MEDIEVAL LATIN SERIES · VOLUME 58

The Opus Maius

Roger Bacon

Opus majus

The Opus Maius

Parts I–III and VI: Error, Wisdom, Languages, and Experiment

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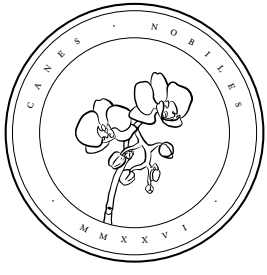
with a word-for-word interlinear English translation

preserving the original word order



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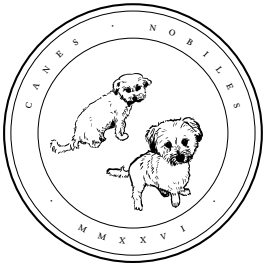

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The Medieval Latin text follows J. H. Bridges's text
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Capitulum i

THE FOUR CAUSES OF ALL IGNORANCE

Bacon sets out his persuasion to the Pope: wisdom must be known in itself and in its four uses, and truth lies deep. Four stumbling-blocks hinder every wise man: frail and unworthy authority, long custom, the sense of the unlearned crowd, and the concealment of one's own ignorance under a show of wisdom.

In qua excluduntur quatuor universales causae totius
in which are-excluded four universal causes of-all
ignorantiae humanae, habens quatuor distinctiones. In prima
ignorance human having four distinctions in the-first
sunt quatuor capitula. In primo data totius persuasionis
are four chapters in the-first with-given of-the-whole persuasion
intentione reprobantur illae quatuor causae universali sermone.
the-intention are-rejected those four causes in-universal speech
Sapientiae perfecta consideratio consistit in duobus, videlicet, ut
of-wisdom the-perfect consideration consists in two-things namely that
videatur quid ad eam requiritur, quatenus optime sciatur;
it-be-seen what for it is-required so-that best it-may-be-known
deinde quomodo ad omnia comparetur, ut per eam modis
then how to all-things it-is-related that through it in-ways
congruis dirigantur. Nam per lumen sapientiae ordinatur
fitting they-may-be-directed for through the-light of-wisdom is-ordered
Ecclesia Dei, Respublica fidelium disponitur, infidelium
the-Church of-God the-Commonwealth of-the-faithful is-disposed of-the-unbelievers
conversio procuratur; et illi, qui in malitia obstinati sunt, valent
the-conversion is-procured and those who in malice obstinate are are-able
per virtutem sapientiae reprimi, ut melius a finibus
through the-power of-wisdom to-be-restrained that better from the-borders

Ecclesiae longius pellantur quam per effusionem sanguinis
of-the-Church farther they-may-be-driven than through the-shedding of-blood
Christiani. Omnia vero quae indigent regimine sapientiae ad haec
Christian all-things but which need the-rule of-wisdom to these
quatuor reducuntur; nec pluribus potest comparari. De hac igitur
four are-reduced nor to-more it-can to-be-related of this therefore
sapientia tam relate quam absolute scienda nunc, secundum
wisdom as relatively as absolutely to-be-known now according-to
tenorem epistolae, quicquid possim circa persuasionem ad
the-tenor of-the-letter whatever I-can concerning persuasion for
praesens Vestrae Beatitudini praesentare conabor. Quoniam
the-present to-Your Beatitude to-present I-shall-try since
autem illa, de quibus agitur, sunt grandia et insolita,
moreover those-things about which it-is-treated are great and unusual
gratiam et favorem humanae fragilitatis requirunt. Nam
the-grace and favor of-human frailty they-require for
secundum Philosophum septimo Metaphysicae, ea quae
according-to the-Philosopher in-the-seventh of-the-Metaphysics those which
sunt maximae cognitionis secundum se, sunt minimae
are of-greatest knowability according-to themselves are of-least
apprehensionis quoad nos. Involuta enim veritas in alto
apprehension as-regards us wrapped for truth in the-deep
latet et in profundo posita est, ut dicit Seneca septimo de
lies-hidden and in the-depth placed is as says Seneca in-the-seventh on
beneficiis, et quarto Naturalium. Et Marcus Tullius in
benefits and in-the-fourth of-the-Natural-Questions and Marcus Tullius in
Hortensio dicit, quod omnis noster intellectus multis obstruitur
the-Hortensius says that every our intellect by-many is-obstructed
difficultatibus, quoniam ipse se habet ad manifestissimum in
difficulties since it itself holds to the-most-manifest in
sua natura, sicut oculus noctuae et vespertilionis ad lucem
its nature as the-eye of-the-owl and of-the-bat to the-light

solis, ut Philosophus dicit secundo Metaphysicae, et velut
of-the-sun as the-Philosopher says in-the-second of-the-Metaphysics and like
surdus a nativitate ad delectationem harmonicam, sicut
a-deaf-man from birth to delight harmonic as
undecimo Metaphysicae dicit Avicenna. Quapropter sufficit
in-the-eleventh of-the-Metaphysics says Avicenna wherefore suffices
nobis in inquisitione veritatis proprii intellectus imbecillitas,
for-us in the-inquiry of-truth of-our-own intellect the-weakness
ut quantum possumus causas et occasiones erroris extraneas
that as-much-as we-can the-causes and occasions of-error external
longius a debilitate sensus nostri relegemus.
farther from the-weakness of-sense our we-may-banish
Quatuor vero sunt maxima comprehendendae veritatis
four but are very-great of-grasping truth
offendicula, quae omnem quemcumque sapientem impediunt,
stumbling-blocks which every whatsoever wise-man hinder
et vix aliquem permittunt ad verum titulum sapientiae
and scarcely any permit to the-true title of-wisdom
pervenire, videlicet fragilis et indignae auctoritatis exemplum,
to-arrive namely of-frail and unworthy authority the-example
consuetudinis diuturnitas, vulgi sensus imperiti, et propriae
of-custom the-long-duration of-the-crowd the-sense unskilled and of-own
ignorantiae occultatio cum ostentatione sapientiae apparentis.
ignorance the-concealment with the-display of-wisdom apparent
His omnis homo involvitur, omnis status occupatur. Nam
in-these every man is-entangled every state is-occupied for
quilibet in singulis artibus vitae et studii et omnis negotii
each-one in single arts of-life and of-study and of-every business
tribus pessimis ad eandem conclusionem utitur argumentis,
three worst for the-same conclusion uses arguments
scilicet, hoc exemplificatum est per majores, hoc consuetum
namely this exemplified is by the-elders this customary

est, hoc vulgatum est; ergo tenendum. Sed oppositum
is this made-common is therefore to-be-held but the-opposite
conclusionis longe melius sequitur ex praemissis, sicut
of-the-conclusion far better follows from the-premises as
per auctoritatem et experientiam et rationem multipliciter
through authority and experience and reason manifoldly
probabo. Si vero haec tria refellantur aliquando magnifica
I-shall-prove if but these three be-refuted sometimes by-the-magnificent
rationis potentia, quartum semper in promptu est et in ore
of-reason power the-fourth always in readiness is and in the-mouth
cujuslibet, ut quilibet suam ignorantiam excuset; et licet
of-anyone that each-one his ignorance may-excuse and although
nihil dignum sciat, illud tamen magnificet imprudenter, ut
nothing worthy he-know that yet he-may-magnify imprudently that
sic saltem suae stultitiae infelici solatio veritatem opprimat
thus at-least of-his folly by-the-unhappy solace truth he-may-crush
et elidat. Ex his autem pestibus mortiferis accidunt
and may-dash-down from these moreover plagues deadly happen
omnia mala humano generi; nam ignorantur utilissima et
all evils to-the-human race for are-unknown the-most-useful and
maxima et pulcherrima sapientiae documenta, et omnium
greatest and most-beautiful of-wisdom teachings and of-all
scientiarum et artium secreta; sed pejus est, quod homines
sciences and arts the-secrets but worse is that men
horum quatuor caligine excaecati non percipiunt suam
of-these four by-the-fog blinded not perceive their
ignorantiam, sed cum omni cautela palliant et defendunt,
ignorance but with all caution they-cloak and defend
quatenus remedium non inveniant; et quod pessimum est,
so-that a-remedy not they-may-find and what worst is
cum sint in tenebris errorum densissimis, aestimant se
though they-be in the-darkness of-errors most-dense they-think themselves

esse in plena luce veritatis; propter quod verissima reputant
to-be in the-full light of-truth because-of which the-truest-things they-reckon
esse in fine falsitatis, optima nullius valoris, maxima nec
to-be at the-end of-falsity the-best of-no value the-greatest neither
pondus nec pretium obtinere et e contrario falsissima
weight nor price to-hold and on the-contrary the-falsest
celebrant, pessima laudant, extollunt vilissima, caecutientes,
they-celebrate the-worst they-praise they-extol the-vilest being-blind
aliud esse omnem sapientiae fulgorem, fastidientes quae
other to-be every of-wisdom splendor scorning which-things
magna facilitate possunt adipisci. Et propter stultitiae
with-great ease they-can to-obtain and because-of of-folly
magnitudinem ponunt summos labores, consumunt tempora
the-greatness they-put highest labors they-consume times
multa, magnas expensas effundunt in iis, quae nullius
many great expenses they-pour-out on those which of-no
utilitatis vel parvae sunt, nec dignitatis alicujus secundum
use or small are nor of-dignity any according-to
judicium sapientis. Et ideo necesse est ut violentia et
the-judgment of-the-wise-man and therefore necessary it-is that the-violence and
malitia harum quatuor causarum omnis mali cognoscantur
malice of-these four causes of-every evil be-known
in principio, et reprobentur, et longe a consideratione
in the-beginning and be-rejected and far from the-consideration
sapientiae relegentur. Nam ubi haec tria dominantur, nulla
of-wisdom be-banished for where these three dominate no
ratio movet, nullum jus judicat, nulla lex ligat, fas locum
reason moves no right judges no law binds divine-right place
non habet, naturae dictamen perit, facies rerum mutatur,
not has of-nature the-dictate perishes the-face of-things is-changed
ordo confunditur, praevalet vitium, virtus extinguitur, falsitas
order is-confounded prevails vice virtue is-extinguished falsity

regnat, veritas exsufflatur. Et ideo nihil magis necessarium
reigns truth is-blown-away and therefore nothing more necessary
est considerationi, quam certa damnatio istorum quatuor per
is to-consideration than a-sure condemnation of-these four through
sententias sapientum electas, quibus non poterit contradici.
sentences of-the-wise chosen to-which not it-shall-be-able to-be-contradicted
Quoniam vero sapientes tria prima simul collidunt et
since but the-wise the-three first together dash and
reprobant, et quartum propter singularem stultitiam propriam
reject and the-fourth because-of singular folly its-own
limaturam desiderat, ideo primo trium malitiam aperire
filing requires therefore first of-the-three the-malice to-open
conabor. Sed quamvis auctoritas sit unum de istis, nulla
I-shall-try but although authority be one of these by-no
ratione loquor de solida et vera auctoritate, quae vel Dei
reason I-speak of solid and true authority which either of-God
judicio collata est Ecclesiae, vel quae ex merito et
by-the-judgment conferred is on-the-Church or which from merit and
dignitate proprie nascitur in sanctis philosophis et perfectis
dignity properly is-born in holy philosophers and perfect
prophetis, qui juxta humanam possibilitatem in studio
prophets who according-to human possibility in the-study
sapientiae experti sunt; sed de illa auctoritate loquor, quam
of-wisdom experienced have but of that authority I-speak which
sine Dei auxilio violenter usurpaverunt multi in hoc mundo,
without of-God help violently usurped many in this world
nec ex merito sapientiae, sed ex propria praesumptione et
nor from the-merit of-wisdom but from their-own presumption and
desiderio famae, et quam vulgus imperitum multis concessit in
desire of-fame and which the-crowd unskilled to-many granted to
pernicionem propriam judicio Dei justo. Nam secundum
destruction its-own by-the-judgment of-God just for according-to

scripturas propter peccata populi multotiens regnat hypocrita;
the-scriptures because-of the-sins of-the-people many-times reigns a-hypocrite
de sophisticis enim auctoritatibus multitudinis insensatae
of sophistical for authorities of-the-multitude senseless
loquor, quae aequivocae sunt auctoritatis, sicut oculus lapideus
I-speak which of-equivocal are authority as an-eye of-stone
aut depictus nomen habet oculi, non virtutem.
or painted the-name has of-an-eye not the-power

Capitulum ii

THE PHILOSOPHERS AGAINST AUTHORITY, CUSTOM, AND THE CROWD

Scripture, the saints, canon law, and philosophy all condemn the first three causes. Seneca, Aristotle, Tully, Averroes, Jerome, and Chrysostom are cited in turn against living by example, against custom that hides the truth like poison grown into food, and against the multitude, which takes its errors for truth.

Sed tria reprobat sacra scriptura, sacri doctores
but the-three rejects sacred scripture the-sacred doctors
condemnant, jus Canonicum vetat, philosophia reprehendit;
condemn the-law Canon forbids philosophy reproves
sed propter rationes prius tactas de philosophicis allegandis,
but because-of the-reasons earlier touched about philosophical-things to-be-alleged
et quia minus vulgatae sunt sententiae Philosophorum
and because less made-common are the-opinions of-the-Philosophers
circa haec tria, eas principaliter introducam. Similiter vero
concerning these three them principally I-shall-introduce likewise but
omnes has tres pestes Seneca libro secundo epistolarum
all these three plagues Seneca in-the-book second of-the-letters
prope finem uno sermone condemnat. Dicit igitur, ‘inter
near the-end in-one speech condemns he-says therefore among

causas malorum nostrorum est, quod vivimus ad exemplar,
the-causes of-evils our is that we-live by example
nec ratione componimur, sed consuetudine abducimur; quod
nor by-reason we-are-composed but by-custom we-are-led-away which
si pauci facerent nollemus imitari, cum plures facere
if few did we-would-not-wish to-imitate when more to-do
ceperint, quia frequentius quam honestius, illud facimus,
have-begun because more-often than more-honorably that we-do
et recti locum tenet apud nos error, ubi publicus factus
and of-right the-place holds among us error when public made
est.' Philosophus vero per totam philosophiam suam
it-is the-Philosopher but through whole philosophy his
persequens auctoritatem indignam secundo Metaphysicae
pursuing authority unworthy in-the-second of-the-Metaphysics
causas humani erroris asserit praecipuas consuetudinem et
as-the-causes of-human error asserts chief custom and
populi testimonium.' Et iterum Seneca libro de vita
of-the-people the-testimony and again Seneca in-the-book on life
beata dicit, 'Nemo sibi solum errat, sed alieni erroris
happy says no-one for-himself alone errs but of-another error
causa et auctor est, versatque nos et praecipitat error, et
the-cause and author is and-turns us and casts-headlong error and
alienis perimus exemplis.' Et in secundo libro de Ira, 'propter
by-alien we-perish examples and in the-second book on Anger because-of
malitiam consuetudinis,' ait, 'difficulter reciduntur vitia, quae
the-malice of-custom he-says with-difficulty are-cut-back vices which
nobiscum creverunt.' Et in libro de vitae beatitudine contra
with-us have-grown and in the-book on of-life happiness against
vulgi sententias refert, 'Nulla res majoribus malis nos
of-the-crowd the-opinions he-reports no thing in-greater evils us
implicat, quam quod ad rumorem componimur, optima rati
entangles than that to rumor we-are-composed best thinking

ea quae magno assensu recepta sunt, nec ad rationem sed
those which with-great assent received are nor by reason but
ad similitudinem vivimus. Inde est ista tanta coacervatio
by likeness we-live thence is this so-great heaping-up
aliorum supra alios ruentium. Quod enim in strage homini
of-others upon others falling what for in a-crush to-a-man
magna evenit, cum se populus ipse premit, nemo ita cadit
great happens when itself the-people it-itself presses no-one so falls
ut non alium in se attrahat, primique sunt exitio
that not another upon himself he-drag and-the-first are destruction
sequentibus.' Et iterum dicit in eodem, 'Stat contra rationem
to-those-following and again he-says in the-same stands against reason
defensor mali sui populus'; et infra, 'Non tam bene cum
the-defender of-evil its-own the-people and below not so well with
rebus humanis agitur, ut meliora pluribus placeant,' et
affairs human it-is-dealt that better-things to-more please and
sequitur, 'argumentum pessimi turba est.' Et Marcus Tullius
follows the-argument of-the-worst the-crowd is and Marcus Tullius
tertio de quaestionibus Tusculanis ait, 'Cum magistris
in-the-third on the-Questions Tusculan says when to-masters
traditi sumus, ita variis imbuimur erroribus, ut vanitati
handed-over we-are so with-various we-are-imbued errors that to-vanity
veritas, et opinioni confirmatae ipsa natura cedat.' Atque
truth and to-opinion confirmed the-very nature yields and
in Lucullo dicit, 'quidam obsecuti amico cuidam aut
in the-Lucullus he-says certain-ones having-complied with-a-friend certain or
una cum aliquo quem audierunt oratione capti, de rebus
together with someone whom they-heard by-the-speech captured about things
incognitis judicant, et ad quamcumque sunt disciplinam
unknown judge and to whatever they-are discipline
quasi tempestate delati, tanquam ad saxum inhaerescunt;
as-if by-a-storm carried as-if to a-rock they-cling

plerique errare malunt, eamque sententiam quam amaverunt
most to-err prefer and-that opinion which they-have-loved
defendere, quam sine pertinacia perquirere quid constantissime
to-defend than without obstinacy to-search-out what most-consistently
dicant.' Et propter pravitatem consuetudinis queritur in
they-may-say and because-of the-depravity of-custom he-complains in
primo de divina natura, 'non pudet speculatorem naturae ab
the-first on divine nature not it-shames the-investigator of-nature from
animis consuetudine imbutis petere testimonium veritatis.' Et
minds with-custom imbued to-seek testimony of-truth and
contra vulgi sensum dicit proemio secundi quaestionum,
against of-the-crowd the-sense he-says in-the-proem of-the-second of-the-Questions
philosophia 'est paucis contenta judicibus, multitudinem ipsam
philosophy is with-few content judges the-multitude itself
consulto fugiens, eique suspecta et invisa,' et in eodem
deliberately fleeing and-to-it suspect and hateful and in the-same
libro ait, 'laudabiliora mihi videntur omnia quae sine
book he-says more-praiseworthy to-me seem all-things which without
populo teste fiunt.' Sed alii divisim haec tria persequuntur.
the-people as-witness are-done but others separately these three pursue
Nam in libro Quaestionum Naturalium Alardi quaeritur de
for in the-book of-the-Questions Natural of-Adelard it-is-asked about
auctoritate fragili: 'Quid est aliud auctoritas hujusmodi quam
authority frail what is other authority of-this-kind than
capistrum? Ut bruta quippe animalia capistro ducuntur, nec
a-halter as brute indeed animals by-a-halter are-led nor
cui nec quo ducantur discernunt, sic nos paucos bestiali
to-whom nor whither they-are-led discern so us few by-bestial
crudelitate captos ligatosque auctoritas ipsa in periculum
cruelty captured and-bound authority itself into danger
ducit.' Et in libro de Dei aeternitate, 'qui elegerit
leads and in the-book on of-God eternity who shall-have-chosen

alteram partem quaestionis propter amorem consuetudinis
the-other part of-the-question because-of love of-custom
non potest recte discernere veram opinionem.' Et Averroes
not can rightly to-discern the-true opinion and Averroes
in fine secundi Physicorum dicit, 'Consuetudo est maxima
at the-end of-the-second of-the-Physics says custom is the-greatest
causa impediens a pluribus rebus manifestis. Quemadmodum
cause hindering from many things manifest as
enim consueto ad aliquas opiniones licet nocivas, erunt
for to-one-accustomed to some opinions although harmful they-shall-be
ei faciles, et ideo credit eas esse utiles; similiter cum
to-him easy and therefore he-believes them to-be useful likewise when
fuerit assuetus credere sermones falsos a pueritia, erit
he-shall-have-been accustomed to-believe speeches false from boyhood shall-be
illa consuetudo causa ad negandum veritatem, sicut quidam
that custom a-cause for denying the-truth as certain-ones
tam assueti fuerint comedere venenum, quod factum est eis
so accustomed have-been to-eat poison that made it-is for-them
cibus.' Et idem Averroes vult secundo Metaphysicae 'quod
food and the-same Averroes wishes in-the-second of-the-Metaphysics that
opposita principiorum cum fuerint famosa sunt magis
the-opposites of-principles when they-shall-have-been famous are more
receptibilia a multitudine consequentibus testimonia multorum
receivable by the-multitude following the-testimonies of-many
quam ipsa principia.' Atque Hieronymus in prologo quinti
than the-very principles and Jerome in the-prologue of-the-fifth
libri super Jeremiam asserit, 'veritatem paucis contentam
book on Jeremiah asserts truth with-few content
esse, et hostium multitudine non terreri.' Johannes quoque
to-be and of-enemies by-the-multitude not to-be-terrified John also

Chrysostomus super Matthaeum dicit, quod a veritate nudos
Chrysostom on Matthew says that of truth naked
se esse professi sunt, qui multitudine se armaverunt.
themselves to-be professed have who with-the-multitude themselves have-armed

Capitulum iii

EXPERIENCE CONFIRMS WHAT AUTHORITY PROVES

Everyone's experience shows that the three causes embrace evil and falsehood more often than good. Perfect men are rarer even than perfect numbers, custom draws men to vice more easily than to virtue, and the crowd has always erred, in the faith as in philosophy.

Quod per auctoritates probatum est experientia cujuslibet
what through authorities proved is by-the-experience of-anyone
certius dijudicatur. Nam experimur in nobis et in aliis
more-certainly is-judged for we-experience in ourselves and in others
quod haec tria, ut in pluribus amplectuntur mala, frequentius
that these three as in most-cases embrace evils more-often
falsis adhaerent. Quod si aliquando bonis et veris
to-false-things cling but if sometimes in-good and true-things
implicentur, fere semper sunt imperfecta, et debilem
they-be-involved almost always they-are imperfect and a-weak
gradum continent sapientiae. Matris quidem opera ut in
degree contain of-wisdom of-the-mother indeed the-works as in
pluribus sequitur filia, patris natus, domini servus,
most-cases follows the-daughter of-the-father the-son of-the-lord the-servant
regis subditus, praelati bajulus, magistri discipulus. Quia
of-the-king the-subject of-the-prelate the-porter of-the-master the-disciple because
familiare est filiis Adae sibi auctoritatem vindicare
familiar it-is to-the-sons of-Adam for-themselves authority to-claim

et sua exempla spargere in lucem. Nam omnes homines
and their examples to-spread into the-light for all men
secundum Aristotelem quarto Ethicorum amant sua opera,
according-to Aristotle in-the-fourth of-the-Ethics love their works
ut parentes natos, et poetae metra, et sic de aliis. Et
as parents children and poets meters and so of others and
ideo multi nimia licentia scribendi usi sunt, adeo ut
therefore many with-excessive license of-writing used have so-far that
pravis et bestialibus viris insinuare non dubitaverunt, cur
to-depraved and bestial men to-suggest not they-hesitated why
chartas non impletis, cur a tergo non scribitis. Et hi sunt
sheets not do-you-fill why on the-back not do-you-write and these are
sicut pastor claudus et caecutiens cum ovibus multis, quas
like a-shepherd lame and half-blind with sheep many which
errantes per devia falsitatis nec possunt nec sciunt ad
wandering through the-byways of-falsity neither can nor know to
saniora sapientiae pascua revocare, et sunt similes avibus,
the-healthier of-wisdom pastures to-call-back and are like to-birds
qui optant sine alis volare, prius de magisterio praesumentes,
who wish without wings to-fly earlier of the-mastership presuming
quam boni discipuli gradum adepti sunt, quum necessario
than of-a-good disciple the-degree attained have since of-necessity
tot incidunt in errores, quod otiosi comparatione ipsorum
so-many they-fall into errors that the-idle in-comparison of-them
reputant se felices; sicut quando multi currunt in stadio,
reckon themselves happy as when many run in the-stadium
ille quem desperatio currere non permittet, quantumcunque
he whom despair to-run not shall-permit however-much
sibi videatur pernitiosum, se tamen felicem reputat
to-himself it-may-seem pernicious himself yet happy reckons
comparatione illius, qui currens cadit in foveam invisam. Et
in-comparison of-him who running falls into a-pit unseen and

ideo videmus fide oculata quod pro uno exemplo veritatis
therefore we-see with-faith eyewitness that for one example of-truth
tam in scientia quam in vita sunt plus quam mille
as in science as in life there-are more than a-thousand
falsitates. Mundus enim plenus est hujusmodi exemplis,
falsities the-world for full is of-this-kind of-examples
atque unum exemplum verae perfectionis decem millia
and one example of-true perfection ten thousand
imperfecta invenit de facili. Natura enim in numeris formavit
imperfect finds with ease nature for in numbers has-formed
nobis perfectionis et imperfectionis documentum. Nam tum
for-us of-perfection and of-imperfection a-lesson for then
numerus perfectus dicitur, cujus partes aliquotae ipsum
a-number perfect is-called whose parts aliquot it
praecise constituunt, et non est nisi unus infra denarium,
precisely constitute and not there-is except one below ten
viz. senarius; et unus inter 10 et 100, ut 28; et unus
namely six and one between 10 and 100 as 28 and one
inter 100 et 1000, ut 496; et unus inter 1000 et 10000
between 100 and 1000 as 496 and one between 1000 and 10000
ut 8128; et sic ultra; et utinam sic esset inter homines,
as 8128 and so beyond and would-that so it-were among men
et hoc humano generi sufficeret. Sed nunquam fuit hoc
and this to-the-human race would-suffice but never was this
nec in vita nec in scientia, neque erit usquam in finalem
neither in life nor in science nor shall-be ever to the-final
peccati destructionem, quoniam non solum est raritas eorum,
of-sin destruction since not only is the-rarity of-those
qui in omni veritate et scientia perfecti sunt, sed eorum qui
who in all truth and science perfect are but of-those who
ad perfectionem unius veritatis vel scientiae devenerunt. Primi
to the-perfection of-one truth or science have-come the-first

sunt et erunt et fuerunt semper paucissimi. Nam sunt
are and shall-be and were always very-few for there-are
vere perfecti, sed de 10000 hominum unus non invenitur sic
truly perfect-ones but of 10000 men one not is-found so
perfectus nec in statu vitae neque in professione sapientiae;
perfect neither in the-state of-life nor in the-profession of-wisdom
utinam de secundo genere perfectorum infra denarium unus
would-that of the-second kind of-the-perfect below ten one
esset, et sic ultra, ut perfectio numerorum in hominibus
there-were and so beyond that the-perfection of-numbers in men
conservaretur. Sed non est ita, imo longe aliter invenitur.
might-be-preserved but not it-is so nay far otherwise it-is-found
Similiter de consuetudine probamus per experientiam in
likewise about custom we-prove through experience in
actibus nostris, quod nunc datum est in exemplis. Revolvat
acts our what now given is in examples let-turn-over
quilibet vitam suam ab infantia sua, et inveniet quod in
each-one life his from infancy his and he-shall-find that in
pluribus ejus operibus facilius mala et falsa duxit in
most his works more-easily evil and false-things he-has-drawn into
consuetudinem. Nam in bonis et veris identitas humanae
custom for in good and true-things sameness to-human
fragilitati mater est satietatis, et delectatur miser homo in
frailty the-mother is of-satiety and delights wretched man in
varietate utilium secundum sententiam auctoritatum quas in
variety of-useful-things according-to the-sentence of-the-authorities which in
principio allegavi; e contrario quidem in malis et falsis ac
the-beginning I-alleged on the-contrary indeed in evil and false and
nocivis sibi et aliis. Nam ut in pluribus actibus, nisi
harmful-things to-himself and to-others for as in most acts unless
gratia specialis et privilegium divinum in aliquibus perfectis
grace special and privilege divine in some perfect-ones

obtinet, humana corruptio diligenter continet ea, quae veritati
prevails human corruption diligently holds those which to-truth
et saluti sunt contraria; nec taedio afficitur in peccati
and to-salvation are contrary nor with-weariness is-affected in of-sin
continuatione, nec fastidium de facili invenit in rebus variis.
the-continuation nor disgust with ease finds in things various
Quod si aliquis a juventute applicetur ad vitae et scientiae
but if anyone from youth be-applied to of-life and of-science
veritatem, hic ut in pluribus actibus continet imperfectionem,
the-truth he as in most acts contains imperfection
et in ea jocundatur, perfectio enim contristat eum frequentius;
and in it delights perfection for saddens him more-often
nam paucissimos delectat, et maxime in virtutum et
for very-few it-delights and most in of-virtues and
scientiarum plenitudine, et ideo accidit quos aetas juvenilis
of-sciences the-fullness and therefore it-happens whom age youthful
vix cavet ab errore, et senectus cum summa difficultate
scarcely guards from error and old-age with the-greatest difficulty
ad perfectionem in aliquo transcendit. De vulgo enim
to perfection in anything passes-over about the-crowd for
idem judicium est. Nam multitudo generis humani semper
the-same judgment is for the-multitude of-the-race human always
erravit in Dei veritate, et paucitas Christianorum recepit;
erred in of-God the-truth and the-fewness of-Christians received
atque scimus quod plebs Christianorum imperfecta est. Nam
and we-know that the-people of-Christians imperfect is for
paucitas sanctorum hoc ostendit. Similiter de philosophica
the-fewness of-the-saints this shows likewise about philosophical
doctrina, vulgus enim semper caruit sapientia philosophiae.
doctrine the-crowd for always has-lacked the-wisdom of-philosophy
Brevis enim philosophorum numerus hoc declarat. Et vulgus
the-short for of-philosophers number this declares and the-crowd

quidem philosophantium imperfectum semper remansit. Nam
indeed of-those-philosophizing imperfect always has-remained for
de famosis philosophus solus Aristoteles cum sua familia
of the-famous a-philosopher alone Aristotle with his school
vocatus est judicio omnium sapientum, quoniam ipse
called is by-the-judgment of-all the-wise since he
omnes partes philosophiae digessit secundum possibilitatem
all the-parts of-philosophy arranged according-to the-possibility
sui temporis, sed tamen ad finem sapientiae non pervenit,
of-his time but yet to the-end of-wisdom not he-arrived
sicut satis manifestabitur inferius.
as sufficiently shall-be-made-manifest below

Capitulum iv

CUSTOM AND THE CROWD WORSE THAN AUTHORITY

Custom binds more strongly than authority, and the crowd's opinion is worse than either. The multitude followed Christ for two years and then cried "Crucify"; the wise have always kept the secrets of wisdom from the crowd, writing their roots but hiding the fruits.

