restraining
imperitorum animos sapientissimi viri iudicaverunt inevitabilem
of-the-ignorant the-minds most-wise men judged an-inescapable
metum, ut aliquid supra nos timeremus; utile erat in tanta
fear that something above us we-should-fear useful it-was in so-great
audacia scelerum esse adversus quod nemo sibi
audacity of-crimes to-be-(something) against which no-one to-himself
satis potens videretur: ad conterrendos itaque eos, quibus
enough powerful should-seem for terrifying and-so those to-whom
innocentia nisi metu non placet, posuerunt supra caput
innocence except from-fear not is-pleasing they-placed above the-head
vindicem et quidem armatum.
an-avenger and indeed armed

Jupiter alone sends only the gentle bolt, because a king may do good alone but should do harm only with counsel; let the powerful learn that even a bolt needs it.

43.1 Quare ergo id fulmen, quod solus Iupiter mittit, placabile est,
Why then that thunderbolt which alone Jupiter sends appeasable is
perniciosum id, de quo deliberavit et quod aliis quoque
destructive that about which he-has-deliberated and which with-other also
diis auctoribus misit? quia Iovem, id est regem, prodesse
gods as-authors he-has-sent because Jupiter that is the-king to-do-good
etiam solum oportet, nocere non nisi compluribus visum est.
even alone it-is-proper to-harm not except to-several seemed-good it-has

43.2 discant hi, quicumque magnam inter homines adepti
let-them-learn these whoever great among men attained
sunt potentiam, sine consilio ne fulmen quidem mitti:
have power without counsel not a-thunderbolt even to-be-sent
advocent, considerent multorum sententias, nociturum
let-them-summon let-them-weigh of-many the-opinions going-to-harm
temperent, hoc sibi proponant, ubi aliquid percuti
let-them-moderate this to-themselves let-them-propose when something to-be-struck
debet, ne Iovi quidem suum satis esse consilium.
ought not to-Jupiter even his-own enough to-be counsel

Nor did they think Jupiter changes his weapons: the poet's lighter bolt, with less of the Cyclopes' fury in it, is poetic license. They meant to warn those who must punish men's sins that not every fault should be struck alike: some grazed, some crushed, some only warned.

In hoc quoque tam imperiti non fuerunt, ut Iovem 44.1
In this also so ignorant not they-were that Jupiter
existimarent tela mutare. poeticam istud licentiam decet:
they-should-think his-weapons to-change poetic that license befits

est aliud levius fulmen, cui dextra Cyclopum
there-is another lighter thunderbolt to-which the-right-hand of-the-Cyclopes
saevitiae flammaeque minus, minus addidit irae:
of-savagery and-of-flame less less has-added of-anger
tela secunda vocant superi.
weapons second call-them the-gods-above

illos vero altissimos viros error iste non tenuit, ut 44.2
those indeed most-lofty men error that not held that
existimarent Iovem modo gravioribus, modo levioribus
they-should-think Jupiter now heavier now lighter
fulminibus et lusoriis uti. sed voluerunt admonere eos,
thunderbolts and playful to-use but they-wished to-admonish those
quibus adversus peccata hominum fulminandum est, non
by-whom against the-sins of-men to-be-thunderbolted it-is not
eodem modo omnia esse percutienda: quaedam stringi
in-the-same way all-things to-be to-be-struck some to-be-grazed
debere, quaedam effligi ac distringi, quaedam admoneri.
ought some to-be-dashed and to-be-torn-apart some to-be-warned

Nor did they think the Jupiter of the Capitol throws bolts by hand, but the ruler and guardian of the universe, its mind and breath, to whom every name fits: call him fate, providence, nature, or the universe itself, and you will not err. The Etruscans said bolts come from Jupiter because nothing is done without him.

45.1 Ne hoc quidem crediderunt, Iovem, qualem in Capitolio et
Not this even did-they-believe Jupiter such-as on the-Capitol and
in ceteris aedibus colimus, mittere manu sua fulmina, sed
in the-other temples we-worship to-send with-hand his-own thunderbolts but
eundem quem nos Iovem intellegunt: rectorem custodemque
the-same whom we Jupiter they-understand ruler and-guardian
universi, animum ac spiritum mundi, operis huius
of-the-universe mind and breath of-the-world of-work this
dominum et artificem, cui nomen omne convenit;
master and craftsman to-whom name every suits
45.2 vis illum fatum vocare, non errabis: hic est, ex
do-you-wish him fate to-call not you-will-err he is-the-one from
quo suspensa sunt omnia, causa causarum; vis illum
whom suspended are all-things cause of-causes do-you-wish him
providentiam dicere, recte dices: est enim, cuius consilio
providence to-call rightly you-will-call he-is for by-whose counsel
huic mundo providetur, ut inoffensus exeat et actus
for-this world provision-is-made that unhindered it-may-go and acts
suos explicet; vis illum naturam vocare, non peccabis:
its-own may-unfold do-you-wish him nature to-call not you-will-sin
45.3 hic est, ex quo nata sunt omnia, cuius spiritu vivimus;
he is-the-one from whom born are all-things by-whose breath we-live
vis illum vocare mundum, non falleris: ipse
do-you-wish him to-call the-world not you-will-be-deceived he-himself

enim est hoc quod vides totum, partibus suis inditus, et
for is this which you-see whole in-parts his-own set-in and
se sustinens et sua. idem Etruscis quoque visum
himself sustaining and his-own the-same to-the-Etruscans also seemed
est, et ideo fulmina mitti dixerunt a Iove, quia sine
it-has and therefore thunderbolts to-be-sent they-said by Jupiter because without
illo nihil geritur.
him nothing is-done

XLVI · JUPITER'S HAND

Why does Jupiter spare the guilty and strike the innocent? That question needs its own time. For now: Jupiter does not hurl the bolts, but all is so ordered that even what he does not do happens by his reason; he does not lay a hand on each thing but gave force and cause to all.

'At quare Iupiter aut ferienda transit aut innoxia 46.1
But why Jupiter either things-to-be-struck passes-over or innocent-things
ferit?' in maiorem me quaestionem vocas, cui suus
strikes into a-greater me question you-call to-which its-own
dies suus locus dandus est: interim hoc dico, fulmina
day its-own place to-be-given is meanwhile this I-say thunderbolts
non mitti a Iove, sed sic omnia esse disposita, ut
not to-be-sent by Jupiter but so all-things to-be arranged that
etiam quae ab illo non fiunt, tamen sine ratione non
even things-which by him not are-done yet without reason not
fiant, quae illius est. nam etiamsi Iupiter illa nunc
they-are-done which his is for even-if Jupiter those-things now
non facit, Iupiter fecit ut fierent; singulis non
not does Jupiter made-it that they-should-be-done to-single-ones not
admovet manum, sed vim et causam omnibus dedit.
he-applies his-hand but force and cause to-all-things he-gave

Seneca rejects the division of bolts into perpetual ones, whose meaning covers a whole life, like those after an inheritance or at a new condition of a man or a city; fixed ones, which answer for a set day; and deferred ones, whose threats can be postponed but not averted.

47.1 Huic illorum divisioni non accedo: aiunt aut perpetua
To-this their division not I-assent they-say either perpetual
esse fulmina aut finita aut prorogativa. perpetua, quorum
to-be thunderbolts or limited or postponable perpetual those-whose
significatio in totam pertinet vitam nec unam rem denuntiat
signification to the-whole pertains life nor one thing announces
sed contextum rerum per omnem deinceps aetatem
but the-texture of-things through all thenceforth age
futurarum complectitur; haec sunt fulmina, quae prima
going-to-be embraces these are thunderbolts which first
accepto patrimonio et in novo hominis aut urbis statu fiunt.
received an-inheritance and in the-new of-a-man or of-a-city condition arise
finita ad diem utique respondent. prorogativa sunt, quorum
limited to the-day assuredly answer postponable are those-whose
minae differri possunt, averti tollique non possunt.
threats to-be-deferred can to-be-averted and-removed not can

Every bolt has its set day, private ones deferred ten years at most and public ones thirty; Attalus listed what to ask of each: where, when, whom, in what, what kind, how great.

Dicam, quid sit, quare huic divisioni non consentiam. nam 48.1
I-shall-say what it-may-be why with-this division not I-agree for
et quod perpetuum vocant fulmen finitum est (aeque enim ad
also what perpetual they-call thunderbolt limited is equally for to
diem respondens nec ideo minus finitum est, quia multa
the-day answering nor therefore less limited is-it because many-things
significat) et quod prorogativum videtur finitum est (nam
it-signifies and what postponable seems limited is for
illorum quoque confessione certum est, quousque impetretur
by-their also admission fixed it-is how-far may-be-obtained
dilatio; privata enim fulgura negant ultra decimum
the-postponement private for lightnings they-deny beyond the-tenth
annum, publica ultra tricesimum posse differri: hoc modo et
year public beyond the-thirtieth can be-deferred in-this way also
ista finita sunt, quia ultra quod non prorogentur inclusum
these limited are because beyond which not they-may-be-prolonged included
est): omnium ergo fulminum et omnis eventus dies stata
it-is of-all therefore thunderbolts and of-every outcome the-day fixed
sit, non potest enim ulla incerti esse comprehensio.
is not can for any of-the-uncertain be comprehension
quae inspicienda sint in fulgure, passim et vage 48.2
what-things to-be-inspected are in a-lightning-stroke here-and-there and loosely
dicunt, cum possint sic dividere, quemadmodum ab Attalo
they-say when they-could thus divide as by Attalus
philosopho, qui se huic disciplinae dediderat, divisa sunt:
the-philosopher who himself to-this discipline had-given divided they-are

ut inspiciant, ubi factum sit, quando, cui, in qua
that they-should-inspect where happened it-has when to-whom in what
re, quale, quantum. haec si digerere in partes suas
matter of-what-kind how-great these-things if to-arrange into parts their-own
voluero, quid postea faciam? in immensa procedam.
I-shall-wish what afterward should-I-do into the-boundless I-shall-advance

XLIX · CAECINA'S NAMES

Caecina's names: demanding bolts, for neglected sacrifices; warning; deadly, portending death and exile; deceptive, harming under the look of a good, a consulship or an inheritance that will cost dear; alarming without danger; canceling and confirming earlier threats; striking again what was struck and not expiated; royal, which hit a free city's forum or chief places and threaten it with a king; infernal, from the ground; hospitable, inviting Jupiter to the inviters' peril; and auxiliary, summoned for their good.

49.1 Nunc nomina fulgurum, quae a Caecina ponuntur, perstringam
Now the-names of-lightnings which by Caecina are-set-down I-shall-touch-on
et quid de eis sentiam exponam. ait esse postulatoria,
and what about them I-think I-shall-set-out he-says there-are demanding-ones
quibus sacrificia intermissa aut non rite facta repetuntur,
by-which sacrifices interrupted or not duly performed are-demanded-again
monitoria, quibus docetur, quid cavendum sit, pestifera,
warning-ones by-which is-taught what to-be-guarded-against is pestilent
quae mortem exiliumque portendunt, fallacia, quae per
which death and-exile portend deceptive which through
speciem alicuius boni nocent (dant consulatum malo
the-appearance of-some good harm they-give a-consulship bad
futurum gerentibus, et hereditatem, cuius compendium
going-to-be for-those-holding-it and an-inheritance whose gain

magno luendum sit incommodo), ostentanea, quae
with-great to-be-paid-for may-be trouble showy-ones which
speciem periculi sine periculo afferunt,
the-appearance of-danger without danger bring
peremptalia, quibus tolluntur priorum fulminum minae, 49.2
annulling-ones by-which are-removed of-former thunderbolts the-threats
attestata, quae prioribus consentiunt, atterranea, quae
attesting which with-former-ones agree earthy which
incluso † fiunt, obruta, quibus iam prius percussa
in-a-shut-in (corrupt) arise overwhelming by-which already previously struck
nec procurata feriuntur, regalia, cum forum tangitur
and-not expiated are-struck royal when the-forum is-touched
vel comitium vel principalia urbis liberae loca, quorum
or the-comitium or the-principal of-a-city free places whose
significatio regnum civitati minatur,
signification kingship to-the-state threatens
inferna, cum e terra exilivit ignis, hospitalia, iuxta 49.3
infernal when from the-earth has-leapt-out fire hospitable beside
quae sacrificiis ad nos Iovem arcessunt et, ut verbo eorum
which by-sacrifices to us Jupiter summon and to word their
molliori utar, invitant (sed non irasceretur invitatus: nunc
gentler use invite but not he-would-be-angry invited now
venire eum magno invitantium periculo affirmant), auxiliaria,
to-come him with-great of-the-inviters danger they-affirm auxiliary
quae invocata sed advocantium bono veniunt.
which invoked but for-the-summoners' good come

Our Attalus, who joined the Etruscan art to Greek subtlety, divided more simply: some bolts signify what concerns us, some nothing or what we cannot grasp. Of those that signify, some are favorable, some adverse, some mixed, some neither. Adverse ones foretell evils inevitable, avoidable, lessened, or deferred; favorable ones, lasting or fleeting goods; mixed ones, part good, part bad, or one turning into the other; the neutral, a journey with neither fear nor hope.

50.1 Quanto simplicior divisio est, qua utebatur Attalus noster,
How-much simpler the-division is which used Attalus our
vir egregius, qui Etruscorum disciplinam Graeca subtilitate
a-man excellent who of-the-Etruscans the-discipline with-Greek subtlety
miscuerat: ex fulminibus quaedam sunt, quae significant
had-mixed of thunderbolts some there-are which signify
id, quod ad nos pertinet, quaedam aut nihil significant
that which to us pertains some either nothing signify
aut id, cuius intellectus ad nos non pervenit.
or that whose understanding to us not reaches

50.2 ex his, quae significant, quaedam sunt laeta, quaedam adversa,
of these which signify some are happy some adverse
quaedam mixta, quaedam nec adversa nec laeta. adversorum
some mixed some neither adverse nor happy of-adverse-ones
hae species sunt: aut inevitabilia mala portendunt aut
these the-species are either inevitable evils they-portend or
evitabilia aut quae minui possunt aut quae prorogari.
avoidable or which to-be-diminished can or which to-be-deferred
laeta aut mansura significant aut caduca.
happy-ones either lasting-things they-signify or fleeting

50.3 mixta aut partem habent boni partem mali aut mala
mixed-ones either part have of-good part of-bad or bad-things
in bonum bona in malum vertunt. nec adversa nec
into good good-things into bad turn neither adverse nor

laeta sunt, quae aliquam nobis actionem significant, qua
happy are those-which some to-us action signify by-which
nec terreri nec laetari debemus, ut peregrinationem,
neither to-be-frightened nor to-rejoice we-ought as a-sojourn-abroad
in qua nec metus quicquam nec spei sit.
in which neither of-fear anything nor of-hope is

LI · BOLTS THAT MEAN NOTHING TO US

Some bolts signify what does not concern us, as that the same bolt will fall again that year; those that fall in the open sea or empty deserts signify nothing, or their meaning is lost.

Revertor ad ea fulmina, quae significant quidem aliquid sed 51.1
I-return to those thunderbolts which signify indeed something but
quod ad nos non pertineat: tamquam iterum eodem anno
what to us not may-pertain as-if again in-the-same year
idem futurum fulmen, quod factum est. nihil significant
the-same going-to-be thunderbolt which made has-been nothing signify
fulmina aut id, cuius notitia nos effugit, ut illa, quae in
thunderbolts or that whose knowledge us escapes as those which into
vastum mare sparguntur aut in desertas solitudines: quorum
the-vast sea are-scattered or into deserted wastes whose
significatio vel nulla est vel perit.
signification either none is or perishes

LII · HOW THE BOLT TREATS EACH THING

The bolt scatters what resists it most violently and sometimes passes harmlessly through what yields: it fights stone and iron, which it must force a path through, and spares soft, porous things. So coins melt in an intact purse. In one tree it burns the driest part, bores and breaks the hardest, strips the bark and tears the inner layers, and it freezes wine and melts iron and bronze.

52.1 Pauca adhuc adiciam ad enarrandam vim fulminis,
A-few-things still I-shall-add for describing the-force of-the-thunderbolt
quae non eodem modo omnem materiam vexat. valentiora,
which not in-the-same way all matter harasses stronger-things
quia resistunt, vehementius dissipat, cedentia nonnumquam
because they-resist more-violently it-scatters yielding-things sometimes
sine iniuria transit; cum lapide ferroque et durissimis
without injury it-passes with stone and-iron and the-hardest
quibusque confligit, quia viam necesse est per illa impetu
each it-clashes because a-way necessary it-is through them by-impetus
quaerat: itaque facit qua effugiat; at teneris et
it-should-seek and-so it-makes where it-may-escape but tender-things and
rarioribus parcit, quamquam flammis oportuna videantur,
more-porous it-spares although to-flames suited they-may-seem
quia transitu patente minus saevit. loculis itaque integris,
because with-passage open less it-rages with-purses and-so intact
ut dixi, pecunia, quae in his fuit, conflata reperitur, quia
as I-said the-money which in them was melted is-found because
ignis tenuissimus per foramina occulta transcurrit, quicquid
the-fire very-fine through holes hidden runs-through whatever
autem in tigno solidum invenit et contumax, vincit.
however in the-beam solid it-finds and stubborn it-conquers

non uno autem, ut dixi, modo saevit, sed quid quaeque vis 52.2
not in-one however as I-said way it-rages but what each force
fecerit, ex ipso genere iniuriae intelleges et fulmen
has-done from the-very kind of-injury you-will-understand and the-thunderbolt
opere cognosces. interdum in eadem materia multa
by-its-work you-will-recognize sometimes in the-same material many
diversa eiusdem fulminis vis facit, sicut in arbore
different-things of-the-same thunderbolt the-force does as in a-tree
quod aridissimum urit, quod durissimum et solidissimum
what driest it-burns what hardest and most-solid
est, terebrat et frangit, summos cortices dissipat, interiores
is it-bores and breaks the-outermost barks it-scatters the-inner
libros rumpit ac scindit, folia pertundit ac stringit. vinum
bast it-bursts and splits the-leaves it-pierces and strips wine
gelat, ferrum et aes fundit.
it-freezes iron and bronze it-melts

LIII · THE BOLT'S POISON

Wine frozen by a bolt, once it thaws, kills or maddens whoever drinks it, it seems because some deadly breath stays bound in it; oil and ointments stink after a bolt, and wherever one falls it leaves a smell of sulfur, which deranges if breathed often. Seneca will return to this at leisure, to show how all of it flowed from philosophy, which first sought causes and compared outcomes with beginnings.

Illud est mirum, quod vinum fulmine gelatum, cum 53.1
This is wonderful that wine by-a-thunderbolt frozen when
ad priorem habitum redît, potum aut exanimat aut
to its-former state it-has-returned drunk either kills or
dementes facit. quare id accidat quaerenti mihi illud occurrit:
mad makes why this happens inquiring to-me this occurs

inest vis fulmini pestifera; ex hoc aliquem remanere
is-in a-force in-the-thunderbolt pestilent from this some to-remain
spiritum in eo umore, quem coegit congelavitque,
breath in that liquid which it-has-compacted and-frozen
simile veri est; nec enim alligari potuisset, nisi aliquod
like of-the-truth it-is nor for to-be-bound could-it unless some
illi esset additum vinculum.
to-it had-been added bond

53.2 praeterea olei quoque et omnis unguenti taeter post fulmen
besides of-oil also and of-every ointment foul after a-thunderbolt
odor est: ex quo apparet inesse quandam subtilissimo
the-smell is from which it-appears to-be-in a-certain in-very-fine
igni et contra naturam acto pestilentem potentiam, qua
fire and against nature driven pestilent power by-which
non icta tantum cadunt sed et afflata. praeterea
not things-struck only fall but also things-breathed-on besides
quocumque decidit fulmen, ibi odorem esse sulphuris certum
wherever has-fallen a-thunderbolt there a-smell to-be of-sulfur certain
est, qui quia natura gravis est, saepius haustus alienat.
it-is which because by-nature heavy it-is more-often inhaled deranges

53.3 Sed ad haec vacui revertemur. fortasse enim libebit
But to these-things at-leisure we-shall-return perhaps for it-will-please
ostendere, quam omnia ista a philosophia parente
to-show how all these-things from philosophy the-parent
artium fluxerint: illa primum et quaesivit causas rerum et
of-arts have-flowed it first both sought the-causes of-things and
observavit effectus et, quod in fulminis inspectione longe
observed the-effects and what in of-the-thunderbolt the-inspection far
melius est, initiis rerum exitus contulit.
better is with-the-beginnings of-things the-outcomes compared

Posidonius holds that the earth breathes out a moist part, food for rain, and a dry, smoky part, food for thunderbolts. The dry part will not stay shut in the clouds but bursts them, and the sound is thunder; thinned air too is dried and heated and breaks out with a noise, all at once or bit by bit. Thunder is only the sound of air rubbed or burst.

Nunc ad opinionem Posidonii revertor. e terra terrenisque 54.1
Now to the-opinion of-Posidonius I-return from the-earth and-earthy
omnibus pars umida efflatur, pars sicca et fumida: haec
all-things part moist is-breathed-out part dry and smoky this
fulminibus alimentum est, illa imbribus. quicquid in aëra
for-thunderbolts food is that for-showers whatever into the-air
sicci fumosique pervenit, id includi se nubibus non fert
of-dry and-smoky has-reached that to-be-shut-in itself by-clouds not endures
sed rumpit claudentia: inde est sonus, quem nos tonitrum
but bursts the-enclosing-things thence is the-sound which we thunder
vocamus.
call

in ipso quoque aëre quicquid extenuatur, simul siccatur et 54.2
in the-very also air whatever is-thinned at-once is-dried and
calefit; hoc quoque si inclusum est, aeque fugam quaerit
is-warmed this also if shut-in it-is equally flight seeks
et cum sono evadit ac modo universum eruptionem facit
and with sound escapes and now whole an-eruption makes
eoque vehementius intonat, modo per partes et minutatim:
and-so more-violently thunders now in parts and little-by-little

ergo tonitrua hic spiritus exprimit, dum aut rumpit nubes 54.3
therefore thunders this breath squeezes-out while either it-bursts the-clouds
aut pervolat, volutatio autem spiritus in nube conclusi
or flies-through the-rolling however of-breath in a-cloud shut-in

valentissimum est atterendi genus. tonitrua nihil aliud sunt
the-strongest is of-rubbing kind thunders nothing else are
quam citi aëris sonitus, qui fieri, nisi dum aut teritur
than of-quick air sounds which to-arise except while either it-is-rubbed
aut rumpitur, non potest.
or is-burst not can

LV · OTHER CAUSES REFUSED

Clouds colliding strike only part against part, and soft things sound only against hard. Fire dropped into water hisses because breath escapes, which supports Seneca. A shooting star may sometimes fall into a cloud and die there, but the cause sought is natural and constant, not rare. Clidemus calls lightning an empty appearance, like the gleam of oars at night; but that gleam stays in the water, while lightning bursts out.

55.1 'Etiamsi colliduntur inter se', inquit, 'nubes, fit is quem
Even-if are-struck-together against each-other he-says clouds arises that which
desideras ictus.' sed non universus, neque enim tota totis
you-require blow but not whole nor for wholes with-wholes
concurrunt sed partibus partes; nec sonant mollia, nisi illisa
meet but with-parts parts nor sound soft-things unless dashed
duris sint: itaque non auditur fluctus, nisi impactus est.
against-hard-things they-are and-so not is-heard a-wave unless dashed it-is
55.2 'ignis', inquit, 'demissus in aquam sonat, dum extinguitur.'
fire he-says let-down into water sounds while it-is-extinguished
puta ita esse: pro me est; non enim ignis tunc sonum
suppose so to-be for me it-is not for the-fire then the-sound
efficit sed spiritus per extinguentia effugiens; ut
produces but breath through the-extinguishing-things escaping that

dem tibi et fieri ignem in nube et extingui:
I-may-grant to-you both to-arise fire in a-cloud and to-be-extinguished
spiritu nascitur et attritu.
from-breath it-is-born and from-rubbing
'quid ergo?' inquit: 'non potest aliqua ex his transcurrentibus 55.3
what then he-says not can some of these running-across
stellis incidere in nubem et extingui?' existimemus posse
stars fall into a-cloud and be-extinguished let-us-think to-be-able
aliquando et hoc fieri: nunc naturalem causam quaerimus
sometimes also this to-happen now a-natural cause we-seek
et assiduam, non raram fortuitamque. puta enim me
and constant not rare and-fortuitous suppose for me
confiteri verum esse, quod dicis, aliquando post tonitrua
to-admit true to-be what you-say sometimes after thunders
emicare ignes stellis transversis et cadentibus similes: non
to-flash-out fires to-stars crosswise and falling like not
ob hoc tonitrua facta sunt, sed cum hoc fieret,
on-account-of this thunders made have-been but when this was-happening
tonitrua facta sunt.
thunders made have-been
Clidemos ait fulgurationem speciem inanem esse, non 55.4
Clidemus says lightning an-appearance empty to-be not
ignem: sic enim per noctem splendorem motu remorum
fire thus for through the-night brightness by-the-motion of-oars
micare. dissimile est exemplum: illic enim splendor intra
to-flicker unlike is the-example there for the-brightness within
ipsam aquam apparet; qui fit in aëre, erumpit et exilit.
the-very water appears that-which arises in the-air bursts-out and leaps-out

Heraclitus thinks lightning is like the first uncertain flame of a fire catching, dying and reviving. The ancients called it fulgetra, and said tonitrum or tonus where we say tonitrua, as Seneca finds in Caecina, an eloquent man whom Cicero's shadow eclipsed; and they said fulgĕre with the middle syllable short, where we say fulgēre.

56.1 Heraclitus existimat fulgurationem esse velut apud nos
Heraclitus thinks lightning to-be as-if among us
incipientium ignium conatum et primam flammam incertam,
of-beginning fires the-attempt and the-first flame uncertain
modo intereuntem, modo resurgentem: haec antiqui fulgetra
now dying now rising-again these the-ancients flashes
dicebant. tonitrua nos pluraliter dicimus, antiqui autem
called thunders we in-the-plural say the-ancients however
tonitrum dixerunt aut tonum. hoc apud Caecinam invenio,
thunder said or tonus this in Caecina I-find
facundum virum (qui habuisset aliquando in eloquentia
an-eloquent man who would-have-had at-one-time in eloquence
nomen, nisi illum Ciceronis umbra pressisset).
a-name unless him of-Cicero the-shadow had-pressed-down
56.2 etiamnunc illo verbo utebantur antiqui, quo nos producta una
still that word used the-ancients which we lengthened one
syllaba utimur: dicimus enim ut splendēre sic fulgēre, at illis
syllable use we-say for as splendere so fulgere but for-them
ad significandum hanc e nubibus subitae lucis eruptionem
for signifying this from the-clouds of-sudden light outburst
mos erat correpta media syllaba uti, ut dicerent fulgĕre.
the-custom was with-shortened the-middle syllable to-use so-that they-said fulgere

In Seneca's view, lightning comes when air, the clouds thinned, turns to fire but lacks the force to leap far, as a sling bullet melts from friction with the air. So bolts are most frequent in summer, the hottest season. Lightning and bolt are made alike, but the bolt has more force and fuel: a bolt is lightning intensified, which does not only appear but falls.

Quid ipse existimem, quaeris (adhuc enim alienis opinionibus 57.1
What I-myself think you-ask so-far for to-others' opinions
commodavi manum). dicam. fulgurat, cum repentinum late
I-have-lent a-hand I-shall-say it-lightens when sudden widely
lumen emicuit; id evenit, ubi in ignem aër extenuatis
light has-flashed-out that happens when into fire the-air the-thinned
nubibus vertitur nec vires, quibus longius prosiliret, invenit.
clouds is-turned nor strength by-which farther it-might-leap-forth finds
non miraris, puto, si aëra aut motus extenuat aut 57.2
not you-wonder I-think if the-air either motion thins or
extenuatio incendit: sic liquescit excussa glans funda et
thinning kindles so melts shaken-out the-bullet from-the-sling and
attritu aëris velut igne destillat. ideo plurima aestate
by-the-rubbing of-the-air as-if by-fire drips therefore very-many in-summer
sunt fulmina, qua plurimum calidi est: facilius autem
are thunderbolts when most of-warmth there-is more-easily however
attritu calidorum ignis existit.
by-the-rubbing of-warm-things fire arises
eodem autem modo fit fulgur, quod tantum splendet, et 57.3
in-the-same however way arises the-lightning which only shines and
fulmen, quod mittitur. sed illi levior vis alimentique
the-thunderbolt which is-sent but to-that lighter the-force and-of-food
minus est, et, ut breviter dicam quod sentio, fulmen
less is and that briefly I-may-say what I-think the-thunderbolt

est fulgur intentum. ergo ubi calidi fumidique natura,
is lightning intensified therefore when of-warm and-smoky the-nature
emissa terris, in nubes incidit et diu in illarum sinu
sent-out from-the-earth into the-clouds has-fallen and long in their bosom
volutata est, novissime erumpit et, quia vires non
rolled it-has-been at-last it-bursts-out and because strength not
habet, splendor est;
it-has brightness it-is

57.4 at ubi illa fulgura plus habuere materiae et maiore impetu
but when those lightnings more have-had of-material and with-greater impetus
arserunt, non apparent tantum sed decidunt. quidam existimant
have-blazed not they-appear only but fall-down certain think
utique fulmen reverti, quidam subsidere, ubi alimenta
assuredly the-thunderbolt to-return certain to-settle when the-fuel
praegravaverunt et fulmen ictu languidiore delatum est.
has-weighed-down and the-thunderbolt with-a-stroke weaker brought-down is

LVIII · WHY THE BOLT IS SUDDEN AND SLANTING

The bolt appears suddenly and does not burn on, because its swift motion bursts the clouds and kindles the air at once, and the flame stops when the motion does. It travels slantwise because it is made of breath, which winds, and because nature calls fire up while force presses it down. Mountain peaks are struck because they stand in the clouds' way.

58.1 At quare fulmen subitum apparet nec continuatur
But why the-thunderbolt sudden does-it-appear nor is-continued
assiduus ignis? quia celere mirique motus simul et nubes
constant fire because swift and-of-wonderful motion at-once both the-clouds
rumpit et aëra incendit, deinde desinit flamma motu
it-bursts and the-air kindles then ceases the-flame the-motion

quiescente. non enim assiduus est spiritus cursus, ut
resting not for constant is of-the-breath the-course so-that
ignis possit extendi. sed quotiens fortius ipsa iactatione
the-fire can be-extended but whenever more-strongly by-the-very tossing
se accendit, fugiendi impetum capit; deinde cum evasit
itself it-kindles of-fleeing an-impetus it-takes then when it-has-escaped
et pugna desinit, ex eadem causa modo usque ad terram
and the-fight ceases from the-same cause now right to the-earth
profertur modo ante dissolvitur, si minore vi pressus est.
is-carried now before is-dissolved if with-a-lesser force pressed it-has-been
quare oblique fertur? quia spiritu constat, spiritus autem 58.2
why slantwise is-it-borne because of-breath it-consists breath however
obliquus est flexuosusque; et quia natura ignem sursum
slanting is and-winding and because nature fire upward
vocat, iniuria deorsum premit. incipit autem obliquum esse
calls violence downward presses it-begins however slanting to-be
iter, dum neutra vis alteri cedit et ignis in superiora
the-path while neither force to-the-other yields and the-fire to the-higher-regions
nititur et in inferiora deprimitur.
strives and to the-lower is-pressed-down
quare frequenter cacumina montium feriuntur? quia opposita 58.3
why often the-peaks of-mountains are-struck because set-opposite
sunt nubibus et e caelo cadentibus per haec
they-are to-the-clouds and from the-sky to-things-falling through these
transeundum est.
to-be-passed is

Lucilius would rather not fear bolts than understand them. Something healing belongs in every inquiry: we cannot escape fortune's blows but can bear them bravely, unconquered if not unshaken. Despise death, and all that leads to it is despised. Death calls all of us alike, and only the day is in question, so it is folly to beg for delay. The sword, a stone, or bile will find you; the bolt is the most splendid of your dangers, not the greatest, and no one ever feared a bolt except the one he escaped.

59.1 Intellego, quid dudum desideres, quid efflagites: 'malo',
I-understand what a-while-ago you-desire what you-demand I-prefer
inquis, 'fulmina non timere quam nosse; itaque alios doce,
you-say thunderbolts not to-fear than to-know and-so others teach
quemadmodum fiant: ego mihi metum illorum excuti
how they-arise I for-myself the-fear of-them to-be-shaken-out
volo, non naturam indicari.'
wish not the-nature to-be-shown

59.2 sequor quo vocas: omnibus enim rebus omnibusque
I-follow where you-call to-all for things and-to-all
sermonibus aliquid salutare miscendum est. cum imus per
discourses something salutary to-be-mixed is when we-go through
occulta naturae, cum divina tractamus, vindicandus
the-hidden-places of-nature when divine-things we-handle to-be-freed
est a malis suis animus ac subinde firmandus, quod
is from evils its-own the-mind and repeatedly to-be-strengthened which
etiam eruditis et hoc unum agentibus necessarium est,
even for-the-learned and this one-thing doing necessary is
non ut effugiamus ictus rerum (undique enim in nos
not that we-may-escape the-blows of-things from-everywhere for at us
tela iaciuntur), sed ut fortiter constanterque patiamur.
weapons are-hurled but that bravely and-steadfastly we-may-endure

invicti esse possumus, inconcussi non possumus, quamquam 59.3
unconquered to-be we-can unshaken not we-can although
interim spes subit, inconcussos quoque esse nos posse.
meanwhile hope steals-in unshaken also to-be us to-be-able
'quemadmodum?' inquis. contemne mortem: et omnia, quae
how you-say despise death and all-things which
ad mortem ducunt, contempta sunt, sive illa bella sunt
to death lead despised are whether those wars be
sive naufragia, seu morsus ferarum seu ruinarum subito
or shipwrecks or bites of-wild-beasts or of-ruins in-sudden
lapsu procidentium pondera.
collapse falling-forward the-weights
numquid facere amplius possunt, quam ut corpus ab animo 59.4
surely-not to-do more can-they than that the-body from the-mind
resolvant? hoc nulla diligentia evitat, nulla felicitas donat,
they-loosen this no diligence avoids no good-fortune remits
nulla potentia evincit. alia varia fors† ∗∗∗ dine disponit:
no power overcomes other-things various chance (lacuna) (…)dine arranges
mors omnes aeque vocat, iratis diis propitiisque moriendum est.
death all equally calls angry gods and-propitious to-die it-is
animus ex ipsa desperatione sumatur: ignavissima animalia, 59.5
courage from very despair let-it-be-taken the-most-cowardly animals
quae natura ad fugam genuit, ubi exitus non patet,
which nature for flight has-begotten when an-exit not lies-open
temptant pugnam corpore imbelli; nullus perniciosior hostis
try a-fight with-body unwarlike no more-destructive enemy
est quam quem audacem angustiae faciunt, longeque violentius
is than whom bold straits make and-far more-violently
semper ex necessitate quam ex virtute confligitur, aut
always from necessity than from courage it-is-fought or
certe paria conantur animus magnus ac perditus.
certainly equal-things attempt a-mind great and desperate

59.6 cogitemus nos, quantum ad mortem, perditos esse: et †
let-us-think ourselves as-far-as to death desperate to-be and (corrupt)
sumus. ita est, Lucili: omnes reservamur ad mortem; totum
we-are so it-is Lucilius all we-are-kept for death all
hunc, quem vides populum, totum quem usquam cogitas
this which you-see people all which anywhere you-think
esse, cito natura revocabit et condet, nec de re sed
to-be quickly nature will-call-back and will-bury nor about the-matter but
de die quaeritur: eodem citius tardius veniendum est.
about the-day is-the-question to-the-same sooner later to-come it-is
59.7 quid ergo? non tibi timidissimus omnium videtur et
what then not to-you most-timid of-all seems and
insipientissimus, qui magno ambitu rogat moram mortis?
most-foolish who with-great canvassing asks delay of-death
nonne contemneres eum, qui inter perituros constitutus
not would-you-despise him who among those-to-perish placed
beneficii loco peteret, ut ultimus cervicem praeberet?
of-a-favor in-the-place should-ask that last his-neck he-might-offer
59.8 idem facimus: magno aestimamus mori tardius. in omnes
the-same we-do greatly we-value to-die later on all
constitutum est capitale supplicium et quidem constitutione
appointed is capital punishment and indeed by-an-appointment
iustissima, quod maximum solet esse solacium extrema
most-just which the-greatest is-wont to-be comfort the-extremes
passuris. quorum enim causa, sors eadem est; si
for-those-about-to-suffer whose for the-case the-lot the-same is if
duceremur traditi a iudice aut magistratu, carnifici
we-were-led handed-over by a-judge or magistrate to-the-executioner
nostro praestaremus obsequium: quid interest, utrum ad
to-our we-would-show compliance what does-it-matter whether to
mortem iussi eamus an nati?
death ordered we-go or born

o te dementem et oblitum fragilitatis tuae, si tunc 59.9
O you mad and forgetful of-frailty your if then
mortem times, cum tonat! itane? in hoc salus tua vertitur?
death you-fear when it-thunders is-it-so on this safety your turns
vives, si fulmen effugeris? petet te gladius, petet
you-will-live if the-thunderbolt you-escape will-attack you the-sword will-attack
lapis, petet bilis: non maximum ex periculis tuis sed
a-stone will-attack bile not the-greatest of dangers your but
speciosissimum fulmen est.
the-most-showy the-thunderbolt is
male scilicet actum erit tecum, si sensum mortis tuae 59.10
badly of-course done it-will-be with-you if the-perception of-death your
celeritas infinita praeveniet, si mors tua procuratur, si
speed infinite will-forestall if death your is-attended-with-rites if
ne tunc quidem, cum expiras, supervacuus sed alicuius
not then even when you-breathe-out superfluous but of-some
magnae rei signum es. male scilicet tecum agitur, si
great thing a-sign you-are badly of-course with-you it-is-done if
cum fulmine conderis.
with a-thunderbolt you-are-buried
sed pavescis ad caeli fragorem et ad inane nubilum 59.11
but you-tremble at the-sky's crash and at an-empty cloud
trepidas et, quotiens aliquid effulsit, expiras. quid ergo?
you-quake and whenever something has-flashed you-breathe-out what then
honestius putas † dilectione perire quam fulmine?
more-honorable do-you-think (corrupt) by-pining to-perish than by-a-thunderbolt
eo itaque fortior adversus caeli minas surge et, cum
by-so-much and-so braver against the-sky's threats rise and when
undique mundus exarserit, cogita nihil habere te tanta
on-all-sides the-world has-blazed think nothing to-have you by-so-great
morte pendendum.
a-death to-be-paid-for

59.12 quod si tibi parari credis illam caeli confusionem, illam
but if for-you to-be-prepared you-believe that of-the-sky confusion that
tempestatum discordiam, si propter te ingestae illisaeque
of-storms discord if on-account-of you heaped and-dashed
nubes strepunt, si in tuum exitium tanta vis ignium excutitur:
clouds roar if for your destruction so-great a-force of-fires is-struck-out
at tu solacii loco numera tanti esse mortem tuam.
then you of-comfort in-the-place count of-so-much to-be death your

59.13 sed non erit huic cogitationi locus; casus iste donat
but not there-will-be for-this thought place chance that remits
metum et inter cetera hoc quoque commodum eius,
fear and among other-things this also an-advantage its
quod expectationem suam antecedit: nemo umquam timuit
that expectation its-own it-precedes no-one ever has-feared
fulmen, nisi quod effugit.
a-thunderbolt except one-that he-has-escaped

BOOK III

PREFACE · WHAT MATTERS MOST

An old man, Seneca sets out to survey the whole universe, and age bids him hurry. Better than chronicling the crimes of Philip, Alexander, or Hannibal is to learn what should be done and that fortune gives nothing stable. What matters most is to have seen everything with the mind and mastered one's vices; to bear adversity gladly, as willed by god; to pray for a good mind; to hold life on the lips, and so be free of slavery to oneself. The study of nature helps, leading the mind from base things and from the body.

Non praeterit me, Lucili virorum optime, quam magnarum 1
Not escapes me Lucilius of-men best how of-great
rerum fundamenta ponam senex, qui mundum circuire
things the-foundations I-am-laying an-old-man who the-world to-go-round
constitui et causas secretaque eius eruere atque aliis
have-resolved and the-causes and-secrets its to-dig-out and to-others
noscenda producere: quando tam multa consequar, tam
to-be-known to-bring-forth when so many-things shall-I-attain so
sparsa colligam, tam occulta perspiciam?
scattered-things shall-I-gather so hidden-things shall-I-see-through
premit a tergo senectus et obicit annos inter 2
presses from behind old-age and throws-up-to-me the-years in
vana studia consumptos: 'tanto magis urgeamus et damna
vain studies consumed so-much more let-us-press and the-losses
aetatis male exemptae labor sarciat; nox ad diem accedat,
of-an-age badly spent let-toil repair let-night to the-day be-added
occupationes recidantur, patrimonii longe a domino
let-occupations be-cut-back of-an-estate far from its-master

iacentis cura solvatur, sibi totus animus vacet et ad
lying let-the-care be-loosened to-itself whole let-the-mind be-free and to
contemplationem sui saltem in ipso fine respiciat.'
the-contemplation of-itself at-least at the-very end let-it-look-back
3 faciet ac sibi instabit et cotidie brevitatem temporis
it-will-do-so and itself will-press and daily the-shortness of-time
metietur; quicquid amissum est, id diligenti usu praesentis
will-measure whatever lost has-been that by-diligent use of-the-present
vitae recolliget: fidelissimus est ad honesta ex
life it-will-gather-again most-faithful is to honorable-things from
paenitentia transitus. 'libet igitur mihi exclamare illum
repentance the-passage it-pleases therefore me to-cry-out that
poetae incliti versum
of-a-poet famous verse

tollimus ingentes animos et maxima parvo
we-raise huge spirits and the-greatest-things in-a-small
tempore molimur.'
time we-attempt

hoc dicerem, si puer iuvenisque molirer (nullum enim non
this I-would-say if a-boy and-a-young-man I-were-attempting none for not
tam magnis rebus tempus angustum est): nunc vero ad rem
to-so great things time narrow is now indeed to a-matter
seriam, gravem, immensam post meridianas horas accessimus.
serious heavy boundless after the-midday hours we-have-come
4 'faciamus quod in itinere fieri solet: qui tardius exierunt,
let-us-do what on a-journey to-be-done is-wont those-who later have-set-out
velocitate pensant moram — festinemus et opus nescio an
by-speed make-up delay let-us-hasten and the-work I-know-not whether
superabile, magnum certe, sine aetatis excusatione tractemus.'
surmountable great certainly without of-age excuse let-us-handle

crescit animus, quotiens coepti magnitudinem ostendis,
grows the-mind whenever of-the-undertaking the-greatness you-show
et cogitat, quantum proposito, non quantum sibi supersit.
and it-thinks how-much to-the-purpose not how-much to-itself may-remain
Consumpsere se quidam, dum acta regum externorum 5
Have-consumed themselves certain while the-acts of-kings foreign
componunt quaeque passi invicem ausique sunt populi:
they-compose and-what suffered in-turn and-dared have peoples
quanto satius est, sua mala extinguere quam aliena
how-much better is-it one's-own evils to-extinguish than others'
posteris tradere? quanto potius, deorum opera celebrare
to-posterity to-hand-down how-much rather of-the-gods the-works to-celebrate
quam Philippi aut Alexandri latrocinia ceterorumque, qui
than of-Philip or of-Alexander the-robberies and-of-the-rest who
exitio gentium clari non minores fuere pestes mortalium
by-the-destruction of-nations famous not lesser were plagues of-mortals
quam inundatio, qua planum omne perfusum est, quam
than the-flood by-which the-flat all drenched was than
conflagratio, qua magna pars animantium exaruit?
the-conflagration by-which a-great part of-living-things dried-up
quemadmodum Hannibal Alpes superiecerit, scribunt, 6
how Hannibal the-Alps has-crossed they-write
quemadmodum confirmatum Hispaniae cladibus bellum
how strengthened by-Spain's disasters war
Italiae inopinatus intulerit fractisque rebus, etiam post
on-Italy unexpected he-brought and-broken his-affairs even after
Carthaginem pertinax, reges pererraverit contra Romanos
Carthage persistent kings he-wandered-among against the-Romans
ducem promittens exercitum petens; quemadmodum non
a-general promising an-army seeking how not

desierit omnibus angulis bellum senex quaerere: adeo
he-ceased in-all corners war an-old-man to-seek so
sine patria pati poterat, sine hoste non poterat.
without a-country to-endure he-could without an-enemy not he-could
7 quanto satius est, quid faciendum sit quam quid factum,
how-much better is-it what to-be-done may-be than what done
quaerere ac docere eos, qui sua permisere fortunae,
to-ask and to-teach those who their-things have-entrusted to-fortune
nihil stabile ab illa datum esse, eius omnia aura fluere
nothing stable by her given to-be her all-things than-a-breeze to-flow
mobilius? nescit enim quiescere, gaudet laetis tristia
more-changeably knows-not for to-rest she-rejoices for-happy-things sad-things
substituere, utique miscere; itaque secundis nemo confidat,
to-substitute assuredly to-mix and-so prosperity no-one let-trust
adversis nemo deficiat: alternae sunt vices rerum.
adversity no-one let-yield alternating are the-changes of-things
8 quid exultas? ista, quibus eveheris in summum, nescis,
why do-you-exult these by-which you-are-carried into the-highest you-know-not
ubi te relictura sint: habebunt suum, non tuum finem.
where you going-to-leave they-may-be they-will-have their-own not your end
quid iaces? ad imum delatus es: nunc locus
why do-you-lie to the-bottom brought-down you-have-been now the-place
est resurgendi; in melius adversa, in deterius optata
is of-rising-again to the-better adverse-things to the-worse wished-for-things
flectuntur.
are-turned
9 ita concipienda est animo varietas non privatarum tantum
so to-be-conceived is by-the-mind the-variability not of-private only
domuum, quas levis casus impellit, sed publicarum. regna ex
houses which a-light chance pushes but of-public kingdoms from
infimo coorta supra imperantes constiterunt, vetera imperia
the-lowest arisen above the-rulers have-stood old empires

in ipso flore ceciderunt; inveniri non potest numerus,
in the-very flower have-fallen to-be-found not can the-number
quam multa ab aliis fracta sint: nunc cum maxime deus
how many by others broken have-been now when most god
extruit alia, alia summittit nec molliter ponit sed ex
builds-up some others lowers nor gently sets-them-down but from
fastigio suo nullas habitura reliquias iactat.
height its-own none going-to-have remains he-hurls
magna ista, quia parvi sumus, credimus: multis rebus non 10
great these-things because small we-are we-believe in-many things not
ex natura sua sed ex humilitate nostra magnitudo est.
from nature their-own but from humility our greatness is
quid praecipuum in rebus humanis est? non classibus maria
what pre-eminent in affairs human is-it not with-fleets the-seas
complesse nec in rubri maris litore signa fixisse nec
to-have-filled nor on of-the-Red Sea the-shore standards to-have-fixed nor
deficiente ad iniurias terra errasse in oceano ignota
failing for injuries the-earth to-have-wandered in the-ocean unknown-things
quaerentem, sed animo omne vidisse et, qua maior
seeking but with-the-mind all to-have-seen and than-which greater
nulla victoria est, vitia domuisse: innumerabiles sunt, qui
no victory is vices to-have-tamed innumerable are those-who
populos, qui urbes habuerunt in potestate, paucissimi, qui se.
peoples who cities have-had in power very-few who themselves
quid est praecipuum? erigere animum supra minas et 11
what is pre-eminent to-raise the-mind above the-threats and
promissa fortunae, nihil dignum putare, quod speres. quid
promises of-fortune nothing worthy to-think which you-may-hope what
enim habet, quod concupiscas? qui a divinorum conversatione
for has-it which you-may-covet who from of-divine-things the-converse

quotiens ad humana recideris, non aliter caligabis quam
whenever to human-things you-fall-back not otherwise you-will-be-darkened than
quorum oculi in densam umbram ex claro sole redierunt.
those-whose eyes into dense shade from the-bright sun have-returned

12 quid est praecipuum? posse laeto animo adversa tolerare;
what is pre-eminent to-be-able with-glad mind adversities to-bear
quicquid acciderit, sic ferre, quasi tibi volueris accidere
whatever has-happened so to-endure as-if to-you you-had-wished-it to-happen
(debuisses enim velle, si scisses omnia ex decreto
you-ought for to-have-wished if you-had-known all-things from the-decree
dei fieri: flere, queri et gemere desciscere est).
of-god to-happen to-weep to-complain and to-groan to-desert is

13 quid est praecipuum? animus contra calamitates fortis et
what is pre-eminent a-mind against calamities brave and
contumax, luxuriae non adversus tantum sed infestus, nec
defiant to-luxury not averse only but hostile nor
avidus periculi nec fugax, qui sciat fortunam non expectare
greedy of-danger nor fleeing-it which knows fortune not to-await
sed facere et adversus utramque intrepidus inconfususque
but to-make and against each unafraid and-unconfused
prodire, nec illius tumultu nec huius fulgore percussus.
to-go-forth neither by-that-one's turmoil nor by-this-one's gleam struck

14 quid est praecipuum? non admittere in animo mala consilia,
what is pre-eminent not to-admit into the-mind evil counsels
puras ad caelum manus tollere, nullum bonum petere, quod
pure to the-sky hands to-raise no good to-seek which
ut ad te transeat, aliquis dare debet aliquis amittere,
that to you it-may-pass someone to-give must someone to-lose
optare, quod sine adversario optatur, bonam mentem:
to-wish-for what without an-adversary is-wished-for a-good mind

cetera magno aestimata mortalibus, etiamsi quis domum
other-things greatly valued by-mortals even-if some into-the-house
casus adtulerit, sic intueri quasi exitura, qua venerint.
chance has-brought so to-look-at-them as-if going-to-go-out where they-came
quid est praecipuum? altos supra fortuita spiritus tollere, 15
what is pre-eminent lofty above chance-things spirits to-raise
hominis meminisse, ut, sive felix eris, scias hoc
of-being-a-man to-remember that whether happy you-will-be you-may-know this
non futurum diu, sive infelix, scias hoc te non esse,
not going-to-be long or unhappy you-may-know this you not to-be
si non putes.
if not you-think-so
quid est praecipuum? in primis labris animam habere: haec 16
what is pre-eminent on the-edge-of lips the-soul to-have this
res efficit non e iure Quiritium liberum sed e iure
thing makes not by the-law of-the-Quirites free but by the-law
naturae. liber est autem, qui servitutem suam effugit:
of-nature free is however he-who servitude his-own escapes
haec est assidua et ineluctabilis et per diem ac noctem
this is constant and inescapable and through day and night
aequaliter premens, sine intervallo sine commeatu.
equally pressing without interval without leave
sibi servire gravissima est servitus: quam discutere facile 17
to-oneself to-be-a-slave the-heaviest is slavery which to-shake-off easy
est, si desieris multa te poscere, si desieris tibi
is if you-cease many-things yourself to-demand if you-cease to-yourself
referre mercedem, si ante oculos et naturam tuam posueris
to-pay a-wage if before your-eyes both the-nature your you-set
et aetatem, licet prima sit, ac tibi ipse dixeris ‘quid
and your-age though the-first it-be and to-yourself yourself you-say why

insanio? quid anhelo? quid sudo? quid terram, quid forum
am-I-mad why do-I-pant why do-I-sweat why the-earth why the-forum
verso? — nec multo opus est nec diu.'
do-I-turn-over not much need is nor long

18 ad hoc proderit nobis inspicere rerum naturam: primo
for this it-will-profit us to-inspect of-things the-nature first
discedemus a sordidis; deinde animum ipsum, quo summo
we-shall-depart from sordid-things then the-mind itself of-which highest
magnoque opus est, seducemus a corpore; deinde in
and-great need is we-shall-lead-apart from the-body then in
occultis exercitata subtilitas non erit in aperta deterior. nihil
hidden-things exercised subtlety not will-be in open-things worse nothing
est autem apertius his salutaribus, quae contra nequitiam
is however more-open than-these salutary-things which against wickedness
nostram furoremque discuntur, quae damnamus nec ponimus.
our and-madness are-learned which we-condemn nor we-lay-aside

Seneca turns to the waters of the earth, the springs the poets praise, Ovid, Vergil, and Lucilius himself on the Sicilian springs: how so many great rivers run day and night, and why some swell in winter and others when the rest run low. The Nile, unique, is set aside for its own day. He will ask whether hot springs are born hot or made so, and treat the waters known for taste or for healing.

Quaeramus ergo de terrestribus aquis et investigemus, 1.1
Let-us-inquire then about terrestrial waters and let-us-investigate
qua ratione fiant (sive, ut ait Ovidius,
by-what reason they-arise whether as says Ovid

fons erat illimis nitidis argenteus undis,
a-spring there-was unmuddied with-gleaming silver waves

sive, ut ait Vergilius,
or as says Vergil

unde per ora novem vasto cum murmure montis
whence through mouths nine vast with roaring of-the-mountain
it mare praeruptum et pelago premit arva sonanti,
goes a-sea headlong and with-the-deep presses the-fields sounding

sive, ut apud te, Iunior karissime, invenio,
or as in you Junior dearest I-find

Elius Siculis de fontibus exilit amnis),
the-Elian Sicilian from springs leaps-out river

si qua ratio aquas subministrat; quomodo tot flumina
if some method waters supplies how so-many rivers
ingentia per diem noctemque decurrant; quare alia hibernis
huge through day and-night run-down why some by-winter
aquis intumescant, alia in defectu ceterorum amnium crescant.
waters swell others in the-failing of-the-other rivers grow
1.2 Nilum interim seponemus a turba, propriae naturae
the-Nile meanwhile we-shall-set-apart from the-crowd of-its-own nature
ac singularis, et illi suum diem dabimus. nunc vulgares
and singular and to-it its-own day we-shall-give now common
aquas prosequamur, tam frigidas quam calentes: in quibus
waters let-us-pursue as-well cold as hot in which
quaerendum erit, utrum calidae nascantur an fiant. de ceteris
to-be-asked it-will-be whether hot they-are-born or become about the-others
quoque disseremus, quas insignes aut sapor aut aliqua reddit
also we-shall-discourse which notable either a-taste or some renders
utilitas: quaedam enim oculos, quaedam nervos iuvant, quaedam
usefulness some for the-eyes some the-sinews help some
inveterata et desperata a medicis vitia percurant; quaedam
inveterate and despaired by physicians ills cure some
medentur ulceribus, quaedam interiora potu fovent et
heal ulcers some the-inner-parts by-drinking warm and
pulmonis ac viscerum querelas levant, quaedam supprimunt
of-the-lung and of-the-entrails the-complaints relieve some stop
sanguinem: tam varius singulis usus quam gustus est.
blood so varied for-each the-use as the-taste is

Waters stand, flow, collect, or run in veins; they are sweet or harsh, salt, bitter, or medicinal, with sulfur, iron, or alum. They differ in temperature, weight, color, and healthfulness: some heal and some kill, some turn to stone, some nourish, some pass through untouched, some bring fertility.

Aut stant omnes aquae aut eunt aut colliguntur aut varias 2.1
Either stand all waters or go or are-collected or various
habent venas. aliae dulces sunt, aliae varie asperae; quippe
have veins some sweet are others variously harsh for
interveniunt salsae amaraeque aut medicatae, ex quibus
come-between salty and-bitter or medicinal of which
sulphuratas dicimus ferratas aluminosas: indicat vim sapor.
sulfurous we-call iron-bearing alum-bearing shows the-force the-taste
habent praeterea multa discrimina, primum tactus: frigidae 2.2
they-have besides many differences first of-touch cold
calidaeque sunt, deinde ponderis: leves et graves sunt,
and-hot they-are then of-weight light and heavy they-are
deinde coloris: purae sunt, turbidae, caeruleae, luridae;
then of-color pure they-are muddy blue lurid
deinde salubritatis: sunt enim utiles, sunt mortiferae,
then of-healthiness there-are for useful-ones there-are deadly
sunt quae cogantur in lapidem, quaedam tenues, quaedam
there-are which are-compacted into stone some thin some
pingues; quaedam alunt, quaedam sine ulla bibentis ope
fat some nourish some without any of-the-drinker help
transeunt, quaedam haustae fecunditatem afferunt.
pass-through some drunk fertility bring

Whether water stands or flows depends on the ground: it runs on a slope and lies still on the flat. It collects from rain or rises from its own spring, and both may happen in one place, as in the Fucine lake, which keeps its level after the winter torrents have run off because of great hidden springs within it.

3.1 Ut stet aqua aut fluat, loci positio efficit: in devexo
That stands water or flows the-place's position effects on a-slope
fluit, in plano et convexo continetur et stagnat. aliquando
it-flows on the-flat and hollow it-is-held and stagnates sometimes
in adversum spiritu impellitur: tunc cogitur, non fluit.
in the-opposite-direction by-breath it-is-driven then it-is-forced not it-flows
colligitur ex imbribus, ex suo fonte nativa est. nihil
it-is-collected from showers from its-own spring native it-is nothing
tamen prohibet eodem loco aquam colligi et nasci,
yet prevents in-the-same place water to-be-collected and to-be-born
quod in Fucino videmus, in quem montes circumiecti,
which in the-Fucine-lake we-see into which the-mountains surrounding
quicquid fudit pluvia, derivant, sed et magnae in ipso
whatever has-poured the-rain divert but also great in itself
latentesque venae sunt: itaque etiam cum hiberni defluxere
and-hidden veins are and-so even when the-winter have-run-off
torrentes, faciem suam servat.
torrents level its-own it-keeps

How does the earth keep the rivers running? We wonder that the seas do not feel the rivers' inflow; it is as wonderful that the earth does not feel their outflow. Whatever explains the rivers will explain brooks and springs too.

Primum ergo quaeramus, quomodo ad continuandos fluminum 4.1
First therefore let-us-ask how for continuing of-rivers
cursus terra sufficiat, unde tantum aquarum exeat. miramur,
the-courses the-earth suffices whence so-much of-waters goes-out we-wonder
quod accessionem fluminum maria non sentiant: aeque
that the-addition of-rivers the-seas not perceive equally
mirandum est, quod detrimentum exeuntium terra non
to-be-wondered-at is that the-loss of-those-going-out the-earth not
sentit. quid est, quod illam aut sic impleverit, ut praebere
perceives what is-it which it either so has-filled that to-provide
tantum ex recondito possit, aut subinde sic suppleat?
so-much from storage it-can or repeatedly so replenishes
quamcumque rationem reddiderimus de flumine, eadem
whatever account we-shall-have-given about a-river the-same
erit rivorum ac fontium.
will-be of-streams and springs

Some hold that the earth takes back all the water it sends out, so the seas do not grow: the sea returns by hidden ways under the land and is filtered on the way, losing its salt in the many turns of the soil and becoming pure water.

5.1 Quidam iudicant terram, quicquid aquarum emisit, rursus
Certain judge the-earth whatever of-waters it-has-sent-out again
accipere et ob hoc maria non crescere, quia quod
to-receive and on-account-of this the-seas not to-grow because what
influxit, non in suum vertunt sed protinus reddunt.
has-flowed-in not into their-own they-turn but straightway give-back
occulto enim itinere subit terras et quod palam
by-a-hidden for path it-goes-under the-earth and what openly
venit, secreto revertitur, colaturque in transitu mare, quod
comes secretly returns and-is-filtered in passage the-sea which
per multiplices terrarum anfractus verberatum amaritudinem
through manifold of-the-earth windings beaten bitterness
ponit et pravitatem in tanta soli varietate saporum
lays-aside and foulness in so-great of-the-soil variety of-tastes
exuit et in sinceram aquam transit.
puts-off and into pure water passes

Others think the earth gives back the rain it drank, since rivers are few where rain is rare, as in Ethiopia, and many under the moist skies of Germany, Gaul, and Italy.

Quidam existimant, quicquid ex imbribus terra concepit, id 6.1
Certain think whatever from showers the-earth has-conceived that
illam rursus emittere et hoc argumenti loco ponunt, quod
it again to-send-out and this of-a-proof in-the-place they-put that
paucissima flumina in his sunt locis, quibus rarus est imber.
very-few rivers in those are places in-which rare is the-shower
ideo siccas aiunt Aethiopiae solitudines esse paucosque 6.2
therefore dry they-say of-Ethiopia the-wastes to-be and-few
inveniri in interiori Africa fontes, quia fervida natura caeli
to-be-found in inner Africa springs because hot the-nature of-the-sky
sit et paene semper aestiva; squalidae itaque sine arbore sine
is and almost always summer squalid and-so without tree without
cultore harenae iacent raris imbribus sparsae, quos statim
cultivator the-sands lie by-rare showers sprinkled which at-once
combibunt. at contra constat Germaniam Galliamque et
they-drink-up but on-the-contrary it-is-established Germany and-Gaul and
proxime ab illis Italiam abundare rivis et fluminibus, quia
next after them Italy to-abound in-streams and rivers because
caelo umido utuntur et ne aestas quidem imbribus caret.
a-sky moist they-enjoy and not summer even of-showers is-devoid

Seneca, a careful digger of vineyards, answers that no rain soaks the ground deeper than ten feet: most runs off to the sea, and the earth either drinks the little left or shuts it out. Some rivers burst from bare rock; wells sunk two or three hundred feet in the driest places find rich veins where no drop reaches, living water; and springs overflow on mountaintops, though rain runs down.

7.1 Adversus hoc multa posse dici vides. primum ego tibi
Against this many-things can be-said you-see first I to-you
vinearum diligens fossor affirmo, nullam pluviam esse tam
of-vineyards a-diligent digger affirm no rain to-be so
magnam, quae terram ultra decem in altitudinem pedes
great which the-earth beyond ten in depth feet
madefaciat; omnis umor intra primam crustam consumitur
wets all moisture within the-first crust is-consumed
nec in inferiora descendit:
nor to the-lower-parts descends

7.2 quomodo ergo imber suggerere potest amnibus vires, qui
how then a-shower to-supply can to-rivers strength which
summam humum tinguit? pars maior eius per fluminum
the-top soil wets the-part greater of-it through of-rivers
alveos in mare aufertur; exiguum est quod sorbeat terra,
the-beds into the-sea is-carried-off scanty is what may-absorb the-earth
nec id servat: aut enim arida est et absumit in se,
nor that it-keeps either for dry it-is and uses-up into itself
quicquid infusum est, aut satiata, si quid supra desiderium
whatever poured-in has-been or sated if anything beyond its-desire
cecidit, excludit, et ideo primis imbribus non augentur
has-fallen it-shuts-out and therefore by-the-first showers not are-increased
amnes, quia totos in se terra sitiens trahit.
rivers because whole into itself the-earth thirsting draws-them

quid, quod quaedam flumina erumpunt saxis et montibus? 7.3
what that some rivers burst-out from-rocks and mountains
his quid conferent pluviae, quae per nudas rupes
to-these what will-contribute the-rains which over bare crags
deferuntur nec habent terram, cui insidant? adice, quod
are-carried-down nor have earth on-which they-may-settle add that
siccissimis locis putei in altum acti ultra ducentorum
in-the-driest places wells into the-depth driven beyond of-two-hundred
aut trecentorum pedum spatium inveniunt aquarum uberes
or three-hundred feet the-distance find of-waters rich
venas in ea altitudine, in quam gutta non penetrat, ut
veins at that depth to which a-drop not penetrates so-that
scias illic non caelestem esse nec collecticium umorem,
you-may-know there not heavenly to-be nor gathered moisture
sed, quod dici solet, vivam aquam.
but what to-be-said is-wont living water
illo quoque argumento haec opinio refellitur, quod quidam 7.4
by-that also argument this opinion is-refuted that certain
fontes in summo montis cacumine redundant: apparet
springs on the-highest of-a-mountain peak overflow it-appears
illos sursum agi aut ibi concipi, cum omnis pluvialis
that-they upward are-driven or there are-conceived since all rain
aqua decurrat.
water runs-down

Some think the earth's depths hold fresh water standing like an ocean, from which the rivers are drawn without its feeling the loss.

8.1 Quidam existimant, quemadmodum in exteriori parte
Certain think as in the-outer part
terrarum vastae paludes iacent magnique et navigabiles lacus,
of-the-earth vast marshes lie and-great and navigable lakes
quemadmodum ingenti spatio maria porrecta sunt infusa
as over-a-huge space seas stretched-out are poured-into
vallibus, sic interiora terrarum abundare aquis dulcibus nec
valleys so the-inner-parts of-the-earth to-abound in-waters sweet nor
minus illas stagnare quam apud nos oceanum et sinus eius,
less them to-stagnate than among us the-ocean and gulfs its
immo eo latius, quo plus terra in altum patet. ergo ex
nay so-much more-widely as more the-earth into the-depth extends therefore from
illa profunda copia isti amnes egeruntur: quos quid miraris,
that deep abundance these rivers are-drawn-forth which why do-you-wonder
si terra detractos non sentit, cum adiectos maria non sentiant?
if the-earth withdrawn not perceives when added the-seas not perceive

Others say the earth's hollows hold air that, chilled and still in the shade, turns to water, and below nothing interrupts it, so the supply never fails.