Sed tamen quantumcunque fragilis sit auctoritas, nomen habet
but yet however-much frail be authority the-name it-has
honoris, et consuetudo violentior est ad peccatum quam
of-honor and custom more-violent is toward sin than
ipsa; utraque autem earum impetuosior est sensus vulgi.
it both moreover of-them more-impetuous is the-sense of-the-crowd
Nam auctoritas solum allicit, consuetudo ligat, opinio
for authority only entices custom binds the-opinion
vulgi obstinatos parit et confirmat. Consuetudo autem est
of-the-crowd the-obstinate begets and confirms custom moreover is

altera natura, ut dicit philosophus libro de memoria et
a-second nature as says the-philosopher in-the-book on memory and
reminiscentia, et in libro Problematum, et ideo majorem
recollection and in the-book of-Problems and therefore greater
violentiam quam auctoritas inducit. Unde philosophus 10mo
violence than authority it-induces whence the-philosopher in-the-tenth
Ethicorum sententiae Jeremiae de pelle Aethiopum adhaeret,
of-the-Ethics to-the-sentence of-Jeremiah on the-skin of-the-Ethiopians adheres
dicens, 'quod impossibile est vel difficile eum, qui per
saying that impossible it-is or difficult him who through
consuetudinem malam induratus est, mutari ad bonum.' Et
custom evil hardened is to-be-changed to good and
Sallustius in Jugurthino sensum Solomonis profert, cum ait,
Sallust in the-Jugurtha the-sense of-Solomon brings-forth when he-says
'ubi adolescentiam habuere, ibi senectutem agunt.' Sententia
where youth they-had there old-age they-spend the-opinion
quidem vulgi caeteris improba magis est. Nam, ut
indeed of-the-crowd than-the-others wicked more is for as
ait Seneca tertio Declamationum libro, 'multitudo semel
says Seneca in-the-third of-the-Declamations book a-multitude once
mota modum servare non potest'; propter quod Johannes
moved measure to-keep not can because-of which John
Chrysostomus super Matthaeum dicit 'convenerunt ut
Chrysostom on Matthew says they-came-together that
multitudine vincerent quem ratione superare non poterant.'
by-multitude they-might-conquer whom by-reason to-overcome not they-could
Sic considerandum est diligenter quod vulgus imperitum
thus to-be-considered it-is diligently that the-crowd unskilled
non solum violentius est ad persuasionem mali quam
not only more-violent is toward the-persuasion of-evil than
reliqua duo, sed stultum est et magis elongatum a fine
the-other two but foolish is and more removed from the-end

sapientiae. Nam exemplum perfectionis trahitur ab aliquo in
of-wisdom for an-example of-perfection is-drawn by someone into
consuetudinem, sed vulgo sufficit ut non erret. In nullo
custom but for-the-crowd it-suffices that not it-err in no
enim statu Ecclesiae requiritur ut ejus perfectionem teneat
for state of-the-Church is-it-required that its perfection hold
multitudo. Nam et apud religiosos paucitas figitur in centro
the-multitude for also among religious the-fewness is-fixed in the-center
perfectionis suae et multitudo vagatur in circumferentia. Sic
of-perfection its and the-multitude wanders in the-circumference so
est in statu multorum secularium, ut cernimus ad oculum
it-is in the-state of-many seculars as we-discern to the-eye
evidenter. Turba enim sicut cum Moyse non ascendit in
evidently the-crowd for as with Moses not ascended into
montem, sic nec cum Christo in transfiguratione Christi
the-mountain so neither with Christ in the-transfiguration of-Christ
multitudo discipulorum assumpta est, sed tres electi specialiter.
the-multitude of-the-disciples taken-up is but three chosen specially
Et cum magistrum perfectionis Christum turba secuta est
and when the-master of-perfection Christ the-crowd followed has
per duos annos praedicantem, postea demisit eum, et
through two years preaching afterward dismissed him and
in fine clamavit, 'Crucifige.' Nam vulgus nihil perfectum
at the-end cried-out crucify for the-crowd nothing perfect
continuare potest, utinam enim vita, nec in studio errasset.
to-continue can would-that for in-life nor in study it-had-erred
Et sicut nos hoc videmus in veritate fidei, sic in professoribus
and as we this see in the-truth of-faith so in the-professors
philosophiae. Nam semper sapientes contra vulgus divisi sunt,
of-philosophy for always the-wise against the-crowd divided are
et arcana sapientiae non toti mundo sed plebi
and the-secrets of-wisdom not to-the-whole world but to-the-common-people

philosophantium revelaverunt. Quoniam sapientes Graeci
of-those-philosophizing they-revealed since the-wise Greek
nocturnis vigiliis congregati vacabant sine vulgo collationibus
in-nocturnal vigils gathered were-free without the-crowd for-conferences
sapientiae, de quibus A. Gellius scribit in libro Noctium
of-wisdom of which A. Gellius writes in the-book of-the-Nights
Atticarum, i.e. collationum sapientiae nocturnalium, quas
Attic that-is of-the-conferences of-wisdom nocturnal which
sapientes Attici, i.e. Athenienses celebrabant ut multitudinem
the-wise Attic that-is Athenian celebrated that the-multitude
vitarent. In quo etiam dicit 'stultum est asino praebere
they-might-avoid in which also he-says foolish it-is to-an-ass to-offer
lactucas, cum ei sufficiant cardui,' loquens de vulgo, cui
lettuces when for-it suffice thistles speaking of the-crowd for-which
rudia et vilia et imperfecta sapientiae sufficiunt alimenta.
rough and vile and imperfect of-wisdom suffice nourishments
Nec oportet margaritas spargi inter porcos; nam rerum
nor must pearls to-be-scattered among swine for of-things
majestatem minuit, qui vulgat mystica: nec manent
the-majesty diminishes who makes-common mysteries nor remain
secreta, quorum turba est conscia, sicut in libro Gemmarum
secrets of-which the-crowd is aware as in the-book of-Gems
edocetur. Atque Aristoteles in libro secretorum dicit, 'se
is-taught and Aristotle in the-book of-secrets says himself
fore fractorem sigilli coelestis, si secreta naturae
to-be-going-to-be a-breaker of-the-seal celestial if the-secrets of-nature
vulgaret.' Et propter hoc sapientes licet darent in scriptis
he-made-common and because-of this the-wise although they-gave in writings
radices arcanorum sapientiae, tamen ramos et fructus
the-roots of-the-secrets of-wisdom yet the-branches and fruits
vulgo philosophantium non dederunt. Nam vel omiserunt
to-the-crowd of-those-philosophizing not they-gave for either they-omitted

scribere, vel per sermones figurativos et multis modis,
to-write or through speeches figurative and in-many ways
de quibus non est ad praesens dicendum, occultaverunt.
of which not it-is for the-present to-be-spoken they-hid(-them)
Quoniam secundum sententiam Aristotelis libro secretorum
since according-to the-sentence of-Aristotle in-the-book of-secrets
et Socratis magistri sui, secreta scientiarum non scribimus in
and of-Socrates master his the-secrets of-the-sciences not we-write on
pellibus caprarum et ovium, ita quod a vulgo valeant
skins of-goats and of-sheep so that by the-crowd they-may-be-able
aperiri. Sapientissimi enim et maxime experti multotiens
to-be-opened the-wisest for and most experienced many-times
maximam difficultatem in libris reperiunt antiquorum. Et
the-greatest difficulty in the-books find of-the-ancients and
cum philosophus dividat probabile primo libro Topicorum,
when the-philosopher divides the-probable in-the-first book of-the-Topics
separat vulgus a sapientibus: Nam dicit probabile esse
he-separates the-crowd from the-wise for he-says the-probable to-be
quod videtur, vel pluribus, vel sapientibus; sub omnibus
what seems either to-most or to-the-wise under all
enim comprehenduntur vulgus et sapientes communiter,
for are-comprehended the-crowd and the-wise in-common
ergo per plures vulgus designatur; quia de consortio
therefore by most the-crowd is-designated because of the-fellowship
sapientum non est ipsum vulgus insensatum. Et hoc accidit
of-the-wise not is the-very crowd senseless and this happens
ei non solum propter sui propriam stultitiam, sed quia
to-it not only because-of its own folly but because
in pluribus caput recipit languidum et infirmum, quod
in most-cases a-head it-receives languid and infirm which
erroribus et proclive est et auctor imperfectionis cujus nutu
to-errors and prone is and the-author of-imperfection at-whose nod

ducitur in omnem eventum. Et ideo vulgus imperitum
it-is-led into every outcome and therefore the-crowd unskilled
nunquam ad perfectionem sapientiae potest ascendere, nam
never to the-perfection of-wisdom can to-ascend for
nescit uti rebus dignissimis: quas si aliquando casu
it-knows-not to-use things most-worthy which if sometimes by-chance
contingat omnia in malum convertit, et ideo justo Dei
it-happen all-things to evil it-turns and therefore by-the-just of-God
consilio negatae sunt ei viae perfectionis, et optime
counsel denied are to-it the-ways of-perfection and best
secum agitur quando permittitur non errare. Nam suum
with-it it-is-dealt when it-is-permitted not to-err for its
nomen ostendit omnia quae praedicta sunt, et apud omnes
name shows all-things which said-before are and among all
auctores vocatur vulgus imperitum vel insensatum. Imperitia
authors it-is-called the-crowd unskilled or senseless unskill
vero in errore et in imperfectione consistit, et ideo
but in error and in imperfection consists and therefore
vulgo familiaris est error et imperfectio. Nam multi sunt
to-the-crowd familiar is error and imperfection for many are
vocati, pauci vero electi ad veritatis divinae receptionem,
called few but chosen to of-truth divine the-reception
et similiter philosophicae. Quare Philosophus dicit secundo
and likewise of-philosophical wherefore the-Philosopher says in-the-second
Topicorum, quod sentiendum est ut pauci, licet loquendum
of-the-Topics that to-be-thought it-is as the-few although to-be-spoken
sit ut plures; quia stultitiam vulgi aliquando simulare
it-be as the-many because the-folly of-the-crowd sometimes to-feign
prudentia summa aestimatur, praecipue cum est in furore
prudence the-highest is-reckoned especially when it-is in fury
suo. Ex his omnibus colligitur malitia et stultitia horum
its from these all is-gathered the-malice and folly of-these

trium et damnum humani generis infinitum, et ideo
three and the-harm of-the-human race infinite and therefore
suspecta sunt in omni causa, nec est eis confidendum:
suspect they-are in every cause nor is-it to-them to-be-trusted
et maxime vulgi sensus est negligendus propter dictas
and most of-the-crowd the-sense is to-be-neglected because-of the-said
speciales rationes, non quia aliquando cadant supra vera,
special reasons not because sometimes they-fall upon true-things
sed quia ut in pluribus falsis implicantur. Et rarissime
but because as in most-cases with-false-things they-are-entangled and most-rarely
exemplum et consuetudo perfectionem habent, vulgus autem
example and custom perfection have the-crowd moreover
nunquam pertingit ad eam, ut prius explanatum est.
never reaches to it as earlier explained it-is

Capitulum v

THE REMEDY: THE COUNSELS OF GOD AND THE WISE

The defense against these causes is to follow the counsels of God, Scripture, the saints, and the wise: not to follow the crowd to do evil, to let custom yield to truth and reason, and to venerate the ancients while excusing their faults.

Munimen vero ad defensionem contra haec habere non
a-fortification but for defense against these to-have not
possumus nisi mandata et consilia Dei ac scripturae
we-can unless the-commands and counsels of-God and of-scripture
suae et Juris Canonici, sanctorum et philosophorum
his and of-the-Law Canon of-the-saints and of-the-philosophers
et omnium sapientum antiquorum, sequamur. Et si his
and of-all the-wise ancient we-follow and if to-these

mandatis et consiliis adhaereamus, non possumus errare,
commands and counsels we-adhere not we-can to-err
nec debemus in aliquo reprobari. In praedictis igitur per
nor ought-we in anything to-be-reproved in the-foregoing therefore through
philosophum principaliter allegatum est ostendere horum
the-philosopher principally alleged it-is to-show of-these
pravitatem et stultitiam, propter quas ipsa possemus et
the-depravity and folly because-of which them we-could and
debemus evitare, sed propter causas assignatas de inducendis
we-ought to-avoid but because-of the-causes assigned about to-be-introduced
philosophorum testimoniis silui fere in aliis; nunc autem
of-the-philosophers testimonies I-kept-silent almost in the-others now moreover
possum invenire consimilia testimonia, in quibus consilium vel
I-can to-find similar testimonies in which the-counsel or
mandatum de obviando istis expressius habetur. Contra igitur
command about meeting these more-expressly is-had against therefore
sensum vulgi teneamus mandatum Exodi, 'Non sequeris
the-sense of-the-crowd let-us-hold the-command of-Exodus not shall-you-follow
turbam ad faciendum malum; nec in judicio plurimorum
the-crowd for doing evil nor in the-judgment of-the-most
adquiesces sententiae, ut a vero devies.' Et consilium
shall-you-acquiesce to-the-opinion that from the-true you-stray and the-counsel
Tullii in fine de quaestionibus impleamus dicentis, 'Tu
of-Tully at the-end of the-Questions let-us-fulfill saying you
autem etsi in oculis sis multitudinis, tamen in ejus judicio
moreover even-if in the-eyes you-be of-the-multitude yet in its judgment
stare noli, nec quod ipsa putet id putare pulcherrimum.' Et
stand do-not nor what it think that to-think most-beautiful and
Seneca libro de copia verborum invitat nos et consolatur
Seneca in-the-book on abundance of-words invites us and consoles
recedentes a via multitudinis, dicens, 'Nondum felix es,
those-withdrawing from the-way of-the-multitude saying not-yet happy are-you

si nondum turba te deriserit.' Et contra consuetudinem
if not-yet the-crowd you shall-have-mocked and against custom
impleamus consilium Cypriani, 'Consuetudo sine veritate
let-us-fulfill the-counsel of-Cyprian custom without truth
vetustas erroris est, propter quod relicto errore, sequamur
the-oldness of-error is because-of which with-left-behind error let-us-follow
veritatem.' Et Augustinus praecipit quod 'veritate manifesta,
truth and Augustine instructs that with-truth manifest
cedat consuetudo veritati, quia consuetudinem veritas et
let-yield custom to-truth because custom truth and
ratio semper excludit.' Et Isidorus, 'Usus auctoritati cedat;
reason always excludes and Isidore use to-authority let-yield
pravum usum lex et ratio vincat.' Et ideo Tullius de
depraved use law and reason let-conquer and therefore Tully on
immortalitate animae laudans et extollens eos, qui fugiunt
the-immortality of-the-soul praising and extolling those who flee
consuetudinem dicit 'magni animi est cogitationem a
custom says of-a-great mind it-is thought from
consuetudine revocare.' Nomen autem auctoritatis favorabile
custom to-call-back the-name moreover of-authority favorable
est. Et ideo majores nostri venerandi sunt, sive habeant
is and therefore elders our to-be-venerated are whether they-have
auctoritatem veram sive apparentem, quae est auctoritas
authority true or apparent which is the-authority
ducum vulgi. Et contra usum apparentis auctoritatis non
of-the-leaders of-the-crowd and against the-use of-apparent authority not
solum propria sunt consilia et mandata secundum vias Dei
only proper are counsels and commands according-to the-ways of-God
et sanctorum et philosophorum et omnium sapientum, sed
and of-the-saints and of-the-philosophers and of-all the-wise but
quicquid contra vitia humanae fragilitatis apud auctores veros
whatever against the-vices of-human frailty among authors true

dici potest, commune est eis qui auctoritate abutuntur
to-be-said can common is to-those who authority abuse
praesumpta. Et ideo si consilia et mandata habemus contra
presumed and therefore if counsels and commands we-have against
defectus verorum auctorum multo magis contra abutentes. Sed
the-defects of-true authors much more against those-abusing but
quia auctores veridici, ut sancti et philosophi principales,
because authors truthful as the-saints and philosophers principal
juverunt nos in consideratione veritatis, ideo regratiandum
have-helped us in the-consideration of-truth therefore to-be-thanked
est eis, sicut Aristoteles primo Metaphysicae regratiatur
it-is them as Aristotle in-the-first of-the-Metaphysics thanks
suis praedecessoribus, et in fine Elenchorum de inventis
his predecessors and at the-end of-the-Refutations for discoveries
multis ipsemet cupit habere grates. Qui vero prima principia
many he-himself desires to-have thanks who but first principles
jecerunt, eis non solum regratiandum, sed quasi totum cum
cast to-them not only to-be-thanked but as-if the-whole with
quadam reverentia ascribendum. Secundum quod Seneca vult
a-certain reverence to-be-ascribed according-to what Seneca wishes
tertio naturalium, 'si quid a posterioribus inventum
in-the-third of-the-Natural-Questions if anything by later-men found
est, nihilominus referendum antiquis, quia magni animi
is nonetheless to-be-referred to-the-ancients because of-a-great mind
fuit rerum latebras primitus dimovere, et plurimum
it-was of-things the-hiding-places first to-move-apart and most
ad inveniendum contulit, qui speravit posse reperire, et
toward finding contributed who hoped to-be-able to-discover and
quamvis propter humanam fragilitatem in multis defecerunt,
although because-of human frailty in many-things they-failed

tamen excusandi sunt.' Nam in libro memorato ait Seneca,
yet to-be-excused they-are for in the-book mentioned says Seneca
'cum excusatione veteres audiendi sunt.'
with excuse the-ancients to-be-heard are

Capitulum vi

EVEN THE GREATEST AUTHORS MAY BE CORRECTED

Truth is infinite and human minds are weak, so later writers rightly add to and correct the ancients, as Seneca teaches. Aristotle, Avicenna, and Averroes each corrected their predecessors, and the saints themselves retracted and corrected one another.

Sed quoniam propter peccatum originale, et propria cujuslibet
but since because-of sin original and the-own of-anyone
peccata partes imaginationis laesae sunt, (nam ratio caecutiens
sins the-parts of-the-imagination injured are for reason half-blind
est, memoria fragilis, ac voluntas depravata; et verum
is memory frail and will depraved and the-true
et bonum uno modo sunt, falsum autem cuilibet vero
and the-good in-one way are the-false moreover to-any true-thing
oppositum et malum cuilibet bono contrarium infinitis
opposite and evil to-any good contrary in-infinite
modis variantur; quia ut philosophus secundo Ethicorum
ways are-varied because as the-philosopher in-the-second of-the-Ethics
exemplificat, facile est diverti a signo dato propter
exemplifies easy it-is to-be-turned-aside from the-mark given because-of
multiformem declinationis possibilitatem, sed veritas et virtus
the-manifold of-declining possibility but truth and virtue
sunt in puncto; infinitae etiam sunt veritates, virtutesque,
are in a-point infinite also are truths and-virtues

atque innumerabiles gradus in qualibet veritate et virtute,)
and innumerable degrees in any truth and virtue
manifestum est quod mens humana non sufficit dare quod
manifest it-is that the-mind human not suffices to-give what
necessarium est in omnibus, nec potest in singulis vitare
necessary is in all-things nor can-it in single-things to-avoid
falsum nec malum. Et ideo ad auctorum dicta verorum
the-false nor evil and therefore to of-authors the-sayings true
potest convenienter addi et corrigi in quampluribus. Et
it-can fittingly to-be-added and to-be-corrected in very-many-things and
hoc egregie docet Seneca in libro quaestionum naturalium;
this excellently teaches Seneca in the-book of-the-questions natural
quoniam libro tertio dicit, 'opiniones veteres parum exactas
since in-book third he-says the-opinions old little exact
esse; et rudes circa verum adhuc errabant; nova erant
to-be and rough about the-true still they-were-erring new were
omnia primo tentantibus, postea eadem illa limata sunt;
all-things to-the-first attempting afterward the-same those filed are
nulla res consummata est, dum incipit.' Et in quarto libro
no thing perfected is while it-begins and in the-fourth book
dicit, 'veniet tempus, quo ista quae latent nunc, in lucem
he-says shall-come a-time in-which these which lie-hidden now into the-light
dies extrahet, et longioris aevi diligentia. Ad inquisitiones
the-day shall-draw-out and of-a-longer age diligence for the-inquiries
tantorum una aetas non sufficit. Multa venientis aevi
of-so-great-things one age not suffices many-things of-the-coming age
populus ignota nobis sciet, et veniet tempus, quo posteri
the-people unknown to-us shall-know and shall-come a-time in-which descendants
nostri tam aperta nos nescisse mirentur.' Et ideo dicit
our so open us not-to-have-known may-wonder and therefore he-says
in prologo majoris voluminis, quod nihil est perfectum in
in the-prologue of-the-greater volume that nothing is perfect in

humanis inventionibus et infert, quanto juniores tanto
human inventions and he-infers by-how-much younger by-so-much
perspicaciores, quia juniores posteriores successione temporum
more-perspicacious because the-younger later by-the-succession of-times
ingrediuntur labores priorum. Et cum jam per causam et
enter-into the-labors of-the-earlier and since now through cause and
auctoritatem verificatum est quod volo, nunc tertio per
authority verified it-is what I-wish now thirdly through
effectum probabo. Nam semper posteriores addiderunt ad
effect I-shall-prove for always the-later added to
opera priorum, et multa correxerunt, et plura mutaverunt,
the-works of-the-earlier and many-things corrected and more changed
sicut maxime per Aristotelem patet, qui omnes sententias
as most through Aristotle is-plain who all the-opinions
praecedentium discussit. Et etiam Avicenna et Averroes
of-those-preceding discussed and also Avicenna and Averroes
plura de dictis ejus correxerunt. Ad haec reprehenditur
many-things of the-sayings his corrected to these he-is-reproved
de mundi aeternitate, quam nimis inexpressam reliquit;
about of-the-world the-eternity which too unexpressed he-left
nec mirum, cum ipsemet dicit se non omnia scivisse.
nor wonder since he-himself says himself not all-things to-have-known
Nam quadraturam circuli se ignorasse confitetur, quod
for the-squaring of-the-circle himself not-to-have-known he-confesses which
his diebus scitur veraciter. Et cum ignoravit hoc,
in-these days is-known truly and since he-was-ignorant-of this
multo magis majora. Ac Avicenna, dux et princeps
much more greater-things and Avicenna the-leader and prince
philosophiae post eum, ut dicit commentator super causam
of-philosophy after him as says the-commentator on the-cause
de Iride in libro Metaphysicae Aristotelis, et opera in
of the-Rainbow in the-book of-the-Metaphysics of-Aristotle and the-works into

totam philosophiam ab eo digesta, sicut ab Aristotele, hoc
whole philosophy by him digested as by Aristotle this
manifestant, dixit se materiam Iridis ignorasse, sicut
show said himself the-matter of-the-Rainbow not-to-have-known as
praecedens commentator fatetur. Et in tertio physicorum
the-preceding commentator confesses and in the-third of-the-physics
se ignorasse unum ex decem praedicamentis, viz.
himself not-to-have-known one of the-ten predicaments namely
praedicamentum habitus, dicere non veretur. Et proculdubio
the-predicament of-habit to-say not he-fears and without-doubt
in libro de philosophia vulgata errores et falsa continentur,
in the-book of philosophy published errors and falsities are-contained
ut in undecimo Metaphysicae ponitur error de mundi
as in the-eleventh of-the-Metaphysics is-placed the-error about of-the-world
productione, in quo dicitur quod Deus propter infinitam
the-production in which it-is-said that God because-of the-infinite
unitatem quam habet, et ne recipiat varietatem dispositionum,
unity which he-has and lest he-receive variety of-dispositions
non potest creare nisi unum, scilicet, angelum primum, qui
not can to-create except one namely angel the-first who
creavit secundum cum coelo primo, et secundus tertium
created the-second with the-heaven first and the-second the-third
cum coelo secundo, et ultra. Et cum in undecimo ponit
with the-heaven second and beyond and when in the-eleventh he-places
omne peccatum habere fines suae purgationis in alia vita,
every sin to-have ends of-its purgation in another life
et animas peccatrices redire ad gloriam, manifeste errat, et
and souls sinful to-return to glory manifestly he-errs and
sic in multis. Et Averroes, maximus post eos, in multis
so in many-things and Averroes the-greatest after them in many-things
redarguit Avicennam; et sic sapientes nostri eum in pluribus
refutes Avicenna and so wise-men our him in more-things

corrigunt et non immerito, quia proculdubio erravit in
correct and not undeservedly because without-doubt he-erred in
multis locis, quamvis in aliis optime dixit. Et si isti majores
many places although in others very-well he-spoke and if these elders
erraverunt, multo fortius juniores. Quoniam autem in errores
erred much more-strongly the-younger since moreover into errors
inciderunt, multo magis defecerunt in necessariis, superflua
they-fell much more they-failed in necessary-things superfluous
et inutilia cumulantes, dubia et obscura et perplexa
and useless-things heaping-up doubtful and obscure and perplexed-things
spargentes; et haec omnia in libris eorum manifesta
scattering and these all-things in the-books of-them manifest
sunt, et per effectum in nobis probantur. Nam tanta
are and through the-effect in us are-proved for by-so-great
difficultate videndi veritatem premimur et vacillamus, quod
difficulty of-seeing the-truth we-are-pressed and we-waver that
fere quilibet philosophorum contradicit alii, ita quod vix
almost any of-the-philosophers contradicts another so that scarcely
in una vanissima quaestione vel in uno vilissimo sophismate
in one most-empty question or in one most-vile sophism
vel una operatione sapientiae, sicut in medicina, et chirurgia,
or one operation of-wisdom as in medicine and surgery
et aliis operationibus secularium, unus cum alio concordat.
and other operations of-seculars one with another agrees
Sed non solum philosophi immo sancti aliquid humanum
but not only the-philosophers nay the-saints something human
in hac parte passi sunt. Nam ipsimet retractaverunt
in this part suffered have for they-themselves retracted
dictorum suorum quamplurima. Unde Augustinus, qui major
of-sayings their very-many whence Augustine who greater
in inquisitione veritatum occultarum reputatur, fecit librum
in the-inquiry of-truths hidden is-reckoned made a-book

de retractatione eorum, quae non bene praedixerat. Et
on the-retractation of-those which not well he-had-said-before and
Hieronymus super Isaiam, et alii plures suam non verentur
Jerome on Isaiah and others more their not fear
retractare sententiam. Nam celeritate dictandi in transferendo
to-retract opinion for by-the-speed of-dictating in translating
pluries se confitetur deceptum fuisse, et multis aliis
many-times himself he-confesses deceived to-have-been and in-many other
modis; et sic omnes alii doctores fecerunt. Sancti etiam
ways and so all other doctors did the-saints also
ipsi mutuo suas correxerunt positiones et sibi
themselves mutually their corrected positions and to-themselves
invicem fortiter resistebant. Etiam Paulus Petro resistebat,
in-turn strongly resisted even Paul Peter resisted
sicut ipsemet confitetur. Et Augustinus Hieronymi sententias
as he-himself confesses and Augustine of-Jerome the-opinions
reprehendit, et Hieronymus Augustino in pluribus contradicit.
reproves and Jerome to-Augustine in more-things contradicts
Haec exempla eorum manifesta sunt, ut inferius exponetur,
these examples of-them manifest are as below shall-be-set-out
et posteriores priorum dicta correxerunt. Nam Origenem
and the-later of-the-earlier the-sayings corrected for Origen
maximum doctorem secundum omnes in multis posteriores
the-greatest doctor according-to all in many-things the-later
reprobant, quia inter caetera posuit errorem Avicennae de
reject because among the-rest he-placed the-error of-Avicenna about
animabus peccatricibus, quod nulla finaliter damnabitur. Et
souls sinful that none finally shall-be-damned and
cum multi doctores sancti et famosi exposuerunt Israel, ut
when many doctors holy and famous expounded Israel so-that
dicatur vir videns Deum, venit Hieronymus super Genesim
it-be-called a-man seeing God came Jerome on Genesis

et probat falsam esse expositionem per rationes irrefragabiles,
and proves false to-be the-exposition through reasons irrefragable
sicut inferius exponetur. Unde dicit, 'quamvis auctoritatis sint,
as below shall-be-set-out whence he-says although of-authority they-be
et eorum umbra nos opprimat qui Israel virum videntem
and of-them the-shadow us overwhelm who Israel a-man seeing
Deum interpretati sunt, tamen magis consentimus Deo vel
God interpreted have yet more we-agree with-God or
angelo qui hoc nomen imposuit, quam auctoritati alicujus
with-the-angel who this name imposed than with-the-authority of-any
eloquentiae secularis.' Et doctores catholici in studiis solemnibus
eloquence secular and doctors catholic in studies solemn
constituti nunc temporis in publicis multa mutaverunt, quae
established now of-time in public many-things changed which
sancti dixerunt, eos pie exponentes ut possunt, salva veritate.
the-saints said them piously expounding as they-can with-safe truth

Capitulum vii

LICENSE TO CORRECT THE ELDERS

Since this is so, we must examine the sayings of the elders with modesty, adding what is lacking and correcting what is wrong. Plato, Aristotle, Seneca, Boethius, and Augustine all give this license; much more may we correct the crowd and its leaders.

Quoniam igitur haec ita se habent, non oportet nos
since therefore these-things so themselves hold not it-behooves us
adhaerere omnibus quae audimus et legimus, sed examinare
to-adhere to-all-things which we-hear and read but to-examine
debemus districtissime sententias majorum, ut addamus
we-ought most-strictly the-opinions of-the-elders that we-may-add

quae eis defuerunt, et corrigamus quae errata sunt, cum
what to-them were-lacking and we-may-correct what erred are with
omni tamen modestia et excusatione. Et ad hanc audaciam
all yet modesty and excuse and to this boldness
erigi possumus, non solum propter necessitatem, ne
to-be-raised we-can not only because-of necessity lest
deficiamus vel erremus, sed per exempla et auctoritates,
we-fail or we-err but through examples and authorities
ut in nullo simus reprehensibiles de praesumptione. Nam
that in nothing we-be reprehensible of presumption for
Plato dicit, 'Amicus est Socrates, magister meus, sed magis
Plato says a-friend is Socrates master my but more
est amica veritas.' Et Aristoteles dicit, 'se magis velle
is a-friend truth and Aristotle says himself more to-wish
consentire veritati, quam amicitiae Platonis, doctoris
to-agree with-truth than with-the-friendship of-Plato teacher
nostri.' Haec ex vita Aristotelis et primo Ethicorum, et
our these-things from the-life of-Aristotle and the-first of-the-Ethics and
libro secretorum, manifesta sunt. Et Seneca dicit libro
the-book of-secrets manifest are and Seneca says in-the-book
de quatuor virtutibus cardinalibus, 'Non te moveat dicentis
on the-four virtues cardinal not you let-move of-the-speaker
auctoritas; non quis, sed quid.' Et Boetius libro de
the-authority not who but what and Boethius in-the-book on
disciplina scholarum, 'stultum est magistratus orationibus
the-discipline of-schools foolish it-is of-the-master to-the-speeches
omnino confidere, nam primo credendum est, donec videatur
wholly to-trust for first to-be-believed it-is until it-be-seen
quid sentiat; postea est fingendum eundem in dicendo
what he-thinks afterward it-is to-be-supposed the-same in speaking
errasse, si forte reperire queat discipulus, quod expresse
to-have-erred if perhaps to-find can the-disciple what expressly

objiciat sedulitati magistrali.' Et Augustinus dicit ad
he-may-object to-the-diligence magisterial and Augustine says to
Hieronymum, 'quod solos auctores scripturae sacrae vult
Jerome that only the-authors of-scripture sacred he-wishes
credere in scribendo non errasse, sed in scripturis aliorum,
to-believe in writing not to-have-erred but in the-writings of-others
quantumcunque sanctitate et doctrina polleant, non vult
however-much in-sanctity and doctrine they-be-strong not he-wishes
verum putare, nisi per canonem et alios auctores vel per
true to-think unless through the-canon and other authors or through
rationes sufficientes possint probare quod dicunt.' Et ad
reasons sufficient they-can to-prove what they-say and to
Vincentium dicit 'negare non possum, nec debeo, sicut in
Vincent he-says to-deny not I-can nor ought-I as in
ipsis majoribus, ita multa esse in tam multis opusculis
the-very elders so many-things to-be in so many little-works
meis, quae possunt justo judicio et nulla temeritate culpari.'
my which can by-just judgment and by-no rashness to-be-blamed
Et in prologo libri tertii de Trinitate dicit, 'sic meis
and in the-prologue of-the-book third on the-Trinity he-says thus to-my
libris nisi certum intellexeris, noli firmum tenere.' Item
books unless certain you-shall-have-understood do-not firm hold likewise
ad Fortunatianum; 'neque quorumlibet disputationes quamvis
to Fortunatianus neither of-any-whatever the-disputations although
catholicorum et laudatorum hominum veluti scripturas
of-catholic and praised men like scriptures
canonicas habere debemus, ut nobis non liceat, salva
canonical to-have we-ought so-that to-us not it-be-permitted with-safe
honorificentia quae illis debetur hominibus, aliquid in eorum
the-honor which to-them is-owed men anything in their
scriptis improbare atque respuere, si forte invenerimus quod
writings to-disapprove and to-reject if perhaps we-shall-have-found that

aliter senserint quam veritas habeat, divino adjutorio
otherwise they-have-thought than the-truth has by-divine help
vel ab aliis intellectum vel a nobis. Talis ego sum in
either by others understood or by us such I am in
scriptis aliorum, quales volo esse intellectores meorum.' Si
the-writings of-others as I-wish to-be the-readers of-mine if
igitur propter necessitatem vitandae falsitatis et consequendi
therefore because-of the-necessity of-avoiding falsity and of-attaining
perfectiorem statum sapientiae possumus, et debemus, et
a-more-perfect state of-wisdom we-can and we-ought and
consulimur per sanctos perfectos et philosophos dignos,
we-are-counseled by the-saints perfect and philosophers worthy
ut eorum dicta mutemus loco et tempore, et ad eorum
that their sayings we-may-change in-place and time and to their
sententias addamus; multo fortius licentiamur ad hoc et
opinions we-may-add much more-strongly we-are-licensed to this and
cogimur in eis, quae vulgi sunt et eorum qui vulgo
we-are-compelled in those which of-the-crowd are and of-those who over-the-crowd
praesunt imperito, praecipue cum capita multitudinis istius
preside unskilled especially since the-heads of-the-multitude of-this
temporis non attingunt ad dignitatem auctoritatis sanctorum
time not attain to the-dignity of-the-authority of-the-saints
et philosophorum magnorum nec sapientum antiquorum,
and of-philosophers great nor of-the-wise ancient
quorum aliquos nostro tempore conspeximus.
of-whom some in-our time we-have-beheld

Capitulum viii

HEARING THE CONTRARY OF CUSTOM

The remedy is to set strong authors, reason, and the sentences of the wise against frail authority, custom, and the crowd. Averroes teaches that evil custom is removed by the custom of hearing contraries; Bacon asks the Pope not to wonder that he labors against custom.

Remedium vero contra haec tria non est, nisi ut tota
the-remedy but against these three not there-is except that with-all
virtute auctores validos fragilibus, consuetudini rationem,
strength authors valid for-frail-ones for-custom reason
sensibus vulgi sententias sanctorum aut sapientum
for-the-senses of-the-crowd the-opinions of-the-saints or of-the-wise
reponamus, et non confidamus in argumento triplicato,
we-put-back and not we-trust in the-argument threefold
scilicet, hoc exemplificatum est, vel consuetum, aut vulgatum,
namely this exemplified is or customary or made-common
igitur tenendum. Patet enim ex praedictis secundum
therefore to-be-held it-is-plain for from the-foregoing according-to
sententias sanctorum et omnium sapientum, quod longe
the-opinions of-the-saints and of-all the-wise that far
magis sequitur oppositum conclusionis ex eisdem praemissis.
more follows the-opposite of-the-conclusion from the-same premises
Et licet totus mundus sit his causis erroris occupatus,
and although the-whole world be by-these causes of-error occupied
tamen audiamus libenter contraria consuetudini vulgatae.
yet let-us-hear willingly things-contrary to-custom made-common
Nam hoc est magnum remedium horum malorum, secundum
for this is a-great remedy of-these evils according-to
quod Averroes dicit in fine secundi physicorum, quod mala
what Averroes says at the-end of-the-second of-the-physics that evil

consuetudo auferri potest per consuetudinem audiendi
custom to-be-taken-away can through the-custom of-hearing
contraria. Nam multum operatur in opinione, quae est per
contrary-things for much it-works in opinion which is through
consuetudinem, audire res extraneas, quod confirmat per
custom to-hear things foreign which he-confirms through
effectum, dicens, quod ideo opinio vulgi est fortior quam
the-effect saying that therefore the-opinion of-the-crowd is stronger than
fides philosophantium, quia vulgus non consuevit audire
the-faith of-those-philosophizing because the-crowd not is-accustomed to-hear
diversa, sed philosophantes multa audiunt. Propter quod
diverse-things but those-philosophizing many-things hear because-of which
igitur Vestra Sapientia non miretur, si contra consuetudinem
therefore Your Wisdom not let-wonder if against the-custom
vulgi et exempla vulgata laborem. Nam haec est via
of-the-crowd and examples made-common I-labor for this is the-way
sola perveniendi ad considerationem veritatis et perfectionis.
sole of-arriving to the-consideration of-truth and of-perfection

Capitulum ix

THE FOURTH CAUSE: CONCEALED IGNORANCE

The fourth cause is worse than the others, the desire of seeming wise, by which men extol the little they know and reject what they do not. It is the root of the other three, and it has always hindered the truth, from Moses and the apostles to Jerome, Gregory, Aristotle, and Avicenna.

Non solum quidem hae causae generales sunt malorum
not only indeed these causes general are of-evils
in studio et in vita, sed quarta nequior his tribus
in study and in life but a-fourth worse than-these three

est, similiter communis in omni statu, et apud quamlibet
is likewise common in every state and among any
personam regnare demonstratur. Conjunxi quidem praedictas
person to-reign is-shown I-joined indeed the-aforesaid
tres causas, et propter hoc quod sapientes eas saepius
three causes and because-of this that the-wise them more-often
conjungunt et separavi hanc ab illis propter malitiam
join and I-separated this from those because-of its-malice
principalem. Haec enim est singularis fera, quae depascit
principal this for is a-singular beast which feeds-on
et destruit omnem rationem, quae est apparentis sapientiae
and destroys all reason which is of-apparent wisdom
desiderium, quo fertur omnis homo. Nam quamcunque
the-desire by-which is-borne every man for however
parum sciamus et licet vile, idem tamen extollimus;
little we-know and although vile the-same yet we-extol
celebramus etiam multa quae ignoramus ubi possumus
we-celebrate also many-things which we-are-ignorant-of where we-can
occultare ignorantiam, et scienter ostendimus, ut de nihilo
to-hide ignorance and knowingly we-display that of nothing
gloriemur. Et quicquid nescimus, ubi scientiam ostentare
we-may-glory and whatever we-know-not where knowledge to-display
non valemus, negligimus, reprobamus, reprehendimus et
not we-are-able we-neglect we-reject we-reprehend and
adnihilamus. ne videamur aliquid ignorare, quatenus saltem
we-annihilate lest we-seem anything to-be-ignorant-of so-that at-least
mundo muliebri et fuco meretricio nostram ignorantiam
with-finery womanly and with-paint harlot-like our ignorance
infami remedio coloremus, unde utilissima et maxima
with-a-disgraceful remedy we-may-color whence most-useful-things and greatest
et omni decore plena et sua proprietate certissima a nobis
and with-all beauty full and in-their property most-certain by us

per hanc viam et ab aliis relegemus. Haec vero pestis
through this way and by others we-banish this but plague
propter malitiam absolutam quam habet recepit cumulum
because-of the-malice absolute which it-has has-received the-heap
suae pravitatis in eo, qui est fons et origo causarum
of-its depravity in this that it-is the-fount and origin of-the-causes
trium praedictarum. Nam propter zelum nimium sensus
three aforesaid for because-of zeal excessive of-sense
proprii et excusandi ignorantiam statim exoritur fragilis
own and of-excusing ignorance at-once arises of-frail
auctoritatis praesumptio, qua nitimur propria extollere,
authority the-presumption by-which we-strive our-own-things to-extol
et reprehendere aliena. Deinde cum omnis homo diligat
and to-reprehend alien-things then since every man loves
opera sua, ut dicit Aristoteles, nostra libenter trahimus in
works his as says Aristotle ours willingly we-draw into
consuetudinem. Et cum nemo sibi soli errat, sed sententiam
custom and since no-one to-himself alone errs but opinion
suam spargere gaudet in proximos, ut dicit Seneca libro
his to-spread rejoices among (his)-neighbors as says Seneca in-book
secundo epistolarum, nostris adinventionibus occupamus alios
second of-the-letters with-our inventions we-occupy others
et eas in vulgum quantum possumus dilatamus. Necesse
and them into the-crowd as-much-as we-can we-spread necessary
est vero causas universales hic praemitti, ad hoc ut error
it-is but the-causes universal here to-be-set-first to this that error
vitetur et veritas relucescat. Nam in morbo spirituali
may-be-avoided and truth may-shine-again for in disease spiritual
evenit sicut in morbo corporali. Medici enim per signa
it-happens as in disease bodily physicians for through signs
causas proprias et particulares morbi cognoscunt; sed tam
the-causes proper and particular of-the-disease know but as

hanc quam illas praecedit causarum universalium notitia,
this as those precedes of-the-causes universal the-knowledge
quas a communibus naturalium medicus habet scire; quia
which from the-common-things of-natural-matters the-physician has to-know because
dicit philosophus libro de Sensu et Sensato, ubi terminant
says the-philosopher in-the-book on Sense and the-Sensed where end
principia philosophiae naturalis incipiunt principia medicinae.
the-principles of-philosophy natural begin the-principles of-medicine
Similiter igitur in cura ignorantiae et erroris, ut veritas sana
likewise therefore in the-cure of-ignorance and of-error that truth sound
inducatur, ante ipsius propositi exhibitionem requiritur ut
be-brought-in before of-the-very purpose the-display it-is-required that
signa et causae particulares ostendantur; sed prae omnibus
the-signs and causes particular be-shown but before all
exiguntur causae universales, sine quibus nec signa aliquid
are-demanded the-causes universal without which neither the-signs anything
ostendunt nec causae particulares demonstrant. Nata enim nobis
show nor the-causes particular demonstrate born for to-us
est via cognoscendi ab universalibus ad particularia, sicut
is the-way of-knowing from universals to particulars as
dicit philosophus in principio Physicorum. Nam, ignoratis
says the-philosopher at the-beginning of-the-Physics for with-unknown
communibus, ignorantur quae post communia relinquuntur.
common-things are-unknown what after the-common-things are-left
Haec autem causa quarta multum invaluit ab antiquo,
this moreover cause fourth much has-grown-strong from of-old
sicut nunc improba invenitur quoque in theologicis, sicut in
as now wicked it-is-found also in theological-matters as in
philosophia manifesto, per experientiam et exempla. Moyses
philosophy manifestly through experience and examples Moses
enim simplicissimus recepit sapientiam legis a Deo, contra
for most-simple received the-wisdom of-the-law from God against

quem Pharao et Aegyptii, et populus Hebraeorum, et omnes
whom Pharaoh and the-Egyptians and the-people of-the-Hebrews and all
nationes murmurabant, ita quod vix plebs Dei electa hanc
nations murmured so that scarcely the-people of-God chosen this
sapientiam recipere voluit, et tamen praevaluit lex contra
wisdom to-receive wished and yet prevailed the-law against
adversarios, qui neglexerunt et impedierunt sapientiam quam
the-adversaries who neglected and hindered the-wisdom which
didicerunt. Similiter Dominus Jesus Christus omni simplicitate
they-learned likewise the-Lord Jesus Christ with-all simplicity
et sine plica falsitatis incedens, et apostoli simplicissimi
and without the-fold of-falsity advancing and the-apostles most-simple
intulerunt sapientiam mundo, quibus satis contradictum
brought-in wisdom to-the-world to-whom enough contradicted
erat per ignorantiam solam tantae novitatis, et tandem,
it-was through ignorance alone of-so-great novelty and at-last
licet cum summa difficultate, sacra veritas est recepta.
although with the-highest difficulty the-sacred truth is received
Deinde sancti doctores cum profluvia expositionum legis
then the-holy doctors when floods of-expositions of-the-law
divinae voluerunt dare, et magno impetu aquarum sapientiae
divine they-wished to-give and with-great rush of-the-waters of-wisdom
ecclesiam irrigare, diu reputabantur haeretici, et compositores
the-church to-irrigate long were-reckoned heretics and composers
falsitatum. Nam sicut prologi beati Hieronymi in bibliam
of-falsities for as the-prologues of-blessed Jerome on the-bible
et alia ejus opera probant, ipse vocabatur corruptor scripturae
and other his works prove he was-called a-corrupter of-scripture
et falsarius et haeresium seminator, et in tempore suo
and a-falsifier and of-heresies a-sower and in time his
succubuit, nec potuit sua opera in publico promovere; sed
he-succumbed nor could his works in public to-promote but

tandem post mortem suam veritas suae translationis claruit
at-last after death his the-truth of-his translation shone-forth
et sua expositio, et per omnes ecclesias dilatatae sunt, ita
and his exposition and through all churches spread-abroad are so
ut nullum vestigium translationis antiquae, scilicet LXX
that no trace of-the-translation old namely of-the-Seventy
interpretum, qua prius usa fuerat ecclesia, valeat reperiri. Dum
translators which earlier used had the-church can to-be-found while
etiam beatissimus Papa Gregorius auctoritate functus est,
also the-most-blessed Pope Gregory authority exercised has
ejus libris non fuit contradictum: sed post mortem famosi
to-his books not was contradicted but after death famous-men
in ecclesia egerunt ad hoc, ut comburerentur, et per
in the-church acted to this that they-might-be-burned and through
miraculum Dei pulcherrimum fuerunt salvati, et apparuit
a-miracle of-God most-beautiful they-were saved and appeared
mundo sapientia cum sua veritate et in demonstratione
to-the-world wisdom with its truth and in demonstration
plenissima. Et similiter cucurrit impedimentum veritatis apud
most-full and likewise ran the-hindrance of-truth among
omnes sacrae scripturae doctores; nam renovantes studium
all of-sacred scripture the-doctors for those-renewing study
semper receperunt contradictionem et impedimenta, et tamen
always received contradiction and hindrances and yet
veritas invalescebat et invalescet usque ad dies Antichristi.
truth grew-strong and shall-grow-strong up to the-days of-Antichrist
Similiter de philosophia. Aristoteles enim voluit contradicere
likewise about philosophy Aristotle for wished to-contradict
prioribus et multa renovare, qui licet sapientissimus
the-earlier-ones and many-things to-renew who although most-wise
habuit tamen repulsam, et occultationes suae sapientiae visus
had yet repulse and concealments of-his wisdom seemed

est usque fere ad haec tempora recepisse. Nam primus
he-has even almost to these times to-have-received for first
Avicenna revocavit philosophiam Aristotelis apud Arabes in
Avicenna recalled the-philosophy of-Aristotle among the-Arabs into
lucem plenam. Vulgus enim philosophantium ipsum ignoravit.
light full the-crowd for of-those-philosophizing it was-ignorant-of
Pauci enim et modicum philosophiae Aristotelis attigerunt
few for and a-little of-the-philosophy of-Aristotle touched
ante tempus Avicennae, qui diu post tempus Machometi
before the-time of-Avicenna who long after the-time of-Mahomet
Imperatoris philosophatus est. Avicenna vero praecipuus
the-Emperor philosophized has Avicenna but the-chief
Aristotelis expositor et maximus imitator multas rebellitates
of-Aristotle expositor and greatest imitator many rebellions
passus est ab aliis. Nam Averroes major post eos et alii
suffered has from others for Averroes greater after them and others
condemnaverunt Avicennam ultra modum; sed his temporibus
condemned Avicenna beyond measure but in-these times
gratiam sapientum obtinuit quicquid dicit Averroes, qui etiam
the-favor of-the-wise has-obtained whatever says Averroes who also
diu neglectus fuit et repudiatus ac reprobatus a sapientibus
long neglected was and repudiated and rejected by the-wise
famosis in studio, donec paulatim patuit ejus sapientia satis
famous in study until little-by-little appeared his wisdom sufficiently
digna, licet in aliquibus dixit minus bene. Scimus enim
worthy although in some-things he-spoke less well we-know for
quod temporibus nostris Parisiis diu fuit contradictum naturali
that in-times our at-Paris long it-was contradicted to-natural
philosophiae et metaphysicae Aristotelis per Avicennae et
philosophy and metaphysics of-Aristotle through of-Avicenna and
Averrois expositores, et ob densam ignorantiam fuerunt
of-Averroes the-expositors and because-of dense ignorance were

libri eorum excommunicati, et utentes eis per tempora
the-books of-them excommunicated and those-using them through times
satis longa. Cum igitur haec ita se habent, et
sufficiently long since therefore these-things so themselves hold and
nos moderni approbamus viros praedictos tam philosophos
we moderns approve the-men aforesaid as-well philosophers
quam sanctos; et scimus quod omnis additio et cumulatio
as saints and we-know that every addition and heaping-up
sapientiae quas dederunt, sunt dignae omni favore, licet in
of-wisdom which they-gave are worthy of-all favor although in
multis aliis diminuti sint, et in pluribus superflui, et in
many other-things diminished they-be and in more superfluous and in
quibusdam corrigendi, et in aliquibus explanandi, manifestum
some to-be-corrected and in some to-be-explained manifest
nobis est quod illi, qui per aetates singulas impediverunt
to-us it-is that those who through ages single hindered
documenta veritatis et utilitatis quae oblata fuerunt eis
the-teachings of-truth and of-utility which offered were to-them
per viros praedictos, nimis erraverunt, et vitiosi plurimum
through the-men aforesaid too-much erred and vicious very-much
fuerunt in hac parte; sed hoc fecerunt propter scientiae
were in this part but this they-did because-of of-knowledge
extollentiam et propter ignorantiam. Ergo in nobis ipsis
the-pride and because-of ignorance therefore in us ourselves
debemus facere idem argumentum, ut cum nos respuamus
we-ought to-make the-same argument that when we reject
et vituperemus quae ignoramus, clamemus hoc esse propter
and revile what we-are-ignorant-of we-may-cry this to-be because-of
ignorantiae nostrae defensionem, et ut illa modica, quae
of-ignorance our the-defense and that those small-things which
scimus, sublimius attollamus. Permittamus igitur labores
we-know more-loftily we-may-raise let-us-permit therefore labors

introduci congaudentes veritati, quia proculdubio licet
to-be-introduced rejoicing-together with-truth because without-doubt although
cum difficultate veritas semper praevalebit, donec Antichristus
with difficulty truth always shall-prevail until Antichrist
et ejus appareant praecursores. Nam semper bonitas Dei
and his appear forerunners for always the-goodness of-God
est parata sapientiae donum augmentare per subsequentes,
is ready of-wisdom the-gift to-increase through those-following
et subsequentium sententias in melius transformare.
and of-those-following the-opinions into the-better to-transform

Capitulum x

NO ONE MAY BOAST OF WISDOM

Truths are infinite and what any man knows is small, while what he must believe and what he does not know are far greater. Bacon tells of a poor boy he taught who learned in a year what others take decades to learn; the simple often know what the famous do not.

Caeterum duo sunt hic discutienda, videlicet, praesumptae
moreover two-things are here to-be-discussed namely of-presumed
scientiae ostentatio, et excusatio ignorantiae infructuosa.
knowledge the-display and the-excuse of-ignorance fruitless
Propter primum debemus advertere diligenter, quod cum
because-of the-first we-ought to-notice diligently that since
infinitae sunt veritates Domini et creaturarum, atque in
infinite are the-truths of-the-Lord and of-creatures and in
qualibet sunt gradus innumerabiles, oportet quod pauca
any are degrees innumerable it-behooves that few-things
sciantur a quolibet, et ideo de multitudine scitorum non
be-known by anyone and therefore of the-multitude of-things-known not

oportet quicquam gloriari. Et cum intellectus noster se habet
it-behooves anything to-glory and since intellect our itself holds
ad maxima, sicut oculus vespertilionis ad lumen solis, ut
to the-greatest-things as the-eye of-the-bat to the-light of-the-sun as
prius secundum philosophiam allegatum est, oportet quod sint
earlier according-to philosophy alleged it-is it-behooves that be
parva quae veraciter sciamus; nam pro certo ubi intellectus
small what truly we-know for for certain where intellect
noster de facili comprehendit, illud valde modicum est et
our with ease comprehends that very small is and
vile, et quanto cum majori difficultate intellexit, tanto
vile and by-how-much with greater difficulty it-has-understood by-so-much
est nobilius quod adquiritur. Sed tamen omne id super quod
is nobler what is-acquired but yet all that over which
potest intellectus noster, ut intelligat et sciat, oportet
can intellect our that it-may-understand and may-know it-behooves
quod sit indignum respectu eorum, ad quae in principio
that it-be unworthy in-respect of-those-things to which in the-beginning
credenda sua debilitate obligetur, sicut sunt divinae veritates
to-be-believed by-its weakness it-be-bound as are divine truths
et multa secreta naturae et artis complentis naturam, de
and many secrets of-nature and of-art completing nature about
quibus nulla ratio humana dari potest in principio; sed
which no reason human to-be-given can in the-beginning but
oportet quod per experientiam illuminationis interioris a
it-behooves that through the-experience of-illumination inner from
Deo recipiat intellectum, videlicet in sacris veritatibus gratiae
God it-receive understanding namely in sacred truths of-grace
et gloriae, et per experientiam sensibilem in arcanis
and of-glory and through experience sensible in the-secrets
naturae et artis expergefactus inveniat rationem.
of-nature and of-art awakened it-may-find the-reason

Et adhuc minora sunt longe quae credimus, quam quae
and still less are far what we-believe than what
ignoramus, sicut sunt secreta Dei, et arcana vitae
we-are-ignorant-of as are the-secrets of-God and the-mysteries of-life
aeternae, quae utcunque vidit Apostolus, ad tertium coelum
eternal which somehow saw the-Apostle to the-third heaven
raptus, nesciens utrum in corpore vel extra corpus, quae tanta
caught-up not-knowing whether in the-body or outside the-body which so-great
sunt, ut non liceat homini loqui de illis. Et similiter
are that not it-is-permitted to-man to-speak of them and likewise
in rebus creatis; nam ob magnam intellectus nostri
in things created for because-of the-great of-intellect our
difficultatem certum est, antequam videatur Deus facie ad
difficulty certain it-is before be-seen God face to
faciem nunquam homo sciet aliquid in fine certitudinis. Et
face never man shall-know anything at the-end of-certitude and
si per infinita seculorum secula viveret in hac mortalitate,
if through infinite of-ages ages he-should-live in this mortality
nunquam ad perfectionem sapientiae in multitudine scibilium
never to the-perfection of-wisdom in the-multitude of-knowables
et certitudine pertingeret. Nam nullus est ita sapiens in
and in-certitude would-be-reach for no-one is so wise in
rerum naturis, qui sciret certificare de veritatibus omnibus
of-things the-natures who would-know to-certify about the-truths all
quae sunt circa naturam et proprietates unius muscae, nec
which are about the-nature and properties of-one fly nor
sciret dare causas proprias coloris ejus, et quare tot
would-be-know to-give the-causes proper of-color its and why so-many
pedes haberet, et non plures neque pauciores, nec rationem
feet it-had and not more nor fewer nor a-reason
reddere de membris ejus. Est igitur homo impossibilis ad
to-render about the-members its is therefore man impossible for

perfectam sapientiam in hac vita, et ad perfectionem veritatis
perfect wisdom in this life and to the-perfection of-truth
nimis est difficilis, et pronus et proclivis ad falsa et
too is difficult and prone and inclined to false and
vana quaecunque; quapropter non est homini gloriandum
vain-things whatsoever wherefore not it-is for-man to-be-gloried
de sapientia, nec debet aliquis magnificare et extollere
about wisdom nor ought anyone to-magnify and to-extol
quae scit. Pauca enim sunt et vilia respectu eorum quae
what he-knows few for they-are and vile in-respect of-those which
non intelligit sed credit, et longe pauciora respectu eorum
not he-understands but believes and far fewer in-respect of-those
quae ignorat. Et quoniam respectu eorum quae scit
which he-is-ignorant-of and since in-respect of-those which knows
homo, restant infinita quae ignorat, et sine omni
man remain infinite-things which he-is-ignorant-of and without all
comparatione majora et meliora et pulchriora: insanus est qui
comparison greater and better and more-beautiful insane is-he who
de sapientia se extollit, et maxime insanit qui ostentat
about wisdom himself extols and most is-insane who displays
et tanquam portentum suam scientiam nititur divulgare.
and as-if a-portent his knowledge strives to-divulge
Praeterea quis audet de sapientia gloriari, qui totam
moreover who dares about wisdom to-glory who the-whole
medullam, quam unus quantumcunque studiosus addiscit
marrow which one however-much studious learns
per viginti vel quadraginta annos et cum maximis expensis
through twenty or forty years and with the-greatest expenses
et laboribus gravissimis, valet uni puero docili certo scripto
and labors heaviest is-able to-one boy teachable in-sure writing
et verbo sufficienter ostendere per annum unum, vel in
and word sufficiently to-show through year one or in

minori tempore? Nam hoc probavi in puero praesenti,
less time for this I-have-proved in the-boy present
qui in paupertate magna et modicam habens instructionem,
who in poverty great and little having instruction
quantitatem anni vix ponens in addiscendo, novit tot
the-quantity of-a-year scarcely putting in learning knows so-many
et tanta quae omnes mirantur qui eum cognoscunt. Nam
and so-great-things which all wonder-at who him know for
securus dico quod licet aliqui sciunt plus de philosophia et
secure I-say that although some know more of philosophy and
linguis, et in diversis diversi ipsum excedunt, non tamen
tongues and in diverse-things diverse-men him exceed not yet
inter Latinos sunt qui eum ex omni parte transcedunt, et
among the-Latins there-are who him from every side surpass and
ipse singulis eorum est in aliquibus par, et in quibusdam
he to-single-ones of-them is in some-things equal and in some
singulos excedit. Nec est aliquis inter Latinos quin multa
single-ones he-exceeds nor is-there anyone among the-Latins but-that many
bona valeat ab isto puero auscultare. Nec aliquis tam
good-things he-be-able from this boy to-listen-to nor anyone so
sapiens est cui non sit necessarius multis modis. Quamvis
wise is to-whom not he-be necessary in-many ways although
omnia didicit meo consilio et regimine et adjutorio, et
all-things he-learned by-my counsel and guidance and help and
multa ipsum docui verbo et scripto, tamen me senem
many-things him I-taught by-word and writing yet me an-old-man
in multis transcendit propter meliores radices quas recepit,
in many-things he-surpasses because-of the-better roots which he-received
ex quibus potest fructus salubres expectare, ad quos ego
from which he-can fruits healthful to-expect to which I
nunquam pertingam. Quare igitur gloriabor de scientia?
never shall-reach why therefore shall-I-glory about knowledge