Quibus haec placet causa, aiunt habere terram intra se 9.1
(Those)-to-whom this pleases cause say to-have the-earth within itself
recessus cavos et multum spiritus, qui necessario frigescit
recesses hollow and much breath which necessarily grows-cold
umbra gravi pressus, deinde piger et immotus in aquam,
by-shade heavy pressed then sluggish and unmoved into water
cum se desiit ferre, convertitur:
when itself it-has-ceased to-carry is-turned
quemadmodum supra nos mutatio aëris imbrem facit, ita infra 9.2
as above us the-change of-the-air a-shower makes so below
terras flumen aut rivum; supra nos non potest stare segnis
the-earth a-river or a-stream above us not it-can to-stand sluggish
diu et gravis (aliquando enim sole tenuatur, aliquando
long and heavy sometimes for by-the-sun it-is-thinned sometimes
ventis expanditur, itaque intervalla magna imbribus sunt), sub
by-winds it-is-spread and-so intervals great for-showers there-are under
terra vero quicquid est, quod illum in aquam convertat,
the-earth indeed whatever is that it into water turns
idem semper est, umbra perpetua, frigus aeternum, inexercitata
the-same always is shade perpetual cold eternal unexercised
densitas: semper ergo praebebit fonti aut flumini causas.
density always therefore it-will-provide for-a-spring or for-a-river causes
'placet nobis terram esse mutabilem.' haec quoque quicquid 9.3
it-pleases us the-earth to-be changeable this also whatever
efflavit, quia non libero aëre concipitur, crassescit
it-has-breathed-out because not in-free air it-is-conceived thickens

protinus et in umorem convertitur: habes primam aquarum
straightway and into moisture is-turned you-have the-first of-waters
sub terra nascentium causam.
under the-earth arising cause

X · ALL FROM ALL

Everything comes from everything: water from air, air from water, fire from air. Why not water from earth, its kin, heavy and dense like it? We wonder at the rivers' unfailing flow, but not that the winds never exhaust the air or the waves the sea: what returns into itself never fails, and nature weighs her parts as in a balance. Each element already holds the others, so the earth presses out its moisture, thickens its air into water, and turns into water itself.

10.1 Adicias etiam licet, quod fiunt omnia ex omnibus, ex
Add also you-may that arise all-things from all-things from
aqua aër, ex aëre aqua, ignis ex aëre, ex igne aër: quare
water air from air water fire from air from fire air why
ergo non ex terra fiat aqua? quae si in alia mutabilis,
then not from earth should-arise water which if into others changeable
est etiam in aquam, immo maxime in hanc: utraque enim
it-is also into water nay most into this both for
cognata res est, utraque gravis, utraque densa, utraque in
a-related thing is both heavy both dense both into
extremum mundi compulsa.
the-extremity of-the-world driven

10.2 ex aqua terra fit: cur non aqua fiat e terra? 'at magna
from water earth arises why not water should-arise from earth but great
flumina sunt.' cum videris, quanta sint, rursus ex quanto
rivers are when you-have-seen how-great they-are again from how-great
prodeant adspice. miraris, cum labantur assidue quaedam vero
they-come-forth look you-wonder when they-glide constantly some indeed

concitata rapiantur, quod praesto sit illis aqua semper nova:
roused are-swept-along that at-hand be to-them water always new
quid, si mireris, quod, cum venti totum aëra impellant,
what if you-wonder that when the-winds all the-air drive
non deficit spiritus sed per dies noctesque aequaliter fluit,
not fails the-breath but through days and-nights evenly flows
nec (ut flumina) certo alveo fertur sed per vastum
nor like rivers in-a-fixed bed is-borne but through the-vast
caeli spatium lato impetu vadit? quid, si ullam undam
of-the-sky space with-broad impetus goes what if any wave
superesse mireris, quae superveniat tot fluctibus fractis?
to-remain you-wonder which may-come-over so-many waves broken
nihil deficit, quod in se redit: omnium elementorum alterni 10.3
nothing fails which into itself returns of-all the-elements alternate
recursus sunt; quicquid alteri perit, in alterum transit, et
the-returns are whatever to-one perishes into the-other passes and
natura partes suas velut in ponderibus constitutas examinat,
nature parts her-own as-if in scales set weighs
ne portionum aequitate turbata mundus praeponderet.
lest of-the-portions the-balance disturbed the-world outweigh
omnia in omnibus sunt: non tantum aër in ignem transit 10.4
all-things in all-things are not only air into fire passes
sed numquam sine igne est (detrahe illi calorem:
but never without fire is take-away from-it heat
rigescet, stabit, durabitur); transit aër in umorem sed
it-will-stiffen it-will-stand it-will-be-hardened passes air into moisture but
est nihilominus non sine umore; et aëra et aquam facit
is nonetheless not without moisture and air and water makes
terra sed non magis umquam sine aqua est quam sine
earth but not more ever without water is than without

aëre — et ideo facilior est invicem transitus, quia illis,
air and therefore easier is in-turn the-passage because to-those
in quae transeundum est, iam mixta sunt.
into which to-be-passed is already mixed they-are
10.5 habet ergo terra umorem: hunc exprimit; habet aëra:
has therefore the-earth moisture this it-squeezes-out it-has air
hunc umbra hiberni frigoris densat, ut faciat umorem;
this the-shade of-winter cold condenses so-that it-makes moisture
ipsa quoque mutabilis est in umorem: natura sua utitur.
itself also changeable it-is into moisture nature its-own it-uses

XI · SPRINGS THAT FAIL AND APPEAR

Springs dry up or appear because earthquakes and landslides change their courses, as on Mount Corycus, says Theophrastus. He adds that Haemus gained water when the Gauls cut its forests, and a Cretan Arcadia lost its springs when the land went untilled; Seneca doubts both, since the shadiest places are the wettest and springs abound in deserts. A great river navigable from its source flows the same in winter and summer: rain makes torrents, not rivers.

11.1 'Quid ergo?' inquit, 'si perpetuae sunt causae, quibus flumina
What then he-says if perpetual are the-causes by-which rivers
oriuntur ac fontes, quare aliquando siccantur aliquando
arise and springs why sometimes are-they-dried-up sometimes
quibus non fuerunt locis exeunt?' saepe motu terrarum
in-which not they-were places do-they-come-out often by-the-movement of-the-earth
itinera turbantur et ruina interscindit cursum aquis, quae
the-paths are-disturbed and a-collapse cuts-off the-course for-the-waters which
retentae novos exitus quaerunt et aliquo impetum faciunt aut
held-back new exits seek and somewhere an-attack make or
ipsius quassatione terrae aliunde alio transferuntur.
by-the-very shaking of-the-earth from-one-place to-another are-transferred

apud nos solet evenire, ut amisso canali suo flumina 11.2
among us it-is-wont to-happen that lost channel their-own rivers
primum refundantur, deinde, quia perdiderunt viam, faciant.
first are-poured-back then because they-have-lost the-way they-make-one
hoc ait accidisse Theophrastus in Coryco monte, in
this he-says to-have-happened Theophrastus on the-Corycian mountain on
quo post terrarum tremorem nova vis fontium emersit.
which after the-earth's tremor a-new force of-springs emerged
cui alias quoque causas intervenire opinatur, quae evocent 11.3
to-which other also causes to-intervene he-thinks which call-forth
aquas aut cursu suo deiciant et avertant: fuit aliquando
waters or from-course their-own throw-down and turn-aside was once
aquarum inops Haemus, sed cum Gallorum gens a Cassandro
of-waters destitute Haemus but when of-Gauls a-tribe by Cassander
obsessa in illum se contulisset et silvas cecidisset, ingens
besieged to it itself had-betaken and the-woods had-cut-down a-huge
aquarum copia apparuit, quas videlicet in alimentum suum
of-waters abundance appeared which evidently for food their-own
nemora ducebant; quibus eversis umor, qui desiit in
the-groves drew which overturned the-moisture which ceased into
arbusta consumi, superfusus est.
the-trees to-be-consumed poured-over-the-surface was
idem ait et circa Magnesiam accidisse. sed pace 11.4
the-same he-says also around Magnesia to-have-happened but with-the-leave
Theophrasti dixisse liceat: non est hoc simile veri,
of-Theophrastus to-have-said let-it-be-allowed not is this like the-truth
quia fere aquosissima sunt quaecumque umbrosissima; quod
because usually most-watery are whatever-places most-shady which
non eveniret, si aquas arbusta siccarent, quibus alimentum
not would-happen if the-waters trees dried-up to-which food
ex proximo est (fluminum vero vis ex intimo manat
from the-nearest is of-rivers indeed the-force from the-innermost flows

ultraque concipitur quam radicibus evagari licet). deinde
and-farther is-conceived than for-the-roots to-wander it-is-allowed then
sucidae, non succisae arbores plus umoris desiderant: non
sappy not cut-down trees more moisture need not
enim tantum id, quo vivant, sed quo crescant trahunt.
for only that by-which they-live but by-which they-grow they-draw
11.5 idem ait circa Arcadiam, quae urbs in Creta insula fuit,
the-same he-says around Arcadia which city in Crete the-island was
fontes et rivos substitisse, quia desierit coli terra diruta
springs and streams to-have-stopped because it-ceased to-be-cultivated the-land destroyed
urbe, postea vero, quam cultores receperit, aquas quoque
the-city afterward indeed when cultivators it-received the-waters also
recepisse. causam siccitatis hanc ponit, quod obduruerit
to-have-received-back the-cause of-the-drought this he-sets that hardened
constricta tellus nec potuerit imbres inagitata transmittere.
compressed the-earth nor could showers unworked let-through
quomodo ergo plurimos videmus in locis desertissimis fontes?
how then very-many we-see in places most-deserted springs
11.6 plura denique invenimus, quae propter aquas coli
more finally we-find which on-account-of waters to-be-cultivated
coeperunt quam quae aquas habere coeperint, quia
began than which waters to-have began because
colebantur. non esse enim pluvialem hanc, quae vastissima
they-were-cultivated not to-be for of-rain this which the-vastest
flumina a fonte statim magnis apta navigiis defert, ex
rivers from the-spring straightway for-great fit ships carries from
hoc intellegas licet, quod per hiemem aestatemque par
this understand you-may that through winter and-summer equal
est a capite deiectus. pluvia potest facere torrentem, non
it-is from the-head the-outflow rain can make a-torrent not

potest amnem aequali inter ripas suas tenore labentem,
it-can a-river with-even between banks its-own course gliding
quem non faciunt imbres sed incitant.
which not make showers but stir-up

XII · WATER IS AN ELEMENT

To ask how water is made is to ask how air or earth is made. The Egyptians made each of the four elements male and female. If the elements are four, water is a quarter of nature, and so great a portion can always pour something out of itself, as air moves the winds: a wind is flowing air, a river flowing water. What comes from an element cannot fail.

Paulo repetamus hoc altius, si videtur, et scies te 12.1
A-little let-us-trace-back this higher if it-seems-good and you-will-know you
non habere quod quaeras, cum ad veram amnium originem
not to-have what you-may-ask when to the-true of-rivers origin
accesseris. flumen nempe facit copia cursusque aquae
you-have-come a-river surely makes the-abundance and-course of-water
perennis. ergo quaeris a me, quomodo aqua fiat: interrogabo
perennial therefore you-ask of me how water arises I-shall-ask
invicem, quomodo aër fiat aut terra.
in-turn how air arises or earth
Aegyptii quattuor elementa fecerunt, deinde ex singulis bina: 12.2
The-Egyptians four elements made then from each two
aëra marem iudicant qua ventus est, feminam qua nebulosus
the-air male they-judge where wind it-is female where cloudy
et iners; aquam virilem vocant mare, muliebrem omnem aliam;
and inert water manly they-call the-sea womanly all other
ignem vocant masculum, qua ardet flamma, et feminam, qua
fire they-call male where burns the-flame and female where

lucet innoxius tactu; terram fortiorem marem vocant, saxa
it-shines harmless to-touch the-earth stronger male they-call rocks
cautesque, feminae nomen assignant huic tractabili et cultae.
and-crags of-female the-name they-assign to-this workable and cultivated

12.3 Sed si in rerum natura elementa sunt quattuor, non potes
But if in of-things the-nature elements are four not you-can
interrogare, unde aqua sit: quarta enim pars naturae est.
ask whence water may-be the-fourth for part of-nature it-is
quid ergo miraris, si rerum naturae tam magna portio
what then do-you-wonder if of-things of-nature so great a-portion
potest aliquid ex se semper effundere?
can something from itself always pour-out

12.4 quomodo aër, et ipse quarta pars mundi, ventos et auras
as air and itself the-fourth part of-the-world winds and breezes
movet, sic aqua rivos et flumina: si ventus est fluens aër,
moves so water streams and rivers if wind is flowing air
et flumen est fluens aqua. satis et multum illi virium
and a-river is flowing water enough and much to-it of-strength
dedi, cum dixi, 'elementum est': intellegis, quod ab illo
I-gave when I-said an-element it-is you-understand what from it
proficiscitur non posse deficere.
proceeds not to-be-able to-fail

Thales calls water the first element, and the Stoics agree: fire ends the universe, and the moisture that remains begins the next, so no wonder rivers flow forever.

Adiciam, ut Thales ait, 'valentissimum elementum est': hoc 13.1
I-shall-add as Thales says the-strongest element is this
fuisse primum putat, ex hoc surrexisse omnia. sed nos
to-have-been first he-thinks from this to-have-risen all-things but we
quoque aut in eadem sententia aut in vicinia eius sumus;
also either in the-same opinion or in the-neighborhood of-it are
dicimus enim ignem esse, qui occupet mundum et in se
we-say for fire to-be which seizes the-world and into itself
cuncta convertat, hunc evanidum languentemque considere
all-things turns this fading and-languishing to-settle
et nihil relinqui aliud in rerum natura igne restincto
and nothing to-be-left else in of-things nature the-fire quenched
quam umorem, in hoc futuri mundi spem latere:
than moisture in this of-the-future world the-hope to-lie-hidden
ita ignis exitus mundi est, umor primordium. miraris 13.2
so fire the-end of-the-world is moisture the-beginning do-you-wonder
ex hoc posse amnes semper exire, qui pro omnibus
from this to-be-able rivers always to-go-out which in-place-of all-things
fuit et ex quo sunt omnia? hic in diductione rerum ad
was and from which are all-things this in the-division of-things to
quartas redactus est, sic positus, ut sufficere fluminibus
quarters reduced has-been so placed that suffice for-rivers
edendis, ut rivis, ut fontibus posset.
to-be-produced as for-streams as for-springs it-could

Thales' next view is foolish: that the earth rides on water like a ship and rocks when it is said to quake. Reject that crude old view. The sea is one, made so from the start, with its own veins; fresh water too has a vast hidden force that no river's flow exhausts, and only its overflow comes out.

14.1 Quae sequitur Thaletis inepta sententia est. ait enim
What follows of-Thales a-silly opinion is he-says for
terrarum orbem aqua sustineri et vehi more
of-the-lands the-circle by-water to-be-held-up and to-be-carried in-the-manner
navigii mobilitateque eius fluctuare tunc, cum dicitur
of-a-ship and-by-the-mobility of-it to-fluctuate then when it-is-said
tremere: non est ergo mirum, si abundat umor ad flumina
to-tremble not it-is therefore strange if abounds moisture for rivers
profundenda, cum in umore sit totus.
to-be-poured-forth since in moisture it-is whole

14.2 hanc veterem et rudem sententiam explode: nec est,
this old and crude opinion hiss-off nor is-there
quod credas in hunc orbem aquam subire per
reason-why you-should-believe into this circle water to-go-under through
rimas et facere sentinam.
cracks and to-make bilge-water

14.3 mare unum est, ab initio scilicet ita constitutum;
the-sea one is from the-beginning of-course so established
habet suas venas, quibus impletur atque aestuat. quomodo
it-has its-own veins by-which it-is-filled and surges as
maris sic et huius aquae mitioris vasta in occulto vis est,
of-the-sea so also of-this water gentler a-vast in hiding force is

quam nullius fluminis cursus exhauriet. abdita est virium
which of-no river the-course will-drain hidden is of-its-strength
ratio: tantum ex illa, quantum superfluum sit, emittitur.
the-account only from it as-much-as superfluous may-be is-sent-out

XV · THE EARTH'S VEINS

Seneca's own view: the earth is governed like our bodies, with veins for water and arteries for breath, so that our ancestors spoke of veins of water. As the body holds marrow, mucus, saliva, and tears, the earth holds many fluids, some hardening into metals and stone, some rotting into bitumen. Struck or corrupted, they change; a vein once opened pours out a river until it is drained, blocked, or scarred over, and it fills again from its own force, from elsewhere, or from air thickened underground.

Quaedam ex istis sunt, quibus assentire possimus. sed hoc 15.1
Certain-things of these there-are with-which to-agree we-can but this
amplius censeo: placet natura regi terram et quidem
further I-think it-pleases-me by-nature to-be-governed the-earth and indeed
ad nostrorum corporum exemplar, in quibus et venae sunt et
after of-our bodies the-model in which both veins are and
arteriae, illae sanguinis hae spiritus receptacula: in terra quoque
arteries those of-blood these of-breath receptacles in the-earth also
sunt alia itinera, per quae aqua, alia, per quae spiritus currit;
are some paths through which water others through which breath runs
adeoque ad similitudinem illa humanorum corporum natura
and-so-much to the-likeness them of-human bodies nature
formavit, ut maiores quoque nostri aquarum appellaverint venas.
formed that ancestors also our of-waters have-called veins
sed quemadmodum in nobis non tantum sanguis est sed 15.2
but as in us not only blood is but
multa genera umoris, alia necessarii alia corrupti ac paulo
many kinds of-moisture some necessary others corrupted and a-little

pinguioris (in capite cerebrum, in ossibus medullae, muci
fatter in the-head the-brain in the-bones the-marrows mucus
salivaeque et lacrimae et quiddam additum articulis, per
and-saliva and tears and something added to-the-joints through
quod citius flectantur ex lubrico), sic in terra quoque
which more-quickly they-may-bend from slipperiness so in the-earth also
sunt umoris genera complura:
are of-moisture kinds several

15.3 quaedam quae mature durentur (hinc est omnis metallorum
some which early harden hence is all of-metals
ortus, ex quibus petit aurum argentumque avaritia, et
the-origin from which seeks gold and-silver avarice and
quae in lapidem ex liquore vertuntur); in quaedam vero
which into stone from liquid are-turned into some indeed
terra umorque putrescunt, sicut bitumen et cetera huic
earth and-moisture rot as bitumen and the-other-things to-this
similia. haec est causa aquarum secundum legem naturae
like this is the-cause of-waters according-to the-law of-nature
voluntatemque nascentium.
and-the-will arising

15.4 ceterum ut in nostris corporibus ita in illa saepe umores vitia
but as in our bodies so in it often the-moistures faults
concipiunt: aut ictus aut quassatio aliqua aut loci senium
conceive either blows or a-shaking some or of-the-place the-old-age
aut frigus aut aestus corrupere naturam; et sulphuratio
or cold or heat have-corrupted the-nature and sulfuring
contraxit umorem, qui modo diuturnus est, modo brevis.
has-contracted moisture which now long-lasting is now brief

15.5 ergo ut in corporibus nostris sanguis, cum percussa vena
therefore as in bodies our blood when struck the-vein
est, tam diu manat, donec omnis effluxit aut donec
has-been so long flows until all has-flowed-out or until

in venae scissura subsedit atque interclusit vel aliqua
in of-the-vein the-cut it-has-settled and shut-it-off or some
alia causa retro dedit sanguinem: ita in terra solutis ac
other cause back has-given the-blood so in the-earth loosened and
patefactis venis rivus aut flumen effunditur.
opened the-veins a-stream or a-river is-poured-out
interest, quanta aperta sit vena: quae modo consumpta 15.6
it-matters how-much opened be the-vein which now consumed
aqua deficit, modo excaecatur aliquo impedimento, modo
the-water fails now is-blinded by-some obstacle now
coit velut in cicatricem comprimitque quam perfecerat viam;
closes as-if into a-scar and-compresses which it-had-made the-way
modo illa vis terrae, quam esse mutabilem diximus, desinit
now that force of-the-earth which to-be changeable we-have-said ceases
posse alimenta in umorem convertere.
to-be-able food into moisture to-turn
aliquando autem exhausta replentur modo per se viribus 15.7
sometimes however exhausted-things are-refilled now by themselves with-strength
recollectis, modo aliunde translatis: saepe enim inania
regathered now from-elsewhere transferred often for empty-things
apposita plenis umorem in se avocaverunt; saepe terra, si
placed-beside full-ones moisture into themselves have-called-off often the-earth if
facilis est in tabem, ipsa solvitur et umescit; idem evenit sub
easy it-is into decay itself is-dissolved and grows-moist the-same happens under
terra quod in nubibus, ut spissetur aër graviorque, quam ut
the-earth as in the-clouds that is-thickened the-air and-heavier than that
manere in natura sua possit, gignat umorem; saepe colligitur
to-remain in nature its-own it-can begets moisture often is-collected
roris modo tenuis et dispersus liquor, qui ex multis in
of-dew in-the-manner thin and dispersed liquid which from many into

unum locis confluit (sudorem aquileges vocant, quia guttae
one places flows-together sweat the-water-finders call-it because drops
quaedam vel pressura loci eliduntur vel aestu evocantur).
certain either by-the-pressure of-the-place are-squeezed-out or by-heat are-called-forth
15.8 haec tenuis unda vix fonti sufficit: et ex magnis caveis
this thin water scarcely for-a-spring suffices and from great caverns
magnisque conceptibus excidunt amnes, nonnumquam leviter
and-great reservoirs fall rivers sometimes gently
emissi, si aqua pondere suo se tantum detulit,
sent-out if the-water by-weight its-own itself only has-carried-down
nonnumquam vehementer et cum sono, si illam spiritus
sometimes violently and with sound if it breath
intermixtus eiecit.
intermixed has-thrown-out

XVI · SPRINGS KEPT TO A SCHEDULE

Why are some springs full six hours and dry six? As a quartan fever comes at its hour and a birth at its month, waters have their set intervals, as the seasons keep theirs. Underground too nature's laws are certain: believe that below is whatever you see above, vast caves and chasms full of air, lakes in darkness, and sluggish blind creatures, so that, as Theophrastus says, fish are dug up in some places.

16.1 'Sed quare quidam fontes senis horis pleni senisque sicci
But why certain springs for-six hours full and-for-six dry
sunt?' supervacuum est nominare singula flumina, quae certis
are superfluous it-is to-name single rivers which in-certain
mensibus magna certis angusta sunt, et occasionem singulis
months great in-certain narrow are and the-occasion for-single-ones
quaerere, cum possim eandem causam omnibus reddere.
to-seek when I-can the-same cause to-all render

quemadmodum quartana ad horam venit, quemadmodum ad 16.2
as the-quartan to the-hour comes as to
tempus podagra respondet, quemadmodum purgatio, si nihil
the-time gout answers as menstruation if nothing
obstitit, statum diem servat, quemadmodum praesto est ad
has-obstructed the-fixed day keeps as at-hand is at
mensem suum partus: sic aquae intervalla habent, quibus se
its-own month birth so waters intervals have in-which themselves
retrahant et quibus redeant. quaedam autem intervalla minora
they-withdraw and in-which they-return some however intervals smaller
sunt et ideo notabilia, quaedam maiora nec minus certa.
are and therefore noticeable some greater nor less fixed
ecquid hic mirum est, cum videas ordinem rerum et 16.3
anything here strange is-there when you-see the-order of-things and
naturam per constituta procedere? hiems numquam
nature through appointed-things proceed winter never
aberravit, aestas suo tempore incaluit, autumni
has-strayed summer at-its-own time has-grown-warm of-autumn
verisque, unde solet, facta mutatio est; tam solstitium
and-of-spring whence it-is-wont made the-change has-been as-much the-solstice
quam aequinoctium suos dies rettulit.
as the-equinox their-own days has-brought-back
Sunt et sub terra minus nota nobis iura naturae sed 16.4
There-are also under the-earth less known to-us laws of-nature but
non minus certa: crede infra, quicquid vides supra. sunt
not less fixed believe below whatever you-see above there-are
et illic specus vasti ingentesque recessus ac spatia suspensis
and there caverns vast and-huge recesses and spaces with-suspended
hinc et inde montibus laxa; sunt abrupti in infinitum
on-this-side and on-that mountains wide are sheer into the-infinite

hiatus, qui saepe illapsas urbes receperunt et ingentem
chasms which often collapsed cities have-received and huge
ruinam in alto condiderunt —
ruin in the-depth have-hidden
16.5 haec spiritu plena sunt, nihil enim usquam inane est —
these with-breath full are nothing for anywhere empty is
et stagna obsessa tenebris et locis † amplis. animalia
and pools beset by-darkness and in-places (corrupt) ample animals
quoque illis innascuntur, sed tarda et informia ut in aëre
also in-them are-born but slow and shapeless as in air
caeco pinguique concepta et aquis torpentibus situ,
blind and-fat conceived and in-waters torpid with-stagnation
pleraque ex his caeca ut talpae et subterranei mures, quia
most of these blind like moles and subterranean mice because
deest lumen, quod supervacuum est; inde, ut Theophrastus
is-lacking light which superfluous is thence as Theophrastus
affirmat, pisces quibusdam locis eruuntur.
affirms fish in-certain places are-dug-up

XVII · FISH ON THE TABLE

Luxury is more incredible than a fish dug from the earth: mullets die in the guest's hand, and men watch the colors of the dying in glass jars.

17.1 Multa hoc loco tibi in mentem veniunt dicta urbane in
Many-things at-this place to-you to mind come said wittily on
re incredibili. fabulam dicas, non cum retibus aliquem
a-matter incredible a-fable you-would-call not with nets someone
nec cum hamis sed cum dolabra ire piscatum. 'expecto, ut
nor with hooks but with a-mattock to-go fishing I-expect that

aliquis in mari venetur.' quid est autem, quare non pisces in
someone in the-sea will-hunt what is however why not fish onto
terram transeant, si nos maria transimus, permutabimus sedes?
land should-cross if we seas cross we-shall-exchange seats
hoc miraris accidere: quanto incredibiliora sunt opera 17.2
this you-wonder to-happen how-much more-incredible are the-works
luxuriae, quotiens naturam aut mentitur aut vincit? in
of-luxury whenever nature either it-falsifies or surpasses in
cubili natant pisces, et sub ipsa mensa capitur qui
the-couch swim fish and under the-very table is-caught one-which
statim transferatur in mensam: parum videtur recens
at-once may-be-transferred onto the-table too-little seems fresh
mullus, nisi qui in convivae manu moritur; vitreis ollis
a-mullet unless one-that in the-guest's hand dies in-glass jars
inclusi afferuntur et observatur morientium color, quem
enclosed they-are-brought and is-watched of-the-dying the-color which
in multas mutationes mors luctante spiritu vertit; alios
into many changes death with-the-struggling breath turns others
necant in garo et condiunt vivos.
they-kill in fish-sauce and season-them alive
hi sunt qui fabulas putant, piscem vivere posse sub 17.3
these are those-who tales think a-fish to-live can under
terra et effodi, non capi! quam incredibile illis
the-earth and to-be-dug-up not to-be-caught how incredible to-them
videretur, si audirent natare in garo piscem nec cenae
would-seem if they-heard to-swim in fish-sauce a-fish nor for-dinner's
causa occidi sed super cenam, cum multum in deliciis
sake to-be-killed but over dinner when much among the-delights
fuit et oculos ante quam gulam pavit?
it-has-been and the-eyes sooner than the-gullet it-has-fed

Seneca pauses to rebuke luxury. Gourmets once wanted fish caught that day, rushed in by runners; now a fish already killed counts as rotten, and they must see it gasp at the feast, in a glass, flushing redder than cinnabar, then pale. None of them sits by a dying friend or follows a funeral, but they gather to watch a mullet die. They are greedy even with their eyes.

18.1 Permitte mihi quaestione seposita castigare luxuriam. 'nihil
Allow me the-question set-aside to-chastise luxury nothing
est', inquis, 'mullo expirante illo formosius: ipsa
is you-say than-a-mullet expiring that more-beautiful by-the-very
colluctatione animae deficientis rubor primum, deinde pallor
struggle of-the-soul failing redness first then pallor
subfunditur, squamaeque variantur et in incertas facies
is-suffused and-the-scales are-varied and into uncertain appearances
inter vitam ac mortem coloris est vagatio. langor
between life and death of-color there-is a-wandering the-languor
somniculosae inertisque luxuriae quam sero experrectus
of-sleepy and-inert luxury how late awakened
circumscribi se et fraudari tanto bono sensit: hoc
to-be-cheated itself and to-be-defrauded of-so-great a-good it-perceived this
adhuc tam pulchro spectaculo piscatores fruebantur —
so-far so beautiful spectacle fishermen enjoyed
18.2 quo coctum piscem, quo exanimem? in ipso ferculo
to-what-end cooked a-fish to-what-end lifeless on the-very platter
expiret.' mirabamur tantum illis inesse fastidium, ut
should-expire we-wondered so-much in-them to-be fastidiousness that
nollent attingere nisi eodem die captum, qui, ut aiunt,
they-would-not touch-it except on-the-same day caught which as they-say

saperet ipsum mare: ideo cursu advehebatur, ideo
should-taste-of itself the-sea therefore at-a-run it-was-brought therefore
gerulis cum anhelitu et clamore properantibus dabatur via.
to-the-porters with panting and shouting hurrying was-given the-way
quo pervenere deliciae? iam pro putrido his est piscis 18.3
to-what have-come the-delicacies already for rotten to-these is a-fish
occisus. 'hodie eductus est.' "nescio de re magna
killed today brought-out it-has-been I-know-not about a-matter great
tibi credere: ipse oportet me † credas, huc
to-you to-trust yourself it-is-proper me (corrupt) you-should-believe here
afferatur, coram me animam agat." ad hunc fastum
let-it-be-brought before me its-breath let-it-give-up to this fastidiousness
pervenit venter delicatorum, ut gustare non possint, nisi
has-come the-belly of-the-dainty that to-taste not they-can except
quem in ipso convivio natantem palpitantemque viderunt:
one-which at the-very banquet swimming and-quivering they-have-seen
quantum ad sollertiam, luxuriae pereunt † his accedit,
as-far-as for the-cleverness of-luxury perish (corrupt) to-these is-added
tantoque subtilius cotidie et elegantius aliquid excogitat
and-so-much more-subtly daily and more-elegantly something devises
furor usitata contemnens.
madness the-usual despising
illa audiebamus: 'nihil est melius saxatili mullo', at 18.4
those-things we-used-to-hear nothing is better than-a-rock-dwelling mullet but
nunc audimus: 'nihil est moriente formosius; ad mihi
now we-hear nothing is than-a-dying-one more-beautiful (bring)-to to-me
in manus vitreum, in quo exsultet et trepidet.' ubi multum
into my-hands the-glass in which it-may-leap and quiver when much
diuque luctatus est, ex illo perlucido vivario extrahitur.
and-long struggled it-has from that transparent fishpond it-is-drawn-out

18.5 tunc, ut quisque peritior est, monstrat: 'vide, quomodo
then as each more-expert is he-shows see how
exarserit rubor omni acrior minio; vide, quas per latera
has-flared-up the-redness than-every keener vermilion see what along the-sides
venas agat! ecce sanguineum putes ventrem! quam
veins it-drives look blood-red you-would-think the-belly how
lucidum quiddam caeruleumque sub ipso tempore effulsit!
bright something and-blue under the-very moment has-flashed
iam porrigitur et pallet et in unum colorem componitur.'
already it-is-stretched and grows-pale and into one color is-settled

18.6 ex his nemo morienti amico assidet, nemo videre mortem
of these no-one by-a-dying friend sits no-one to-see the-death
patris sui sustinet, quam optavit. quotusquisque funus
of-father his-own endures which he-has-wished how-few a-funeral
domesticum ad rogum prosequitur? fratrum propinquorumque
of-the-household to the-pyre accompany of-brothers and-kinsmen
extrema hora deseritur, ad mortem mulli concurritur:
the-last hour is-deserted to the-death of-a-mullet there-is-a-rush
'nihil est enim illa formosius.'
nothing is for than-that more-beautiful

18.7 non tempero mihi, quin utar interdum temerarie verbis et
not I-restrain myself but-that I-use sometimes rashly words and
proprietatis modum excedam: non sunt ad popinam dentibus
of-propriety the-measure exceed not are for the-cookshop with-teeth
et ventre et ore contenti — oculis quoque gulosi sunt.
and belly and mouth content in-the-eyes also gluttonous they-are

Back to the question: great hidden waters breed foul fish, and when they burst out they bring a hideous crowd of them, as near Idumus in Caria, where everyone who ate the fish of the new river died, their bodies fat and fed in darkness. The earth holds not only veins of water but vast rivers, some always hidden, some swallowed by the ground, some rising under lakes, and bottomless pools: an eternal store for the great rivers.

Sed ut ad propositum revertar, accipe argumentum, magnam 19.1
But that to the-proposition I-may-return receive a-proof a-great
vim aquarum in subterraneis occuli fertilem foedorum
force of-waters in subterranean-places to-be-hidden fertile of-foul
situ piscium: si quando erupit, effert secum
with-stagnation fish if ever it-has-burst-out it-carries-out with-itself
immensam animalium turbam, horridam aspici et turpem
an-immense of-animals crowd horrid to-be-looked-at and foul
ac noxiam gustu.
and harmful to-the-taste
certe cum in Caria circa Idumum urbem talis exiluisset 19.2
certainly when in Caria around Idumus the-city such had-leapt-out
unda, perierunt quicumque illos ederant pisces, quos ignoto
a-wave perished whoever those had-eaten fish which unknown
ante eam diem caelo novus amnis ostendit. nec id mirum:
before that day to-the-sky a-new river showed nor that strange
erant enim pinguia et differta ut ex longo otio corpora,
they-were for fat and stuffed as from long idleness bodies
ceterum inexercitata et tenebris saginata et lucis expertia,
but unexercised and by-darkness fattened and of-light lacking
ex qua salubritas ducitur;
from which healthiness is-drawn

19.3 nasci autem posse pisces in illo terrarum profundo sit
to-be-born however can fish in that of-the-earth depth let-it-be
indicium, quod anguillae latebrosis locis nascuntur, gravis
a-sign that eels in-lurking places are-born heavy
et ipsae cibus ob ignaviam, utique si altitudo illas
and themselves food because-of their-sloth especially if the-depth them
luti penitus abscondit.
of-mud deep-inside hides

19.4 habet ergo non tantum venas aquarum terra, ex quibus
has therefore not only veins of-waters the-earth from which
conrivatis flumina effici possint, sed amnes magnitudinis
joined rivers be-made can but rivers of-size
vastae, quorum aliis semper in occulto cursus est,
vast of-which to-some always in hiding the-course is
alii aliquatenus aperte fluunt, donec aliquo sinu terrae
others to-some-extent openly flow until in-some fold of-the-earth
devorentur, alii sub aliquo lacu emergunt. iam quis ignorat
they-are-swallowed others under some lake emerge now who is-ignorant
esse quaedam stagna sine fundo? quorsus hoc pertinet?
to-be certain pools without bottom to-what-end does-this pertain
ut appareat hanc aquam magnis amnibus aeternam esse
that it-may-appear this water for-great rivers eternal to-be
materiam, cuius non tanguntur extrema sicut fluminum fontes.
the-material whose not are-touched the-limits like of-rivers the-springs

XX · WHY WATERS TASTE DIFFERENT

Waters differ in taste for four causes: the soil they pass through, its change into water, the air turned to water, and corruption. So they gain healing power, foul smells, weight, or heat. The Cicones' river Ovid tells of turns flesh to stone, as Puteolan dust hardens when wet, and in Italy a twig dropped in some lakes comes out stone. Other lakes madden or put to sleep like wine, and the Lyncestian stream makes drinkers stagger as if drunk.

'At quare aquis sapor varius?' propter quattuor causas: 20.1
But why for-waters the-taste varied on-account-of four causes
ex solo prima est, per quod fertur; secunda ex eodem,
from the-soil the-first is through which it-is-borne the-second from the-same
si mutatione eius nascitur; tertia ex spiritu, qui in aquam
if by-a-change of-it it-is-born the-third from breath which into water
transfiguratus est; quarta ex vitio, quod saepe concipiunt
transformed has-been the-fourth from a-fault which often they-conceive
corruptae per iniuriam.
corrupted through injury
hae causae saporem dant aquis varium, hae medicatam 20.2
these causes taste give to-waters varied these a-medicinal
potentiam, hae gravem spiritum coloremque pestiferum,
power these a-heavy breath and-a-color pestilent
hae levitatem gravitatemque, hae aut calorem aut nimium
these lightness and-heaviness these either heat or excessive
rigorem. interest, utrum loca sulphure an nitro an bitumine
cold it-matters whether places with-sulfur or with-niter or with-bitumen
plena transierint; hac ratione corruptae cum vitae
full they-have-passed-through by-this reason corrupted with of-life
periculo bibuntur.
danger they-are-drunk

20.3 illinc illud, de quo Ovidius ait
thence that about which Ovid says

flumen habent Cicones, quod potum saxea reddit
a-river have the-Cicones which drunk stony renders
viscera, quod tactis inducit marmora rebus,
the-entrails which on-things touched lays marble

medicatum est et eius naturae habet limum, ut corpora
medicated it-is and of-that nature it-has mud that bodies
adglutinet et obduret. quemadmodum Puteolanus pulvis, si
it-glues and hardens as Puteolan dust if
aquam attigit, saxum est, sic e contrario haec aqua, si
water it-has-touched rock is so on the-contrary this water if
solidum tetigit, haeret et affigitur.
a-solid-thing it-has-touched sticks and is-fixed

20.4 inde est, quod res abiectae in eundem† lacum lapideae
thence it-is that things thrown into the-same lake stony
subinde extrahuntur; quod in Italia quibusdam in locis
afterward are-drawn-out which in Italy certain in places
evenit: sive virgam sive frondem demerseris, lapidem post
happens whether a-rod or a-leafy-branch you-have-sunk a-stone after
paucos dies extrahis; circumfunditur enim corpori limus
a-few days you-draw-out is-poured-around for on-the-body mud
adliniturque paulatim. hoc minus tibi videbitur mirum,
and-is-smeared-on gradually this less to-you will-seem strange
si notaveris Albulas et fere sulphuratam aquam circa
if you-have-noted the-Albulae and in-general sulfurous water around
canales suos rivosque durari.
channels their-own and-streams to-be-hardened

Aliquam harum habent causam illi lacus, ‘quos quisquis 20.5
Some of-these have as-cause those lakes which whoever
faucibus hausit’, ut idem poeta ait,
with-his-throat has-drained as the-same poet says

‘aut furit aut patitur mirum gravitate soporem’:
either raves or suffers wondrous with-heaviness sleep

similem habent vim mero, sed vehementiorem (nam
a-similar they-have force to-neat-wine but more-violent for
quemadmodum ebrietas, donec exsiccetur, dementia est et
as drunkenness until it-is-dried-out madness is and
nimia gravitate defertur in somnum, sic huius aquae
by-excessive heaviness is-brought-down into sleep so of-this water
sulphurea vis habens quoddam acrius ex aëre noxio virus
the-sulfurous force having a-certain sharper from air noxious poison
mentem aut furore movet aut sopore opprimit).
the-mind either with-madness moves or with-sleep overwhelms
hoc habet mali 20.6
this has of-evil

Lynceius amnis,
the-Lyncestian river
quem quicumque parum moderato gutture traxit,
which whoever too-little moderate with-throat has-drawn
haut aliter titubat, quam si mera vina bibisset.
not otherwise staggers than if neat wines he-had-drunk

Some caves kill whoever looks in and bring down birds flying over; the water that drips from such air and ground is deadly, or, where the poison is milder, numbs the nerves as drink does. No wonder: milk tastes of the pasture and vinegar of its wine, and everything bears the marks of its birthplace.

21.1 In quosdam specus qui despexere, moriuntur; tam velox
Into certain caves those-who have-looked-down die so swift
malum est, ut transvolantes aves deiciat: talis est aër,
the-evil is that flying-across birds it-throws-down such is the-air
talis locus, ex quo letalis aqua distillat. quod si remissior fuit
such the-place from which deadly water trickles but if milder was
aëris et loci pestis, ipsa quoque temperatior noxa nihil
of-the-air and of-the-place the-plague itself also more-moderate the-harm nothing
amplius quam temptat nervos velut ebrietate torpentes.
more than it-tries the-sinews as-if with-drunkenness numb

21.2 nec miror, si locus atque aër aquas inficit similesque
nor do-I-wonder if the-place and the-air the-waters taints and-like
regionibus reddit, per quas et ex quibus veniunt: pabuli
to-the-regions renders through which and from which they-come of-the-fodder
sapor apparet in lacte, et vini vis existit in aceto —
the-taste appears in milk and of-wine the-force arises in vinegar
nulla res est, quae non eius, quo nascitur, notas reddat.
no thing is which not of-that from-which it-is-born the-marks gives-back

Another kind of water began with the world, eternal if the world is eternal, or set in place with it: the Ocean and the seas that flow between the lands from it. Some think great rivers like the Danube and the Nile, too remarkable to share the others' origin, also began with the world.

Aliud est aquarum genus, quod nobis placet coepisse cum 22.1
Another is of-waters kind which to-us it-pleases to-have-begun with
mundo: sive ille aeternus est, hoc quoque fuit semper, sive
the-world whether that eternal is this also was always or
initium aliquod est illi, hoc quoque cum toto dispositum
a-beginning some is to-it this also with the-whole arranged
est. quae sint haec, quaeris? Oceanus et quodcumque ex illo
has-been what may-be these you-ask the-Ocean and whatever from it
mare terras interluit. iudicant quidam flumina quoque, quorum
sea the-lands washes-between judge certain rivers also whose
inenarrabilis natura est, cum ipso mundo traxisse principia,
indescribable nature is with the-very world to-have-drawn their-beginnings
ut Histrum, ut Nilum, vastos amnes magisque insignes, quam
as the-Ister as the-Nile vast rivers and-more notable than
ut dici possit eandem illis originem quam ceteris esse.
that to-be-said it-can the-same for-them origin as for-the-rest to-be

XXIII · THE DIVISION OF WATERS

So the waters divide into those of the sky, shaken from the clouds, and those of the earth, some creeping on the surface, some hidden, whose cause has been given.

23.1 Haec est ergo aquarum divisio: quaedam, ut videtur
This is therefore of-waters the-division certain as it-seems
praestitum ex posterioribus, caelestes, quas nubila excutiunt; ex
performed of the-later heavenly-ones which the-clouds shake-out of
terrenis aliae sunt ut ita dicam supernatantes, quae in summa
the-earthly some are as so I-may-say floating-on-top which on the-top
humo repunt, aliae abditae, quarum reddita est ratio.
of-the-ground creep others hidden of-which rendered has-been the-account

XXIV · HOT SPRINGS

Why are some waters hot, some boiling? Empedocles thinks fires hidden underground heat the water that passes over them, as in our coiled bronze pipes, where water winding round one fire flows in cold and out hot; the baths at Baiae, heated without fire by hot breath through pipes, bear him out. Others think water passing through sulfur or niter takes heat from the material, as its smell and taste show, just as quicklime boils when water is poured on it.

24.1 Quare quaedam aquae caleant, quaedam etiam ferveant in
Why certain waters are-warm certain even boil to
tantum, ut non possint esse usui, nisi aut in aperto
such-a-degree that not they-can be of-use unless either in the-open
evanuerunt aut mixtura frigidae intepuerunt, plures
they-have-evaporated or by-the-mixture of-cold have-grown-tepid several
causae redduntur. Empedocles existimat ignibus, quos multis
causes are-given Empedocles thinks by-fires which in-many

locis terra opertos tegit, aquam calescere, si subiecti sunt
places the-earth covered hides water to-grow-warm if set-beneath they-are
ei solo, per quod aquis transcursus est.
to-that soil through which for-the-waters a-passage there-is
facere solemus dracones et miliaria et complures 24.2
to-make we-are-wont dragons and milestone-boilers and several
formas, in quibus aere tenui fistulas struimus per declive
shapes in which of-bronze thin pipes we-build along a-slope
circumdatas, ut saepe eundem ignem ambiens aqua per
wound-around so-that often the-same fire encircling the-water through
tantum fluat spatii, quantum efficiendo calori sat est:
as-much flows of-space as for-producing heat enough is
frigida itaque intrat, effluit calida.
cold and-so it-enters it-flows-out hot
idem sub terra Empedocles existimat fieri, quem 24.3
the-same under the-earth Empedocles thinks to-happen whom
non falli crede Baianis, quibus balnearia sine
not to-be-mistaken believe the-people-of-Baiae for-whom baths without
igne calefiunt, spiritus in illa fervens loco aestuarii
fire are-heated breath into them burning in-the-place of-a-hot-room
infunditur; hic per tubos lapsus non aliter quam igne
is-poured this through pipes gliding not otherwise than with-fire
subdito parietes et vasa balnei calefacit, omnis denique
set-beneath the-walls and vessels of-the-bath heats all finally
frigida transitu mutatur in calidam nec trahit saporem
cold by-passage is-changed into hot nor does-it-draw a-taste
e vaporario, quia clausa praelabitur.
from the-furnace-room because shut-in it-glides-past
quidam existimant per loca sulphure plena vel nitro 24.4
certain think through places with-sulfur full or with-niter
euntes aquas calorem beneficio materiae, per quam fluunt,
going waters heat by-the-favor of-the-matter through which they-flow

trahere: quod ipso odore gustuque testantur; reddunt
to-draw which by-the-very smell and-taste they-testify they-give-back
enim qualitatem eius, qua caluere, materiae. quod ne
for the-quality of-that by-which they-grew-warm of-matter which that-not
accidere mireris, vivae calci aquam infunde: fervebit.
to-happen you-should-wonder on-quick lime water pour it-will-boil

XXV · STRANGE WATERS

Some waters kill with no warning smell or taste, like the Styx near Nonacris, which hardens inside the drinker like gypsum; one near Tempe eats through iron and bronze. Rivers in Boeotia and Macedonia turn sheep white or black. In some pools bricks float, since water heavier than a body will not let it sink; islands of light stone float in Lydia, and Seneca saw one afloat at Cutiliae. Waters said to make women fertile he counts as rumor. Rock crystal, the Greek name shows, is ice turned to stone.

25.1 Quaedam aquae mortiferae sunt nec odore notabiles nec
Certain waters deadly are neither by-smell noticeable nor
sapore. circa Nonacrin in Arcadia Styx appellata ab
by-taste around Nonacris in Arcadia the-Styx called by
incolis advenas fallit, quia non facie, non odore
the-inhabitants strangers deceives because not by-appearance not by-smell
suspecta est: qualia sunt magnorum artificum venena, quae
suspected it-is such-as are of-great artists the-poisons which
deprehendi nisi morte non possunt. haec autem, de qua
to-be-detected except by-death not can this however about which
paulo ante rettuli, aqua summa celeritate corrumpit, nec
a-little before I-reported water with-the-greatest speed corrupts nor

remedio locus est, quia protinus hausta duratur, nec aliter
for-a-remedy place is because straightway drunk it-hardens nor otherwise
quam gypsum sub umore constringitur et alligat viscera.
than gypsum under moisture is-constricted and binds the-entrails
est item noxia aqua in Thessalia circa Tempe, quam 25.2
there-is likewise harmful water in Thessaly around Tempe which
et fera et pecus omne devitat: per ferrum et aes
both wild-beast and cattle every avoids through iron and bronze
exit, tanta vis illi est etiam dura mordendi; nec
it-goes-out so-great force to-it there-is even hard-things of-biting nor
arbusta quidem ulla alit et herbas necat.
trees even any does-it-nourish and grasses it-kills
quibusdam fluminibus vis inest mira; alia enim sunt, 25.3
certain rivers a-force is-in wonderful some for there-are
quae pota inficiunt greges ovium intraque certum tempus,
which drunk tinge flocks of-sheep and-within a-fixed time
quae fuere nigrae, albam ferunt lanam, quae albae
those-which were black white bear wool those-which white
venerant, nigrae abeunt. hoc in Boeotia amnes duo efficiunt,
had-come black go-away this in Boeotia rivers two effect
quorum alteri ab effectu Melas nomen est: uterque ex
of-which to-the-one from its-effect Melas the-name is both from
eodem lacu exeunt diversa facturi.
the-same lake go-out different-things going-to-do
in Macedonia quoque, ut ait Theophrastus, qui facere 25.4
in Macedonia also as says Theophrastus those-who to-make
albas oves volunt, ad Haliacmonem adducunt, quem ut
white sheep wish to the-Haliacmon lead-them which when
diutius potavere, non aliter quam infectae mutantur; at
longer they-have-drunk not otherwise than dyed they-are-changed but
si illis lana opus fuit pulla, paratus gratuitus infector est:
if to-them wool need was dark ready a-free dyer is

ad Peneion eundem gregem appellunt. auctores bonos habeo
to the-Peneus the-same flock they-drive authorities good I-have
esse in Galatia flumen, quod idem in omnibus efficiat,
to-be in Galatia a-river which the-same in all effects
esse in Cappadocia, quo poto equis nec ulli praeterea
to-be in Cappadocia which drunk for-horses and-not for-any besides
animali color mutetur et spargatur albo cutis.
animal the-color is-changed and is-sprinkled with-white the-skin
25.5 quosdam lacus esse, qui nandi imperitos ferant, notum
certain lakes to-be which of-swimming those-ignorant bear known
est: erat in Sicilia, est adhuc in Syria stagnum, in
it-is there-was in Sicily there-is still in Syria a-pool in
quo natant lateres et mergi proiecta non possunt, licet
which float bricks and to-be-sunk things-thrown-in not can though
gravia sint. huius rei palam causa est: quamcumque vis
heavy they-be of-this thing openly the-cause is whatever you-wish
rem expende et contra aquam statue, dummodo utriusque
thing weigh and against water set-it provided-that of-each
par sit modus: si aqua gravior est, leviorem rem, quam
equal be the-measure if the-water heavier is a-lighter thing than
ipsa est, fert, et tanto supra se extollet, quanto erit
itself is it-bears and so-much above itself will-raise as-much-as it-will-be
levior; graviora descendunt. at si aquae et eius rei,
lighter heavier-things descend but if of-the-water and of-that thing
quam contra pensabis, par pondus erit, nec pessum
which against-it you-will-weigh equal the-weight will-be neither to-the-bottom
ibit nec extabit sed exaequabitur aquae et natabit
will-it-go nor stand-out but will-be-made-level with-the-water and will-float
quidem sed paene mersa ac nulla eminens parte.
indeed but almost submerged and with-no projecting part

Hoc est, cur quaedam tigna supra aquam paene tota efferantur, 25.6
This is why certain beams above the-water almost whole are-carried-up
quaedam ad medium submissa sint, quaedam ad aequilibrium
some to the-middle lowered are some to the-balance
aquae descendant. namque cum utriusque pondus par
of-the-water descend for when of-each the-weight equal
est, neutra res alteri cedit, graviora descendunt, leviora
is neither thing to-the-other yields heavier-things descend lighter
gestantur. grave autem et leve est non aestimatione nostra,
are-carried heavy however and light is not by-estimation our
sed comparatione eius, quo vehi debet.
but by-comparison with-that by-which to-be-carried it-must
itaque ubi aqua gravior est hominis corpore aut saxo, 25.7
and-so where the-water heavier is than-a-man's body or than-a-rock
non sinit id, quo non vincitur, mergi: sic evenit, ut
not it-allows that by-which not it-is-overcome to-be-sunk so it-happens that
in quibusdam stagnis ne lapides quidem pessum eant. de
in certain pools not stones even to-the-bottom go of
solidis et duris loquor. sunt enim multi pumicosi et
solid and hard-ones I-speak there-are for many pumice-like and
leves, ex quibus quae constant insulae in Lydia, natant:
light from which those-which consist islands in Lydia float
Theophrastus est auctor. ipse ad Cutilias natantem 25.8
Theophrastus is the-authority I-myself at Cutiliae a-floating
insulam vidi, et alia in Vadimonis lacu vehitur (lacus
island have-seen and another on of-Vadimon the-lake is-carried a-lake
in Statoniensi est). Cutiliarum insula et arbores habet
in the-Statonian-district there-is of-Cutiliae the-island both trees has
et herbas nutrit: tamen aqua sustinetur et in hanc atque
and grasses nourishes yet by-water it-is-held-up and to this and
illam partem non vento tantum sed aura impellitur, nec
that side not by-wind only but by-a-breeze is-driven nor

umquam illi per diem ac noctem uno loco statio est:
ever to-it through day and night in-one place a-standing is
adeo movetur levi flatu.
so-much it-is-moved by-a-light breath

25.9 huic duplex causa est: aquae gravitas medicatae et
for-this a-double cause is of-the-water the-heaviness medicated and
ob hoc ponderosae, et ipsius insulae materia
on-account-of this weighty and of-the-very island the-material
vectabilis, quae non est corporis solidi, quamvis arbores
portable which not is of-body solid although trees
alat. fortasse enim leves truncos frondesque in lacu
it-nourishes perhaps for light trunks and-leaves on the-lake
sparsas pinguis umor apprehendit ac vinxit.
scattered a-fat moisture has-seized and bound

25.10 itaque etiam si qua in illa saxa sunt, invenies exesa
and-so even if any in it rocks there-are you-will-find-them eaten-away
et fistulosa, qualia sunt quae duratus umor efficit, utique
and porous such-as are those-which hardened moisture produces especially
circa medicatorum fontium rivos, ubi purgamenta aquarum
around of-medicinal springs the-streams where the-refuse of-waters
coaluerunt et spuma solidatur: necessario leve est, quod
have-grown-together and foam is-solidified necessarily light is what
ex ventoso inanique concretum est.
from windy and-empty-stuff compacted is

25.11 quorundam causa non potest reddi: quare aqua Nilotica
of-certain-things the-cause not can be-given why water of-the-Nile
fecundiores feminas faciat, adeo ut quarundam viscera longa
more-fertile women makes so-much that of-some the-wombs by-long
sterilitate praeclusa ad conceptum relaxaverit; quare quaedam
sterility closed for conception it-has-relaxed why certain
in Lycia aquae conceptum feminarum custodiant, quas solent
in Lycia waters the-conception of-women guard which are-wont

petere, quibus parum tenax vulva est. quod ad me
to-seek those-for-whom too-little retentive the-womb is as-far-as to me
attinet, pono ista inter temere vulgata. creditum
it-pertains I-put these-things among things-rashly spread-abroad believed
est quasdam aquas scabiem afferre corporibus, quasdam
it-has-been certain waters the-itch to-bring to-bodies certain
vitiliginem et foedam ex albo varietatem, sive infusa sive
vitiligo and a-foul from white variegation whether poured-on or
pota sit: quod vitium dicunt habere aquam ex rore collectam.
drunk it-be which fault they-say to-have water from dew collected
quis non gravissimas esse aquas credat, quae in crystallum 25.12
who not heaviest to-be the-waters would-believe which into crystal
coeunt? contra autem est: tenuissimis enim hoc evenit,
coalesce on-the-contrary however it-is to-the-thinnest for this happens
quas frigus ob ipsam tenuitatem facillime gelat. unde
which cold because-of their-very thinness most-easily freezes whence
autem fiat eiusmodi lapis, apud Graecos ex ipso nomine
however arises of-this-kind stone among the-Greeks from the-very name
apparet: κρύσταλλον enim appellant aeque hunc perlucidum
it-appears crystal for they-call equally this transparent
lapidem quam illam glaciem, ex qua fieri lapis creditur.
stone as that ice from which to-be-made the-stone is-believed
aqua enim caelestis minimum in se terreni habens cum
water for heavenly the-least in itself of-earthy having when
induruit, longioris frigoris pertinacia spissatur magis ac
it-has-hardened of-longer cold by-the-persistence is-thickened more and
magis, donec omni aëre excluso in se tota compressa
more until all air shut-out into itself wholly compressed
est et umor, qui fuerat, lapis effectus est.
it-has-been and the-moisture which had-been stone made has-been

Some rivers rise in summer, like the Nile and rivers in Pontus, for four possible causes: the earth changing to moisture, distant rains, winds blocking the mouth, or the stars drawing less from them. Others plunge underground and reappear, like the Lycus, the Erasinus, and the Tigris; Arethusa in Sicily casts up filth at the time of the Olympic games, whence the belief that the Alpheus runs under the sea. Standing waters and the sea purge themselves, even in calm.

26.1 Aestate quaedam flumina augentur ut Nilus, cuius alias
In-summer certain rivers are-increased as the-Nile whose elsewhere
ratio reddetur. Theophrastus est auctor, in Ponto quoque
the-account will-be-given Theophrastus is the-authority in Pontus also
quosdam amnes crescere tempore aestivo. quattuor esse
certain rivers to-grow at-time summer four to-be
iudicant causas: aut quia tunc maxime in umorem mutabilis
they-judge causes either because then most into moisture changeable
terra sit, aut quia maiores in remoto imbres sint, quorum
the-earth is or because greater in a-distant-place showers are whose
aqua per secretos cuniculos reddita tacite suffunditur.
water through secret tunnels returned silently is-poured-in-beneath
26.2 tertia: si crebrioribus ventis ostium caeditur et reverberatur
the-third if by-more-frequent winds the-mouth is-beaten and is-beaten-back
fluctu, amnis resistit, qui crescere videtur, quia non
by-the-wave the-river stops which to-grow seems because not
effunditur. quarta siderum ratio est: haec enim
it-is-poured-out the-fourth of-the-stars the-reckoning is these for
quibusdam mensibus magis urgent et exhauriunt flumina;
in-certain months more press and drain the-rivers
cum longius recesserunt, minus consumunt atque trahunt:
when farther they-have-receded less they-consume and draw
ita quod impendio solebat, id incremento accidit.
so what to-expenditure was-wont that to-increase falls

quaedam flumina palam in aliquem specum decidunt et 26.3
certain rivers openly into some cave fall-down and
sic ex oculis auferuntur. quaedam consumuntur paulatim et
so from the-eyes are-taken-away some are-consumed gradually and
intercidunt; eadem ex intervallo revertuntur recipiuntque et
perish the-same at an-interval return and-recover both
nomen et cursum. causa manifesta est: sub terra vacat locus,
their-name and their-course the-cause evident is under the-earth is-empty space
omnis autem natura umor ad inferius et ad inane defertur: illo
all however by-nature moisture to the-lower and to the-empty is-carried there
itaque recepta flumina cursus egere secreto; sed cum primum
and-so received the-rivers courses have-driven in-secret but when first
aliquid solidi, quod obstaret, occurrit, perrupta parte, quae
something solid which might-obstruct met-them broken-through the-part which
minus ad exitum repugnavit, repetiere cursum suum.
less to the-exit resisted they-have-sought-again course their-own

sic ubi terreno Lycus est potatus hiatu, 26.4
so when by-an-earthy Lycus has-been drunk chasm
existit procul hinc alioque renascitur ore.
it-emerges far from-here and-at-another is-reborn mouth
sic modo combibitur, tacito modo gurgite lapsus
so now it-is-drunk-up with-silent now eddy gliding
redditur Argolicis ingens Erasinus in undis.
is-returned Argolic huge the-Erasinus in waves

idem et in Oriente Tigris facit: absorbetur et desideratus
the-same also in the-East the-Tigris does it-is-swallowed and missed
diu tandem longe remoto loco, non tamen dubius an
long at-last in-a-far remote place not yet doubtful whether
idem sit, emergit.
the-same it-be it-emerges

26.5 quidam fontes certo tempore purgamenta eiectant, ut
certain springs at-a-fixed time refuse throw-out as
Arethusa in Sicilia quinta quaque aestate per Olympia.
Arethusa in Sicily fifth every summer during the-Olympics
inde opinio est Alpheon ex Achaia eo usque penetrare
thence the-opinion is the-Alpheus from Achaea thither right to-penetrate
et agere sub mare cursum nec ante quam in Syracusano
and to-drive under the-sea its-course nor before than on the-Syracusan
litore emergere, ideoque his diebus, quibus Olympia sunt,
shore to-emerge and-therefore in-those days in-which the-Olympics are
victimarum stercus secundo traditum flumini illic redundare.
of-the-victims the-dung to-the-favoring committed river there to-overflow

26.6 hoc et a te creditum est, ut in prima parte dixi, Lucili
this also by you believed has-been as in the-first part I-said Lucilius
karissime, et a Vergilio, qui alloquitur Arethusam:
dearest and by Vergil who addresses Arethusa

sic tibi, cum fluctus subter labere Sicanos,
so to-you when the-waves beneath you-will-glide Sicilian
Doris amara suas non intermisceat undas.
Doris bitter her-own not may-intermingle waters

Est in Chersoneso Rhodiorum fons, qui post magnum
There-is in the-Chersonese of-the-Rhodians a-spring which after a-great
intervallum temporis foeda quaedam turbidus ex intimo
interval of-time foul certain-things muddy from the-depths
fundat, donec liberatus eliquatusque est.
pours until freed and-cleared it-is

26.7 hoc quibusdam locis fontes faciunt, ut non tantum lutum
this in-certain places springs do that not only mud
sed folia testasque et quicquid putre iacuit expellant.
but leaves and-potsherds and whatever rotten has-lain they-expel

ubique autem facit mare, cui haec natura est, ut omne
everywhere however it-does the-sea to-which this nature is that all
immundum stercorosumque litoribus impingat. quaedam
unclean and-dungy on-the-shores it-dashes certain
vero partes maris certis temporibus hoc faciunt, ut circa
indeed parts of-the-sea at-fixed times this do as around
Messenen et Mylas fimo quiddam simile turbulentae vis
Messana and Mylae to-dung something like of-turbulent force
mare profert fervetque et aestuat non sine colore foedo,
the-sea brings-forth and-boils and seethes not without color foul
unde illic stabulare Solis boves fabula est.
whence there to-be-stalled of-the-Sun the-cattle the-tale is
sed difficilis ratio est quorundam, utique ubi tempus 26.8
but difficult the-explanation is of-certain-things especially where the-time
eluviei, de qua quaeritur, observatum sed incertum est.
of-the-flushing about which it-is-asked observed but uncertain it-is
itaque proxima quidem inveniri et vicina non potest causa;
and-so the-nearest indeed to-be-found and neighboring not can cause
ceterum publica est illa: omnis aquarum stantium clausarumque
but general is that all of-waters standing and-shut-in
natura se purgat. nam in his, quibus cursus est, non
the-nature itself purges for in these to-which a-course there-is not
possunt vitia consistere, quae secunda vis defert et exportat;
can faults stand-fast which a-favoring force carries-down and carries-away
illae, quae non emittunt quicquid insedit, magis minusve
those which not send-out whatever has-settled more or-less
aestuant. mare vero cadavera stramentaque et naufragorum
seethe the-sea indeed corpses and-litter and of-the-shipwrecked
reliqua similia ex intimo trahit, nec tantum tempestate
remains like from the-depths draws nor only by-storm
fluctuque sed tranquillum quoque placidumque purgatur.
and-wave but calm also and-placid it-is-purged

When the fated day of the flood comes, how will the earth be drowned: by the ocean, by endless rain, by rivers and new springs? All at once: nature, sparing in making, rushes whole to ruin. First rain without sun rots the crops, trees fall, houses sink, the starving eat acorns; torrents sweep off forests, flocks, and cities; the Rhine and Danube leave their beds; the sea rises, and survivors cling to the peaks, past fear. The most ingenious poet drew it grandly, then spoiled it with a wolf swimming among sheep.