Non dico, quidam sapientes et experti potuerunt per
not I-say certain wise and experienced-men could through
suam virtutem propriam facilius et citius cernere multa
their power own more-easily and more-quickly to-discern many
secreta sapientiae, quam hic puer per seipsum, quia non
secrets of-wisdom than this boy through himself because not
est expertus vires suas, nec percipit quantum novit nec
he-has experienced powers his nor perceives how-much he-knows nor
quid potest facere juxta fundamenta sibi tradita, sed
what he-can to-do according-to the-foundations to-him handed-down but
sicut in radicibus excedit alios, ut dictum est, sic si sano
as in roots he-exceeds others as said it-is so if by-sound
et efficaci consilio juxta fontalem plenitudinem quam
and efficacious counsel according-to fountain-like fullness which
habet dirigeretur, nullus seniorum consequeretur eum in
he-has he-were-directed none of-the-elders would-follow him in
sapientialium profluviis rivorum. Et quoniam sapientes se
of-the-wise the-outpourings of-streams and since the-wise themselves
sentiunt magis vacuos quam insipientes, vel qui nolunt
feel more empty than the-unwise or those-who do-not-wish
de ipsis confiteri, ideo videmus homines quanto
about themselves to-confess therefore we-see men by-how-much
sapientiores sunt, tanto humilius se inclinare ad
wiser they-are by-so-much more-humbly themselves to-bow to
doctrinam alterius suscipiendam, nec dedignantur simplicitatem
the-teaching of-another to-be-received nor do-they-disdain the-simplicity
docentis, sed ad rusticos, et ad vetulas, et pueros se
of-the-teacher but to rustics and to old-women and boys themselves
humiliant. Quoniam simplices et idiotae aestimati sciunt
they-humble since the-simple and idiots reckoned know
multoties magna quae latent sapientes, sicut Aristoteles docet
many-times great-things which escape the-wise as Aristotle teaches

de somno et vigilia, secundo libro. Nam cum simplicibus
on sleep and waking in-the-second book for with the-simple
est sermocinatio Dei secundum scripturam, et experientia
is the-converse of-God according-to scripture and experience
reddit nos certos in hac parte, quoniam plura secreta
renders us certain in this part since more secrets
sapientiae semper inventa sunt apud simplices et neglectos
of-wisdom always found are among the-simple and neglected
quam apud famosos in vulgo. Quia homines famosi in
than among the-famous among the-crowd because men famous in
eis occupantur, quae vulgantur, et haec non possunt esse
them are-occupied which are-made-common and these not can to-be
magnalia, sicut patuit in prioribus; plura etiam utilia et
great-wonders as appeared in the-earlier-ones more also useful and
digna sine comparatione didici ab hominibus detentis
worthy-things without comparison I-learned from men held
magna simplicitate, nec nominatis in studio, quam ab
by-great simplicity nor named in study than from
omnibus doctoribus meis famosis. Proposui igitur Sapientiae
all doctors my famous I-have-set-forth therefore to-Wisdom
Vestrae hoc exemplum, et transmisi per eum, non solum
Your this example and I-have-sent through him not only
propter duas causas superius annotatas, sed in argumentum
because-of the-two causes above noted but as an-argument
perfectum, ut nullus glorietur de sapientia, nec despiciat
perfect that no-one may-glory about wisdom nor despise
simplices qui sciunt proponere ea quae famosis hominibus in
the-simple who know to-set-forth those which to-famous men in
scientia Deus non concessit, et sciunt renovare et revelare
knowledge God not granted and know to-renew and to-reveal
multa secreta, quae sapientes vulgati nondum perceperunt.
many secrets which the-wise made-common not-yet have-perceived

Capitulum xi

IGNORANCE HAS NO AUTHORITY TO JUDGE

A man ignorant of a cause has no authority to judge it, and a sentence born of ignorance carries no weight, whoever pronounces it. Whatever the wise or the holy reject from ignorance, or to excuse it, is not to be approved.

Secundum vitium, quod hic reperitur, est, quod ignorantia
the-second vice which here is-found is that ignorance
retinet locum persuasionis, sed cum veritas impugnatur, nefas
holds the-place of-persuasion but when truth is-attacked a-crime
est et puritas malitiae, deinde ignorantiae turpitudo crescit
it-is and the-purity of-malice then of-ignorance the-shamefulness grows
magis et clarius revelatur. Crescit quidem, quia nititur a
more and more-clearly is-revealed it-grows indeed because it-strives from
se et ab aliis excludere sapientiam; apertius quidem revelatur,
itself and from others to-exclude wisdom more-openly indeed it-is-revealed
quoniam coram Deo et hominibus veraciter innotescit
since before God and men truly it-becomes-known
hoc secundum judicium omnis sapientis; ergo cum judex
this according-to the-judgment of-every wise-man therefore since a-judge
teneatur habere scientiam causae, non habet homo ignorans
be-bound to-have knowledge of-the-cause not has a-man ignorant
auctoritatem judicandi de his quorum habet ignorantiam.
authority of-judging about those of-which he-has ignorance
Et ideo si de illis affirmet vel neget, ejus judicio stari
and therefore if about them he-affirm or deny by-his judgment to-be-stood
non debet, immo ex hoc vehementius resistendum, quod
not ought nay from this more-vehemently to-be-resisted that
sententia qualiscunque feratur ex ignorantia ea auctoritatem
a-sentence of-whatever-kind be-brought from ignorance it authority

non habet: Unde si verum diceret, verisimile non esset.
not has whence if the-truth he-should-say likely not it-would-be
Nam, ut dicit Seneca libro de virtutibus cardinalibus,
for as says Seneca in-the-book on the-virtues cardinal
nullam auctoritatem habet sententia, ubi qui damnandus
no authority has a-sentence where he-who to-be-condemned
est damnat. Quapropter sive sapientes apud vulgum, seu
is condemns wherefore whether the-wise among the-crowd or
secundum veritatem, sive bonus, sive sanctus affirmet vel
according-to truth whether the-good or the-holy affirm or
reprobet quod ignoret, et maxime in excusatione suae
reject what he-be-ignorant-of and most in the-excuse of-his
ignorantiae, vel ostentatione sapientiae apparentis, approbari
ignorance or the-display of-wisdom apparent to-be-approved
non debet ex hac parte, sed negligi et contradici,
not he-ought on this part but to-be-neglected and to-be-contradicted
quamvis ex aliis fuerit magnifice collaudandus.
although on other-things he-were magnificently to-be-praised

Capitulum xii

WHY THE SAINTS NEGLECTED USEFUL KNOWLEDGE

Much that is most useful is rejected from ignorance alone: the moderns neglect tongues and mathematics, which the saints used, and whatever the saints neglected, from frailty or for reasonable cause, they neglect obstinately. But the saints retracted much and quarreled sharply, as Jerome and Augustine show, so we need not imitate them blindly.

Hanc vero causam malorum nostrorum cum aliis tribus
this but cause of-evils our with the-other three
ideo specialiter introduxi, ut sciamus nunc, sicut in
therefore specially I-introduced that we-may-know now as in
retroactis temporibus, multa quae sunt utilissima et
past times many-things which are most-useful and
omnino necessaria, studio absolute considerato et quatuor
wholly necessary to-study absolutely considered and in-four
modis relate praetactis, negari negligi et ex sola
ways relatively touched-before to-be-denied to-be-neglected and from sole
ignorantia reprobari. Et pro infinitis latius explicandis
ignorance to-be-rejected and for infinite-things more-widely to-be-unfolded
posterius in singulis partibus sapientiae, volo nunc aliqua
later in the-single parts of-wisdom I-wish now some-things
extra praemittere grossiora. Cum enim linguarum cognitio et
outside to-set-first grosser since for of-tongues the-knowledge and
Mathematicae est maxime necessaria studio Latinorum, ut
of-Mathematics is most necessary to-the-study of-the-Latins as
tactum est superius, et exponetur loco opportuno, et fuit
touched it-is above and shall-be-set-forth in-the-place suitable and was
praecise in usu sanctorum et omnium sapientum antiquorum,
precisely in use of-the-saints and of-all the-wise ancient

nos moderni negligimus, adnihilamus, et reprobamus, quia
we moderns neglect annihilate and reject because
ista et eorum utilitatem nescimus. Deinde, si aliqui
these-things and their utility we-know-not then if some
sapientes et sancti alia neglexerunt aut humana
wise and holy-men other-things neglected either by-human
fragilitate devicti aut ex causa rationabili, nos praesentis
frailty overcome or from a-cause reasonable we of-the-present
temporis obstinate et pertinaciter negligimus et reprobamus,
time obstinately and pertinaciously neglect and reject
fortificantes nostram ignorantiam propter hoc quod sancti et
strengthening our ignorance because-of this that the-saints and
sapientes neglexerunt, non volentes considerare quod in omni
wise neglected not wishing to-consider that in every
homine est multa imperfectio sapientiae, tam in sanctis quam
man is much imperfection of-wisdom as in the-saints as
in sapientibus, ut prius evidenter et multipliciter probatum
in the-wise as earlier evidently and manifoldly proved
est tam per eorum exempla et auctoritates, quam per
it-is as through their examples and authorities as through
rationem et experientiae certitudinem. Praeterea non solum
reason and of-experience the-certitude moreover not only
volumus humanam fragilitatem considerare, sed etiam causas
we-wish human frailty to-consider but also the-causes
rationabiles, quas sancti et sapientes multi habuerunt, quare
reasonable which the-saints and wise many had why
pro loco et tempore multa utilia vitaverunt propter
for place and time many useful-things they-avoided because-of
abusum hominum in eis, quia ea convertebant ad majoris
the-abuse of-men in them because them they-turned to of-greater
impedimenta utilitatis et salutis. Ne igitur nos simus causa
the-hindrances utility and salvation lest therefore we may-be the-cause

erroris nostri et fiat magnum sapientiae impedimentum
of-error our and may-become a-great of-wisdom bindrance
ex eo quod vias sanctorum et sapientum non intelligimus,
from this that the-ways of-the-saints and of-the-wise not we-understand
ut expedit, possumus auctoritate sanctorum et sapientum
as is-expedient we-can by-the-authority of-the-saints and of-the-wise
antiquorum multipliciter prius assignata considerare pia
ancient manifoldly earlier assigned to-consider with-pious
mente et animo reverenti, propter veritatis dignitatem quae
mind and spirit reverent because-of of-truth the-dignity which
omnibus antefertur, si sancti et sapientes aliqua quae
to-all-things is-preferred if the-saints and wise some-things which
humanam imperfectionem important protulerunt in quibus
human imperfection imply have-brought-forth in which
seu affirmatis seu negatis non oportet quod nos imitemur
whether affirmed or denied not it-behooves that we imitate
ex fronte.
from the-front
Scimus quidem quod non solum dederunt nobis consilium
we-know indeed that not only they-gave us counsel
et licentiam hoc faciendi, sed conspicimus quod ipsi
and license of-this doing but we-behold that they-themselves
multa posuerunt magna auctoritate, quae postea majori
many-things set-down with-great authority which afterward with-greater
humilitate retractaverunt; et ideo latuit in eis magna
humility they-retracted and therefore lay-hidden in them great
imperfectio prioribus temporibus. Quod si vixissent usque
imperfection in-earlier times but if they-had-lived up-to
nunc, multo plura correxissent et mutassent. Cujus
now much more-things would-have-corrected and would-have-changed of-which
signum est sicut et argumentum principalis intenti, quod
a-sign is as and an-argument of-the-principal intent that

doctores posteriores quamplurima de sententiis sanctorum
doctors later very-many-things of the-opinions of-the-saints
mutaverunt, et pie et reverenter interpretati sunt in sensum
changed and piously and reverently interpreted have into a-sense
quem eorum litera non praetendit. Praeterea sancti ad invicem
which their letter not puts-forward moreover the-saints to each-other
fortiter contendebant et mutuas positiones acriter mordebant,
strongly contended and mutual positions sharply bit
et reprobabant ut taedeat nos conspicere, et supra modum
and rejected so-that it-may-weary us to-behold and beyond measure
miremur; quod evidens est in epistolis beatorum Augustini et
we-may-wonder which evident is in the-letters of-blessed Augustine and
Hieronymi, et multis aliis. Cum enim Hieronymus comparavit
Jerome and many others when for Jerome compared
se bovi lasso, qui fortius pedem figit, propter hoc quod
himself to-an-ox weary which more-strongly the-foot fixes because-of this that
jam in studio sacro senuerit, et Augustinus fuit junior
already in study sacred he-had-grown-old and Augustine was younger
eo, quamvis episcopus, respondit monacho pontifex quod
than-he although a-bishop replied to-the-monk the-pontiff that
bos senex fortius figit pedes non animi vigore sed
an-ox old more-strongly fixes the-feet not of-the-mind by-the-vigor but
corporis senectute. Et cum Augustinus multa quaereret ab
of-the-body by-the-old-age and when Augustine many-things asked from
Hieronymo, dicit Hieronymus, 'Diversas tu nominas quaestiones,
Jerome says Jerome diverse you name questions
sed ego sentio meorum opusculorum reprehensiones continuas.
but I perceive of-my little-works reprehensions continual
Praetermitto salutationes, quibus meum demulces caput; taceo
I-pass-over the-salutations with-which my you-soothe head I-am-silent
de blanditiis, quibus reprehensionem meam niteris consolari,
about the-flatteries with-which reprehension my you-strive to-console

ut ad ipsas causas veniam; observari legis ceremonias
that to the-very causes I-may-come to-be-observed of-the-law the-ceremonies
non potest esse indifferens, sed aut bonum aut malum; tu
not can to-be indifferent but either good or evil you
vero bonum, ego malum assero; dum aliud vitas, ad aliud
but good I evil assert while one-thing you-avoid into another
devolveris; dum enim metuis Porphyrium blasphemantem
you-are-rolled while for you-fear Porphyry blaspheming
Ebionis haeretici laqueos incurris.' Et talia innumerabilia
of-Ebion the-heretic the-snares you-run-into and such innumerable-things
colliguntur ex libris sanctorum, qui tam in rebus de quibus
are-gathered from the-books of-the-saints who as in things about which
est contentio quam in modo reprehensionis, multum in
is the-contention as in the-manner of-reprehension much in
scientiis humanae fragilitatis ostendunt, qua affirmabant quod
the-sciences of-human frailty show by-which they-affirmed what
non debebant. Sed constat, non ex certa scientia hoc fecerunt;
not they-ought but it-is-agreed not from certain knowledge this they-did
ergo ex apparenti, et aestimata laboraverunt in hac parte.
therefore from apparent and supposed they-labored in this part

Capitulum xiii

ARISTOTLE UNKNOWN TO THE EARLY SAINTS

The saints neglected much because it was not yet translated: they knew Plato's books but not Aristotle's, which Boethius only began to translate. Augustine himself translated the Categories and praised Aristotle, and Alcuin praised that translation in verse.

Caeterum non solum ex hujus mortalitatis imperfectione
moreover not only from of-this mortality the-imperfection
multa reprobant, quibus nos non oportet obstinate
many-things they-reject to-which us not it-behooves obstinately
inhaerere, immo magis ad eorum honores pie et reverenter
to-cling nay more to their honors piously and reverently
interpretari secundum leges veritatis; multa etiam et
to-interpret according-to the-laws of-truth many-things also and
maxima neglexerunt ex causis certis. Una est, quia non
greatest they-neglected from causes certain one is that not
fuerunt translata in linguam latinam, nec ab aliquo
they-were translated into the-tongue Latin nor by any
Latinorum composita, et ideo non fuit mirum si illorum
of-the-Latins composed and therefore not it-was wonderful if of-those-things
non aestimabant valorem. Platonis enim libros doctores
not they-reckoned the-value of-Plato for the-books the-doctors
omnes assumebant in manibus, quia translati fuerunt; sed
all took into hands because translated they-were but
libri Aristotelis non fuerunt tunc temporis translati. Nam
the-books of-Aristotle not were then of-time translated for
Augustinus fuit primus translator Aristotelis et expositor,
Augustine was the-first translator of-Aristotle and expositor
sed in minimo et in primo libellorum suorum, videlicet in
but in the-least and in the-first of-his-little-books his namely in

praedicamentis: nec fuit philosophia Aristotelis tunc temporis
the-predicaments nor was the-philosophy of-Aristotle then of-time
Graecis philosophis nota, nec Arabicis, sicut prius tactum
to-the-Greek philosophers known nor to-the-Arabic as earlier touched
est. Et ideo sancti, sicut et alii, neglexerunt philosophiam
it-is and therefore the-saints as also others neglected the-philosophy
Aristotelis, laudabant Platonem. Et quia intellexerunt quod
of-Aristotle praised Plato and because they-understood that
Aristoteles persecutus est sententias Platonicas, Aristotelem in
Aristotle pursued has the-opinions Platonic Aristotle in
multis reprobant, et dicunt rationem haereses congregasse;
many-things they-reject and say him heresies to-have-gathered
sicut Augustinus dicit in libro de Civitate Dei ipsum,
as Augustine says in the-book on the-City of-God him
adhuc magistro suo Platone vivente, multos in suam
while-still with-master his Plato living many into his
haeresim congregasse. Sed tamen omnium philosophantium
heresy to-have-gathered but yet of-all of-those-philosophizing
testimonio Plato nullam comparationem respectu Aristotelis
by-the-testimony Plato no comparison in-respect of-Aristotle
noscitur habuisse. Si igitur sancti philosophiam ejus vidissent,
is-known to-have-had if therefore the-saints the-philosophy his had-seen
pro certo ea usi essent, et altius extulissent, quia
for certain it used would-have and higher would-have-extolled because
veritatem non negassent manifestam, nec maxima
truth not would-have-denied manifest nor the-greatest-things
pro minimis declinassent. Nam Augustinus ipse transtulit
for the-least would-have-declined for Augustine himself translated
librum Praedicamentorum de Graeco in Latinum pro filio
the-book of-the-Predicaments from Greek into Latin for son
suo, et exposuit diligenter, plus laudans Aristotelem de hoc
his and expounded diligently more praising Aristotle about this

nihilo, quam nos pro magna parte suae sapientiae. Quoniam
nothing than we for the-great part of-his wisdom since
in principio dicit, 'cum omnis scientia et disciplina non
in the-beginning he-says since every science and discipline not
nisi oratione tractetur, nullus tamen, o fili mi, in quovis
except by-speech be-treated none yet O son my in any-whatever
genere pollens inventus est, qui de ipsius orationis vellet
kind strong found is who about of-the-very speech wished
origine principiove tractere; idcirco miranda est Aristotelis
the-origin or-the-principle to-treat therefore to-be-wondered-at is of-Aristotle
diligentia, qui disserendi de omnibus cupidus ab ipsius coepit
the-diligence who of-discoursing about all-things desirous from of-itself began
examine, quam sciret et praetermissam a cunctis et omnibus
examination which he-knew both passed-over by all and to-all
necessariam.' Et in fine dicit, 'haec sunt, fili carissime, quae
necessary and at the-end he-says these are son dearest what
jugi labore assecuti ad utilitatem tuam de Graeco in
by-continual labor attained for the-utility yours from Greek into
Latinum vertimus, scilicet, ut ex his quoque bonam frugem
Latin we-have-turned namely that from these also good fruit
studii a nobis suscipias.' Et Alcuinus de expositoribus
of-study from us you-may-take-up and Alcuin of the-expositors
sacrae scripturae unus, et magister Caroli Magni, illam
of-sacred scripture one and the-master of-Charles the-Great that
translationem Augustini de Praedicamentis mire laudavit,
translation of-Augustine on the-Predicaments wonderfully praised
et metrico prologo decoravit in his verbis, 'Continet iste
and with-a-metrical prologue adorned in these words contains this
decem naturae verba libellus, Quae jam verba tenent rerum
ten of-nature words little-book Which now words hold of-things
ratione stupenda Omne quod in nostrum poterit decurrere
by-a-reason amazing All that into our shall-be-able to-run-down

sensum; Qui legit, ingenium veterum mirabile laudet,
sense Who reads the-genius of-the-ancients wonderful let-him-praise
Atque suum studeat tali exercere labore. Nunc Augustino
And his let-him-strive with-such to-exercise labor now Augustine
placuit transferre magistro De veterum gazis Graecorum
it-pleased to-translate the-master From of-the-ancients the-treasures of-the-Greeks
clave Latina, Quem tibi, Rex magne, Sophiae sectator,
with-the-key Latin Which to-you O-King great of-Wisdom follower
amator, Munere qui tali gaudes, modo mitto legendum.'
lover By-a-gift who with-such you-rejoice now I-send to-be-read
Boetius quidem fuit longe post sanctos doctores, qui primus
Boethius indeed was long after the-holy doctors who first
incepit libros Aristotelis plures transferre. Et ipse aliqua
began the-books of-Aristotle many to-translate and he some
logicalia et pauca de aliis transtulit in Latinum. Nec adhuc
logical-works and few of others translated into Latin nor yet
medietatem, nec partem meliorem habemus. Nam Aristoteles
the-half nor the-part better we-have for Aristotle
quidem fuit diu ignotus et philosophantibus, nedum aliis,
indeed was long unknown both to-those-philosophizing not-to-speak-of others
et vulgo Latinorum. Caeterum sancti grammaticalia logicalia
and the-crowd of-the-Latins moreover the-saints grammatical logical
et rhetorica, et communia metaphysicae multum efferunt,
and rhetorical-things and the-commonplaces of-metaphysics much extol
et abundanter in sacris utuntur. Unde Augustinus in
and abundantly in sacred-matters use whence Augustine in
libro de doctrina christiana, 2º, 3º, 4º docet ista applicari
the-book on doctrine christian 2nd 3rd 4th teaches these-things to-be-applied
ad divina, et in aliis locis: nec non et sancti caeteri
to divine-things and in other places nor not and the-saints other
idem volunt. Sed de aliis parum et raro loquuntur, imo
the-same wish but of other-things little and rarely they-speak nay

multam negligunt et negligi edocent aliquando, sicut per
much they-neglect and to-be-neglected they-teach sometimes as through
Ambrosium patet super epistolam ad Colossenses, et per
Ambrose is-plain on the-epistle to the-Colossians and through
Hieronymum super illam ad Titum, et per Rabanum de
Jerome on that to Titus and through Rabanus on
pressuris ecclesiasticis, ac etiam in locis aliis pluribus. Sed
the-distresses ecclesiastical and also in places other many but
constat omnibus philosophantibus et theologis scientias has
it-is-agreed to-all those-philosophizing and theologians the-sciences these
nullius valoris esse respectu caeterarum nec alicujus dignitatis.
of-no value to-be in-respect of-the-others nor of-any dignity
Constat omnibus si sancti habuissent usum scientiarum
it-is-agreed to-all if the-saints had-had the-use of-the-sciences
philosophiae magnarum, nunquam cineres philosophicos in
of-philosophy great never the-ashes philosophical in
tantum extulissent, et ad sacros usus convertissent,
so-far would-have-extolled and to sacred uses would-have-converted
quanto enim sanctae scientiae meliores sunt et majores,
by-how-much for holy the-sciences better are and greater
tanto sunt ad divina aptiores. Sed quia ad manus
by-so-much they-are to divine-things more-apt but because to the-hands
eorum non devenerunt libri nisi grammatici, logici, rhetorici
their not came books except grammatical logical rhetorical
et de communibus metaphysicae, ideo his se
and about the-commonplaces of-metaphysics therefore with-these themselves
juverunt secundum gratiam eis datam; et quicquid poterant
they-helped according-to the-grace to-them given and whatever they-could
de his laudabiliter extrahere, converterunt copiosius ad legem
from these laudably to-extract they-turned more-copiously to the-law

Dei, ut in expositionibus eorum et tractatibus singulariter
of-God as in the-expositions their and treatises singularly
manifestum est, et hoc suo loco planius exponetur.
manifest it-is and this in-its place more-plainly shall-be-set-forth

Capitulum xiv

WHY THE PRIMITIVE CHURCH SHUNNED PHILOSOPHY

Philosophy gave the world laws before Christ and made rulers resist the higher law of the faith; magic, which the saints confused with it, fought the preachers. So the early Church neglected philosophy, not for any falsehood in it, but because of its abusers.

Deinde considerandum est diligenter, quod quamvis multa
then to-be-considered it-is diligently that although many-things
habuissent de majoribus scientiis, non fuit tempus utendi eis
they-had-had of the-greater sciences not was the-time of-using them
nisi in duobus casibus, scilicet, astronomia pro calendario, et
except in two cases namely astronomy for the-calendar and
musica pro officio divino. Patet enim per historias, quod
music for the-office divine it-is-plain for through the-histories that
Eusebius Caesariensis, et beatus Cyrillus, et Victorius et
Eusebius of-Caesarea and blessed Cyril and Victorius and
Dionysius Abbas Romanus, cujus doctrinam nunc sequitur
Dionysius the-Abbot Roman whose doctrine now follows
ecclesia per leges astronomiae, et alii ex mandato
the-church through the-laws of-astronomy and others from the-command
apostolico laboraverunt in hac parte; sed aliae scientiae
apostolic labored in this part but the-other sciences
majores fuerunt neglectae, et praecipue istae quae judicia
greater were neglected and especially those which judgments

et opera sapientiae magnifica noscuntur continere. Et hujus
and works of-wisdom magnificent are-known to-contain and of-this
causa fuit quintuplex. Nam philosophia ante Christi adventum
the-cause was fivefold for philosophy before of-Christ the-coming
dedit leges mundo, praeterquam populo Hebreorum, tam
gave laws to-the-world except to-the-people of-the-Hebrews as
de cultu divino quam de moribus et legibus justitiae et
about worship divine as about morals and laws of-justice and
pacis inter cives, et belli contra adversarios. Et quoniam
of-peace among citizens and of-war against adversaries and since
hujusmodi leges fuerunt datae, quantum potuit humana
of-this-kind laws were given as-far-as could human
ratio, ut Aristoteles vult in fine Ethicorum, ubi transit
reason as Aristotle wishes at the-end of-the-Ethics where he-passes
ad librum legum dicens, 'dicamus nunc quantum possibile
to the-book of-laws saying let-us-speak now as-far-as possible
est philosophiae in rebus humanis,' &c. principes mundi
is of-philosophy in things human &c the-princes of-the-world
noluerunt recipere legem Christi, quae fuit supra humanam
did-not-wish to-receive the-law of-Christ which was above human
rationem, et ipsi fuerunt regulati secundum philosophos, et
reason and they were ruled according-to the-philosophers and
ideo philosophia impedivit ingressum fidei, et tardavit in hoc,
therefore philosophy hindered the-entry of-faith and delayed in this
quod mundus ea deductus legi celsiori horruit consentire.
that the-world by-it led to-a-law loftier shuddered to-consent
Caeterum non solum hoc modo philosophia tardavit fidem
moreover not only in-this way philosophy delayed the-faith
Christi, sed jure legum suarum de reipublicae
of-Christ but by-the-right of-laws its about of-the-commonwealth
defensione ab omni contrario sensu visa est per judicia
the-defense from every contrary sense seemed it-is through judgments

futurorum et ostensionem rerum occultarum praesentium,
of-future-things and the-showing of-things hidden present
et per opera mirabilia supra naturae et artis communiter
and through works wonderful above of-nature and of-art commonly
operantium potestatem, contendere cum fidei praedicatoribus,
working the-power to-contend with of-the-faith the-preachers
quorum proprium fuit non per naturam et artem, sed
whose proper was not through nature and art but
per Dei virtutem, prophetiam de futuris eructare,
through of-God the-power prophecy about future-things to-belch-forth
occulta producere in lucem, miracula suscitare. Nam
hidden-things to-bring into the-light miracles to-raise-up for
quod philosophiae potestas valeat magnifica peragere, quae
that of-philosophy the-power be-able magnificent-things to-accomplish which
vulgus non solum laicorum sed etiam clericorum duceret
the-crowd not only of-laymen but also of-clerics would-reckon
pro miraculis, sequentia declarabunt. Necnon rectores
for miracles the-following-things shall-declare and-also the-rulers
rerumpublicarum ubique per consilia philosophorum suas
of-commonwealths everywhere through the-counsels of-philosophers their
leges zelantium persecutionis et mortis judicia sanctis
laws zealously-guarding of-persecution and of-death judgments on-the-saints
Dei graviter intulerunt. Insuper ars magica per totum
of-God heavily brought moreover the-art magic through the-whole
orbem invalescens, occupans homines in omni superstitione
world growing-strong occupying men in all superstition
et fraude religionis, quamvis fuerat philosophis odiosa, et
and fraud of-religion although it-had-been to-philosophers hateful and
ab omnibus debellata, ut certificabitur suo loco, tamen sancti
by all subdued as shall-be-certified in-its place yet the-saints
primitivi invenientes mundum occupatum in utraque pro eodem
primitive finding the-world occupied in both for the-same

artificio utramque reputabant, quoniam ambae fidei fructum
artifice both reckoned since both of-faith the-fruit
impediebant multis modis. Nam sicut magi Pharaonis
hindered in-many ways for as the-magicians of-Pharaoh
Moysi resistebant et populum Aegypti mandato Dei
Moses resisted and the-people of-Egypt to-the-command of-God
inobedientem faciebant, sic fuit in principio ecclesiae per
disobedient made so it-was in the-beginning of-the-church through
artis magicae violentiam. Quae cum in eundem effectum,
of-the-art magic the-violence which since in the-same effect
scilicet contra opus fidei, cum philosophia concordabat,
namely against the-work of-faith with philosophy agreed
totum ejus vituperium in philosophiam redundabat.
the-whole its reproach onto philosophy overflowed
Praeterea Deo placuit a principio ecclesiae quod nullum
moreover to-God it-pleased from the-beginning of-the-church that no
testimonium humanum ei daretur, sed ut veritas fidei
testimony human to-it be-given but that the-truth of-faith
tanto vigore mundo radiaret, ut probaretur solum Deo
with-so-great vigor on-the-world might-shine that it-be-proved only with-God
auctore promulgari per testes ab ejus imperio destinatos.
as-author to-be-promulgated through witnesses by his command destined
His igitur de causis philosophia fuit ab ecclesia in principio et
these therefore for causes philosophy was by the-church in the-beginning and
sanctis Dei non solum neglecta, sed eis odiosa; non tamen
the-saints of-God not only neglected but to-them hateful not yet
propter aliquod quod in ea continetur contrarium veritati. Nam
because-of anything which in it is-contained contrary to-truth for
licet imperfecta sit respectu professionis Christianae, tamen
although imperfect it-be in-respect of-the-profession Christian yet
ejus potestas non est sectae Christi dissona, immo totaliter
its power not is to-the-sect of-Christ dissonant nay wholly

ad eam disposita, et ei utilissima et omnino necessaria, sicut
to it disposed and to-it most-useful and wholly necessary as
omnes credunt, et certificabitur evidenter. Non igitur propter
all believe and shall-be-certified evidently not therefore because-of
aliquid malum philosophiae ecclesia Dei neglexit et reprobavit
anything evil of-philosophy the-church of-God neglected and rejected
eam a principio, sed propter abusores ejus, qui noluerunt eam
it from the-beginning but because-of the-abusers of-it who did-not-wish it
suo fini, qui est veritas Christiana, copulare. Et propter hanc
to-its end which is truth Christian to-join and because-of this
causam Ecclesia primitiva non fuit sollicita de translatione
cause the-Church primitive not was solicitous about the-translation
magnarum scientiarum philosophiae, et ideo sancti doctores
of-the-great sciences of-philosophy and therefore the-holy doctors
Latini copiam philosophicorum non habent, et configurantes
Latin a-store of-philosophical-works not have and conforming
se principiis Ecclesiae neglexerunt multa dignissima,
themselves to-the-principles of-the-Church neglected many most-worthy-things
sicut in principio propter causas supradictas neglecta fuerunt,
as in the-beginning because-of the-causes above-said neglected they-were
non propter aliquid falsum vel indignum quod in philosophia
not because-of anything false or unworthy which in philosophy
reperiri possit, ut certius suo loco per ipsos Dei
to-be-found can as more-certainly in-its place through the-very of-God
sanctos patebit. Nam ostendetur quod sancti Patriarchae et
saints shall-be-plain for it-shall-be-shown that the-holy Patriarchs and
Prophetae a principio mundi omnes scientias receperunt
Prophets from the-beginning of-the-world all sciences received
a Deo, quibus illam magnam vitae longitudinem dedit,
from God to-whom that great of-life length he-gave
ut possent experiri quid eis fuerat revelatum, quatenus,
that they-might to-test what to-them had-been revealed so-that

fide Christi introducta et evacuata artis magicae
with-the-faith of-Christ introduced and emptied of-the-art magic
fraudulentia, potestas philosophiae ad divina utiliter rapiatur.
the-fraudulence the-power of-philosophy to divine-things usefully be-seized

Capitulum xv

THE MODERNS NEGLECT THE GREAT SCIENCES

Gratian, the Master of the Sentences, and Hugh and Richard of Saint Victor did not have the great sciences in their day. Modern teachers have them translated and still neglect them, taking comfort in authorities who never knew the parts of philosophy.