27.1 Sed monet me locus, ut quaeram, cum fatalis dies diluvii
But warns me the-place that I-should-ask when the-fated day of-the-flood
venerit, quemadmodum magna pars terrarum undis
shall-have-come how a-great part of-the-earth by-waves
obruatur: utrum oceani viribus fiat et externum
may-be-overwhelmed whether by-the-ocean's strength it-may-happen and the-outer
in nos pelagus exurgat, an crebri sine intermissione imbres
against us sea may-rise or frequent without intermission showers
et elisa aestate hiems pertinax immensam vim aquarum
and squeezed-out summer winter persistent an-immense force of-waters
ruptis nubibus deiciat, an flumina tellus largius
from-burst clouds may-hurl-down or rivers the-earth more-abundantly
fundat aperiatque fontes novos, an non sit una tanto
may-pour and-may-open springs new or not may-be one for-so-great
malo causa sed omnis ratio consentiat et simul imbres cadant
an-evil cause but every reason may-agree and at-once showers may-fall
flumina increscant maria sedibus suis excita percurrant et
rivers may-increase seas from-seats their-own roused may-run-over and
omnia uno agmine ad exitium humani generis incumbant.
all-things in-one column to the-destruction of-the-human race may-press

ita est. nihil difficile naturae est, utique ubi in finem sui 27.2
so it-is nothing difficult for-nature is especially when to the-end of-itself
properat. ad originem rerum parce utitur viribus dispensatque
it-hastens for the-origin of-things sparingly it-uses strength and-dispenses
se incrementis fallentibus: subito ad ruinam toto impetu
itself by-increments imperceptible suddenly to ruin with-whole impetus
venit. quam longo tempore opus est, ut conceptus ad
it-comes how long a-time needed is that the-conceived to
puerperium perduret infans, quantis laboribus tener educatur,
childbirth may-last the-infant with-how-great labors tender is-reared
quam diligenti nutrimento obnoxium novissime corpus
with-how diligent nourishment liable at-last the-body
adolescit — at quam nullo negotio solvitur! urbes constituit
grows-up but how with-no trouble it-is-undone cities founds
aetas, hora dissolvit; momento fit cinis, diu silva; magna
an-age an-hour dissolves in-a-moment is-made ash long a-forest with-great
tutela stant ac vigent omnia, cito ac repente dissiliunt.
protection stand and flourish all-things quickly and suddenly they-fly-apart
quicquid ex hoc statu rerum natura flexerit, in exitium 27.3
whatever from this state of-things nature has-turned into the-destruction
mortalium satis est. ergo cum affuerit illa necessitas
of-mortals enough is therefore when has-come that necessity
temporis, multas simul fata causas movent. neque enim
of-time many at-once the-fates causes move nor for
sine concussione mundi tanta mutatio est, ut quidam
without the-shaking of-the-world so-great a-change is as certain
putant, inter quos Fabianus est.
think among whom Fabianus is
primo immodici cadunt imbres et sine ullis solibus triste 27.4
first immoderate fall showers and without any suns gloomy
nubilo caelum est nebulaque continua et ex umido spissa
with-cloud the-sky is and-mist continuous and from the-moisture dense

caligo numquam exiccantibus ventis. inde vitium satis
darkness never drying-out the-winds thence a-blight for-the-crops
est, segetum sine fruge surgentium marcor. tunc corruptis,
is of-cornfields without grain rising a-withering then corrupted
quae seruntur manu, palustris omnibus campis herba
the-things-which are-sown by-hand marshy in-all fields grass
succrescit.
grows-up

27.5 mox iniuriam et validiora sensere: solutis quippe radicibus
soon the-injury even stronger-things have-felt loosened since the-roots
arbusta procumbunt, et vitis atque omne virgultum non
trees fall-forward and the-vine and every shrub not
tenetur solo, quod molle fluidumque est. iam nec
is-held by-the-soil which soft and-fluid is now neither
gramina aut pabula laeta aquis sustinet: fame laboratur
grasses nor fodder lush in-waters it-sustains with-hunger they-labor
et manus ad antiqua alimenta porrigitur, qua ilex
and hands to the-ancient foods are-stretched where the-holm-oak
est et quercus, excutitur et quaecumque in arduis arbor
is and the-oak is-shaken and whatever on steep-places tree
commissura astricta lapidum stetit.
in-a-joint bound of-stones has-stood

27.6 labant ac madent tecta, et in imum usque receptis aquis
totter and are-soaked the-roofs and to the-lowest right received the-waters
fundamenta desidunt, ac tota humus stagnat. frustra
the-foundations sink and the-whole ground stagnates in-vain
titubantium fultura temptatur: omne enim firmamentum
of-the-tottering the-propping is-tried every for support
in lubrica figitur et lutosa humo, nihil stabile est.
in slippery is-fixed and in-muddy ground nothing stable is

postquam magis magisque ingruunt nimbi et congestae 27.7
after more and-more press-on the-rain-clouds and heaped-up
saeculis tabuerunt nives, devolutus torrens altissimis
by-ages have-melted the-snows rolled-down the-torrent from-the-highest
montibus rapit silvas male haerentes et saxa revolutis
mountains snatches woods badly clinging and rocks with-loosened
remissa compagibus rotat, abluit villas et intermixtos
released joints rolls washes-away farmhouses and mixed-in
dominis greges devehit, vulsisque minoribus tectis, quae
with-their-masters flocks carries-down and-torn-up the-smaller houses which
in transitu abduxit, tandem in maiora violentus aberrat,
in passing it-has-carried-off at-last onto greater-things violent it-strays
urbes et implicitos trahit moenibus suis populos, ruinam an
cities and entangled it-drags in-walls their-own peoples ruin or
naufragium querantur, incertos (adeo simul et quod opprimeret
shipwreck to-lament uncertain so at-once both what should-crush
et quod mergeret venit); auctus deinde processu aliquot
and what should-drown comes increased then by-its-progress several
in se torrentibus raptis plana passim populatur; novissime
into itself torrents snatched the-plains everywhere it-ravages at-last
in materia magna gentium clarus onustusque diffunditur.
in material great of-nations famous and-laden it-is-spread-out
flumina vero suapte natura vasta et tempestatibus rapida 27.8
rivers indeed by-their-own nature vast and by-storms swift
alveos reliquerunt. quid tu esse Rhodanum, quid putas
their-beds have-left what you to-be the-Rhone what do-you-think
Rhenum atque Danuvium, quibus torrens etiam in canali
the-Rhine and the-Danube to-which torrential even in channel
suo cursus est, cum superfusi novas sibi fecere
its-own the-course is when overflowing new for-themselves they-have-made
ripas ac scissa humo simul excessere alveo?
banks and in-the-split ground at-once have-gone-out from-the-bed

27.9 quanta cum praecipitatione volvuntur, ubi per campestria
how-great with headlong-rush they-are-rolled when through the-plains
fluens Rhenus ne spatio quidem languidus sed latissimas
flowing the-Rhine not by-space even sluggish but the-widest
velut per angustum aquas impellit, cum Danuvius non
as-if through a-narrow-place waters drives when the-Danube not
iam radices nec media montium stringit sed iuga
now the-roots nor the-middle of-the-mountains grazes but the-ridges
ipsa sollicitat ferens secum madefacta montium latera
themselves assails bearing with-itself soaked of-the-mountains the-sides
rupesque disiectas et magnarum promontoria regionum, quae
and-crags torn-asunder and of-great the-promontories regions which
fundamentis laborantibus a continenti recesserunt, deinde
with-the-foundations laboring from the-continent have-receded then
non inveniens exitum (omnia enim ipse sibi praecluserat)
not finding an-exit all-things for itself to-itself had-shut-off
in orbem redit, ingentemque terrarum ambitum atque
into a-circle it-returns and-a-huge of-lands circuit and
urbium uno vertice involvit.
of-cities in-one whirlpool wraps

27.10 interim permanent imbres, fit caelum gravius ac sic diu
meanwhile continue the-showers becomes the-sky heavier and so long
malum ex malo colligit: quod olim fuerat nubilum, nox
evil from evil it-gathers what once had-been cloudy night
est et quidem horrida ac terribilis intercursu luminis
is and indeed horrid and terrible with-the-intermittence of-light
diri. crebra enim micant fulmina, procellaeque quatiunt mare
dire frequent for flash thunderbolts and-gales shake the-sea
tunc primum auctum fluminum accessu et sibi angustum:
then first increased by-the-rivers' arrival and for-itself narrow
iam enim promovet litus nec continetur suis finibus;
already for it-moves-forward the-shore nor is-it-held by-its-own boundaries

ideo prohibentur exire torrentes aguntque fluctum retro,
therefore are-prevented to-go-out the-torrents and-drive the-wave back
pars tamen maior ut maligno ostio retenta restagnat et
the-part yet greater as by-a-niggardly mouth held-back stagnates and
agros in formam unius laci redigit.
the-fields into the-form of-one lake reduces
iam omnia, qua prospici potest, aquis obsidentur: omnis 27.11
already all-things where to-be-looked-out it-can by-waters are-besieged every
tumulus in profundo latet et immensa ubique altitudo
hillock in the-deep lies-hidden and boundless everywhere the-depth
est. tantum in summis montium iugis vada sunt: eo
is only on the-highest of-the-mountains ridges shallows are there
in excelsissima cum liberis coniugibusque fugerunt actis
to the-loftiest-places with children and-wives they-have-fled driven
ante se gregibus. diremptum inter miseros commercium
before themselves flocks broken-off among the-wretched the-intercourse
ac transitus, quoniam quicquid summissius erat, id unda
and passage since whatever lower was that the-wave
complevit:
has-filled
editissimis quibusque adhaerebant reliquiae generis humani, 27.12
to-the-highest every-one clung the-remnants of-the-race human
quibus in extrema perductis hoc unum solacio fuit,
to-whom to the-extremity brought this one-thing for-a-comfort was
quod transierat in stuporem metus. non vacabat timere
that had-passed into stupor fear not there-was-leisure to-fear
mirantibus; nec dolor quidem habebat locum, quippe vim
for-the-wondering nor grief even had place since force
suam perdit in eo, qui ultra sensum mali miser est.
its-own it-loses in him who beyond the-sense of-evil wretched is

27.13 ergo insularum modo eminent 'montes et sparsas
therefore of-islands in-the-manner stand-out the-mountains and the-scattered
Cycladas augent', ut ait ille poetarum ingeniosissimus egregie,
Cyclades increase as says that of-poets most-ingenious excellently
sicut illud pro magnitudine rei dixit
just-as that in-keeping-with the-greatness of-the-matter he-said

omnia pontus erat, deerant quoque litora ponto,
all sea was were-lacking also shores to-the-sea

ni tantum impetum ingenii et materiae ad pueriles
had-he-not so-great an-impetus of-genius and of-material to childish
ineptias reduxisset:
follies brought-down

nat lupus inter oves, fulvos vehit unda leones.
swims the-wolf among sheep tawny carries the-wave lions

27.14 non est res satis sobria lascivire devorato orbe terrarum.
not it-is a-thing enough sober to-frolic with-swallowed circle of-the-lands
dixit ingentia et tantae confusionis imaginem concepit,
he-said huge-things and of-so-great confusion an-image conceived
cum dixit:
when he-said

expatiata ruunt per apertos flumina campos,
spreading-out rush through open rivers plains
... pressaeque labant sub gurgite turres.
and-pressed totter under the-flood towers

magnifice haec, si non curaverit, quid oves et lupi
magnificently these-things if not he-has-cared what sheep and wolves
faciant. natari autem in diluvio et in illa rapina potest? aut
may-do to-swim however in a-flood and in that rapine can-one or
non eodem impetu pecus omne, quo raptum erat,
not with-the-same impetus cattle all with-which snatched it-had-been
mersum est?
submerged was
concepisti imaginem, quantam debebas obrutis omnibus 27.15
you-have-conceived an-image as-great-as you-ought overwhelmed all
terris caelo ipso in terram ruente — perfer: scies,
lands the-sky itself onto the-earth falling carry-it-through you-will-know
quid deceat, si cogitaveris orbem terrarum natare.
what befits if you-think the-circle of-the-lands to-swim

XXVIII · THE SEA BREAKS LOOSE

Some think rain can only harm the earth, not bury it; others blame the sea. Seneca grants endless rains first, which ruin the harvest, but the earth must be hidden, not hurt: then the seas rise past every storm mark, and a tide from the depths, moved by fate, lifts beyond the highest refuges. The sea, level with the earth's curve, need rise only a little to spill over. It happens, like the coming conflagration, when god chooses to end the old and begin the better.

Nunc ad propositum revertamur. sunt qui existiment 28.1
Now to the-proposition let-us-return there-are-those who think
immodicis imbribus vexari terras posse, non obrui;
by-immoderate showers to-be-harassed the-earth can not to-be-overwhelmed
magno impetu magna ferienda sunt; faciet pluvia segetes
with-great impetus great-things to-be-struck are will-make rain crops

malas, fructum grando decutiet, intumescent rivis
bad the-fruit hail will-shake-off will-swell with-streams
flumina, sed resident.
rivers but they-will-subside

28.2 quibusdam placet moveri mare et illinc causam tantae
to-certain it-pleases to-be-moved the-sea and thence the-cause of-so-great
cladis accersere. non potest torrentium aut imbrium aut
a-disaster to-summon not can of-torrents or of-showers or
fluminum iniuria fieri tam grande naufragium? ubi instat
of-rivers by-injury arise so great a-shipwreck when presses
illa pernicies mutarique humanum genus placuit, fluere
that destruction and-to-be-changed the-human race it-has-pleased to-flow
assiduos imbres et non esse modum pluviis concesserim,
constant showers and not to-be a-measure to-rains I-would-grant
suppressis aquilonibus et flatu sicciore austris nubes
with-suppressed north-winds and with-breath drier south-winds clouds
et amnes abundare. sed adhuc in damna profectum est:
and rivers to-abound but still into losses proceeded it-has

sternuntur segetes et deplorata colonis
are-laid-low the-crops and lamented by-the-farmers
vota iacent longique perit labor irritus anni.
prayers lie and-of-the-long perishes the-labor vain year

non laedi terrae debent sed abscondi.
not to-be-hurt the-lands ought but to-be-hidden

28.3 denique cum per ista prolusum est, crescunt maria,
finally when through these-things prelude-played it-has-been grow the-seas
sed super solitum, et fluctum ultra extremum tempestatis
but beyond the-usual and the-wave beyond the-farthest of-a-storm
maximae vestigium mittunt; deinde a tergo ventis
the-greatest mark they-send then from behind with-winds

surgentibus ingens aequor evolvunt, quod longe a conspectu
rising a-huge surface they-roll-out which far from the-sight
veteris litoris frangitur. deinde ubi litus bis terque
of-the-old shore is-broken then when the-shore twice and-thrice
prolatum est et pelagus in alieno constitit, velut admoto
advanced has-been and the-sea in another's has-stood as-if brought-near
malo comminus procurrit aestus ex imo recessu maris.
the-evil at-close-range runs-forward the-tide from the-deepest recess of-the-sea
nam ut aëris ut aetheris, sic huius elementi larga materia 28.4
for as of-air as of-ether so of-this element abundant the-matter
est multoque in abdito plenior. haec fatis mota, non
is and-much in hiding fuller this by-the-fates moved not
aestu (nam aestus fati ministerium est), attollit vasto sinu
by-the-tide for the-tide of-fate the-service is lifts with-vast bosom
fretum agitque ante se. deinde in miram altitudinem erigitur
the-sea and-drives before itself then to wonderful height it-is-raised
et illis tutis hominum receptaculis superest. nec id aquis
and those safe of-men refuges overtops nor that for-waters
arduum est, quoniam aequo terris fastigio ascendunt.
arduous is since with-equal to-the-lands height they-ascend
si quis excelsa perlibret, maria paria sunt: nam par undique 28.5
if anyone the-heights should-level the-seas equal are for equal on-all-sides
sibi ipsa tellus est (cava eius et plana inferiora sunt,
to-itself itself the-earth is the-hollow-parts its and flat lower are
sed istis † a deo in rotundum orbis aequatus est), in
but by-these (corrupt) by god into the-round the-globe leveled has-been in
parte autem eius et maria sunt, quae in unius aequalitatem
part however of-it also the-seas are which into of-one the-evenness
pilae coeunt. sed quemadmodum campos intuentem quae
ball come-together but as the-plains one-looking-on which
paulatim devexa sunt fallunt, sic non intellegimus curvaturas
gradually sloping are deceive so not we-perceive the-curvatures

maris et videtur planum quicquid apparet. at illud aequale
of-the-sea and seems flat whatever appears but that level
terris est ideoque, ut effluat, non magna mole se
with-the-lands is and-therefore that it-may-flow-out not with-great mass itself
tollet, dum satis est illi, ut supra paria veniat,
it-will-raise while enough it-is for-it that above equal-things it-should-come
leviter exsurgere; nec a litore, ubi inferius est, sed a
lightly to-rise nor from the-shore where lower it-is but from
medio, ubi ille cumulus est, defluit.
the-middle where that heap is it-flows-down

28.6 ergo ut solet aestus aequinoctialis sub ipsum lunae
therefore as is-wont the-tide of-the-equinox under the-very of-the-moon
solisque coitum omnibus aliis maior undare, sic hic, qui ad
and-of-the-sun meeting than-all others greater to-surge so this which for
occupandas terras emittitur, solitis maximisque violentior
seizing the-lands is-sent-out than-the-usual and-greatest more-violent
plus aquarum trahit nec, antequam supra cacumina eorum,
more of-waters draws nor before above the-peaks of-those
quos perfusurus est, montium crevit, devolvitur. per
which going-to-flood it-is mountains it-has-grown it-is-rolled-down through
centena milia quibusdam locis aestus excurrit innoxius
a-hundred thousand-paces in-certain places the-tide runs-out harmless
et ordinem servat (ad mensuram enim crescit iterumque
and the-order keeps by measure for it-grows and-again
decrescit): at illo tempore solutus legibus sine modo fertur.
decreases but at-that time freed from-laws without measure it-is-borne

28.7 'qua ratione?' inquis: eadem, qua conflagratio futura est.
by-what reason you-say by-the-same by-which the-conflagration future is
utrumque fit, cum deo visum ordiri meliora, vetera
each happens when to-god it-has-seemed-good to-begin better-things old-ones
finiri. aqua et ignis terrenis dominantur, ex his
to-be-ended water and fire over-earthly-things rule from these

ortus et ex his interitus est: ergo quandoque placuere
the-rise and from these the-perishing is therefore whenever have-pleased
res novae mundo, sic in nos mare emittitur desuper,
things new to-the-world so upon us the-sea is-sent-out from-above
ut fervor ignisque, cum aliud genus exitii placuit.
as heat and-fire when another kind of-destruction has-pleased

XXIX · WRITTEN IN THE WORLD'S SEED

Some add earthquakes opening new springs. Berossus, interpreter of Belus, ties fire and flood to the stars: the earth will burn when all the planets meet in Cancer and drown when they meet in Capricorn. Seneca accepts these causes, but holds the flood written into the universe from its beginning, as the whole man is in the seed. The earth itself will rot into water, springs will burst from the mountains, the seas will join, and one day will bury mankind.

Quidam existimant terram quoque concuti et dirupto solo 29.1
Certain think the-earth also to-be-shaken and with-burst soil
nova fluminum capita detegere, quae amplius ut e
new of-rivers sources to-uncover which more-abundantly as from
pleno profundant. Berosos, qui Belum interpretatus est, ait
a-full-vessel pour-forth Berossus who Belus interpreted has says
ista cursu siderum fieri; adeo quidem affirmat, ut
these-things by-the-course of-the-stars to-happen so-much indeed he-affirms that
conflagrationi atque diluvio tempus assignet: arsura enim
to-conflagration and flood a-time he-assigns going-to-burn for
terrena contendit, quandoque omnia sidera, quae nunc
earthly-things he-contends whenever all the-stars which now
diversos agunt cursus, in Cancrum convenerint (sic sub
different drive courses into Cancer shall-have-come-together so under
eodem posita vestigio, ut recta linea exire per orbes
the-same placed track that a-straight line to-go-out through the-orbs

omnium possit); inundationem futuram, cum eadem siderum
of-all it-can the-flood future when the-same of-stars
turba in Capricornum convenerit. illic solstitium, hic
throng into Capricorn shall-have-come-together there the-solstice here
bruma conficitur: magnae potentiae signa, quando in
the-winter-solstice is-made of-great power signs since in
ipsa mutatione anni momenta sunt.
the-very change of-the-year moments they-are

29.2 et istas ego receperim causas (neque enim ex uno est
and these I would-accept causes nor for from one is
tanta pernicies), et illam, quae in conflagratione nostris
so-great a-destruction and that which in the-conflagration to-ours
placet, hoc quoque transferendam puto: sive animal est
is-pleasing to-this also to-be-transferred I-think whether an-animal is
mundus sive corpus natura gubernabile ut arbores ut sata,
the-world or a-body by-nature governable like trees like crops
ab initio eius usque ad exitum quicquid facere quicquid
from the-beginning of-it right to the-end whatever to-do whatever
pati debeat, inclusum est.
to-suffer it-must included is

29.3 ut in semine omnis futuri hominis ratio comprehensa est
as in the-seed of-the-whole of-the-future man the-plan comprehended is
et legem barbae canorumque nondum natus infans habet
and the-law of-the-beard and-of-gray-hairs not-yet born the-infant has
(totius enim corporis et sequentis actus in parvo occultoque
of-the-whole for body and of-subsequent action in small and-hidden
liniamenta sunt), sic origo mundi non minus solem et lunam
the-outlines are so the-origin of-the-world not less the-sun and the-moon
et vices siderum et animalium ortus quam quibus
and the-changes of-the-stars and of-animals the-births than those-things-by-which

mutarentur terrena continuit. in his fuit inundatio, quae
might-be-changed earthly-things contained in these was the-flood which
non secus quam hiems quam aestas lege mundi venit.
not otherwise than winter than summer by-the-law of-the-world comes
itaque non pluvia istud fiet sed pluvia quoque, non 29.4
and-so not by-rain that will-happen but by-rain also not
incursu maris sed maris quoque incursu, non terrae
by-the-onrush of-the-sea but of-the-sea also by-the-onrush not of-earth
motu sed terrae quoque motu: omnia adiuvabunt naturam,
by-quake but of-earth also by-quake all-things will-help nature
ut naturae constituta peragantur. maximam tamen
so-that of-nature the-appointments be-carried-through the-greatest yet
causam ad se inundandam terra ipsa praestabit, quam
cause for itself to-be-flooded the-earth itself will-provide which
diximus esse mutabilem et solvi in umorem.
we-have-said to-be changeable and to-be-dissolved into moisture
ergo quandoque erit terminus rebus humanis, cum 29.5
therefore whenever there-will-be an-end to-things human when
partes eius interire debuerint abolerive funditus totae,
the-parts of-it to-perish shall-have-had-to or-to-be-abolished utterly whole
ut de integro totae rudes innoxiaeque generentur nec
so-that from fresh whole crude and-innocent they-may-be-begotten nor
supersit in deteriora praeceptor, plus umoris, quam semper
may-remain into worse-things a-teacher more of-moisture than always
fuit, fiet. nunc enim elementa ad id, quod debetur,
there-was there-will-be now for the-elements to that which is-owed
pensa sunt: aliquid oportet alteri accedat, ut quae
weighed are something must to-the-other be-added so-that things-which
libramento stant, inaequalitas turbet. accedet umori; nunc
in-balance stand inequality may-disturb it-will-be-added to-moisture now

enim habet, quo ambiat terras, non quo obruat:
for it-has wherewith it-may-surround the-lands not wherewith it-may-overwhelm
quicquid illi adieceris, necesse est in alienum locum exundet.
whatever to-it you-have-added necessary it-is into another's place it-overflows
29.6 uide ergo ne terra debeat minui, ut validiori
see therefore whether-not the-earth must be-diminished so-that to-the-stronger
infirma succumbat. incipiet ergo putrescere, dehinc laxata
the-weak may-succumb it-will-begin therefore to-rot then loosened
ire in umorem et assidua tabe defluere. tunc exilient
to-go into moisture and by-continual decay to-flow-away then will-leap-out
sub montibus flumina ipsosque impetu quatient; inde
under mountains rivers and-themselves with-impetus will-shake thence
aura tacta manabunt;
by-the-air touched they-will-flow
29.7 solum omne aquas reddet, summi scaturient montes.
the-ground all waters will-give-back the-highest will-gush mountains
quemadmodum in morbum transeunt sana et ulceri
as into disease pass sound-parts and to-an-ulcer
vicina consentiunt, ut quaeque proxima terris fluentibus
neighboring agree so each nearest to-the-lands flowing
fuerint, ipsa eluentur stillabuntque, deinde current,
shall-have-been themselves will-be-washed-away and-will-drip then will-run
et hiante pluribus locis saxo fretum saliet et maria
and gaping in-many places with-rock the-sea will-leap and the-seas
inter se componet. nihil erunt Adria, nihil Siculi
with each-other will-join nothing will-be the-Adriatic nothing of-the-Sicilian
aequoris fauces, nihil Charybdis nihil Scylla: omnes novum
sea the-jaws nothing Charybdis nothing Scylla all a-new
mare fabulas obruet et hic qui terras cingit oceanus
sea the-tales will-overwhelm and this which the-lands encircles ocean
extrema sortitus veniet in medium.
the-extremities allotted will-come into the-middle

quid ergo est? nihilominus tenebit alienos menses hiems, aestas 29.8
what then is-it nonetheless will-hold others' months winter summer
prohibebitur, et quodcumque terras sidus exsiccat, compresso
will-be-prevented and whatever the-lands star dries with-compressed
ardore cessabit. peribunt tot nomina, Caspium et Rubrum
heat will-cease will-perish so-many names the-Caspian and the-Red
mare, Ambracii et Cretici sinus, Propontis et Pontus,
sea the-Ambracian and the-Cretan gulfs the-Propontis and the-Pontus
peribit omne discrimen; confundetur quicquid in suas partes
will-perish every distinction will-be-confounded whatever into its-own parts
natura digessit. non muri quemquam, non turres tuebuntur.
nature has-arranged not walls anyone not towers will-protect
non proderunt templa supplicibus nec urbium summa, quippe
not will-profit temples for-suppliants nor of-cities the-heights since
fugientes unda praeveniet et ex ipsis arcibus deferet.
the-fleeing the-wave will-anticipate and from the-very citadels will-carry-down
alia ab occasu, alia ab oriente concurrent: unus humanum 29.9
some from the-west others from the-east will-run-together one the-human
genus condet dies. quicquid tam longa fortunae indulgentia
race will-bury day whatever so long of-fortune indulgence
excoluit, quicquid supra ceteros extulit, nobilia pariter
has-cultivated whatever above the-others has-raised noble-things equally
atque adornata magnarumque gentium regna pessundabit.
and adorned-things and-of-great nations the-kingdoms it-will-sink

The seas have long practiced for the day of the flood; when it comes the earth will drink the waters back, and a new man be born, innocent until vice is learned again.

30.1 Sunt omnia, ut dixi, facilia naturae, utique quae a primo
Are all-things as I-said easy for-nature especially those-which from the-first
facere constituit, ad quae non subito sed ex denuntiato venit.
to-do she-has-resolved to which not suddenly but from warning she-comes
iam autem a primo die mundi, cum in hunc habitum
already however from the-first day of-the-world when into this condition
ex informi unitate discederet, quando mergerentur terrena,
from formless unity it-departed when should-be-submerged earthly-things
decretum est; et ne sit quandoque velut in novo
decreed it-was and that-not there-may-be at-some-time as-if on a-new
opere dura molitio, olim ad hoc maria se exercent.
work hard toil long-since for this the-seas themselves exercise
30.2 non vides, ut fluctus in litora tamquam numquam
not do-you-see how the-wave against the-shores as-if never
exiturus incurrat? non vides, ut aestus fines suos
going-to-go-out runs-in not do-you-see how the-tide bounds its-own
transeat et in possessionem terrarum mare inducat? non
crosses and into the-possession of-the-lands the-sea leads not
vides, ut illi perpetua cum claustris suis pugna sit?
do-you-see how for-it a-perpetual with barriers its-own fight is
quid porro? istinc, unde tantum tumultum vides, metus
what further from-there whence so-much tumult you-see the-fear
est, e mari et magno spiritu erumpentibus fluviis.
is from the-sea and with-great breath bursting-out rivers

ubi non umorem natura disposuit, ut undique nos, cum 30.3
where not moisture nature has-arranged so-that from-everywhere us when
voluisset, aggredi posset? mentior, nisi eruentibus terram
it-wished to-attack it-could I-lie unless to-those-digging the-earth
umor occurrit et, quotiens nos aut avaritia defodit aut
moisture meets-them and whenever us either avarice buries or
aliqua causa penetrare altius cogit, eruendi finis aliquando
some cause to-penetrate deeper compels of-digging the-end sometimes
est. adice, quod immanes sunt in abdito lacus et multum
is add that vast are in hiding lakes and much
maris conditi, multum fluminum per operta labentium.
of-sea hidden much of-rivers through covered-places gliding
undique ergo erit causa diluvio, cum aliae aquae 30.4
on-all-sides therefore there-will-be cause for-the-flood since some waters
subterfluant terras, aliae circumfluant, quae diu coercitae
flow-beneath the-lands others flow-around which long restrained
vincent et amnes amnibus iungent, paludibus stagna. omnium
will-conquer and rivers to-rivers will-join to-marshes pools of-all
tunc mare ora fontium implebit et maiore hiatu solvet.
then the-sea the-mouths of-springs will-fill and with-greater gaping will-loosen
quemadmodum corpora nostra ad egestum venter exhaurit,
as bodies our for evacuation the-belly drains
quemadmodum in sudorem eunt vires, ita tellus liquefiet
as into sweat go the-strengths so the-earth will-liquefy
et aliis causis quiescentibus intra se, quo mergatur,
and other causes resting within itself wherewith it-may-be-submerged
inveniet; sed magis omnia coitura crediderim.
will-find but rather all-things to-be-going-to-combine I-should-believe
nec longa erit mora exitii: temptatur divelliturque 30.5
nor long will-be the-delay of-destruction is-tried and-is-torn-apart
concordia. cum semel aliquid ex hac idonea diligentia
the-concord when once something from this suitable diligence

remiserit mundus, statim undique ex aperto et abdito,
has-relaxed the-world at-once on-all-sides from the-open and the-hidden
superne ab infimo, aquarum fiet irruptio.
from-above from the-lowest of-waters will-be an-irruption

30.6 nihil est tam violentum, tam incontinens sui, tam
nothing is so violent so ungoverned of-itself so
contumax infestumque retinentibus quam magna vis undae:
defiant and-hostile to-restrainers as a-great force of-water
utetur libertate permissa et iubente natura, quae scindit
it-will-use the-freedom permitted and commanding nature which it-cuts
circuitque, complebit. ut ignis diversis locis ortus cito
and-goes-round it-will-fill as fire in-different places arisen quickly
miscet incendium flammis coire properantibus, sic momento
mixes a-conflagration the-flames to-combine hastening so in-a-moment
se redundantia pluribus locis maria committent.
themselves overflowing in-many places the-seas will-join

30.7 nec ea semper licentia undis erit, sed peracto exitio
nor that always license to-the-waves will-be but completed the-destruction
generis humani extinctisque pariter feris, in quarum
of-the-race human and-extinguished equally the-wild-beasts into whose
homines ingenia transierant, iterum aquas terra sorbebit,
men the-natures had-passed again the-waters the-earth will-absorb
terra pelagus stare aut intra terminos suos furere coget,
the-earth the-sea to-stand or within bounds its-own to-rage will-compel
et reiectus e nostris sedibus in sua secreta pelletur
and driven-back from our seats into its-own secret-places will-be-driven
oceanus et antiquus ordo revocabitur.
the-ocean and the-ancient order will-be-recalled

30.8 omne ex integro animal generabitur dabiturque terris
every from fresh animal will-be-begotten and-will-be-given to-the-lands
homo inscius scelerum et melioribus auspiciis natus. sed
man ignorant of-crimes and under-better auspices born but

illis quoque innocentia non durabit, nisi dum novi sunt;
in-them also innocence not will-last except while new they-are
cito nequitia subrepit. virtus difficilis inventu est, rectorem
quickly wickedness creeps-in virtue difficult to-find is a-ruler
ducemque desiderat: at sine magistro vitia discuntur.
and-a-leader it-needs but without a-teacher vices are-learned

BOOK IVA

PREFACE · AGAINST FLATTERY

Lucilius enjoys Sicily and his quiet procuratorship; let him keep from the crowd and the flatterers. Flattery pleases even rejected, and the open kind wins fastest, as Plancus taught. Seneca's brother Gallio resisted every approach. Let Lucilius praise himself instead: his studies, his loyalty to Gaetulicus under Gaius, his courage before Messalina and Narcissus. Fly the crowd and withdraw into yourself; and do not take pride in ruling Sicily, which saw Pompey and Lepidus fall from the heights.

Delectat te, quemadmodum scribis, Lucili virorum optime, 1
Delights you as you-write Lucilius of-men best
Sicilia et officium procurationis otiosae, delectabitque, si
Sicily and the-office of-a-procuratorship leisured and-it-will-delight if
continere id intra fines suos volueris nec efficere imperium,
to-keep it within bounds its-own you-wish nor to-make an-imperium
quod est procuratio. facturum hoc te non dubito; scio,
what is a-procuratorship going-to-do this you not I-doubt I-know
quam sis ambitioni alienus, quam familiaris otio et
how you-are to-ambition alien how familiar to-leisure and
litteris. turbam rerum hominumque desiderent, qui se
to-letters a-crowd of-affairs and-of-men let-them-desire who themselves
pati nesciunt: tibi tecum optime convenit.
to-endure know-not to-you with-yourself excellently it-agrees
nec est mirum paucis istud contingere superiorum: nobis 2
nor is-it strange to-few that to-happen of-our-superiors to-ourselves
ipsi molesti sumus, si modo amore nostri modo taedio
ourselves troublesome we-are if now by-love of-ourselves now by-weariness
laboramus, infelicem animum nunc superbia inflamus nunc
we-labor the-unhappy mind now with-pride we-inflame now
cupiditate distendimus, alias voluptate lassamus alias
with-desire we-distend at-times with-pleasure we-weary at-times

sollicitudine exurimus — quod est miserrimum, numquam
with-anxiety we-burn-up what is most-wretched never
sumus singuli: necesse est itaque assidua sit in tam magno
are-we alone necessary it-is and-so constant be in so great
vitiorum contubernio rixa.
of-vices a-cohabitation the-brawling

3 fac ergo, mi Lucili, quod facere consuesti: a turba te,
do therefore my Lucilius what to-do you-are-wont from the-crowd yourself
quantum potes, separa, ne adulatoribus latus praebeas.
as-much-as you-can separate that-not to-flatterers your-side you-offer
artifices sunt ad captandos superiores: par illis, etiamsi
artful they-are for catching superiors equal to-them even-if
bene caveris, non eris; sed mihi crede: proditione
well you-have-guarded not you-will-be but me believe by-treachery
si capieris, ipse te trades.
if you-are-caught yourself you you-will-hand-over

4 habent hoc in se naturale blanditiae: etiam cum
have this in themselves natural flatteries even when
reiciuntur placent, saepe exclusae novissime recipiuntur.
they-are-rejected they-please often shut-out at-last they-are-admitted
hoc enim ipsum imputant, quod repelluntur, et subigi
this for itself they-impute that they-are-repelled and to-be-subdued
ne contumelia quidem possunt. incredibile est quod dicturus
not by-insult even can-they incredible is what about-to-say
sum, sed tamen verum: ea maxime quisque patet, qua
I-am but yet true in-that-part most each lies-open where
petitur; fortasse enim ideo, quia patet, petitur.
he-is-attacked perhaps for therefore because he-lies-open he-is-attacked

5 sic ergo formare, ut scias non posse te consequi, ut
so therefore shape-yourself that you-may-know not to-be-able you to-attain that
sis impenetrabilis: cum omnia caveris, per ornamenta
you-be impenetrable when all-things you-have-guarded through your-ornaments

fiet. alius adulatione clam utetur, parce, alius ex
it-will-happen another flattery secretly will-use sparingly another from
aperto, palam, rusticitate simulata, quasi simplicitas illa,
the-open openly rusticity feigned as-if simplicity that
non ars sit. Plancus, artifex ante Villeium maximus,
not art were Plancus the-master-craftsman before Villeius greatest
aiebat non esse occulte nec ex dissimulato blandiendum:
said not to-be secretly nor from dissimulation to-be-flattered
'perit', inquit, 'procari, si latet.'
is-lost he-said wooing if it-is-hidden
plurimum adulator, cum deprehensus est, proficit, plus 6
most the-flatterer when caught he-has-been gains more
etiamnunc, si obiurgatus est, si erubuit. futuros multos
still if rebuked he-has-been if he-has-blushed going-to-be many
in persona tua Plancos cogita et hoc non esse remedium
in person your Plancuses think and this not to-be the-remedy
tanti mali, nolle laudari. Crispus Passienus, quo
of-so-great an-evil to-be-unwilling to-be-praised Crispus Passienus than-whom
ego nil cognovi subtilius in omnibus quidem rebus,
I nothing have-known more-subtle in all indeed matters
maxime in distinguendis et curandis vitiis, saepe dicebat
most in distinguishing and curing vices often used-to-say
adulationi nos non claudere ostium sed operire, et quidem
to-flattery us not to-close the-door but to-pull-it-to and indeed
sic, quemadmodum opponi amicae solet: quae si
so as to-be-set-against-it to-a-mistress it-is-wont which if
impulit, grata est; gratior, si effregit.
she-has-pushed-it pleasing is more-pleasing if she-has-broken-it-open
Demetrium egregium virum memini dicere cuidam libertino 7
Demetrius an-excellent man I-remember to-say to-a-certain freedman
potenti facilem sibi esse ad divitias viam, quo die
powerful easy to-himself to-be to riches the-way on-which day

paenituisset bonae mentis. ‘nec invidebo’, inquit, ‘vobis hac
he-should-have-repented of-a-good mind nor will-I-begrudge he-said you this
arte, sed docebo eos, quibus quaesito opus est, quemadmodum
art but I-shall-teach those to-whom of-acquiring need is how
non dubiam fortunam maris, non emendi vendendique litem
not the-doubtful fortune of-the-sea not of-buying and-selling the-lawsuit
subeant, non incertam fidem ruris, incertiorem
they-may-undergo not the-uncertain faith of-the-countryside the-more-uncertain
fori temptent, quemadmodum non solum facili sed etiam
of-the-forum they-may-try how not only by-an-easy but even
hilari via pecuniam faciant gaudentesque despolient.’
by-a-cheerful way money they-may-make and-the-rejoicing they-may-despoil
8 ‘te’, inquit, ‘longiorem Fido Annaeo iurabo et Apollonio
you he-says taller than-Fidus Annaeus I-will-swear and than-Apollonius
pycte, quamvis staturam habeas pitheci cum Thraece compositi;
the-boxer although stature you-have of-an-ape with a-Thracian matched
hominem quidem non esse ullum liberaliorem non mentiar,
a-man indeed not to-be any more-generous not will-I-lie
cum possis videri omnibus donasse, quicquid dereliquisti.’
since you-can seem to-all to-have-given whatever you-have-left-behind
9 ita est, mi Iunior: quo apertior est adulatio, quo improbior,
so it-is my Junior the more-open is flattery the more-shameless
quo magis frontem suam perfricuit cecidit alienam, hoc
the more forehead its-own it-has-rubbed it-has-struck another's this
citius expugnat. eo enim iam dementiae venimus, ut
the-quicker it-storms to-that for already of-madness we-have-come that
qui parce adulatur, pro maligno sit.
he-who sparingly flatters for malicious is
10 solebam tibi dicere Gallionem, fratrem meum, quem nemo
I-used-to to-you say Gallio brother my whom no-one
non parum amat, etiam qui amare plus non potest, alia
not too-little loves even who to-love more not can other

vitia non nosse, hoc eum odisse. ab omni illum parte
vices not to-know this him to-hate from every him side
temptasti: ingenium suspicere coepisti omnium maximum et
you-have-tried his-genius to-look-up-to you-began of-all the-greatest and
dignissimum, quod consecrari mallet quam conteri:
most-worthy which to-be-consecrated he-would-prefer than to-be-trampled
pedes abstulit; frugalitatem laudare coepisti, quae sic a
his-feet he-withdrew his-frugality to-praise you-began which so from
nobis resiluit, ut illos † nec habere nec damnare
us has-sprung-back that those (corrupt) neither to-have nor to-condemn
videatur: prima statim verba praecidit;
it-seems the-first at-once words he-cut-off
coepisti mirari comitatem et incompositam suavitatem, quae 11
you-began to-admire the-affability and unaffected sweetness which
illos quoque quos transit abducit, gratuitum etiam in obvios
those also whom it-passes leads-away free even to passers-by
meritum (nemo enim mortalium uni tam dulcis est quam
a-kindness no-one for of-mortals to-one so sweet is as
hic omnibus): cum interim (tanta naturalis boni vis
this-man to-all though meanwhile so-great of-natural good the-force
est), ubi artem simulationemque non redolet, nemo non
is where art and-pretense not it-smells-of no-one not
imputari sibi bonitatem publicam patitur — hoc quoque
to-be-imputed to-himself goodness public allows in-this also
loco blanditiis tuis restitit, ut exclamares invenisse te
place flatteries your he-resisted so-that you-cried-out to-have-found you
inexpugnabilem virum adversus insidias, quas nemo non in
an-unassailable man against plots which no-one not into
sinum recipit.
his-bosom receives

12 eo quidem magis hanc eius prudentiam et in evitando
by-that indeed more this his prudence and in avoiding
inevitabili malo pertinaciam te suspicere confessus es, quia
an-inevitable evil persistence you to-look-up-to admitted you-have because
speraveras posse apertis auribus recipi, quamvis blanda
you-had-hoped to-be-able with-open ears to-be-received though flattering-things
diceres, quia vera dicebas; sed eo magis intellexit
you-said because true-things you-said but by-that more he-understood
obstandum: semper enim falsis a vero petitur auctoritas.
it-is-to-be-resisted always for for-false-things from the-true is-sought authority
nolo tamen displiceas tibi, quasi male egeris mimum
I-do-not-want yet you-to-displease yourself as-if badly you-had-acted the-mime
et quasi ille aliquid iocorum aut doli suspicatus sit: non
and as-if he some-part of-jokes or of-trickery suspected had not
deprehendit te sed reppulit. ad hoc exemplar componere.
he-caught you but he-repelled-you to this model compose-yourself
13 cum quis ad te adulator accesserit, dicito: 'vis tu ista
when some to you flatterer shall-have-approached say do-you-wish you these
verba, quae iam ab alio magistratu ad alium cum lictoribus
words which now from one magistrate to another with the-lictors
transeunt, ferre ad aliquem, qui paria facturus vult,
pass to-carry to someone who equal-things going-to-do wants
quicquid dixerim, audire? ego nec decipere volo nec decipi
whatever I-say to-hear I neither to-deceive wish nor to-be-deceived
possum: laudari me a vobis, nisi laudaretis etiam malos,
can to-be-praised I by you unless you-praised also the-wicked
vellem.' quid autem necesse est in hoc descendere, ut te
I-would-wish what however necessary is-it to this to-descend that you
petere comminus possint? longum inter vos intervallum sit.
to-attack at-close-range they-can long between you an-interval let-there-be

cum cupieris bene laudari, quare hoc ulli debeas? ipse 14
when you-desire well to-be-praised why this to-anyone should-you-owe yourself
te lauda, dic: 'liberalibus me studiis tradidi. quamquam
you praise say to-liberal myself studies I-gave although
paupertas alia suaderet et ingenium eo duceret, ubi
poverty other-things urged and talent thither drew where
praesens studii pretium est, ad gratuita carmina deflexi me
present of-study the-reward is to unpaid poems I-turned myself
et ad salutare philosophiae contuli studium.
and to the-salutary of-philosophy brought study
ostendi in omne pectus cadere virtutem et eluctatus 15
I-showed into every breast to-fall virtue and having-struggled-out-of
natalium angustias nec sorte me sed animo mensus par
of-birth the-narrowness nor by-lot myself but by-mind measuring equal
maximis steti. non mihi in amicitia Gaetulici Gaius
to-the-greatest I-stood not from-me in friendship of-Gaetulicus Gaius
fidem eripuit; non in aliorum persona infeliciter amatorum
loyalty snatched not in of-others the-person unhappily loved
Messallina et Narcissus, diu publici hostes antequam sui,
Messalina and Narcissus long public enemies before their-own
propositum meum potuerunt evertere: cervicem pro fide
the-purpose my could overturn my-neck for loyalty
opposui, nullum verbum mihi, quod non salva bona
I-set-against no word from-me which not with-safe good
conscientia procederet, excussum est; pro amicis omnia timui,
conscience might-proceed shaken-out was for friends all-things I-feared
pro me nihil, nisi ne parum bonus amicus fuissem.
for myself nothing except that-not too-little good a-friend I-should-have-been
non mihi muliebres fluxere lacrimae, non e manibus ullius 16
not from-me womanish flowed tears not from the-hands of-anyone
supplex pependi, nihil indecorum nec bono nec viro feci.
suppliant I-hung nothing unbecoming either to-a-good or-to a-man did-I

periculis meis maior, paratus ire in ea, quae minabantur,
than-dangers my greater ready to-go into those-things which they-threatened
egi gratias fortunae, quod experiri voluisset, quanti
I-gave thanks to-fortune that to-test it-had-wished at-how-much
aestimarem fidem (non debebat mihi parvo res tanta constare);
I-valued loyalty not ought to-me at-little a-thing so-great to-cost
ne examinavi quidem me diu (neque enim paria pendebant),
not I-examined even myself long nor for equal-things weighed
utrum satius esset me perire pro fide an fidem pro me;
whether better it-were me to-perish for loyalty or loyalty for me
17 non praecipiti impetu in ultimum consilium, quo me
not with-headlong impetus into the-last counsel by-which myself
eriperem furori potentium, misi. videbam apud
I-might-snatch from-the-madness of-the-powerful did-I-send-myself I-saw with
Gaium tormenta, videbam ignes, sciebam olim sub illo in
Gaius tortures I-saw fires I-knew long-ago under him into
eum statum res humanas decidisse, ut inter misericordiae
that state affairs human to-have-fallen that among of-mercy
opera haberetur occidi — non tamen ferro incubui
the-works it-was-held to-be-killed not yet on-a-sword did-I-fall
nec in mare aperto ore desilui, ne viderer pro
nor into the-sea with-open mouth did-I-leap-down that-not I-should-seem for
fide tantum mori posse.'
loyalty only to-die to-be-able
18 adice invictum muneribus animum et in tanto avaritiae
add unconquered by-bribes a-mind and in so-great of-avarice
certamine numquam suppositam manum lucro, adice
a-contest never placed-under a-hand for-gain add
victus parsimoniam sermonis modestiam, adversus minores
of-living the-frugality of-speech the-modesty toward inferiors
humanitatem adversus maiores reverentiam. post haec
humanity toward superiors reverence after these-things

ipse te consule, verane an falsa memoraveris: si vera
yourself you consult whether-true or false-things you-have-recounted if true
sunt, coram magno teste laudatus es, si falsa, sine
they-are before a-great witness praised you-are if false without
teste derisus es.
a-witness mocked you-are
possum et ipse nunc videri te aut captare aut experiri: 19
I-can also myself now seem you either to-be-hunting or to-be-testing
utrumlibet crede et omnes timere a me incipe. Vergilianum
whichever believe and all to-fear from me begin the-Vergilian
illud exaudi 'nusquam tuta fides' aut Ovidianum 'qua terra
that hear nowhere safe trust or the-Ovidian where the-earth
patet, fera regnat Erinys: in facinus iurasse putes'
stretches the-savage reigns Erinys to crime to-have-sworn you-would-think
aut illud Menandri (quis enim non in hoc magnitudinem
or that of-Menander who for not into this the-greatness
ingenii sui concitavit, detestatus consensum humani
of-genius his-own has-roused cursing the-consent of-the-human
generis tendentis ad vitia?): omnes ait malos vivere et
race tending to vices all he-says wicked to-live and
in scaenam velut rusticus poeta prosiluit, non senem
onto the-stage like a-rustic poet he-leapt not the-old-man
excipit non puerum non feminam non virum et adicit non
he-excepts not the-boy not the-woman not the-man and he-adds not
singulos peccare nec paucos, sed iam scelus esse contextum.
individuals to-sin nor few but now crime to-be woven-together
fugiendum ergo et in se recedendum est, immo etiam 20
to-be-fled therefore and into oneself to-be-withdrawn it-is nay even
a se recedendum. hoc tibi, etsi dividimur mari,
from oneself to-be-withdrawn this to-you though we-are-divided by-the-sea
praestare temptabo, ut subinde te iniecta manu ad meliora
to-provide I-shall-try that repeatedly you laid-on with-a-hand to better-things

perducam; et ne solitudinem sentias, hinc tecum
I-may-lead and that-not solitude you-may-feel from-here with-you
miscebo sermones: erimus una, qua parte optimi sumus,
I-shall-mingle conversations we-shall-be together in-what part best we-are
dabimus invicem consilia non ex vultu audientis pendentia;
we-shall-give in-turn counsels not on the-face of-the-hearer hanging
21 longe te ab ista provincia abducam, ne forte magnam
far you from that province I-shall-lead-away lest perhaps great
historiis esse fidem credas et placere tibi incipias,
to-histories to-be the-credit you-should-believe and to-please yourself you-should-begin
quotiens cogitaveris: hanc ego habeo sub meo iure
whenever you-have-thought this I have under my jurisdiction
provinciam, quae maximarum urbium exercitus et sustinuit
a-province which of-the-greatest cities the-armies both sustained
et fregit, cum inter Carthaginem et Romam ingentis belli
and broke when between Carthage and Rome of-a-huge war
pretium iacuit; quae quattuor Romanorum principum id est
the-prize it-lay which of-four Roman leaders that is
totius imperii vires contractas in unum locum vidit,
of-the-whole empire the-strength drawn-together into one place saw
Antonii atque Pompeii fortunam flexit, Caesaris fatigavit,
of-Antony and of-Pompey the-fortune bent of-Caesar wearied
Lepidi transtulit, omnium cepit;
of-Lepidus transferred of-all took
22 quae illi ingenti spectaculo interfuit, ex quo liquere
which at-that huge spectacle was-present from which to-be-clear
mortalibus posset, quam velox foret ad imum lapsus e
to-mortals could how swift would-be to the-bottom the-fall from
summo, quamque diversa via magnam potentiam fortuna
the-top and-how by-different way great power fortune
destrueret: uno enim tempore vidit Pompeium Lepidumque
might-destroy at-one for time it-saw Pompey and-Lepidus

ex maximo fastigio aliter ad extrema deiectos, cum
from the-greatest height differently to the-extremes thrown-down when
Pompeius alienum exercitum fugeret, Lepidus suum.
Pompey another's army fled Lepidus his-own

I · THE NILE IN SUMMER

To draw Lucilius away from his province, Seneca takes up the question put off before: why the Nile floods in summer. Philosophers likened the Danube to it, of unknown source and fuller in summer; both are false, for its source is in Germany, and it rises with the first heat, when the sun melts the late spring snows, then falls back. The Nile rises before the Dog Star and stays high past the equinox.

Itaque, ut totum inde te abducam, quamvis multa habeat 1.1
And-so that wholly thence you I-may-lead-away although many has
Sicilia in se circaque se mirabilia, omnes interim provinciae
Sicily in itself and-around itself marvels all meanwhile of-province
tuae quaestiones praeteribo et in diversum cogitationes tuas
your the-questions I-shall-pass-over and in another-direction thoughts your
abstraham. quaeram enim tecum id, quod libro superiore
I-shall-draw-away I-shall-ask for with-you that which in-the-book former
distuli, quid ita Nilus aestivis mensibus abundet. cui
I-put-off why so the-Nile in-summer months overflows to-which
Danuvium similem habere naturam philosophi tradiderunt,
the-Danube similar to-have nature philosophers have-handed-down
quod et fontis ignoti et aestate quam hieme maior sit.
because both of-a-source unknown and in-summer than in-winter greater it-is
utrumque apparuit falsum: nam et caput eius in Germania 1.2
each has-appeared false for both the-head its in Germany
esse comperimus, et aestate quidem incipit crescere sed,
to-be we-have-found and in-summer indeed it-begins to-grow but

adhuc manente intra mensuram suam Nilo, primis caloribus,
still remaining within measure its-own the-Nile in-the-first heats
cum sol vehementior intra extrema veris nives mollit,
when the-sun stronger within the-last-days of-spring the-snows softens
quas ante consumit, quam tumescere Nilus incipiat; reliquo
which before it-consumes than to-swell the-Nile begins for-the-rest
vero aestatis minuitur et ad hibernam magnitudinem redit
indeed of-summer it-is-diminished and to its-winter size returns
atque ex ea demittitur. at Nilus ante exortum Caniculae
and from that is-let-down but the-Nile before the-rising of-the-Dog-Star
augetur mediis aestibus ultra aequinoctium.
is-increased in-mid heats beyond the-equinox

II · THE THEORIES OF THE FLOOD

Nature floods Egypt in its driest season, and the harvest follows the flood. The Nile gathers at Philae, roars down the Cataracts, which boatmen shoot, and spreads over Egypt, bringing water and soil; Balbillus saw dolphins rout crocodiles at its mouth, and its failure to rise for two years under Cleopatra was read as an omen of her fall. Anaxagoras' melting snows, Thales' etesian winds, Euthymenes' Atlantic source, Oenopides' summer cold underground, and Diogenes' sun drawing water south each fail on the facts.

2.1 Hunc nobilissimum amnium natura extulit ante humani
This most-noble of-rivers nature has-raised before of-the-human
generis oculos et ita disposuit, ut eo tempore inundaret
race the-eyes and so has-arranged that at-that time it-should-flood
Aegyptum, quo maxime usta fervoribus terra undas
Egypt when most burnt by-heats the-earth the-waters
altius traheret tantum usura, quantum siccitati annuae
more-deeply would-draw so-much going-to-use as for-drought yearly

sufficere possit. nam in ea parte, quae in Aethiopiam
suffice can for in that part which toward Ethiopia
vergit, aut nulli imbres sunt aut rari et qui insuetam
slopes either no showers are or rare and which unaccustomed
aquis caelestibus terram non adiuvent.
to-waters heavenly the-earth not would-help
unam, ut scis, Aegyptus in hoc spem suam habet: proinde 2.2
the-one as you-know Egypt in this hope its-own has accordingly
aut sterilis annus aut fertilis est, prout ille magnus influxit
either barren the-year or fertile is according-as that great-one has-flowed-in
aut parcior; 'nemo aratorum respicit caelum'. quare non cum
or more-sparing no-one of-the-plowmen looks-back-at the-sky why not with
poeta meo iocor et illi Ovidium suum impingo? qui ait
poet my may-I-jest and on-him Ovid his-own thrust who says

nec Pluvio supplicat herba Iovi.
nor to-Rainy prays the-grass Jupiter

unde crescere incipiat si comprehendi posset, causae quoque 2.3
whence to-grow it-begins if to-be-grasped it-could the-causes also
incrementi invenirentur: nunc vero magnas solitudines
of-the-increase would-be-found now indeed great wastes
pervagatus et in paludes diffusus † gentibus
having-wandered-through and into marshes spread (corrupt) among-nations
sparsus circa Philas primum ex vago et errante colligitur.
scattered around Philae first from wandering and straying it-is-gathered
Philae insula est aspera et undique praerupta; duobus in
Philae an-island is rugged and on-all-sides sheer by-two into
unum coituris amnibus cingitur, qui Nilo mutantur
one going-to-meet rivers it-is-encircled which into-the-Nile are-changed
et eius nomen ferunt; urbem tota complectitur.
and its name bear the-city whole it-embraces

2.4 ab hac Nilus magnus magis quam violentus egressus
from this the-Nile great rather than violent having-come-out
Aethiopiam harenas, per quas iter ad commercia Indici
Ethiopia the-sands through which the-route to the-commerce of-the-Indian
maris est, praelabitur. excipiunt eum Cataractae, nobilis
sea is glides-past receive it the-Cataracts famous
insigni spectaculo locus:
by-a-remarkable spectacle place

2.5 ibi per arduas excisasque pluribus locis rupes Nilus insurgit
there through steep and-cut-away in-many places crags the-Nile rises
et vires suas concitat. frangitur enim occurrentibus saxis
and strength its-own rouses it-is-broken for by-meeting rocks
et per angusta eluctatus, ubicumque vincit aut vincitur,
and through narrows having-struggled wherever it-conquers or is-conquered
fluctuat et illic excitatis primum aquis, quas sine tumultu
it-surges and there roused first the-waters which without tumult
leni alveo duxerat, violentus et torrens per malignos
in-a-gentle bed it-had-led violent and torrential through niggardly
transitus prosilit dissimilis sibi, quippe ad id lutosus
passages it-leaps-forth unlike to-itself since up-to that-point muddy
et turbidus fluit; at ubi scopulos cautium verberavit,
and turbid it-flows but when the-crags of-the-rocks it-has-beaten
spumat, et illi non ex natura sua sed ex iniuria loci
it-foams and to-it not from nature its-own but from the-injury of-the-place
color est, tandemque eluctatus obstantia in vastam
color is and-at-last having-struggled-past the-obstacles into vast
altitudinem subito solo destitutus cadit cum ingenti
depth suddenly by-the-ground forsaken it-falls with a-huge
circumiacentium regionum strepitu. quem perferre gens ibi
of-the-surrounding regions din which to-endure a-people there

a Persis collocata non potuit obtusis assiduo fragore
by the-Persians settled not could dulled by-the-constant crash
auribus et ob hoc sedibus ad quietiora translatis.
their-ears and on-account-of this their-seats to quieter-places transferred
inter miracula fluminis incredibilem incolarum audaciam 2.6
among the-marvels of-the-river the-incredible of-the-inhabitants daring
accepi: bini parvula navigia conscendunt, quorum alter
I-have-heard two-by-two tiny boats they-board of-whom the-one
navem regit alter exhaurit, deinde multum inter rapidam
the-boat steers the-other bails then much amid the-rapid
insaniam Nili et reciprocos fluctus volutati tandem
madness of-the-Nile and backward-flowing waves tossed at-last
tenuissimos canales tenent, per quos angusta rupium
the-thinnest channels they-hold through which the-narrows of-the-rocks
effugiunt, et cum toto flumine effusi navigium ruens
they-escape and with the-whole river poured-out the-boat rushing
manu temperant magnoque spectantium metu in caput
by-hand they-steer and-with-great of-the-onlookers fear on their-head
missi, cum iam adploraveris mersosque atque obrutos
sent when now you-have-wept-for-them and-drowned and overwhelmed
tanta mole credideris, longe ab eo, in quem
by-so-great a-mass you-have-believed-them far from that in which
ceciderunt, loco navigant tormenti modo missi; nec
they-fell place they-sail of-a-catapult in-the-manner sent nor
mergit illos cadens unda sed planis aquis tradit.
drowns them the-falling wave but to-level waters hands-them-over
primum incrementum Nili circa insulam, quam modo 2.7
the-first increase of-the-Nile around the-island which just-now
rettuli, Philas visitur: exiguo ab hac spatio petra dividitur
I-mentioned Philae is-seen at-a-small from this distance a-rock is-divided
(Ἄβατον Graeci vocant, nec illam ulli nisi antistites calcant),
Abaton the-Greeks call-it nor it any except the-high-priests tread

illa primum saxa auctum fluminis sentiunt. post magnum
those first rocks the-increase of-the-river feel after a-great
deinde spatium duo eminent scopuli (Nili venas vocant
then space two stand-out crags of-the-Nile the-veins call-them
incolae), ex quibus magna vis funditur, non tamen quanta
the-inhabitants from which a-great force is-poured not yet as-much-as
operire possit Aegyptum. in haec ora stipem sacerdotes
cover could Egypt into these mouths a-coin the-priests
et aurea dona praefecti, cum sollemne venit sacrum, iaciunt.
and golden gifts the-governors when the-solemn comes rite throw
2.8 hinc iam manifestus novarum virium Nilus alto
from-here now manifest of-new strength the-Nile in-a-deep
ac profundo alveo fertur, ne in latitudinem excedat,
and profound bed is-borne that-not into breadth it-may-go-out
obiectu montium pressus. circa Memphim demum liber et
by-the-obstruction of-mountains pressed around Memphis at-last free and
per campestria vagus in plura scinditur flumina manuque
through the-plains wandering into several is-split rivers and-by-hand
canalibus factis, ut sit modus in derivantium potestate,
channels made so-that there-may-be measure in of-the-diverters the-power
per totam discurrit Aegyptum. initio diducitur, deinde
through all it-runs-about Egypt at-first it-is-divided then
continuatis aquis in faciem lati ac turbidi maris stagnat:
with-continued waters into the-appearance of-a-broad and muddy sea it-stagnates
cursum illi violentiamque eripit latitudo regionum, in
the-course from-it and-the-violence takes-away the-breadth of-the-regions into
quas extenditur dextra laevaque totam amplexus Aegyptum.
which it-is-extended right and-left all having-embraced Egypt
2.9 quantum crevit Nilus, tantum spei in annum est; nec
as-much-as has-grown the-Nile so-much of-hope for the-year there-is nor
computatio fallit agricolam: adeo ad mensuram fluminis ***
the-reckoning deceives the-farmer so to the-measure of-the-river (lacuna)

respondet, quam fertilem facit Nilus. is harenoso ac sitienti
answers which fertile makes the-Nile it to-sandy and thirsty
solo et aquam inducit et terram: nam cum turbulentus
soil both water brings-in and earth for when turbid
fuit, omnem in siccis atque hiantibus locis faecem
it-has-been all in dry and gaping places the-sediment
relinquit et, quicquid pingue secum tulit, arentibus locis
it-leaves and whatever fat with-itself it-has-brought on-arid places
allinit iuvatque agros duabus ex causis, et quod inundat
it-smears and-helps the-fields for-two from causes both because it-floods
et quod oblimat. itaque quicquid non adivit, sterile ac
and because it-silts and-so whatever not it-has-reached barren and
squalidum iacet; si crevit super debitum, nocuit.
squalid lies if it-has-grown beyond what-is-owed it-has-harmed
mira itaque natura fluminis, quod cum ceteri amnes 2.10
wonderful and-so the-nature of-the-river that when the-other rivers
abluant terras et eviscerent, Nilus, tanto ceteris maior,
wash-away the-lands and disembowel-them the-Nile by-so-much than-the-others greater
adeo nihil exedit nec abradit, ut contra adiciat vires
so-much nothing eats-away nor scrapes-off that on-the-contrary it-adds strength
nimiumque in eo sit, quod solum temperat: illato enim
and-very-much in it is because the-soil it-tempers brought-in for
limo harenas saturat ac iungit, debetque illi Aegyptus
the-mud the-sands it-saturates and binds and-owes to-it Egypt
non tantum fertilitatem terrarum sed ipsas.
not only the-fertility of-its-lands but the-lands-themselves
illa facies pulcherrima est, cum iam se in agros Nilus 2.11
that appearance most-beautiful is when now itself into the-fields the-Nile
ingessit: latent campi opertaeque sunt valles, oppida
has-poured lie-hidden the-plains and-covered are the-valleys towns
insularum modo exstant, nullum in mediterraneis nisi
of-islands in-the-manner stand-out no in the-inland-parts except

per navigia commercium est, maiorque est laetitia gentibus,
by boats commerce is and-greater is the-joy for-the-people
quo minus terrarum suarum vident.
the less of-lands their-own they-see

2.12 sic quoque, cum se ripis continet Nilus, per septena
so also when itself within-its-banks holds the-Nile through seven
ostia in mare emittitur: quodcumque ex his elegeris,
mouths into the-sea it-is-sent-out whichever of these you-have-chosen
mare est, multos nihilominus ignobiles ramos in aliud
a-sea it-is many nonetheless obscure branches into another
† aquae litus porrigit. ceterum beluas marinis vel
(corrupt) of-water shore it-stretches but beasts to-marine-ones either
magnitudine vel noxa pares educat, et ex eo, quantus sit,
in-size or in-harm equal it-rears and from this how-great it-is
aestimari potest, quod ingentia animalia et pabulo sufficienti
to-be-judged can that huge animals both with-food sufficient
et ad vagandum loco continet.
and for roaming with-room it-holds

2.13 Balbillus, virorum optimus perfectusque in omni litterarum
Balbillus of-men the-best and-accomplished in every of-letters
genere rarissime, auctor est, cum ipse praefectus
kind most-rarely the-authority is when he-himself as-prefect
obtineret Aegyptum, Heracleotico ostio Nili, quod est
held Egypt at-the-Heracleotic mouth of-the-Nile which is
maximum, spectaculo sibi fuisse delphinorum a
the-greatest a-spectacle to-himself to-have-been of-dolphins from
mari occurrentium et cocodrillorum a flumine adversum
the-sea running-up and of-crocodiles from the-river opposing
agmen agentium velut pro partibus proelium; cocodrillos ab
column driving as-if for factions a-battle the-crocodiles by
animalibus placidis morsuque innoxiis victos.
animals placid and-in-bite harmless conquered

his superior pars corporis dura et impenetrabilis est etiam 2.14
to-these the-upper part of-the-body hard and impenetrable is even
maiorum animalium dentibus, at inferior mollis ac tenera. hanc
to-larger animals' teeth but the-lower soft and tender this
delphini spinis, quas dorso eminentes gerunt, submersi
the-dolphins with-the-spines which on-the-back projecting they-carry submerged
vulnerabant et in adversum enisi dividebant, rescissis hoc
wounded and in opposition straining divided-it cut-open in-this
modo pluribus ceteri velut acie versa refugerunt:
way several the-rest as-if with-their-line turned fled
fugax animal audaci, audacissimum timido! nec illos 2.15
a-fleeing animal to-the-bold most-bold to-the-timid nor them
Tentyritae generis aut sanguinis proprietate superant
the-Tentyritae by-race or by-blood's peculiarity overcome
sed contemptu et temeritate, ultro enim insecuntur
but by-contempt and rashness unprompted for they-pursue
fugientesque iniecto trahunt laqueo: plerique pereunt,
and-the-fleeing with-a-thrown they-drag noose most perish
quibus minus praesens animus ad persequendum fuit.
to-whom less present the-mind for pursuing was
Nilum aliquando marinam aquam detulisse Theophrastus 2.16
the-Nile once sea water to-have-carried-down Theophrastus
est auctor. biennio continuo regnante Cleopatra non
is the-authority for-two-years continuous with-reigning Cleopatra not
ascendisse, decimo regni anno et undecimo, constat.
to-have-risen in-the-tenth of-her-reign year and in-the-eleventh it-is-established
significatam aiunt duobus rerum potientibus defectionem:
signified they-say to-the-two of-affairs possessing a-failing
Antonii enim Cleopatraeque defecit imperium. per novem
of-Antony for and-of-Cleopatra failed the-rule for nine

annos non ascendisse Nilum superioribus saeculis Callimachus
years not to-have-risen the-Nile in-earlier ages Callimachus
est auctor.
is the-authority