Sicut vero doctores sacri magnificas scientias philosophiae
as but the-doctors sacred the-magnificent sciences of-philosophy
non habuerunt in usu, sic nec posteriores, scilicet Gratianus,
not had in use so neither the-later-ones namely Gratian
Magister sententiarum et historiarum, Hugo de Sancto Victore,
the-Master of-the-sentences and of-the-histories Hugh of Saint Victor
et Ricardus de eodem. Nam non fuerunt eorum temporibus
and Richard of the-same for not were in-their times
translatae, nec in usu Latinorum, et ideo neglexerunt eas,
translated nor in use of-the-Latins and therefore they-neglected them
nec dignas sacris mysteriis sciverunt judicare, sed humano
nor worthy for-sacred mysteries did-they-know-how to-judge but by-human
sensu respuebant quorum usum non habebant, et in multis
sense they-spurned whose use not they-had and in many-things
obloquuntur, sumentes nihilominus occasionem ex hoc, quod
they-speak-against taking nonetheless the-occasion from this that
sancti doctores prius easdem neglexerunt; sed non attendebant
the-holy doctors earlier the-same neglected but not they-attended-to

causas sanctorum, scilicet, quod non sunt translatae in
the-causes of-the-saints namely that not they-are translated in
eorum tempore, et etiam quia ecclesia eas jubere transferri
their time and also because the-church them to-order to-be-translated
propter causas quinque prius tactas neglexit. Moderni vero
because-of the-causes five earlier touched neglected the-modern but
doctores vulgi, licet multa de philosophia sint translata,
doctors of-the-crowd although many-things of philosophy be translated
tamen non habent eorum usum, cum et in parvis et vilibus
yet not they-have their use since both in small and vile-things
delectati duos libros logicae meliores negligunt, quorum unus
delighted the-two books of-logic better they-neglect of-which one
translatus est cum commentario Alpharabii super illum, et
translated is with the-commentary of-Alfarabi on it and
alterius expositio per Averroem facta sine textu Aristotelis
of-the-other the-exposition by Averroes made without the-text of-Aristotle
est translata. Et longe magis caetera, quae minorem
is translated and far more the-other-things which lesser
obtinent dignitatem, sicut novem scientias mathematicae, et
hold dignity as the-nine sciences of-mathematics and
sex scientias magnas naturales, quae multas alias scientias
the-six sciences great natural which many other sciences
sub se comprehendunt, atque morales quatuor partes
under themselves comprehend and moral four parts
negligunt dignissimas; et suae ignorantiae quaerunt miserabile
they-neglect most-worthy and of-their ignorance seek a-miserable
solatium per Gratianum et caeteros magistros authenticos,
solace through Gratian and the-other masters authentic
qui non habuerunt notitiam partium philosophiae. Nam post
who not had knowledge of-the-parts of-philosophy for after
Christum sancti non sunt usi dignitate philosophiae, at
Christ the-saints not have used the-dignity of-philosophy but

non propter hoc, quod ipsa sit sacris contraria sententiis
not because-of this that it be to-sacred contrary opinions
vel indigna, cum ad theologica absolute intelligenda, et
or unworthy since to theological-things absolutely to-be-understood and
respectu ecclesiae Dei et reipublicae fidelium ac
in-respect of-the-church of-God and of-the-commonwealth of-the-faithful and
conversionis infidelium utiliter et magnifice possit adjuvare,
of-the-conversion of-unbelievers usefully and magnificently it-can to-help
sicut certificabitur suo tempore. Et tanto miserabilius est
as shall-be-certified in-its time and so-much more-miserable it-is
quod multitudo studentium modernorum magnas negligit
that the-multitude of-students modern the-great neglects
scientias, cum tamen fuerunt introductae post Gratianum.
sciences since yet they-were introduced after Gratian
Aliqui adhuc vivunt qui in studiis eas perlegerunt.
some still live who in the-schools them read-through

Capitulum xvi

AN APPEAL TO THE POPE

Bacon does not ask the Pope to compel the crowd, but to provide for himself and his successors the whole of wisdom. The crowd is unstable and follows its head; if the Pope cannot finish the work in his time, he can lay the foundations for those who come after.

Quamvis autem istas causas malorum omnium universales
although moreover these causes of-evils all universal
persecutus sum, et vellem omnia reduci ad auctoritatem
pursued I-have and would-wish all-things to-be-brought-back to authority
solidam, et sensum sapientum et expertorum, qui pauci sunt,
solid and the-sense of-the-wise and experienced who few are

non tamen credat Serenitas Vestra, quod ego intendo Vestriae
not yet let-believe Serenity Your that I intend of-Your
clementiam Sanctitatis excitare, ut auctores fragiles et ipsam
the-clemency Holiness to-arouse that authors frail and the-very
multitudinem Majestas Papalis violenter invadat; nec quod
multitude the-Majesty Papal violently may-invade nor that
ego indignus sub umbra Gloriae Vestrae suscitem aliquam
I unworthy under the-shadow of-Glory Your may-raise some
super facto studii molestiam; sed ut mensa Domini ferculis
over the-matter of-study trouble but that the-table of-the-Lord with-dishes
sapientalibus cumulata, ego pauperculus micas mihi colligam
wise heaped-up I a-poor-little-man crumbs for-myself may-gather
decidentes. Poterit enim Vestrae Potentiae magnitudo
falling it-shall-be-able for of-Your Power the-greatness
sibi et successoribus suis providere de totius sapientiae
for-itself and for-successors its to-provide about of-all wisdom
compendiosa plenitudine non solum absolute habenda, sed
the-compendious fullness not only absolutely to-be-had but
quatuor modis praedictis comparata. Deinde cum Vestrae
in-the-four ways aforesaid compared then when of-Your
Paternitatis discretio planiorem de his certitudinem
Paternity the-discretion a-plainer about these-things certitude
reportaverit, poterit auctoritatis vestrae judicium studiosis
shall-have-brought-back shall-be-able of-authority your the-judgment the-studious
et sapientibus de facili persuadere, ut quod vulgus
and wise with ease to-persuade that what the-crowd
studentium capere non potest, cupidi sapientiae se
of-students to-grasp not can desirous of-wisdom themselves
gaudeant obtinere; insuper quantum sufficit multitudini spes
may-rejoice to-obtain moreover as-much-as suffices for-the-multitude hope
promittit. Nam Hieronymus dicit super Isaiam, 'Multitudo,
promises for Jerome says on Isaiah the-multitude

accepta veritate, de facili mutat sententiam.' Et hoc verum
with-received truth with ease changes opinion and this true
est nisi quando captiosis malesanis retractatur. Nam licet
is unless when by-captious unsound-men it-is-drawn-back for although
vulgus de se sit proclive ad malum, et quia saepius
the-crowd of itself be prone to evil and because more-often
invenitur caput languidum, tamen nisi qui praesit impediat,
is-found a-head languid yet unless he-who presides hinder
satis facile est ad bonum imperfectum, quia instabilis est,
enough easy it-is toward good imperfect because unstable it-is
et semel mota modum servare non potest, et ideo de facili
and once moved measure to-keep not can and therefore with ease
quantum est de se vertitur ad contraria secundum regimen
as-far-as it-is from itself it-is-turned to contraries according-to the-rule
praesidentis; quoniam omni vento doctrinae flectitur, velut
of-the-one-presiding since by-every wind of-doctrine it-is-bent like
arundo, et quod principi ejus placet legis habet vigorem.
a-reed and what to-the-prince its pleases of-law has the-force
Nos enim hoc videmus in omni congregatione hominum,
we for this see in every gathering of-men
quod secundum arbitrium capitis membra moventur. Nam
that according-to the-will of-the-head the-members are-moved for
si qui praeest bonum negligit, subditi obdormiunt; si ad
if he-who presides the-good neglects the-subjects fall-asleep if to
malum excitati, in idem currunt cum furore; si ad bonum,
evil roused into the-same they-run with fury if to good
similiter sine discretione festinant. Et si vias perfectionis
likewise without discretion they-hasten and if the-ways of-perfection
monet, tunc olfacit a longe multitudo, sed gustare non
he-advises then smells from afar the-multitude but to-taste not
potest nec ab ea debet requiri, ut superius ostensum
can nor from it ought to-be-required as above shown

est. Quod si non est temporis vestri omnia apud vulgum
it-is but if not it-is of-time your all-things among the-crowd
consummare; poterit Vestra Magnificentia locare fundamenta,
to-consummate shall-be-able Your Magnificence to-lay foundations
fontes eruere, radices figere, ut Vestrae Sanctitatis successores
fountains to-dig-out roots to-fix that of-Your Holiness the-successors
quod feliciter inceptum fuerit valeant facilius adimplere.
what happily begun shall-have-been may-be-able more-easily to-fulfill

Capitulum i

ONE PERFECT WISDOM IN SACRED SCRIPTURE

Having banished the four causes, Bacon argues that one wisdom is perfect: it is contained in Scripture and unfolded through canon law and philosophy. Theology is mistress of the sciences; whatever wisdom is contrary to it is error, as Augustine and Ambrose teach.

Relegatis igitur quatuor causis totius ignorantiae humanae
with-banished therefore the-four causes of-all ignorance human
generalibus, volo in hac secunda distinctione unam sapientiam
general I-wish in this second distinction one wisdom
esse perfectam ostendere, et hanc in sacris literis contineri;
to-be perfect to-show and this in the-sacred letters to-be-contained
de cujus radicibus omnis veritas eruitur. Dico igitur, quod
from whose roots all truth is-dug-out I-say therefore that
est una scientia dominatrix aliarum, ut theologia, cui
there-is one science mistress of-the-others namely theology to-which
reliquae penitus sunt necessariae, et sine quibus ad effectum
the-rest wholly are necessary and without which to effect
pervenire non potest; virtutem in suum jus vindicat, ad
to-come not it-can the-power into its right it-claims at
cujus nutum et imperium caeterae jacent; una tamen est
whose nod and command the-others lie one yet is
sapientia perfecta, quae in sacra scriptura totaliter continetur,
the-wisdom perfect which in sacred scripture wholly is-contained
per jus canonicum et philosophiam explicanda, et
through the-law canon and philosophy to-be-unfolded and
expositio veritatis divinae per illas scientias habetur. Nam
the-exposition of-truth divine through those sciences is-had for

ipsa cum eis velut in palmam explicatur, et tamen totam
it with them as-if into a-palm is-unfolded and yet the-whole
sapientiam in pugnum colligit per seipsum. Quoniam
wisdom into a-fist gathers through itself since
ab uno Deo data est tota sapientia et uni mundo,
from one God given is the-whole wisdom and to-one world
et propter unum finem. Quapropter haec sapientia ex
and for one end wherefore this wisdom from
sua triplici comparatione unitatem sortietur. Caeterum via
its threefold comparison unity shall-obtain moreover the-way
salutis una licet gradus multi; sed sapientia est via
of-salvation one although the-degrees many but wisdom is the-way
in salutem. Omnis enim consideratio hominis, quae non est
to salvation all for consideration of-man which not is
salutaris, est plena caecitate, et ad finalem inferni deducit
salutary is full of-blindness and to the-final of-hell leads
caliginem; propter quod multi sapientes famosi damnati sunt,
darkness because-of which many wise-men famous damned are
quia veram sapientiam non habuerunt, sed apparentem et
because true wisdom not they-had but apparent and
falsam, unde se aestimantes sapientes stulti facti sunt
false whence themselves reckoning wise fools made they-are
secundum scripturam. Augustinus loquens de sacra scriptura
according-to scripture Augustine speaking of sacred scripture
dicit libro secundo de doctrina Christiana, 'si verum est, hic
says in-book second on doctrine Christian if true it-is here
invenitur; si contrarium, damnatur.' Et vult quod ubicunque
it-is-found if contrary it-is-condemned and he-wishes that wherever
invenerit Christianus, Domini sui intelligat veritatem
shall-have-found-it a-Christian of-Lord his let-him-understand the-truth
esse. Veritas Jesu Christi est sapientia sacrae scripturae.
to-be the-truth of-Jesus Christ is the-wisdom of-sacred scripture

Ergo non alibi veritas est, nisi quae in illa continetur
therefore not elsewhere truth is except what in it is-contained
scientia. Et Ambrosius super epistolam ad Colossenses dicit,
knowledge and Ambrose on the-epistle to the-Colossians says
'Omnis ratio supernae scientiae et terrenae creaturae in eo
every reason of-supernal knowledge and of-earthly creation in him
est, qui est caput et auctor, ut qui hunc novit, nihil ultra
is who is the-head and author so-that who him knows nothing further
quaerat, quia hic est perfecta virtus et sapientia. Quicquid
may-seek because here is perfect power and wisdom whatever
alibi quaeritur, hic perfecte invenitur.' Cum ergo sacra
elsewhere is-sought here perfectly is-found since therefore sacred
scriptura dat nobis hanc sapientiam, manifestum est quod
scripture gives us this wisdom manifest it-is that
hic omnis veritas sit conclusa; si aliqua est sapientia huic
here all truth be enclosed if any is wisdom to-this
contraria, erit erronea, nec habebit nisi nomen sapientiae;
contrary it-shall-be erroneous nor shall-have except the-name of-wisdom
sed diversitas, quam non faciat alibi, contrarietatem hic
but the-diversity which not may-make elsewhere contrariety here
tamen inducit, sicut patet per evangelicam auctoritatem,
yet it-brings-in as is-plain through the-evangelical authority
'Qui non est mecum, contra me est.' Sic de hac sapientia
who not is with-me against me is so of this wisdom
verum est, ut quod illi annexum non est contra illam esse
true it-is that what to-it annexed not is against it to-be
probetur, et ideo Christiano abhorrendum.
be-proved and therefore by-a-Christian to-be-abhorred

Capitulum ii

CANON LAW FOUNDED ON SCRIPTURE

Canon law takes its name and its authority from the canonical Scriptures; its decrees rest on the authors of Scripture and the popes' citations of both Testaments. Like a tree, its roots and trunk are in Scripture, its branches, leaves, and fruit in the expositors.

Haec autem manifestius patent consideranti divisionem
these-things moreover more-manifestly are-plain to-one-considering the-division
scientiarum. Nam si nitamur separare scientias ab invicem,
of-the-sciences for if we-strive to-separate the-sciences from each-other
non possumus dicere theologiam. Sub una enim parte
not we-can to-say theology under one for part
philosophiae, scilicet morali quam Aristoteles civilem nominavit,
of-philosophy namely moral which Aristotle civil named
continetur jus civile, ut inferius innotescet. Canonicum
is-contained the-law civil as below shall-become-known the-canon
vero jus a scripturis sacris nominatur, non ab aliis,
but law from the-scriptures sacred is-named not from others
sicut ipsum nomen demonstrat; quae scripturae canonicae
as the-very name shows which scriptures canonical
dicuntur libri Veteris Testamenti, sicut Decretorum parte
are-called the-books of-the-Old Testament as of-the-Decrees in-part
prima distinctione nona habetur, aut canones nuncupantur.
first in-distinction ninth is-had or canons are-called
Nam Canon Graece, Regula Latine dicitur. Et tam jus
for Canon in-Greek Rule in-Latin is-said and as the-law
canonicum quam jus divinum regularem modum vivendi
canon as the-law divine a-regular manner of-living
reddere comprobatur. Caeterum jus canonicum totaliter
to-render is-proved moreover the-law canon wholly

fundatur super auctoritate scripturae et expositore. Nam
is-founded upon the-authority of-scripture and the-expositor for
aut pro constitutionibus allegantur auctores sacrae scripturae,
either for constitutions are-alleged the-authors of-sacred scripture
ut Augustinus et alii, aut summi pontifices pro suis
as Augustine and others or the-supreme pontiffs for their
statutis indicant auctoritates et exempla Novi et Veteris
statutes point-out the-authorities and examples of-the-New and Old
Testamenti; et ideo hoc jus non est nisi explicatio
Testament and therefore this law not is except the-unfolding
voluntatis Dei in scriptura. Item jus canonicum vocatur
of-the-will of-God in scripture likewise the-law canon is-called
ecclesiasticum, quo regitur in spiritualibus Dei ecclesia, tam
ecclesiastical by-which is-ruled in spiritual-things of-God the-church as
in capite quam in membris. Sed nihil aliud sonat scriptura
in the-head as in the-members but nothing other sounds scripture
nisi hoc regimen. Praeterea jus naturale continetur in
except this rule moreover the-law natural is-contained in
sacra scriptura sicut docetur in principio decreti manifeste.
sacred scripture as is-taught in the-beginning of-the-decree manifestly
Jura canonica non possunt esse aliena a jure divino,
the-laws canon not can to-be foreign from the-law divine
imo de fontibus illius debent derivari, et jus commune
nay from the-fountains of-it they-ought to-be-derived and the-law common
est divinum vel humanum; divinum est quod spiritu Dei
is divine or human divine is what by-the-spirit of-God
allatum est mundo in sua scriptura; humanum quando
brought is to-the-world in his scripture human when
sensu hominis est adinventum. Sed constat ecclesiam Dei
by-the-sense of-man it-is invented but it-is-agreed the-church of-God
regi jure canonico. Quapropter idem jus est divinum, de
to-be-ruled by-law canon wherefore the-same law is divine from

thesauro sacrae scripturae eruendum. Et hoc manifestum est
the-treasury of-sacred scripture to-be-dug-out and this manifest is
consideranti partes juris canonici. Nam vel ordinat gradus
to-one-considering the-parts of-the-law canon for either it-orders the-degrees
ecclesiasticorum officiorum, vel sacra Dei determinat, vel
of-ecclesiastical offices or sacred-things of-God it-determines or
forum conscientiae discutit, vel causas ecclesiasticas discindit.
the-court of-conscience it-discusses or the-causes ecclesiastical it-decides
Sed horum omnium radices et ipsa stipes erecta apud
but of-these all the-roots and the-very trunk erect in
sacram scripturam reperiuntur. Rami vero penes
sacred scripture are-found the-branches but in-the-keeping-of
expositores ejusdem, ut in canone folia, flores, fructus
the-expositors of-the-same so-that in the-canon leaves flowers fruits
salutiferi capiantur. Nam sermones canonici suavis ornatus
salutary may-be-taken for the-speeches canonical of-sweet ornament
foliis comparantur secundum scripturam. Flores autem et
to-leaves are-compared according-to scripture the-flowers moreover and
fructus sunt segetum aurei palmites et uvarum maturitio.
fruits are of-crops golden the-shoots and of-grapes the-ripening
Et ideo jus canonicum sine potestate scripturae in uno
and therefore the-law canon without the-power of-scripture in one
corpore continetur, sicut unius arboris corpus ex radicibus
body is-contained as of-one tree the-body from roots
et stipite, ramis, floribus, et fructibus constituitur.
and trunk branches flowers and fruits is-constituted

Capitulum iii

THE SAINTS ON PHILOSOPHY'S GOLD

Augustine teaches that Christians should take from the philosophers what is useful, as Israel took the Egyptians' gold. History, the arts, natural knowledge, logic, and mathematics all serve the understanding of Scripture, as Augustine and Cassiodorus affirm.

Quod autem philosophia non sit aliena a Dei sapientia, sed
that moreover philosophy not be foreign from of-God the-wisdom but
in ipsa conclusa, manifestandum est. Si enim a philosophis
in it enclosed to-be-made-manifest it-is if for from the-philosophers
tanquam injustis possessoribus rapere debent Christiani utilia
as-if unjust possessors to-seize ought Christians useful-things
quae in libris eorum continentur, sicut dicit Augustinus,
which in the-books of-them are-contained as says Augustine
patet quod philosophia est condigna sacrae veritati. Et iterum
it-is-plain that philosophy is worthy of-sacred truth and again
in libro, scilicet de doctrina Christi, dicit quod philosophorum
in the-book namely on the-doctrine of-Christ he-says that of-the-philosophers
aurum et argentum non ipsi instituerunt, sed de
the-gold and silver not themselves established but from
communibus quasi metallis divinae providentiae, quae ubique
the-common as-it-were metals of-divine providence which everywhere
est effusa, eruitur; quod praefiguratum fuisse dicit, sicut
is poured-out it-is-dug which prefigured to-have-been he-says as
Aegyptii fecerant vasa atque ornamenta de auro vel argento
the-Egyptians had-made vessels and ornaments of gold or silver
et vestem quam ille populus exiens de Aegypto sibi potius
and clothing which that people going-out from Egypt for-itself rather
tanquam ad usum meliorem vindicavit, sic doctrinae gentilium
as-if for use better claimed so the-doctrines of-the-gentiles

liberales disciplinas usui veritatis aptiores et morum
liberal disciplines for-the-use of-truth more-apt and of-morals
praecepta utilissima continent, deque Deo ipso colendo
precepts most-useful contain and-about God himself to-be-worshiped
multa inveniuntur apud eos. Ulterius hoc explicat, dicens, in
many-things are-found among them further this he-unfolds saying in
omnibus humanis tractatibus, quae sunt moralia, vel historialia
all human treatises which are moral or historical
vel artificialia, naturalia, logicalia vel grammaticalia, sunt nobis
or artificial natural logical or grammatical are for-us
necessaria. Nam pro moralibus dicit vestem, quae illorum
necessary for for moral-things he-says the-clothing which of-them
est hominum quidem institutio sed tamen accommodata
is of-men indeed the-institution but yet accommodated
humanae societati qua in hac vita carere non possumus,
to-human society which in this life to-lack not we-can
in usum converti christianum debet. De historialibus dicit,
into use to-be-turned Christian ought about historical-things he-says
historia gentilium plurimum nos adjuvat ad sanctos libros
the-history of-the-gentiles very-much us helps for the-holy books
intelligendos. De aliis vero considerationibus tam artificialibus
to-be-understood about other but considerations as artificial
quam naturalibus dicit, Artium autem caeterarum, quibus
as natural he-says Of-the-arts moreover the-other by-which
adfabricatur domus, et hujusmodi, medicinae, vel agriculturae,
is-built a-house and of-this-kind of-medicine or of-agriculture
vel quorum omnis effectus actio est, ut saltationum, cursionum,
or of-which all the-effect action is as of-dancings of-runnings
&c., harum autem cognitio usurpanda est ad judicandum,
&c of-these moreover the-knowledge to-be-used is for judging
ne omnino nesciamus quid scriptura velit insinuare, cum de
lest wholly we-be-ignorant what scripture wishes to-suggest when from

his artibus aliquas facit figuras. Pro omnibus naturalibus
these arts some it-makes figures for all natural-things
dicit, Benignam sane operam faceret pro sacra scriptura, qui
he-says A-kindly truly work would-do for sacred scripture who
proprietates temporum et locorum, lapidum, et caeterarum
the-properties of-times and of-places of-stones and of-the-other
rerum inanimatarum, plantarum et animalium colligeret. Et
things inanimate of-plants and of-animals should-gather and
pro logicalibus dicit, Nam de eis pro theologia possunt
for logical-things he-says For from them for theology can
quaedam necessaria colligi et condigna, sed non video,
certain necessary-things to-be-gathered and worthy but not I-see
ut ait, utrum hoc possit sine eis. Atque in libro secundo
as he-says whether this can-be without them and in the-book second
de ordine disciplinae dicit, Ad sacram scientiam nullus
on the-order of-discipline he-says To sacred knowledge no-one
debet accedere sine scientia logicali. De mathematicis
ought to-approach without knowledge logical about mathematical-things
dicit Cassiodorus, Geometriam, arithmeticam, astronomiam,
says Cassiodorus Geometry arithmetic astronomy
musicam cum sollicita mente revolvimus, sensum acuunt,
music when with-anxious mind we-turn-over the-sense they-sharpen
limamque ignorantiae detergunt, et ad illam divinam
and-the-file of-ignorance wipe-off and to that divine
contemplationem, Deo largiente, perducunt; quas merito
contemplation with-God bestowing lead which deservedly
sancti patres legendas persuadent, quoniam ex magna parte
the-holy fathers to-be-read urge since from great part
appetitus a carnalibus rebus extrahitur, et faciunt desiderare
the-appetite from carnal things is-drawn-out and they-make to-desire
quae solo corde possumus respicere. Et Augustinus doctos
what with-sole heart we-can to-look-at and Augustine learned

multos sanctos fuisse commemorat, cum quaerit, Nonne
many saints to-have-been recalls when he-asks Do-we-not
aspicimus quanto auro subsarcinatus exierit de Aegypto
look how-much with-gold loaded he-went-out from Egypt
Cyprianus doctor suavissimus et martyr beatissimus, quanto
Cyprian the-doctor most-sweet and martyr most-blessed how-much
Victorinus et alii multi innumerabiles Graeci, et Moyses
Victorinus and others many innumerable Greeks and Moses
quidem eruditus omni sapientia Aegyptiorum?
indeed learned in-all the-wisdom of-the-Egyptians

Capitulum iv

JEROME, BEDE, AND PAUL USE THE PAGANS

Jerome shows the prophets took things from pagan books; Bede reads Solomon's temple, built with Hiram's men, as the Church built with the philosophers' wisdom. Paul himself quotes Epimenides and Menander.