2.17 Sed nunc ad inspiciendas causas, propter quas aestate Nilus
But now to inspecting the-causes on-account-of which in-summer the-Nile
crescat, accedam et ab antiquissimis incipiam. Anaxagoras ait,
grows I-shall-come and from the-most-ancient I-shall-begin Anaxagoras says
ex Aethiopiae iugis solutas nives ad Nilum usque decurrere. in
from Ethiopia's ridges melted snows to the-Nile right run-down in
eadem opinione omnis vetustas fuit: hoc Aeschylus, Sophocles,
the-same opinion all antiquity was this Aeschylus Sophocles
Euripides tradunt, sed falsum esse argumentis pluribus patet.
Euripides hand-down but false to-be by-arguments several it-is-plain

2.18 primo Aethiopiam ferventissimam esse indicat hominum
first Ethiopia most-hot to-be shows of-men
adustus color et Trogodytae, quibus subterraneae domus sunt.
the-scorched color and the-Troglodytes for-whom underground houses are
saxa velut igni fervescunt non tantum medio sed inclinato
rocks as-if by-fire boil not only at-mid but declining
quoque die, ardens pulvis nec humani vestigii patiens,
also day burning the-dust nor of-human footprint enduring
argentum replumbatur, signorum coagmenta solvuntur, nullum
silver is-unsoldered of-statues the-joints are-loosened no
materiae superadornatae manet operimentum. auster
of-material over-adorned remains covering the-south-wind
quoque, qui ex illo tractu venit, ventorum calidissimus
also which from that tract comes of-winds the-hottest
est. nullum ex his animalibus, quae latent, bruma umquam
is none of these animals which lie-hidden in-winter ever
reconditur, etiam per hiemes in summo et aperto serpens
is-stored-away even through the-winters on the-top and open the-snake

est. Alexandriae quoque, quae longe ab immodicis caloribus
is at-Alexandria also which far from immoderate heats
posita est, nives non cadunt; superiora pluvia carent.
placed is snows not fall the-upper-regions of-rain are-devoid
quemadmodum ergo regio tantis subiecta fervoribus 2.19
how then a-region to-so-great subjected heats
duraturas per totam aestatem nives recipit? quas sane
going-to-last through the-whole summer snows receives which certainly
aliqui montes illic quoque excipiant: numquid magis quam
some mountains there also may-receive surely-not more than
Alpes, quam Thraciae iuga aut Caucasus? atqui horum
the-Alps than of-Thrace the-ridges or the-Caucasus and-yet of-these
montium flumina vere et prima aestate intumescunt,
mountains the-rivers in-spring and at-the-beginning of-summer swell
deinde hibernis minora sunt: quippe vernis temporibus
then than-the-winter smaller are since at-spring times
imbres nivem diluunt, reliquias eius primus calor dissipat.
showers the-snow wash-away the-remains of-it the-first heat dissipates
nec Rhenus nec Rhodanus nec Hister nec Caystrus 2.20
neither the-Rhine nor the-Rhone nor the-Ister nor the-Cayster
subiacens Tmolo aestate proveniunt: et illis altissimae
lying-under Tmolus in-summer come-forth and to-them deepest
ut in septemtrionibus iugiter sunt nives. Phasis quoque
as in the-north continuously are snows the-Phasis also
perinde ad tempus et Borysthenes crescerent, ut nives
equally at the-time and the-Borysthenes would-grow if snows
flumina possent contra aestatem magna producere.
rivers could against summer great produce
praeterea si haec causa attolleret Nilum, aestate prima 2.21
besides if this cause raised the-Nile in-summer at-its-beginning
plenissimus flueret; tunc enim maxime integrae adhuc
fullest it-would-flow then for most whole still

nives ex mollissimoque tabes est: Nilus autem per
the-snows from and-the-softest the-melting is the-Nile however through
menses quattuor liquitur et illi aequalis accessio est.
months four flows and to-it equal the-addition is
2.22 Si Thaleti credis, etesiae descendenti Nilo resistunt
If Thales you-believe the-etesian-winds to-the-descending Nile resist
et cursum eius acto contra ostia mari sustinent:
and course its with-driven against the-mouths the-sea hold-back
ita reverberatus in se recurrit nec crescit sed exitu
so beaten-back into itself it-runs-back nor does-it-grow but from-exit
prohibitus resistit et quacumque mox potuit vi congestus
prevented it-stops and wherever soon it-could by-force massed
erumpit. Euthymenes Massiliensis testimonium dicit: 'navigavi'
bursts-out Euthymenes of-Massilia testimony gives I-have-sailed
inquit 'Atlanticum mare: inde Nilus fluit, maior, quamdiu
he-says the-Atlantic sea thence the-Nile flows greater as-long-as
etesiae tempus observant; tunc enim eicitur mare
the-etesian-winds the-season keep then for is-thrown-out the-sea
instantibus ventis. cum resederunt, et pelagus conquiescit
by-the-pressing winds when they-have-subsided and the-sea grows-calm
minorque descendenti inde vis Nilo est. ceterum dulcis
and-less to-the-descending thence force Nile is but sweet
mari sapor est et similes Niloticis beluae.'
to-the-sea the-taste is and like to-those-of-the-Nile beasts
2.23 quare ergo, si Nilum etesiae provocant, et ante illos
why then if the-Nile the-etesian-winds provoke both before them
incipit incrementum eius et post eos durat? praeterea non
begins increase its and after them lasts besides not
fit maior, quo illi flavere vehementius, nec remittitur
it-becomes greater the they have-blown more-violently nor is-it-slackened
incitaturque, prout illis impetus fuit: quod fieret,
and-roused according-as to-them the-impetus was which would-happen

si illorum viribus cresceret. quid, quod etesiae litus
if by-their strength it-grew what that the-etesian-winds the-shore
Aegyptium verberant et contra illos Nilus descendit, inde
Egyptian beat and against them the-Nile descends thence
venturus unde illi, si origo ab illis esset? praeterea ex mari
going-to-come whence they if the-origin from them were besides from the-sea
purus et caeruleus efflueret, non ut nunc turbidus veniret.
pure and blue it-would-flow-out not as now muddy it-would-come
adde, quod testimonium eius testium turba coarguitur. tunc 2.24
add that the-testimony his by-a-crowd of-witnesses is-refuted then
erat mendacio locus; cum ignota essent externa, licebat
was for-a-lie room when unknown were foreign-parts it-was-permitted
illis fabulas mittere; nunc vero tota exteri maris ora
to-them tales to-send now indeed the-whole of-the-outer sea coast
mercatorum navibus stringitur, quorum nemo narrat initium
by-merchants' ships is-skirted of-whom no-one tells-of the-beginning
Nili aut mare saporis alterius: quae natura credi
of-the-Nile or a-sea of-taste other which nature to-be-believed
vetat, quia dulcissimum quodque et levissimum sol trahit.
forbids because the-sweetest each and lightest the-sun draws
praeterea quare hieme non crescit? et tunc potest ventis 2.25
besides why in-winter not does-it-grow and then can by-winds
concitari mare aliquanto quidem maioribus: nam etesiae
be-roused the-sea somewhat indeed greater for the-etesian-winds
temperati sunt. quod si e mari ferretur Atlantico, semel
moderate are but if from the-sea it-were-borne the-Atlantic at-once
oppleret Aegyptum: at nunc per gradus crescit.
it-would-fill Egypt but now by degrees it-grows
Oenopides Chius ait: hieme calorem sub terris contineri, 2.26
Oenopides of-Chios says in-winter heat under the-earth to-be-held
ideo et specus calidos esse et tepidiorem puteis aquam,
therefore both caves warm to-be and warmer in-wells the-water

itaque venas interno calore siccari. sed in aliis terris
and-so the-veins by-internal heat to-be-dried but in other lands
augeri imbribus flumina: Nilum quia nullo imbre
to-be-increased by-showers rivers the-Nile because by-no shower
adiuvetur, tenuari, deinde crescere per aestatem, quo
it-is-helped to-be-thinned then to-grow through the-summer at-which
tempore frigent interiora terrarum et redit rigor fontibus.
time are-cold the-inner-parts of-the-earth and returns cold to-the-springs
2.27 quod si verum esset, aestate flumina crescerent omnia, putei
but if true it-were in-summer rivers would-grow all wells
aestate abundarent. deinde calorem hieme sub terris esse
in-summer would-abound then heat in-winter under the-earth to-be
maiorem ait — quare? specus et putei tepent, quia aëra
greater he-says why caves and wells are-warm because air
frigentem extrinsecus non recipiunt: ita non calorem habent,
cold from-outside not they-receive so not heat they-have
sed frigus excludunt. ex eadem causa aestate frigidi sunt,
but cold they-shut-out from the-same cause in-summer cold they-are
quia ad illos remotos seductosque calefactus non pervenit.
because to them remote and-withdrawn the-warmed-air not reaches
2.28 Diogenes Apolloniates ait: 'Sol umorem ad se rapit: hunc
Diogenes of-Apollonia says The-sun moisture to itself snatches this
adsiccata tellus ex mari ducit, ipsum ex ceteris aquis.
the-dried earth from the-sea draws itself from the-other waters
fieri autem non potest, ut ima sicca sit tellus, alia
to-happen however not can that the-lowest dry be earth another
abundet: sunt enim perforata omnia et invicem pervia,
abound are for perforated all-things and mutually passable
et sicca ab umidis sumunt. alioquin nisi aliquid terra
and dry-parts from the-moist take otherwise unless something the-earth

acciperet, exaruisset. ergo undique sol trahit, sed
received it-would-have-dried-up therefore from-everywhere the-sun draws but
ex his, quae premit, maxime: haec meridiana sunt.
from these which it-presses most these southern are
terra cum exaruit, plus ad se umoris adducit: ut in lucernis 2.29
the-earth when it-has-dried-up more to itself of-moisture draws as in lamps
oleum illo fluit, ubi exuritur, sic aqua illo incumbit, quo
the-oil thither flows where it-is-burnt so water thither presses whither
vis caloris et terrae aestuantis arcessit. unde ergo trahit?
the-force of-heat and of-the-earth seething summons whence then does-it-draw
ex illis scilicet partibus semper hibernis: septemtrionales
from those of-course parts always wintry the-northern
exundant. ob hoc Pontus in infernum mare assidue
overflow on-account-of this the-Pontus into the-lower sea constantly
fluit rapidus (non ut cetera maria alternatis ultro citro
flows rapid not like the-other seas with-alternating hither thither
aestibus) in unam partem semper pronus et torrens. quod nisi
tides in one direction always inclined and torrential which unless
factis itineribus, quod cuique deest, redderetur, quod cuique
made paths what to-each is-lacking were-given-back what to-each
superest, emitteretur, iam aut sicca essent omnia aut inundata.'
is-superfluous were-sent-out now either dry would-be all-things or flooded
interrogare Diogenem libet: quare, cum pertusa sint cuncta 2.30
to-question Diogenes it-pleases-me why when perforated are all-things
et invicem commeent, non omnibus locis aestate maiora sint
and mutually communicate not in-all places in-summer greater are
flumina. 'Aegyptum sol magis percoquit: itaque Nilus magis
rivers Egypt the-sun more bakes and-so the-Nile more
crescit'. sed quomodo fieri potest, ut absumptis aquis non
grows but how to-happen can that consumed the-waters not
solum hic abundet sed in ceteris quoque terris aliqua fluminibus
only here it-abounds but in the-other also lands some to-rivers

fiat adiectio? deinde quare ulla pars terrae sine umore est,
there-be addition then why any part of-the-earth without moisture is
cum omnis ad se ex aliis regionibus trahat, eo quidem
when all to itself from other regions draws so-much indeed
magis quo calidior est? deinde quare Nilus dulcis est, si haec illi
more as hotter it-is then why the-Nile sweet is if this to-it
e mari unda est? nec enim ulli flumini dulcior gustus ***
from the-sea water is nor for to-any river sweeter a-taste (lacuna)

III · HAIL

To say flatly that hail forms as ice does, from a whole frozen cloud, would be bold, so Seneca, like the historians, leaves the warrant to Posidonius: hail forms from a cloud already turned to water. It is round because every drop gathers into a ball, as on mirrors and leaves, and as the round hollow a dripping drop wears in stone shows; it is rounded further as it rolls through thick air, while snow, softer and falling from near the earth, is not. Hail is hanging ice, snow hanging frost.

Grandinem hoc modo fieri si tibi affirmavero, quo apud 3.1
Hail in-this way to-arise if to-you I-should-affirm in-which among
nos glacies fit, gelata nube tota, nimis audacem rem
us ice arises frozen the-cloud whole too bold a-thing
fecero. itaque ex his me testibus numera secundae
I-shall-have-done and-so among these me witnesses count of-the-second
notae, qui vidisse quidem se negant; aut, quod historici
class who to-have-seen indeed themselves deny or what historians
faciunt, et ipse faciam: illi cum multa mentiti sunt
do also I-myself shall-do they when many-things lied they-have
ad arbitrium suum, unam aliquam rem nolunt spondere
at discretion their-own one some thing are-unwilling to-guarantee
sed adiciunt: 'penes auctores fides erit'. ergo
but add with the-authorities the-credit will-be therefore
si mihi parum credis, Posidonius tibi auctoritatem promittit 3.2
if to-me too-little you-believe Posidonius to-you authority promises
tam in illo, quod praeterît, quam in hoc, quod secuturum
as-much in that which has-passed as in this which going-to-follow
est: grandinem enim fieri ex nube aquosa iam et in
is hail for to-arise from a-cloud watery already and into
umorem versa sic affirmabit, tamquam interfuerit.
moisture turned so he-will-affirm as-if he-had-been-present

3.3 quare autem rotunda sit grando, etiam sine magistro scire
why however round is hail even without a-teacher to-know
poteris, cum adnotaveris stillicidium omne glomerari,
you-will-be-able when you-have-noted a-drop every to-be-balled
quod et in speculis apparet, quae umorem halitu colligunt,
which both in mirrors appears which moisture by-breath gather
et in poculis sparsis aliaque omni levitate; non minus
and in cups sprinkled and-in-other every smooth-thing not less
foliis si quae guttae adhaeserunt, in rotundum iacent.
on-leaves if any drops have-stuck in a-round they-lie

3.4 quid magis est saxo durum? quid mollius unda?
what more is than-rock hard what softer than-water
dura tamen molli saxa cavantur aqua.
hard yet by-soft rocks are-hollowed water

aut ut alius poeta ait:
or as another poet says

stillicidi casus lapidem cavat —
of-the-drip the-fall a-stone hollows

haec ipsa excavatio rotunda fit; ex quo apparet illud
this very hollowing round becomes from which it-appears that
quoque esse huic simile, quod cavat: locum enim sibi
also to-be to-this like which hollows a-place for for-itself
ad formam et habitum sui exsculpit.
to the-shape and form of-itself it-carves-out

3.5 praeterea potest, etiamsi non fuit grando talis, dum defertur,
besides it-can even-if not it-was hail such while it-is-carried-down
corrotundari et totiens per spatium aëris densi devoluta
to-be-rounded and so-often through the-space of-air dense rolled-down

aequabiliter atque in orbem teri. quod nix pati non
evenly and into a-ball to-be-rubbed which snow to-undergo not
potest, quia non est tam solida, immo quia fusa est, et non
can because not it-is so solid nay because poured-out it-is and not
per magnam altitudinem cadit sed circa terras initium eius
through a-great height it-falls but around the-earth the-beginning its
est: ita non longus illi per aëra sed ex proximo lapsus est.
is so not long for-it through the-air but from the-nearest the-fall is
quare non et ego mihi idem permittam, quod Anaxagoras? 3.6
why not also I to-myself the-same should-allow as Anaxagoras
inter nullos magis quam inter philosophos esse debet aequa
among none more than among philosophers to-be ought equal
libertas: grando nihil aliud est quam suspensa glacies, nix
freedom hail nothing else is than suspended ice snow
pruina pendens. illud enim iam diximus, quod inter rorem
frost hanging that for already we-have-said that between dew
et aquam interest, hoc inter pruinam et glaciem, nec non
and water it-differs this between frost and ice and also
inter nivem et grandinem interesse.
between snow and hail to-differ

Winter's stiff air turns to snow, spring's warmer, shifting air to heavy storms of hail; midwinter rains are slow and thin.

4.1 Poteram me peracta quaestione dimittere sed bene mensum
I-could myself finished the-question dismiss but good measure
dabo et, quoniam coepi tibi molestus esse, quicquid
I-shall-give and since I-have-begun to-you troublesome to-be whatever
in hoc loco quaeritur, dicam; quaeritur autem, quare hieme
in this place is-asked I-shall-say it-is-asked however why in-winter
ningat, non grandinet, et vere iam frigore infracto grando
it-snows not hails and in-spring already the-cold broken hail
cadat. nam ut fatear tibi verum mihi quidem persuadetur,
falls for that I-may-confess to-you the-truth to-me indeed it-is-persuaded
qui me usque ad mendacia haec leviora, in quibus os
who myself even to lies these lighter in which the-mouth
percidi non oculi erui solent, credulum praesto:
to-be-smashed not the-eyes to-be-gouged are-wont credulous I-show
4.2 hieme aër riget et ideo nondum in aquam vertitur sed
in-winter the-air is-stiff and therefore not-yet into water is-turned but
in nivem, cui aër propior est; cum ver coepit, maior
into snow to-which the-air nearer is when spring has-begun a-greater
inclinatio temporis sequitur et calidiore caelo maiora fiunt
inclination of-the-season follows and in-a-warmer sky greater become
stillicidia. ideo (ut ait Vergilius noster) 'cum ruit imbriferum
the-drops therefore as says Vergil our when rushes rainy
ver', vehementior est mutatio aëris undique patefacti et
spring more-violent is the-change of-the-air everywhere opened and

solventis se ipso tempore adiuvante: ob hoc nimbi
loosening itself the-very season helping on-account-of this rain-clouds
graves magis vastique quam pertinaces deferuntur.
heavy more and-vast than persistent are-brought-down
bruma lentas pluvias habet et tenues, quales saepe solent 4.3
midwinter slow rains has and fine such-as often are-wont
intervenire, cum pluvia rara et minuta nivem quoque
to-come-in when the-rain thin and small snow also
admixtam habet; dicimus nivalem diem, cum altum frigus
mixed has we-say a-snowy day when deep cold
et triste caelum est. praeterea aquilone flante aut suum
and gloomy the-sky is besides the-north-wind blowing or its-own
caelum habente minutae pluviae sunt; austro imber
sky holding small the-rains are with-the-south-wind the-shower
improbior est et guttae pleniores.
more-violent is and the-drops fuller

V · COLD FROM THE NORTH

The Stoics add a weak argument: in spring the ice of Scythia, Pontus, and the north thaws and sends cold winds south, and since thawing snow, they say, is colder underfoot than packed snow (try it on a Carian slave), this cold binds the warm, moist southern air, and what would have been rain becomes hail.

Rem a nostris positam nec dicere audeo, quia infirma 5.1
A-thing by ours set-forth neither to-say I-dare because weak
videtur, nec praeterire: quid enim mali est aliquid et
it-seems nor to-pass-over what for of-harm is-there something also
faciliori iudici scribere? immo si omnia argumenta
for-a-more-indulgent judge to-write nay if all arguments
ad obrussam coeperimus exigere, silentium indicetur:
to the-touchstone we-begin to-test silence would-be-proclaimed

pauca enim admodum sunt sine adversario; cetera, etiamsi
few for quite are without an-adversary the-rest even-if
vincunt, litigant.
they-win they-are-in-dispute

5.2 aiunt vere, quicquid circa Scythiam et Pontum et
they-say in-spring whatever around Scythia and the-Pontus and
septemtrionalem plagam glaciatum et astrictum est, relaxari;
the-northern region frozen and bound is to-be-loosened
tunc flumina gelata discedere, tunc obrutos montes nivem
then the-rivers frozen to-part then buried mountains the-snow
solvere. credibile est ergo frigidos spiritus inde ferri
to-melt believable it-is therefore cold breaths thence to-be-borne
et verno caelo remisceri.
and with-the-spring sky to-be-mixed

5.3 illud quoque adiciunt, quod nec sum expertus nec experiri
this also they-add which neither have-I tested nor to-test
cogito (tu quoque, censeo, si volueris verum exquirere,
do-I-intend you also I-advise if you-wish the-truth to-search-out
nivem in Care experiaris): minus algere aiunt pedes
snow in a-Carian you-should-test less to-be-cold they-say the-feet
eorum, qui fixam et duram nivem calcant quam eorum,
of-those who fixed and hard snow tread than of-those
qui teneram et labefactam.
who soft and loosened

5.4 ergo, si non mentiuntur, quicquid ex illis septemtrionalibus
therefore if not they-lie whatever from those northern
locis iam disturbata nive et glacie frangente se fertur,
places already disturbed the-snow and the-ice breaking itself is-borne
id meridianae partis tepentem iam umidumque aëra alligat
that of-the-southern part warm already and-moist air binds

et praestringit: itaque cum pluvia futura erat grando fit
and constricts and-so when rain going-to-be was hail arises
iniuria frigoris.
by-the-injury of-the-cold

VI · THE HAIL WARDENS OF CLEONAE

Some claim experts can read the clouds and foretell hail, as experience could teach. Less credible: Cleonae appointed public hail wardens, and when they gave the signal, each man sacrificed a lamb or a chicken, and the clouds, having tasted blood, turned aside; a man with neither pricked his finger with a stylus, and the hail spared his field as well.

Non tempero mihi, quominus omnes nostrorum ineptias 6.1
Not I-restrain myself from all of-ours the-follies
proferam. quosdam peritos observandarum nubium esse
I-bring-forth certain experts in-observing clouds to-be
affirmant et praedicere, cum grando ventura sit. hoc
they-affirm and to-predict when hail coming may-be this
intellegere usu ipso potuerunt, cum colorem nubium
to-understand by-practice itself they-could when the-color of-the-clouds
notassent, quem grando totiens insequebatur.
they-had-noted which hail so-often followed
illud incredibile, Cleonis fuisse publice praepositos 6.2
that is-incredible at-Cleonae there-were publicly appointed
chalazophylacas, speculatores venturae grandinis. hi cum
hail-wardens watchmen for-coming hail these when
signum dedissent adesse iam grandinem, quid expectas?
the-signal they-had-given to-be-at-hand already hail what do-you-expect
ut homines ad paenulas discurrerent aut ad scorteas? immo pro
that men to their-cloaks ran or to leather-coats nay for

se quisque alius agnum immolabat alius pullum: protinus
himself each one a-lamb sacrificed another a-chicken straightway
illae nubes alio declinabant, cum aliquid gustassent sanguinis.
those clouds elsewhere turned-aside when something they-had-tasted of-blood

6.3 hoc rides? accipe quod magis rideas: si quis nec
this you-laugh-at receive what more you-may-laugh-at if anyone neither
agnum nec pullum habebat, quo sine damno fieri
a-lamb nor a-chicken had which without loss to-be-done
poterat, manus sibi afferebat, et, ne tu avidas aut
could hands on-himself he-laid and that-not you greedy or
crudeles existimes nubes, digitum suum bene acuto
cruel should-think the-clouds finger his-own with-a-well sharpened
graphio pungebat et hoc sanguine litabat; nec minus
stylus he-pricked and with-this blood sacrificed-well nor less
ab huius agello grando se vertebat quam ab illo, in quo
from his little-field the-hail itself turned than from that in which
maioribus hostiis exorata erat.
with-greater victims prevailed-upon it-had-been

VII · BLOOD AND CHARMS

Some say blood repels clouds, and Cleonae tried its wardens for ruined vines; the ancients believed songs drew and repelled rain, which needs no refuting.

7.1 Rationem huius rei quaerunt: alteri, ut homines
The-reason of-this thing they-seek the-one-party as men
sapientissimos decet, negant posse fieri, ut cum grandine
most-wise befits deny can to-happen that with hail
aliquis paciscatur et tempestates munusculis redimat, quamvis
someone bargain and storms with-little-gifts buy-off although

munera et deos vincant. alteri suspicari ipsos aiunt esse
gifts even gods overcome the-others to-suspect themselves they-say to-be
in ipso sanguine vim quandam potentem avertendae nubis
in the-very blood a-force certain powerful of-turning-aside the-cloud
ac repellendae.
and of-repelling
sed quomodo in tam exiguo sanguine potest esse vis 7.2
but how in so tiny blood can there-be force
tanta, ut in altum penetret et illam sentiant nubes?
so-great that into the-height it-may-penetrate and it may-feel the-clouds
quanto expeditius erat dicere: mendacium et fabula est. at
how-much more-readily it-was to-say a-lie and a-tale it-is but
Cleonaei iudicia reddebant in illos, quibus delegata erat
the-Cleonaeans judgments gave against those to-whom delegated was
cura providendae tempestatis, quod neglegentia eorum vineae
the-care of-foreseeing the-storm because by-negligence their the-vines
vapulassent aut segetes procidissent. et apud nos in XII
had-been-beaten or the-crops had-been-laid-low and among us in the-Twelve
tabulis cavetur, ne quis alienos fructus excantassit.
Tables it-is-provided that-not anyone another's crops should-charm-away
rudis adhuc antiquitas credebat et attrahi cantibus imbres 7.3
crude still antiquity believed both to-be-drawn by-incantations showers
et repelli, quorum nihil posse fieri tam palam est,
and to-be-repelled of-which nothing to-be-able to-happen so plainly is
ut huius rei causa nullius philosophi schola intranda sit.
that for-this thing's sake no philosopher's school to-be-entered is

Snow forms near the earth, where the air is warmer: the earth's vapors are hot and the sun's rays rebound from the ground.

8.1 Unam rem ad hoc adiciam et favere te ac plaudere iuvabit.
One thing to this I-shall-add and to-favor you and to-applaud it-will-please
aiunt nivem in ea parte aëris fieri, quae prope terras
they-say snow in that part of-the-air to-arise which near the-earth
est. hanc enim plus habere caloris ex quattuor causis: una,
is this for more to-have of-heat from four causes one
quod omnis terrarum evaporatio, cum multum in se fervidi
that all of-the-earth evaporation since much in itself of-hot
aridique habeat, hoc est calidior, quo recentior; altera, quod
and-dry it-has the is warmer the fresher the-second that
radii solis a terra resiliunt et in se recurrunt:
the-rays of-the-sun from the-earth spring-back and into themselves run-back
horum duplicatio proxima quaeque a terris calefacit, quae
of-these the-doubling the-nearest each-thing to the-earth warms which
ideo plus habent teporis, quia solem bis sentiunt; tertia
therefore more have of-warmth because the-sun twice they-feel the-third
causa est, quod magis superiora perflantur, at quaecumque
cause is that more the-higher-parts are-blown-through but whatever-parts
depressa sunt, minus ventis verberantur.
low are less by-winds are-beaten

Democritus adds that a dense body, like bronze against glass, heats faster and keeps its heat longer.

Accedit his ratio Democriti: 'omne corpus quo solidius 9.1
Is-added to-these the-reasoning of-Democritus every body the more-solid
est, hoc calorem citius concipit, diutius servat. itaque si in sole
it-is the heat faster it-conceives the-longer keeps and-so if in the-sun
posueris aeneum vas et vitreum, aeneo citius calor accedet,
you-place a-bronze vessel and a-glass-one to-the-bronze faster heat will-come
diutius haerebit.' adicit deinde, quare hoc existimet fieri. 'his',
longer will-stick he-adds then why this he-thinks to-happen in-these
inquit, 'corporibus, quae duriora et pressiora sunt, necesse
he-says bodies which harder and more-compressed are necessary
est minora foramina esse et tenuiorem in singulis spiritum:
it-is smaller pores to-be and thinner in each breath
sequitur, ut, quemadmodum minora balnearia et minora
it-follows that as smaller baths and smaller
miliaria citius calefiunt, sic haec foramina occulta et oculos
milestone-boilers faster are-heated so these pores hidden and the-eyes
effugientia et celerius fervorem sentiant et propter easdem
escaping both more-quickly heat feel and on-account-of the-same
angustias, quicquid receperunt, tardius reddant.' haec
narrowness whatever they-have-received more-slowly give-back these-things
longe praeparata ad id perducunt, de quo nunc quaeritur.
long prepared to that lead about which now it-is-asked

The air nearest the earth is the thickest, its dregs settling as in water, and denser matter keeps heat better; the higher air, purer and farther from the earth's filth, lets the sun pass through as if through a void, and so is less warmed.

10.1 Omnis aër quo propior est terris, hoc crassior.
All air the nearer it-is to-the-earth the thicker
quemadmodum in aqua et in omni umore faex ima
as in water and in all liquid the-sediment lowest
est, ita in aëre spississima quaeque desidunt. iam autem
is so in the-air the-densest each-thing settles already however
probatum est omnia, quo crassioris solidiorisque materiae
proved it-is all-things the of-thicker and-more-solid material
sunt, hoc fidelius custodire calorem receptum. editior aër,
they-are the more-faithfully to-keep heat received the-higher air
quo longius a terrarum colluvie recessit, hoc sincerior
the farther from the-earth's filth it-has-withdrawn the clearer
puriorque est; itaque solem non retinet sed velut per
and-purer it-is and-so the-sun not it-retains but as-if through
inane transmittit: ideo minus calefit.
a-void transmits therefore less it-is-heated

Mountain peaks are not nearer the sun in any way that warms them: against the universe the earth is a point, smooth as a playing ball.

Contra quidam aiunt cacumina montium hoc calidiora esse 11.1
Against-this certain say the-peaks of-mountains the warmer to-be
debere, quo propiora soli sunt: qui mihi videntur errare,
ought the nearer to-the-sun they-are who to-me seem to-err
quod Apenninum et Alpes et alios notos ob eximiam
in-that the-Apennine and the-Alps and other known because-of exceptional
altitudinem montes in tantum putant crescere, ut illorum
height mountains to such-a-degree they-think to-rise that their
magnitudo sentire solis viciniam possit:
greatness to-feel of-the-sun the-nearness can
excelsa sunt ista, quamdiu nobis comparantur; at vero ubi 11.2
lofty are those as-long-as with-us they-are-compared but in-truth when
ad universum respexeris, manifesta est omnium humilitas.
to the-universe you-have-looked-back manifest is of-all the-lowness
inter se vincuntur et vincunt, ceterum in tantum
among themselves they-are-surpassed and they-surpass but to such-a-degree
nihil attollitur, ut in collatione totius ulla sit vel
nothing is-raised that in comparison with-the-whole any be even
maximis portio: quod nisi esset, non diceremus totum
to-the-greatest proportion which unless it-were not we-would-say the-whole
orbem terrarum pilam esse.
circle of-the-lands a-ball to-be
pilae proprietas est cum aequalitate quadam rotunditas, 11.3
of-a-ball the-property is with evenness a-certain roundness
aequalitatem autem hanc accipe, quam vides in lusoria pila:
the-evenness however this take which you-see in a-playing ball

non multum illi commissurae et rimae earum nocent, quo
not much to-it the-seams and cracks of-them harm so-that
minus par sibi ab omni parte dicatur. quomodo in hac
less equal to-itself from every side it-be-called as in this
pila nihil illa intervalla officiunt ad speciem rotundi, sic
ball nothing those intervals hinder for the-appearance of-round so
ne in universo quidem orbe terrarum editi montes, quorum
not in the-whole even circle of-the-lands lofty mountains whose
altitudo totius mundi collatione consumitur.
height of-the-whole world in-comparison is-consumed

11.4 qui dicit altiorem montem, quia solem propius excipiat,
who says a-higher mountain because the-sun more-nearly it-receives
magis calere debere, idem potest dicere longiorem
more to-be-warm ought the-same can say a-taller
hominem citius quam pusillum debere calefieri et caput
man sooner than a-tiny-one ought to-be-warmed and the-head
citius quam pedes: at quisquis mundum mensura sua
sooner than the-feet but whoever the-world by-measure its-own
aestimaverit et terram cogitaverit tenere puncti locum,
has-judged and the-earth has-thought to-hold of-a-point the-place
intelleget nihil in illa ita posse eminere, ut caelestia
will-understand nothing in it so to-be-able to-stand-out that heavenly-things
magis sentiat, velut in propinquum illis accesserit.
more it-feels as-if into nearness to-them it-has-come

11.5 montes isti, quos suspicimus, et vertices aeterna nive obsessi
mountains those which we-look-up-to and peaks by-eternal snow besieged
nihilominus in imo sunt; et propius quidem est a sole
nonetheless in the-lowest are and nearer indeed is to the-sun
mons quam campus aut vallis, sed sic, quomodo est pilus
a-mountain than a-plain or valley but so as is a-hair
pilo crassior. isto enim modo et arbor alia magis quam
than-a-hair thicker in-that for way also a-tree one more than

alia dicetur vicina caelo. quod est falsum, quia inter pusilla
another will-be-called near to-the-sky which is false because among tiny-things
non potest magnum esse discrimen, nisi dum inter se
not can great be the-difference except while among themselves
comparantur. ubi ad collationem immensi corporis ventum
they-are-compared when to comparison of-a-boundless body come
est, nihil interest, quanto sit alterum altero maius,
it-is nothing it-matters by-how-much be the-one than-the-other greater
quia, etiamsi magno discrimine, tamen minima vincuntur.
because even-if by-great difference yet the-smallest-things are-surpassed

XII · SNOW IN THE MIDDLE COLD

So most hold that snow forms in the air near the earth and is less tightly bound, since it freezes in a milder cold: that air is too cold to turn to rain and not cold enough to harden into hail, and in this middle cold the waters gather into snow.

Sed ut ad propositum revertar, propter has quas 12.1
But that to the-proposition I-may-return on-account-of these which
rettuli causas plerisque placuit in ea parte aëris
I-have-reported causes to-most it-has-pleased in that part of-the-air
nivem concipi, quae vicina terris est, et ideo minus
snow to-be-conceived which near to-the-earth is and therefore less
alligari, quia minore rigore coit. nam vicinus aër et
to-be-bound because by-lesser stiffness it-coheres for the-nearby air both
plus habet frigoris, quam ut in aquam imbremque transeat,
more has of-cold than that into water and-shower it-may-pass
et minus, quam ut duretur in grandinem: hoc medio
and less than that it-be-hardened into hail in-this middle
frigore non nimis intento nives fiunt coactis aquis.
cold not too intense snows arise from-condensed waters

Lucilius asks why snow should not be bought, rather than how it forms. The inquiry serves that end: if snow is mostly air, buying it is buying less than water. Luxury, not content with laying down wines, packs snow to outlast summer and sells water, the one thing that made the rich equal to the poor. Stomachs burnt by drink and endless feasts crave ever colder ice, dug from deep and traded at shifting prices; the Spartans expelled perfumers for less. It is not thirst but fever.

13.1 'Quid istas', inquis, 'ineptias, quibus litteratior est quisque, non
Why these you-say follies by-which more-literate is each not
melior, tam operose persequeris? quomodo fiant nives dicis, cum
better so laboriously do-you-pursue how arise snows you-tell when
multo magis ad nos dici a te pertineat, quare emendae
much more to us to-be-said by you it-would-pertain why to-be-bought
non sint nives.' iubes me litem cum luxuria litigare? cotidianum
not are snows you-bid me a-suit with luxury to-contest daily
istud et sine effectu iurgium est. litigemus tamen, etiamsi
that and without effect quarrel is let-us-contest yet even-if
superior futura est: pugnantes ac reluctantes vincat.
superior going-to-be it-is fighting and resisting let-it-conquer-us
13.2 quid porro? hanc ipsam inspectionem naturae nihil iudicas
what further this very inspection of-nature nothing do-you-judge
ad id, quod vis, conferre: cum quaerimus, quomodo nix
to that which you-wish to-contribute when we-ask how snow
fiat, et dicimus illam pruinae similem habere naturam, plus
arises and we-say it to-frost similar to-have nature more
illi spiritus quam aquae inesse, non putas exprobrari illis,
in-it of-breath than of-water to-be-in not do-you-think to-be-reproached to-them
cum emere aquam turpe sit, si ne aquam quidem emunt?
when to-buy water shameful it-is if not water even they-buy

nos vero quaeramus potius, quomodo fiant nives quam 13.3
we indeed let-us-ask rather how arise snows than
quomodo serventur, quoniam non contenti vina diffundere,
how they-are-preserved since not content wines to-pour-off
veteraria per sapores aetatesque disponere, invenimus,
wine-stores through flavors and-ages to-arrange we-have-found
quomodo stiparemus nivem, ut ea aestatem evinceret et
how we-might-pack snow that it summer might-overcome and
contra anni fervorem defenderetur loci frigore. quid hac
against of-the-year the-heat be-defended of-the-place by-the-cold what by-this
diligentia consecuti sumus? nempe ut gratuitam mercemur
diligence attained have-we surely that free we-buy
aquam: nobis dolet, quod spiritum, quod solem emere non
water to-us it-hurts that breath that sun to-buy not
possumus, quod hic aër etiam delicatis divitibusque ex
we-can that this air even to-the-dainty and-rich from
facili nec emptus venit. o quam nobis male est, quod
easy nor bought comes O how for-us badly it-is that
quicquam a rerum natura in medio relictum est!
anything by of-things nature in the-middle left has-been
hoc quod illa fluere et patere omnibus voluit, cuius haustum 13.4
this which she to-flow and to-lie-open to-all wished whose draft
vitae publicum fecit, hoc quod tam homini quam feris
to-life public she-made this which so to-man as to-wild-beasts
avibusque et inertissimis animalibus in usum large ac beate
and-birds and to-the-most-inert animals for use abundantly and happily
profudit, contra se ingeniosa luxuria redegit ad pretium: adeo
she-poured-out against itself ingenious luxury has-reduced to a-price so
nihil illi potest placere nisi carum. unum hoc erat, quod divites
nothing to-it can please except dear one this was which the-rich
in aequum turbae deduceret, quo non possent antecedere
to equality with-the-crowd brought-down in-which not they-could precede

pauperrimum: illi, cui divitiae molestae sunt, excogitatum
the-poorest to-him to-whom riches burdensome are devised
est, quemadmodum etiam caperet aqua luxuriam.
it-has-been how even could-take water luxury
13.5 unde ad hoc perventum sit, ut nulla nobis aqua satis
whence to this come it-may-have-been that no to-us water enough
frigida videretur quae flueret, dicam. quamdiu sanus et salubris
cold should-seem which flowed I-shall-say as-long-as sound and healthy
cibi capax stomachus est impleturque, non premitur, naturalibus
of-food capable the-stomach is and-is-filled not is-pressed with-natural
fomentis contentus est: ubi cotidianis cruditatibus non temporis
remedies content it-is when by-daily indigestions not the-season's
aestus sed suos sentit, ubi ebrietas continua visceribus insedit
heats but its-own it-feels when drunkenness continuous in-the-entrails has-settled
et praecordia bile, in quam vertitur, torret, aliquid
and the-vitals with-the-bile into which it-is-turned it-scorches something
necessario quaeritur, quo aestus ille frangatur, qui ipsis
necessarily is-sought by-which heat that may-be-broken which by-the-very
aquis incalescit: remediis incitat vitium. itaque non aestate
waters grows-hot by-the-remedies it-provokes the-vice and-so not in-summer
tantum sed et media hieme nivem hac causa bibunt.
only but even at-mid winter snow for-this cause they-drink
13.6 quae huius rei causa est nisi intestinum malum et luxu
what of-this thing the-cause is except an-internal evil and by-luxury
corrupta praecordia? quibus nullum intervallum umquam, quo
corrupted vitals to-which no interval ever in-which
interquiescerent, datum est, sed prandia cenis usque
they-might-rest given has-been but luncheons with-dinners right
in lucem perductis ingesta sunt et distentos copia
into the-dawn prolonged crammed have-been and distended by-the-abundance
ferculorum ac varietate comessatio altius mersit; deinde
of-dishes and by-the-variety the-revel more-deeply has-sunk then

numquam intermissa intemperantia quicquid animi decorum
never interrupted intemperance whatever of-the-mind seemly
erat efferavit et in desiderium semper novi rigoris accendit.
was has-made-savage and to the-desire always of-new cold has-inflamed
itaque quamvis cenationem velis ac specularibus muniant 13.7
and-so although the-dining-room with-curtains and with-window-panes they-fortify
et igne multo doment hiemem, nihilominus stomachus
and with-fire much tame the-winter nonetheless the-stomach
ille solutus et aestu suo languidus quaerit aliquid,
that loosened and by-heat its-own languid seeks something
quo erigatur. nam sicut animo relictos stupentesque
by-which it-may-be-raised for just-as by-the-mind forsaken and-the-stupefied
frigida spargimus, ut ad sensum sui redeant, ita
with-cold-water we-sprinkle that to the-sense of-themselves they-may-return so
viscera istorum vitiis torpentia nihil sentiunt, nisi frigore
the-entrails of-those by-vices numb nothing feel unless with-cold
illa vehementiore perusseris.
them more-violent you-have-burnt
inde est, inquam, quod ne nive quidem contenti sunt, sed 13.8
thence it-is I-say that not with-snow even content are-they but
glaciem, velut certior illi ex solido rigor sit, exquirunt
ice as-if more-sure to-them from the-solid the-cold may-be they-seek-out
ac saepe repetitis aquis diluunt: quae non e summo
and often with-repeated waters dilute which not from the-top
tollitur sed, ut vim maiorem habeat et pertinacius frigus,
is-taken but that force greater it-may-have and more-persistent cold
ex abdito effoditur. itaque ne unum quidem eius est pretium,
from hiding is-dug-out and-so not one even of-it is the-price
sed habet institores aqua et annonam (pro pudor!) variam.
but it-has hawkers water and a-market-price for shame varied

13.9 unguentarios Lacedaemonii urbe expulerunt et propere
the-perfumers the-Lacedaemonians from-the-city expelled and quickly
cedere finibus suis iusserunt, quia oleum disperderent:
to-depart from-boundaries their-own ordered because oil they-wasted
quid illi fecissent, si vidissent reponendae nivis officinas
what they would-have-done if they-had-seen of-storing snow the-workshops
et tot iumenta portandae aquae deservientia, cuius
and so-many beasts-of-burden for-carrying water serving whose
colorem saporemque paleis, quibus custodiunt, inquinant?
color and-taste with-the-straw with-which they-keep-it they-befoul
at, dii boni, quam facile est extinguere sitim sanam!
but gods good how easy it-is to-quench thirst sound
13.10 sed quid sentire possunt emortuae fauces et occallatae cibis
but what to-feel can dead throats and calloused by-foods
ardentibus? quemadmodum nihil illis satis frigidum, sic
burning as nothing to-them enough cold so
nihil satis calidum est, sed ardentes boletos et raptim
nothing enough hot is but burning mushrooms and hastily
indumento suo mersatos demittunt paene fumantes, quos
in-sauce their-own dipped they-send-down almost smoking which
deinde restinguant nivatis potionibus. videbis, inquam,
then they-may-quench with-snow-cooled drinks you-will-see I-say
quosdam graciles et palliolo focalique circumdatos,
certain-people thin and in-a-little-cloak and-neck-wrap wrapped
pallentes et aegros non sorbere solum nivem sed etiam
pale and sick not to-sup only snow but even
esse et frusta eius in scyphos suos deicere, ne
to-eat-it and pieces of-it into cups their-own to-throw that-not
tepescant inter ipsam bibendi moram.
they-grow-tepid amid the-very of-drinking delay

sitim istam esse putas? febris est, et quidem eo acrior, 13.11
thirst that to-be you-think a-fever it-is and indeed so-much sharper
quod non tactu venarum nec in cutem effuso calore
because not by-the-touch of-the-veins nor onto the-skin by-poured-out heat
deprehenditur sed cor ipsum excoquit. luxuria invictum
it-is-detected but the-heart itself it-bakes luxury an-unconquered
malum et ex molli fluidoque durum atque patiens. non
evil and from soft and-fluid hard and enduring not
intellegis omnia consuetudine vim suam perdere? itaque nix
do-you-understand all-things by-custom force their-own to-lose and-so snow
ista, in qua iam etiam natatis, eo pervenit usu et cotidiana
that in which now even you-swim to-that has-come by-use and by-daily
stomachi servitute, ut aquae locum obtineat. aliquid adhuc
of-the-stomach servitude that of-water the-place it-holds something still
quaerite illa frigidius, quia pro nihilo est familiaris rigor.
seek than-it colder because for nothing is familiar cold

BOOK V

I · WHAT WIND IS

Wind is flowing air, or more carefully, air flowing in one direction, since air is never wholly still, as motes in a sunbeam show, just as a calm sea still stirs. A wave is likewise the sea's motion in one direction. Some reply that whatever flows flows one way; if the shorter definition is safe from quibbles, use it.

Ventus est fluens aër. quidam ita definierunt: ventus est aër 1.1
Wind is flowing air certain thus have-defined-it wind is air
fluens in unam partem. haec definitio videtur diligentior,
flowing in one direction this definition seems more-careful
quia numquam aër tam immobilis est, ut non in aliqua
because never air so immobile is that not in some
sit agitatione; sic tranquillum mare dicitur, cum leviter
it-may-be agitation so calm the-sea is-called when lightly
commovetur nec in unam partem inclinatur: itaque si
it-is-moved nor in one direction it-inclines and-so if
legeris 'cum placidum ventis staret mare', scito illud
you-have-read when calm by-the-winds stood the-sea know it
non stare sed succuti leviter et dici tranquillum,
not to-stand but to-be-shaken lightly and to-be-called calm
quia nec hoc nec illo impetum capiat.
because neither this-way nor that-way impulse it-takes
idem et de aëre iudicandum est, non esse umquam 1.2
the-same also about the-air to-be-judged it-is not to-be ever
immobilem, etiamsi quietus sit. quod ex hoc intellegas
immobile even-if quiet it-be which from this understand
licet: cum sol in aliquem clausum locum infusus est,
you-may when the-sun into some shut place poured has-been

videmus corpuscula minima in adversum ferri, alia
we-see tiny-bodies very-small in opposite-directions to-be-borne some
sursum, alia deorsum varie concursantia.
upward others downward variously running-together

1.3 ergo ut parum diligenter comprehendet, quod vult, qui dixerit
therefore as too-little carefully will-comprehend what he-wishes who says
'fluctus est maris agitatio', quia tranquillum quoque agitatur,
a-wave is of-the-sea an-agitation because the-calm also is-agitated
at ille abunde sibi caverit, cuius definitio haec fuerit
but he abundantly himself will-have-protected whose definition this was
'fluctus est maris in unam partem agitatio': sic in hac quoque
a-wave is of-the-sea in one direction agitation so in this also
re, quam cum maxime quaerimus, non circumscribetur,
matter which at-this moment we-seek not will-be-entrapped
qui ita se gesserit, ut dicat: 'ventus est fluens in unam
he-who so himself has-conducted that he-says wind is flowing in one
partem aër' aut 'aër fluens impetu' aut 'vis aëris in
direction air or air flowing with-impetus or the-force of-air in
unam partem euntis' aut 'cursus aëris aliquo concitatior'.
one direction going or the-course of-air somewhither more-roused

1.4 scio, quid responderi pro altera definitione possit: quid
I-know what to-be-answered for the-other definition could why
necesse est adicere te 'in unam partem'? utique enim, quod
necessary is-it to-add you in one direction assuredly for what
fluit, in unam partem fluit; nemo aquam fluere dicit, si
flows in one direction flows no-one water to-flow says if
tantum intra se movetur, sed si aliquo fertur: potest
only within itself it-is-moved but if somewhere it-is-borne can
ergo aliquid moveri et non fluere, et e contrario non
therefore something be-moved and not flow and from the-contrary not
potest fluere nisi in unam partem.
it-can flow except in one direction

sed sive haec brevitas satis a calumnia tuta est, hac utamur; 1.5
but whether this brevity enough from cavil safe is this let-us-use
sive aliquis circumspectior est, verbo non parcat, cuius
or-if someone more-circumspect is with-the-word not let-him-spare whose
adiectio cavillationem omnem poterit excludere. nunc ad ipsam
addition quibbling all will-be-able to-exclude now to the-very
rem accedamus, quoniam satis de formula disputatum est.
thing let-us-approach since enough about the-formula disputed it-has-been

II · DEMOCRITUS' CROWDED ATOMS

Democritus says wind arises when many atoms crowd a small void and jostle like a throng in a narrow street until they lean one way, and calm when few move in much space.

Democritus ait: 'cum in angusto inani multa sint corpuscula, 2.1
Democritus says when in a-narrow void many there-are tiny-bodies
quae ille atomos vocat, sequi ventum; at contra quietum
which he atoms calls to-follow wind but on-the-contrary quiet
et placidum aëris statum esse, cum in multo inani pauca sint
and calm of-the-air the-state to-be when in much void few are
corpuscula. nam quemadmodum in foro aut vico, quamdiu
tiny-bodies for as in the-forum or a-street as-long-as
paucitas est, sine tumultu ambulatur, ubi turba in angustum
fewness there-is without tumult one-walks when a-crowd into a-narrow-space
concurrit, aliorum in alios incidentium rixa fit: sic in hoc
runs-together of-some against others falling-upon a-brawl arises so in this
quo circumdati sumus spatio, cum exiguum locum multa
by-which surrounded we-are space when a-small place many
corpora impleverint, necesse est alia aliis incidant et impellant
bodies have-filled necessary it-is some on-others fall and push

ac repellantur implicenturque et comprimantur, ex quibus
and be-pushed-back and-be-entangled and be-compressed from which
nascitur ventus, cum illa, quae colluctabantur, incubuere et diu
is-born wind when those which were-struggling have-pressed and long
fluctuata ac dubia inclinavere se. at ubi in magna laxitate
fluctuating and wavering have-inclined themselves but when in great spaciousness
corpora pauca versantur, nec arietare possunt nec impelli.'
bodies few move neither to-butt can-they nor be-pushed

III · FOG WITHOUT WIND

That is false: there is least wind when the air is heavy with cloud and the bodies most crowded, and fog by rivers and lakes, thick enough to hide a man nearby, comes with no wind; the breeze rises when the morning sun thins the air and loosens the throng.

3.1 Hoc falsum esse vel ex eo colligas licet, quod tunc
This false to-be even from this you-may-infer it-is-allowed that then
minime ventus est, cum aër nubilo gravis est: atqui
least wind there-is when the-air with-cloud heavy is and-yet
tunc plurima corpora se in angustum contulerunt, et
then very-many bodies themselves into a-narrow-space have-brought and
inde est spissarum nubium gravitas.
thence is of-dense clouds the-heaviness

3.2 adice nunc, quod circa flumina et lacus frequens nebula
add now that around rivers and lakes frequent mist
est artatis congestisque corporibus, nec tamen ventus
is with-compressed and-heaped bodies nor yet wind
est. 'interdum vero tanta caligo effunditur, ut conspectum
is-there sometimes indeed such darkness is-poured-out that the-sight
in vicino stantium eripiat, quod non eveniret, nisi
in the-vicinity of-those-standing it-snatches-away which not would-happen unless

in parvum locum corpora se multa compellerent.' atqui
into a-small place bodies themselves many drove and-yet
nullum tempus magis quam nebulosum caret vento.
no time more than a-misty is-devoid of-wind
adice nunc, quod e contrario venit, ut sol matutinum 3.3
add now that from the-contrary it-comes-about that the-sun the-morning
aëra spissum et umidum ortu suo tenuet: tunc surgit
air dense and moist by-rising its-own thins then rises
aura, cum datum est laxamentum corporibus et stipatio
a-breeze when given is room to-the-bodies and the-packing
illorum ac turba resoluta est.
of-them and crowd dissolved is

IV · WINDS FROM THE EARTH

Winds arise in more than one way: the earth breathes out air from hidden places, or its vapors, rising high, change into wind. Seneca cannot believe, nor pass over, the view that nature, digesting her food like our bodies, breaks wind; better to say that particles rise from every land, and when the sun thins them they need more room, and wind comes.

'Quo modo ergo', inquis, 'venti fiunt, quoniam hoc negas 4.1
In-what way then you-say do-winds arise since this you-deny
fieri?' non uno modo: alias enim terra ipsa magnam
to-arise not in-one way sometimes for the-earth itself a-great
vim aëris eicit et ex abdito spirat, alias, cum magna
force of-air throws-out and from hiding breathes sometimes when a-great
et continua ex imo evaporatio in altum egit, quae
and continuous from the-depth evaporation into the-height has-driven what
emiserat, mutatio ipsa halitus mixti in ventum vertitur.
it-had-sent-out the-change itself of-breath mixed into wind is-turned

4.2 illud enim nec ut credam mihi persuaderi potest nec ut
that for neither that I-believe to-me to-be-persuaded can nor that
taceam: quomodo in nostris corporibus cibo fit inflatio
I-be-silent as in our bodies from-food arises flatulence
(quae non sine magna narium iniuria emittitur et ventrem
which not without great of-the-nostrils injury is-emitted and the-belly
interdum cum sono exonerat, interdum secretius), sic putant
sometimes with sound unloads sometimes more-secretly so they-think
et hanc magnam rerum naturam alimenta mutantem emittere
also this great of-things nature foods changing to-emit
spiritum — bene nobiscum agitur, cum, quod semper
breath well with-us it-is-done when what always
concoquit, raro emittit: alioquin immundius aliquid timeremus.
it-digests rarely it-emits otherwise fouler something we-should-fear
4.3 numquid ergo hoc verius est dicere, multa ex omni parte
surely-not then this truer is to-say many from every part
terrarum et assidua ferri corpuscula? quae cum coacervata
of-the-earth and constant to-be-borne tiny-bodies which when heaped
sunt, deinde extenuari sole coeperunt, quia omne, quod
they-have-been then to-be-thinned by-the-sun have-begun because all which
in angusto dilatatur, spatium maius desiderat, ventus existit.
in a-narrow-space is-expanded space greater requires wind arises

Evaporation from water and land is one cause of wind; the truer is that air, like water, has its own power to move.

Quid ergo? ‘hanc solam esse causam venti existimo, aquarum 5.1
What then this alone to-be the-cause of-wind I-think of-waters
terrarumque evaporationes; ex his gravitatem aëris fieri,
and-of-lands evaporations from these heaviness of-the-air to-arise
deinde solvi impetu, cum quae densa steterant, ut
then to-be-loosened by-impulse when the-things-which dense had-stood as
est necesse, extenuata nituntur in ampliorem locum.’ ego vero
is necessary thinned strive into ampler space I indeed
et hanc iudico. ceterum illa est longe valentior veriorque,
also this judge-a-cause but that is far stronger and-truer
habere aëra naturalem vim movendi se nec aliunde
to-have the-air a-natural force of-moving itself nor from-elsewhere
concipere sed inesse illi ut aliarum rerum ita huius potentiam.
to-conceive-it but to-be-in it as of-other things so of-this the-power
an hoc existimas, nobis quidem datas vires, quibus nos 5.2
or this do-you-think to-us indeed given strength by-which ourselves
moveremus, aëra autem relictum inertem et inagitabilem
we-might-move the-air however left inert and unagitable
esse, cum aqua motum suum habeat etiam ventis
to-be although water motion its-own has even with-winds
quiescentibus? nec enim aliter animalia ederet; muscum
resting nor for otherwise animals would-it-produce moss
quoque innasci aquis et herbosa quaedam videmus summo
also to-grow-in waters and grassy certain-things we-see on-the-top
innatantia: est ergo aliquid in aqua vitale.
swimming there-is therefore something in water vital

Even fire creates, and living things are born from it; so air too has a vital power, thickening, spreading, and purging itself. Air differs from wind as a lake from a river. Sometimes the sun itself makes wind, loosening frozen, packed air.

6.1 De aqua dico? ignis, qui omnia consumit, quaedam creat,
About water I-speak fire which all-things consumes some-things creates
et quod videri non potest simile veri, tamen verum
and what to-seem not can like the-truth yet true
est, animalia igne generari. habet ergo aliquam vim
is animals by-fire to-be-generated has therefore some force
vitalem et aër et ideo modo spissat se modo expandit
vital also air and therefore now thickens itself now expands
et purgat et alias contrahit diducit ac differt. hoc
and purges and at-other-times contracts spreads and scatters this
ergo interest inter aëra et ventum, quod inter lacum
therefore differs between air and wind which between a-lake
et flumen. aliquando per se ipse sol causa venti est
and a-river sometimes by itself the-very sun the-cause of-wind is
fundens rigentem aëra et ex denso coactoque explicans.
spreading stiff air and from dense and-compacted unfolding-it

The breezes before dawn come from rivers, valleys, and bays, fall as the sun strengthens, and carry no farther than sight of land.

In universum de ventis diximus: nunc viritim incipiamus 7.1
In general about winds we-have-spoken now one-by-one let-us-begin
illos excutere. fortasse apparebit, quemadmodum fiant,
them to-examine perhaps it-will-appear how they-arise
si apparuerit, quando et unde procedant. primum ergo
if it-has-appeared when and whence they-come-forth first therefore
antelucanos flatus inspiciamus, qui aut ex fluminibus aut
the-before-dawn breezes let-us-inspect which either from rivers or
ex convallibus aut aliquo sinu feruntur.
from valleys or some gulf are-borne
nullus ex his pertinax est sed cadit fortiore iam sole nec 7.2
none of these persistent is but falls stronger now the-sun nor
fert ultra terrarum conspectum. hoc ventorum genus
does-it-carry beyond of-the-lands the-sight this of-winds kind
incipit vere, non ultra aestatem durat et inde maxime
begins in-spring not beyond summer lasts and thence most
venit, ubi aquarum plurimum et montium est. plana, licet
comes where of-waters most and of-mountains there-is plains though
abundent aquis, carent aura; hac, dico, quae pro vento valet.
they-abound in-waters lack breeze this I-mean which as wind counts

The gulf wind forms when marsh and river vapors collect at night between mountains and press out at dawn, dying in the morning.

8.1 ‘Quomodo ergo talis flatus concipitur, quem Graeci ἐγκολπίαν
How then such a-breeze is-conceived which the-Greeks gulf-wind
vocant?’ quicquid ex se paludes et flumina remittunt
call whatever from themselves marshes and rivers send-back
(id autem et multum est et assiduum), per diem solis
that however both much is and constant through the-day of-the-sun
alimentum est, nocte non exhauritur et montibus inclusum
the-food is by-night not it-is-drained and by-mountains enclosed
in unam regionem colligitur; cum illam implevit et iam se
into one region is-collected when it it-has-filled and now itself
non capit, exprimitur aliquo et in unam partem procedit:
not holds it-is-squeezed-out somewhere and in one direction proceeds
hic ventus est. itaque eo incumbit, quo liberior exitus invitat
this wind is and-so thither it-presses where a-freer exit invites
et loci laxitas, in quam coacervata decurrant.
and of-the-place the-spaciousness into which heaped-up they-may-run-down

8.2 huius rei argumentum est, quod prima noctis parte
of-this thing a-proof is that in-the-first of-the-night part
non spirat: incipit enim fieri illa collectio, quae circa
not it-blows begins for to-be-made that collection which around
lucem iam plena est, onerata quaerit, quo defluat, et
dawn already full is laden it-seeks where it-may-flow-off and
eo potissimum exit, ubi plurimum vacui est et magna
there chiefly goes-out where most of-void there-is and great
ac patens area. adicit autem ei stimulos ortus solis
and open area adds however to-it spurs the-rising of-the-sun

feriens gelidum aëra, nam etiam antequam appareat, lumine
striking the-icy air for even before it-appears by-light
ipso valet et nondum quidem radiis aëra impellit, iam
itself it-is-strong and not-yet indeed with-rays the-air it-drives already
tamen lacessit et irritat luce praemissa;
yet it-provokes and irritates with-light sent-ahead
nam cum ipse processit, alia superius rapiuntur alia 8.3
for when it-itself has-advanced some upward are-snatched others
diffunduntur tepore: ideo non ultra matutinum illis
are-diffused by-warmth therefore not beyond the-morning to-them
datur fluere, omnis illorum vis conspectu solis extinguitur;
is-given to-flow all their force at-the-sight of-the-sun is-extinguished
etiamsi violentiores flavere, circa mediam tamen diem
even-if more-violent they-have-blown around mid yet day
relanguescunt, nec unquam usque in meridiem aura
they-grow-faint nor ever right to noon the-breeze
producitur; alia autem alia imbecillior ac brevior est,
is-prolonged one however another weaker and briefer is
prout valentioribus minoribusve collecta causis est.
according-as by-stronger or-lesser collected causes it-is

Such winds are strongest in wet spring and in summer, and sunrise makes wind by its blow as well as its heat.

9.1 ‘Quare tamen tales venti vere et aestate validiores
Why yet such winds in-spring and summer stronger
sunt?’ (levissimi enim cetera parte anni nec qui vela
are lightest for in-the-rest part of-the-year nor ones-that sails
impleant surgunt): quia ver aquosum est ex pluvialibus
might-fill rise because spring watery is from rain
aquis, locisque ob umidam caeli naturam saturis et
waters and-places on-account-of the-moist of-the-sky nature saturated and
redundantibus maior evaporatio est.
overflowing greater evaporation is

9.2 ‘at quare aestate aeque profunditur?’ quia post occasum
but why in-summer equally is-it-poured-forth because after the-setting
solis remanet diurnus calor et magna noctis parte
of-the-sun remains the-day's heat and a-great of-the-night part
perdurat, qui evocat exeuntia ac vehementius trahit
lasts which calls-out the-things-going-out and more-violently draws
quicquid ex his sponte reddi solet, deinde non tantum
whatever of these spontaneously to-be-given-off is-wont then not so-much
habet virium, ut quod evocavit absumat: ob hoc
it-has of-strength that what it-has-called-out it-consumes on-account-of this
diutius corpuscula emanare solita et efflari terra
longer tiny-bodies to-flow-out wont and to-be-breathed-out the-earth
† ex se atque humo remittit.
(corrupt) from itself and from-the-ground sends-back

facit autem ventum ortus non calore tantum sed etiam 9.3
makes however wind the-rising not by-heat only but also
ictu: lux enim, ut dixi, quae solem antecedit, nondum
by-stroke the-light for as I-said which the-sun precedes not-yet
aëra calefacit sed percutit tantum, percussus autem in latus
the-air warms but strikes only struck however to the-side
cedit. quamquam ego ne illud quidem concesserim, lucem
it-yields although I not that even I-would-concede the-light
ipsam sine calore esse, cum ex calore sit:
itself without heat to-be since from heat it-is
non habet forsitan tantum teporis, quantum tactu apparet, 9.4
not it-has perhaps so-much of-warmth as-much-as by-touch appears
opus tamen suum facit et densa diducit ac tenuat;
work yet its-own it-does and dense-things spreads and thins
praeterea loca, quae aliqua iniquitate naturae ita clausa sunt,
besides places which by-some unevenness of-nature so shut-in are
ut solem accipere non possint, illa quoque nubila et tristi
that the-sun to-receive not they-can those also by-cloudy and gloomy
luce calefiunt et per diem minus quam noctibus rigent.
light are-warmed and through the-day less than at-nights are-stiff
etiamnunc natura calor omnis abigit nebulas et a 9.5
still by-nature heat all drives-away mists and from
se repellit: ergo sol quoque idem facit, et ideo, ut
itself repels therefore the-sun also the-same does and therefore as
quibusdam videtur, inde flatus est, unde sol.
to-certain it-seems thence the-breeze is whence the-sun

Wind does not blow from where the sun is. The etesians come when the long summer days send the north's moisture south, from the solstice to the Dog Star.

10.1 Hoc falsum esse ex eo apparet, quod aura in omnem
This false to-be from this appears that the-breeze in every
partem vehit et contra ortum plenis velis navigatur: quod
direction carries and against the-rising with-full sails one-sails which
non eveniret, si semper ventus ferretur a sole. etesiae
not would-happen if always the-wind were-borne from the-sun the-etesian-winds
quoque, qui in argumentum a quibusdam advocantur, non
also which as proof by certain are-called-in not
nimis propositum adiuvant.
too-much the-proposition help

10.2 dicam primum, quid illis placeat, deinde, cur displiceat
I-shall-say first what to-them is-pleasing then why it-displeases
mihi. 'etesiae', inquiunt, 'hieme non sunt, quia brevissimis
me the-etesian-winds they-say in-winter not are because in-the-shortest
diebus sol desinit, priusquam frigus evincatur (itaque nives
days the-sun stops before the-cold can-be-overcome and-so snows
et ponuntur et durant): aestate incipiunt flare, cum et
both are-laid-down and last in-summer they-begin to-blow when both
longius extenditur dies et recti in nos radii diriguntur.
longer is-extended the-day and straight upon us the-rays are-directed

10.3 veri ergo simile est concussas calore magno nives plus
of-the-truth therefore like it-is shaken by-heat great the-snows more
umidi efflare, item terras exoneratas nive retectasque
of-moist to-breathe-out likewise the-lands unburdened of-snow and-uncovered
spirare liberius: ita plura ex septemtrionali parte caeli
to-breathe more-freely so more from the-northern part of-the-sky

corpora exire et in haec loca, quae sunt summissiora
bodies to-go-out and into these places which are lower
ac tepidiora, deferri; sic impetum etesias sumere.
and warmer to-be-carried-down so impetus the-etesian-winds to-take
et ob hoc a solstitio illis initium est (ultraque 10.4
and on-account-of this from the-solstice to-them the-beginning is and-beyond
ortum Caniculae non valent), quia iam multum e frigida
the-rising of-the-Dog-Star not they-are-strong because already much from the-cold
caeli parte in hanc egestum est ac sol mutato cursu
of-the-sky part into this carried has-been and the-sun with-changed course
in nostram rectior tendit et alteram partem aëris attrahit
toward our-part more-directly tends and one part of-the-air attracts
alteram vero impellit. sic ille etesiarum flatus aestatem
the-other indeed drives so that of-the-etesian-winds blowing summer
frangit et a mensium ferventissimorum gravitate defendit.'
breaks and from of-the-months hottest the-heaviness defends

XI · WHY THE ETESIANS PROVE NOTHING

Sailors call the etesians sleepy and delicate, since, as Gallio says, they cannot get up in the morning, rising when the dawn breezes die; the sun does not quell them. And if long days caused them, they would blow before the solstice, when the snows melt most; by July almost nothing lies under snow.

Nunc (quod promisi) dicendum est, quare etesiae nos 11.1
Now what I-promised to-be-said is why the-etesian-winds us
non adiuvent nec quicquam huic conferant causae. diximus
not help nor anything to-this contribute cause we-have-said
ante lucem auram incitari, eandem subsidere, cum illam
before dawn the-breeze to-be-roused the-same to-subside when it
sol attigit. atqui etesiae ob hoc somniculosi a
the-sun has-touched and-yet the-etesian-winds on-account-of this sleepy by

nautis et delicati vocantur, quod, ut ait Gallio, mane
sailors and dainty are-called because as says Gallio in-the-morning
nesciunt surgere: eo tempore fere incipiunt prodire,
they-know-not-how to-rise at-that time usually they-begin to-come-forth
quo ne pertinax quidem aura est. quod non accideret,
at-which not persistent even a-breeze is which not would-happen
si ut auram ita illos comminueret sol.
if as the-breeze so them shattered the-sun

11.2 adice nunc, quod si causa illis flatus esset spatium
add now that if the-cause to-them of-blowing were the-space
diei ac longitudo, et ante solstitium flarent, cum
of-the-day and length also before the-solstice they-would-blow when
longissimi dies sunt et cummaxime nives tabescunt;
longest the-days are and most the-snows melt
Iulio enim mense iam despoliata sunt omnia aut certe
in-July for month already stripped are all-things or certainly
admodum pauca iacent adhuc sub nive.
very few lie still under snow

XII · WINDS FROM BURST CLOUDS

Cloud winds come from burst clouds: breath shut in their narrow passages heats, swells, and bursts out, brief but stormy, sometimes with fire and thunder.

12.1 Sunt quaedam genera ventorum, quae ruptae nubes et in
There-are certain kinds of-winds which broken clouds and into
pronum solutae emittunt: hos Graeci ventos ἐκνεφίας vocant.
downward loosened send-out these the-Greeks winds cloud-born call
qui hoc, ut puto, modo fiunt: cum magna inaequalitas
which in-this as I-think way arise when great inequality

ac dissimilitudo corporum, quae vapor terrenus emittit, in
and unlikeness of-the-bodies which the-vapor earthly sends-out into
sublime eat et alia ex his corporibus sicca sint, alia umida,
the-height goes and some of these bodies dry are others moist
ex tanta discordia corporum inter se pugnantium,
from such-great discord of-bodies among themselves fighting
cum in unum conglobata sunt, verisimile est quasdam cavas
when into one massed they-are likely it-is certain hollow
effici nubes et intervalla inter illas relinqui fistulosa et
to-be-made clouds and intervals between them to-be-left pipe-like and
in modum tibiae angusta.
in the-manner of-a-flute narrow
his intervallis tenuis includitur spiritus, qui maius desiderat 12.2
in-these intervals thin is-shut-in breath which a-greater requires
spatium, cum everberatus cursu parum libero incaluit
space when beaten by-a-course too-little free it-has-grown-hot
et ob hoc amplior fit, scinditque cingentia et
and on-account-of this more-ample becomes and-splits the-surrounding-things and
erumpit in ventum, qui fere procellosus est, quia superne
bursts-out into wind which usually stormy is because from-above
demittitur, et in nos cadit vehemens et acer, quia non fusus
it-is-sent-down and on us falls violent and sharp because not spread
nec per apertum venit sed laborat et iter sibi vi
nor through the-open it-comes but it-labors and a-way for-itself by-force
ac pugna parat. hic fere brevis flatus est, quia receptacula
and fight prepares this usually brief blowing is because the-receptacles
nubium, per quae ferebatur, ac munimenta perrumpit: ideo
of-the-clouds through which it-was-borne and defenses it-breaks-through therefore
tumultuosus venit, aliquando non sine igne ac sono caeli.
tumultuous it-comes sometimes not without fire and sound of-the-sky

12.3 hi venti multo maiores diuturnioresque sunt, si alios quoque
these winds much greater and-longer-lasting are if other also
flatus ex eadem causa ruentes in se abstulerunt
blasts from the-same cause rushing into themselves they-have-carried-off
et in unum confluxere plures; sicut torrentes modicae
and into one have-flowed-together several as torrents of-moderate
magnitudinis sunt, quamdiu separatis suus cursus est,
size are as-long-as to-them-separated their-own course is
cum vero plures in se aquas converterunt, fluminum
when indeed many into themselves waters they-have-turned of-rivers
iustorum ac perennium magnitudinem excedunt:
regular and perennial the-size they-exceed

12.4 idem credibile est fieri et in procellis, ut breves sint,
the-same believable it-is to-happen also in gales that brief they-be
quamdiu singulae sunt; ubi vero sociavere vires et ex
as-long-as single they-are when indeed they-have-joined strength and from
pluribus caeli partibus elisus spiritus eodem se
many of-the-sky parts squeezed-out breath to-the-same-place itself
contulit, et impetus illis accedit et mora.
has-betaken both impetus to-them is-added and duration

12.5 facit ergo ventum resoluta nubes, quae pluribus modis
makes therefore wind a-dissolved cloud which in-many ways
solvitur: nonnumquam conglobationem illam spiritus rumpit,
is-dissolved sometimes massing that the-breath bursts
nonnumquam inclusi et in exitum nitentis luctatio,
sometimes of-the-enclosed and toward an-exit striving the-struggle
nonnumquam calor, quem modo sol facit modo ipsa
sometimes heat which now the-sun makes now the-very
arietatio vagorum inter se corporum attritu.
butting of-wandering among themselves bodies by-rubbing

XIII · WHIRLWINDS

As a river striking a rock turns back on itself and makes an eddy, a wind thrown back by a headland or squeezed into a narrow channel whirls and becomes a whirlwind; fiercer and longer, it catches fire, the Greeks' prester. Such winds from the clouds snatch rigging and lift whole ships. As drops flow only when many join, many small motions of air make wind only when they unite; breath is gently flowing air.

Hoc loco, si tibi videtur, quaeri potest, cur turbo fiat. 13.1
At-this place if to-you it-seems-good to-be-asked can why a-whirlwind arises
evenire in fluminibus solet, ut, quamdiu sine impedimento
to-happen in rivers is-wont that as-long-as without hindrance
feruntur, simplex et rectum illis iter sit: ubi incurrerunt
they-are-borne simple and straight to-them the-path is when they-have-run
in aliquod saxum ad latus ripae prominens, retorqueantur
into some rock at the-side of-the-bank projecting they-are-twisted-back
et in orbem aquas sine exitu flectant, ita ut circumlata
and into a-circle the-waters without exit bend so that carried-around
in se sorbeantur et verticem efficiant.
into themselves they-are-swallowed and a-whirlpool produce
sic ventus, quamdiu nihil obstitit, vires suas effundit: 13.2
so the-wind as-long-as nothing has-stood-in-the-way strength its-own pours-out
ubi aliquo promontorio repercussus est aut locorum
when by-some promontory struck-back it-has-been or of-places
coeuntium in canalem devexum tenuemque collectus, saepius
converging into a-channel sloping and-narrow gathered more-often
in se volutatur similemque illis, quas diximus converti,
into itself it-is-rolled and-like to-those which we-have-said to-be-turned
aquis facit verticem.
waters makes a-whirl

13.3 hic ventus circumactus et eundem ambiens locum ac se
this wind driven-round and the-same encircling place and itself
ipsa vertigine concitans turbo est. qui si pugnacior
by-the-very whirling rousing a-whirlwind is which if more-combative
est ac diutius volutatus, inflammatur et efficit quod
it-is and longer rolled it-is-inflamed and effects what
πρηστῆρα Graeci vocant: hic est igneus turbo. sic fere
prester the-Greeks call this is a-fiery whirlwind so usually
omnia pericula venti erupti de nubibus produnt, quibus
all dangers winds burst-out from clouds bring-forth by-which
armamenta rapiantur et totae naves in sublime tollantur.
rigging is-snatched and whole ships into the-height are-raised

13.4 Etiamnunc quidam venti diversos ex se generant et
Still certain winds different-ones from themselves generate and
impulsum aëra in alias quoque partes, quam in quas
the-pushed air into other also directions than into which
ipsi inclinavere, dispergunt. illud quoque dicam, quod
they-themselves have-inclined scatter this also I-shall-say which
mihi occurrit: quemadmodum stillicidia, quamvis iam
to-me occurs as drops although already
inclinent se et labantur, nondum tamen efficere lapsum,
they-incline themselves and glide not-yet yet to-make a-fall
sed ubi plura coiere et turba vires dedit, tunc
but when several have-come-together and the-crowd strength has-given then
fluere et ire dicuntur: sic quamdiu leves sunt aëris
to-flow and to-go they-are-said so as-long-as light are of-the-air
motus agitati pluribus locis, nondum ventus est — tunc
the-movements stirred in-many places not-yet wind it-is then
esse incipit, cum omnes illos miscuit et in unum impetum
to-be it-begins when all them it-has-mixed and into one impetus

contulit. spiritum a vento modus separat: vehementior
has-brought breath from wind measure separates more-violent
enim spiritus ventus est, invicem spiritus leniter fluens aër.
for breath wind is in-turn breath gently flowing air

XIV · WINDS FROM UNDERGROUND

Winds also come from caves deep in the earth, which is hollow in many places, some filled with water, some empty. There, unseen, are clouds and mists, rivers like ours, and standing lakes, so air grows heavy and makes wind that bursts out through the ground or an open cavern. Sulfur underground, kindled by the twisting breath, drives it out with a roar, as the inquiry into earthquakes will show.

Repetam nunc, quod in primo dixeram, edi e 14.1
I-shall-repeat now what in the-first I-had-said to-be-produced from
specu ventos recessuque interiore terrarum: non tota solido
a-cave winds and-from-recess the-inner of-the-earth not wholly with-solid
contextu terra in imum usque fundatur, sed multis
texture the-earth to the-bottom right is-founded but in-many
partibus cava et 'caecis suspensa latebris' aliubi aquis
parts hollow and by-blind suspended hiding-places elsewhere with-waters
plena, aliubi habet inania sine umore.
full elsewhere it-has empty-spaces without moisture
ibi etiamsi nulla lux discrimen aëris monstrat, dicam tamen 14.2
there even-if no light the-distinction of-air shows I-shall-say yet
nubes nebulasque in obscuro consistere. nam ne haec quidem
clouds and-mists in the-dark to-stand for not these even
supra terras, quia videntur, sunt, sed quia sunt, videntur: illic
above the-earth because they-are-seen exist but because they-exist are-seen there
quoque nihilo minus ob id sunt, quod non videntur,
also by-nothing less because-of that they-exist that not they-are-seen

flumina, illic scias licet nostris paria sublabi, alia
rivers there you-may-know it-is-allowed to-ours equal to-glide-beneath some
leniter ducta, alia in confragosis locis praecipitando sonantia:
gently led others in rugged places by-falling resounding
quid ergo? non illud aeque dabis, esse aliquos et sub
what then not that equally will-you-grant to-be some also under
terra lacus et quasdam aquas sine exitu stagnare?
the-earth lakes and certain waters without exit to-stagnate

14.3 quae si ita sunt, necesse est et illud, aëra onerari
which if so they-are necessary it-is also that the-air to-be-burdened
oneratumque incumbere et ventum propulsu suo concitare.
and-burdened to-press and wind by-propulsion its-own to-rouse
et ex illis ergo subterraneis nubibus sciemus nutriri
and from those therefore subterranean clouds we-shall-know to-be-nourished
inter obscura flatus, cum tantum virium fecerint, quanto
among dark-places blasts when so-much of-strength they-have-made by-which
aut terrae obstantiam auferant aut aliquod apertum
either of-the-earth the-obstruction they-may-remove or some open
ad hos efflatus iter occupent et per hanc cavernam in
for these outblowings path they-may-seize and through this cavern into
nostras sedes efferantur.
our seats may-be-carried

14.4 illud vero manifestum est, magnam esse sub terris vim
that indeed manifest is great to-be under the-earth the-force
sulphuris et aliorum non minus ignem alentium: per
of-sulfur and of-other-things not less fire feeding through
haec loca cum se exitum quaerens spiritus torsit, accendat
these places when itself an-exit seeking the-breath has-twisted it-kindles
flammam ipso affrictu necesse est, deinde flammis latius
flame by-the-very rubbing necessary it-is then with-flames more-widely
fusis, etiam si quid ignavi aëris erat, extenuatum moveri
spread even if anything of-sluggish air there-was thinned to-be-moved

et viam cum fremitu vasto atque impetu quaerere. sed haec
and a-way with roaring vast and impetus to-seek but these-things
diligentius persequar, cum quaeram de motibus terrae.
more-carefully I-shall-pursue when I-inquire about the-movements of-the-earth

XV · PHILIP'S MINERS

Asclepiodotus tells that Philip sent men down an old abandoned mine to see what earlier greed had left; after a long way they saw huge rivers and vast still waters, frightening to behold. Seneca read it gladly, for it shows our age suffers no new vices: men before Philip chased money into the deepest dark. What hope bent man, made to look at the stars, into the ground? None of the dead lies under heavier earth than these, and then they fear the underworld.

Nunc mihi permitte narrare fabulam. Asclepiodotus auctor 15.1
Now me allow to-tell a-tale Asclepiodotus the-authority
est demissos quam plurimos a Philippo in metallum
is let-down as very-many by Philip into a-mine
antiquum olim destitutum, ut explorarent, quae ubertas
ancient long-ago abandoned that they-might-explore what the-richness
eius esset, quis status, an aliquid futuris reliquisset vetus
of-it might-be what the-state whether something to-posterity had-left the-old
avaritia; descendisse illos cum multo lumine et multos
avarice to-have-descended them with much light and for-many
duraturo dies, deinde longa via fatigatos vidisse flumina
going-to-last days then by-the-long journey wearied to-have-seen rivers
ingentia et conceptus aquarum inertium vastos, pares nostris
huge and reservoirs of-waters inert vast equal to-ours
nec compressos quidem terra supereminente sed liberae
nor compressed even by-the-earth overhanging but of-free
laxitatis, non sine horrore visos.
spaciousness not without shuddering seen

15.2 cum magna hoc legi voluptate, intellexi enim saeculum
with great this I-have-read pleasure I-understood for the-age
nostrum non novis vitiis sed iam inde antiquitus traditis
our not by-new vices but already from antiquity handed-down
laborare, nec nostra aetate primum avaritiam venas terrarum
to-labor nor in-our age first avarice the-veins of-lands
lapidumque rimatam in tenebris male abstrusa quaesisse:
and-of-stones having-searched in darkness badly hidden-things to-have-sought
illi maiores nostri, quos celebramus laudibus, quibus
those ancestors our whom we-celebrate with-praises from-whom
dissimiles esse nos querimur, spe ducti montes ceciderunt
unlike to-be ourselves we-complain by-hope led mountains have-cut
et supra lucrum sub ruina steterunt;
and above gain under ruin have-stood

15.3 ante Philippum Macedonum regem fuere, qui pecuniam
before Philip of-the-Macedonians king there-were-those who money
in altissimis usque latebris sequerentur et recto spiritu
into deepest right hiding-places pursued and with-straight breath
liberoque in illos se demitterent specus, in quos
and-free into those themselves let-down caves into which
nullum noctium dierumque perveniret discrimen. a tergo
no of-nights and-days could-reach distinction from behind
lucem relinquere quae tanta spes fuit? quae tanta necessitas
the-light to-leave what so-great hope was what so-great necessity
hominem ad sidera erectum incurvavit et defodit et in
man toward the-stars upright has-bent and buried and into
fundum telluris intimae mersit, ut erueret aurum non
the-bottom of-the-earth innermost plunged that he-might-dig-out gold not
minore periculo quaerendum quam possidendum?
with-less danger to-be-sought than to-be-possessed

propter hoc cuniculos egit et circa praedam lutulentam 15.4
on-account-of this tunnels he-drove and around booty muddy
incertamque reptavit oblitus dierum, oblitus rerum naturae
and-uncertain has-crept forgetful of-days forgetful of-things of-nature
melioris, a qua se avertit. ulli ergo mortuo terra
better from which himself he-has-turned-away to-any therefore dead the-earth
tam gravis est quam istis, supra quos avaritia ingens terrarum
so heavy is as to-these upon whom avarice a-huge of-earth
pondus iniecit, quibus abstulit caelum, quos in imo, ubi
weight has-thrown from-whom it-has-taken the-sky whom in the-depth where
illud malum virus latitat, infodit? illo descendere ausi sunt,
that evil poison lurks it-has-buried there to-descend dared they-have
ubi novam rerum positionem, terrarum pendentium habitus
where a-new of-things arrangement of-lands hanging the-forms
ventosque per caecum inanes experirentur et aquarum
and-winds through the-blind empty they-might-experience and of-waters
nulli fluentium horridos fontes et alteram perpetuamque
for-no-one flowing horrid springs and another and-perpetual
noctem: deinde cum ista fecerunt, inferos metuunt!
night then when these-things they-have-done the-underworld they-fear

There are four winds, east, west, south, and north; Varro makes twelve, three for each quarter, and Seneca names each in Latin and Greek.

16.1 Sed ut ad id, de quo agitur, revertar: venti quattuor
But that to that about which it-is-dealt I-may-return winds four
sunt, in ortum occasum meridiem septemtrionemque divisi;
are into east west south and-north divided
ceteri, quos variis nominibus appellamus, his applicantur.
the-others which by-various names we-call to-these are-attached

Eurus ad Auroram Nabataeaque regna recessit
Eurus to the-Dawn and-the-Nabataean kingdoms withdrew
Persidaque et radiis iuga subdita matutinis.
and-to-Persia and to-the-rays ridges placed-under morning
vesper et occiduo quae litora sole tepescunt,
the-evening and by-the-setting which shores sun grow-warm
proxima sunt zephyris. Scythiam septemque triones
nearest are to-the-zephyrs Scythia and-the-seven plow-oxen
horrifer invasit boreas: contraria tellus
bristling has-invaded the-north-wind the-opposite earth
nubibus assiduis pluvioque madescit ab austro.
with-clouds constant and-the-rainy grows-wet from the-south-wind

vel si brevius illos complecti mavis, in unam tempestatem, 16.2
or if more-briefly them to-embrace you-prefer into one storm
quod fieri nullo modo potest, congregentur:
which to-happen in-no way can let-them-be-gathered

'una Eurusque Notusque ruunt creberque procellis
together both-Eurus and-Notus rush and-thick with-gales
Africus'
Africus

et, qui locum illa non habuit, Aquilo.
and who a-place in-that not had Aquilo
quidam illos duodecim faciunt: quattuor enim caeli partes 16.3
certain them twelve make four for of-the-sky the-parts
in ternas dividunt et singulis ventis binos subpraefectos
into threes they-divide and to-each wind two subordinates
dant. hac arte Varro, vir diligens, illos ordinat, nec
they-give by-this art Varro a-man diligent them orders nor
sine causa. non enim eodem semper loco sol oritur aut
without cause not for in-the-same always place the-sun rises or
occidit, sed alius est ortus occasusque aequinoctialis, bis
sets but other is the-rising and-setting of-the-equinox twice
autem aequinoctium est, alius solstitialis, alius hibernus.
however the-equinox is another of-the-solstice another of-winter
qui surgit ab oriente aequinoctiali, subsolanus apud nos 16.4
the-one-which rises from the-east equinoctial subsolanus among us
dicitur, Graeci illum ἀφηλιώτην vocant. ab oriente hiberno
is-called the-Greeks it apheliotes call from the-east wintry
eurus exit, quem nostri vocavere vulturnum et Livius hoc
eurus goes-out which ours have-called vulturnus and Livy by-this
illum nomine appellat in illa pugna Romanis parum prospera,
it name calls in that battle for-the-Romans too-little prosperous

in qua Hannibal et contra solem orientem exercitum nostrum
in which Hannibal both against the-sun rising army our
et contra ventum constitutum venti adiutorio ac fulgoris
and against the-wind drawn-up of-the-wind by-the-help and of-the-glare
praestringentis oculos hostium vicit; Varro quoque hoc nomen
dazzling the-eyes of-the-enemy conquered Varro also this name
usurpat, sed et eurus iam civitate donatus est et nostro
uses but also eurus already with-citizenship presented has-been and into-our
sermoni non tamquam alienus intervenit. ab oriente solstitiali
speech not as alien comes-in from the-east solstitial
excitatum καικίαν Graeci appellant, apud nos sine nomine est.
the-one-roused caecias the-Greeks call among us without a-name it-is
16.5 aequinoctialis occidens favonium mittit, quem zephyrum
the-equinoctial west favonius sends which zephyr
esse dicent tibi, etiam qui graece nesciunt loqui. a
to-be will-tell you even those-who Greek know-not-how to-speak from
solstitiali occidente corus venit, qui apud quosdam argestes
the-solstitial west corus comes which among certain argestes
dicitur: mihi non videtur, quia cori violenta vis est et
is-called to-me not it-seems-so because of-corus violent the-force is and
in unam partem rapax, argestes fere mollis est et tam
in one direction rapacious argestes usually gentle is and as-much
euntibus communis quam redeuntibus. ab occidente hiberno
to-those-going common as to-those-returning from the-west wintry
africus furibundus et ruens, apud Graecos λίψ dicitur.
africus raging and rushing among the-Greeks lips is-called
16.6 a septemtrionali latere summus est aquilo, medius
from the-northern side highest is aquilo middle
septemtrio, imus θρακίας: huic deest apud nos vocabulum.
septentrio lowest thrascias to-this is-lacking among us a-word

a meridiano axe εὐρόνοτος est; deinde νότος, latine auster;
from the-southern pole euronotus is then notus in-Latin auster
deinde λευκόνοτος, qui apud nos sine nomine est.
then leuconotus which among us without a-name is

XVII · WHY TWELVE

There are twelve winds, not because every place has twelve, but because none has more, as nouns have six cases at most. The sky divides into five circles, the horizon cuts them into ten parts, and the meridian adds two, making twelve regions of air and twelve winds. Some winds are local: Atabulus in Apulia, Iapyx in Calabria, Sciron at Athens, and Circius in Gaul, whose people thank it for their health, and to which Augustus built a temple.

Placet autem XII ventos esse, non quia ubique tot 17.1
It-pleases however twelve winds to-be not because everywhere so-many
sunt (quosdam enim inclinatio terrarum excludit), sed quia
are some for the-slope of-the-lands excludes but because
plures nusquam sunt. sic casus sex dicimus, non quia omne
more nowhere are so cases six we-say not because every
nomen sex recipit, sed quia nullum plures quam sex.
noun six admits but because none more than six
qui XII ventos esse dixerunt, hoc secuti sunt, totidem 17.2
those-who twelve winds to-be have-said this followed have as-many
ventorum esse quot caeli discrimina. caelum autem dividitur
of-winds to-be as of-the-sky divisions the-sky however is-divided
in circulos quinque, qui per mundi cardines eunt: est
into circles five which through of-the-world the-hinges go there-is
septemtrionalis, est solstitialis, est aequinoctialis, est
the-northern there-is the-solstitial there-is the-equinoctial there-is
brumalis, est contrarius septemtrionali. his sextus accedit,
the-winter there-is the-one-opposite to-the-northern to-these a-sixth is-added

qui superiorem partem mundi ab inferiore secernit (ut scis
which the-upper part of-the-world from the-lower separates as you-know
enim, dimidia pars mundi semper supra, dimidia infra est):
for half the-part of-the-world always above half below is
17.3 hanc lineam, quae inter aperta et occulta est, id est hunc
this line which between open and hidden-things is that is this
circulum Graeci ὁρίζοντα vocant, nostri finitorem esse dixerunt,
circle the-Greeks horizon call ours the-boundary to-be said
alii finientem. adiciendus est adhuc meridianus circulus,
others the-bounding to-be-added is still the-meridian circle
qui horizonta rectis angulis secat. ex his quidam circuli in
which the-horizon at-right angles cuts of these some circles in
transversa currunt et alii alios interventu suo scindunt;
crosswise run and some others by-intervention their-own cut
necesse est autem tot aëris discrimina esse quot partes:
necessary it-is however so-many of-the-air divisions to-be as parts
17.4 ergo ὁρίζων sive finiens circulus quinque illos orbes,
therefore the-horizon or bounding circle five those orbs
quos modo dixi, fieri † et efficit decem partes,
which just-now I-mentioned to-be-made (corrupt) and makes ten parts
quinque ab ortu, quinque ab occasu; meridianus circulus,
five from the-east five from the-west the-meridian circle
qui in horizonta incurrit, regiones duas adicit: sic XII
which into the-horizon runs regions two adds so twelve
aër discrimina accipit et totidem facit ventos.
the-air divisions receives and as-many makes winds
17.5 quidam sunt quorundam locorum proprii, qui non
certain are of-certain places proper which not
transmittunt sed in proximum ferunt; non est illis a
cross-over but into the-nearest they-carry not is to-them from
latere universi mundi impetus: Atabulus Apuliam infestat,
the-side of-the-universal world impetus Atabulus Apulia infests

Calabriam Iapyx, Athenas Sciron, Pamphyliam Crageus,
Calabria Iapyx Athens Sciron Pamphylia Crageus
Galliam Circius (cui aedificia quassanti tamen incolae
Gaul Circius to-which buildings shaking yet the-inhabitants
gratias agunt, tamquam salubritatem caeli sui debeant ei:
thanks give as-if the-healthiness of-sky their-own they-owe to-it
divus certe Augustus templum illi, cum in Gallia moraretur,
the-deified certainly Augustus a-temple to-it when in Gaul he-was-staying
et vovit et fecit). infinitum est, si singulos velim
both vowed and made endless it-is if single-ones I-should-wish
persequi; nulla enim propemodum regio est, quae non habeat
to-pursue no for almost region is which not has
aliquem flatum ex se nascentem et circa se cadentem.
some breeze from itself born and around itself falling

XVIII · WINDS GIVEN FOR GOOD, USED FOR WAR

Providence gave the winds to keep the air alive, to bring and check the rains, to winnow the harvest, and to join scattered nations. As was said of Caesar, one may doubt whether winds help us more than harm, so madly do men abuse them: we sail through storms and hidden reefs to reach a war. The Persian king, Alexander, and Crassus show where our evils lead. The fault is ours, not god's, who meant them for good; Plato says men buy the least things with their lives.

Inter cetera itaque providentiae opera hoc quoque aliquis 18.1
Among the-other and-so of-providence works this also someone
ut dignum admiratione suspexerit: non enim ex una
as worthy of-admiration may-have-looked-up-to not for from one
causa ventos aut invenit aut per diversa disposuit, sed
cause winds either it-has-found or through different-parts arranged but

primum ut aëra non sinerent pigrescere sed assidua
first that the-air not they-should-allow to-grow-sluggish but by-constant
vexatione utilem redderent vitalemque tracturis,
agitation useful they-should-render and-vital for-those-going-to-draw-it
18.2 deinde ut imbres terris subministrarent îdemque nimios
then that showers to-the-lands they-might-supply and-the-same excessive-ones
compescerent. nam modo adducunt nubes, modo deducunt,
restrain for now they-bring clouds now they-lead-them-away
ut per totum orbem pluviae dividi possint: in
so-that through the-whole world rains to-be-distributed can into
Italiam auster impellit, aquilo in Africam reicit,
Italy the-south-wind drives the-north-wind into Africa throws-them-back
etesiae non patiuntur apud nos nubes consistere; îdem
the-etesian-winds not allow among us clouds to-settle the-same
totam Indiam et Aethiopiam continuis per id tempus
all India and Ethiopia with-continuous through that time
aquis irrigant.
waters irrigate
18.3 quid, quod fruges percoqui non possent, nisi flatu
what that crops to-be-ripened not could unless by-blowing
supervacua et mixta servandis ventilarentur, nisi
superfluous-things and mixed with-things-to-be-kept were-winnowed unless
esset, quod segetem excitaret et latentem frugem ruptis
there-were what the-corn might-rouse and the-hidden grain with-burst
velamentis suis, quae folliculos agricolae vocant, adaperiret?
coverings its-own which husks farmers call might-open
18.4 quid, quod omnibus inter se populis commercium
what that to-all among themselves peoples commerce
dedit et gentes dissipatas locis miscuit? ingens naturae
it-has-given and nations scattered in-places has-mixed a-huge of-nature
beneficium, si illud in iniuriam suam non vertat hominum
benefit if that to injury its-own not should-turn of-men

furor! nunc quod de Caesare maiori vulgo dictatum
the-madness now what about Caesar the-elder commonly said
est et a Tito Livio positum, in incerto esse, utrum
has-been and by Titus Livy put in doubt to-be whether
illum magis nasci an non nasci reipublicae profuerit,
him more to-be-born or not to-be-born to-the-state benefited
dici etiam de ventis potest; adeo quicquid ex illis
to-be-said also about the-winds can so-much whatever from them
utile et necessarium est, non potest his repensari,
useful and necessary is not can by-these to-be-counterbalanced
quae in perniciem suam generis humani dementia excogitat.
which for the-destruction its-own of-the-race human madness devises
sed non ideo non sunt ista natura bona, si vitio male 18.5
but not therefore not are these by-nature good if by-fault badly
utentium nocent: non in hoc providentia ac dispositor ille
of-those-using they-harm not for this providence and arranger that
mundi deus aëra ventis exercendum dedit et illos ab
of-the-world god the-air for-the-winds to-be-exercised gave and them from
omni parte, ne quid esset situ squalidum, effudit,
every side that-not anything should-be with-stagnation squalid poured-out
ut nos classes partem freti occupaturas conpleremus
that we fleets part of-the-strait going-to-seize might-fill
milite armato et hostem in mari aut post mare quaereremus.
with-soldiery armed and the-enemy on the-sea or beyond the-sea we-might-seek
quae nos dementia exagitat et in mutuum compellit exitium? 18.6
what us madness drives and into mutual compels destruction
vela ventis damus bellum petituri et periclitamur periculi
sails to-the-winds we-give war going-to-seek and we-risk of-danger
causa, incertam fortunam experimur, vim tempestatum nulla
for-the-sake an-uncertain fortune we-try a-force of-storms by-no
ope humana superabilem et mortem sine spe sepulturae.
aid human surmountable and death without hope of-burial

18.7 non erat tanti, si ad pacem per ista veheremur:
not it-was worth-so-much if to peace through these we-were-carried
nunc cum evaserimus tot scopulos latentes et insidias
now when we-have-escaped so-many rocks hidden and the-snares
vadosi maris, cum effugerimus procellosos desuper montes,
of-the-shallow sea when we-have-fled stormy from-above mountains
per quos praeceps in navigantes ventus impingitur, cum
through which headlong onto the-sailors the-wind is-dashed when
involutos nubilo dies et nimbis ac tonitribus horridas
wrapped in-cloud days and with-rain-clouds and thunders horrid
noctes, cum turbinibus divulsa navigia — quis erit laboris
nights when by-whirlwinds torn-apart ships what will-be of-the-toil
ac metus fructus, quis nos fessos tot malis portus
and of-the-fear the-fruit what us weary with-so-many evils harbor
excipiet? bellum scilicet et obvius in litore hostis et
will-receive war of-course and meeting-us on the-shore an-enemy and
trucidandae gentes tracturaeque magna ex parte victorem et
to-be-slaughtered nations and-going-to-drag great in part the-victor and
antiquarum urbium flamma.
of-ancient cities the-flame

18.8 quid in arma cogimus populos? quid exercitus scribimus
why to arms do-we-force peoples why armies do-we-enroll
directuros aciem in mediis fluctibus? quid maria inquietamus?
going-to-draw-up a-line in mid waves why the-seas do-we-disturb
parum videlicet ad mortes nostras terra late patet. nimis
too-little evidently for deaths our the-earth widely extends too
delicate fortuna nos tractat, nimis dura dedit nobis
delicately fortune us handles too hard she-has-given to-us
corpora, felicem valitudinem, non depopulatur nos casus
bodies happy health not ravages us chance
incurrens, emetiri cuique annos suos ex commodo
running-at to-measure-out for-each years his-own at convenience

licet et ad senectutem decurrere: itaque eamus in
it-is-allowed and to old-age to-run-down and-so let-us-go onto
pelagus et vocemus in nos fata cessantia.
the-sea and let-us-call upon ourselves the-fates delaying
miseri, quid quaeritis? mortem, quae ubique superest? petet 18.9
wretched-ones why do-you-seek death which everywhere abounds it-will-seek
illa vos et ex lectulo, sed innocentes petat; occupabit
it you even from your-little-bed but innocent may-it-seek-you it-will-seize
vos in vestra domo, sed occupet nullum molientes malum.
you in your house but may-it-seize-you no plotting evil
hoc vero quid aliud quis dixerit quam insaniam, circumferre
this truly what else would-anyone call than madness to-carry-around
pericula et ruere in ignotos, iratum sine iniuria,
dangers and to-rush upon unknown-people angry without injury
occurrentia devastantem ac ferarum more occidere quem
things-met laying-waste and of-wild-beasts in-the-manner to-kill whom
non oderis? illis tamen in ultionem aut ex fame morsus est:
not you-hate to-them yet for vengeance or from hunger the-bite is
nos sine ulla parsimonia nostri alienique sanguinis movemus
we without any sparing of-our and-of-others' blood move
manum et navigia deducimus, salutem committimus fluctibus,
a-hand and ships launch safety we-entrust to-the-waves
secundos optamus ventos, quorum felicitas est ad bella perferri.
favorable we-wish winds whose good-fortune is to wars to-be-carried
quousque nos mala nostra rapuerunt? parum est intra orbem 18.10
how-far us evils our have-snatched too-little it-is within the-circle
suum furere: sic Persarum rex stolidissimus in Graeciam
its-own to-rage so of-the-Persians the-king most-stupid into Greece
traiciet, quam exercitus non vincet, cum impleverit. sic
will-cross which the-army not will-conquer though it-has-filled-it so
Alexander ulterior Bactris et Indis volet quaeretque,
Alexander farther than-the-Bactrians and the-Indians will-wish and-will-ask

quid sit ultra magnum mare, et indignabitur esse aliquid
what there-be beyond the-great sea and will-be-indignant to-be something
ultimum sibi. sic Crassum avaritia Parthis dabit,
last for-himself so Crassus avarice to-the-Parthians will-give
non horrebit revocantis diras tribuni, non tempestates
not he-will-shudder-at of-the-recalling the-curses tribune not the-storms
longissimi maris, non circa Euphratem praesaga fulmina
of-the-longest sea not around the-Euphrates the-presaging thunderbolts
et deos resistentes: per hominum et deorum iras ad
and the-gods resisting through of-men and of-gods the-angers to
aurum ibitur.
gold one-will-go

18.11 ergo non immerito quis dixerit rerum naturam melius
therefore not undeservedly one might-say of-things nature better
acturam fuisse nobiscum, si ventos flare vetuisset et
going-to-deal to-have-been with-us if the-winds to-blow it-had-forbidden and
inhibito discursu furentium in sua quemque terra stare
checked the-running-about of-the-raging on its-own each land to-stand
iussisset: si nihil aliud, certe suo quisque tantum ac
had-ordered if nothing else certainly by-his-own each only and
suorum malo nasceretur: nunc parum mihi domestica,
by-his-own-people's evil would-be-born now too-little to-me domestic-evils
externis quoque laborandum est.
by-foreign also to-labor it-is

18.12 nulla terra tam longe remota est, quae non emittere aliquod
no land so far removed is which not to-send-out some
suum malum possit: unde scio, an nunc aliquis magnae
its-own evil could whence do-I-know whether now some of-a-great
gentis in abdito dominus, fortunae indulgentia tumens, non
nation in hiding master by-fortune's indulgence swelling not
contineat intra terminos arma, an paret classes ignota
may-keep within bounds his-arms or may-prepare fleets unknown-things

moliens? unde scio, hic mihi an ille ventus bellum
contriving whence do-I-know this to-me or that wind war
invehat? magna pars erat pacis humanae maria praecludi.
may-bring-in a-great part it-was of-peace human the-seas to-be-closed
non tamen, ut paulo ante dicebam, queri possumus de 18.13
not yet as a-little before I-was-saying to-complain we-can about
auctore nostri deo, si beneficia eius corrupimus et, ut essent
the-author of-us god if the-benefits his we-have-corrupted and that they-might-be
contraria, effecimus. dedit ille ventos ad custodiendam
contrary we-have-brought-about gave he winds for guarding
caeli terrarumque temperiem, ad evocandas supprimendasque
of-the-sky and-of-the-lands the-temperature for calling-forth and-suppressing
aquas, ad alendos satorum atque arborum fructus, quos ad
waters for nourishing of-crops and of-trees the-fruits which to
maturitatem cum aliis causis adducit ipsa iactatio attrahens
maturity with other causes brings the-very tossing drawing
cibum in summa et ne torpeant permovens.
nourishment to the-top and that-not they-grow-torpid moving-them
dedit ventos ad ulteriora noscenda: fuisset enim 18.14
he-gave winds for farther-things to-be-known would-have-been for
imperitum animal et sine magna experientia rerum homo,
an-ignorant animal and without great experience of-things man
si circumscriberetur natalis soli fine. dedit ventos,
if he-were-bounded of-his-native soil by-the-boundary he-gave winds
ut commoda cuiusque regionis fierent communia, non ut
that the-advantages of-each region might-become common not that
legiones equitemque gestarent nec ut perniciosa gentium
legions and-cavalry they-might-carry nor that destructive of-nations
arma transveherent.
arms they-might-transport

18.15 si beneficia naturae utentium pravitate perpendimus, nihil
if the-benefits of-nature by-the-users' depravity we-weigh nothing
non nostro malo accepimus: cui videre expedit, cui
not to-our harm have-we-received to-whom to-see is-expedient to-whom
loqui? cui non vita tormentum est? nihil invenies tam
to-speak to-whom not life a-torment is nothing will-you-find so
manifestae utilitatis, quod non in contrarium transeat culpa.
of-manifest usefulness which not into the-contrary passes by-fault
sic ventos quoque natura bono futuros invenerat: ipsi
so the-winds also nature for-good going-to-be had-found we-ourselves
illos contrarios fecimus.
them contrary have-made

18.16 'omnes in aliquod nos malum ducunt.' non eadem est his et
all into some us evil lead not the-same is for-these and
illis causa solvendi, sed iusta nulli; diversis enim irritamentis
for-those the-cause of-setting-sail but just for-none different for by-incitements
ad temptandum mare impellimur, utique alicui vitio navigatur.
to trying the-sea we-are-driven assuredly to-some vice one-sails
egregie Plato dicit, qui nobis circa exitum iam testium loco
excellently Plato says who to-us around the-end already of-witnesses in-the-place
dandus est, minima esse, quae homines emant vita.
to-be-given is smallest to-be the-things-which men buy with-life
immo, Lucili karissime, si bene illorum furorem aestimaveris, id
nay Lucilius dearest if well their madness you-have-judged that
est nostrum (in eadem enim turba volutamur), magis ridebis,
is ours in the-same for crowd we-are-rolled more you-will-laugh
cum cogitaveris vitae parari, in quae vita consumitur.
when you-have-thought for-life to-be-procured in which life is-consumed

BOOK VI

I · THE EARTHQUAKE IN CAMPANIA

On the Nones of February, in the consulship of Regulus and Verginius, an earthquake struck Pompeii and its region in winter, when such dangers were thought absent: part of Herculaneum fell, Nuceria and Naples suffered, a flock of six hundred sheep died, statues split, and some went mad. What refuge is there if the earth itself, the one fixed thing, shakes? Yet death is the same under one stone or a whole mountain; no land is exempt, as Tyre, Asia's twelve cities, and Achaea show, and nothing we stand on is stable.

Pompeios, celebrem Campaniae urbem, in quam ab 1.1
Pompeii a-famous of-Campania city into which from
altera parte Surrentinum Stabianumque litus, ab altera
one side the-Surrentine and-Stabian shore from the-other
Herculanense conveniunt et mare ex aperto reductum
the-Herculanean meet and the-sea from the-open drawn-back
amoeno sinu cingunt, consedisse terrae motu vexatis
with-a-pleasant bay encircle to-have-sunk of-the-earth by-a-quake shaken
quaecumque adiacebant regionibus, Lucili virorum optime,
whatever lay-near regions Lucilius of-men best
audivimus, et quidem hibernis diebus, quos vacare a tali
we-have-heard and indeed on-winter days which to-be-free from such
periculo maiores nostri solebant promittere.
danger ancestors our were-wont to-promise
Nonis Februariis hic fuit motus Regulo et Verginio 1.2
On-the-Nones of-February this was the-quake with-Regulus and Verginius
consulibus, qui Campaniam, numquam securam huius mali,
consuls which Campania never secure from-this evil
indemnem tamen et totiens defunctam metu, magna strage
unharmed yet and so-often having-escaped with-fear with-great slaughter

vastavit: nam et Herculanensis oppidi pars ruit dubieque
laid-waste for both of-the-Herculanean town part fell and-doubtfully
stant etiam quae relicta sunt, et Nucerinorum colonia
stand even the-parts-which left have-been and of-the-Nucerians the-colony
ut sine clade ita non sine querela est; Neapolis quoque
as without disaster so not without complaint is Naples also
privatim multa, publice nihil amisit leniter ingenti malo
privately many-things publicly nothing has-lost lightly by-the-huge evil
perstricta, villae vero prorutae, passim sine iniuria tremuere.
grazed villas indeed overthrown everywhere without injury trembled
1.3 adiciuntur his illa: sexcentarum ovium gregem
are-added to-these those-things of-six-hundred sheep a-flock
exanimatum et divisas statuas, motae post haec
killed and split statues with-disordered after these-things
mentis aliquos atque impotentes sui errasse. quorum
mind some and not-masters of-themselves to-have-wandered of-which
ut causas excutiamus, et propositi operis contextus exigit
that the-causes we-may-examine both of-the-proposed work the-texture demands
et ipse in hoc tempus congruens casus.
and itself into this time coinciding the-chance
1.4 quaerenda sunt trepidis solacia et demendus ingens timor.
to-be-sought are for-the-frightened comforts and to-be-removed the-huge fear
quid enim cuiquam satis tutum videri potest, si mundus
what for to-anyone enough safe to-seem can if the-world
ipse concutitur et partes eius solidissimae labant? si quod
itself is-shaken and parts its most-solid totter if what
unum immobile est in illo fixumque, ut cuncta in se
alone immobile is in it and-fixed so-that all-things on itself
intenta sustineat, fluctuatur, si quod proprium habet terra
bent it-may-sustain fluctuates if what as-its-own has the-earth
perdidit, stare: ubi tandem resident metus nostri? quod
it-has-lost to-stand where at-last will-settle fears our what

corpora receptaculum invenient, quo sollicita confugient, si
bodies a-refuge will-find whither anxious will-they-flee if
ab imo metus nascitur et funditus trahitur?
from the-bottom fear is-born and from-the-foundations is-drawn
consternatio omnium est, ubi tecta crepuerunt et ruina 1.5
consternation of-all there-is when the-roofs have-creaked and collapse
signum dedit. tunc praeceps quisque se proripit et
a-signal has-given then headlong each himself rushes-forth and
penates suos deserit ac se publico credit: quam
household-gods his-own deserts and himself to-the-public entrusts what
latebram prospicimus, quod auxilium, si orbis ipse ruinas
hiding-place do-we-look-for what help if the-world itself ruins
agitat, si hoc, quod nos tuetur ac sustinet, supra quod
stirs if this which us protects and sustains above which
urbes sitae sunt, quod fundamentum quidam orbis esse
cities placed are which the-foundation some of-the-world to-be
dixerunt, discedit ac titubat?
have-said departs and totters
quid tibi esse non dico auxilii sed solacii potest, ubi timor 1.6
what for-you to-be not I-say of-help but of-comfort can when fear
fugam perdidit? quid est, inquam, satis munitum, quid ad
flight has-lost what is I-say enough fortified what for
tutelam alterius ac sui firmum? hostem muro repellam,
the-protection of-another and of-oneself firm an-enemy with-a-wall I-shall-repel
et praeruptae altitudinis castella vel magnos exercitus
and of-sheer height forts even great armies
difficultate aditus morabuntur, a tempestate nos vindicat
by-the-difficulty of-approach will-delay from the-storm us rescues
portus, nimborum vim effusam et sine fine cadentes aquas
a-harbor of-rain-clouds the-force poured-out and without end falling waters
tecta propellunt, fugientes non sequitur incendium, adversus
roofs ward-off fugitives not follows fire against

tonitruum et minas caeli subterraneae domus et defossi in
thunder and the-threats of-the-sky underground houses and dug into
altum specus remedia sunt (ignis ille caelestis non transverberat
the-depth caves remedies are the-fire that heavenly not pierces
terram sed exiguo eius obiectu retunditur), in pestilentia
the-earth but by-a-small of-it interposition it-is-blunted in pestilence
mutare sedes licet — nullum malum sine effugio est.
to-change seats it-is-allowed no evil without escape is
1.7 numquam fulmina populos perusserunt; pestilens caelum
never thunderbolts peoples have-burnt-up a-pestilent sky
exhausit urbes, non abstulit: hoc malum latissime patet
has-drained cities not taken-away this evil most-widely extends
inevitabile, avidum, publice noxium. non enim domos
inevitable greedy publicly harmful not for houses
solum aut familias aut urbes singulas haurit: gentes totas
only or families or cities single it-swallows nations whole
regionesque submergit et modo ruinis operit, modo in
and-regions it-submerges and now with-ruins it-covers now into
altam voraginem condit ac ne id quidem relinquit, ex quo
a-deep chasm hides and not that even does-it-leave from which
appareat, quod non est saltem fuisse, sed supra nobilissimas
may-appear what not is at-least to-have-been but above most-noble
urbes sine ullo vestigio prioris habitus solum extenditur.
cities without any trace of-former condition the-ground is-spread
1.8 nec desunt, qui hoc genus mortis magis timeant,
nor are-there-lacking those-who this kind of-death more fear
quo in abruptum cum sedibus suis eunt et e
in-which into the-abyss with seats their-own they-go and from
vivorum numero vivi auferuntur, tamquam non omne fatum
of-the-living the-number alive are-carried-off as-if not every fate
ad eundem terminum veniat. hoc habet inter cetera
to the-same end may-come this has among the-other-things

iustitiae suae natura praecipuum, quod cum ad exitum
of-justice her-own nature as-pre-eminent that when to the-end
ventum est, omnes in aequo sumus.
come it-has all on a-level we-are
nihil itaque interest, utrum me lapis unus elidat, an monte 1.9
nothing and-so it-matters whether me stone one crushes or by-a-mountain
toto premar; utrum supra me domus unius onus veniat
whole I-am-pressed whether upon me of-a-house one the-burden comes
et sub exiguo eius tumulo ac pulvere exspirem, an totus
and under the-small of-it mound and dust I-breathe-out or whole
caput meum terrarum orbis abscondat; in luce hunc et in
head my of-the-lands the-circle hides in light this and in
aperto spiritum reddam an in vasto terrarum dehiscentium
the-open breath I-give-back or in the-vast of-lands gaping
sinu, solus in illud profundum an cum magno comitatu
bosom alone into that depth or with a-great retinue
populorum concadentium ferar; nihil interest mea, quantus
of-peoples falling-together I-am-borne nothing it-matters to-me how-great
circa mortem meam tumultus sit: ipsa ubique tantundem est.
around death my the-tumult be it-itself everywhere just-as-much is
proinde magnum sumamus animum adversus istam cladem, 1.10
accordingly great let-us-take courage against that disaster
quae nec evitari nec provideri potest, desinamusque
which neither to-be-avoided nor to-be-foreseen can and-let-us-cease
audire istos, qui Campaniae renuntiaverunt quique post hunc
to-hear those who to-Campania have-renounced and-who after this
casum emigraverunt negantque ipsos umquam in illam
chance have-emigrated and-deny themselves ever into that
regionem accessuros: quis enim illis promittit melioribus
region going-to-come who for to-them promises on-better
fundamentis hoc aut illud solum stare?
foundations this or that soil to-stand

1.11 omnia eiusdem sortis sunt et, si nondum mota, tamen mobilia:
all-things of-the-same lot are and if not-yet moved yet movable
hunc fortasse, in quo securius consistitis, locum haec nox aut
this perhaps in which more-securely you-stand place this night or
hic ante noctem dies scindet. unde scis, an non melior
this before night day will-split whence do-you-know whether not better
eorum locorum condicio sit, in quibus iam vires suas fortuna
of-those places the-condition be in which already strength her-own fortune
consumpsit et quae in futurum ruina sua fulta sunt?
has-consumed and which for the-future by-ruin their-own propped are
1.12 erramus enim, si ullam terrarum partem exceptam
we-err for if any of-the-lands part excepted
immunemque ab hoc periculo credimus: omnes sub eadem
and-immune from this danger we-believe all under the-same
iacent lege, nihil ita, ut immobile esset, natura concepit;
lie law nothing so that immobile it-should-be nature has-conceived
alia temporibus aliis cadunt, et quemadmodum in
some-things at-times other fall and as in
urbibus magnis nunc haec domus nunc illa suspenditur, ita
cities great now this house now that is-propped so
in hoc orbe terrarum nunc haec pars facit vitium nunc illa.
in this circle of-the-lands now this part makes a-defect now that
1.13 Tyros aliquando infamis ruinis fuit, Asia XII urbes simul
Tyre once notorious for-collapses was Asia twelve cities at-once
perdidit; anno priore Achaiam et Macedoniam, quaecumque
lost in-the-year before Achaea and Macedonia whatever
est ista vis mali, quae incurrit, nunc Campaniam laesit:
is that force of-evil which has-run-upon now Campania it-has-harmed
circumit fatum et, si quid diu praeterît, repetit.
goes-around fate and if anything long it-has-passed-over it-seeks-again

quaedam rarius sollicitat, saepius quaedam: nihil immune
some-things more-rarely it-disturbs more-often some-things nothing immune
esse et innoxium sinit.
to-be and harmless it-allows
non homines tantum, qui brevis et caduca res nascimur 1.14
not men only who a-brief and fleeting thing are-born
— urbes oraeque terrarum et litora et ipsum mare
cities and-coasts of-the-lands and shores and the-very sea
in servitutem fati venit. nos tamen nobis permansura
into the-servitude of-fate comes we yet to-ourselves going-to-remain
promittimus bona fortunae, et felicitatem, cuius ex omnibus
promise the-goods of-fortune and happiness of-which of all
rebus humanis velocissima est levitas, habituram in aliquo
things human the-swiftest is the-lightness going-to-have in something
pondus ac moram credimus;
weight and duration we-believe
et perpetua sibi omnia promittentibus in mentem non 1.15
and perpetual to-themselves all-things to-those-promising into the-mind not
venit, id ipsum, supra quod stamus, stabile non esse. neque
comes that very above which we-stand stable not to-be not
enim Campaniae istud aut Achaiae sed omnis soli vitium
for of-Campania that or of-Achaea but of-all soil the-defect
est, male cohaerere et ex causis pluribus solvi et
is badly to-cohere and from causes several to-be-dissolved and
summa manere, partibus ruere.
the-whole to-remain in-parts to-collapse

The only comfort is to hope for no safety: death comes anywhere, from a drop of phlegm as from a quake, and it is a great comfort to see that the earth too is mortal.

2.1 Quid ago? solacium adversus pericula rara promiseram: ecce
What am-I-doing comfort against dangers rare I-had-promised look
undique timenda denuntio, nego quicquam esse quietis
from-everywhere things-to-be-feared I-announce I-deny anything to-be of-quiet
aeternae, quod perire possit et perdere. ego vero hoc ipsum
eternal which to-perish can and to-destroy I indeed this very
solacii loco pono et quidem valentissimi, quando quidem
of-comfort in-the-place I-put and indeed of-the-strongest since indeed
sine remedio timor stultis est: ratio terrorem prudentibus
without remedy fear for-fools is reason terror from-the-prudent
excutit, imperitis magna fit ex desperatione securitas.
shakes-off for-the-ignorant great arises from despair security

2.2 hoc itaque generi humano dictum puta, quod illis subita
this and-so to-the-race human said suppose which to-those by-sudden
captivitate inter ignes et hostem stupentibus dictum est:
captivity amid fires and the-enemy stupefied said was

una salus victis nullam sperare salutem.
one safety for-the-conquered no to-hope-for safety

2.3 si vultis nihil timere, cogitate omnia esse metuenda;
if you-wish nothing to-fear think all-things to-be things-to-be-feared
circumspicite, quam levibus causis discutiamur: non cibus nobis
look-around by-how light causes we-are-shattered not food to-us
non umor, non vigilia non somnus sine mensura quadam
not drink not waking not sleep without measure certain

salubria sunt — iam intellegetis nugatoria esse nos et
wholesome are already you-will-understand trifling to-be us and
imbecilla corpuscula, fluida, non magna molitione perdenda.
feeble little-bodies fluid not by-great effort to-be-destroyed
‘sine dubio id summum periculi nobis est, quod tremunt
without doubt that the-greatest of-danger to-us is that tremble
terrae, quod subito dissipantur ac superposita deducunt.
the-lands that suddenly they-are-scattered and the-things-placed-above drag-down
magni se aestimat, qui fulmina et motus terrarum 2.4
greatly himself values he-who thunderbolts and quakes of-the-lands
hiatusque formidat — vult ille imbecillitatis sibi
and-chasms dreads does-he-wish he of-weakness to-himself
suae conscius timere pituitam? ita videlicet nati sumus, tam
his-own conscious to-fear phlegm so evidently born we-are so
felicia sortiti membra, in hanc magnitudinem crevimus.’
happy having-obtained limbs to this size we-have-grown
et ob hoc nisi mundi partibus motis, nisi caelum
and on-account-of this unless of-the-world the-parts moved unless the-sky
intonuerit, nisi terra subsederit, perire non possumus?
has-thundered unless the-earth has-sunk to-perish not we-can
unguiculi nos et ne totius quidem dolor sed aliqua ab 2.5
of-a-little-nail us and not of-the-whole even the-pain but some from
latere eius scissura conficit! et ego timeam terras trementes,
the-side of-it cleft finishes and I should-fear the-lands trembling
quem crassior saliva suffocat? ego extimescam emotum
whom thicker saliva suffocates I should-dread moved
sedibus suis mare, et ne aestus maiore quam solet
from-seats its-own the-sea and lest the-tide with-greater than it-is-wont
cursu plus aquarum trahens superveniat, cum quosdam
course more of-waters drawing come-over when certain

strangulaverit potio male lapsa per fauces? quam stultum
has-strangled a-drink badly slipping through the-throat how foolish
est mare horrere, cum scias stillicidio perire te posse!
it-is the-sea to-dread when you-know by-a-drop to-perish you can
2.6 nullum maius solacium est mortis quam ipsa mortalitas,
no greater comfort is of-death than itself mortality
nullum autem omnium istorum, quae extrinsecus terrent,
none however of-all those-things which from-outside terrify
quam quod innumerabilia pericula in ipso sinu sunt.
than that innumerable dangers in our-very bosom are
quid enim dementius quam ad tonitrua succidere et sub
what for more-insane than at thunders to-sink-down and under
terram correpere fulminum metu? quid stultius quam
the-earth to-creep of-thunderbolts from-fear what more-foolish than
timere nutationem terrae aut subitos montium lapsus et
to-fear the-nodding of-the-earth or sudden of-mountains collapses and
irruptiones maris extra litus eiecti, cum mors ubique
irruptions of-the-sea beyond the-shore thrown when death everywhere
praesto sit et undique occurrat nihilque sit tam exiguum,
at-hand is and from-everywhere meets and-nothing is so small
quod non in perniciem generis humani satis valeat?
which not for the-destruction of-the-race human enough avails
2.7 adeo non debent nos ista confundere, tamquam plus in
so-much not ought us these-things to-confound as-if more in
se mali habeant quam vulgaris mors, ut contra, cum
themselves of-evil they-may-have than common death that on-the-contrary since
sit necessarium e vita exire et aliquando emittere animam,
it-is necessary from life to-go-out and sometime to-send-out the-soul
maiore perire ratione iuvet. necesse est mori ubicumque,
by-a-greater to-perish means it-may-please necessary it-is to-die wherever
quandoque: stet licet ista humus et se teneat suis
sometime let-it-stand although this ground and itself hold within-its-own

finibus nec ulla iactetur iniuria, supra me quandoque erit.
bounds nor by-any be-tossed injury upon me sometime it-will-be
quid interest, ego illam mihi an ipsa se mihi imponat?
what does-it-matter I it on-myself or it itself on-me imposes
diducitur et ingenti potentia nescio cuius mali rumpitur 2.8
it-is-split and by-the-huge power I-know-not of-what evil is-burst
et me in immensam altitudinem abducit — quid porro?
and me into an-immense depth leads-away what further
mors levior in plano est? quid habeo quod querar,
death lighter on the-flat is what have-I that I-may-complain-of
si rerum natura me non vult iacere ignobili leto, si mihi
if of-things nature me not wishes to-lie by-an-ignoble death if on-me
inicit sui partem?
she-throws of-herself a-part
egregie Vagellius meus in illo inclito carmine: 'si cadendum 2.9
excellently Vagellius my in that famous poem if to-fall
est', inquit, 'e caelo cecidisse velim.' idem mihi licet
it-is he-says from the-sky to-have-fallen I-would-wish the-same to-me it-is-allowed
dicere: si cadendum est, cadam orbe concusso, non quia
to-say if to-fall it-is let-me-fall the-world shaken not because
fas est optare publicam cladem, sed quia ingens mortis
right it-is to-wish-for a-public disaster but because a-huge of-death
solacium est terram quoque videre mortalem.
comfort is the-earth also to-see mortal

Earthquakes have their own causes, not the gods'; ignorance and rarity make them terrible, so it is worth knowing the causes in order not to fear.

3.1 Illud quoque proderit praesumere animo, nihil horum deos
This also will-profit to-presume in-mind none of-these the-gods
facere, nec ira numinum aut caelum converti
to-do nor by-the-anger of-the-divinities either the-sky to-be-overturned
aut terram: suas ista causas habent nec ex imperio
or the-earth their-own these-things causes have nor at command
saeviunt sed quibusdam vitiis ut corpora nostra turbantur
do-they-rage but by-certain faults as bodies our are-disturbed
et tunc, cum facere videntur iniuriam, accipiunt.
and then when to-do they-seem injury they-receive

3.2 nobis autem ignorantibus verum omnia terribiliora sunt, utique
to-us however ignorant of-the-truth all-things more-terrible are especially
quorum metum raritas auget: levius accidunt familiaria,
those-whose fear rarity increases more-lightly befall familiar-things
ex insolito formido maior est. quare autem quicquam
from the-unaccustomed dread greater is why however anything
nobis insolitum est? quia naturam oculis, non ratione,
to-us unaccustomed is because nature with-the-eyes not with-reason
comprehendimus nec cogitamus, quid illa facere possit, sed
we-comprehend nor do-we-think what she do can but
tantum quid fecerit. damus itaque huius neglegentiae poenas
only what she-has-done we-pay and-so of-this negligence the-penalties
tamquam novis territi, cum illa non sint nova sed insolita.
as-if by-new-things terrified though they not be new but unaccustomed

quid ergo? non religionem incutit mentibus et quidem 3.3
what then not religious-awe strikes-into minds and indeed
publice, sive deficere sol visus est, sive luna, cuius
publicly whether to-fail the-sun seen has or the-moon whose
obscuratio frequentior, aut parte sui aut tota delituit?
darkening more-frequent either in-part of-itself or wholly has-hidden
longeque magis illa, actae in transversum faces et caeli
and-far more those driven in crosswise torches and of-the-sky
magna pars ardens et crinita sidera et plures solis
a-great part burning and haired stars and several of-the-sun
orbes et stellae per diem visae subitique transcursus ignium
disks and stars by day seen and-sudden crossings of-fires
multam post se lucem trahentium.
much behind them light drawing
nihil horum sine timore miramur: et cum timendi sit 3.4
none of-these without fear we-wonder-at and since of-fearing is
causa nescire, non est tanti scire, ne timeas? quanto
the-cause not-to-know not is-it worth-so-much to-know that-not you-fear how-much
satius est causas inquirere et quidem toto in hoc intentum
better it-is the-causes to-inquire-into and indeed wholly on this intent
animo: neque enim illo quicquam inveniri dignius potest,
with-mind nor for than-that anything to-be-found more-worthy can
cui se non tantum commodet sed impendat.
to-which itself not only it-may-lend but it-may-spend

What moves so great a mass, sinks and splits it, opens springs and raises islands? To know nature is the greatest reward; Seneca tries again what he wrote young.

4.1 Quaeramus ergo, quid sit, quod terram ab infimo moveat,
Let-us-ask therefore what it-may-be which the-earth from the-lowest moves
quod tanti molem ponderis pellat, quid sit illa valentius,
what so-great a-mass of-weight drives what may-be than-it stronger
quod tantum onus vi sua labefactet, cur modo tremat,
which so-great a-burden by-force its-own makes-totter why now it-trembles
modo laxata subsidat, nunc in partes divisa discedat et alias
now loosened it-sinks now into parts divided it-separates and sometimes
intervallum ruinae suae diu servet, alias cito comprimat,
the-gap of-its-ruin its-own long keeps sometimes quickly closes
nunc amnes magnitudinis notae convertat introrsum, nunc
now rivers of-size known turns inward now
novos exprimat, aperiat aliquando aquarum calentium venas,
new-ones squeezes-out opens sometimes of-waters hot veins
aliquando refrigeret, ignesque nonnumquam per aliquod
sometimes cools and-fires sometimes through some
ignotum antea montis aut rupis foramen emittat, aliquando
unknown before of-a-mountain or of-a-crag hole sends-out sometimes
notos et per saecula nobiles comprimat. mille miracula
known-ones and through ages famous suppresses a-thousand marvels
movet faciemque mutat locis et defert montes, subrigit
it-moves and-the-appearance changes for-places and brings-down mountains raises
plana, valles extuberat, novas in profundo insulas erigit:
plains valleys makes-swell new in the-deep islands raises

haec ex quibus causis accidant, digna res excuti. 4.2
these-things from what causes they-happen a-worthy thing to-be-examined
'quod', inquis, 'erit pretium operae?' quo nullum maius
what you-say will-be the-reward of-the-effort than-which none greater
est, nosse naturam. neque enim quicquam habet in se
is to-know nature not for anything has in itself
huius materiae tractatio pulchrius, cum multa habeat
of-this matter the-handling more-beautiful though many-things it-may-have
futura usui, quam quod hominem magnificentia sui
going-to-be for-use than that man by-the-magnificence of-itself
detinet nec mercede sed miraculo colitur. inspiciamus
it-holds nor for-pay but for-wonder is-it-cultivated let-us-inspect
ergo, quid sit, propter quod haec accidant: quorum
therefore what it-may-be on-account-of which these-things happen whose
adeo est mihi dulcis inspectio, ut quamvis aliquando de
so is to-me sweet the-inspection that although once about
motu terrarum volumen iuvenis ediderim, tamen
the-movement of-the-lands a-volume as-a-young-man I-have-published yet
temptare me voluerim et experiri, si aetas aliquid nobis
to-test myself I-wished and to-try if age something to-us
aut ad scientiam aut certe ad diligentiam adiecerit.
either for knowledge or certainly for diligence has-added

Some place the cause in water, some in fire, earth, or air, some in several; the old views were rough, but every later finding is owed to them.