Non solum autem beatus Augustinus, sed et alii sancti
not only moreover blessed Augustine but also other saints
idem asserunt. Nam Hieronymus ad magnum oratorem
the-same assert for Jerome to the-great orator
dicit, Si scripturas sacras legeres, quis nesciat et in
says If the-scriptures sacred you-would-read who knows-not both in
Moyse ac prophetarum libris quaedam assumpta ex
Moses and of-the-prophets the-books certain-things taken from
gentilium libris? Et inducit ad hujus probationem prophetas
of-the-gentiles the-books and he-brings-in for of-this the-proof the-prophets
ipsos et omnes doctores famosos a principio ecclesiae,
themselves and all the-doctors famous from the-beginning of-the-church

qui philosophorum doctrinis fidem Christi persuaserunt
who of-the-philosophers by-the-doctrines the-faith of-Christ urged
principibus et infidelibus, ac roboraverunt multipliciter. Et
on-princes and on-unbelievers and strengthened-it manifoldly and
Beda super librum Regum dicit, quod liberalium scientiarum
Bede on the-book of-Kings says that of-the-liberal sciences
sapientiam quasi suam sumere licitum est Christianis ac
the-wisdom as-if their-own to-take lawful is for-Christians and
divinam, alioquin Moysen et Daniel sapientia Aegyptiorum
divine otherwise Moses and Daniel in-the-wisdom of-the-Egyptians
et Chaldaeorum non paterentur erudiri. Iterum de
and of-the-Chaldeans not would-have-allowed to-be-instructed again about
factura templi dicit Solomonem cum suis servis signare
the-making of-the-temple he-says Solomon with his servants to-signify
Christum, et Hiram cum suis significare philosophos et
Christ and Hiram with his to-signify the-philosophers and
sapientes gentiles, ut templum Dei, hoc est ecclesia, non
wise gentiles so-that the-temple of-God that is the-church not
solum sapientia apostolica, sed philosophorum construeretur;
only by-the-wisdom apostolic but of-the-philosophers might-be-built
quia gentiles ab errore conversi atque ad veritatem evangelii
because the-gentiles from error converted and to the-truth of-the-gospel
transformati, melius ipsos gentium errores noverant, et
transformed better the-very of-the-nations errors had-known and
quo certius noverunt, eo artificiosius hos expugnare atque
by-what more-surely they-knew by-that more-skillfully these to-overcome and
evacuare didicerunt. Paulus evangelium quod per revelationem
to-empty they-learned Paul the-gospel which through revelation
didicerat, melius novit; sed Dionysius melius revincere poterat
he-had-learned better knew but Dionysius better to-refute could
falsa dogmata, quorum cum erroribus argumenta a puero
the-false dogmas of-which with the-errors the-arguments from a-boy

noverat; et ideo Salomon dicit, Scis enim quod non
he-had-known and therefore Solomon says You-know for that not
est in populo meo vir, qui noverat ligna caedere, sicut
there-is among people my a-man who knew wood to-cut as
Sidonii. Haec et hujusmodi multa allegat venerabilis Beda.
the-Sidonians these and of-this-kind many-things alleges the-venerable Bede
Sed et Paulus Apostolus Epimenidis poetae usus est versiculo,
but also Paul the-Apostle of-Epimenides the-poet used has a-little-verse
scribens ad Titum, 'Cretenses semper mendaces, malae bestiae,
writing to Titus The-Cretans always liars evil beasts
ventres pigri.' In alia quoque epistola Menandri ponit
bellies slow in another also epistle of-Menander he-sets
senarium, 'Corrumpunt bonos mores confabulationes pessimae.'
a-senarius corrupt good morals conversations very-bad

Capitulum v

THE ACTIVE INTELLECT IS GOD

The first cause why philosophy belongs to divine wisdom is that God illumines the mind. The active intellect, Bacon argues from Alfarabi, Avicenna, and Aristotle, is no part of the soul but a separate substance; Augustine ascribes the principal illumination to God.

Causae autem, quare sancti affirmant quod quaerimus, et
the-causes moreover why the-saints affirm what we-seek and
figuratum fuisse declarant, possunt assignari; primo propter
figured to-have-been declare can to-be-assigned first because-of
hoc quod ubicunque veritas invenitur, Christi judicatur
this that wherever truth is-found of-Christ it-is-judged
secundum sententias et auctoritates superius allegatas. Idcirco
according-to the-opinions and authorities above alleged therefore

quamvis aliquo modo veritas philosophiae dicatur esse eorum;
although in-some way the-truth of-philosophy be-said to-be theirs
ad hanc tamen habendam primo lux divina influxit in
for this yet to-be-had first the-light divine flowed-in into
animos eorum, et eosdem superillustravit; 'Illuminat enim
the-minds their and the-same over-illumined it-illumines for
omnem hominem venientem in hunc mundum,' sicut dicit
every man coming into this world as says
scriptura; cui sententiae philosophi ipsi concordant.
scripture to-which opinion the-philosophers themselves agree
Nam ponunt intellectum agentem et possibilem; anima
for they-posit an-intellect agent and possible the-soul
vero humana dicitur ab eis possibilis, quia de se est
but human is-called by them possible because of itself it-is
impotens ad scientias et virtutes, et eas recipit aliunde.
powerless for the-sciences and virtues and them receives from-elsewhere
Intellectus agens dicitur, qui influit in animas nostras
the-intellect agent is-called that-which flows-in into souls our
illuminans ad scientiam et virtutem; quia licet intellectus
illumining for knowledge and virtue because although the-intellect
possibilis possit dici agens ab actu intelligendi, tamen
possible can to-be-called agent from the-act of-understanding yet
sumendo intellectum agentem ut ipsi sumunt, vocatur influens
taking the-intellect agent as they take-it it-is-called flowing-in
et illuminans possibilem ad cognitionem veritatis. Et sic
and illumining the-possible to the-knowledge of-truth and so
intellectus agens secundum majores philosophos non est
the-intellect agent according-to the-greater philosophers not is
pars animae, sed est substantia intellectiva alia et separata
a-part of-the-soul but is a-substance intellective other and separate
per essentiam ab intellectu possibili; et quia istud
through essence from the-intellect possible and because this

est necessarium ad propositi persuasionem, ut ostendatur
is necessary for of-the-purpose the-persuasion that it-be-shown
quod philosophia sit per influentiam divinae illuminationis,
that philosophy be through the-influence of-divine illumination
volo illud efficaciter probare; praecipue cum magnus error
I-wish it effectively to-prove especially since a-great error
invaserit vulgus in hac parte, necnon multitudinem magnam
has-invaded the-crowd in this part and-also the-multitude great
theologorum, quoniam qualis hic est in philosophia, talis
of-theologians since such here it-is in philosophy such
in theologia esse probatur. Dicit enim Alpharabius in libro
in theology to-be is-proved says for Alfarabi in the-book
de intellectu et intellecto, 'Quod intellectus agens, quem
on the-intellect and the-understood that the-intellect agent which
nominavit Aristoteles in tertio tractatu suo de anima, non est
named Aristotle in the-third treatise his on the-soul not is
in materia, sed est substantia separata.' Et Avicenna quinto
in matter but is a-substance separate and Avicenna in-the-fifth
de anima et decimo metaphysices idem docet, necnon ipse
on the-soul and the-tenth of-the-metaphysics the-same teaches and-also the-very
philosophus dicit, 'Quod intellectus agens est separatus a
philosopher says that the-intellect agent is separate from
possibili et immixtus.' Item vult quod intellectus agens sit
the-possible and unmixed likewise he-wishes that the-intellect agent be
incorruptibilis secundum esse et substantiam, quoniam dicit
incorruptible according-to being and substance since he-says
ipsum differre a possibili penes incorruptionem, sed possibilis
it to-differ from the-possible in incorruption but the-possible
est incorruptibilis secundum substantiam, et corruptibilis
is incorruptible according-to substance and corruptible
secundum esse, propter separationem ejus. Ergo agens
according-to being because-of the-separation its therefore the-agent

secundum esse et substantiam erit incorruptibilis; quapropter
according-to being and substance shall-be incorruptible wherefore
non erit pars animae, quoniam tunc secundum esse suum
not it-shall-be a-part of-the-soul since then according-to being its
in corpore corrumpetur, quando separetur; et dicit, quod
in the-body it-shall-be-corrupted when it-be-separated and he-says that
se habet ad possibilem, sicut artifex ad materiam, et sicut
itself it-holds to the-possible as a-craftsman to matter and as
lux solis ad colores. Artifex enim est extra materiam in
the-light of-the-sun to colors the-craftsman for is outside the-matter on
quam agit, et separatus ab ea per essentiam; similiter lux
which he-acts and separate from it through essence likewise the-light
solis expellens tenebras a corporibus separata est ab eis
of-the-sun expelling darkness from bodies separate is from them
per essentiam, et advenit aliunde. Dicit etiam, intellectus
through essence and comes from-elsewhere he-says also the-intellect
agens scit omnia et [est] semper in actu, quod nec animae
agent knows all-things and is always in act which neither to-the-soul
nec angelo convenit, sed soli Deo; item a digniore
nor to-an-angel befits but to-sole God likewise from the-worthier
parte magis habet res denominari, ergo magis dicetur
part more ought a-thing to-be-named therefore more it-shall-be-called
sciens per agentem, quam ignorans per possibilem, ante
knowing through the-agent than ignorant through the-possible before
inventionem et doctrinam. Item Aristoteles dicit quod
discovery and teaching likewise Aristotle says that
intellectus est in corpore, sicut nauta in navi quantum ad
the-intellect is in the-body as a-sailor in a-ship as-far-as to
hoc, quod non est alligatus alicui parti, sicut nec nauta
this that not it-is bound to-any part as neither the-sailor
navi; sed nauta non est profectio, sed motor tantum.
to-the-ship but the-sailor not is the-perfection but the-mover only

Cum igitur haec sententia sit consona veritati, ut textus
since therefore this opinion be consonant with-truth as the-text
philosophi evidenter praetendit, et expositores declarant,
of-the-philosopher evidently puts-forward and the-expositors declare
ne aliquis cavillator a latere insurgat, allegans idem
lest some caviler from the-side rise-up alleging the-same
quo vulgus decipitur, dico quod Aristoteli imponuntur ista
by-which the-crowd is-deceived I-say that on-Aristotle are-imposed these
verba, 'Quoniam in omni natura est aliquid quod agat et
words since in every nature is something which acts and
aliud quod patiatur, ista est in anima,' immo respondeo
another which suffers these are in the-soul nay I-answer
quod multoties falso translatum est et obscurum. Nam
that many-times falsely translated it-is and obscure for
cum tertio caeli et mundi dicatur, quod circulus et
when in-the-third of-the-heaven and the-world it-be-said that the-circle and
figura orbicularis replent locum, istud est falsum; ut sciunt
the-figure orbicular fill place this is false as know
experti in naturalibus et geometricis, sicut Averroes
those-experienced in natural-matters and geometrical as Averroes
demonstrat ibidem. Et quod tertio Meteorologicorum
demonstrates in-the-same-place and what in-the-third of-the-Meteorologics
dicitur de iride est falsum etiam. Nam experientia docet,
is-said about the-rainbow is false also for experience teaches
quod quandocunque luna sit plena et pluat, nec ipsa sit
that whenever the-moon be full and it-rain nor it be
nubibus cooperta, accidit iris. Et sunt multa alia falso
by-clouds covered happens a-rainbow and there-are many other-things falsely
translata, cujus causa patebit ex tertia parte hujus operis,
translated of-which the-cause shall-be-plain from the-third part of-this work
et plura obscura, in quibus quilibet alii potest contradicere.
and more obscure in which any-one another can to-contradict

Et in hoc loco accidit utrumque vitium vel saltem secundum,
and in this place happens each vice or at-least according-to
quod probo per ipsum Aristotelem. Nam ipse dicit secundo
what I-prove through the-very Aristotle for he says in-the-second
physicorum, quod materia non coincidit cum aliis causis
of-the-physics that matter not coincides with the-other causes
in eodem secundum numerum, ergo in nulla natura sunt
in the-same according-to number therefore in no nature are
simul agens et materia, igitur nec in anima. Si igitur ad
together agent and matter therefore nor in the-soul if therefore to
literam teneatur textus male translatus, tunc omnino falsus
the-letter be-held the-text badly translated then wholly false
est et contra Aristotelem alibi, et contradicit sibi tantus
it-is and against Aristotle elsewhere and contradicts himself so-great
auctor; et qualitercunque contingat verbum suum in secundo
an-author and however it-may-happen word his in the-second
Physicorum est verum, et ab omnibus concessum; ergo
of-the-Physics is true and by all granted therefore
sermo suus tertio de anima est falso translatus, et indiget
the-speech his in-the-third on the-soul is falsely translated and needs
expositione. Nam nihil aliud intendit, nisi quod in anima,
exposition for nothing other he-intends except that in the-soul
videlicet, in operatione requiruntur duo, scilicet, agens et
namely in operation are-required two-things namely agent and
materia; sicut in omni natura, id est operatione naturae
matter as in every nature that is the-operation of-nature
duo exiguntur, scilicet efficiens et materia. Et idem est
two-things are-demanded namely efficient and matter and the-same is
verum, sed agens semper est aliud a materia et extra
true but the-agent always is other than matter and outside
eam secundum substantiam, licet operetur in ea. Caeterum
it according-to substance although it-operate in it moreover

possumus aliter hunc locum consolari. Nam Aristoteles
we-can otherwise this place to-console for Aristotle
quarto Physicorum dicit, quod octo modi sunt essendi in
in-the-fourth of-the-Physics says that eight modes there-are of-being in
actu, quorum unus est ut movens in moto, quia movens
act of-which one is as the-mover in the-moved because the-mover
seu agens est secundum virtutem suam in materia sua, licet
or agent is according-to power its in matter its although
non secundum substantiam. Et sic est in omni natura in
not according-to substance and so it-is in every nature in
qua operatur, et ita in anima; et sic nullo modo sequitur
which it-operates and so in the-soul and so in-no way it-follows
quod intellectus agens sit pars animae, ut vulgus fingit; et
that the-intellect agent be a-part of-the-soul as the-crowd feigns and
haec sententia est tota fidelis et a sanctis confirmata. Et
this opinion is wholly faithful and by the-saints confirmed and
Augustinus dicit in soliloquiis et alibi, 'Quod soli Deo est
Augustine says in the-soliloquies and elsewhere that to-sole God is
anima rationalis subjecta in illuminationibus et influentiis
the-soul rational subject in illuminations and influences
omnibus principalibus.' Et quamvis angeli purgent mentes
all principal and although angels purge minds
nostras et illuminent et excitent multis modis, et sunt ad
our and illumine and rouse in-many ways and are to
animas nostras tanquam stellae respectu oculi corporalis,
souls our as-if stars in-respect of-the-eye bodily
tamen Augustinus ascribat Deo influentiam principalem;
yet Augustine ascribes to-God the-influence principal
soli influentia luminis cadentis per fenestram ascribitur,
to-the-sun the-influence of-the-light falling through the-window is-ascribed
et angelus aperienti fenestram comparatur, secundum
and the-angel to-one-opening the-window is-compared according-to

Augustinum. Et quod plus est, vult in pluribus locis quod
Augustine and what more is he-wishes in many places that
non cognoscimus aliquam veritatem nisi in veritate increata
not we-know any truth except in the-truth uncreated
et in regulis aeternis. Cum igitur Deus illuminaverit animas
and in the-rules eternal since therefore God has-illumined the-souls
eorum in percipiendis veritatibus philosophiae, manifestum
their in perceiving the-truths of-philosophy manifest
est quod eorum labor non est alienus a sapientia divina.
it-is that their labor not is foreign from wisdom divine

Capitulum vi

PHILOSOPHY REVEALED BY GOD

A further cause is that God revealed philosophy to its first teachers. Aristotle and Tully call it God's gift, and Socrates held that causes are known only in divine light; even the universals of logic take a lifetime to learn without revelation.

Tertia causa, propter quam sapientia philosophiae reducitur
the-third cause because-of which the-wisdom of-philosophy is-brought-back
ad divinam, est quia non solum mentes eorum illustravit
to divine is that not only the-minds their illumined
Deus ad notitiam sapientiae adquirendam, sed ab eo ipsam
God for the-knowledge of-wisdom to-be-acquired but from him it
habuerunt et eam illis revelavit. Et Augustinus dicit
they-had and it to-them he-revealed and Augustine says
super Johannem, eis praestitit Deus sapientiam. Aristoteles
on John to-them granted God wisdom Aristotle
in libro secretorum asserit manifeste totam philosophiam
in the-book of-secrets asserts manifestly the-whole philosophy

fuisse a Deo datam et revelatam; et unus de maximis
to-have-been by God given and revealed and one of the-greatest
philosophis, scilicet Tullius in quaestionibus Tusculanis
philosophers namely Tully in the-questions Tusculan
quaerit, 'Philosophia quid est nisi donum, ut ego credo,
asks Philosophy what is-it but the-gift as I believe
inventum Dei?' Unde et dicit, 'quod nec poeta grave
the-invention of-God whence also he-says that not-even a-poet a-weighty
plenumque carmen sine coelesti aliquo instinctu effundit.' Et
and-full song without heavenly some instinct pours-forth and
Augustinus octavo de Civitate Dei docet et approbat quod
Augustine in-the-eighth on the-City of-God teaches and approves that
Socrates pater philosophorum firmavit, quod non potest
Socrates the-father of-philosophers affirmed that not can
homo causas rerum scire, nisi in luce divina, et per
man the-causes of-things to-know except in the-light divine and through
donum ejus. Et quilibet potest per se experiri quod nihil
the-gift his and anyone can by himself to-test that nothing
primo ab homine invenitur quod sit de potestate philosophiae.
first by man is-found which be of the-power of-philosophy
Et pono de minimo exemplum; quoniam licet universalia
and I-put from the-least an-example since although the-universals
Porphyrii sunt apud eum sufficienter explicata per logicam,
of-Porphyry are with him sufficiently unfolded through logic
metaphysicam, et naturalem philosophiam sufficientissime
metaphysics and natural philosophy most-sufficiently
expositam, tamen non est homo ita bene studiosus, quin
expounded yet not there-is a-man so well studious but-that
oportet ut doctores habeat et per longa tempora audiat
it-behooves that teachers he-have and through long times hear
et studeat, antequam sciat totam veritatem universalium.
and study before he-know the-whole truth of-universals

Et nullus vix ante mortem cognoscit; quod patet propter
and no-one scarcely before death knows which is-plain because-of
discordiam omnium, quia aliqui ponunt ea solum in anima,
the-discord of-all because some posit them only in the-soul
aliqui extra, aliqui medio modo. Si igitur talis ignorantia
some outside some in-a-middle way if therefore such ignorance
est horum, multo magis per se nunquam perveniet homo
is of-these-things much more by himself never shall-arrive man
ad veritatem philosophorum. Quapropter veritatem horum
at the-truth of-the-philosophers wherefore the-truth of-these-things
est necesse a principio fuisse homini revelatam. Et cum
it-is necessary from the-beginning to-have-been to-man revealed and since
puerilis revelatio est necessaria, multo fortius in tota
a-childish revelation is necessary much more-strongly in the-whole
sapientia philosophiae, quod et a Deo est, et ille dedit et
wisdom of-philosophy which also from God is and he gave and
revelavit, et ideo oportet quod suae sapientiae sit conformis.
revealed and therefore it-behooves that to-his wisdom it-be conformed

Capitulum vii

THE END OF PHILOSOPHY

All philosophy runs toward knowing the Creator through his creatures, serving him, and living in peace and honesty. Speculative philosophy reaches the Creator; moral philosophy establishes laws and worship. Such philosophy is necessary to the divine law.

Caeterum totius philosophiae decursus, consistit in eo, ut
moreover of-all philosophy the-course consists in this that
per cognitionem suae creaturae cognoscatur creator, cui
through the-knowledge of-his creation be-known the-creator who

propter reverentiam majestatis et beneficium creationis et
because-of reverence of-majesty and the-benefit of-creation and
conservationis et futurae felicitatis serviatur in cultu honorifico
of-conservation and of-future happiness be-served in worship honorable
et morum pulchritudine et legum utilium honestate; ut
and of-morals the-beauty and of-laws useful the-honesty so-that
in pace et honestate vivant homines in hac vita. Philosophia
in peace and honesty may-live men in this life philosophy
enim speculativa decurrit usque ad cognitionem creatoris
for speculative runs-down up to the-knowledge of-the-creator
per creaturas. Et moralis philosophia morum honestatem,
through creatures and moral philosophy of-morals the-honesty
leges justas, et cultum Dei statuit, et persuadet de futura
laws just and the-worship of-God establishes and persuades about future
felicitate utiliter et magnifice secundum quod possibile est
happiness usefully and magnificently according-to what possible is
philosophiae. Haec sunt certa discurrentibus per omnes partes
for-philosophy these are certain to-those-running through all parts
philosophiae principales, sicut sequentia docebunt. Cum
of-philosophy principal as the-following-things shall-teach since
igitur haec sint omnino necessaria christianis, et omnino
therefore these-things be wholly necessary for-Christians and wholly
consona sapientiae Dei, manifestum est quod philosophia
consonant with-the-wisdom of-God manifest it-is that philosophy
necessaria est legi divinae et fidelibus in ea gloriantibus.
necessary is to-the-law divine and to-the-faithful in it glorying

Capitulum viii

CREATURES IN SCRIPTURE'S LITERAL SENSE

The saints draw the spiritual senses from the natures of things, and so all of philosophy's power lies within Scripture. The rainbow is the example: Aristotle and Avicenna did not know its final cause, which Genesis gives, the dissipation of watery moisture.

Item omnes sancti et sapientes antiqui in suis expositionibus
likewise all the-saints and wise ancient in their expositions
sensum literalem colligunt ex naturis rerum et proprietatibus
the-sense literal gather from the-natures of-things and the-properties
earum, ut per convenientes adaptationes et similitudines
of-them that through fitting adaptations and likenesses
eliciant spirituales sensus: quod declarat Augustinus
they-may-elicit spiritual senses which declares Augustine
libro de doctrina Christi secundo, ponens exemplum de
in-the-book on the-doctrine of-Christ second putting an-example from
verbo Domini dicentis, 'Estote prudentes sicut serpentes,
the-word of-the-Lord saying be prudent as serpents
et simplices sicut columbae.' Nam voluit Dominus per
and simple as doves for wished the-Lord through
hoc, ut ad similitudinem serpentis totum corpus exponentis
this that to the-likeness of-the-serpent the-whole body exposing
pro defensione apostoli et apostolici viri se et sua
for defense the-apostles and apostolic men themselves and their-own
darent pro Christo capite suo et pro fide sua. Et propter
should-give for Christ head their and for faith their and because-of
hoc omnis creatura in se vel in suo simili, vel in universali
this every creature in itself or in its like or in universal
vel in particulari, a summis coelorum usque ad terminos
or in particular from the-highest of-the-heavens up to the-ends

eorum ponitur in scriptura, ut sicut Deus fecit creaturas et
of-them is-placed in scripture that as God made creatures and
scripturam, sic voluit ipsas res factas ponere in scriptura
scripture so he-wished the-very things made to-place in scripture
ad intellectum ipsius tam sensus literalis quam spiritualis.
for the-understanding of-it as of-the-sense literal as spiritual
Sed tota philosophiae intentio non est nisi rerum naturas
but the-whole of-philosophy intention not is except of-things the-natures
et proprietates evolvere, quapropter totius philosophiae
and properties to-unroll wherefore of-all philosophy
potestas in sacris literis continetur; et hoc maxime patet,
the-power in the-sacred letters is-contained and this most is-plain
quia longe certius ac melius et verius accipit scriptura
because far more-certainly and better and more-truly takes scripture
creaturas, quam labor philosophicus sciat eruere. Quod
creatures than labor philosophical knows-how to-dig-out which
pro infinitis exemplis pateat ad praesens in Iride.
for infinite examples let-it-be-plain for the-present in the-Rainbow
Philosophus Aristoteles suis obscuritatibus nos perturbat
the-Philosopher Aristotle with-his obscurities us confuses
ut nec aliquid quod dignum sit valeamus per eum
so-that not-even anything which worthy be we-can through him
intelligere. Nec mirum, cum Avicenna dux et princeps
to-understand nor wonder since Avicenna the-leader and prince
philosophiae fateatur se naturam Iridis ignorasse; et
of-philosophy confesses himself the-nature of-the-Rainbow not-to-have-known and
causa hujus est, quia philosophi causam Iridis finalem
the-cause of-this is that the-philosophers the-cause of-the-Rainbow final
ignoraverunt; et ignorato fine ignorantur ea quae sunt ad
were-ignorant-of and with-unknown end are-unknown those which are for
finem; quia finis imponit necessitatem iis quae ad finem
the-end because the-end imposes necessity on-those which for the-end

ordinantur, ut Aristoteles vult secundo Physicorum. Causa
are-ordered as Aristotle wishes in-the-second of-the-Physics the-cause
vero finalis Iridis est dissipatio humiditatis aqueae,
but final of-the-Rainbow is the-dissipation of-moisture watery
sicut patet ex libro Geneseos; unde semper in apparitione
as is-plain from the-book of-Genesis whence always in the-appearance
Iridis est nubium resolutio in stillicidia infinita, ut
of-the-Rainbow is of-the-clouds a-dissolution into drippings infinite that
consumantur aqueae humiditates tam in aere, quam in mari
be-consumed the-watery moistures as in the-air as in the-sea
et terra, quia una pars Iridis cadit in sphaeras aquae
and the-earth because one part of-the-Rainbow falls into the-spheres of-water
et terrae. Consumptio vero aquae non potest esse per
and of-earth the-consumption but of-water not can to-be through
Iridem, nisi propter radios solis facientis eam. Nam per
the-Rainbow except because-of the-rays of-the-sun making it for through
varias reflectiones et fractiones congregantur radii infiniti, et
various reflections and refractions are-gathered rays infinite and
congregatio radiorum est causa resolutionis et consumptionis
the-gathering of-rays is the-cause of-the-dissolution and consumption
aquarum, et ideo Iris generatur per reflectiones
of-waters and therefore the-Rainbow is-generated through reflections
multiplices. Non enim possunt radii congregari, nisi per
multiple not for can rays to-be-gathered except through
fractionem et reflectionem, ut postea patebit. Ex scriptura
refraction and reflection as afterward shall-be-plain from the-scripture
igitur Geneseos cum dicitur ‘Ponam arcum meum in nubibus
therefore of-Genesis when it-is-said I-shall-set bow my in the-clouds
coeli, ut non sit amplius diluvium super terram,’ accipitur
of-heaven that not there-be any-more a-flood upon the-earth is-taken
causa finalis ipsius Iridis. Ex quo investigari potest causa
the-cause final of-the-very Rainbow from which to-be-investigated can the-cause

efficiens, et modus generandi Iridem, qui modus non fuit
efficient and the-mode of-generating the-Rainbow which mode not was
notus philosophis sufficienter secundum quod libri eorum
known to-the-philosophers sufficiently according-to what the-books their
manifestant nobis. Et ita est de omni creatura. Impossibile
show us and so it-is of every creature impossible
enim est quod homo sciret veritatem creaturae ultimam
for it-is that man should-know the-truth of-a-creature final
secundum quam accipitur in scriptura, nisi fuerit
according-to which it-is-taken in scripture unless he-shall-have-been
specialiter a Deo illustratus. Nam creaturae accipiuntur ibi
specially by God illumined for creatures are-taken there
propter veritates gratiae et gloriae eliciendas, quas philosophi
because-of truths of-grace and of-glory to-be-drawn-out which the-philosophers
nescierunt, et ideo ad potestatem ultimam sapientiae
knew-not and therefore to the-power final of-the-wisdom
creaturarum non venerunt, sicut sacra scriptura eam in suis
of-creatures not they-came as sacred scripture it in its
continet visceribus. Unde tota philosophia jacet in sensu
contains entrails whence the-whole philosophy lies in the-sense
literali sacris mysteriis gratiae et gloriae decorata, tamquam
literal by-sacred mysteries of-grace and of-glory adorned as-if
quibusdam picturis et coloribus nobilissimis redimita.
with-certain pictures and colors most-noble crowned

Capitulum ix

WISDOM FIRST GIVEN TO THE PATRIARCHS

The same persons received philosophy and the law: the patriarchs and prophets, who were given six hundred years of life to complete it. Bacon traces the descent of the arts from Noah, Shem, and Abraham through Zoroaster, Isis, Minerva, Prometheus, Atlas, Hermes Trismegistus, and Aesculapius.