5.1 Causam, qua terra concutitur, alii in aqua esse, alii in
The-cause by-which the-earth is-shaken some in water to-be others in
ignibus, alii in ipsa terra, alii in spiritu putaverunt, alii in
fires others in itself the-earth others in breath have-thought others in
pluribus, alii in omnibus his; quidam liquere ipsis aliquam
several others in all these certain to-be-clear to-themselves some
ex istis causam esse dixerunt, sed non liquere, quae esset.
of these cause to-be have-said but not to-be-clear which it-was
5.2 nunc singula persequar. illud ante omnia mihi dicendum est,
now single-ones I-shall-pursue this before all-things by-me to-be-said is
opiniones veteres parum exactas esse et rudes: circa verum
the-opinions old too-little exact to-be and crude around the-truth
adhuc errabatur, nova omnia erant primo temptantibus;
still one-was-wandering new all-things were at-first to-those-trying
postea eadem illa limata sunt et, si quid inventum est,
afterward the-same those-things polished were and if anything found has-been
illis nihilominus referri debet acceptum: magni animi fuit
to-them nonetheless to-be-entered ought received of-a-great mind it-was
rerum naturae latebras dimovere nec contentum exteriore
of-things of-nature the-hiding-places to-move-apart nor content with-the-outer
eius aspectu introspicere et in deorum secreta descendere. —
its aspect to-look-within and into of-the-gods the-secrets to-descend
plurimum ad inveniendum contulit, qui speravit posse reperiri.
most to finding contributed he-who hoped to-be-able to-be-found

cum excusatione itaque veteres audiendi sunt: nulla res 5.3
with excuse and-so the-ancients to-be-heard are no thing
consummata est, dum incipit; nec in hac tantum re omnium
completed is while it-begins nor in this only matter of-all
maxima atque involutissima (in qua, etiam cum multum acti
the-greatest and most-involved in which even when much done
erit, omnis tamen aetas quod agat inveniet) sed in
shall-have-been every yet age what it-may-do will-find but in
omni alio negotio longe semper a perfecto fuere principia.
every other business far always from the-perfect have-been the-beginnings

VI · THALES' SHIP OF EARTH

Thales of Miletus holds that the whole earth floats on water like a great ship and rocks when the water moves, and that new springs break out in a great quake as a tilting ship takes in water. But a floating earth would always move, and move whole, as no ship rocks by halves; quakes often bring no new water, and an earth riding on endless water would suffer a vast flood, not a trickle through a crack.

In aqua causam esse nec ab uno dictum est nec uno 6.1
In water the-cause to-be neither by one said has-it-been nor in-one
modo. Thales Milesius totam terram subiecto iudicat umore
way Thales of-Miletus the-whole earth by-underlying judges moisture
portari et innare, sive illud oceanum vocas, sive magnum
to-be-carried and to-float whether that the-ocean you-call or the-great
mare, sive alterius naturae simplicem adhuc aquam et
sea or of-another nature simple still water and
umidum elementum. 'hac', inquit, 'unda sustinetur orbis velut
moist element by-this he-says wave is-sustained the-world as-if
aliquod grande navigium et grave his aquis, quas premit.'
some great ship and heavy on-these waters which it-presses

6.2 supervacuum est reddere causas, propter quas existimat
superfluous it-is to-give the-causes on-account-of which he-thinks
gravissimam partem mundi non posse spiritu tam tenui
the-heaviest part of-the-world not can by-breath so thin
fugacique gestari, non enim nunc de situ terrarum sed
and-fleeting be-carried not for now about the-position of-the-lands but
de motu agitur. illud argumenti loco ponit, aquas
about the-movement it-is-dealt that of-a-proof in-the-place he-puts waters
esse in causa, quibus hic orbis agitetur, quod in omni
to-be in the-cause by-which this world is-agitated that in every
maiore motu erumpunt fere novi fontes (sicut in navigiis
greater movement burst-out usually new springs as in ships
quoque evenit, ut si inclinata sunt et abierunt in latus,
also it-happens that if inclined they-are and have-gone to the-side
aquam sorbeant, quae vi omni eorum onerum, quae
water they-swallow which by-the-force all of-those burdens which
vehit, si immodice depressa sunt, aut superfunditur aut
it-carries if immoderately depressed they-are either is-poured-over or
certe dextra sinistraque solito magis surgit).
certainly on-right and-left than-usual more rises

6.3 hanc opinionem falsam esse non est diu colligendum: nam
this opinion false to-be not it-is long to-be-inferred for
si terra aqua sustineretur et ea aliquando concuteretur,
if the-earth by-water were-sustained and it sometimes were-shaken
semper moveretur, nec agitari illam miraremur sed
always it-would-be-moved nor to-be-agitated that-it should-we-wonder but
manere; deinde tota concuteretur, non ex parte (numquam
to-remain then whole it-would-be-shaken not in part never
enim navis dimidia iactatur), nunc vero terrarum non
for a-ship half is-tossed now indeed of-the-lands not
universarum sed ex parte motus est: quomodo ergo
of-all but in part the-movement is how then

fieri potest, ut quod totum vehitur, totum non agitetur,
to-happen can-it that what whole is-carried whole not be-agitated
si eo, quo vehitur, agitatum est?
if that by-which it-is-carried agitated has-been
'at quare aquae erumpunt?' primum omnium saepe tremuit 6.4
but why do-waters burst-out first of-all often has-trembled
terra, et nihil umoris novi fluxit; deinde si ex hac causa
the-earth and no moisture new has-flowed then if from this cause
unda prorumperet, a lateribus terrae circumfunderetur
the-wave burst-forth on the-sides of-the-earth it-would-be-poured-around
(sicut in fluminibus ac mari videmus incidere, ut incrementum
as in rivers and the-sea we-see to-happen that the-increase
aquarum, quotiens navigia desidunt, in lateribus maxime
of-waters whenever ships sink on the-sides most
appareat); ad ultimum non tam exigua fieret, quam tu dicis,
appears to the-last not so slight it-would-be as you say
eruptio nec velut per rimam sentina subreperet, sed fieret
the-eruption nor as-if through a-crack bilge-water creep-in but there-would-be
ingens inundatio ut ex infinito liquore et ferente universa.
a-huge flood as from infinite liquid and bearing all-things

Others blame water: underground rivers and lakes may flood or eat away a mass whose fall shakes all above it, or a hidden sea may rise and fall beneath us.

7.1 Quidam motum terrarum aquae imputaverunt, sed non
Certain the-movement of-the-lands to-water have-imputed but not
ex eadem causa; 'per omnem', inquit, 'terram multa
from the-same cause through all he-says the-earth many
aquarum genera decurrunt: aliubi perpetui amnes, quorum
of-waters kinds run-down in-some-places perpetual rivers whose
navigabilis etiam sine adiutorio imbrium magnitudo est: hinc
navigable even without the-help of-showers size is hence
Nilus per aestatem ingentes aquas invehit; hinc, qui
the-Nile through the-summer huge waters brings-in hence the-one-which
medius inter pacata et hostilia fluit, Danuvius ac Rhenus,
midway between pacified and hostile-lands flows the-Danube and the-Rhine
alter Sarmaticos impetus cohibens et Europam Asiamque
the-one Sarmatian attacks restraining and Europe and-Asia
disterminans, alter Germanos, avidam belli gentem, repellens.
dividing the-other the-Germans greedy of-war a-nation repelling
7.2 adice nunc patentissimos lacus et stagna populis inter se
add now widest lakes and pools by-peoples among themselves
ignotis circumdata et ineluctabiles navigio paludes, ne ipsis
unknown surrounded and inescapable by-boat marshes not to-those
quidem inter se pervias, quibus incoluntur; deinde
even among themselves passable by-whom they-are-inhabited then
tot fontes, tot capita fluminum subitos et ex occulto
so-many springs so-many sources of-rivers sudden and from hiding

amnes vomentia, tot deinde ad tempus collectos torrentium
rivers vomiting so-many then for a-time collected of-torrents
impetus, quorum vires quam repentinae tam breves.
onrushes whose strengths as sudden so brief
omnis aquarum et intra terram natura faciesque est: illic 7.3
all of-waters also within the-earth the-nature and-appearance is there
quoque aliae vasto cursu deferuntur et in praeceps
also some with-vast course are-carried-down and into headlong-places
volutae cadunt, aliae languidiores in vadis refunduntur et
rolled fall others more-sluggish in shallows are-poured-back and
leniter ac quiete fluunt; quis autem neget vastis illas
gently and quietly flow who however would-deny in-vast them
receptaculis concipi et cessare multis inertes locis? non
receptacles to-be-conceived and to-rest in-many inert places not
est diu probandum ibi multas aquas esse, ubi omnes sunt;
it-is long to-be-proved there many waters to-be where all are
neque enim sufficeret tellus ad tot flumina edenda, nisi
nor for would-suffice the-earth for so-many rivers producing unless
ex reposito multoque funderet.
from a-store and-abundant it-poured
si hoc verum est, necesse est aliquando illic amnis excrescat 7.4
if this true is necessary it-is sometimes there a-river overflows
et relictis ripis violentus in obstantia incurrat: sic
and leaving its-banks violent against obstacles runs so
fiet motus alicuius partis, in quam flumen impetum
will-arise a-movement of-some part into which the-river an-impulse
dedit et quam, donec decrescat, verberabit. potest fieri,
has-given and which until it-decreases it-will-beat can to-happen
ut aliquam regionem rivus affluens exedat ac sic trahat
that some region a-stream flowing-in eats-away and so draws
aliquam molem, qua lapsa superposita quatiantur.
some mass which collapsed the-things-placed-above are-shaken

7.5 iam vero nimis oculis se permittit nec illos scit
now indeed too-much to-the-eyes itself entrusts nor them knows-how
producere ultra animus, qui non credit esse in abdito
to-lead-forth beyond the-mind which not believes to-be in the-hidden
terrae sinus maris vasti. nec enim video, quid prohibeat
of-the-earth the-bosom of-a-sea vast nor for do-I-see what forbids
aut obstet, quo minus habeat aliquod etiam in abdito litus
or hinders so-that less it-has some also in hiding shore
et per occultos aditus receptum mare, quod illic quoque
and through hidden approaches received sea which there also
tantundem loci teneat aut fortassis hoc amplius, quod
just-as-much of-space holds or perhaps this more because
superiora cum tot animalibus erant dividenda: abstrusa
the-upper-regions with so-many animals were to-be-divided hidden
enim et sine possessore deserta liberius undis vacant.
for and without possessor deserted-places more-freely for-the-waves are-free
7.6 quas quid vetat illic fluctuare et ventis, quos omne
which what forbids there to-fluctuate and by-winds which every
intervallum terrarum et omnis aër creat, impelli? potest
interval of-the-lands and all air creates to-be-driven can
ergo maior solito exorta tempestas aliquam partem
therefore greater than-usual arisen a-storm some part
terrarum impulsam vehementius commovere. nam apud nos
of-the-lands driven more-violently shake for among us
quoque multa, quae procul a mari fuerant, subito eius
also many-things which far from the-sea had-been suddenly by-its
accessu vapulaverunt et villas in prospectu collocatas fluctus
approach have-been-beaten and villas in view placed the-wave
reliquit, qui longe audiebatur invasit; illic quoque potest
left which far-off was-heard invaded there also can

recedere ac resurgere pelagus infernum: quorum neutrum
recede and rise-again the-sea infernal of-which neither
fit sine motu superstantium.'
happens without movement of-the-things-standing-above

VIII · THE SEARCH FOR THE NILE'S SOURCE

Hidden rivers and seas are easy to believe: the Tigris vanishes and reappears undiminished, the Alpheus sinks in Achaea and rises as Arethusa in Sicily, and one theory makes the Nile's flood rise from the earth. Seneca heard two centurions Nero sent to find the Nile's source tell how, helped by the Ethiopian king, they reached boundless marshes no boat could cross and saw two rocks pouring out a great river. Whatever it is, it rises from a vast underground store.

Non quidem existimo diu te haesitaturum, an credas 8.1
Not indeed do-I-think long you going-to-hesitate whether you-should-believe
esse subterraneos amnes et mare absconditum: unde enim
to-be subterranean rivers and a-sea hidden whence for
ista prorepunt, unde ad nos veniunt, nisi quod origo
those creep-forth whence to us do-they-come unless that the-origin
umoris inclusa est?
of-moisture shut-in is
age, cum vides interruptum Tigrin in medio itinere 8.2
come when you-see interrupted the-Tigris in the-middle of-its-journey
siccari et non universum averti, sed paulatim non
to-be-dried and not whole to-be-diverted but gradually not
apparentibus damnis minui primum, deinde consumi,
appearing losses to-be-diminished first then to-be-consumed
quo illum putas abire nisi in obscura terrarum,
where it do-you-think to-go-away unless into the-dark-parts of-the-earth
utique cum videas emergere iterum non minorem eo,
especially when you-see-it to-emerge again not smaller than-that

qui prior fluxerat? quid, cum vides Alpheon, celebratum
which before had-flowed what when you-see the-Alpheus celebrated
poetis, in Achaia mergi et in Sicilia rursus traiecto mari
by-poets in Achaea to-be-sunk and in Sicily again crossed the-sea
effundere amoenissimum fontem Arethusam?
to-pour-out the-most-pleasant spring Arethusa

8.3 nescis autem inter opiniones, quibus enarratur Nili
do-you-not-know however among the-opinions by-which is-explained the-Nile's
aestiva inundatio, et hanc esse, a terra illum erumpere
summer flood also this to-be from the-earth it to-burst-out
et augeri non supernis aquis sed ex intimo redditis?
and to-be-increased not by-upper waters but from the-innermost returned
ego quidem centuriones duos, quos Nero Caesar, ut
I indeed centurions two whom Nero Caesar as
aliarum virtutum ita veritatis in primis amantissimus, ad
of-other virtues so of-truth among the-first most-loving for
investigandum caput Nili miserat, audivi narrantes longum
investigating the-source of-the-Nile had-sent heard telling a-long
illos iter peregisse, cum a rege Aethiopiae instructi auxilio
they journey to-have-completed when by the-king of-Ethiopia furnished with-help
commendatique proximis regibus penetrassent ad ulteriora:
and-commended to-the-nearest kings they-had-penetrated to the-farther-parts

8.4 'quidem†', aiebant, 'pervenimus ad immensas paludes, quarum
indeed they-said we-came to immense marshes whose
exitum nec incolae noverant nec sperare quisquam
outlet neither the-inhabitants knew nor to-hope-for anyone
potest: ita implicatae aquis herbae sunt et aquae nec
can so entangled with-the-waters the-plants are and the-waters neither
pediti eluctabiles nec navigio, quod nisi parvum et
for-one-on-foot to-be-struggled-through nor for-a-boat which unless small and

unius capax limosa et obsita palus non fert. ibi', inquit,
of-one capable the-muddy and overgrown marsh not bears there he-says
'vidimus duas petras, ex quibus ingens vis fluminis excidebat.'
we-saw two rocks from which a-huge force of-river fell
sed sive caput illa sive accessio est Nili, sive tunc nascitur 8.5
but whether the-source that or an-addition is of-the-Nile or then it-is-born
sive in terras ex priore recepta cursu redit: nonne tu
or into the-earth from the-former received course returns not do-you
credis illam, quicquid est, ex magno terrarum lacu ascendere?
believe it whatever it-is from a-great of-the-earth lake to-rise
habeant enim oportet pluribus locis sparsum umorem et
they-have for it-is-necessary in-many places scattered moisture and
in imo coactum, ut eructare tanto impetu possint.
in the-depth compressed so-that to-belch-out with-so-great impetus they-can

IX · FIRE AS THE CAUSE

Anaxagoras and others blame fire: breath below bursts thick air as clouds are burst above, and the fire struck out rushes at whatever blocks it until it escapes. Others think fires burning underground eat away supports, so that what stood on them shakes and falls, opening chasms, as the roofs fall in a burning city once the beams are consumed.

Ignem causam motus quidam iudicant, imprimis 9.1
Fire the-cause of-the-movement certain judge especially
Anaxagoras, qui existimat simili paene ex causa et aëra
Anaxagoras who thinks similar almost from cause both the-air
concuti et terram: cum in inferiore parte spiritus crassum
to-be-shaken and the-earth when in the-lower part breath dense
aëra et in nubes coactum eadem vi, qua apud nos
air and into clouds compressed by-the-same force with-which among us

quoque nubila frangi solent, rupit et ignis ex hoc
also clouds to-be-broken are-wont has-burst and fire from this
collisu nubium cursuque elisi aëris emicuit, hic
collision of-clouds and-the-course of-squeezed-out air has-flashed-out this
ipse in obvia incurrit exitum quaerens ac divellit
itself against things-in-its-way runs an-exit seeking and tears-apart
repugnantia, donec per angustum aut nactus est viam
resisting-things until through a-narrow-place either obtained it-has a-way
exeundi ad caelum aut vi et iniuria fecit.
of-going-out to the-sky or by-force and injury has-made-one

9.2 alii in igne causam quidem esse, sed non ob hoc
others in fire the-cause indeed to-be but not on-account-of this
iudicant, sed quia pluribus obrutus locis ardeat et proxima
judge but because in-many buried places it-burns and the-nearest
quaeque consumat: quae si quando exesa ceciderint,
each consumes which if ever eaten-away they-have-fallen
tunc sequi motum earum partium, quae subiectis
then to-follow the-movement of-those parts which by-their-underlying
adminiculis destitutae labant, donec corruerunt nullo
props deserted totter until they-have-collapsed nothing
occurrente, quod onus exciperet; tunc chasmata, tunc
meeting-them which the-burden might-catch then chasms then
hiatus vasti aperiuntur, aut, cum diu dubitaverunt, super
gapings vast are-opened or when long they-have-hesitated upon
ea se, quae supersunt stantque, componunt.
those themselves which remain and-stand they-settle

9.3 hoc apud nos quoque videmus accidere, quotiens incendio
this among us also we-see to-happen whenever by-fire
laborat pars civitatis: cum exustae trabes sunt aut corrupta
labors a-part of-the-city when burnt the-beams are or damaged
quae superioribus firmamentum dabant, tunc diu
the-things-which to-the-upper-parts support gave then long

agitata fastigia concidunt et tam diu deferuntur atque
shaken the-roofs fall and so long are-carried-down and
incerta sunt, donec in solido resederunt.
uncertain are until on solid-ground they-have-settled

X · ANAXIMENES: THE EARTH DECAYS

Anaximenes says the earth moves itself: parts of it fall, loosened by water, eaten by fire, or shaken out by breath, and even without these, old age wears down the strongest things, as old buildings fall unstruck. The falling parts shake what lies above as they break away, rebound like a ball when they land, or stir the neighboring ground with the wave they raise in standing water.

Anaximenes ait terram ipsam sibi causam esse motus, 10.1
Anaximenes says the-earth itself to-itself the-cause to-be of-movement
nec extrinsecus incurrere quod illam impellat, sed intra
nor from-outside to-run-in what it may-drive but within
ipsam et ex ipsa: quasdam enim partes eius decidere,
itself and from itself certain for parts of-it to-fall-down
quas aut umor resolverit aut ignis exederit aut spiritus
which either moisture has-loosened or fire has-eaten-away or of-breath
violentia excusserit. sed his quoque cessantibus non deesse,
the-violence has-shaken-out but these also ceasing not to-be-lacking
propter quod aliquid abscedat aut revellatur; nam †
on-account-of which something may-depart or be-torn-off for (corrupt)
primum omnia vetustate labuntur nec quicquam tutum a
first all-things by-age slip nor anything safe from
senectute est, haec solida quoque et magni roboris carpit:
old-age is this solid-things also and of-great strength plucks

10.2 itaque quemadmodum in aedificiis veteribus quaedam non
and-so as in buildings old certain-parts not
percussa tamen decidunt, cum plus ponderis habuere quam
struck yet fall-down when more of-weight they-have-had than
virium, ita in hoc universo terrae corpore evenit, ut
of-strength so in this whole of-the-earth body it-happens that
partes eius vetustate solvantur, solutae cadant et tremorem
the-parts of-it by-age are-loosened loosened fall and a-tremor
superioribus afferant, primum, dum abscedunt (nihil enim
to-the-upper-parts bring first while they-depart nothing for
utique magnum sine motu eius, cui haesit, absciditur);
assuredly great without movement of-that to-which it-clung is-cut-off
deinde, cum deciderunt, solido exceptae resiliunt
then when they-have-fallen by-solid-ground caught they-bounce-back
pilae more (quae cum cecidit, exultat ac saepius
of-a-ball in-the-manner which when it-has-fallen leaps-up and more-often
pellitur, totiens a solo in novum impetum missa);
is-driven so-often from the-ground into a-new impulse sent
si vero in stagna†ntibus aquis delatae sunt, hic
if indeed into stagnant waters carried-down they-have-been this
ipse casus vicina concutit fluctu, quem subitum
very fall the-neighboring-parts shakes by-the-wave which sudden
vastumque illisum ex alto pondus eiecit.
and-vast dashed from on-high the-weight has-thrown-up

Some blame fire: steam rolled up by fires burning underground strains to escape and shakes what opposes it.

Quidam ignibus quidem assignant hunc tremorem, sed 11.1
Certain to-fires indeed assign this tremor but
aliter. nam cum pluribus locis ferveant, necesse est ingentem
otherwise for since in-many places they-boil necessary it-is huge
vaporem sine exitu volvant, qui vi sua spiritum intendit
vapor without exit they-roll which by-force its-own breath stretches
et, si acrius institit, opposita diffindit, si vero
and if more-sharply it-has-pressed the-opposing-things it-splits if indeed
remissior fuit, nihil amplius quam movet. uidemus aquam
more-gentle it-has-been nothing more than it-moves we-see water
spumare igne subiecto: quod in hac aqua facit inclusa et
to-foam with-fire set-under what in this water it-does shut-in and
angusta, multo magis illum facere credamus, cum violentus
narrow much more it to-do let-us-believe when violent
ac vastus ingentes aquas excitat: tunc ille vaporatione
and vast huge waters it-stirs then that by-the-steaming
fluctuantium undarum quicquid pulsaverit, agitatur.
of-the-surging waves whatever it-has-struck is-agitated

Most authorities blame air. Archelaus: winds pour into the earth's hollows and, finding no outlet, shake it, so a calm comes before a quake.

12.1 Spiritum esse, qui moveat, et plurimis et maximis
Breath to-be what moves both to-very-many and to-the-greatest
auctoribus placet. Archelaus antiquitatis diligens ait ita:
authorities is-pleasing Archelaus of-antiquity diligent says so
'venti in concava terrarum deferuntur; deinde, ubi iam
winds into the-hollows of-the-earth are-carried then when already
omnia spatia plena sunt et in quantum aër potuit densatus
all spaces full are and in as-much-as the-air could condensed
est, is qui supervenit spiritus priorem premit et elidit
has-been that which comes-on breath the-former presses and squeezes
ac frequentibus plagis primo cogit, deinde proturbat;
and with-frequent blows first compresses then drives-out
12.2 tunc ille quaerens locum omnes angustias dimovet et
then it seeking place all narrows moves-apart and
claustra sua conatur effringere: sic evenit, ut terrae
bars its-own tries to-break-open so it-happens that the-lands
spiritu luctante et fugam quaerente moveantur. itaque cum
with-breath struggling and flight seeking are-moved and-so when
terrae motus futurus est, praecedit aëris tranquillitas
of-the-earth a-movement going-to-be is precedes of-the-air calm
et quies, videlicet quia vis spiritus, quae concitare
and quiet evidently because the-force of-breath which to-rouse
ventos solet, in inferna sede retinetur.' nunc quoque cum
winds is-wont in the-infernal seat is-held-back now also when

hic motus in Campania fuit, quamvis hiberno tempore et
this quake in Campania was although in-wintry time and
inquieto, per superiores dies caelo aër stetit. —
with-restless through the-preceding days sky the-air stood
quid ergo? numquam flante vento terra concussa est? 12.3
what then never with-blowing wind the-earth shaken has-been
'admodum raro, cum duo simul flavere venti: fieri tamen
very rarely when two at-once have-blown winds to-happen yet
et potest et solet.' quod si recipimus et constat duos
both it-can and it-is-wont but if we-accept and it-is-established two
ventos rem simul gerere, quidni accidere possit, ut alter
winds a-thing at-once to-carry-on why-not to-happen could that one
superiorem aëra agitet, alter inferum?
the-upper air stirs the-other the-lower

XIII · ARISTOTLE, THEOPHRASTUS, AND STRATO

Aristotle and Theophrastus hold that vapor rising from the earth, finding no outlet, turns back on itself and shakes what blocks it. Strato holds that cold and heat always fly from each other: in winter heat retreats underground, so wells and caves are warm, and when cold invades the caverns, the packed heat is driven out violently and heaves whatever is near. So a roar is heard before a quake, as in Vergil's bellowing ground, and while the two forces take turns the earth shakes.

In hac sententia licet ponas Aristotelem et discipulum eius 13.1
In this opinion you-may place Aristotle and the-pupil his
Theophrastum (non, ut Graecis visum est, divini, tamen et
Theophrastus not as to-the-Greeks seemed it-has divine yet both
dulcis eloquii virum et nitidi sine labore). quid utrique placeat
of-sweet eloquence a-man and polished without labor what to-each pleases
exponam: 'semper aliqua evaporatio est e terra, quae modo
I-shall-set-out always some evaporation is from the-earth which now

arida est, modo umido mixta; haec ab infimo edita et in
dry is now with-moist mixed this from the-lowest put-forth and to
quantum potuit elata, cum ulteriorem locum, in quem exeat,
as-far-as it-could raised when a-farther place into which it-may-go-out
non habet, retro fertur atque in se revolvitur; deinde rixa
not it-has back it-is-borne and into itself is-rolled then the-brawl
spiritus reciprocantis iactat obstantia et, sive interclusus
of-breath going-back-and-forth tosses obstacles and whether shut-in
sive per angusta enisus est, motum ac tumultum ciet.'
or through narrows struggled-out it-has movement and tumult it-arouses

13.2 Straton ex eadem schola est, qui hanc partem philosophiae
Strato from the-same school is who this part of-philosophy
maxime coluit et rerum naturae inquisitor fuit; huius tale
most cultivated and of-things of-nature an-inquirer was his such
decretum est: 'frigidum et calidum semper in contraria
the-doctrine is the-cold and the-hot always into opposites
abeunt, una esse non possunt: eo frigidum confluit,
go-off together to-be not they-can thither the-cold flows-together
unde vis calidi discessit, et invicem ibi calidum est,
whence the-force of-the-hot has-departed and in-turn there the-hot is
unde frigus expulsum est. hoc, quod dico, verum esse
whence cold expelled has-been this which I-say true to-be
et utrumque in contrarium agi ex hoc tibi appareat:
and each into the-contrary to-be-driven from this to-you may-appear

13.3 hiberno tempore, cum supra terram frigus est, calent putei
in-wintry time when above the-earth cold is are-warm wells
nec minus specus atque omnes sub terra recessus, quia
nor less caves and all under the-earth recesses because
illo se calor contulit superiora possidenti frigori cedens;
thither itself heat has-betaken the-upper-parts possessing to-the-cold yielding
qui, cum in inferiora pervenit et eo se quantum poterat
which when into the-lower-parts it-has-come and there itself as-much-as it-could

ingessit, quo densior, hoc validior est. ubi huic frigus
has-thrust the denser the stronger it-is when on-this cold
supervenit, cui necessario congregatus ille iam et in
comes to-which necessarily gathered that already and into
angustum pressus loco cedit,
a-narrow-space pressed from-its-place yields
idem e contrario evenit: cum vis maior frigidi illata in 13.4
the-same from the-contrary happens when a-force greater of-cold brought-in in
cavernis est, quicquid illic calidi latet, frigori cedens abit in
the-caverns has-been whatever there of-hot lurks to-the-cold yielding goes-off into
angustum et magno impetu agitur, quia non patitur utriusque
a-narrow-space and with-great impetus is-driven because not allows of-each
natura concordiam nec in uno moram. fugiens ergo et omni
the-nature concord nor in one-place delay fleeing therefore and in-every
modo cupiens excedere proxima quaeque remolitur ac iactat.'
way desiring to-go-out the-nearest each-thing it-heaves-away and tosses
ideoque antequam terra moveatur, solet mugitus audiri 13.5
and-therefore before the-earth is-moved is-wont a-bellowing to-be-heard
ventis in abdito tumultuantibus. nec enim aliter posset, ut
winds in hiding raging nor for otherwise could-it as
ait noster Vergilius,
says our Vergil

sub pedibus mugire solum et iuga celsa moveri,
under the-feet to-bellow the-ground and the-ridges lofty to-be-moved

nisi hoc esset ventorum opus.
unless this were of-winds the-work
'uices deinde huius pugnae sunt eaedem: fit calidi 13.6
the-turns then of-this fight are the-same arises of-the-hot
congregatio ac rursus eruptio, tunc frigida compescuntur
a-gathering and again an-eruption then the-cold-things are-restrained

et succedunt mox futura potentiora.' dum ergo alterna vis
and succeed soon going-to-be more-powerful while therefore alternate the-force
cursat et ultro citroque spiritus commeat, terra concutitur.
runs and hither and-thither the-breath goes-back-and-forth the-earth is-shaken

XIV · THE EARTH'S VEINS AND PULSE

Others blame air differently: the earth, like our bodies, has waters for blood and winds for breath. While healthy it stays still, as a pulse keeps its measure; when something goes wrong, the breath is struck and shakes its veins, as a sick man's pulse throbs. Not, as some say, because the earth is an animal, or it would shake whole, as a fever runs through every limb. Air from outside flows harmlessly while it has an exit; blocked, it forces a crack or rages and throws down what it meets.

14.1 Sunt qui existiment spiritu quidem et nulla alia ratione
There-are-those who think by-breath indeed and by-no other reason
tremere terram, sed ex alia causa, quam Aristoteli placuit.
to-tremble the-earth but from another cause than to-Aristotle was-pleasing
quid sit, quod ab his dicatur, audi: corpus nostrum et
what may-be what by these is-said hear body our both
sanguine irrigatur et spiritu, qui per sua itinera decurrit.
by-blood is-watered and by-breath which through its-own paths runs-down
habemus autem quaedam angustiora receptacula animae, per
we-have however certain narrower receptacles of-breath through
quae nihil amplius quam meat, quaedam patentiora, in quibus
which nothing more than it-passes certain more-open in which
colligitur et unde dividitur in partes. sic hoc totum terrarum
it-is-collected and whence it-is-divided into parts so this whole of-lands
omnium corpus et aquis, quae vicem sanguinis tenent,
all body both by-waters which the-place of-blood hold

et ventis, quos nihil aliud quis quam animam vocaverit,
and by-winds which nothing else one than breath would-call
pervium est. haec duo aliubi currunt, aliubi consistunt.
passable is these two in-some-places run in-others settle
sed quemadmodum in corpore nostro dum bona valetudo 14.2
but as in body our while good health
est, venarum quoque imperturbata mobilitas modum servat;
is of-the-veins also untroubled the-mobility measure keeps
ubi aliquid adversi est, micat crebrius et suspiria atque
when something adverse is it-throbs more-often and sighs and
anhelitus laborantis ac fessi signa sunt: ita terrae quoque,
panting of-one-laboring and weary signs are so the-lands also
dum illis positio naturalis est, inconcussae manent; cum
while to-them position natural is unshaken remain when
aliquid peccatur, tunc velut aegri corporis motus est
something goes-wrong then as-if of-a-sick body movement there-is
spiritu illo, qui modestius perfluebat, icto vehementius
by-the-breath that which more-moderately flowed-through struck more-violently
et quassante venas suas, nec (ut illi paulo ante dicebant,
and shaking veins its-own nor as those a-little before said
quibus animal placet esse terram) emisso. nisi hoc est,
to-whom an-animal it-pleases to-be the-earth sent-out unless this is
quemadmodum animal totum vexationem sentiet; neque
as an-animal whole the-disturbance will-feel nor
enim in nobis febris alias partes moderatius impellit sed
for in us a-fever some parts more-moderately drives but
per omnes pari aequalitate discurrit.
through all with-equal evenness runs-about
vide ergo, ne quid intret in illam spiritus ex 14.3
see therefore whether-not something may-enter into it breath from
circumfuso aëre, qui quamdiu habet exitum, sine iniuria
the-surrounding air which as-long-as it-has an-exit without injury

labitur; si offendit aliquid et incidit, quod viam clauderet,
glides if it-has-hit something and has-fallen-upon what the-way might-close
tunc oneratur primo infundente se a tergo aëre, deinde
then it-is-burdened first pouring itself from behind the-air then
per aliquam rimam maligne fugit et hoc acrius
through some crack grudgingly it-flees and so-much more-sharply
fertur, quo angustius. id sine pugna non potest fieri,
is-borne the narrower that without fight not can to-happen
nec pugna sine motu.
nor fight without movement

14.4 at si ne rimam quidem, per quam efflueret, invenit,
but if not a-crack even through which it-might-flow-out it-has-found
conglobatus illic furit et hoc atque illo circumagitur
massed there it-rages and this-way and that is-driven-round
aliaque deicit alia intercidit, cum tenuissimus idemque
and-some-things throws-down others cuts-off since most-thin and-likewise
fortissimus et irrepat quamvis in obstructa et quicquid
most-strong both it-creeps-in even into obstructed-places and whatever
intravit vi sua diducat ac dissipet. tunc terra
it-has-entered by-force its-own it-spreads-apart and scatters then the-earth
iactatur: aut enim datura vento locum discedit, aut
is-tossed either for going-to-give to-the-wind place it-separates or
cum dedit, in ipsam, qua illum emisit, cavernam
when it-has-given into the-very by-which it it-sent-out cavern
fundamento spoliata considit.
of-foundation stripped it-settles

Some think the earth, pierced in many places by water, torrents, and heat, lets air into its gaps; when the sea shuts it in and drives it deep, unable to go back or out, it rolls about and, straining upward as is its nature, batters the earth pressing on it.

Quidam ita existimant: terra multis locis perforata est nec 15.1
Certain thus think the-earth in-many places perforated is nor
tantum primos illos aditus habet, quos velut spiramenta
only first those approaches it-has which as-if breathing-holes
ab initio sui recepit, sed multos illi casus imposuit:
from the-beginning of-itself it-received but many on-it chance has-imposed
aliubi deduxit quicquid superne terreni erat aqua,
in-some-places has-carried-down whatever above of-earth there-was water
alia torrentes cecidere, alia aestibus magnis disrupta
other-places torrents have-cut others by-heats great burst-asunder
patuerunt. per haec intervalla intrat spiritus: quem si
have-opened through these intervals enters breath which if
inclusit mare et altius adegit nec fluctus retro abire
has-shut-in the-sea and deeper has-driven nor the-waves back to-go-away
permisit, tunc ille exitu simul redituque praecluso volutatur
has-allowed then it with-exit at-once and-return shut-off is-rolled
et, quia in incertum non potest tendere, quod illi naturale
and because toward the-uncertain not it-can tend which to-it natural
est, in sublime se intendit et terram prementem diverberat.
is into the-height itself it-stretches and the-earth pressing beats-apart

The earth is full of breath, the living kind that feeds trees, crops, and the stars themselves, so great spaces underground hold air, the most restless thing there is.

16.1 Etiamnunc dicendum est, quod plerisque auctoribus placet
Still to-be-said is what to-most authorities is-pleasing
et in quod fortasse fiet discessio. non esse terram
and into which perhaps there-will-be a-division not to-be the-earth
sine spiritu palam est: non tantum illo dico, quo
without breath clear it-is not only that I-mean by-which
se tenet ac partes sui iungit, qui inest etiam saxis
itself it-holds and parts of-itself joins which is-in even rocks
mortuisque corporibus, sed illo dico vitali et vegeto et
and-dead bodies but that I-mean vital and lively and
alente omnia. hunc nisi haberet, quomodo tot arbustis
nourishing all-things this unless it-had how to-so-many trees
spiritum infunderet non aliunde viventibus et tot satis?
breath would-it-pour not from-elsewhere living and to-so-many crops
quemadmodum tam diversas radices aliter atque aliter in
how so different roots in-one-way and in-another into
se mersas foveret, quasdam summa receptas parte, quasdam
itself sunk would-it-warm certain at-the-top received part certain
altius tractas, nisi multum haberet animae tam multa tam
deeper drawn unless much it-had of-breath so many-things so
varia generantis et haustu atque alimento sui educantis?
various begetting and by-the-draft and nourishment of-itself rearing

16.2 levibus adhuc argumentis ago: totum hoc caelum, quod
with-light still arguments I-deal whole this sky which
igneus aether, mundi summa pars, claudit, omnes hae
the-fiery ether of-the-world the-highest part encloses all these

stellae, quarum iniri non potest numerus, omnis hic
stars of-which to-be-entered not can the-number all this
caelestium coetus et, ut alia praeteream, hic tam procul
of-heavenly-bodies assembly and that others I-may-pass-over this so far
a nobis agens cursum sol, omni terrarum ambitu non
from us driving its-course the-sun all of-the-lands than-the-circuit not
semel maior, alimentum ex terreno trahunt et inter se
once greater nourishment from the-earthly draw and among themselves
partiuntur nec ullo alio scilicet quam halitu terrarum
share nor by-any other of-course than by-the-breath of-the-lands
sustinentur: hoc illis alimentum, hic pastus est.
are-they-sustained this to-them nourishment this pasture is
non posset autem tam multa tantoque se ipsa maiora 16.3
not could however so many-things and-by-so-much than itself greater
nutrire, nisi plena esset animae, quam per diem ac noctem
nourish unless full it-were of-breath which through day and night
ab omnibus partibus sui fundit; fieri enim non potest, ut
from all parts of-itself it-pours to-happen for not can that
non multum illi supersit, ex qua tantum petitur ac sumitur.
not much to-it remains from which so-much is-sought and taken
et ad tempus quidem, quod exeat, nascitur (nec enim esset
and for the-time indeed what may-go-out is-born nor for would-be
perennis illi copia suffecturi in tot caelestia spiritus,
perennial to-it the-abundance of-going-to-suffice for so-many heavenly-bodies breath
nisi invicem ista excurrerent et in aliud alia solverentur), sed
unless in-turn these ran-out and into one-another some were-dissolved but
tamen necesse est abundet ac plena sit et ex condito proferat:
yet necessary it-is it-abounds and full be and from store bring-forth
non est ergo dubium, quin multum spiritus intus lateat 16.4
not it-is therefore doubtful but-that much breath within lies-hidden
et caeca sub terra spatia aër latus obtineat. quod si
and the-blind under the-earth spaces air broad occupies but if

verum est, necesse est id saepe moveatur, quod re
true is necessary it-is that often be-moved which with-a-thing
mobilissima plenum est: numquid enim dubium esse cuiquam
most-mobile full is surely-not for doubtful to-be to-anyone
potest, quin nihil sit tam inquietum quam aër, tam
can but-that nothing is so restless as air so
versabile et agitatione gaudens?
changeable and in-agitation rejoicing

XVII · AIR BLOCKED GROWS VIOLENT

Air moves gently while unhindered; blocked, it rages, like the Araxes scorning its bridge: a river checked by rocks gathers force and sweeps them away. Breath does the same: the stronger and swifter it is, the more violently it tears through every barrier, and the ground above the struggle shakes. After a quake at Chalcis, Asclepiodotus reports, wind poured for days from a split in the earth, through the path it had made itself.

17.1 Sequitur ergo, ut naturam suam exerceat et quod semper
It-follows therefore that nature its-own it-exercises and what always
moveri vult, aliquando et alia moveat. id quando fit?
to-be-moved wishes sometimes also other-things moves that when happens
quando illi cursus interdictus est. nam quamdiu non impeditur,
when for-it the-course forbidden is for as-long-as not it-is-hindered
it placide; cum offenditur et retinetur, insanit et moras
it-goes placidly when it-is-obstructed and held-back it-goes-mad and delays
suas abripit, non aliter quam ille 'pontem indignatus Araxes':
its-own snatches-away not otherwise than that the-bridge resenting Araxes
17.2 quamdiu illi facilis et liber est alveus, primas quasque
as-long-as for-it easy and free is the-bed the-first each
aquas explicat; ubi saxa manu vel casu illata repressere
waters it-unfolds when rocks by-hand or by-chance brought-in have-checked-it

venientem, tunc impetum mora quaerit et, quo plura
coming then impetus by-delay it-seeks and the more
opposita sunt, plus invenit virium: omnis enim illa
opposed-things there-are the-more it-finds of-strength all for that
unda, quae a tergo supervenit et in se crescit, cum
water which from behind comes-on and in itself grows when
onus suum sustinere non potuit, vim ruina parat et
the-burden its-own to-sustain not could force by-collapse prepares and
prona cum ipsis, quae obiacebant, fugit. idem spiritu
headlong with the-very things-which lay-in-the-way flees the-same with-breath
fit, qui quo valentior agiliorque est, citius eripitur
happens which the stronger and-more-agile it-is the-more-quickly is-snatched
et vehementius saeptum omne disturbat: ex quo motus
and more-violently the-barrier all disturbs from which movement
fit, scilicet eius partis, sub qua pugnatum est.
arises of-course of-that part under which fought it-has-been
quod dicitur verum esse et illo probatur: saepe cum terrae 17.3
which is-said true to-be also by-that is-proved often when of-the-earth
motus fuit, si modo pars eius aliqua disrupta est, inde
a-quake there-has-been if only part of-it some burst-apart has-been thence
ventus per multos dies fluxit, ut traditur factum eo
wind through many days has-flowed as is-handed-down to-have-happened in-that
motu, quo Chalcis laboravit: id apud Asclepiodotum invenies,
quake by-which Chalcis labored that in Asclepiodotus you-will-find
auditorem Posidonii, in his ipsis Quaestionum Naturalium
the-pupil of-Posidonius in these very of-Questions Natural
Causis. invenies et apud alios auctores hiasse uno loco
Causes you-will-find also among other authors to-have-gaped in-one place
terram et inde non exiguo tempore spirasse ventum, qui
the-earth and thence not for-a-short time to-have-blown wind which
scilicet illud iter ipse sibi fecerat, per quod ferebatur.
of-course that path itself for-itself had-made through which it-was-borne

The chief cause, then, is breath, swift and restless. Harmless while it lies in empty space, driven into a narrow place it wanders, and when blocked on every side it roars round its barriers and shakes them, escaping through gaps or a new wound. No bond holds it; the poets imagined a prison for the winds, not seeing that what is shut in is no longer wind. Our bodies too tremble only when something disturbs their breath, fear, age, cold, or fever.

18.1 Maxima ergo causa est, propter quam terra moveatur,
The-greatest therefore cause is on-account-of which the-earth is-moved
spiritus natura citus et locum e loco mutans hic quamdiu
breath by-nature swift and place from place changing this as-long-as
non impellitur et in vacanti spatio latet, iacet innoxius nec
not it-is-driven and in empty space lurks lies harmless nor
circumiectis molestus est;
to-the-surrounding-things troublesome is

18.2 ubi illum extrinsecus superveniens causa sollicitat compellitque
when it from-outside coming-on a-cause disturbs and-compels
et in artum agit, si licet adhuc, cedit tantum et
and into a-narrow-space drives if it-is-allowed still it-yields only and
vagatur: ubi erepta discedendi facultas est et undique
wanders when snatched-away of-departing the-means is and from-everywhere
obsistitur, tunc 'magno cum murmure montis circum
it-is-opposed then great with roaring of-the-mountain around
claustra fremit', quae diu pulsata convellit ac iactat, eo
the-bars it-rages which long beaten it-tears-apart and tosses so-much
acrior, quo cum mora valentiore luctatus est.
sharper as with delay stronger struggled it-has

18.3 deinde cum circa perlustravit omne, quo tenebatur, nec
then when around it-has-surveyed all by-which it-was-held nor
potuit evadere, inde, quo maxime impactus est, resilit
could escape thence where most dashed it-is it-springs-back

et aut per occulta dividitur ipso terrae motu
and either through hidden-ways is-divided by-the-very of-the-earth movement
raritate facta, aut per novum vulnus emicuit: ita
porosity made or through a-new wound it-has-flashed-out so
eius non potest vis tanta cohiberi nec ventum tenet ulla
its not can force so-great be-restrained nor wind holds any
compages. solvit enim quodcumque vinculum et onus omne
structure it-loosens for whatever bond and burden every
fert secum infususque per minima laxamentum sibi
carries with-itself and-poured-in through the-smallest-spaces room for-itself
parat et indomita naturae potentia liberat se, utique cum
prepares and by-untamed of-nature power frees itself especially when
concitatus sibi ius suum vindicat.
roused for-itself right its-own it-claims
spiritus vero invicta res est: nihil erit quod 18.4
breath indeed an-unconquered thing is nothing will-there-be which

luctantes ventos tempestatesque sonoras
struggling winds and-storms resounding
imperio premat ac vinclis et carcere frenet.
by-command may-press and with-chains and prison may-curb

sine dubio poetae hunc voluerunt videri carcerem, in quo 18.5
without doubt the-poets this wished to-seem a-prison in which
sub terra clausi laterent, sed hoc non intellexerunt, nec
under the-earth shut-in they-might-lurk but this not they-understood neither
id, quod clausum est, esse adhuc ventum nec id, quod
that which shut-in is to-be still wind nor that which
ventus est, posse iam claudi. nam quod in clauso est,
wind is to-be-able now to-be-shut-in for what in a-shut-place is
quiescit et aëris statio est: omnis in fuga ventus est.
rests and of-air a-standing is all in flight wind is

18.6 etiamnunc et illud accedit his argumentis, per quod
still also that is-added to-these arguments through which
appareat motum effici spiritu, quod corpora quoque
it-may-appear movement to-be-effected by-breath that bodies also
nostra non aliter tremunt, quam si spiritum aliqua
our not otherwise tremble than if breath some
causa perturbat, cum timore contractus est, cum senectute
cause disturbs when by-fear contracted it-is when by-old-age
languescit et venis torpentibus marcet, cum frigore
it-grows-faint and with-veins torpid withers when by-cold
inhibetur aut sub accessionem cursu suo deicitur.
it-is-checked or under the-onset-of-fever from-course its-own is-thrown

18.7 nam quamdiu sine iniuria perfluit et ex more procedit,
for as-long-as without injury it-flows-through and by custom proceeds
nullus est tremor corpori: cum aliquid occurrit, quod
no is tremor to-the-body when something occurs which
inhibeat eius officium, tunc parum potens in perferendis
may-check its function then too-little powerful in carrying-through
his, quae suo vigore tendebat, deficiens concutit
those-things which by-its-own vigor it-stretched failing it-shakes
quicquid integer tulerat.
whatever whole it-had-borne

Metrodorus of Chios must be heard, since even views Seneca rejects should be stated and refuted: as a voice singing into a jar resounds through it and shakes it, the air in vast caverns underground is stirred when other air strikes it from above.

Metrodorum Chium, quia necesse est, audiamus, quod 19.1
Metrodorus of-Chios because necessary it-is let-us-hear what
vult sententiae loco dicentem. non enim permitto mihi
he-wishes of-an-opinion in-the-place saying not for I-allow myself
ne eas quidem opiniones praeterire, quas improbo, cum
not those even opinions to-pass-over which I-disapprove since
satius sit omnium copiam fieri et quae improbamus
better it-is of-all an-abundance to-be-made and which we-disapprove
damnare potius quam praeterire. quid ergo dicit?
to-condemn rather than to-pass-over what then does-he-say
'quomodo, cum in dolio cantantis vox ululat, per totum 19.2
as when in a-cask of-one-singing the-voice howls through the-whole
cum quadam discussione percurrit ac resonat et tam leviter
with a-certain shaking it-runs-through and resounds and so lightly
mota tamen circumit non sine tactu eius tumultuque,
moved yet goes-around not without touching of-that and-tumult
quo inclusa est: sic speluncarum sub terra pendentium
in-which shut-in it-is so of-caves under the-earth hanging
vastitas habet aëra suum, quem, simul alius superne
the-vastness has air its-own which as-soon-as another from-above
incidens percussit, agitat' — non aliter quam illa, de
falling-on has-struck it-stirs not otherwise than those about
quibus paulo ante rettuli, inania indito clamore sonuerunt.
which a-little before I-reported empty-things with-put-in shout have-resounded

Democritus names several causes: water collecting in hollows and striking the earth when forced back, or breaking out downhill, or soaking the ground until it sinks, and breath driving water or forcing its way. Epicurus says all these may be causes and more besides, and rebukes those who name only one, since nothing certain can be promised on matters of conjecture. He lists worn supports, struck air, falling masses, fiery breath like a thunderbolt, and winds stirring marsh waters. Yet he too ranks breath first.

20.1 Veniamus nunc ad eos, qui omnia ista, quae rettuli,
Let-us-come now to those who all those-things which I-have-reported
in causa esse dixerunt aut ex his plura. Democritus plura
in the-cause to-be have-said or of these several Democritus several
putat. ait enim motum aliquando spiritu fieri aliquando
thinks he-says for movement sometimes by-breath to-arise sometimes
aqua aliquando utroque, et id hoc modo prosequitur:
by-water sometimes by-both and that in-this way he-pursues
'aliqua pars terrae concava est, in hanc aquae magna vis
some part of-the-earth hollow is into this of-water a-great force
confluit. ex hac est aliquid tenue et ceteris liquidius.
flows-together of this is something thin and than-the-rest more-liquid
hoc, cum superveniente gravitate reiectum est, illiditur
this when by-the-supervening weight thrown-back it-has-been is-dashed
terris et illas movet, nec enim fluctuari potest sine
against-the-lands and them moves nor for to-fluctuate can-it without
motu eius, in quod impingitur.'
movement of-that against which it-is-dashed

20.2 etiamnunc quomodo de spiritu dicebamus, de aqua quoque
still as about breath we-were-saying about water also
dicendum est: 'ubi in unum locum congesta est et
to-be-said is when into one place heaped it-has-been and

capere se desiit, aliquo incumbit et primo viam pondere
to-hold itself has-ceased somewhere it-presses and first a-way by-weight
aperit, deinde impetu; nec enim exire nisi per devexum
opens then by-impetus nor for to-go-out except through a-slope
potest diu inclusa nec in directum cadere moderate aut
can-it long shut-in nor in a-straight-line fall moderately or
sine concussione eorum, per quae vel in quae cadit.
without shaking of-those through which or into which it-falls
si vero, cum iam rapi coepit, aliquo loco substitit et 20.3
if indeed when already to-be-swept it-has-begun in-some place it-has-stopped and
illa vis fluminis in se revoluta est, in continentem terram
that force of-the-river into itself rolled-back has-been against the-adjoining earth
repellitur et illam, qua parte maxime pendet, exagitat.
it-is-driven-back and it in-which part most it-hangs it-shakes
praeterea aliquando madefacta tellus liquore penitus accepto
besides sometimes soaked the-earth with-liquid deep-within received
altius sedit et fundus ipse vitiatur: tunc ea pars premitur,
deeper has-settled and the-bottom itself is-spoiled then that part is-pressed
in quam maxime aquarum vergentium pondus inclinat.
toward which most of-the-waters verging the-weight inclines
spiritus vero nonnumquam impellit undas et, si vehementius 20.4
breath indeed sometimes drives the-waves and if more-violently
institit, eam scilicet partem terrae movet, in quam coactas
it-has-pressed that of-course part of-the-earth moves into which compressed
aquas intulit; nonnumquam in terrena itinera coniectus
waters it-has-brought sometimes into earthy paths thrown
et exitum quaerens movet omnia. terra autem penetrabilis
and an-exit seeking moves all-things the-earth however penetrable
ventis et spiritus subtilior est, quam ut possit excludi,
by-winds and breath more-subtle is than that it-can be-shut-out
vehementior, quam ut sustineri concitatus ac rapidus.'
more-violent than that be-sustained roused and swift

20.5 Omnes istas esse posse causas Epicurus ait pluresque
All these to-be can causes Epicurus says and-several
alias temptat et illos, qui aliquid unum ex istis esse
others he-tries and those who something one of these to-be
affirmaverunt, corripit, cum sit arduum de his, quae
have-affirmed he-rebukes since it-is arduous about those-things which
coniectura assequenda sunt, aliquid certi promittere.
by-conjecture to-be-attained are something certain to-promise

20.6 'ergo', ut ait, 'potest terram movere aqua, si partes aliquas
therefore as he-says can the-earth move water if parts some
eluit et adrosit, quibus desiit posse extenuatis
it-has-washed-away and gnawed by-which it-has-ceased to-be-able thinned
sustineri, quod integris ferebatur. potest terram movere
to-be-sustained what by-whole-ones was-borne can the-earth move
impressio spiritus: fortasse in ima aër extrinsecus
the-pressure of-breath perhaps in the-lowest-parts the-air from-outside
alio intrante aëre agitatur, fortasse aliqua parte subito
by-other entering air is-agitated perhaps by-some part suddenly
decidente percutitur et inde motum capit. fortasse aliqua
falling it-is-struck and thence movement takes perhaps some
pars terrae velut columnis quibusdam ac pilis sustinetur,
part of-the-earth as-if by-columns certain and pillars is-sustained
quibus vitiatis ac recedentibus tremit pondus impositum.
which damaged and receding trembles the-weight placed-upon

20.7 fortasse calida vis spiritus in ignem versa et fulmini similis
perhaps the-hot force of-breath into fire turned and to-a-thunderbolt like
cum magna strage obstantium fertur. fortasse palustres et
with great slaughter of-obstacles is-borne perhaps marshy and
iacentes aquas aliquis flatus impellit et inde aut ictus terram
lying waters some blast drives and thence either a-blow the-earth
quatit aut spiritus agitatio ipso motu crescens et se
shakes or of-breath the-agitation by-the-very motion growing and itself

incitans ab imo in summa usque perfertur.' nullam tamen
rousing from the-lowest to the-highest right is-carried no yet
illi placet causam motus esse maiorem quam spiritum.
to-him is-pleasing cause of-movement to-be greater than breath

XXI · KINDS OF QUAKE

The Stoics too hold that breath, the strongest and keenest thing in nature, does this: it drives fire and water, scatters great tracts of land, raises mountains, and set the new island between Thera and Therasia in the Aegean in our own time. Posidonius names two kinds of quake, the jolt up and down and the tilt to the sides like a ship; Seneca adds the tremor, a vibration that does little harm. The tilt is the most dangerous.

Nobis quoque placet hunc spiritum esse, qui possit 21.1
To-us also it-is-pleasing this breath to-be what can
tanta conari, quo nihil est in rerum natura
such-great-things attempt than-which nothing is in of-things nature
potentius, nihil acrius, sine quo ne illa quidem, quae
more-powerful nothing sharper without which not those-things even which
vehementissima sunt, valent: ignem spiritus concitat; aquae, si
most-violent are prevail fire breath rouses waters if
ventum detrahas, inertes sunt: tunc demum impetum sumunt,
wind you-take-away inert are then at-last impetus they-take
cum illas agit flatus. et potest dissipare magna terrarum
when them drives a-blast and it-can scatter great of-lands
spatia et novos montes subiectus extollere et insulas non ante
spaces and new mountains set-beneath raise and islands not before
visas in medio mari ponere: inter Theren et Therasiam
seen in the-middle-of the-sea place between Thera and Therasia

hanc nostrae aetatis insulam, spectantibus nobis in Aegaeo
this of-our age island while-watching us in the-Aegean
mari natam, quis dubitat quin in lucem spiritus vexerit?
sea born who doubts but-that into light breath has-carried
21.2 Duo genera sunt, ut Posidonio placet, quibus movetur
Two kinds there-are as to-Posidonius is-pleasing by-which is-moved
terra. utrique nomen est proprium: altera succussio est,
the-earth to-each name is its-own the-one shaking is
cum terra quatitur et sursum ac deorsum movetur, altera
when the-earth is-shaken and up and down is-moved the-other
inclinatio, qua in latera nutat alternis navigii more. ego
inclination by-which to the-sides it-nods alternately of-a-ship in-the-manner I
et tertium illud existimo, quod nostro vocabulo signatum
also a-third that think which by-our word marked
est, non enim sine causa tremorem terrae dixere maiores,
is not for without cause tremor of-the-earth have-called the-ancestors
qui utrique dissimilis est: nam nec succutiuntur tunc omnia
which from-both unlike is for neither are-shaken-up then all-things
nec inclinantur sed vibrantur, res minime in eiusmodi
nor are-inclined but vibrate a-thing least in of-this-kind
casu noxia, sicut dixi. longe perniciosior est inclinatio
case harmful as I-have-said far more-destructive is inclination
concussione: nam nisi celeriter ex altera parte properabit
than-shaking for unless quickly from the-other side shall-hasten
motus, qui inclinata restituat, ruina necessario sequitur.
a-movement which the-inclined-things may-restore collapse necessarily follows

A rock loosened from an overhang underground, its joints worn by rivers, falls into a cavern and shakes the whole roof above it.

Cum dissimiles hi motus inter se sint, causae quoque 22.1
Since unlike these movements among themselves are the-causes also
eorum diversae sunt. prius ergo de motu quatiente
of-them different are first therefore about the-movement shaking
dicamus. si quando magna onera per vices vehiculorum
let-us-speak if ever great loads through turns of-vehicles
plurium tracta eunt et rotae maiore nisu in salebras
several drawn go and the-wheels with-greater effort into ruts
inciderunt, terram concuti senties.
have-fallen the-earth to-be-shaken you-will-feel
Asclepiodotus tradit: cum petra e latere montis abrupta 22.2
Asclepiodotus hands-down when a-rock from the-side of-a-mountain broken-off
cecidisset, aedificia vicina tremore collapsa sunt. idem sub
had-fallen buildings neighboring by-the-tremor collapsed have the-same under
terris fieri potest, ut ex his, quae impendent rupibus,
the-earth to-happen can that of these which overhang crags
aliqua resoluta magno pondere ac sono in subiacentem
some loosened with-great weight and sound into the-underlying
cavernam cadat eo vehementius, quo aut plus ponderis venit
cavern falls so-much more-violently as either more of-weight comes
aut altius: et sic commovetur omne tectum cavatae vallis.
or higher and so is-shaken all the-roof of-the-hollowed valley
nec tamen pondere suo abscindi saxa credibile est, sed cum 22.3
nor yet by-weight their-own to-be-broken-off rocks believable is-it but when
flumina supra ferantur, assiduus umor commissuras lapidis
rivers above are-borne the-constant moisture the-joints of-the-stone

extenuat et cottidie his, ad quae religatus est, aufert et
thins and daily from-these to which bound it-is takes-away and
illam, ut ita dicam, glutem, qua continetur, abradit. deinde
that as so I-may-say glue by-which it-is-held scrapes-away then
longa per aevum diminutio usque eo infirmat illa,
long through the-age diminution right so-far weakens those-things
quae cottidie attrivit, ut desinant esse oneri ferendo:
which daily it-has-rubbed that they-cease to-be for-the-burden to-be-carried
22.4 tunc saxa vasti ponderis decidunt, tunc illa praecipitata
then rocks of-vast weight fall-down then that hurled-headlong
rupes quicquid stabile aegre percussit non passura
crag whatever stable with-difficulty it-has-struck not going-to-allow
consistere 'cum sonitu venit, et ruere omnia visa repente',
to-stand-firm with sound comes and to-rush all-things seemed suddenly
ut ait Vergilius noster.
as says Vergil our

XXIII · CALLISTHENES ON HELICE AND BURIS

The other cause: breath flows into the porous earth with no outlet and shakes it. Callisthenes held this, whose murder is Alexander's eternal crime.

23.1 Huius motus succutientis terras haec erit causa: ad alteram
Of-this movement shaking the-lands this will-be the-cause to the-other
transeo. rara terrae natura est multumque habens vacui:
I-pass porous of-the-earth the-nature is and-much having of-void
per has raritates spiritus fertur, qui, ubi maior influxit
through these porosities breath is-borne which when greater has-flowed-in
nec emittitur, concutit terram.
nor is-sent-out shakes the-earth

haec placet et aliis, ut paulo ante rettuli, causa, si quid 23.2
this pleases also others as a-little before I-reported cause if anything
apud te profectura testium turba est: hanc etiam Callisthenes
with you going-to-avail of-witnesses a-crowd is this also Callisthenes
probat, non contemptus vir, (fuit enim illi nobile ingenium
approves not a-contemptible man there-was for in-him a-noble genius
et furibundi regis impatiens — hic est Alexandri crimen
and of-a-raging king impatient this is of-Alexander the-crime
aeternum, quod nulla virtus, nulla bellorum felicitas redimet;
eternal which no virtue no of-wars good-fortune will-redeem
nam quotiens quis dixerit 'occidit Persarum multa milia', 23.3
for whenever someone says he-killed of-Persians many thousands
opponetur ei 'et Callisthenen'; quotiens dictum erit
will-be-set-against him also Callisthenes whenever said it-shall-be
'occidit Darium, penes quem tum maximum regnum
he-killed Darius in-the-power-of whom then the-greatest kingdom
erat', opponetur ei 'et Callisthenen'; quotiens dictum erit
was will-be-set-against him also Callisthenes whenever said it-shall-be
'omnia oceano tenus vicit, ipsum quoque temptavit novis
all-things to-the-ocean as-far-as he-conquered itself also he-tried with-new
classibus et imperium ex angulo Thraciae usque ad Orientis
fleets and the-empire from a-corner of-Thrace right to of-the-East
terminos protulit', dicetur 'sed Callisthenem occidit':
the-boundaries he-extended it-will-be-said but Callisthenes he-killed
omnia licet antiqua ducum regumque exempla transierit,
all though old of-generals and-of-kings examples he-has-surpassed
ex his, quae fecit, nihil tam magnum erit quam scelus).
of these which he-did nothing so great will-be as the-crime
hic Callisthenes in libris, quibus describit, quemadmodum 23.4
this Callisthenes in the-books in-which he-describes how
Helice Burisque mersae sint, quis illas casus in mare vel
Helice and-Buris submerged were what them chance into the-sea or

in illas mare immiserit, dicit id quod in priore parte
into them the-sea has-sent he-says that which in the-former part
dictum est: ‘spiritus intrat terram per occulta foramina,
said has-been breath enters the-earth through hidden holes
quemadmodum ubique, ita et sub mari; deinde, cum
as everywhere so also under the-sea then when
obstructus ille est trames, per quem descenderat, reditum
obstructed that has-been the-path through which it-had-descended the-return
autem illi a tergo resistens aqua abstulit, huc et illuc
however to-it from behind resisting water has-taken-away hither and thither
refertur et sibi ipse occurrens terram labefactat. ideo
it-is-borne-back and to-itself itself meeting the-earth makes-totter therefore
frequentissime mari apposita vexantur et inde Neptuno
most-often to-the-sea placed-near-things are-harassed and thence to-Neptune
haec assignata est maris movendi potentia. quisquis primas
this assigned has-been of-the-sea of-moving power whoever the-first
litteras didicit, scit illum apud Homerum Ἐνοσίχθονα vocari.’
letters has-learned knows him in Homer Earth-shaker to-be-called

Seneca agrees the cause is breath, and asks how it enters. Not through the surface, as our skin rejects breath; it gathers in great caverns deep below, since the quake comes from beneath, as tossed deep seas show. Air from outside cannot make the earth shiver as cold makes us; a deeper injury drives it, as chasms swallowing cities show: the isle Atalante, says Thucydides, and Sidon, says Posidonius.

Spiritum esse huius mali causam et ipse consentio: de illo 24.1
Breath to-be of-this evil the-cause also myself I-agree about this
disputabo, quomodo intret hic spiritus, utrum per tenuia
I-shall-dispute how enters this breath whether through thin
foramina nec oculis comprehensibilia an per maiora ac
holes and-not by-the-eyes comprehensible or through larger and
patentiora, et utrum ab imo an etiam per summa
more-open and whether from the-lowest or also through the-surface
terrarum. hoc incredibile est.
of-the-lands this incredible is
nam in nostris quoque corporibus cutis spiritum respuit 24.2
for in our also bodies the-skin breath spits-out
nec est illi introitus, nisi per quae trahitur, nec consistere
nor is to-it an-entrance except through which it-is-drawn nor to-settle
quidem a nobis receptus potest nisi in laxiori corporis
indeed by us received can-it except in the-looser of-the-body
parte: non enim inter nervos pulpasve sed in visceribus et
part not for among sinews and-flesh but in the-entrails and
patulo interioris partis recessu commoratur.
in-the-open of-the-inner part recess it-lingers
idem de terra suspicari licet vel ex hoc, quod 24.3
the-same about the-earth to-suspect it-is-allowed even from this that
motus non in summa terra circave summa est sed
the-movement not on the-top of-the-earth or-around the-top is but

subter et ab imo. huius indicium est, quod altitudinis
beneath and from the-lowest of-this a-sign is that of-depth
profundae maria iactantur, motis scilicet his, supra quae
profound seas are-tossed being-moved of-course those above which
fusa sunt: ergo verisimile est terram ex alto moveri
spread they-are therefore likely it-is the-earth from the-depth to-be-moved
et illic spiritum in cavernis ingentibus concipi.
and there breath in caverns huge to-be-conceived

24.4 'immo', inquit, 'ceu cum frigore inhorruimus, tremor sequitur,
nay he-says as when with-cold we-have-shuddered trembling follows
sic terras quoque spiritus extrinsecus accidens quassat.' quod
so the-lands also breath from-outside falling-upon shakes which
nullo modo potest fieri. algere enim debet, ut idem illi
in-no way can to-happen to-be-cold for it-must that the-same to-it
accidat quod nobis, quos externa causa in horrorem agit.
happen as to-us whom an-external cause into shuddering drives
accidere autem terrae simile quiddam nostrae affectioni,
to-happen however to-the-earth like something to-our condition
sed non ex simili causa concesserim.
but not from a-similar cause I-would-concede

24.5 illam interior et altior iniuria debet impellere: cuius rei
it an-interior and deeper injury must drive of-which thing
argumentum vel maximum hoc potest esse, quod cum
the-proof even the-greatest this can be that when
vehementi motu adapertum ingenti ruina solum est, totas
by-violent movement opened with-huge collapse the-ground is whole
nonnumquam urbes et recipit hiatus ille et abscondit.
sometimes cities both receives chasm that and hides

24.6 Thucydides ait circa Peloponnesiaci belli tempus Atalanten
Thucydides says around of-the-Peloponnesian war the-time Atalante
insulam aut totam aut certe maxima ex parte suppressam.
the-island either wholly or certainly the-greatest in part to-have-been-submerged

idem Sidone accidisse Posidonio crede. nec ad hoc
the-same at-Sidon to-have-happened Posidonius believe nor for this
testibus opus est: meminimus enim terris interno motu
of-witnesses need is we-remember for with-the-lands by-internal movement
divulsis loca disiecta et campos interisse. quod iam
torn-apart places thrown-apart and plains to-have-perished which now
dicam quemadmodum existimem fieri.
I-shall-say how I-think to-happen

XXV · WHY QUAKES STAY LOCAL

Breath filling a hollow underground strikes the walls on which cities stand, sometimes toppling buildings, sometimes bringing down the cavern's roof and whole cities with it. Ossa, they say, once joined Olympus until a quake split them and let the Peneus drain Thessaly's marshes; a quake poured out the Ladon. Quakes stay local, never reaching two hundred miles: this one did not leave Campania, Thebes stood when Chalcis shook, and the quake that sank Helice and Buris stopped near Aegium.