Distinctio finalis hujus partis, in qua ad confirmationem
the-distinction final of-this part in which for the-confirmation
omnium praedictorum et dicendorum ostenditur quod
of-all the-foregoing and to-be-said it-is-shown that
tota sapientia revelata est primo sanctis; et ostenditur
the-whole wisdom revealed is first to-the-saints and is-shown
propositum in universali.
the-proposition in universal
Et hoc ultimo confirmari potest per hoc, quod eisdem
and this lastly to-be-confirmed can through this that to-the-same
personis data est philosophiae plenitudo quibus et lex
persons given is of-philosophy the-fullness to-whom also the-law
Dei, scilicet, sanctis patriarchis et prophetis a principio
of-God namely to-the-holy patriarchs and prophets from the-beginning
mundi, Et non solum est necessarium propter articulum
of-the-world And not only is-it necessary because-of the-article
qui hic tractatur, sed propter totum negotium sapientiae
which here is-treated but because-of the-whole business of-wisdom
certificandum. Nam impossibile fuit homini ad magnalia
to-be-certified for impossible it-was for-man to the-great-things
scientiarum et artium devenire per se, sed oportet quod
of-the-sciences and arts to-come by himself but it-behooves that
habuerit revelationem, qua probata nihil debet apud nos
he-had revelation with-which proved nothing ought among us

dubitari de arcanis sapientiae repertis apud auctores. Sed
to-be-doubted about the-secrets of-wisdom found among the-authors but
nullum capitulum sapientiale est tanti laboris sicut est
no chapter of-wisdom is of-so-much labor as is
certificatio hujus rei, eo quod est magnum fundamentum
the-certification of-this thing by-this that it-is the-great foundation
totius comprehensionis humanae. Atqui contrarietates et dubia
of-all comprehension human but contrarieties and doubts
multipliciter intercurrerunt, et oportet auctores et volumina
manifoldly have-intervened and it-behooves the-authors and volumes
abundantius revolvi quam pro aliquo alio articulo, qui
more-abundantly to-be-turned-over than for any other article which
in toto sapientiae studio valeat reperiri. Dico igitur quod
in the-whole of-wisdom study can to-be-found I-say therefore that
eisdem personis a Deo data est philosophiae potestas quibus
to-the-same persons by God given is of-philosophy the-power to-whom
et sacra scriptura, videlicet, sanctis ab initio, ut sic
also sacred scripture namely to-the-saints from the-beginning that so
appareat una sapientia esse completa et omnibus necessaria.
it-may-appear one wisdom to-be complete and to-all necessary
Soli enim patriarchae et prophetae fuerunt veri philosophi
alone for the-patriarchs and prophets were true philosophers
qui omnia sciverunt, non solum legem Dei, sed omnes partes
who all-things knew not only the-law of-God but all parts
philosophiae. Hoc enim nostra scriptura satis nobis ostendit,
of-philosophy this for our scripture enough to-us shows
quae Joseph erudivisse principes Pharaonis et senes Aegypti
which Joseph to-have-instructed the-princes of-Pharaoh and the-elders of-Egypt
prudentiam docet; et Moysen fuisse peritum in omni
in-prudence teaches and Moses to-have-been skilled in all
sapientia Aegyptiorum. Et Bezaleel et Eliab hoc demonstrant,
the-wisdom of-the-Egyptians and Bezaleel and Eliab this demonstrate

qui omni intellectu et sapientia rerum naturalium fuerunt
who with-all understanding and wisdom of-things natural were
illustrati; uno enim flatu Spiritus Sanctus eos illuminavit
illumined with-one for breath the-Spirit Holy them illumined
et docuit totam potestatem naturae in rebus metallicis et
and taught the-whole power of-nature in things metallic and
caeteris mineralibus. Sed et Solomon sapientior omnibus
the-other minerals but also Solomon wiser than-all
praecedentibus et subsequentibus secundum testimonium
preceding and following according-to the-testimony
scripturae plenam obtinuit philosophiae potestatem. Et
of-scripture the-full obtained of-philosophy power and
Josephus primo antiquitatum libro, capite secundo, dicit,
Josephus in-the-first of-the-antiquities book in-chapter second says
quod cum filii Adae per Seth fuerunt viri religiosi et
that since the-sons of-Adam through Seth were men religious and
ab ipso Deo dilecti, Deus dedit eis sexcentos annos vivere
by the-very God loved God gave them six-hundred years to-live
propter gloriosas partes philosophiae in quibus studuerunt,
because-of the-glorious parts of-philosophy in which they-studied
ut, quod Deus eis revelavit, possent experiri per vitae
that what God to-them revealed they-might to-test through of-life
longitudinem; et addit, quod Noe et filii ejus docuerunt
the-length and he-adds that Noah and the-sons his taught
Chaldaeos partes philosophiae, et quod Abraham intravit
the-Chaldeans the-parts of-philosophy and that Abraham entered
Aegyptum et docuit Aegyptios. Et postea in octavo libro,
Egypt and taught the-Egyptians and afterward in the-eighth book
quod nullam naturam inexaminatam Solomon praeteriit, sed
that no nature unexamined Solomon passed-over but
de omnibus philosophatus est, et disciplinam proprietatum
about all-things philosophized has and the-discipline of-the-properties

earum evidenter exposuit, et tangit quomodo descendens
of-them evidently set-forth and he-touches how descending
ad singula composuerit quatuor millia librorum et quinque.
to single-things he-composed four thousand of-books and five
Et maximus Aristoteles ipsa veritate coactus dicit in
and the-greatest Aristotle by-the-very truth compelled says in
libro secretorum; 'Omnem sapientiam Deus revelavit suis
the-book of-secrets all wisdom God revealed to-his
prophetis et justis et quibusdam aliis, quos praeelegit
prophets and to-the-just and to-certain others whom he-chose-beforehand
et illustravit spiritu divinae sapientiae, et dotavit eos
and illumined with-the-spirit of-divine wisdom and endowed them
dotibus scientiae. Ab istis enim sequentes philosophi
with-endowments of-knowledge from these for the-following philosophers
philosophiae principium et originem habuerunt et scripserunt
of-philosophy the-beginning and origin had and wrote
artium et scientiarum principia et secreta, quia in scriptis
of-the-arts and of-the-sciences the-principles and secrets because in the-writings
eorum nihil falsum nihil reprobandum invenitur, sed a
their nothing false nothing to-be-rejected is-found but by
sapientibus approbatum.' Et Averroes dicit super partem
the-wise approved and Averroes says on the-part
coeli et mundi, 'quod in tempore antiquorum ante
of-the-heaven and the-world that in the-time of-the-ancients before
Aristotelem et alios philosophos fuit philosophia completa,
Aristotle and other philosophers was philosophy complete
ad cujus completionem Aristoteles suo tempore aspirabat.'
to whose completion Aristotle in-his time aspired
Et apud Albumazar in majori introductorio et alibi, et
and in Albumazar in the-greater introductory and elsewhere and
penes aliquos habetur multipliciter, quod Noe et filii ejus
among some it-is-held manifoldly that Noah and the-sons his

multiplicaverunt philosophiam; et praecipue Sem praevaluit in
multiplied philosophy and especially Shem prevailed in
hac parte. Deinde post istos fuerunt viri... nomine vulgato.
this part then after these were men of-name made-common
Omnes philosophi et poetae majores et juniores fuerunt post
all philosophers and poets elder and younger were after
Noe et filios suos, et Abraham. Nam et Aristoteles et
Noah and the-sons his and Abraham for both Aristotle and
omnes consentiunt in hoc, quod primi philosophantes fuerunt
all agree in this that the-first philosophers were
Chaldaei et Aegyptii, unde adhaeret sententiis patrum
the-Chaldeans and Egyptians whence he-adheres to-the-opinions of-the-fathers
Chaldaeorum in undecimo Metaphysicae. Quia licet Noe et
Chaldean in the-eleventh of-the-Metaphysics because although Noah and
filii ejus docuerunt Chaldaeos, antequam Abraham docuit
the-sons his taught the-Chaldeans before Abraham taught
Aegyptios, tamen non fuit studium more scholastico ita
the-Egyptians yet not was study in-the-manner scholastic so
cito institutum, sed paulatim crevit ordo ejus et exercitium.
quickly instituted but little-by-little grew the-order its and exercise
Quatenus omnis igitur dubitatio tollatur in hac parte,
so-that every therefore doubt be-removed in this part
videamus decursum et seriem infidelium philosophorum, et
let-us-see the-course and series of-unbelieving philosophers and
poetarum, et omnium sollicitantium de studio sapientiali, et
poets and of-all those-busy about study wise and
percipiemus quod post Abraham et decessores suos, quibus
we-shall-perceive that after Abraham and predecessors his to-whom
a Deo sapientia revelata est, inventi sunt singuli qui aliquem
by God wisdom revealed is found are single-men who some
titulum adepti sunt. Nam quantumcunque volumus strictius
title attained have for however-much we-wish more-strictly

computare Zoroastres invenit artes Magicas, secundum
to-reckon Zoroaster found the-arts Magic according-to
Augustinum vicesimo primo de civitate Dei; et secundum
Augustine in-the-twenty first on the-city of-God and according-to
omnes auctores hoc vulgatum est; sed hic fuit Cham filius
all authors this made-common is but he was Ham the-son
Noe, ut Clemens, libro suo, et magister historiarum, et
of-Noah as Clement in-book his and the-master of-the-histories and
speculum historiale conscribunt. Deinde Io, quae postea Isis
the-mirror historical write then Io who afterward Isis
dicta est, dedit literas Aegyptiis, ut Augustinus dicit libro
called is gave letters to-the-Egyptians as Augustine says in-the-book
de civitate Dei octavo decimo. Ante hujus tempora non
on the-city of-God eighth and-tenth before of-this-one times not
fuit secundum Augustinum sapientiae studium literis et
was according-to Augustine of-wisdom study in-letters and
scriptis pertractatum, quamvis doctrinis Abraham instructi
writings thoroughly-treated although in-the-doctrines of-Abraham instructed
fuerunt. Et Isis, ut Augustinus ait, dicitur fuisse filia
they-were and Isis as Augustine says is-said to-have-been the-daughter
Machi, qui fuit primus rex Argivorum, qui regnavit primo
of-Inachus who was the-first king of-the-Argives who reigned in-the-first
anno Jacob et Esau nepotum Abrahae, sicut Augustinus et
year of-Jacob and Esau the-grandsons of-Abraham as Augustine and
historiae confitentur. Quanquam et alii voluerunt, quod Isis
the-histories confess although also others have-wished that Isis
veniret de Aethiopia in Aegyptum, et eis literas dedit,
came from Ethiopia into Egypt and to-them letters gave
et multa beneficia contulit, sicut recitat Augustinus. Sed
and many benefits conferred as relates Augustine but
tamen ante tempus Machi non fuit, ut in ordine regum
yet before the-time of-Inachus not she-was as in the-order of-the-kings

Aegypti in chronicis reperitur. Eodem tempore fuit Minerva
of-Egypt in the-chronicles is-found at-the-same time was Minerva
aetate virginali apparens, multorum, ut ait Augustinus libro
in-age virginal appearing of-many-things as says Augustine in-the-book
praedicto, inventrix, quae Pallas dicitur, et apud poetas Dea
aforesaid the-inventress who Pallas is-called and among the-poets Goddess
sapientiae nuncupatur, et Athena vocatur, atque Tritonia, ut
of-wisdom is-named and Athena is-called and Tritonia as
dicit Augustinus. Et Isidorus hunc locum esse in Africa, qui
says Augustine and Isidore this place to-be in Africa which
Trito vocatur, recitat octavo libro etymologiarum, et Plinius
Trito is-called relates in-the-eighth book of-the-etymologies and Pliny
quinto libro, a quo Pallas dicitur Tritonia et fuit tempore
in-the-fifth book from which Pallas is-called Tritonia and she-was in-the-time
diluvii Ogygis regis, quod illi ascribitur, quia in Achaia
of-the-flood of-Ogyges the-king which to-him is-ascribed because in Achaia
accidit tempore ejus, qui secundum Augustinum, Eusebium
it-happened in-the-time his who according-to Augustine Eusebius
et Hieronymum, et Solinum libro de mirabilibus mundi,
and Jerome and Solinus in-the-book on the-wonders of-the-world
fuit tempore Phoronei filii Machi. Regnavit autem Machus
was in-the-time of-Phoroneus the-son of-Inachus reigned moreover Inachus
quinquaginta annis, et Phoroneus filius ejus sexaginta, cujus
fifty years and Phoroneus the-son his sixty in-whose
tempore facta est repromissio Jacob, sicut patri suo, ut
time made is the-promise to-Jacob as to-father his as
dicit Augustinus. Et ideo Ogyges fuit tempore Jacob;
says Augustine and therefore Ogyges was in-the-time of-Jacob
unde Solinus dicit, diluvium primum in Achaia fuisse
whence Solinus says the-flood first in Achaia to-have-been
tempore Ogygis et Jacob patriarchae. Quod diluvium fuit
in-the-time of-Ogyges and of-Jacob the-patriarch which flood was

ante diluvium Deucalionis per 600 annos, ut idem narrat
before the-flood of-Deucalion by 600 years as the-same relates
Solinus. Nam ut Hieronymus et Eusebius narrant, regnante
Solinus for as Jerome and Eusebius relate with-reigning
Cecrope primo rege Atheniensium, sub quo Moyses eduxit
Cecrops the-first king of-the-Athenians under whom Moses led-out
filios Israel de Aegypto, fuit Deucalionis diluvium.
the-sons of-Israel from Egypt was of-Deucalion the-flood
Et sub Phoroneo moralis philosophia incepit apud infideles.
and under Phoroneus moral philosophy began among the-unbelievers
Nam Augustinus dicit, quod sub legum et judiciorum
for Augustine says that under of-laws and of-judgments
institutis Graecia clarior facta est. Sed post fuerunt
the-institutions Greece more-illustrious made is but afterward there-were
mores et jura vivendi; quod patet per inhibitionem
morals and rights of-living which is-plain through the-prohibition
sanguinis et licentiam de usu carnium post diluvium, et
of-blood and the-license about the-use of-meats after the-flood and
de emptione et venditione apud Abraham pro spelunca;
about buying and selling with Abraham for the-cave
atque ex sanctitate Abrahae et patrum suorum leges honestas
and from the-sanctity of-Abraham and of-fathers his laws honest
et sacras vivendi concludit ab eis fuisse edoctos. Et
and sacred of-living he-concludes by them to-have-been taught and
cum minus utiles scientias perfecerunt, non debuit tantorum
since less useful sciences they-perfected not ought of-so-great
virorum sapientia scientiam morum utilissimam negligere.
men the-wisdom the-science of-morals most-useful to-neglect
Deinde primus inter viros titulo majoris sapientiae doctor
then first among men by-the-title of-greater wisdom a-teacher
fuisse perhibetur, quia optimus sapientiae investigator
to-have-been is-reported because the-best of-wisdom investigator

fuit, Prometheus, quem poetae ferunt de luto formasse
he-was Prometheus whom the-poets report from clay to-have-formed
homines, cujus frater, ut dicit Augustinus, fuit Atlas magnus
men whose brother as says Augustine was Atlas the-great
astrologus; unde occasionem, ut Augustinus refert, fabula
astrologer whence the-occasion as Augustine relates the-fable
invenit, quod eum portare coelum finxerit, quamvis mons
found that him to-carry the-heaven it-feigned although a-mountain
ejus nomine nuncupatur cujus altitudine potius coeli
by-his name is-called by-whose height rather of-the-heaven
portatio vulgo videatur, qui in extremis Africae maritimis
the-carrying to-the-crowd may-seem which in the-extremes of-Africa maritime
prope Gades Herculis attollitur velut in caelum. Sed priores
near the-Gades of-Hercules is-raised as-if into heaven but earlier
fuerunt filii Noe et Abraham qui fuerunt periti astronomi,
were the-sons of-Noah and Abraham who were skilled astronomers
ut Josephus narrat et Isidorus tertio libro, et Clemens
as Josephus relates and Isidore in-the-third book and Clement
libro primo. Nam hi secundum Augustinum floruerunt,
in-book first for these according-to Augustine flourished
quando Moyses natus est. Et Isidorus concordat libro quinto
when Moses born is and Isidore agrees in-book fifth
dicens, quod Atlas fuit sub servitute filiorum Israel. Atlas
saying that Atlas was under the-servitude of-the-sons of-Israel Atlas
vero, ut dicit Augustinus, fuit avus maternus Hermetis
but as says Augustine was the-grandfather maternal of-Hermes
Mercurii majoris, qui magnarum artium peritus floruit et eas
Mercury the-greater who of-great arts skilled flourished and them
hominibus tradidit, propter quod eum tanquam Deum post
to-men handed-down because-of which him as-if a-God after
mortem venerati sunt. Et hic, ut dicit Augustinus octavo
death they-venerated have and he as says Augustine in-the-eighth

decimo libro, fuit tempore quo Moyses eduxit filios Israel;
and-tenth book was in-the-time in-which Moses led-out the-sons of-Israel
cujus nepos fuit Hermes Mercurius, qui ad doctrinam alterius
whose grandson was Hermes Mercury who for the-teaching of-the-other
est dictus Trismegistus, qui famosus fuit philosophus Aegypti,
is called Trismegistus who famous was philosopher of-Egypt
maxime in moralibus, sicut Augustinus docet octavo de
most in moral-matters as Augustine teaches in-the-eighth on
Civitate Dei. Et hic scripsit ad Asclepium, sicut patet in libro
the-City of-God and he wrote to Asclepius as is-plain in the-book
de divinitate, qui satis habetur, cujus Asclepii avus
on divinity which sufficiently is-had of-which Asclepius the-grandfather
fuit Aesculapius primus medicinae auctor apud infideles. Sed
was Aesculapius the-first of-medicine author among the-unbelievers but
tamen Isidorus dicit in tertio libro etymologiarum, quod
yet Isidore says in the-third book of-the-etymologies that
Apollo fuit pater Aesculapii, qui primus inter philosophos
Apollo was the-father of-Aesculapius who first among philosophers
infideles dicitur docuisse artem medicinae. Nam et patri
unbelieving is-said to-have-taught the-art of-medicine for also to-the-father
ascribitur medicina quantum ad prima documenta; sed filio
is-ascribed medicine as-far-as to the-first teachings but to-the-son
magis, qui hanc artem applicavit et certiori modo docuit.
more who this art applied and in-a-surer way taught
Nam Apollo per carmina et hujusmodi remedia processit,
for Apollo through charms and of-this-kind remedies proceeded
Aesculapius per veritatem experientiae, Isidorus dicit, et
Aesculapius through the-truth of-experience Isidore says and
creditur esse Apollo magnus, qui a poetis fingitur esse inter
he-is-believed to-be Apollo the-great who by the-poets is-feigned to-be among
Deos et dare responsa in templo Apollinis in Delphis,
the-Gods and to-give answers in the-temple of-Apollo at Delphi

unde vocatur Apollo Delphicus. Et tamen ante istos fuit
whence he-is-called Apollo Delphic and yet before these was
inaestimabilis gloria medicinae, secundum quod Aristoteles
the-inestimable glory of-medicine according-to what Aristotle
tangit in libro de regimine vitae, quam Adae et Enoch
touches in the-book on the-regimen of-life which to-Adam and Enoch
magis ascribit quam sequentibus philosophis. Et cum medicina
more he-ascribes than to-the-following philosophers and since medicine
magis sit necessaria homini quam multae aliae scientiae, non
more be necessary to-man than many other sciences not
est dubium quin filii Adae et Noe illam invenerunt,
it-is doubtful but-that the-sons of-Adam and Noah it found
quibus sapientiae plenitudo data fuit, et quibus concessum
to-whom of-wisdom the-fullness given was and to-whom granted
est tam diu vivere propter studium sapientiae perficiendum.
it-is so long to-live because-of the-study of-wisdom to-be-perfected

Capitulum x

CADMUS, THE HERCULESES, AND THE SIBYLS

The chronology continues under the judges of Israel: Cadmus brings letters to the Greeks, Amphion, Orpheus, and Linus sing, and there were three Apollos and three Herculeses. The Erythraean Sibyl, Hesiod, Archilochus, and Thales are dated against Troy and Romulus.

Post hoc, tempore Othonielis Judicis Israel, regnavit Cadmus
after this in-the-time of-Othniel the-Judge of-Israel reigned Cadmus
Thebaeus, qui primus dedit literas Graecis, ut in chronicis
the-Theban who first gave letters to-the-Greeks as in the-chronicles
Cluniacensibus edocetur. Et Beda in libro temporum juniori
of-Cluny is-taught and Bede in the-book of-times lesser

et caeteri concordant, quod sub Aoth judice Amphion
and the-others agree that under Ehud the-judge Amphion
musicus floruit, qui Aoth fuit proximus post Othonielem.
the-musician flourished which Ehud was next after Othniel
Et sub Barach fuit alius Apollo philosophus secundum
and under Barak was another Apollo a-philosopher according-to
Chronicam Cluniacensem, auctor medicinae, temporaneus
the-Chronicle of-Cluny an-author of-medicine contemporary
Herculi secundo, cujus facta celebrantur; sicut dicit
with-Hercules the-second whose deeds are-celebrated as says
Augustinus decimo octavo libro de Civitate Dei. Qui
Augustine in-the-tenth and-eighth book on the-City of-God which
Hercules in tempore Abimelech judicis Trojam devastavit, et
Hercules in the-time of-Abimelech the-judge Troy laid-waste and
pilas suas in India statuit, et in Gadibus columnas erexit, et
pillars his in India set-up and at Gades columns erected and
dolorem morbi non ferens seipsum tempore Jepthae judicis
the-pain of-disease not bearing himself in-the-time of-Jephthah the-judge
cremavit, ut per Augustinum decimo octavo libro, et
burned as through Augustine in-the-tenth and-eighth book and
dicta chronica confirmatur. De hoc Hercule secundo propter
the-said chronicle is-confirmed about this Hercules the-second because-of
hoc narravi, quia alius fuit Hercules prope tempus Mercurii
this I-have-related that another was Hercules near the-time of-Mercury
majoris, qui parum post eum fuit, ut narrat Augustinus, et
the-greater who a-little after him was as relates Augustine and
post eum fuit tertius, qui certamen Olympiacum constituit,
after him was a-third who the-contest Olympic established
quod intermissum filius ejus instauravit post excidium
which interrupted the-son his restored after the-destruction
Trojae anno 408, ut Solinus scribit. Unde multi decepti
of-Troy in-the-year 408 as Solinus writes whence many deceived

fuerunt, unum esse Herculem aestimantes, qui omnia fecerit,
were one to-be Hercules reckoning who all-things did
quae de pluribus scripta sunt.
which about several written are
Similiter erratum est de hoc philosopho Apolline. Nam
likewise erred it-is about this philosopher Apollo for
omnes, ut dicit Augustinus, aestimant ipsum fuisse illum,
all as says Augustine reckon him to-have-been that-one
qui pro Deo in Delos insula colebatur, tanquam unus et
who for a-God in Delos the-island was-worshiped as-if one and
idem esset; cujus contrarium ostenditur multis testimoniis.
the-same he-were of-which the-contrary is-shown by-many testimonies
Nam ille Apollo, qui in templis dabat testimonia, invenitur
for that Apollo who in the-temples gave testimonies is-found
saltem respondisse quando primo facta est civitas Athenarum,
at-least to-have-answered when first made is the-city of-Athens
ut Athena, quae est Minerva, pro Dea coleretur; et
that Athena who is Minerva for a-Goddess might-be-worshiped and
hic philosophus non potest esse, qui pro Deo Delphico
this philosopher not can to-be he-who for the-God Delphic
colebatur. Sed iste, de quo dicit Augustinus, fuit filius
was-worshiped but he about whom says Augustine was the-son
Latonae, cujus soror Diana. Et Isidorus tertio libro idem
of-Latona whose sister Diana and Isidore in-the-third book the-same
dicit. Similiter non videtur esse ille, de quo Hieronymus
says likewise not he-seems to-be he about whom Jerome
scribit in epistola ad Paulinum, quae bibliis praeponitur
writes in the-epistle to Paulinus which to-the-bibles is-prefixed
Latinorum; nam ille Hiarcum invenit in aureo throno sedentem
of-the-Latins for he Hiarchas found on a-golden throne sitting
et docentem, qui Hiarcus dicitur esse Abrachis astronomus,
and teaching which Hiarchas is-said to-be Hipparchus the-astronomer

qui post mortem Alexandri magni fuit, sicut docet Ptolemaeus
who after the-death of-Alexander the-great was as teaches Ptolemy
in Almagesti. Et ideo secundum hoc tres fuerunt Apollines,
in the-Almagest and therefore according-to this three were Apollos
sicut Hercules. Deinde sub Gideone fuerunt Orpheus et
as Hercules then under Gideon were Orpheus and
Linus, secundum quod Beda refert. Et hi, scilicet Amphion,
Linus according-to what Bede relates and these namely Amphion
Orpheus, et Linus, suo tempore dicti sunt poetae theologi,
Orpheus and Linus in-their time called are poets theological
secundum quod Augustinus dicit, eo quod Diis carmina
according-to what Augustine says by-this that for-the-Gods songs
faciebant; secundum autem Solinum Nicostrates mater
they-made according-to moreover Solinus Nicostrate the-mother
Evandri regis Romani dicta est a vaticinio Carmentis,
of-Evander the-king Roman called is from the-prophesying Carmentis
quae in Capitolino monte Romae habitavit, et Latinis
who on the-Capitoline hill of-Rome dwelt and to-the-Latins
primo literas dedit. Et haec, ut Beda refert, fuit tempore Jair
first letters gave and she as Bede relates was in-the-time of-Jair
judicis Israel; secundum tamen chronicam Cluniacensem fuit
the-judge of-Israel according-to yet the-chronicle of-Cluny she-was
tempore Judicis post Jair, transactis septemdecim annis. Sed
in-the-time of-the-Judge after Jair with-passed seventeen years but
de hoc non est cura quantum ad praesentem intentionem.
about this not there-is care as-far-as for the-present intention
Propter Sibyllas vero et maxime Erythraeam, quae omnes
because-of the-Sibyls but and most the-Erythraean who all
praedictos et praedictas philosophantes infideles longe
the-aforesaid-men and aforesaid-women philosophizing unbelievers far
supergressa est, oportet etiam nos aliqua certificare. Nam
surpassed has it-behooves also us some-things to-certify for

Augustinus refert octavo decimo de Civitate Dei, quod multi
Augustine relates in-the-eighth and-tenth on the-City of-God that many
auctores scripserunt eam fuisse tempore Trojani belli, et
authors wrote her to-have-been in-the-time of-the-Trojan war and
alii voluerunt eam fuisse tempore Romuli, et Achaz vel
others have-wished her to-have-been in-the-time of-Romulus and Ahaz or
Ezechiae regis Judae. Et excidium Trojae fuit ante Romulum
Hezekiah king of-Judah and the-destruction of-Troy was before Romulus
per quadringentos triginta annos. Nam Solinus probat Romam
by four-hundred thirty years for Solinus proves Rome
fuisse conditam Olympiade septima quadringentesimo
to-have-been founded in-the-Olympiad seventh in-the-four-hundredth
tricesimo tertio anno post bellum Trojanum, sicut docet
thirtieth third year after the-war Trojan as he-teaches
evidenter per Herculem et Picum filium suum et per
evidently through Hercules and Picus son his and through
alios. Et secundum Augustinum, octavo decimo de Civitate
others and according-to Augustine in-the-eighth and-tenth on the-City
Dei, vult quod Troja capta sit judicante Hebraeos Abdon.
of-God he-wishes that Troy taken is with-judging the-Hebrews Abdon
Deinde Hesiodus philosophus successit Homero ante Romam
then Hesiod the-philosopher succeeded Homer before Rome
conditam, ut ait Tullius in quaestionibus Tusculanis. Et
founded as says Tully in the-questions Tusculan and
postea Archilochus, regnante Romulo, sicut ibi describitur, et
afterward Archilochus with-reigning Romulus as there is-described and
tempore Achaz vel Ezechiae regis Judae. Et similiter regnaverunt
in-the-time of-Ahaz or Hezekiah king of-Judah and likewise reigned
Numitor et ejus nepos Romulus, et tunc cessavit regnum et
Numitor and his grandson Romulus and then ceased the-kingdom and
nomen Albanorum, et vocati sunt Romani reges. Et rex tunc
name of-the-Albans and called are Roman kings and the-king then

erat in Judaea Achaz, vel sicut alii putant, Ezechias; et sub
was in Judea Ahaz or as others think Hezekiah and under
eodem Romulo Thales Milesius fuisse perhibetur, qui fuit
the-same Romulus Thales the-Milesian to-have-been is-reported who was
unus de septem sapientibus, et primus secundum Augustinum.
one of the-seven wise-men and the-first according-to Augustine

Capitulum xi

THE SEVEN SAGES AND PYTHAGORAS

After the theological poets came the seven wise men under the captivity, Solon among them, and then the Italian school of Pythagoras, who first called himself a lover of wisdom. Bacon dates him and his master Pherecydes against Cyrus, Darius, and Ezra.