Cum spiritus magna vi vacuum terrarum locum penitus 25.1
When breath with-great force the-empty of-the-lands place deep-within
opplevit coepitque rixari et de exitu cogitare, latera ipsa,
has-filled and-has-begun to-brawl and about an-exit to-think the-sides themselves
inter quae latet, saepius percutit, supra quae urbes interdum
between which it-lurks more-often it-strikes above which cities sometimes
sitae sunt. haec nonnumquam adeo concutiuntur, ut
situated are these sometimes so-much are-shaken that
aedificia superposita procumbant, nonnumquam in tantum,
buildings placed-above fall-forward sometimes to such-a-degree
ut parietes, quibus fertur omne tegimen cavi, decidant
that the-walls by-which is-borne all the-covering of-the-hollow fall-down

in illum subtervacantem locum totaeque urbes in immensam
into that empty-beneath place and-whole cities into immense
altitudinem vergant.
depth sink

25.2 si velis credere, aiunt aliquando Ossam Olympo cohaesisse,
if you-wish to-believe they-say once Ossa to-Olympus to-have-cohered
deinde terrarum motu recessisse et fissam unius
then by-the-earth's movement to-have-receded and split of-one
magnitudinem montis in duas partes. tunc effluxisse
the-size of-mountain into two parts then to-have-flowed-out
Peneon, qui paludes, quibus laborabat Thessalia, siccavit
the-Peneus which the-marshes by-which labored Thessaly dried
abductis in se, quae sine exitu stagnaverant, aquis. Ladon
drawn into itself which without exit had-stagnated the-waters the-Ladon
flumen inter Elin et Megalenpolin medius est, quem
river between Elis and Megalopolis in-the-middle is which
terrarum motus effudit.
of-the-earth movement poured-out

25.3 per hoc quid probo? in laxos specus (quid enim aliud
through this what do-I-prove into loose caves what for else
appellem loca vacua?) sub terras spiritum convenire;
should-I-call places empty under the-lands breath to-come-together
quod nisi esset, magna terrarum spatia commoverentur et
which unless it-were great of-lands spaces would-be-moved and
una multa titubarent: nunc exiguae partes laborant nec
together many-things would-totter now small parts labor nor
umquam per ducenta milia motus extenditur. ecce hic,
ever through two-hundred miles a-movement extends look this-one
qui implevit fabulis orbem, non transcendit Campaniam —
which has-filled with-tales the-world not crossed Campania

quid dicam, cum Chalcis tremuit, Thebas stetisse? cum 25.4
what shall-I-say when Chalcis trembled Thebes to-have-stood when
laboravit Aegium, tam propinquas illi Patras de motu
labored Aegium so near to-it Patrae about the-quake
audisse? illa vasta concussio, quae duas suppressit urbes,
to-have-heard that vast shaking which two submerged cities
Helicen et Burin, circa Aegium constitit. apparet ergo
Helice and Buris around Aegium stopped it-appears therefore
in tantum spatium motum pertendere, quantum illa sub
over so-great a-space the-movement to-extend as-great-as that under
terris vacantis loci inanitas pateat.
the-earth of-empty space the-emptiness may-extend

XXVI · EGYPT AND DELOS

Some say Egypt never quakes because it is built of the Nile's mud, packed solid without hollows, as Pharos, once a day's sail off, now joins the mainland. But Egypt does quake, and so does Delos, which Vergil and Pindar's credulous scholars called unmoved: Thucydides says it shook in the Peloponnesian War, Callisthenes before Helice fell. Nor are seaside towns safer, as Pompeii and Herculaneum learned; Paphos, Nicopolis, Cyprus, and Tyre all suffer.

Poteram ad hoc probandum abuti auctoritate magnorum 26.1
I-could for this to-be-proved use the-authority of-great
virorum, qui Aegyptum numquam tremuisse tradunt,
men who Egypt never to-have-trembled hand-down
rationem autem huius rei hanc reddunt, quod ex limo tota
the-reason however of-this thing this they-give that from mud whole
concreverit. tantum enim, si Homero fides est, aberat
it-has-grown-together so-far for if to-Homer credit is was-distant
a continenti Pharos, quantum navis diurno cursu metiri
from the-mainland Pharos as-far-as a-ship in-a-day's course to-measure

plenis lata velis potest; sed continenti ammota est:
with-full borne sails can but to-the-mainland moved-up it-has-been
turbidus enim defluens Nilus multumque secum caeni
the-muddy for flowing-down Nile and-much with-itself of-mud
trahens et id subinde apponens prioribus terris Aegyptum
drawing and that repeatedly placing-beside former lands Egypt
annuo incremento semper ultra tulit. inde pinguis et limosi
by-yearly increase always further carried thence of-fat and of-muddy
soli est nec ulla intervalla in se habet sed crevit in
soil it-is nor any intervals in itself has but it-has-grown into
solidum arescente limo; cuius pressa erat et sedens structura,
solid with-drying mud whose pressed was and settled structure
cum partes glutinarentur, nec quicquam inane intervenire
since the-parts were-glued nor anything empty come-between
poterat, cum solido liquidum ac molle semper accederet.
could since to-the-solid liquid and soft always was-added
26.2 sed movetur et Aegyptus et Delos, quam Vergilius stare
but is-moved both Egypt and Delos which Vergil to-stand
iussit:
bade

immotamque coli dedit et contemnere ventos;
and-unmoved to-be-inhabited granted and to-despise the-winds

hanc philologi quoque, credula natio, dixerunt non moveri
this the-philologists also a-credulous nation have-said not to-be-moved
auctore Pindaro. Thucydides ait antea quidem immotam
on-the-authority-of Pindar Thucydides says before indeed unmoved
fuisse sed circa Peloponnesiacum bellum tremuisse;
to-have-been but around the-Peloponnesian war to-have-trembled

Callisthenes et alio tempore ait hoc accidisse: 'inter 26.3
Callisthenes also at-another time says this to-have-happened among
multa', inquit, 'prodigia, quibus denuntiata est duarum
many he-says prodigies by-which announced was of-two
urbium, Helices et Buris, eversio, fuere maxime notabilia
cities Helice and Buris the-overthrow were most notable
columna ignis immensi et Delos agitata', quam ideo
a-column of-fire immense and Delos shaken which therefore
stabilem videri vult, quia mari inposita sit habeatque
stable to-seem he-wishes because on-the-sea placed it-is and-has
concavas rupes et saxa pervia, quae dent deprehenso aëri
hollow crags and rocks passable which give to-trapped air
reditum: ob hoc et insulas esse certioris soli urbesque
a-return on-account-of this both islands to-be of-surer soil and-cities
eo tutiores, quo propius ad mare accesserint.
thereby the-safer the nearer to the-sea they-have-come
falsa haec esse Pompei et Herculaneum sensere. adice 26.4
false these-things to-be Pompeii and Herculaneum have-felt add
nunc, quod omnis ora maris obnoxia est motibus: sic
now that every coast of-the-sea liable is to-quakes so
Paphos non semel corruit, sic nobilis et huic iam
Paphos not once has-collapsed so the-famous and to-this already
familiaris malo Nicopolis; Cyprum ambit altum mare et
familiar evil Nicopolis Cyprus surrounds the-deep sea and
agitat, Tyros et ipsa tam movetur quam diluitur. hae
shakes-it Tyre also itself as-much is-moved as it-is-washed these
fere causae redduntur, propter quas tremat terra.
generally causes are-given on-account-of which trembles the-earth

Some things peculiar to the Campanian quake need explaining. The six hundred sheep did not die of fright: plague often follows great quakes, since air long stagnant in the dark or fouled by fires below, and waters never stirred by wind, poison those who breathe them. Animals, which use the open air and water greedily, feel it first, and sheep most, carrying their heads near the ground; the clean air quenched it before it rose to men.

27.1 Quaedam tamen propria in hoc Campano motu accidisse
Certain-things yet peculiar in this Campanian quake to-have-happened
narrantur, quorum ratio reddenda est. diximus sexcentarum
are-told of-which the-reason to-be-given is we-said of-six-hundred
ovium gregem exanimatum in Pompeiana regione. non est,
sheep a-flock killed in the-Pompeian region not there-is
quare hoc putes ovibus illis timore accidisse.
why this you-should-think to-the-sheep those from-fear to-have-happened

27.2 aiunt enim solere post magnos terrarum motus pestilentiam
they-say for to-be-wont after great of-the-lands quakes pestilence
fieri, nec id mirum est. multa enim mortifera in alto
to-arise nor that strange is many-things for deadly in the-deep
latent: aër ipse, qui vel terrarum culpa vel pigritia
lie-hidden the-air itself which either of-the-lands by-fault or by-sluggishness
et aeterna nocte torpescit, gravis haurientibus est, vel
and by-eternal night grows-torpid heavy for-those-drawing-it is or
corruptus internorum ignium vitio, cum e longo situ
corrupted of-internal of-fires by-the-fault when from long stagnation
emissus est, purum hunc liquidumque maculat ac polluit
released it-has-been pure this and-clear stains and pollutes
insuetumque ducentibus spiritum affert nova genera morborum.
and-unaccustomed to-those-drawing breath brings new kinds of-diseases

quid, quod aquae quoque inutiles pestilentesque in 27.3
what that waters also useless and-pestilent in
abdito latent, ut quas numquam usus exerceat, numquam
hiding lurk as which never use exercises never
aura liberior everberet? crassae itaque et gravi caligine
a-breeze freer beats-upon thick and-so and by-heavy darkness
sempiternaque tectae nihil nisi pestiferum in se et
and-everlasting covered nothing except pestilent in themselves and
corporibus nostris contrarium habent. aër quoque, qui
to-bodies our hostile they-have the-air also which
mixtus est illis quique inter illas paludes iacet, cum
mixed is with-them and-which among those marshes lies when
emersit, late vitium suum spargit et haurientes necat.
it-has-emerged widely fault its-own spreads and those-drawing-it kills
facilius autem pecora sentiunt, in quae pestilentior incurrere 27.4
more-easily however cattle feel-it upon which more-pestilent to-run
solet, quo avidiora sunt: aperto caelo plurimum utuntur
it-is-wont the more-greedy they-are the-open sky most they-use
et aquis, quarum maxima in pestilentia culpa est. oves
and waters of-which the-greatest in pestilence the-blame is sheep
vero mollioris naturae, quo propiora terris ferunt capita,
indeed of-softer nature the nearer to-the-earth they-carry heads
correptas esse non miror, cum afflatus aëris diri circa
seized to-have-been not I-wonder since the-breath of-air dire around
ipsam humum exceperint. nocuisset ille et hominibus,
the-very ground they-caught it-would-have-harmed it also men
si maior exisset; sed illum sinceri aëris copia extinxit,
if greater it-had-gone-out but it of-pure air abundance extinguished
antequam, ut ab homine posset trahi, surgeret.
before that by man it-could be-drawn it-rose

The earth holds much that kills, as its poisons growing unsown show. In parts of Italy a vapor breathes from holes that no man or beast can breathe safely; birds flying into it drop, livid and swollen-throated. Breath long shut in darkness grows worse the longer it lies, and once out it darkens our air, so that sudden deaths and strange diseases follow until the open sky and the winds work it off.

28.1 Multa autem terras habere mortifera vel ex hoc intellege,
Many-things however the-lands to-have deadly even from this understand
quod tot venena nascuntur non manu sparsa sed sponte,
that so-many poisons are-born not by-hand sown but spontaneously
solo scilicet habente ut boni ita mali semina. quid,
the-soil of-course having as of-good so of-evil seeds what
quod pluribus Italiae locis per quaedam foramina pestilens
that in-many of-Italy places through certain holes a-pestilent
exhalatur vapor, quem non homini ducere, non ferae
is-exhaled vapor which not for-man to-draw not for-a-wild-beast
tutum est? aves quoque si in illum inciderunt, antequam
safe is birds also if into it they-have-fallen before
caelo meliore leniatur, in ipso volatu cadunt liventque
by-sky better it-is-softened in the-very flight fall and-livid-are
corpora et non aliter quam per vim elisae fauces tument.
the-bodies and not otherwise than by force squeezed the-throats swell

28.2 hic spiritus, quem diu terra continet, tenui foramine
this breath which long the-earth holds by-a-thin hole
fluens non plus potentiae habet, quam ut despectantia et
flowing not more of-power has than that things-looking-down and
ultro sibi illata conficiat; ubi per saecula conditus
of-their-own-accord to-it brought it-may-kill when through ages hidden
tenebris ac tristitia loci crevit in vitium, ipsa
by-darkness and by-the-gloom of-the-place it-has-grown into vice by-the-very

ingravescit mora, peior quo segnior: cum exitum nactus
it-grows-heavier delay worse the more-sluggish when an-exit obtained
est, aeternum illud umbrosi frigoris malum et infernam
it-has eternal that of-shady cold evil and infernal
noctem volvit ac regionis nostrae aëra infuscat; vincuntur
night it-rolls and of-region our the-air darkens are-overcome
enim meliora peioribus.
for better-things by-worse

tunc etiam ille spiritus purior transit in noxium: inde subitae 28.3
then even that breath purer passes into harmful thence sudden
continuaeque mortes et monstruosa genera morborum ut ex
and-continuous deaths and monstrous kinds of-diseases as from
novis orta causis. brevis autem aut longa clades est, prout
new arisen causes brief however or long the-disaster is according-as
vitia valuere, nec prius pestilentia desinit, quam spiritum
the-faults have-prevailed nor before the-pestilence ceases than breath
illum gravem exercuit laxitas caeli ventorumque iactatio.
that heavy has-exercised the-spaciousness of-the-sky and-of-the-winds the-tossing

XXIX · THOSE DRIVEN MAD

Those who ran about as if mad were driven by fear, which unseats the mind even when private and small, how much more when cities fall.

Nam quod aliquos insanis attonitisque similes 29.1
For as-to-the-fact-that some to-madmen and-to-thunderstruck like
discurrēre, fecit metus, qui excutit mentes, ubi privatus
have-run-about it-made fear which shakes-out minds when private
ac modicus est: quid, ubi publice terret, ubi cadunt
and moderate it-is what when publicly it-terrifies when fall

urbes populi opprimuntur terra concutitur? quid mirum
cities peoples are-crushed the-earth is-shaken what strange
est animos inter dolorem et metum destitutos aberrasse?
is-it minds between pain and fear abandoned to-have-strayed

29.2 non est facile inter magna mala consipere. itaque levissima
not it-is easy amid great evils to-be-sane and-so the-lightest
fere ingenia in tantum venere formidinis, ut sibi
generally minds to such-a-degree have-come of-dread that from-themselves
exciderent. nemo quidem sine aliqua iactura sanitatis
they-fell no-one indeed without some loss of-sanity
expavit, similisque est furentis quisquis timet: sed alios
has-been-terrified and-like is to-a-madman whoever fears but others
cito timor sibi reddit, alios vehementius perturbat et
quickly fear to-themselves restores others more-violently it-disturbs and
in dementiam transfert.
into madness transfers

29.3 inde inter bella erravere lymphatici, nec usquam plura
thence in wars have-wandered the-frenzied nor anywhere more
exempla vaticinantium invenies, quam ubi formido mentes
examples of-prophesiers will-you-find than where dread minds
religione mixta percussit.
with-religion mixed has-struck

A split statue is no wonder, when mountains have parted and the sea, as Vergil sang, cut Sicily from Italy, as it tore Spain from Africa. Forces from below are fiercer for forcing narrow passages. Why marvel that the thin, hollow bronze of one statue burst, perhaps with breath shut inside? Buildings have been seen to part at the corners and close again, badly built walls are shaken into a tighter fit, and whole houses and towers are split.

Statuam divisam non miror, cum dixerim montes a 30.1
A-statue split not I-wonder-at when I-have-said mountains from
montibus recessisse et ipsum disruptum esse ab imo
mountains to-have-receded and itself burst-asunder to-be from the-bottom
solum.
the-ground

haec loca vi quondam et vasta convulsa ruina
these places by-force once and vast torn by-collapse
(tantum aevi longinqua valet mutare vetustas)
so-much of-age long can change antiquity
dissiluisse ferunt, cum protinus utraque tellus
to-have-sprung-apart they-say when straightway each land
una foret. venit ingenti vi pontus et ingens
one was came with-huge force the-sea and huge
Hesperium Siculo latus abscidit arvaque et urbes
the-Hesperian from-the-Sicilian side cut-off and-fields and cities
aequore diductas angusto interluit aestu.
by-the-sea separated with-narrow washes tide

vides totas regiones a suis sedibus revelli et trans mare 30.2
you-see whole regions from their seats to-be-torn and across the-sea
iacere quod in confinio fuerat, vides et urbium fieri
to-lie what on the-border had-been you-see also of-cities to-arise

gentiumque discidium: cum pars naturae concita ausa est
and-of-nations a-separation when a-part of-nature roused dared has
deesse, ea aliquo mare ignem spiritum impegit, quorum
to-lack it somewhere the-sea fire breath has-driven of-which
mira ut ex toto vis est: quamvis enim parte saeviat,
wonderful as from the-whole the-force is although for in-part it-may-rage
mundi tamen viribus saevit.
of-the-world yet with-the-strength it-rages

30.3 sic et Hispanias a contextu Africae mare eripuit, sic
so also the-Spains from the-connection of-Africa the-sea snatched so
per hanc inundationem, quam poetarum maximi celebrant,
through this flood which of-poets the-greatest celebrate
ab Italia Sicilia resecta est. aliquanto autem plus impetus
from Italy Sicily cut-off was somewhat however more of-impetus
habent, quae ex infimo veniunt: acriora enim sunt,
have the-things-which from the-lowest come sharper for are
quibus nisus est per angusta.
those-whose effort is through narrows

30.4 quantas res hi terrarum tremores quamque mira
how-great things these of-the-lands tremors and-how wonderful
spectacula ediderint, satis dictum est: cur ergo aliquis
spectacles have-produced enough said it-has-been why then does-anyone
ad hoc stupet, quod aes unius statuae, ne solidum
at this stand-amazed that the-bronze of-one statue not solid
quidem sed concavum ac tenue, disruptum est, cum fortasse
even but hollow and thin burst-asunder is when perhaps
in illud se spiritus quaerens fugam incluserit? illud vero
into it itself breath seeking flight had-shut-in that indeed
quis nescit? diductis aedificia angulis vidimus moveri
who knows-not with-spread-apart buildings angles we-have-seen to-be-moved
iterumque componi. quaedam vero parum aptata positu
and-again to-be-put-together certain indeed ill fitted in-position

suo et a fabris neglegentius solutiusque composita
their-own and by builders more-carelessly and-loosely composed
terrae motus saepius agitata compegit.
of-the-earth the-quake more-often shaken has-joined-together
quod si totos parietes et totas findit domos et latera 30.5
but if whole walls and whole it-splits houses and the-sides
magnarum turrium, quamvis solida sint, scindit et pilas
of-great towers although solid they-be cleaves and pillars
operibus subditas dissipat: quid est quare quisquam dignum
to-works set-under scatters what is-there why anyone worthy
adnotari putet, sectam esse aequaliter ab imo ad
of-note should-think cut to-be equally from the-bottom to
caput in partes duas statuam?
the-head into parts two a-statue

XXXI · THE AFTERSHOCKS

Campania kept trembling for days, more gently but with great damage, since what was already shaken needed only a jolt to fall: not all the breath had escaped. After the greatest shock none can equal it, since the rest follows the path the first force opened. A learned man in his bath saw the floor tiles part and close, water seeping into the joints and squeezed out bubbling, and walls quivering softer than hard matter allows.

Quare tamen per plures dies motus fuit? non desiit 31.1
Why yet through several days the-quake was not ceased
enim assidue tremere Campania, clementius quidem sed cum
for constantly to-tremble Campania more-mildly indeed but with
ingenti damno, quia quassa quatiebat, quibus ad cadendum
huge damage because shaken-things it-shook to-which for falling
male stantibus opus non erat impelli sed agitari: nondum
badly standing need not was to-be-pushed but to-be-agitated not-yet

videlicet spiritus omnis exierat, sed adhuc emissa sui parte
evidently the-breath all had-gone-out but still sent-out of-itself part
maiore oberrabat. inter argumenta, quibus probatur spiritu
the-greater it-was-wandering among the-proofs by-which it-is-proved by-breath
ista fieri, non est quod dubites et hoc ponere:
these-things to-arise not there-is why you-should-hesitate also this to-set-down

31.2 cum maximus editus tremor est, quo in urbes terrasque
when the-greatest put-forth tremor is by-which upon cities and-lands
saevitum est, non potest par illi subsequi alius, sed
raged it-has-been not can equal to-it follow another but
post maximum lenes motus sunt, quia rixa vehementius
after the-greatest gentle movements are because the-brawl more-violently
exitum ventis luctantibus fecit; reliquiae deinde residui
an-exit for-the-winds struggling has-made the-remnants then of-remaining
spiritus non idem possunt, nec illis pugna opus est,
breath not the-same can nor for-them fight need is
cum iam viam invenerint sequanturque ea, qua prima
when already a-way they-have-found and-follow that-way by-which the-first
vis ac maxima evasit.
force and greatest has-escaped

31.3 Hoc quoque dignum memoria iudico ab eruditissimo et
This also worthy of-memory I-judge by a-most-learned and
gravissimo viro cognitum (forte enim, cum hoc evenit,
weighty man learned by-chance for when this happened
lavabatur): vidisse se affirmat in balneo tessellas, quibus
he-was-bathing to-have-seen himself he-affirms in the-bath the-tesserae with-which
solum erat stratum, alteram ab altera separari itemque
the-floor was spread one from another to-be-separated and-likewise
committi et aquam modo recipi in commissuras
to-be-joined and water now to-be-received into the-joints
pavimento recedente, modo compresso bullire et elidi.
with-the-pavement receding now compressed to-bubble and to-be-squeezed-out

eundem audivi narrantem vidisse se macerias mollius
the-same I-heard telling to-have-seen himself walls more-softly
crebriusque tremere quam natura duri sinit.
and-more-often to-tremble than the-nature of-a-hard-thing allows

XXXII · AGAINST THE FEAR OF DEATH

The study of nature gives courage: death asks little, an earache takes as much, so who despises his life watches the ground open unafraid. Make death familiar.

Haec, Lucili virorum optime, quantum ad ipsas causas: illa 32.1
These-things Lucilius of-men best as-far-as to themselves the-causes those
nunc, quae ad confirmationem animorum pertinent! quos magis
now which to the-strengthening of-minds pertain which more
refert nostra fortiores fieri quam doctiores, sed alterum
it-matters to-us braver to-become than more-learned but the-one
sine altero non fit: non enim aliunde animo venit robur
without the-other not happens not for from-elsewhere to-the-mind comes strength
quam a bonis artibus, quam a contemplatione naturae.
than from good arts than from the-contemplation of-nature
quem enim non hic ipse casus adversus omnes firmaverit, 32.2
whom for not this very chance against all-things would-have-strengthened
erexerit? quid est enim, cur ego hominem aut feram,
raised what is-there for why I a-man or a-wild-beast
quid est, cur sagittam aut lanceam tremam? maiora me
what is-there why an-arrow or a-lance should-I-dread greater me
pericula expectant: fulminibus et terris et irriguis naturae
dangers await by-thunderbolts and lands and watered of-nature
partibus petimur.
parts we-are-attacked

32.3 ingenti itaque animo mors provocanda est, sive nos saevo
with-huge and-so courage death to-be-challenged is whether us with-savage
vastoque impetu aggreditur, sive cottidiano et vulgari exitu.
and-vast onrush it-attacks or with-a-daily and common end
nihil refert, quam minax veniat quantumque sit quod
nothing it-matters how threatening it-comes and-how-great be that-which
in nos trahat; quod a nobis petit, minimum est: hoc
upon us it-may-draw what from us it-seeks the-least is this
senectus a nobis ablatura est, hoc auriculae dolor,
old-age from us going-to-take-away is this of-the-ear pain
hoc umoris in nobis corrupti abundantia, hoc cibus parum
this of-moisture in us corrupted an-abundance this food too-little
obsequens stomacho, hoc pes leviter offensus.
obedient to-the-stomach this the-foot lightly struck

32.4 pusilla res est hominis anima, sed ingens res contemptus
a-tiny thing is man's life but a-huge thing the-contempt
animae: hanc qui contempsit, securus videbit maria turbari,
of-life this who has-despised untroubled will-see the-seas to-be-disturbed
etiamsi illa omnes excitaverunt venti, etiamsi aestus aliqua
even-if them all have-roused the-winds even-if the-tide by-some
perturbatione mundi totum in terras vertet oceanum;
disturbance of-the-world the-whole onto the-lands shall-turn ocean
securus aspiciet fulminantis caeli trucem atque horridam
untroubled he-will-look-at of-the-thundering sky the-grim and horrid
faciem, frangatur licet caelum et ignes suos in exitium
face let-it-be-broken although the-sky and fires its-own for the-destruction
omnium, in primis suum, misceat; securus aspiciet
of-all in the-first-place its-own let-it-mix untroubled he-will-look-at
ruptis compagibus dehiscens solum, illa licet inferorum
with-burst frameworks gaping the-ground those though of-the-underworld

regna retegantur. stabit super illam voraginem intrepidus
the-kingdoms be-uncovered he-will-stand above that chasm unafraid
et fortasse quo debebit cadere, desiliet.
and perhaps where he-will-have-to fall he-will-leap-down
quid ad me, quam magna sint, quibus pereo? ipsum perire non 32.5
what to me how great are by-which I-perish itself to-perish not
magnum est. proinde si volumus esse felices, si nec hominum
great is accordingly if we-wish to-be happy if neither of-men
nec deorum nec rerum timore versari, si despicere fortunam
nor of-gods nor of-things in-fear to-dwell if to-despise fortune
supervacua promittentem levia minitantem, si volumus
superfluous-things promising light-things threatening if we-wish
tranquille degere et ipsis diis de felicitate controversiam
tranquilly to-live and with-the-very gods about happiness a-dispute
agere, anima in expedito est habenda: sive illam insidiae sive
to-carry-on the-soul in readiness is to-be-held whether it plots or
morbi petent sive hostium gladii sive insularum cadentium
diseases will-seek or of-enemies the-swords or of-tenements falling
fragor sive ipsarum ruina terrarum sive vasta vis ignium urbes
the-crash or of-the-very the-collapse of-the-lands or a-vast force of-fires cities
agrosque pari clade complexa, qui volet illam, accipiat.
and-fields in-equal disaster embracing whoever shall-wish it he-may-take
quid aliud debeo quam exeuntem hortari et cum bonis 32.6
what else ought-I than the-departing to-encourage and with good
ominibus emittere? 'vade fortiter, vade feliciter!' nihil
omens to-send-out go bravely go happily nothing
dubitaveris eam reddere: non de re sed de tempore
you-should-hesitate it to-give-back not about the-matter but about the-time
est quaestio; facis, quod quandoque faciendum est. nec
is the-question you-do what at-some-time to-be-done is neither
rogaveris nec timueris nec te velut in aliquod malum
you-should-ask nor you-should-fear nor yourself as-if into some evil

exiturum tuleris retro: rerum natura te, quae genuit,
going-to-go-out carry back of-things nature you which begot
expectat et locus melior ac tutior.
expects and a-place better and safer

32.7 illic non tremunt terrae nec inter se venti cum magno
there not tremble the-lands nor among themselves the-winds with great
nubium fragore concurrunt, non incendia regiones urbesque
of-clouds crash run-together not fires regions and-cities
vastant, non naufragiorum totas classes sorbentium metus
lay-waste not of-shipwrecks whole fleets swallowing the-fear
est, non arma contrariis disposita vexillis et in mutuam
is not arms under-opposing arranged banners and for mutual
perniciem multorum milium par furor, non pestilentia et
destruction of-many thousands equal madness not pestilence and
ardentes promiscue communes populis cadentibus rogi. 'istud
burning indiscriminately common for-peoples falling pyres this
leve est. quid timemus grave? ut potius semel incidat
light is why do-we-fear heavy-thing that rather once it-may-fall
quam semper impendeat.'
than always it-may-hang-over

32.8 ego autem perire timeam, cum terra ante me pereat, cum
I however to-perish should-fear when the-earth before me perishes when
ista quatiantur, quae quatiunt, et in iniuriam nostram non
these-things are-shaken which shake and to injury our not
sine sua veniant? Helicen Burinque totas mare accepit: ego
without their-own come Helice and-Buris whole the-sea has-received I
de uno corpusculo timeam? supra oppida duo navigatur (duo
for one little-body should-fear over towns two one-sails two
autem novimus, quae in nostram notitiam memoria litteris
however we-know which into our knowledge memory by-letters
servata perduxit: quam multa alia aliis locis mersa sunt,
preserved has-brought how many others in-other places sunk have-been

quot populos aut terra aut infra se mare inclusit!): ego
how-many peoples either the-earth or below itself the-sea has-shut-in I
recusem mei finem, cum sciam me sine fine non esse? immo
should-refuse of-myself an-end when I-know me without end not to-be nay
cum sciam omnia esse finita, ego ultimum suspirium timeam?
when I-know all-things to-be finite I the-last sigh should-fear
quantum potes itaque, ipse te cohortare, Lucili, contra metum 32.9
as-much-as you-can and-so yourself you exhort Lucilius against the-fear
mortis: hic est, qui nos humiles facit; hic est, qui vitam ipsam,
of-death this it-is which us humble makes this it-is which life itself
cui parcit, inquietat ac perdit; hic omnia ista dilatat,
which it-spares disturbs and ruins this all these-things enlarges
terrarum motus et fulmina. quae omnia feres constanter, si
of-the-lands quakes and thunderbolts which all you-will-bear steadfastly if
cogitaveris nihil interesse inter exiguum tempus et longum.
you-have-thought nothing to-differ between short time and long
horae sunt, quas perdimus; puta dies esse, puta menses, 32.10
hours they-are which we-lose suppose days to-be suppose months
puta annos: perdimus illos nempe perituri. quid, oro
suppose years we-lose them surely going-to-perish what I-pray
te, refert, num perveniam ad illos? fluit tempus et
you does-it-matter whether I-shall-reach to them flows time and
avidissimos sui deserit; nec quod futurum est meum est
the-most-greedy of-itself deserts nor what going-to-be is mine is
nec quod fuit: in puncto fugientis temporis pendeo, et
nor what was in the-point of-fleeing time I-hang and
magni est modicum fuisse.
of-great it-is moderate to-have-been
eleganter ille Laelius sapiens dicenti cuidam 'sexaginta 32.11
elegantly that Laelius the-wise to-one-saying a-certain sixty
annos habeo' "hos", inquit, "dicis sexaginta, quos non habes".
years I-have these he-said you-say sixty which not you-have

nonne ex hoc quidem intellegimus incomprehensibilis vitae
not from this indeed do-we-understand of-incomprehensible life
condicionem et sortem temporis semper alieni, quod annos
the-condition and the-lot of-time always another's that years
numeramus amissos?
we-count lost

32.12 hoc affigamus animo, hoc nobis subinde dicamus:
this let-us-fix to-the-mind this to-ourselves repeatedly let-us-say
'moriendum est' — quando, quid tua? mors naturae
to-die it-is when what-matters your death of-nature
lex est, mors tributum officiumque mortalium malorumque
the-law is death the-tribute and-duty of-mortals and-of-evils
omnium remedium est: optavit illam quisquis timet. omnibus
all the-remedy is has-wished-for it whoever fears all-things
omissis hoc unum, Lucili, meditare, ne mortis nomen
set-aside this one Lucilius meditate that-not of-death the-name
reformides; effice illam tibi cogitatione multa familiarem,
you-may-dread make it to-you by-thinking much familiar
ut, si ita tulerit, possis illi et obviam exire.
so-that if so it-shall-have-brought you-can to-it even to-meet go-out

BOOK VII

I · WONDER AT COMETS

No one is so dull as not to lift his mind to the divine when a new wonder blazes in the sky; habit hides the greatness of daily things, so the sun is watched only in eclipse. So with comets: when a rare fire appears, everyone asks whether to wonder or fear, portent or star. Nothing is nobler to study than the nature of the stars: whether they are gathered flame, or solid, earthy bodies shining with borrowed fire, as great men have held.

Nemo usque eo tardus et hebes et demissus in terram 1.1
No-one so far slow and dull and lowered toward the-earth
est, ut ad divina non erigatur ac tota mente consurgat,
is that to divine-things not he-is-raised and with-whole mind rises
utique ubi novum aliquod e caelo miraculum fulsit. nam
especially when new some from the-sky marvel has-shone for
quamdiu solita decurrunt, magnitudinem rerum consuetudo
as-long-as usual-things run-their-course the-greatness of-things custom
subducit: ita enim compositi sumus, ut nos cottidiana, etiamsi
withdraws so for composed we-are that us daily-things even-if
admiratione digna sunt, transeant, contra minimarum
of-admiration worthy they-are pass-by on-the-contrary of-the-smallest
quoque rerum, si insolitae prodierunt, spectaculum dulce
also things if unusual they-have-come-forth the-spectacle sweet
fiat.
becomes

hic itaque coetus astrorum, quibus immensi corporis 1.2
this and-so assembly of-stars by-which of-the-immense body
pulchritudo distinguitur, populum non convocat: at cum
the-beauty is-adorned the-people not calls-together but when
aliquid ex more mutatum est, omnium vultus in caelo
something from custom changed has-been of-all the-face in the-sky

est. sol spectatorem nisi deficit non habet, nemo observat
is the-sun a-spectator unless it-fails not has no-one watches
lunam nisi laborantem: tunc urbes conclamant, tunc pro
the-moon unless laboring then cities shout-together then for
se quisque superstitione vana trepidat.
himself each with-superstition vain trembles

1.3 quanto illa maiora sunt, quod sol totidem, ut ita dicam,
how-much those-things greater are that the-sun as-many as so I-may-say
gradus quot dies habet et annum circuitu suo claudit,
steps as days has and the-year by-circuit its-own closes
quod a solstitio statum inclinat, ad minuendos dies vertitur
that from the-solstice its-position it-inclines to diminishing days it-turns
et dat noctibus spatium, quod sidera abscondit, quod terras,
and gives to-the-nights space that the-stars it-hides that the-lands
cum tanto maior sit illis, non urit sed calorem suum
though so-much greater it-be than-them not it-burns but heat its-own
intensionibus ac remissionibus temperando fovet, quod lunam
by-intensifyings and slackenings tempering cherishes that the-moon
numquam implet nisi adversam sibi nec obscurat nisi vicinam?
never it-fills unless facing itself nor darkens unless near

1.4 haec tamen non adnotamus, quamdiu ordo servatur; si
these-things yet not we-note as-long-as the-order is-kept if
quid turbatum est aut praeter consuetudinem emicuit,
anything disturbed has-been or beyond custom has-flashed
spectamus interrogamus ostendimus: adeo naturale est magis
we-look we-ask we-point so natural it-is rather
nova quam magna mirari.
new-things than great-things to-wonder-at

1.5 Idem in cometis fit: si rarus et insolitae figurae ignis
The-same in comets happens if rare and of-unusual shape a-fire
apparuit, nemo non scire quid sit cupit et oblitus
has-appeared no-one not to-know what it-may-be desires and forgetful

aliorum de adventicio quaerit ignarus, utrum debeat
of-the-others about the-newcomer asks ignorant whether he-ought
mirari an timere. non enim desunt qui terreant, qui
to-wonder or to-fear not for are-lacking those-who terrify who
significationes eius graves praedicent. sciscitantur itaque et
significations its grave predict they-inquire and-so and
cognoscere volunt, prodigium sit an sidus.
to-learn wish a-prodigy it-be or a-star
at mehercules non aliud quis aut magnificentius 1.6
but by-Hercules not another-thing anyone either more-magnificently
quaesierit aut didicerit utilius quam de stellarum
could-inquire or learn more-usefully than about of-stars
siderumque natura, utrum flamma contracta, quod et visus
and-constellations the-nature whether flame compressed which both sight
noster affirmat et ipsum ab illis fluens lumen et calor inde
our affirms and the-very from them flowing light and heat thence
descendens, an non sint flammei orbes, sed solida quaedam
descending or not they-be flaming orbs but solid certain
terrenaque corpora, quae per igneos tractus labentia inde
and-earthy bodies which through fiery tracts gliding thence
splendorem trahant caloremque, non de suo clara.
brightness may-draw and-heat not from their-own bright
in qua opinione magni fuere viri, qui sidera crediderunt ex 1.7
in which opinion great were men who the-stars believed from
duro concreta et ignem alienum pascentia. ‘nam per se’,
hard-stuff compacted and fire another's feeding for by itself
inquiunt, ‘flamma diffugeret, nisi aliquid haberet, quod teneret
they-say flame would-scatter unless something it-had which it-might-hold
et a quo teneretur, conglobatamque nec stabili inditam
and by which it-might-be-held and-massed nor in-a-stable placed
corpori profecto iam mundus turbine suo dissipasset.’
body surely already the-world by-whirl its-own would-have-dispersed

It will help to ask whether comets share the stars' nature, since they rise and set and shine like them: if stars are earthy, comets are too; if comets, pure fire, last six months unbroken by the heavens' turning, stars may be fine matter too. It also matters whether the heavens turn round a still earth or the earth turns under still heavens, so that we ourselves rise and set: whether god drives everything round us, or us.

2.1 Ad haec investiganda proderit quaerere, num cometae
For these-things to-be-investigated it-will-profit to-ask whether comets
condicionis sint, cuius superiora. videntur enim cum illis
of-the-condition be of-which the-higher-ones they-seem for with them
quaedam habere communia: ortus et occasus, ipsam quoque,
certain-things to-have common risings and settings the-very also
quamvis spargatur et longius exeat, faciem (aeque enim
although it-is-scattered and farther goes-out appearance equally for
ignei splendidique sunt).
fiery and-bright they-are

2.2 itaque si omnino terrena sidera sunt, his quoque eadem
and-so if wholly earthy the-stars are for-these also the-same
sors erit; si vero nihil aliud sunt quam purus ignis
lot will-be if indeed nothing else they-are than pure fire
manensque mensibus senis neque illos conversio mundi solvit
and-remaining for-months six nor them the-revolution of-the-world dissolves
et velocitas, illa quoque possunt et tenui constare materia
and the-speed those also can both of-thin consist matter
nec ob hoc discuti assiduo caeli circumactu.
nor on-account-of this be-dispersed by-the-continual of-the-sky revolution

2.3 illo quoque pertinebit haec excussisse, ut sciamus,
to-that also it-will-pertain these-things to-have-examined that we-may-know
utrum mundus terra stante circumeat an mundo stante terra
whether the-world the-earth standing goes-around or the-world standing the-earth

vertatur. fuerunt enim, qui dicerent nos esse, quos rerum
turns there-were for those-who said us to-be whom of-things
natura nescientes ferat, nec caeli motu fieri ortus et occasus,
nature unknowing carries nor by-the-sky's motion to-arise risings and settings
sed nos ipsos oriri et occidere: digna res contemplatione,
but we ourselves to-rise and to-set worthy a-thing of-contemplation
ut sciamus, in quo rerum statu simus, pigerrimam sortiti
that we-may-know in what of-things state we-are the-most-sluggish allotted
an velocissimam sedem, circa nos deus omnia an nos agat.
or the-swiftest seat around us god all-things or us he-drives

III · NO RECORDS OF COMETS

The old sightings of comets must be collected, for they are too rare for their courses yet to be grasped. Such observation is new to Greece: Democritus suspected there were more moving stars than known but named none; Eudoxus brought the planets' motions from Egypt but said nothing of comets, nor did Conon, who collected the Egyptians' eclipses.

Necessarium est autem veteres ortus cometarum habere 3.1
Necessary it-is however the-old risings of-comets to-have
collectos. deprehendi enim propter raritatem eorum cursus
collected to-be-grasped for on-account-of rarity their the-course
adhuc non potest nec explorari, an vices servent et illos
still not can nor to-be-explored whether turns they-keep and them
ad suum diem certus ordo producat. nova haec caelestium
to their-own day a-fixed order brings-forth new this of-heavenly-bodies
observatio est et nuper in Graeciam invecta.
observation is and recently into Greece brought-in

3.2 Democritus quoque, subtilissimus antiquorum omnium,
Democritus also most-subtle of-the-ancients all
suspicari se ait plures stellas esse, quae currant, sed nec
to-suspect himself says several stars to-be which run but neither
numerum illarum posuit nec nomina, nondum comprehensis
the-number of-them did-he-set nor the-names not-yet grasped
quinque siderum cursibus. Eudoxus primus ab Aegypto hos
of-the-five stars the-courses Eudoxus first from Egypt these
motus in Graeciam transtulit, hic tamen de cometis nihil
motions into Greece transferred he yet about comets nothing
dicit: ex quo apparet ne apud Aegyptios quidem, quibus
says from which it-appears not among the-Egyptians even to-whom
maior caeli cura fuit, hanc partem elaboratam.
greater of-the-sky care was this part elaborated

3.3 Conon postea, diligens et ipse inquisitor, defectiones
Conon later diligent and himself an-inquirer eclipses
quidem solis observatas ab Aegyptiis collegit, nullam
indeed of-the-sun observed by the-Egyptians collected no
autem mentionem fecit cometarum, non praetermissurus,
however mention did-he-make of-comets not going-to-omit
si quid explorati apud illos comperisset.
if anything explored among them he-had-found

Apollonius of Myndus says the Chaldaeans count comets among the planets; Epigenes that they know nothing of them, and that comets are kindled by whirling air.

Duo certe, qui apud Chaldaeos studuisse se dicunt, 4.1
Two certainly who among the-Chaldaeans to-have-studied themselves say
Epigenes et Apollonius Myndius, peritissimus inspiciendorum
Epigenes and Apollonius of-Myndus most-expert in-inspecting
natalium, inter se dissident. hic enim ait cometas in
nativities among themselves disagree this-one for says comets in
numero stellarum errantium poni a Chaldaeis tenerique
the-number of-stars wandering to-be-placed by the-Chaldaeans and-to-be-held
cursus eorum. Epigenes contra ait se a Chaldaeis
the-courses of-them Epigenes on-the-contrary says himself from the-Chaldaeans
nihil de cometis habere comprensi, sed videri illos accendi
nothing about comets to-have grasped but to-seem them to-be-kindled
turbine quodam aëris concitati et intorti. primum ergo,
by-a-whirl certain of-air roused and twisted first therefore
si tibi videtur, opiniones huius ponamus ac refellamus.
if to-you it-seems-good the-opinions of-this-one let-us-set-down and let-us-refute
huic videtur plurimum virium habere ad omnes sublimium 4.2
to-this-one seems most of-strength to-have for all of-lofty-things
motus stella Saturni: 'haec, cum proxima signa Marti
the-motions the-star of-Saturn this when the-nearest signs to-Mars
premit aut in lunae viciniam transit aut in solis
it-presses or into of-the-moon the-neighborhood passes or into of-the-sun
incidit radios, natura ventosa et frigida contrahit pluribus
falls the-rays by-nature windy and cold contracts in-many
locis aëra conglobatque; deinde si radios solis assumpsit,
places the-air and-masses-it then if the-rays of-the-sun it-has-taken-on

tonat fulguratque; si Martem quoque consentientem habet,
it-thunders and-lightens if Mars also agreeing it-has
fulminat.
it-strikes-with-thunderbolts

4.3 praeterea', inquit, 'aliam materiam habent fulmina, aliam
besides he-says other material have thunderbolts other
fulgurationes: aquarum enim et omnis umidi evaporatio
lightnings of-waters for and of-every moist-thing the-evaporation
splendores tantum caeli citra ictum minaces movet, illa
brightnesses only of-the-sky short-of a-stroke threatening moves that
autem calidior sicciorque terrarum exhalatio fulmina extundit.
however hotter and-drier of-the-lands exhalation thunderbolts hammers-out
trabes vero et faces, quae nullo alio inter se quam
beams indeed and torches which by-nothing else among themselves than
magnitudine distant, hoc modo fiunt:
by-size differ in-this way arise

4.4 cum umida terrenaque in se globus aliquis aëris clausit,
when moist and-earthy-things into itself a-ball some of-air has-shut
quem turbinem dicimus, quacumque fertur, praebet speciem
which whirlwind we-call wherever it-is-borne it-affords the-appearance
ignis extenti, quae tam diu durat, quam diu mansit aëris
of-fire extended which so long lasts as long has-remained of-air
illa complexio umidi intra se terrenique multum vehens.'
that embrace moist within itself and-earthy much carrying

A whirlwind cannot make beams: it stays below the clouds and races, while beams hang high and linger; Aristotle called one beam a comet.

Ut a proximis mendaciis incipiam, falsum est faces et 5.1
That from the-nearest lies I-may-begin false it-is torches and
trabes exprimi turbine: turbo enim circa terras
beams to-be-squeezed-out by-a-whirlwind the-whirlwind for around the-earth
concipitur ac fertur ideoque arbusta radicitus vellit et,
is-conceived and is-borne and-therefore trees by-the-roots it-tears and
quacumque incubuit, solum nudat, silvas interim et tecta
wherever it-has-pressed the-ground strips woods meanwhile and roofs
corripiens, inferior fere nubibus, utique numquam altior;
seizing lower usually than-the-clouds assuredly never higher
at contra trabes editior caeli pars ostentat, itaque
but on-the-contrary beams a-higher of-the-sky part shows and-so
numquam nubibus obstiterunt.
never to-the-clouds have-they-stood-opposite
praeterea turbo omni nube velocius rapitur et in orbem 5.2
besides a-whirlwind than-every cloud faster is-snatched and into a-circle
vertitur, super ista velociter desinit et ipse se vi sua
is-turned besides these-things quickly it-ceases and itself it by-force its-own
rumpit; trabes autem non transcurrunt nec praetervolant ut
bursts beams however not run-across nor fly-past like
faces sed commorantur et in eadem caeli parte collucent.
torches but linger and in the-same of-the-sky part shine
Charmander quoque in eo libro, quem de cometis 5.3
Charmander also in that book which about comets
composuit, ait Anaxagorae visum grande insolitumque caelo
he-composed says by-Anaxagoras seen a-great and-unusual in-the-sky

lumen magnitudine amplae trabis, et id per multos dies
light of-the-size of-an-ample beam and that through many days
fulsisse. talem effigiem ignis longi fuisse Callisthenes
to-have-shone such an-image of-fire long to-have-been Callisthenes
tradit, antequam Burin et Helicen mare absconderet.
hands-down before Buris and Helice the-sea hid

5.4 Aristoteles ait non trabem illam sed cometen fuisse, ceterum
Aristotle says not a-beam that but a-comet to-have-been but
ob nimium solis ardorem non apparuisse sparsum
because-of the-excessive of-the-sun beat not to-have-appeared scattered
ignem, sed procedente tempore, cum iam minus flagraret,
the-fire but proceeding time when already less it-blazed
redditam suam cometae facem. in quo igne multa quidem
restored its-own to-the-comet the-torch in which fire many-things indeed
fuerunt digna quae notarentur, nihil tamen magis, quam quod,
were worthy which might-be-noted nothing yet more than that
ut ille fulsit in caelo, statim supra Burin et Helicen mare fuit.
as it shone in the-sky at-once over Buris and Helice the-sea was

5.5 numquid ergo Aristoteles non illam tantum sed omnes
surely-not then Aristotle not that only but all
trabes cometas esse credebat hanc habentes differentiam,
beams comets to-be believed this having difference
quod his continuus ignis est, ceteris sparsus? trabes
that to-these continuous fire is to-the-rest scattered beams
enim flammam aequalem habent nec ullo loco intermissam
for flame even have nor in-any place interrupted
aut languidam in ultimis vero partibus coactam, qualem
or faint in the-farthest indeed parts compressed such-as
fuisse in illa, de qua modo rettuli, Callisthenes tradit.
to-have-been in that about which just-now I-reported Callisthenes hands-down

Epigenes names two kinds: comets that blaze on every side and do not move, low and made like beams and torches from turbulent air full of the earth's dry and moist vapors, kindled again day after day as winds return at their set times; and those that stretch a tail one way and move past the stars, like the two of our time. The first, he thinks, arise as fires flung out by a whirlwind do, except that whirlwinds press down onto the earth while these struggle up from it.

'Duo', inquit Epigenes, 'cometarum genera sunt: alii ardorem 6.1
Two he-says Epigenes of-comets kinds there-are some heat
undique effundunt nec locum mutant, alii in unam partem
on-all-sides pour-out nor place change others in one direction
ignem vagum in modum comae porrigunt et stellas
fire wandering in the-manner of-hair stretch and the-stars
praetermeant (quales duo aetate nostra visi sunt). illi priores
pass-by such-as two in-age our seen were those former
criniti undique et immoti humiles fere sunt et isdem causis
haired on-all-sides and unmoved low usually are and by-the-same causes
quibus trabes facesque conflantur ex intemperie aëris turbidi
by-which beams and-torches are-kindled from the-distemper of-air turbid
multa secum arida umidaque terris exhalata versantis.
many-things with-itself dry and-moist from-the-lands exhaled turning
potest enim spiritus per angusta elisus accendere supra 6.2
can for breath through narrows squeezed kindle above
se positum aëra plenum alimentis idoneis igni, deinde
itself placed the-air full of-foods suited to-fire then
propellere eum niti, donec ex aliqua causa refluat rursus
to-drive it to-strive until from some cause it-flows-back again
ac remittatur, deinde iterum proximo die ac sequentibus
and is-let-go then again on-the-next day and the-following
consurgere et eundem locum inflammare: videmus enim ventos
to-rise and the-same place to-inflame we-see for winds

per complures dies ad constitutum redire; pluviae quoque
through several days to an-appointed-time return rains also
et alia tempestatum genera ad praescriptum revertuntur.'
and other of-storms kinds to the-prescribed-time come-back

6.3 ut breviter autem voluntatem eius exprimam, eadem fieri
that briefly however the-intent his I-may-express by-the-same to-arise
ratione hos cometas existimat, qua fiunt ignes turbine
method these comets he-thinks by-which arise fires by-a-whirlwind
eiecti: hoc unum interest, quod illi turbines ex superiori
thrown-out this one-thing differs that those whirlwinds from the-upper
parte in terras deprimuntur, hi de terra in superiora
part onto the-lands are-pressed-down these from the-earth into the-upper-regions
eluctantur.
struggle-up

VII · NOT MADE BY WIND

Wind does not make comets: they appear in calm air and above the winds, and they have run east and west, not only south.

7.1 Adversus haec multa dicuntur. primum si ventus in causa
Against this many-things are-said first if wind in the-cause
esset, numquam cometes sine vento appareret: nunc autem
were never a-comet without wind would-appear now however
et quietissimo aëre apparet. deinde si vento fieret, cum vento
even in-the-quietest air it-appears then if by-wind it-arose with wind
caderet: et si vento inciperet, cresceret vento eoque
it-would-fall and if with-wind it-began it-would-grow with-wind and-so-much
esset ardentior, quo ille incitatior. his accedit illud quoque,
would-be more-burning as that more-roused to-these is-added this also

quod ventus multas aëris partes impellit, cometes uno
that wind many of-the-air parts drives a-comet in-one
loco apparet; et ventus in sublime non pervenit, cometae
place appears and wind to the-height not reaches comets
autem visuntur supra quam ire ventis licet.
however are-seen above where to-go for-winds it-is-allowed
Transit deinde ad illos, quos ait certiorem habere stellarum 7.2
He-passes then to those which he-says surer to-have of-stars
speciem, qui et procedunt et signa praetereunt. hos ait
appearance which both advance and the-signs pass-by these he-says
ex isdem causis fieri, quibus illos quos dixit humiliores,
from the-same causes to-arise by-which those which he-called lower
hoc tamen interesse, quod terrarum exhalationes multa
this yet to-differ that of-the-earth exhalations many-things
secum arida ferentes celsiorem petant partem et in
with-themselves dry carrying a-higher seek part and into
editiora caeli aquilone pellantur.
the-loftier-parts of-the-sky by-the-north-wind are-driven
at si illos aquilo propelleret, ad meridiem semper 7.3
but if them the-north-wind drove-forward to the-south always
agerentur, quo ventus hic nititur: atqui varie
they-would-be-driven whither wind this strives and-yet variously
cucurrerunt, alii in ortum alii in occasum, omnes in
they-have-run some toward the-east others toward the-west all into
flexum; quod iter non daret ventus. deinde si aquilonis
a-curve which path not would-give wind then if of-the-north-wind
illos impetus a terris in altum levaret, aliis ventis
them the-impetus from the-lands into the-height raised with-other winds
non orirentur cometae: atqui oriuntur.
not would-arise comets and-yet they-arise

Epigenes' other account, a whirlwind of moist and dry vapor that kindles and lifts its contents, ignores the difference: whirlwinds are swift, violent, and erratic, comets slow and orderly on a set path, as no one thinks the moon or planets driven by wind. And whirlwinds reach only the clouds, while comets glide among the stars above the moon.

8.1 Illam nunc rationem eius (utraque enim utitur) refellamus:
That now reasoning his both for he-uses let-us-refute
'quicquid umidi aridique terra efflavit, cum in unum
whatever of-moist and-dry the-earth has-breathed-out when into one
coit, ipsa discordia corporum spiritum versat in
it-comes-together the-very discord of-the-bodies breath turns into
turbinem; tunc illa vis venti circumeuntis quicquid intra se
a-whirlwind then that force of-wind going-around whatever within itself
comprehendit, cursu suo accendit et levat in altum, ac
it-has-embraced by-course its-own kindles and raises into the-height and
tam diu manet splendor ignis expressi, quamdiu alimenta
so long remains the-brightness of-the-fire squeezed-out as-long-as the-foods
sufficiunt, quibus desinentibus et ipse subsidit.'
suffice which failing also itself subsides

8.2 qui hoc dicit, non notat, qualis sit turbinum cursus
he-who this says not notes of-what-kind may-be of-whirlwinds the-course
et qualis cometarum: illorum rapidus ac violentus et
and of-what-kind of-comets of-those rapid and violent and
ipsis ventis citatior est, cometarum lenis et qui
than-the-very winds swifter it-is of-comets gentle and which
per diem noctemque quantum transierit abscondat. deinde
through day and-night how-much it-has-crossed hides then
turbinum motus vagus est et disiectus et, ut Salustii
of-whirlwinds the-motion wandering is and scattered and as of-Sallust

verbo utar, verticosus, cometarum autem compositus et
the-word I-may-use eddying of-comets however composed and
destinatum iter carpens.
an-appointed path pursuing
num quis nostrum crederet lunam aut quinque sidera 8.3
surely-not anyone of-us would-believe the-moon or the-five stars
rapi vento aut turbine rotari? non, ut puto. quare? quia
to-be-swept by-wind or by-whirlwind to-be-rolled not as I-think why because
non est illis perturbatus et impotens cursus. ad cometas
not is to-them disordered and uncontrolled the-course to comets
idem transferamus: non confuse nec tumultuose eunt, ut
the-same let-us-transfer not confusedly nor tumultuously do-they-go that
aliquis credat illos causis turbulentis et inconstantibus pelli.
anyone believe them by-causes turbulent and inconstant to-be-driven
deinde etiamsi vertices isti comprehendere terrena umidaque 8.4
then even-if whirls those to-embrace earthy and-moist-things
et ex humili in altum exprimere possent, non tamen supra
and from low into the-height to-squeeze-out could not yet above
lunam efferrent: omnis illis usque in nubilum vis est,
the-moon they-would-carry all to-them right to cloudiness the-force is
cometas autem immixtos stellis videmus per superiora
comets however mixed-among the-stars we-see through the-upper-regions
labentes. ergo veri simile non est in tantum spatium
gliding therefore of-the-truth like not it-is in so-great a-space
perseverare turbinem, qui quo maior est maturius corrumpitur.
to-persist a-whirlwind which the greater it-is the-sooner is-destroyed

Either the force is weak and cannot rise, or strong and soon breaks itself. Epigenes says the lower comets stay low because they hold more earthy matter, yet the longer-lasting, higher ones must have fuller fuel. A whirlwind, made of winds fighting until one prevails, lasts not even an hour, since violence hastens its own end; it is fiercest near the ground and slacker aloft, and if it reached the stars' path the heavens' turning would scatter it.

9.1 Utrumlibet itaque eligat: aut levis vis in altum pervenire
Whichever and-so let-him-choose either a-light force into the-height to-reach
non poterit, aut magna et concitata citius ipsa se franget.
not will-be-able or great and roused more-quickly itself it will-break
praeterea humiliores illi cometae ob hoc (ut putat)
besides lower those comets on-account-of this as he-thinks
non exeunt altius, quia plus terreni habent (gravitas illos
not go-out higher because more of-earthy they-have the-weight them
sua in proximo tenet): atqui necesse est in his cometis
their-own in the-nearest holds and-yet necessary it-is in these comets
diuturnioribus celsioribusque plenior materia sit; neque enim
longer-lasting and-higher fuller the-material be nor for
diutius apparerent, nisi maioribus nutrimentis sustinerentur.
longer would-they-appear unless by-greater nourishments they-were-sustained

9.2 Dicebam modo non posse diu verticem permanere nec
I-was-saying just-now not to-be-able long a-whirl to-endure nor
supra lunam aut usque in stellarum locum crescere. nempe
above the-moon or right to of-the-stars the-place to-grow surely
efficit turbinem plurium ventorum inter ipsos luctatio. haec
makes a-whirlwind of-several winds among themselves the-struggle this
diu non potest esse: nam cum vagus et incertus spiritus
long not can be for when wandering and uncertain breath
convolutatus est, novissime uni vis omnium cedit;
rolled-together has-been at-last to-one the-force of-all yields

nulla autem tempestas magna perdurat (procellae quanto 9.3
no however storm great lasts gales the
plus habent virium, tanto minus temporis; venti cum ad
more they-have of-strength the less of-time the-winds when to
summum venerunt, remittuntur; omnia violenta necesse est
the-top they-have-come are-relaxed all violent-things necessary it-is
ipsa concitatione in exitum sui tendant). nemo
by-the-very excitement toward the-end of-themselves tend no-one
itaque turbinem toto die vidit, ne hora quidem: mira
and-so a-whirlwind for-a-whole day has-seen not for-an-hour even wonderful
velocitas eius et mira brevitas est. praeterea violentius
the-speed its and wonderful the-brevity is besides more-violently
celeriusque in terra circaque eam volvitur; quo excelsior, eo
and-faster on the-earth and-around it it-is-rolled the higher the
solutior laxiorque est et ob hoc citius diffunditur.
looser and-slacker it-is and on-account-of this more-quickly is-diffused
adice nunc, quod, etiamsi in summum pertenderet, ubi 9.4
add now that even-if to the-top it-should-reach where
sideribus iter est, utique ab eo motu, qui universum
for-the-stars the-path is assuredly by that motion which the-universe
trahit, solveretur: quid enim est illa conversione
draws it-would-be-dissolved what for is than-that revolution
mundi citatius? hac omnium ventorum in unum congesta
of-the-world swifter by-this of-all winds into one heaped
vis dissiparetur et terrae solida fortisque compages,
the-force would-be-scattered and of-the-earth the-solid and-strong structure
nedum particula aëris torti.
not-to-speak-of a-particle of-air twisted

Fire carried up by a whirlwind cannot stay aloft unless the whirlwind does, and the heavens' own rotation would overcome it; what of comets that lasted six months? The steady divine motion of the moon and the spheres shows no hindrance, so no storm reaches among the stars. And fire kindled in a round, column-like whirlwind should be round, whereas a comet is long and scattered.

10.1 Praeterea manere in alto non potest ignis turbine
Besides to-remain on high not can fire by-a-whirlwind
illatus, nisi ipse quoque permanet turbo. quid porro
brought unless itself also remains the-whirlwind what further
tam incredibile est quam in turbine longior mora? utique
so incredible is as in a-whirlwind longer delay assuredly
motus motu contrario vincitur (habet enim suam locus
motion by-motion contrary is-overcome it-has for its-own place
ille vertiginem, quae rapit caelum 'sideraque alta trahit
that whirling which snatches the-sky and-the-stars high draws
celerique volumine torquet'). et ut des ei aliquam
and-with-swift roll twists and though you-grant to-it some
advocationem, quod fieri nullo modo potest: quid de
respite which to-happen in-no way can what about
his cometis dicetur, qui senis mensibus apparuerunt?
those comets will-be-said which for-six months appeared

10.2 deinde duo debent esse motus eodem loco, alter ille divinus et
then two must be motions in-the-same place the-one that divine and
assiduus, suum sine intermissione peragens opus, alter novus
constant its-own without intermission completing work the-other new
et recens et turbine illatus: necesse est ergo alter alteri
and fresh and by-a-whirlwind brought necessary it-is therefore the-one to-the-other
impedimento sit. atqui quia lunaris illa orbita ceterorumque
a-hindrance be and-yet because lunar that orbit and-of-the-others

supra lunam meantium motus irrevocabilis est nec haesitat
above the-moon moving the-motion irrevocable is nor hesitates
usquam nec resistit nec dat ullam nobis suspicionem obiectae
anywhere nor halts nor gives any to-us suspicion set-against
sibi morae, fidem non habet turbinem, violentissimum et
itself of-a-delay credibility not has a-whirlwind most-violent and
perturbatissimum tempestatis genus, in medios siderum
most-disordered of-storm kind into the-middle of-the-stars'
ordines pervenire et inter disposita ac tranquilla versari.
ranks to-come and among arranged and calm-things to-move
credamus ignem circumacto turbine accendi et hunc 10.3
let-us-believe fire by-a-driven-round whirlwind to-be-kindled and this
expulsum in sublime praebere nobis opinionem speciemque
expelled into the-height to-provide to-us the-idea and-appearance
sideris longi: puto, talis esse debet, quale est id, quod
of-a-star long I-think such to-be it-ought as is that which
ignem efficit; turbinis autem rotunda facies est (in eodem
the-fire effects of-a-whirlwind however round the-shape is in the-same
enim vestigio versatur et columnae modo circumagentis
for track it-turns and of-a-column in-the-manner driving-round
se volvitur): ergo ignem quoque, qui inclusus est, similem
itself it-rolls therefore the-fire also which shut-in is like
esse illi oportet; atqui longus est et disiectus minimeque
to-be to-it it-ought and-yet long it-is and scattered and-least
similis in orbem coacto.
like into a-ball a-thing-compressed

Comets are seen in every part of the sky, not only in the zodiac, east and west, but most often in the north. The Greeks distinguish bearded, hairy, and upward-flaring kinds, but all are rightly called comets; since they appear at long intervals and watchers disagree about their look, all must be explained alike: an unusual star trailing scattered fire.

11.1 Epigenen relinquamus et aliorum opiniones persequamur. quas
Epigenes let-us-leave and of-others the-opinions let-us-pursue which
antequam exponere incipiam, illud imprimis praesumendum
before to-set-out I-begin this first to-be-presupposed
est, cometas non in una parte caeli aspici nec in
is comets not in one part of-the-sky to-be-seen nor in
signifero tantum orbe sed tam in ortu quam in occasu,
the-zodiacal only circle but as-much in the-east as in the-west
frequentissime tamen circa septentrionem.
most-often yet around the-north

11.2 forma eius †non est una: quamvis enim Graeci discrimina
the-form its not is one although for the-Greeks distinctions
fecerint eorum, quibus in morem barbae flamma dependet, et
have-made of-those for-whom in the-manner of-a-beard the-flame hangs-down and
eorum, qui undique circa se velut comam spargunt, et
of-those which on-all-sides around themselves as-if hair spread and
eorum, quibus fusus quidem est ignis sed in verticem tendens,
of-those for-whom spread indeed is the-fire but toward the-top tending
tamen omnes isti eiusdem notae sunt cometaeque recte dicuntur.
yet all these of-the-same mark are and-comets rightly are-called

11.3 quorum cum post longum tempus appareant formae, inter
of-which since after long time appear the-forms among
se eos comparare difficile est: illo ipso tempore, quo
themselves them to-compare difficult it-is at-that very time in-which

apparent, inter spectantes de habitu illorum non convenit
they-appear among the-onlookers about the-appearance of-them not it-is-agreed
sed, prout cuique acrior acies aut hebetior est, ita ait aut
but according-as to-each sharper the-sight or duller is so he-says either
lucidiorem esse aut rubicundiorem et crines aut in interiora
brighter to-be or redder and the-hairs either into the-inner-parts
reductos aut in latera demissos. sed sive sunt aliquae
drawn-back or onto the-sides let-down but whether there-are some
differentiae illorum sive non sunt, eadem fiant ratione necesse
differences of-them or not there-are by-the-same arise method necessary
est cometae: illud unum constare debet, praeter solitum aspici
it-is comets that one-thing to-be-agreed must beyond the-usual to-be-seen
novam sideris faciem circa se dissipatum ignem trahentis.
a-new of-a-star appearance around itself scattered fire drawing

XII · NOT TWO PLANETS MEETING

A comet is not two planets meeting: the planets are seen beside comets, their meetings last moments while comets stay months, and they keep to the zodiac.

Quibusdam antiquorum haec placet ratio: cum ex stellis 12.1
To-certain of-the-ancients this pleases reasoning when of the-stars
errantibus altera se alteri applicuit, confuso in unum
wandering one itself to-the-other has-applied with-mixed into one
duarum lumine facies longioris sideris redditur; nec hoc
of-the-two light the-appearance of-a-longer star is-rendered nor this
tunc tantum evenit, cum stella stellam attigit, sed etiam
then only happens when star star has-touched but also

cum appropinquavit: intervallum enim, quod inter duas est,
when it-has-approached the-interval for which between the-two is
illustratur ab utraque inflammaturque et longum ignem efficit.
is-lit-up by both and-is-inflamed and long fire effects

12.2 his illud respondebimus, certum esse numerum stellarum
to-these this we-shall-answer fixed to-be the-number of-the-stars
mobilium, solere autem eodem tempore et has apparere
movable to-be-wont however at-the-same time both these to-appear
et cometen, ex quo manifestum fit non illarum coitu
and a-comet from which manifest it-becomes not by-their meeting
fieri cometen sed proprium esse et sui iuris.
to-arise a-comet but its-own to-be and of-its-own right

12.3 etiamnunc frequenter stella sub altioris stellae vestigium
still often a-star under of-a-higher star the-track
venit: et Saturnus aliquando supra Iovem est et Mars
comes and Saturn sometimes above Jupiter is and Mars
Venerem aut Mercurium recta linea despicit, nec tamen
Venus or Mercury in-a-straight line looks-down-on nor yet
propter hunc illorum concursum, cum alter alterum subit,
on-account-of this their meeting when the-one the-other goes-under
cometes fit; alioquin annis omnibus fieret, omnibus
a-comet arises otherwise in-years all it-would-arise in-all
enim aliquae stellae in eodem signo simul sunt.
for some stars in the-same sign together are

12.4 si cometen faceret stella stellae superveniens, momento
if a-comet made a-star on-a-star coming-on in-a-moment
esse desineret. summa enim velocitas transeuntium est,
to-be it-would-cease the-highest for the-speed of-those-passing is
ideoque omnis defectio siderum brevis est, quia cito
and-therefore every eclipse of-stars brief is because quickly
illa idem cursus, qui admoverat, abstrahit: videmus
them the-same course which had-brought-them-near draws-away we-see

solem et lunam intra exiguum tempus, cum obscurari
the-sun and the-moon within a-short time when to-be-darkened
coeperunt, liberari — quanto celerior debet fieri in
they-have-begun to-be-freed by-how-much faster must to-happen in
stellis digressio tanto minoribus? atqui cometae senis
stars the-parting by-so-much in-smaller-ones and-yet comets for-six
mensibus manent, quod non accideret, si duarum stellarum
months remain which not would-happen if of-two stars
conventu gignerentur: illae enim diu cohaerere non possunt
by-the-meeting they-were-begotten those for long to-cohere not can
et necesse est illas lex celeritatis suae separet.
and necessary it-is them the-law of-speed their-own separates
praeterea ista nobis vicina videntur, ceterum intervallis 12.5
besides those to-us near seem but by-intervals
ingentibus dissident: quomodo ergo potest altera stella usque
huge they-are-apart how then can one star right
ad alteram stellam ignem mittere, ita ut utraque iuncta
to another star fire send so that both joined
videatur, cum sint ingenti regione diductae?
may-seem since they-be by-a-huge region separated
'stellarum', inquit, 'duarum lumen miscetur et praebet unius 12.6
of-the-stars he-says two the-light is-mixed and presents of-one
speciem, nempe sic quemadmodum rubicunda fit nubes
the-appearance surely so as reddish becomes a-cloud
solis incursu, quemadmodum vespertina aut matutina
of-the-sun by-the-onset as the-evening-clouds or the-morning-ones
flavescunt, quemadmodum arcus alterve sol visitur.'
grow-yellow as a-rainbow or-a-second sun is-seen
haec omnia primum magna vi efficiuntur; sol enim est, 12.7
these all first with-great force are-produced the-sun for it-is
qui ista succendit: stellarum non est eadem potentia. deinde
which these kindles of-the-stars not is the-same power then

nihil horum nisi infra lunam in terrarum vicinia nascitur,
none of-these except below the-moon in of-the-lands the-neighborhood is-born
superiora pura et sincera sunt et coloris sui semper.
the-upper-regions pure and clear are and of-color their-own always
12.8 praeterea si quid tale accideret, non haberet moram, sed
besides if anything such happened not it-would-have delay but
extingueretur cito, sicut coronae, quae solem lunamve cingunt,
would-be-extinguished quickly as the-crowns which the-sun or-the-moon encircle
intra brevissimum spatium exolescunt; ne arcus quidem diu
within a-very-brief space fade not the-rainbow even long
perseverat: si quid esset tale, quo medium inter duas
persists if anything there-were such by-which the-middle between two
stellas spatium confunderetur, aeque cito dilaberetur, utique
stars space were-confused equally quickly it-would-dissolve assuredly
non in tantum maneret, quantum morari cometae solent.
not to such-a-degree it-would-remain as-long-as to-linger comets are-wont
stellis intra signiferum cursus est, hunc premunt gyrum; at
for-the-stars within the-zodiac the-course is this they-press circuit but
cometae ubique cernuntur: non magis certum est illis tempus,
comets everywhere are-seen not more fixed is to-them a-time
quo appareant, quam locus ullus, ultra quem non exeant.
in-which they-may-appear than a-place any beyond which not they-may-go-out

Artemidorus replies that countless unseen planets wander besides the five, and comets are new ones mixing their light with the fixed stars. That is the least of his lies: he makes the sky's outer rim a solid roof of packed atoms, with a fiery layer beneath it pierced by vents and windows through which fire from outside the universe flows in and out again.

Adversus haec ab Artemidoro illa dicuntur: non has tantum 13.1
Against this by Artemidorus those-things are-said not these only
stellas quinque discurrere, sed has solas observatas esse;
stars five to-run-about but these alone observed to-have-been
ceterum innumerabiles ferri per occultum aut propter
but innumerable to-be-borne through hidden-ways or because-of
obscuritatem luminis nobis ignotas aut propter circulorum
the-obscurity of-their-light to-us unknown or because-of of-their-circles
positionem talem, ut tunc demum, cum ad extrema eorum
the-position such that then at-last when to the-extremities of-them
venere, visantur: 'ergo intercurrunt quaedam stellae', ut
they-have-come they-are-seen therefore run-in-between certain stars as
ait, 'nobis novae, quae lumen suum constantibus misceant
he-says to-us new which light their-own with-the-fixed-ones mix
et maiorem quam stellis mos est porrigant ignem.'
and greater than for-stars the-custom is stretch-out fire
hoc ex his, quae mentitur, levissimum est: tota eius enarratio 13.2
this of these which he-lies lightest is the-whole his account
mundi mendacium impudens est. nam si illi credimus, summa
of-the-world a-lie shameless is for if him we-believe the-highest
caeli ora solidissima est, 'in modum tecti durata et alti
of-the-sky border most-solid is in the-manner of-a-roof hardened and of-a-deep
crassique corporis, quod atomi congesti coacervatique fecerunt.
and-thick body which atoms heaped and-piled-up have-made

13.3 huic proxima superficies ignea est, ita compacta, ut solvi
to-this next the-surface fiery is so compacted that to-be-dissolved
vitiarique non possit, habet tamen spiramenta quaedam et
and-damaged not it-can it-has yet breathing-holes certain and
quasi fenestras, per quas ex parte exteriore mundi
as-if windows through which from the-part outer of-the-world
influant ignes, non tam magni, ut interiora conturbent,
may-flow-in fires not so great that the-inner-parts they-disturb
sed qui rursus ex mundo in exteriora labuntur: itaque
but which again out-of the-world into the-outer-parts glide and-so
haec, quae praeter consuetudinem apparent, influxerunt ex
these which beyond custom appear have-flowed-in from
illa ultra mundum iacente materia.'
that beyond the-world lying matter

XIV · THE SOLID ROOF REFUTED

To refute those who call the sky solid is to swing at the wind: what keeps such a weight aloft, and why are comets so rare?

14.1 Solvere ista quid aliud est quam manum exerere et in
To-refute those-things what else is-it than a-hand to-thrust-out and into
ventum iactare bracchia? velim tamen mihi dicat iste,
the-wind to-throw the-arms I-would-wish yet me he-would-tell this-man
qui mundo tam firma lacunaria imposuit, quid sit, quare
who on-the-world so firm ceilings has-imposed what there-is why
credamus illi tantam esse crassitudinem caeli. quid fuit,
we-should-believe him so-great to-be the-thickness of-the-sky what was-it
quod illo tam solida corpora adduceret et ibi detineret?
which thither so solid bodies brought and there kept

deinde quod tantae crassitudinis est, necesse est et magni 14.2
then what of-so-great thickness is necessary it-is also of-great
ponderis sit: quomodo ergo in summo manent gravia?
weight it-be how then on the-top remain heavy-things
quomodo illa moles non descendit et se onere suo
how that mass not descends and itself by-burden its-own
frangit? fieri enim non potest, ut tanta vis ponderis,
breaks to-happen for not can that so-great a-force of-weight
quantam ille substituit, pendeat et levibus innixa sit;
as-great-as he substitutes hang and on-light-things propped be
ne illud quidem potest dici, extrinsecus esse aliqua retinacula, 14.3
not that even can be-said from-outside to-be some stays
quibus cadere prohibeatur, nec rursus de medio aliquid
by-which to-fall it-is-prevented nor again from the-middle something
esse oppositi, quod imminens corpus excipiat ac fulciat;
to-be opposed which the-overhanging body may-catch and prop
illud etiamnunc nemo dicere audebit, mundum ferri per
that still no-one to-say will-dare the-world to-be-borne through
immensum et cadere quidem, sed non apparere an cadat,
the-boundless and to-fall indeed but not to-appear whether it-falls
quia praecipitatio eius aeterna est, nihil habens novissimum,
because the-plunging its eternal is nothing having last
in quod incurrat.
into which it-may-run
hoc quidam de terra dixerunt, cum rationem nullam 14.4
this certain about the-earth have-said when reason no
invenirent, propter quam pondus in aëre staret: ‘fertur’,
they-found on-account-of which a-weight in the-air should-stand it-is-borne
inquiunt, ‘semper: sed non apparet an cadat, quia
they-say always but not it-appears whether it-falls because
infinitum est, in quod cadit.’ quid est deinde, quo
infinite is into which it-falls what is-there then by-which

probes non quinque tantum stellas moveri sed multas
you-may-prove not five only stars to-be-moved but many
et in multis mundi regionibus? aut si hoc sine ullo
and in many of-the-world regions or if this without any
probabili argumento licet respondere, quid est, quare
probable argument it-is-allowed to-answer what is-there why
non aliquis aut omnes stellas moveri aut nullam dicat?
not someone either all stars to-be-moved or none may-say
praeterea nihil te adiuvat ista stellarum passim euntium
besides nothing you helps that of-stars everywhere going
turba: nam quo plures fuerint, saepius in aliquas
crowd for the more they-have-been the-more-often into some
incident; rari autem cometae et ob hoc mirabiles sunt.
they-will-fall rare however comets and on-account-of this wonderful are

XV · COMETS LARGER THAN THE SUN

Every age's records testify against him. After the death of Demetrius of Syria, shortly before the Achaean War, a comet no smaller than the sun blazed red and fiery, then shrank and vanished: a thousand stars together would not equal it. Under Attalus a modest comet grew until it stretched to the equator, as long as the Milky Way: how many planets would fill so long a tract with continuous fire?

15.1 Quid, quod testimonium dicet contra te omnis aetas, quae
What of-the-fact-that testimony will-give against you every age which
talium stellarum exortus et adnotavit et posteris tradidit? post
of-such stars the-risings both has-noted and to-posterity handed-down after
mortem Demetrii Syriae regis, cuius Demetrius et Antiochus
the-death of-Demetrius of-Syria the-king whose Demetrius and Antiochus
liberi fuere, paulo ante Achaicum bellum cometes effulsit
children were a-little before the-Achaean war a-comet shone-forth

non minor sole: primo igneus ac rubicundus orbis fuit
not smaller than-the-sun first fiery and reddish the-disk was
clarumque lumen emittens, quanto vinceret noctem, deinde
and-clear light sending-out as-much-as might-overcome night then
paulatim magnitudo eius districta est et evanuit claritas,
gradually the-size its drawn-in was and vanished the-brightness
novissime totus intercidit. quot ergo coire stellas
at-last wholly it-perished how-many then to-come-together stars
oportet, ut tantum corpus efficiant? mille in unum
must so-that so-great a-body they-may-produce a-thousand into one
licet congreges, numquam hunc habitum solis aequabunt.
though you-gather never this condition of-the-sun will-they-equal
Attalo regnante initio cometes modicus apparuit, 15.2
with-Attalus reigning at-the-beginning a-comet moderate appeared
deinde sustulit se diffuditque et usque in aequinoctialem
then raised itself and-spread-out and right to the-equinoctial
circulum venit, ita ut illam plagam caeli, cui lactea
circle came so that that region of-the-sky to-which Milky
nomen est, in immensum extentus aequaret. quot ergo
the-name is into the-boundless stretched it-equaled how-many then
convenisse debent erraticae, ut tam longum caeli
to-have-come-together ought wandering-stars so-that so long of-the-sky
tractum occuparent igne continuo?
a-tract they-might-occupy with-fire continuous

Against the witnesses: Ephorus' authority falls easily, for he is a historian, and historians court readers with marvels, some credulous, some careless, some fond of lies. Ephorus often deceives and is deceived: he says the comet that sank Helice and Buris, watched by every eye, split into two stars, which no one else reports. Who could see that moment, and why did no one see a comet made of two? And which of the five planets were they?

16.1 Contra argumenta dictum est, contra testes dicendum
Against the-arguments said it-has-been against the-witnesses to-be-said
est. nec magna molitione detrahenda est auctoritas
is nor with-great effort to-be-withdrawn is the-authority
Ephoro: historicus est. quidam incredibilium relatu
from-Ephorus a-historian he-is certain of-incredible-things by-the-telling
commendationem parant et lectorem aliud acturum, si
commendation prepare and the-reader other-things going-to-do if
per cottidiana duceretur, miraculo excitant; quidam creduli
through daily-things he-were-led by-a-marvel they-rouse certain credulous
quidam neglegentes sunt, quibusdam mendacium obrepit
certain careless are on-certain a-lie creeps
quibusdam placet, illi non evitant hi appetunt —
to-certain it-is-pleasing those not avoid-it these seek-it
16.2 haec in commune de tota natione, quae approbari opus
this in common about the-whole tribe which to-be-approved work
suum et fieri populare non putat posse, nisi illud
its-own and to-become popular not thinks to-be-able unless it
mendacio aspersit. Ephorus vero non est religiosissimae
with-a-lie it-has-sprinkled Ephorus indeed not is of-most-scrupulous
fidei: saepe decipitur, saepe decipit, sicut hunc cometen,
good-faith often he-is-deceived often deceives as this comet
qui omnium mortalium oculis custoditus est, quia ingentis
which by-all mortals' eyes watched has-been because of-a-huge

rei traxit eventum, cum Helicen et Burin ortu suo
thing it-drew-on the-outcome when Helice and Buris by-rising its-own
merserit, ait ilico discessisse in duas stellas, quod
it-submerged he-says straightway to-have-parted into two stars which
praeter illum nemo tradidit.
besides him no-one has-handed-down
quis enim posset observare illud momentum, quo cometes 16.3
who for could observe that moment in-which the-comet
solutus et in duas partes redactus est? quomodo autem,
dissolved and into two parts reduced has-been how however
si est qui viderit cometen in duas dirimi, nemo vidit
if there-is who has-seen a-comet into two to-be-parted no-one has-seen
fieri ex duabus? quare autem non adiecit, in quas stellas
to-become from two why however not did-he-add into which stars
divisus sit, cum aliqua ex quinque stellis esse debuerit?
divided it-was since some of the-five stars to-be it-should-have

XVII · APOLLONIUS: COMETS ARE STARS

Apollonius holds that comets are many and are stars in their own right, long rather than round, seen only at the lowest point of their course.

Apollonius Myndius in diversa opinione est: ait enim 17.1
Apollonius of-Myndus in a-different opinion is he-says for
cometen non unum ex multis erraticis effici sed multos
a-comet not one from many wandering-stars to-be-produced but many
cometas erraticos esse. ‘non est’, inquit, ‘species falsa nec
comets wandering to-be not it-is he-says an-appearance false nor
duarum stellarum confinio ignis extentus, sed proprium sidus
of-two stars by-the-border fire extended but its-own star

cometae est sicut solis ac lunae: talis illi forma est, non
the-comet is just-as of-the-sun and of-the-moon such to-it form is not
in rotundum restricta sed procerior et in longum producta.
into round confined but longer and into length drawn-out
17.2 ceterum non est illi palam cursus: altiora mundi secat
but not is to-it openly the-course the-higher-parts of-the-world it-cuts
et tunc demum apparet, cum in imum cursus sui venit.
and then at-last appears when to the-lowest of-course its-own it-comes
nec est, quod putemus eundem visum esse sub
nor is-there why we-should-think the-same seen to-have-been under
Claudio, quem sub Augusto vidimus, nec hunc, qui sub
Claudius which under Augustus we-saw nor this-one which under
Nerone Caesare apparuit et cometis detraxit infamiam,
Nero Caesar appeared and from-comets has-taken-away infamy
illi similem fuisse, qui post divi Iulii obitum ludis
to-that like to-have-been which after the-deified Julius' death at-the-games
Veneris Genitricis circa undecimam horam diei emersit.
of-Venus Genetrix around the-eleventh hour of-the-day emerged
17.3 multi variique sunt, dispares magnitudine, dissimiles colore:
many and-various they-are unequal in-size unlike in-color
aliis rubor est sine ulla luce, aliis candor et purum
to-some redness is without any light to-others whiteness and pure
liquidumque lumen, aliis flamma et haec non sincera
and-clear light to-others flame and this not unmixed
nec tenuis sed multum circa se volvens fumidi ardoris;
nor thin but much around itself rolling of-smoky heat
cruenti quidam minacesque omen post se futuri sanguinis
bloody certain and-threatening an-omen behind them of-future blood
ferunt. hi minuunt augentque lumen suum quemadmodum
carry these diminish and-increase light their-own as
alia sidera, quae clariora cum descendere sunt maioraque,
other stars which brighter when they-have-descended are and-greater

quia ex loco propiore visuntur, minora cum redeunt et
because from a-place nearer they-are-seen smaller when they-return and
obscuriora, quia abducunt se longius.'
darker because they-withdraw themselves farther

XVIII · COMETS ARE SEEN THROUGH

The reply: comets are largest when first seen, keep outside the zodiac, and are seen through like clouds, so they are a light, hasty fire, not stars.

Adversus haec protinus respondetur non idem accidere 18.1
Against these-things straightway it-is-answered not the-same to-happen
in cometis, quod in ceteris. cometae enim quo primum
in comets as in the-others comets for on-which first
die apparuerunt, maximi sunt; atqui deberent crescere, quo
day they-have-appeared greatest are and-yet they-ought to-grow the
propius accederent: nunc autem manet illis prima facies,
nearer they-approached now however remains to-them the-first appearance
donec incipiant extingui. deinde quod adversus priores,
until they-begin to-be-extinguished then what against the-former
etiam adversus hunc dicitur: si erraret cometes essetque
also against this-one is-said if wandered a-comet and-were
sidus, intra signiferi terminos moveretur, intra quos omne
a-star within the-zodiac's bounds it-would-be-moved within which every
sidus cursus suos colligit.
star courses its-own gathers
numquam apparet stella per stellam, acies nostra non 18.2
never appears a-star through a-star sight our not
potest per medium sidus exire, ut per illud superiora
can through the-middle-of a-star go-out so-that through it the-higher-things
perspiciat; per cometen autem non aliter quam per
it-may-see-through through a-comet however not otherwise than through

nubem ulteriora cernuntur: ex quo apparet illum non esse
a-cloud farther-things are-seen from which it-appears it not to-be
sidus sed levem ignem ac tumultuarium.
a-star but a-light fire and hastily-made

XIX · OTHER OPINIONS

Our Zeno thinks stars meet and join their rays, and this partnership of light makes the image of a longer star. So some think there are no comets, only appearances from neighboring stars' reflection or union; some that they exist with courses of their own and return after fixed periods; some that they exist but do not deserve the name of stars, since they dissolve quickly.

19.1 Zenon noster in illa sententia est: congruere iudicat
Zeno our in that opinion is to-agree he-judges
stellas et radios inter se committere, hac societate
the-stars and rays among themselves to-join by-this partnership
luminis existere imaginem stellae longioris. ergo quidam
of-light to-arise the-image of-a-star longer therefore some
nullos esse cometas existimant sed speciem illorum per
none to-be comets think but the-appearance of-them through
repercussionem vicinorum siderum aut per coniunctionem
reflection of-neighboring stars or through the-conjunction
cohaerentium reddi;
of-those-cohering to-be-rendered

19.2 quidam aiunt esse quidem sed habere cursus suos et
some say they-are indeed but to-have courses their-own and
post certa lustra in conspectum mortalium exire,
after fixed five-year-periods into the-sight of-mortals to-go-out
quidam esse quidem sed non quibus siderum nomen
some they-are indeed but not-such to-which of-stars the-name

imponas, quia dilabuntur nec diu durant et exigui temporis
you-may-give because they-dissolve nor long last and of-small time
mora dissipantur.
after-a-stay are-dispersed

XX · FIRES BORN IN THE AIR

Most of the Stoics hold that comets are fires of the air: we see many kinds kindled up there, burning skies, long white trails, torches, and dazzling bolts of rubbed air that perish at once, while others, like Posidonius' columns and shields, last until their fuel is spent. Stars shining at strange hours are no gap in the sky: many comets are hidden by the sun's rays, like one Posidonius records in an eclipse, and others show near the setting sun, their hair escaping its rays.

In hac sententia sunt plerique nostrorum nec id putant 20.1
In this opinion are most of-ours nor that do-they-think
veritati repugnare. videmus enim in sublimi varia ignium
with-truth to-conflict we-see for in the-height various of-fires
concipi genera et modo caelum ardere, modo
to-be-conceived kinds and now the-sky to-burn now

longos a tergo flammarum albescere tractus,
long from behind of-flames to-whiten trails

modo faces cum igne vasto rapi. iam ipsa fulmina,
now torches with fire vast to-be-snatched now the-very thunderbolts
etiamsi velocitate mira simul et praestringunt aciem et
even-if with-speed wonderful at-once both dazzle the-sight and
relinquunt, ignes sunt aëris triti et impetu inter se
leave-it fires they-are of-air rubbed and with-impetus among themselves

maiore collisi: ideo ne resistunt quidem sed expressi
greater struck-together therefore not they-resist even but squeezed-out
fluunt et protinus pereunt.
flow and straightway perish

20.2 alii vero ignes diu manent nec ante discedunt, quam
other indeed fires long remain nor before depart than
consumptum est omne, quo pascebantur, alimentum.
consumed has-been all on-which they-fed fuel
hoc loco sunt illa a Posidonio scripta miracula, columnae
in-this place are those by Posidonius written marvels columns
clipeique flagrantes aliaeque insigni novitate flammae,
and-shields blazing and-other with-remarkable novelty flames
quae non adverterent animos, si ex consuetudine et lege
which not would-turn minds if by custom and law
decurrerent: ad haec stupent omnes, quae repentinum
they-ran-their-course at these-things are-astonished all which a-sudden
ex alto ignem efferunt, sive emicuit aliquid et fugit sive
from on-high fire bring-forth whether has-flashed something and fled or
compresso aëre et in ardorem coacto loco miraculi stetit.
with-compressed air and into heat forced in-the-place of-a-marvel has-stood

20.3 quid ergo? num aliquando lacuna secedentis retro aëris
what then surely-not sometimes a-gap of-withdrawing back air
patuit et vastum in concavo lumen? exclamare posses:
has-opened and vast in the-hollow light to-cry-out you-could
quid hoc est? ‘medium video discedere caelum palantesque
what this is the-middle I-see to-part the-sky and-wandering
polo stellas’, quae aliquando non expectata nocte
in-the-heavens stars which sometimes not awaited night
fulserunt et per medium eruperunt diem. sed alia huius
have-shone and through the-middle have-burst-out of-the-day but another of-this
rei ratio est: quare alieno tempore apparent in aëre,
thing the-reason is why at-another's time they-appear in the-air

quas esse, etiam cum latent, constat? multos cometas non 20.4
which to-exist even when they-lurk it-is-agreed many comets not
videmus, quia obscurantur radiis solis: quo deficiente
we-see because they-are-darkened by-the-rays of-the-sun which failing
quondam cometen apparuisse, quem sol vicinus obtexerat,
once a-comet to-have-appeared which the-sun near had-covered
Posidonius tradit; saepe autem cum occidit sol, sparsi
Posidonius hands-down often however when has-set the-sun scattered
ignes non procul ab eo videntur: videlicet ipsa stella
fires not far from it are-seen evidently itself the-star
sole perfunditur et ideo aspici non potest, comae
by-the-sun is-suffused and therefore to-be-looked-at not can the-hairs
autem radios solis effugiunt.
however the-rays of-the-sun escape

XXI · FIRE FOLLOWING ITS FUEL

So the Stoics make comets, like torches, trumpets, and beams, from dense air, which is why they appear most in the north. A comet moves because it follows its fuel like fire, creeping where the vein of its food leads, not advancing like a star; it lasts long because it is fed. Nero's comet shone six months, from the north toward the west and south, the opposite way to Claudius'. Each went where its fuel drew it, whereas all five planets move one way, against the heavens' turning.

Placet ergo nostris cometas sicut faces sicut tubas trabesque 21.1
It-pleases therefore to-ours comets like torches like trumpets and-beams
et alia ostenta caeli denso aëre creari. ideo circa
and other portents of-the-sky by-dense air to-be-created therefore around
septentrionem frequentissime apparent, quia
the-north most-often they-appear because

21.2 illic plurimum est aëris pigri. ‘quare ergo non stat cometes sed
there most is of-air sluggish why then not stands a-comet but
procedit?’ dicam: ignium modo alimentum suum sequitur;
advances I-shall-say of-fires in-the-manner the-fuel its-own it-follows
quamvis enim illi ad superiora nisus sit, tamen deficiente
although for to-it to the-higher-regions the-effort be yet failing
materia retro iens ipse descendit. in aëre quoque non dextram
the-material back going it descends in the-air also not the-right
laevamque premit partem (nulla est enim illi via), sed, qua
and-left it-presses part none is for to-it a-path but where
illum vena pabuli sui duxit, illa repit nec ut stella procedit
it the-vein of-fodder its-own has-led there it-creeps nor like a-star advances
21.3 sed ut ignis pascitur. ‘quare ergo per longum tempus apparet
but as fire is-fed why then through a-long time does-it-appear
et non cito extinguitur?’ sex enim mensibus hic, quem
and not quickly is-extinguished six for months this which
nos Neronis principatu laetissimo vidimus, spectandum se
we in-Nero's principate most-happy saw to-be-watched itself
praebuit in diversum illi Claudiano circumactus ille enim
offered in a-different-direction to-that Claudian driven-round that for
a septentrione in verticem surgens orientem petiit semper
from the-north to the-zenith rising the-east sought ever
obscurior, hic ab eadem parte coepit sed in occidentem
darker this from the-same side began but toward the-west
tendens ad meridiem flexit et ibi se subduxit oculis.
tending to the-south turned and there itself withdrew from-the-eyes
21.4 videlicet ille umidiora habuit et aptiora ignibus, quae
evidently that-one moister-things had and fitter for-fires which
persecutus est; huic rursus uberior fuit et plenior regio,
pursued it-has to-this-one again richer was and fuller the-region
huc itaque descendit invitante materia, non itinere. quod
hither and-so it-descended inviting the-material not by-the-path which

apparet duobus, quos spectavimus, fuisse diversum, cum
appears in-the-two which we-watched to-have-been different since
hic in dextrum motus sit, ille in sinistrum; omnibus
this-one to the-right moved was that-one to the-left for-all
autem V stellis in eandem partem cursus est, id est
however five stars in the-same direction the-course is that is
contrarius mundo (hic enim ab ortu volvitur in occasum,
contrary to-the-world this-one for from the-rising is-rolled to the-setting
illae ab occasu in ortum eunt), et ob hoc duplex
those from the-setting to the-rising go and on-account-of this double
his motus est: ille, quo eunt, et hic, quo auferuntur.
for-them motion is that by-which they-go and this by-which they-are-carried-off

XXII · SENECA DISAGREES

Seneca does not agree with the Stoics: a comet is not a sudden fire but among nature's eternal works. Whatever the air creates is short-lived, since the air itself never stays the same for long, always flowing between rain and clear sky, its clouds gathering and dispersing; no fixed fire can sit in so wandering a body. And a comet clinging to its fuel would always sink, since the air thickens toward the earth, yet no comet comes down near the ground.

Ego nostris non assentior: non enim existimo cometen 22.1
I with-ours not agree not for I-think a-comet
subitaneum ignem sed inter aeterna opera naturae. primum
a-sudden fire but among the-eternal works of-nature first
quaecumque aër creat, brevia sunt: nascuntur enim in
whatever the-air creates short-lived are they-are-born for in
re fugaci et mutabili. quomodo potest aliquid in aëre
a-thing fleeting and changeable how can anything in the-air
idem diu permanere, cum ipse aër numquam idem diu
the-same long remain when itself the-air never the-same long

maneat? fluit semper, et brevis illi quies est; intra exiguum
stays it-flows always and brief for-it rest is within a-tiny
momentum in alium, quam in quo fuerat, statum vertitur,
moment into another than in which it-had-been state it-is-turned
nunc pluvius nunc serenus nunc inter utrumque varius.
now rainy now clear now between both variable
nubes, quae illi familiarissimae sunt, in quas coit et
the-clouds which to-it most-familiar are into which it-gathers and
ex quibus solvitur, modo congregantur modo digeruntur,
out-of which it-is-loosed now are-massed now are-dispersed
numquam immotae iacent. fieri non potest, ut ignis
never motionless lie to-happen not it-can that a-fire
certus in corpore vago sedeat et tam pertinaciter haereat,
fixed in a-body wandering should-sit and as stubbornly should-cling
quam quem natura, ne umquam excuteretur, aptavit.
as one-which nature lest ever it-be-shaken-off fitted
22.2 deinde si alimento suo haereret, semper descenderet (eo enim
then if to-fuel its-own it-clung always it-would-descend the for
crassior est aër, quo terris propior): numquam cometes
thicker is the-air the to-the-earth nearer never a-comet
in imum usque demittitur neque appropinquat solo.
into the-lowest all-the-way is-let-down nor approaches the-ground

A comet traces a circle, as a star does, and holds its course without waxing and waning as fed fire would; it is not driven out but departs.

Etiamnunc ignis aut it, quo illum natura sua ducit, id 23.1
Still fire either goes where it nature its-own leads that
est sursum, aut eo, quo trahit materia, cui adhaesit et
is upward or there where draws-it the-material to-which it-has-clung and
quam depascitur: nullis ignibus ordinariis et caelestibus iter
which it-feeds-on for-no fires regular and heavenly the-path
flexum est; sideris proprium est ducere orbem: atqui hoc,
curved is of-a-star proper is to-draw a-circle and-yet this
an cometae alii fecerint nescio, duo nostra aetate fecerunt.
whether comets other have-done I-know-not two in-our age did
deinde omne, quod causa temporalis accendit, cito intercidit: 23.2
then all which a-cause temporary kindles quickly perishes
sic faces ardent, dum transeunt, sic fulmina in unum
so torches burn while they-pass so thunderbolts for one
valent ictum, sic quae transversae eliduntur stellae
have-strength stroke so which crosswise are-squeezed-out the-stars
cadentes praetervolant et secant aëra: nullis ignibus nisi in
falling fly-past and cut the-air for-no fires except in
suo mora est — illis dico divinis, quos habet mundus
their-own lingering is to-those I-mean divine which has the-world
aeternos, quia partes eius sunt et opera? hi autem agunt
eternal because parts of-it they-are and works these however do
aliquid et vadunt et tenorem suum servant paresque sunt.
something and go and course their-own keep and-equal are
non alternis diebus maiores minoresve fierent, si ignis
not on-alternate days greater or-smaller would-they-become if the-fire

esset collecticius et ex aliqua causa repentinus? minor enim
were gathered and from some cause sudden smaller for
esset ac maior, prout plenius aleretur aut malignius.
it-would-be and greater according-as more-fully it-was-fed or more-stingily
23.3 dicebam modo nihil diuturnum esse, quod exarsit aëris
I-was-saying just-now nothing lasting to-be which has-blazed of-the-air
vitio; nunc amplius adicio: 'morari ac stare nullo modo
by-a-fault now further I-add to-linger and to-stand in-no way
potest', nam et fax et fulmen et stella transcurrens
can-it for both a-torch and a-thunderbolt and a-star running-across
et quisquis alius est ignis aëre expressus in fuga est
and whatever other is fire from-the-air squeezed-out in flight is
nec apparet, nisi dum cadit: cometes habet suam sedem
nor appears except while it-falls a-comet has its-own seat
et ideo non cito expellitur sed emetitur spatium suum
and therefore not quickly is-expelled but measures-out space its-own
nec extinguitur sed excedit.
nor is-extinguished but departs

XXIV · WHY FIVE ALONE?

Who confines the stars to the zodiac? The universe may be divided into many routes, and five planets alone need not be the only stars that move.

24.1 'Si erratica', inquit, 'stella esset, in signifero esset.' quis
If a-wandering he-says star it-were in the-zodiac it-would-be who
unum stellis limitem ponit, quis in angustum divina
one for-the-stars boundary sets who into a-narrow-space divine-things
compellit? nempe haec ipsa sidera, quae sola moveri creditis,
drives surely these very stars which alone to-move you-believe

alios et alios circulos habent: quare ergo non aliqua sint,
other and other circles have why then not some should-there-be
quae in proprium iter et ab istis remotum secesserunt?
which into their-own path and from those removed have-withdrawn
quid est, quare in aliqua parte caeli pervium non sit?
what is-there why in some part of-the-sky passable not it-should-be
quod si iudicas non posse ullam stellam, nisi signiferum 24.2
but if you-judge not to-be-able any star unless the-zodiac
attingit, vadere: cometes potest sic alium habere circulum, ut
it-touches to-go a-comet can so another to-have circle that
in hunc tamen parte aliqua sui incidat, quod fieri non
into this-one yet with-part some of-itself it-falls which to-happen not
est necessarium sed potest — vide, ne hoc magis deceat
is necessary but it-can see whether-not this more befits
magnitudinem mundi, ut in multa itinera divisus hinc† et
the-greatness of-the-world that into many paths divided hence and
nec unam deterat semitam ceteris partibus torpeat.
not one may-wear-down track in-the-other parts may-be-sluggish
credis autem in hoc maximo et pulcherrimo corpore inter 24.3
do-you-believe however in this greatest and most-beautiful body among
innumerabiles stellas, quae noctem decore vario distinguunt,
the-countless stars which the-night with-beauty varied adorn
quae minime vacuam et inertem esse patiuntur, quinque
which by-no-means empty and idle to-be allow five
solas esse, quibus exercere se liceat, ceteras stare
alone to-be for-which to-exercise themselves it-is-allowed the-rest to-stand
fixum et immobilem populum?
a-fixed and motionless people

Why are comets' courses not observed like the planets'? We know many things exist without knowing what they are, even the mind that rules us. No wonder comets, so rare, are not yet bound by laws: Greece named the stars under fifteen hundred years ago, and we learned the causes of eclipses only lately. Our descendants will wonder we missed such plain things; the planets, we now learn, never halt or turn back but only seem to, as ships under full sail seem still. Let us leave something to posterity.

25.1 Si quis hoc loco me interrogaverit 'quare ergo non,
If anyone at-this place me shall-have-asked why then not
quemadmodum quinque stellarum, ita harum observatus
as of-the-five stars so of-these observed
est cursus?', huic ego respondebo: multa sunt, quae
has-been the-course to-him I will-reply many-things there-are which
esse concedimus, qualia sint ignoramus.
to-be we-grant of-what-kind they-are we-do-not-know

25.2 habere nos animum, cuius imperio et impellimur et
to-have us a-mind by-whose command both we-are-driven and
revocamur, omnes fatebuntur; quid tamen sit animus
we-are-called-back all will-admit what yet is mind
ille rector dominusque nostri, non magis tibi quisquam
that ruler and-master of-us no more to-you anyone
expediet, quam ubi sit: alius illum dicet spiritum esse, alius
will-explain than where it-is one it will-say breath to-be another
concentum quendam, alius vim divinam et dei partem,
a-harmony certain another a-power divine and of-god part
alius tenuissimum animae, alius incorporalem potentiam; non
another the-thinnest of-breath another an-incorporeal potency not
deerit, qui sanguinem dicat, qui calorem: adeo animo
will-be-lacking one-who blood says who heat so-far to-the-mind
non potest liquere de ceteris rebus, ut adhuc ipse se quaerat.
not can be-clear about other things that still it itself seeks

quid ergo miramur cometas, tam rarum mundi spectaculum, 25.3
why then do-we-wonder comets so rare of-the-world a-spectacle
nondum teneri legibus certis nec initia illorum finesque
not-yet to-be-held by-laws fixed nor the-beginnings of-them and-ends
notescere, quorum ex ingentibus intervallis recursus est?
to-become-known whose from huge intervals the-return is
nondum sunt anni mille quingenti, ex quo Graecia 'stellis
not-yet are years thousand five-hundred from which Greece for-the-stars
numeros et nomina fecit', multaeque hodie sunt gentes,
numbers and names made and-many today are nations
quae facie tantum noverunt caelum, quae nondum sciunt,
which by-face only have-known the-sky which not-yet know
cur luna deficiat, quare sol obumbretur: haec apud
why the-moon is-eclipsed why the-sun is-overshadowed these-things among
nos quoque nuper ratio ad certum perduxit.
us also lately reason to certainty has-brought
veniet tempus, quo ista, quae nunc latent, in lucem 25.4
will-come a-time when those-things which now lie-hidden into light
dies extrahat et longioris aevi diligentia; ad inquisitionem
the-day may-draw and of-a-longer age the-diligence for the-investigation
tantorum aetas una non sufficit, ut tota caelo
of-such-great-things a-lifetime one not suffices even-if wholly to-the-sky
vacet: quid, quod tam paucos annos inter studia ac vitia
it-be-free what that so few years between studies and vices
non aequa portione dividimus? itaque per successiones
not in-equal share we-divide and-so through successions
ista longas explicabuntur.
these-things long will-be-unfolded
veniet tempus, quo posteri nostri tam aperta nos 25.5
will-come a-time when descendants our so obvious-things us
nescisse mirentur. harum quinque stellarum, quae se
to-have-not-known will-wonder of-these five stars which themselves

ingerunt nobis, quae alio atque alio occurrentes loco
thrust on-us which in-another and another meeting-us place
curiosos nos esse cogunt, qui matutini vespertinique ortus
curious us to-be compel what morning and-evening risings
sint, quae stationes, quando in rectum ferantur, quare
are what stations when in a-straight-line they-are-borne why
agantur retro, modo coepimus scire; utrum mergeretur
they-are-driven back only-now we-have-begun to-know whether was-sinking
Iupiter an occideret an retrogradus esset (nam hoc illi
Jupiter or was-setting or retrograde was for this to-it
nomen imposuere cedenti), ante paucos annos didicimus.
name they-gave as-it-yields before few years we-learned
25.6 inventi sunt, qui nobis dicerent: 'erratis, quod ullam
found have-been men-who to-us would-say you-err that any
stellam aut supprimere cursum iudicatis aut vertere non
star either to-check its-course you-judge or to-reverse not
licet stare caelestibus nec averti, prodeunt omnia
it-is-allowed to-stand for-heavenly-things nor to-be-turned-aside go-forward all
et, ut semel iussa sunt, vadunt: idem erit illis
and as once ordered they-have-been they-go the-same will-be for-them
cursus, qui sui, finis. opus hoc aeternum irrevocabiles
course which of-itself the-end work this eternal irrevocable
habet motus: qui si quando constiterint, alia aliis
has motions which if ever they-shall-have-halted some on-others
incident, quae nunc tenor et aequalitas servat.'
will-fall which now the-steady-course and evenness preserves
25.7 quid est ergo, cur aliqua redire videantur? 'solis occursus
what is-there then why some to-return seem of-the-sun the-meeting
speciem illis tarditatis imponit et natura viarum
an-appearance on-them of-slowness lays and the-nature of-the-paths
circulorumque sic positorum, ut certo tempore intuentis
and-of-the-circles so placed that at-a-fixed time the-watchers

fallant: sic naves, quamvis plenis velis eant, videntur
they-deceive so ships although with-full sails they-go seem
tamen stare.' erit qui demonstret aliquando, in quibus
yet to-stand there-will-be one-who will-show some-day in which
cometae partibus currant, cur tam seducti a ceteris
comets parts run why so separated from the-others
errent, quanti qualesque sint. contenti simus inventis:
they-wander how-great and-of-what-kind they-are content let-us-be with-discoveries
aliquid veritati et posteri conferant.
something to-truth also descendants may-contribute

XXVI · SEEN THROUGH, STRETCHED OUT

We see through a comet's thin tail, not its star; its body is a globe like the others, and only its brightness stretches out, as the sun's rays do.

'Per stellas', inquit, 'ulteriora non cernimus, per cometas 26.1
Through stars he-says things-beyond not we-discern through comets
aciem transmittimus.' primum si fit istud, non in ea
our-sight we-send first if happens that not in that
parte fit, qua sidus ipsum est spissi ignis ac solidi,
part it-happens where the-star itself is of-dense fire and solid
sed qua rarus splendor excurrit et in crines dispergitur:
but where thin brightness runs-out and into hairs is-scattered
per intervalla ignium, non per ipsos vides.
through the-intervals of-the-fires not through themselves you-see
'stellae', inquit, 'omnes rotundae sunt, cometae porrecti, ex 26.2
stars he-says all round are comets stretched-out from
quo apparet stellas non esse.' quis enim tibi concedit cometas
which it-appears stars not to-be who for to-you grants comets
longos esse? quorum natura quidem ut ceterorum siderum
long to-be whose nature indeed as of-the-other stars

globus est, ceterum fulgor extenditur. quemadmodum sol
a-globe is but the-brightness is-extended just-as the-sun
radios suos longe lateque dimittit, ceterum ipsi alia est
rays its-own far and-wide sends-out but to-itself one is
forma, alia ei quod ex ipso fluit lumini: sic cometarum
the-form another to-that which from itself flows light so of-comets
corpus ipsum corrotundatur, splendor autem longior quam
the-body itself is-rounded the-brightness however longer than
ceterorum siderum apparet.
of-the-other stars appears

XXVII · NATURE LOVES VARIETY

Why does the moon take light unlike the sun's, why do the stars differ in look? Nothing stops comets being eternal though unlike the rest. The universe is made of contraries: the sun burns in the Lion and freezes in the Water-bearer, the Ram rises fast and the Scales slowly, the elements oppose one another, Saturn takes thirty years to return and the sun one. Nature does not work to one pattern but glories in variety; she shows comets rarely, gives them other places, times, and motions, and so honors her own work.

27.1 'Quare?' inquis. dic tu mihi prius, quare luna dissimillimum
Why you-say tell you me first why the-moon most-unlike
soli lumen accipiat, cum accipiat a sole; quare modo
to-the-sun light receives when it-receives-it from the-sun why now
rubeat modo palleat; quare lividus illi et ater color sit,
it-reddens now it-pales why livid to-it and black the-color is
cum conspectu solis excluditur.
when from-the-sight of-the-sun it-is-shut-out

dic mihi, quare omnes stellae inter se dissimilem 27.2
tell me why all the-stars among themselves an-unlike
habeant aliquatenus faciem, diversissimam soli. quomodo
have to-some-extent face most-different from-the-sun as
nihil prohibet ista sidera esse, quamvis similia non sint,
nothing prevents those stars to-be although alike not they-are
sic nihil prohibet cometas aeternos esse et sortis eiusdem,
so nothing prevents comets eternal to-be and of-lot the-same
cuius cetera, etiamsi faciem illis non habent similem.
as the-others even-if a-face to-them not they-have like
quid porro? mundus ipse, si consideres illum, nonne ex 27.3
what further the-world itself if you-consider it not from
diversis compositus est? quid est, quare in leone sol
different-things composed is-it what is-there why in the-lion the-sun
semper ardeat et terras aestibus torreat, in aquario astringat
always burns and the-lands with-heats scorches in the-water-bearer tightens
hiemem flumina gelu claudat? et hoc tamen et illud sidus
winter the-rivers with-frost closes and this yet and that sign
eiusdem condicionis est, cum effectu et natura dissimile sit.
of-the-same condition is though in-effect and nature unlike it-is
intra brevissimum tempus aries extollitur, libra tardissime
within the-briefest time the-ram is-raised the-scales most-slowly
emergit: et hoc tamen sidus et illud eiusdem naturae est,
emerges and this yet sign and that of-the-same nature is
cum illud exiguo tempore ascendat, illud diu proferatur.
though that-one in-a-small time ascends that-one long is-brought-forth
non vides, quam contraria inter se elementa sint? 27.4
not do-you-see how contrary among themselves the-elements are
gravia et levia sunt, frigida et calida, umida et sicca;
heavy and light they-are cold and hot moist and dry
tota haec mundi concordia ex discordibus constat: negas
all this of-the-world harmony from discords consists you-deny

cometen stellam esse, quia forma eius non respondeat ad
a-comet a-star to-be because the-form of-it not corresponds to
exemplar nec sit ceteris similis? quid enim? simillima
the-pattern nor is to-the-others like what for most-like
est illa, quae tricesimo anno revertitur ad locum suum,
is that-one which in-the-thirtieth year returns to place its-own
huic, quae intra annum revisit sedem suam.
to-this-one which within a-year revisits seat its-own

27.5 non ad unam natura formam opus suum praestat sed ipsa
not to one nature form work her-own renders but by-very
varietate se iactat, alia maiora alia velociora aliis
variety herself she-flaunts some greater others swifter than-others
fecit, alia validiora alia temperatiora, quaedam eduxit a
she-made some stronger some milder some she-led-out from
turba, ut singula et conspicua procederent, quaedam in
the-crowd so-that single and conspicuous they-might-advance some into
gregem misit. ignorat naturae potentiam, qui illi non
the-flock she-sent is-ignorant-of nature's power he-who for-her not
putat aliquando licere, nisi quod saepius fecit:
thinks ever to-be-allowed except what more-often she-has-done

27.6 cometas non frequenter ostendit, attribuit illis alium
comets not frequently she-shows she-has-assigned to-them another
locum, alia tempora, dissimiles ceteris motus: voluit et
place other times unlike to-the-others motions she-wished also
his magnitudinem operis sui colere. quorum formosior
by-these the-greatness of-work her-own to-honor whose more-beautiful
facies est, quam ut fortuitam putes, sive amplitudinem
the-face is than that accidental you-should-think whether the-size
eorum consideres sive fulgorem, qui maior est ardentiorque
of-them you-consider or the-brightness which greater is and-more-burning
quam ceteris; facies vero habet insigne quiddam et
than for-the-others the-face indeed has remarkable something and

singulare, non in angustum coniecta et artata sed dimissa
singular not into a-narrow-space thrown and confined but let-out
liberius et multarum stellarum amplexa regionem.
more-freely and of-many stars embracing the-region

XXVIII · COMETS AS SIGNS

Aristotle says comets signify storms, winds, and rains; is that not a star that foretells? A comet is a sign not as sputtering oil and rotten wicks foretell rain, or coots playing on dry land a raging sea, but as the equinox foretells the year's turn, or the Chaldaeans' stars at birth. A comet makes the whole year suspect, its signs stored by the universe's laws; the comet under Paterculus and Vopiscus brought what Aristotle and Theophrastus foretold, storms everywhere and earthquakes in Achaea and Macedonia.

Aristoteles ait cometas significare tempestatem et ventorum 28.1
Aristotle says comets to-signify storm and of-winds
intemperantiam atque imbrium. quid ergo? non iudicas
violence and of-rains what then not do-you-judge
sidus esse, quod futura denuntiat? non enim sic hoc
a-star to-be that-which future-things announces not for so this
tempestatis signum est, quomodo futurae pluviae
of-storm a-sign is as of-future rain

scintillare oleum et putres concrescere fungos,
to-sputter the-oil and rotten to-clot wick-snuffs

aut quomodo indicium est saevituri maris, si marinae
or as a-sign is of-about-to-rage of-the-sea if sea

in sicco ludunt fulicae notasque paludes
on dry-land play coots and-familiar marshes
deserit atque altam supra volat ardea nubem,
deserts and high above flies the-heron the-cloud

sed sic, quomodo aequinoctium in calorem frigusque
but so as the-equinox into heat and-cold
flectentis anni, quomodo illa quae Chaldaei canunt,
of-the-turning year as those-things which the-Chaldaeans chant
quid stella nascentibus triste laetumve constituat.
what a-star for-those-being-born sad or-glad determines

28.2 hoc ut scias ita esse, non statim cometes ortus ventos
this that you-may-know so to-be not at-once a-comet risen winds
et pluvias minatur, ut Aristoteles ait, sed annum totum
and rains threatens as Aristotle says but the-year whole
suspectum facit; ex quo apparet illum non ex proximo,
suspect makes from which it-appears it not from close-by
quae in proximum daret, signa traxisse sed habere
which for the-near-future it-would-give signs to-have-drawn but to-have-them
reposita et comprensa legibus mundi.
stored and grasped by-the-laws of-the-world

28.3 fecit hic cometes, qui Paterculo et Vopisco consulibus
did-so this comet which with-Paterculus and Vopiscus as-consuls
apparuit, quae ab Aristotele Theophrastoque sunt praedicta;
appeared what by Aristotle and-Theophrastus were foretold
fuerunt enim maximae et continuae tempestates ubique, at in
there-were for very-great and continuous storms everywhere but in
Achaia Macedoniaque urbes terrarum motibus prorutae sunt.
Achaea and-Macedonia cities by-earth's quakes overthrown were

Comets are not heavy because slow, nor do they sink: the latest crossed half the sky in six months and rose from the north. The gods know which view is true.

‘Tarditas’, inquit, ‘illorum argumentum est graviores esse 29.1
The-slowness he-says of-them a-proof is heavier to-be
multumque in se habere terreni, ipse praeterea cursus:
and-much in themselves to-have of-earthy-stuff itself besides the-course
fere enim compelluntur in cardines.’ utrumque falsum est.
mostly for they-are-driven toward the-poles both false is
de priore dicam prius: ‘omnia, quae tardius feruntur,
about the-former I-will-speak first all-things which more-slowly are-borne
gravia sunt.’ quid ergo? stella Saturni, quae ex omnibus iter
heavy are what then the-star of-Saturn which out-of all path
suum lentissime efficit, gravis est? atqui levitatis argumentum
its-own most-slowly completes heavy is-it and-yet of-lightness a-proof
habet, quod supra ceteras est.
it-has that above the-rest it-is
‘sed maiore’, inquis, ‘ambitu circuit nec tardius it 29.2
but in-a-greater you-say circuit it-goes-round nor more-slowly goes
quam ceterae sed longius.’ succurrat mihi idem me de
than the-others but farther let-it-occur to-me the-same me about
cometis posse dicere, etiamsi segnior illis cursus sit. sed
comets to-be-able to-say even-if slower for-them the-course be but
mendacium est ire eos tardius: nam intra sextum mensem
a-lie it-is to-go them more-slowly for within the-sixth month
dimidiam partem caeli transcurrit hic proximus, prior
the-half part of-the-sky ran-across this latest the-earlier
intra pauciores menses recepit se.
within fewer months withdrew itself

29.3 ‘sed quia graves sunt, inferius deferuntur.’ primum
but because heavy they-are lower they-are-carried-down first
non defertur quod circumfertur. deinde hic proximus a
not is-carried-down what is-carried-round then this latest from
septentrione motus sui initium fecit et per occidentem
the-north of-motion its-own the-beginning made and through the-west
in meridiana pervenit erigensque cursum suum oblituit,
into the-southern-parts came and-raising course its-own was-hidden
alter ille Claudianus a septentrione primum visus non
the-other that Claudian from the-north first seen not
desiit in rectum assidue celsior ferri, donec excessit. haec
ceased in a-straight-line constantly higher to-be-borne until it-departed these
sunt, quae aut alios movere ad cometas pertinentia aut
are the-things-which either others moved to comets pertaining or
me: quae an vera sint, dii sciunt, quibus est scientia
me which whether true they-are the-gods know to-whom is knowledge
veri; nobis rimari illa et coniectura ire in occulta
of-the-true for-us to-probe those-things and by-conjecture to-go into hidden-things
tantum licet nec cum fiducia inveniendi nec sine spe.
only it-is-allowed nor with confidence of-finding nor without hope

XXX · REVERENCE IN INQUIRY

Aristotle says we should never be more reverent than when we speak of the gods; how much more when we debate the stars. What lies so deep is dug out slowly. Panaetius and those who call a comet a false star must weigh whether every season and region can produce one, questions that vanish if comets are fires woven into the world. God himself, the greater part of his work, escapes our eyes and is seen by thought. The universe holds something for every age to seek; we stand only in nature's forecourt.

Egregie Aristoteles ait numquam nos verecundiores esse 30.1
Excellently Aristotle says never us more-reverent to-be
debere, quam cum de diis agitur. si intramus templa
ought than when about the-gods it-is-treated if we-enter temples
compositi, si ad sacrificium accessuri vultum submittimus,
composed if to a-sacrifice about-to-approach our-face we-lower
si togam adducimus, si in omne argumentum modestiae
if our-toga we-draw-in if into every proof of-modesty
fingimur: quanto hoc magis facere debemus, cum de
we-are-shaped by-how-much this more to-do ought-we when about
sideribus de stellis de deorum natura disputamus,
the-constellations about the-stars about of-the-gods the-nature we-dispute
ne quid temere ne quid impudenter aut ignorantes
lest anything rashly lest anything shamelessly either not-knowing
affirmemus aut scientes mentiamur?
we-affirm or knowing we-lie
nec miremur tam tarde erui, quae tam alte 30.2
nor let-us-wonder so slowly to-be-dug-out things-which so deep
iacent. Panaetio et his, qui videri volunt cometen non
lie by-Panaetius and by-those who to-seem wish a-comet not
esse ordinarium sidus sed falsam sideris faciem, diligenter
to-be a-regular star but a-false of-a-star appearance carefully
tractandum est, an aeque omnis pars anni edendis
to-be-handled it-is whether equally every part of-the-year for-producing

cometis satis apta sit, an omnis caeli regio idonea in
comets sufficiently suited is whether every of-the-sky region fit in
qua creentur, an quacumque ire ibi etiam concipi
which they-may-be-created whether wherever to-go there also to-be-conceived
possint, et cetera: quae universa tolluntur, cum dico illos
they-can and the-rest which all are-removed when I-say them
non fortuitos esse ignes, sed intextos mundo, quos non
not chance to-be fires but woven-into the-world which not
frequenter educit sed in occulto movet.
frequently it-brings-out but in secret moves

30.3 quam multa praeter hos per secretum eunt numquam
how many-things besides these through secrecy go never
humanis oculis orientia! neque enim omnia deus homini
to-human eyes rising nor for all-things god to-man
patefecit. quota pars operis tanti nobis committitur?
has-revealed how-small a-part of-a-work so-great to-us is-entrusted
ipse, qui ista tractat qui condidit qui totum hoc
he-himself who these-things handles who founded who whole this
fundavit deditque circa se, maior pars sui operis ac
established and-set around himself the-greater part of-his-own work and
melior, effugit oculos: cogitatione visendus est.
better escapes the-eyes by-thought to-be-seen he-is

30.4 multa praeterea cognata numini summo et vicinam
many-things besides akin to-the-divinity highest and neighboring
sortita potentiam obscura sunt aut fortasse, quod
having-been-allotted power obscure are or perhaps what
magis mireris, oculos nostros et implent et effugiunt,
more you-may-wonder-at eyes our both they-fill and escape
sive illis tanta subtilitas est, quantam consequi acies
whether to-them such fineness is as-much-as to-attain the-sight
humana non possit, sive in sanctiore secessu maiestas tanta
human not can or in a-holier retreat majesty so-great

delituit et regnum suum, id est se, regit nec ulli dat
has-hidden and realm its-own that is itself rules nor to-anyone gives
aditum nisi animo. quid sit hoc, sine quo nihil est,
access except to-the-mind what is this without which nothing is
scire non possumus: et miramur, si quos igniculos parum
to-know not we-can and we-wonder if some little-fires too-little
novimus, cum maxima pars mundi, deus, lateat!
we-know when the-greatest part of-the-world god lies-hidden
quam multa venalia hoc primum cognovimus saeculo, 30.5
how many-things for-sale this first we-have-come-to-know age
quam multa negotia ne hoc quidem! multa venientis aevi
how many businesses not this even many of-the-coming age
populus ignota nobis sciet, multa saeculis tunc futuris,
the-people unknown to-us will-know many-things for-ages then to-come
cum memoria nostri exoleverit, reservantur: pusilla res
when the-memory of-us shall-have-faded are-reserved a-paltry thing
mundus est, nisi in illo quod quaerat omnis mundus habeat.
the-world is unless in it what it-may-seek the-whole world may-have
non semel quaedam sacra traduntur: Eleusin servat quod 30.6
not once certain rites are-handed-down Eleusis keeps what
ostendat revisentibus. sic rerum natura sacra sua non
it-may-show to-those-revisiting so of-things the-nature rites her-own not
semel tradit; initiatos nos credimus: in vestibulo eius
once hands-down initiated ourselves we-believe in the-forecourt of-her
haeremus; illa arcana non promiscue nec omnibus patent:
we-cling those secrets not indiscriminately nor to-all lie-open
reducta et interiore sacrario clausa sunt, ex quibus aliud
withdrawn and in-an-inner shrine shut-up are of which one-thing
haec aetas, aliud quae post nos subibit aspiciet.
this age another that-which after us will-come-up will-behold

When will these things come to light? Great things come slowly, especially if labor ceases. We have not yet perfected the one thing we pursue with all our heart, our vices: luxury, shamelessness, and dissolution keep inventing. Men outdo women in smoothness and wear harlots' colors, mince instead of walk, put a gem on every finger joint, and devise daily insults to manhood: one castrates himself, another flees to the obscene part of the gladiatorial school.

31.1 Quando ergo ista in notitiam nostram perducentur?
When then these-things into knowledge our will-be-brought
tarde magna proveniunt, utique si labor cessat. id quod
slowly great-things come-forth especially if labor ceases that which
unum toto agimus animo, nondum perfecimus, ut
alone with-whole we-do mind not-yet have-we-perfected that
pessimi essemus: adhuc in processu vitia sunt; invenit
the-worst we-might-be still in progress vices are has-found
luxuria aliquid novi, in quod insaniat, invenit impudicitia
luxury something new over which to-rave has-found shamelessness
novam contumeliam sibi, invenit deliciarum dissolutio et
a-new outrage for-itself has-found of-pleasures the-dissolution and
tabes aliquid adhuc tenerius molliusque, quo pereat.
decay something still more-tender and-softer by-which to-perish
31.2 quia nondum satis robur omne proiecimus, adhuc quicquid
because not-yet enough strength all have-we-cast-off still whatever
est boni moris extinguimus: levitate et politura corporum
is of-good morals we-extinguish in-smoothness and polish of-bodies
muliebres munditias antecessimus, colores meretricios matronis
womanly elegances we-have-surpassed colors harlots' by-matrons
quidem non induendos viri sumimus, tenero et molli
indeed not to-be-worn we-men put-on with-a-tender and soft

ingressu suspendimus gradum (non ambulamus sed incedimus),
gait we-suspend our-step not we-walk but we-mince
exornamus anulis digitos, in omni articulo gemma disponitur;
we-adorn with-rings our-fingers on every joint a-gem is-placed
cottidie comminiscimur, per quae virilitati fiat iniuria, 31.3
daily we-devise things-by which to-manliness may-be-done injury
ut traducatur, quia non potest exui: alius genitalia
so-that it-may-be-paraded because not it-can be-put-off one his-genitals
excidit, alius in obscenam ludi partem fugit et locatus
has-cut-off another into the-obscene of-the-school part has-fled and hired
ad mortem infame armaturae genus, in quo morbum suum
for death an-infamous of-armor kind in which disease his-own
exerceat, legit.
he-may-exercise has-chosen

XXXII · PHILOSOPHY WITHOUT HEIRS

No wonder wisdom has not finished its work while wickedness still grows and gets all our effort; nobody turns to philosophy except on a rainy day or when the games are interrupted. So the schools die without heirs: the Academy, Pyrrho's, the Pythagoreans', and the Roman sect of the Sextii, while the pantomime houses of Pylades and Bathyllus stand through their successors. Much that was found is being forgotten; if all youth and age applied themselves, they would barely reach the bottom where truth lies.

Miraris, si nondum sapientia omne opus suum implevit? 32.1
Do-you-wonder if not-yet wisdom all work its-own has-fulfilled
nondum tota se nequitia protulit: adhuc nascitur, et
not-yet wholly itself wickedness has-brought-forth still it-is-being-born and
huic omnes operam damus, huic oculi nostri, huic manus
to-this all effort we-give to-this the-eyes our to-this hands

serviunt. ad sapientiam quis accedit? quis dignam iudicat,
serve to wisdom who approaches who it-worthy judges
nisi quam in transitu noverit? quis philosophum aut ullum
unless whom in passing he-has-known who a-philosopher or any
liberale respicit studium, nisi cum ludi intercalantur, cum
liberal regards study except when the-games are-interrupted when
aliquis pluvius intervenit dies, quem perdere libet?
some rainy intervenes day which to-waste it-is-pleasant

32.2 itaque tot familiae philosophorum sine successore
and-so so-many schools of-philosophers without successor
deficiunt: Academici et veteres et minores nullum antistitem
fail the-Academics both old and younger no high-priest
reliquerunt; quis est qui tradat praecepta Pyrronis?
have-left who is-there who may-hand-down the-precepts of-Pyrrho
Pythagorica illa invidiosa turbae schola praeceptorem non
the-Pythagorean that hateful to-the-crowd school a-teacher not
invenit; Sextiorum nova et Romani roboris secta inter
finds of-the-Sextii the-new and of-Roman strength sect amid
initia sua, cum magno impetu coepisset, extincta est.
beginnings its-own though with-great impetus it-had-begun extinguished is

32.3 at quanta cura laboratur, ne cuius pantomimi nomen
but with-how-great care is-it-labored lest of-any pantomime the-name
intercidat? stat per successores Pyladis et Bathylli domus,
should-perish stands through successors of-Pylades and of-Bathyllus the-house
harum artium multi discipuli sunt multique doctores,
of-these arts many pupils there-are and-many teachers
privatum urbe tota sonat pulpitum: in hoc viri, in hoc
a-private in-the-city whole resounds stage in this men in this
feminae tripudiant; mares inter se uxoresque contendunt,
women dance males among themselves and-wives contend

uter det latus mollius. deinde sub persona cum diu trita
which may-give a-side softer then under the-mask when long worn-down
frons est, transitur ad galeam — philosophiae nulla cura est.
the-brow is a-passage-is-made to the-helmet of-philosophy no care is
itaque adeo nihil invenitur ex his, quae parum 32.4
and-so to-such-a-degree nothing is-discovered of those-things which too-little
investigata antiqui reliquerunt, ut multa, quae inventa
investigated the-ancients left that many-things which discovered
erant, oblitterentur. at mehercule si hoc totis membris
had-been are-being-blotted-out but by-Hercules if this with-all limbs
premeremus, si in hoc iuventus sobria incumberet, hoc
we-pressed if to this youth sober applied-itself this
maiores docerent, hoc minores addiscerent, vix ad fundum
the-elders taught this the-younger learned scarcely to the-bottom
veniretur, in quo veritas posita est, quam nunc in summa
would-one-come in which truth placed is which now on the-top-of
terra et levi manu quaerimus.
the-earth and with-light hand we-seek