Nam post poetas theologos crevit sapientia, et auctores
for after the-poets theological grew wisdom and the-authors
sapientiae vocati sunt Sophi, i.e. sapientes; secundum tamen
of-wisdom called are Sophi that-is wise-men according-to yet
Bedam in libro temporum, et secundum Isidorum quinto
Bede in the-book of-times and according-to Isidore in-the-fifth
Etymologiarum, Thales fuit sub Josia, qui rerum naturas
of-the-Etymologies Thales was under Josiah who of-things the-natures
scrutatus est, et fuit astrologus. Tempore quo populus
searched has and was an-astrologer in-the-time in-which the-people
Hebraeorum, ut Augustinus refert, ductus est in captivitatem,
of-the-Hebrews as Augustine relates led is into captivity
alius de septem sapientibus apparuit, scilicet, Pittacus nomine,
another of the-seven wise-men appeared namely Pittacus by-name
et alii quinque fuerunt tempore captivitatis, quorum
and the-other five were in-the-time of-the-captivity of-whom

nomina sunt haec, Solon Atheniensis, Chilon Lacedaemonius,
the-names are these Solon the-Athenian Chilon the-Lacedaemonian
Periander Corinthius, Cleobulus Lydius, Bias Pierius. De his
Periander the-Corinthian Cleobulus the-Lydian Bias of-Priene of these
Solon dedit leges Atheniensibus, ad quas transferendas decem
Solon gave laws to-the-Athenians for which to-be-carried-over ten
viros populus Romanus misit, et vocantur leges duodecim
men the-people Roman sent and they-are-called the-laws of-the-twelve
tabularum, sicut scribit Isidorus quinto libro. Aliud vero genus
tables as writes Isidore in-the-fifth book another but kind
hominum sapientiae deditum post eos exortum est in lingua
of-men to-wisdom devoted after them arisen is in the-tongue
Graeca, quae tamen vocatur Italica, scilicet ex ea parte, quae
Greek which yet is-called Italian namely from that part which
Italia dicebatur, antiquitus Magna Graecia, et hi studuerunt
Italy was-called anciently Great Greece and these studied
in Italia licet Graeci, etiam in lingua Graeca. Et isti non
in Italy although Greeks also in the-tongue Greek and these not
voluerunt se vocari sapientes sed amatores sapientiae,
wished themselves to-be-called wise but lovers of-wisdom
quorum princeps fuit Pythagoras Samius a Samo insula;
of-whom the-chief was Pythagoras the-Samian from Samos the-island
a quo cum quaereretur, Quis esset, respondit, philosophus,
by whom when it-was-asked Who he-was he-answered a-philosopher
i.e. amator sapientiae: sicut dicit Augustinus octavo
that-is a-lover of-wisdom as says Augustine in-the-eighth
de Civitate Dei. Sed octavo decimo libro dicit, quod
on the-City of-God but in-the-eighth and-tenth book he-says that
Pythagoras apparuit eo tempore quo Judaeorum soluta est
Pythagoras appeared at-that time in-which of-the-Jews loosed is
captivitas, et secundum Tullium in libro primo quaestionum
the-captivity and according-to Tully in the-book first of-the-questions

Tusculanarum, Tarquinio Superbo regnante Romanis, qui fuit
Tusculan with-Tarquin the-Proud reigning over-the-Romans who was
septimus a Romulo, et ultimus rex Romanorum. Postquam
the-seventh from Romulus and last king of-the-Romans after
consules exorti sunt, venit in Italiam Pythagoras, et illam
consuls arisen have came into Italy Pythagoras and that
Magnam Graeciam tenuit cum honore, cum disciplina, cum
Great Greece held with honor with discipline with
auctoritate, et postea sic viguit Pythagoreorum nomen,
authority and afterward so flourished of-the-Pythagoreans the-name
ut nulli alii docti viderentur. Et Tarquinius, ut scribit
that no other-men learned seemed and Tarquin as writes
Beda, tempore Cyri regis Persarum, qui laxavit captivitatem
Bede in-the-time of-Cyrus king of-the-Persians who loosed the-captivity
Judaeorum, incepit regnare. Ac regnavit tempore Cambysis filii
of-the-Jews began to-reign and he-reigned in-the-time of-Cambyses son
ejus, et duorum fratrum magorum, et Darii, in cujus anno
his and of-the-two brothers magi and of-Darius in whose year
secundo templum aedificatum est. Et tunc clarus Pythagoras,
second the-temple built is and then famous Pythagoras
ut dicit Beda, habebatur, et Zorobabel, Aggaeus, Zacharias,
as says Bede was-held and Zerubbabel Haggai Zechariah
et Malachias prophetae claruerunt. Pythagoras quidem edoctus
and Malachi prophets shone-forth Pythagoras indeed taught
fuit a Pherecide Syro, ut dicit Tullius libro praedicto,
was by Pherecydes the-Syrian as says Tully in-the-book aforesaid
qui Pherecides primus animas hominum posuit immortales,
which Pherecydes first the-souls of-men set immortal
cujus tempora non certificantur nisi per tempus Pythagorae
whose times not are-certified except through the-time of-Pythagoras
discipuli sui; quamvis et Isidorus libro primo dicat, quod
disciple his although also Isidore in-book first say that

Pherecides scripsit historias tempore Esdrae, qui potuit forte
Pherecydes wrote histories in-the-time of-Ezra which could perhaps
esse versus finem vitae ipsius Pherecidis et in juventute
to-be toward the-end of-the-life of-the-very Pherecydes and in the-youth
Esdrae. Nam a tempore, quo dictus Pythagoras dicitur
of-Ezra for from the-time in-which the-said Pythagoras is-said
floruisse, fluxerunt triginta sex anni quibus regnavit
to-have-flourished flowed thirty six years in-which reigned
Darius, et decem quibus Xerxes, et septem menses quibus
Darius and ten in-which Xerxes and seven months in-which
Arthabas, et sex anni quibus Artaxerxes Longimanus,
Artabanus and six years in-which Artaxerxes Longhand
antequam Esdras ascendit de Babylonia in Jerusalem. Nam
before Ezra went-up from Babylon into Jerusalem for
septimo anno regni ejus, primo die mensis primi,
in-the-seventh year of-reign his on-the-first day of-the-month first
Esdras secundum Scripturas et chronicas profectus est.
Ezra according-to the-Scriptures and chronicles set-out has

Capitulum xii

FROM THALES TO PLATO

The Ionian succession runs from Thales through Anaximander, Anaximenes, Anaxagoras, and Archelaus to Socrates, who was a contemporary of Ezra. Plato studied in Egypt and with Archytas; Augustine denies that he heard Jeremiah, who lived a century earlier.

Haec autem duo genera philosophantium, scilicet Ionicum
these moreover two kinds of-those-philosophizing namely the-Ionic
et Italicum, ramificati sunt per multas sectas et varios
and the-Italic branched-out have through many sects and various

successores usque ad doctrinam Aristotelis, qui correxit et
successors up to the-teaching of-Aristotle who corrected and
mutavit omnium praecedentium positiones, et philosophiam
changed of-all the-preceding the-positions and philosophy
perficere conatus est. Successerunt vero Pythagoras, Archytas
to-perfect tried has there-succeeded but Pythagoras Archytas
Tarentinus, et Timaeus, inter alios maxime nominati. Sed
of-Tarentum and Timaeus among others most named but
praecipui philosophi, ut Socrates et Plato et Aristoteles, non
the-chief philosophers as Socrates and Plato and Aristotle not
descenderunt ex hac linea, immo vero Ionici et veri Graeci
descended from this line nay but Ionic and true Greeks
fuerunt; quorum primus fuit Thales Milesius. Quomodo
they-were of-whom the-first was Thales the-Milesian how
autem huic caeteri successerunt, ostendit Augustinus octavo
moreover to-him the-others succeeded shows Augustine in-the-eighth
libro de civitate Dei. Nam post Thaletem fuit primus
book on the-city of-God for after Thales was first
Anaximander ejus discipulus, cujus successor fuit Anaximenes,
Anaximander his disciple whose successor was Anaximenes
et hi duo fuerunt tempore Judaicae captivitatis. Augustinus
and these two were in-the-time of-the-Jewish captivity Augustine
et alii similiter concordant in hoc. Anaxagoras vero et
and others likewise agree in this Anaxagoras but and
Diogenes Anaximenis auditores fuerunt, et eidem successerunt
Diogenes of-Anaximenes hearers were and him succeeded
sub Dario Hydaspis, cujus anno secundo templum coepit
under Darius son-of-Hystaspes in-whose year second the-temple began
aedificari. Anaxagorae, ut dicit Augustinus, successit Archelaus
to-be-built to-Anaxagoras as says Augustine succeeded Archelaus
ejus discipulus, cujus auditor fuit Democritus secundum
his disciple whose hearer was Democritus according-to

Isidorum octavo libro. Et Socrates, secundum Augustinum
Isidore in-the-eighth book and Socrates according-to Augustine
octavo libro, Archelai fuisse discipulus perhibetur.
in-the-eighth book of-Archelaus to-have-been the-disciple is-reported
Socrates autem secundum Bedam natus est sub Arthaba, qui
Socrates moreover according-to Bede born is under Artabanus who
Persis regnavit mensibus septem, cui in idem regnum
over-the-Persians reigned months seven to-whom in the-same kingdom
successit Artaxerxes Longimanus, in cujus anno septimo
succeeded Artaxerxes Longhand in whose year seventh
Esdras descendit de Babylone, et ideo simul fuerunt Esdras
Ezra went-down from Babylon and therefore together were Ezra
et Socrates. Sed prior natu fuit Esdras, sicut ex nunc
and Socrates but elder by-birth was Ezra as from the-things-now
dictis claret. Et ideo dicit Augustinus decimo octavo
said is-clear and therefore says Augustine in-the-tenth and-eighth
libro de Civitate Dei, quod post Esdram fuit Socrates,
book on the-City of-God that after Ezra was Socrates
i.e. posterior natu. Nam quando floruit Esdras apud regem
that-is later by-birth for when flourished Ezra with the-king
Persarum et Judaeos, tunc Socrates exortus est. Hic Socrates
of-the-Persians and the-Jews then Socrates arose has this Socrates
dicitur pater philosophorum magnorum, quoniam Platonis
is-called the-father of-the-philosophers great since of-Plato
et Aristotelis magister fuit, a quibus omnes sectae
and of-Aristotle master he-was from whom all the-sects
philosophantium descenderunt. Plato quidem, secundum Bedam
of-those-philosophizing descended Plato indeed according-to Bede
in tractatu majori de temporibus, natus est sub Sogdiano, qui
in the-treatise greater on times born is under Sogdianus who
mensibus septem regnavit, cui successit Darius cognomine
months seven reigned whom succeeded Darius by-surname

Nothus, quanquam sub eodem Dario Beda in eodem tractatu
Nothus although under the-same Darius Bede in the-same treatise
de temporibus scribat natum esse Platonem. Sed in illo
on times writes born to-be Plato but in that
tractatu tempus Sogdiani, quia modicum fuit, computat
treatise the-time of-Sogdianus because short it-was he-reckons
sub regno Darii. Nam continuat eum cum Artaxerxe
under the-reign of-Darius for he-joins him with Artaxerxes
Longimano. Nascente vero Platone, Hippocrates medicus,
Longhand with-being-born but Plato Hippocrates the-physician
ut dicit Beda, habetur insignis, et hoc tempore Empedocles
as says Bede is-held distinguished and at-this time Empedocles
et Parmenides inventi sunt; sed Plato Socratica primo
and Parmenides found are but Plato Socratic-things first
addiscens, et ea quae Graeca fuerunt, Aegyptum petiit, ad
learning and those which Greek were Egypt sought to
Archytam Tarentinum, et Timaeum laboriosissime peragravit,
Archytas of-Tarentum and Timaeus most-laboriously traveled
ut dicit Hieronymus ad Paulinum. Et contra Rufinum scribit
as says Jerome to Paulinus and against Rufinus writes
Hieronymus, quod Plato post Academiam et innumerabiles
Jerome that Plato after the-Academy and innumerable
discipulos sentiens multum deesse suae doctrinae, venit ad
disciples feeling much to-be-lacking to-his teaching came to
Magnam Graeciam, ibique ab Archyta Tarentino eruditus,
Great Greece and-there by Archytas of-Tarentum instructed
elegantiam et leporem cum hujusmodi miscuit discipulis. Et
elegance and charm with of-this-kind mingled disciples and
iste Plato omnibus philosophis antefertur secundum sanctos,
this Plato to-all philosophers is-preferred according-to the-saints
quoniam ejus libri ad eorum manus devenerunt, et quia
since his books to their hands came and because

sententias de Deo pulchras, et de moribus et de vita
opinions about God beautiful and about morals and about life
futura multa conscripsit quae sacrae Dei sapientiae
future many he-wrote which with-the-sacred of-God wisdom
multum concordant, ut in morali Philosophia explanabo; et
much agree as in moral Philosophy I-shall-explain and
ab hoc aestimaverunt multi Catholici viri quod audiverat
from this reckoned many Catholic men that he-had-heard
Jeremiam prophetam in Aegypto. Nam Aegyptum petiit
Jeremiah the-prophet in Egypt for Egypt he-sought
propter sapientiam, et a barbaris sacerdotibus instructus est,
because-of wisdom and by barbarian priests instructed is
ut scribit Tullius libro Academicorum quinto. Sed tamen
as writes Tully in-the-book of-the-Academics fifth but yet
Augustinus dicit quod non fuit tempore Jeremiae. Nam
Augustine says that not he-was in-the-time of-Jeremiah for
Jeremias ut dicit nono de Civitate Dei, primo prophetavit
Jeremiah as he-says in-the-ninth on the-City of-God first prophesied
tempore quarti regis a Romulo qui vocatus est Ancus
in-the-time of-the-fourth king from Romulus who called is Ancus
Martius, et in tempore quinti regis scilicet Tarquinii Prisci.
Martius and in the-time of-the-fifth king namely Tarquin the-Elder
Sed Plato tunc non fuit; immo post tempus Jeremiae fere
but Plato then not was nay after the-time of-Jeremiah nearly
per annos centum, ut dicit Augustinus octavo libro, natus
by years a-hundred as says Augustine in-the-eighth book born
est Plato. Sed ut alii aestimabant invenit LXX interpretes
is Plato but as others reckoned he-found the-Seventy translators
a quibus instrueretur, sicut Augustinus dicit octavo
by whom he-might-be-instructed as Augustine says in-the-eighth
libro. Et Tullius libro de Senectute dicit quod Plato
book and Tully in-the-book on Old-Age says that Plato

mortuus est LXXXIº anno vitae suae, id est in fine
died has in-the-81st year of-life his that is at the-end
Artaxerxis qui Ochus dicebatur, ut scribit Beda.
of-Artaxerxes who Ochus was-called as writes Bede

Capitulum xiii

ARISTOTLE, AVICENNA, AND AVERROES

Aristotle heard Socrates and Plato, taught Alexander, and wrote a thousand books, but his philosophy lay hidden until Avicenna and Averroes recalled it. It grew among the Latins after Michael Scot, about 1230, yet very little of it is translated.

Ante vero mortem Socratis natus est Aristoteles, quoniam
before but the-death of-Socrates born is Aristotle since
per tres annos auditor ejus fuit, sicut in vita Aristotelis
for three years hearer his he-was as in the-life of-Aristotle
legitur. Et secundum Bedam natus est sub Artaxerxe,
is-read and according-to Bede born is under Artaxerxes
qui successit Dario Notho. Et in decimo septimo anno
who succeeded Darius Nothus and in the-tenth seventh year
vitae suae fuit auditor Socratis, et ipsum per tres annos
of-life his he-was the-hearer of-Socrates and him for three years
audivit, et post mortem Socratis factus est auditor Platonis
heard and after the-death of-Socrates made is the-hearer of-Plato
secundum Bedam, et ipsum audivit, viginti annis, ut in
according-to Bede and him heard twenty years as in
vita sua legitur. Et post mortem Platonis vixit quadraginta
the-life his is-read and after the-death of-Plato he-lived forty
tres annis, unde in universo non vixit nisi sexaginta sex
three years whence in all not he-lived except sixty six

annis, sicut ex dictis patet. Et hoc similiter patet in
years as from the-things-said is-plain and this likewise is-plain in
libro Censorini de die natali, quoniam ipse Censorinus
the-book of-Censorinus on the-day natal since the-very Censorinus
refert contra passionem mortalem per tres annos eum
relates against a-suffering mortal for three years him
magnitudine animi magis quam medicinae virtute luctatum
by-greatness of-mind more than of-medicine by-the-power struggled
fuisse. Hic Aristoteles magister Alexandri magni effectus duo
to-have this Aristotle master of-Alexander the-great made two
millia hominum misit per mundi regiones, ut naturas
thousand men sent through of-the-world the-regions that the-natures
rerum exquirerent, sicut Plinius narrat in Naturalibus
of-things they-might-search-out as Pliny relates in the-Natural-matters
octavo libro et mille libros composuit, ut in ejus
in-the-eighth book and a-thousand books he-composed as in his
vita legitur. Hic enim praecedentium philosophorum errores
life is-read he for of-the-preceding philosophers the-errors
evacuavit, et augmentavit philosophiam aspirans ad ejus
emptied and increased philosophy aspiring to its
complementum quod habuerint antiqui patriarchae, quamvis
completion which had-had the-ancient patriarchs although
non potuit singula perficere. Nam posteriores ipsum in
not he-could single-things to-perfect for later-men him in
aliquibus correxerunt, et multa ad ejus opera addiderunt,
some-things corrected and many-things to his works added
et adhuc addentur usque ad finem mundi; quia nihil est
and still shall-be-added up to the-end of-the-world because nothing is
perfectum in humanis inventionibus, ut in prioribus est
perfect in human inventions as in the-earlier-things it-is
expositum. Hunc natura firmavit, ut dicit Averroes in tertio
set-forth him nature strengthened as says Averroes in the-third

de Anima, ut ultimam perfectionem hominis inveniret. Hic
on the-Soul that the-final perfection of-man he-might-find he
omnium philosophorum magnorum testimonio praefertur
of-all philosophers great by-the-testimony is-preferred
philosophis, et philosophiae ascribendum est id quod ipse
to-philosophers and to-philosophy to-be-ascribed is that which he
affirmavit; unde nunc temporis autonomatice Philosophus
affirmed whence now of-time by-antonomasia the-Philosopher
nominatur, in auctoritate philosophiae, sicut Paulus in doctrina
he-is-named in the-authority of-philosophy as Paul in the-teaching
sapientiae sacrae apostoli nomine intelligitur. Quievit autem
of-wisdom sacred of-the-apostle name is-understood rested moreover
et siluit philosophia Aristotelis, pro majori parte aut
and fell-silent the-philosophy of-Aristotle for the-greater part either
propter occultationem exemplarium et raritatem, aut propter
because-of the-hiding of-copies and rarity or because-of
difficultatem, aut propter invidiam, aut propter guerras Orientis,
difficulty or because-of envy or because-of the-wars of-the-East
usque post tempora Mahometi, quando Avicenna et Averroes
up-to after the-times of-Mahomet when Avicenna and Averroes
et caeteri revocaverunt philosophiam Aristotelis in lucem
and the-others recalled the-philosophy of-Aristotle into the-light
plenam expositionis. Et licet alia Logicalia et quaedam alia
full of-exposition and although other Logical-works and certain others
translata fuerunt per Boetium de Graeco, tamen tempore
translated were through Boethius from Greek yet in-the-time
Michael Scoti, qui annis Domini 1230 transactis apparuit
of-Michael Scot who with-the-years of-the-Lord 1230 passed appeared
deferens librorum Aristotelis partes aliquas de Naturalibus
bringing of-the-books of-Aristotle parts some about Natural
et Metaphysicis cum expositoribus authenticis, magnificata
and Metaphysical-matters with expositors authentic magnified

est philosophia Aristotelis apud Latinos. Sed respectu
is the-philosophy of-Aristotle among the-Latins but in-respect
multitudinis et magnitudinis suae sapientiae in mille
of-the-multitude and greatness of-his wisdom in a-thousand
tractatibus comprehensae, valde modicum adhuc in linguam
treatises comprehended very little still into the-tongue
Latinam est translatum, et minus est in usu vulgi
Latin is translated and less is in use of-the-crowd
studentium. Avicenna quidem praecipuus imitator et expositor
of-students Avicenna indeed the-chief imitator and expositor
Aristotelis, et complens philosophiam secundum quod ei
of-Aristotle and completing philosophy according-to what to-him
fuerit possibile, triplex volumen condidit philosophiae, ut
was possible a-threefold volume founded of-philosophy as
ipse dicit in prologo libri Sufficientiae; unum vulgatum
he says in the-prologue of-the-book of-Sufficiency one made-common
juxta communes sententias philosophorum Peripateticorum,
according-to the-common opinions of-the-philosophers Peripatetic
qui sunt de secta Aristotelis; aliud vero secundum puram
who are of the-sect of-Aristotle another but according-to the-pure
veritatem Philosophiae, quae non timet ictus lancearum
truth of-Philosophy which not fears the-blows of-the-lances
contradicentium, ut ipse asserit; tertium vero fuit cum
of-those-contradicting as he asserts the-third but was with
termino vitae suae, in quo exposuit priora, secretiora
the-term of-life his in which he-set-forth earlier more-secret-things
naturae et artis recolligens. Sed de his voluminibus duo non
of-nature and of-art gathering-again but of these volumes two not
sunt translata; primum autem secundum aliquas partes habent
are translated the-first moreover according-to some parts have
Latini, quod vocatur Assephae, i.e. liber sufficientiae.
the-Latins which is-called Assephae that-is the-book of-sufficiency

Post hunc venit Averroes, homo solidae sapientiae, corrigens
after him came Averroes a-man of-solid wisdom correcting
dicta priorum et addens multa, quamvis corrigendus
the-sayings of-the-earlier and adding many-things although to-be-corrected
sit in aliquibus, et in multis complendus.
he-be in some-things and in many to-be-completed

Capitulum xiv

THE PHILOSOPHERS LEARNED FROM THE PROPHETS

Christians should use philosophy for divine things, since the philosophers taught God, the Trinity, angels, the resurrection, and the lawgiver. They had these truths from the books of the patriarchs and prophets, which Plato and Avicenna read.

Ex his sequitur necessario, quod nos Christiani debemus uti
from these follows necessarily that we Christians ought to-use
philosophia in divinis, et in philosophicis multa assumere
philosophy in divine-things and in philosophical-things many to-take-up
theologica, ut appareat quod una sit sapientia in utraque
theological that it-may-appear that one be the-wisdom in both
relucens. Quam necessitatem voluero certificare, non
shining which necessity I-shall-have-wished to-certify not
solum propter unitatem sapientiae, sed propter quod inferius
only because-of the-unity of-wisdom but because-of what below
tangam, oportet nos in philosophia revolvere sententias
I-shall-touch it-behooves us in philosophy to-turn-over the-opinions
fidei et theologiae magnificas quas reperimus in libris
of-faith and of-theology magnificent which we-find in the-books
philosophorum et in partibus philosophiae; ut non sit
of-the-philosophers and in the-parts of-philosophy so-that not it-be

mirum quod in philosophia tangam sacratissimas veritates,
wonderful that in philosophy I-touch the-most-sacred truths
quoniam philosophis Deus concessit multas sapientiae
since to-the-philosophers God granted many of-wisdom
suae veritates. Oportet igitur ut trahatur philosophiae
his truths it-behooves therefore that be-drawn of-philosophy
potestas ad sacram veritatem quantum possumus; nam valor
the-power to sacred truth as-much-as we-can for the-value
philosophiae aliter non lucescit. Nam philosophia secundum
of-philosophy otherwise not shines for philosophy according-to
se considerata nullius utilitatis est. Philosophi vero infideles
itself considered of-no utility is the-philosophers but unbelieving
damnati sunt, 'et cum cognoverunt Dominum, non sicut
damned are and when they-knew the-Lord not as
Dominum glorificaverunt et ideo stultificati sunt et
Lord they-glorified and therefore made-foolish they-are and
evanuerunt a cogitationibus suis.' Et ideo philosophia non
vanished in thoughts their and therefore philosophy not
potest aliquid dignitatis habere, nisi quantum de ea requirit
can any of-dignity to-have except as-much-as of it requires
Dei sapientia. Totum enim residuum est erroneum et inane,
of-God the-wisdom all for the-remainder is erroneous and empty
et propter hoc dicit Alpharabius in libro de scientiis, quod
and because-of this says Alfarabi in the-book on the-sciences that
sicut puer indoctus se habet ad hominem sapientissimum
as a-boy untaught himself holds to a-man most-wise
in philosophia sic homo talis ad sapientiam Dei. Praeterea
in philosophy so a-man such to the-wisdom of-God moreover
semper crescere potest in hac vita studium sapientiae, quia
always to-grow can in this life the-study of-wisdom because
nihil est perfectum in humanis inventionibus. Quapropter
nothing is perfect in human inventions wherefore

antiquorum defectus deberemus nos posteriores supplere, quia
of-the-ancients the-defects we-ought we the-later to-supply because
introivimus in labores eorum, per quos, nisi simus asini,
we-have-entered into the-labors of-them through whom unless we-be asses
possumus ad meliora excitari; quia miserrimum est semper
we-can to better-things to-be-roused because most-wretched it-is always
uti inventis, et nunquam inveniendis, ut dicit Boetius, et
to-use things-found and never things-to-be-found as says Boethius and
probatum est efficaciter superius suo loco. Item Christiani
proved it-is effectively above in-its place likewise Christians
debent ad suam professionem quae sapientia Dei est
ought to their profession which the-wisdom of-God is
caetera pertractare, et vias philosophorum infidelium
the-other-things to-treat-thoroughly and the-ways of-the-philosophers unbelieving
complere; non solum quia posteriores sumus, et debemus
to-complete not only because later we-are and ought
addere ad eorum opera, sed ut cogamus sapientiam
to-add to their works but that we-may-compel the-wisdom
philosophorum nostrae deservire. Nam hoc philosophi infideles
of-the-philosophers to-our-own to-serve for this the-philosophers unbelieving
faciunt ipsa veritate coacti in quantum eis datum
do by-the-very truth compelled in as-much-as to-them given
est; nam totam philosophiam reducunt ad divina; ut ex
it-is for the-whole philosophy they-bring-back to divine-things as from
libris Avicennae in Metaphysicae et Moralibus, et per
the-books of-Avicenna in the-Metaphysics and Morals and through
Alpharabium et Senecam et Tullium, et per Aristotelem
Alfarabi and Seneca and Tully and through Aristotle
patet; nam omnia reducunt ad Deum, sicut exercitus ad
is-plain for all-things they-bring-back to God as an-army to

principem, inferentes de angelis et aliis multis, quoniam
the-prince inferring about angels and other many-things since
principales articuli fidei reperiuntur in eis.
the-principal articles of-faith are-found in them
Nam ut in Moralibus exponetur, Deum esse docent, et
for as in the-Morals shall-be-set-forth God to-be they-teach and
quod sit unus in esse, infinitae potentiae et sapientiae et
that he-be one in being of-infinite power and wisdom and
bonitatis, trinis in personis, Pater, et Filius et Spiritus
goodness three in persons the-Father and the-Son and the-Spirit
Sanctus, qui omnia creavit ex nihilo; et de Domino Jesu
Holy who all-things created from nothing and about the-Lord Jesus
Christo et de beata virgine multa tangunt. Similiter
Christ and about the-blessed virgin many-things they-touch likewise
de Antichristo, atque de angelis et custodia hominum
about Antichrist and about angels and the-guarding of-men
per eos, necnon de resurrectione mortuorum, et de
through them and-also about the-resurrection of-the-dead and about
judicio futuro, et de vita futurae felicitatis quam Deus
the-judgment future and about the-life of-future happiness which God
promisit obedientibus sibi, et de miseria futura, quam
has-promised to-those-obeying him and about the-misery future which
proponit inferre his qui mandata ejus non observant.
he-purposes to-bring on-those who the-commands his not observe
Scribuntque innumerabilia de morum honestate, de legum
and-they-write innumerable-things about of-morals the-honesty about of-laws
gloria, de legislatore qui debet accipere legem a Deo
the-glory about the-lawgiver who ought to-receive the-law from God
per revelationem, qui sit mediator Dei et hominum,
through revelation who is-to-be the-mediator of-God and of-men
et vicarius Dei in terra, et Dominus terreni mundi,
and the-vicar of-God on earth and the-Lord of-the-earthly world

de quo cum probatum fuerit quod recepit legem
of whom when proved it-shall-have-been that he-received the-law
a Deo, ei credendum sit in omnibus, exclusa omni
from God him to-be-believed it-is in all-things with-excluded all
dubitatione et haesitatione, qui debet totum genus humanum
doubt and hesitation who ought the-whole race human
ordinare in cultu Dei et legibus justitiae et pacis, et
to-order in the-worship of-God and the-laws of-justice and of-peace and
in virtutum exercitio propter reverentiam Dei ac futuram
in of-virtues the-exercise because-of reverence of-God and future
felicitatem; et quod idolorum cultura destrui debet.
happiness and that of-idols the-worship to-be-destroyed ought
Haec et his similia habuerunt philosophi. In libris enim
these and to-these like-things had the-philosophers in the-books for
eorum hujusmodi reperimus, sicut probatio certa docebit
their of-this-kind we-find as proof certain shall-teach
in sequentibus, et quilibet potest experiri qui vult libros
in the-following-things and anyone can to-test who wishes the-books
philosophorum perlegere; et negare non possumus quin
of-the-philosophers to-read-through and to-deny not we-can but-that
scripta sunt ab eis, undecunque hujusmodi receperunt. Nec
written they-are by them from-wherever of-this-kind they-received nor
mirandum est quod philosophi talia scribant; nam omnes
to-be-wondered-at is-it that the-philosophers such-things write for all
philosophi fuerunt post patriarchas et prophetas, sicut prius
the-philosophers were after the-patriarchs and prophets as earlier
de hoc facta est consideratio in suo loco; et legerunt libros
about this made is the-consideration in its place and they-read the-books
prophetarum et patriarcharum qui sunt in sacro textu,
of-the-prophets and patriarchs which are in the-sacred text
et similiter alios libros, quos fecerunt tangentes Christi
and likewise other books which they-made touching of-Christ

mysteria ut in libro Enoch et in testamento patriarcharum
the-mysteries as in the-book of-Enoch and in the-testament of-the-patriarchs
in libro Esdrae, 3º, 4º, 5º, et in multis aliis libris de
in the-book of-Ezra 3rd 4th 5th and in many other books of
quorum aliquibus sit mentio in sacro textu ut de libris
which some there-be mention in the-sacred text as about the-books
Nathan, Samuelis, et Abdon prophetarum. In hujusmodi
of-Nathan of-Samuel and of-Abdon the-prophets in of-this-kind
enim libris tanguntur expresse articuli fidei, et longe
for books are-touched expressly the-articles of-faith and far
expressius quam in Canone Scripturae. Nam praeter caeteros
more-expressly than in the-Canon of-Scripture for besides the-other
libros liber de testamentis patriarcharum ostendit omnia,
books the-book on the-testaments of-the-patriarchs shows all-things
quae de Christo impleta sunt. Quilibet enim patriarcha
which about Christ fulfilled are each for patriarch
in morte praedicavit filiis suis et tribui suae, et praedixit
in death preached to-sons his and to-tribe his and foretold
eis ea quae de Christo tenenda sunt, sicut manifestum
to-them those which about Christ to-be-held are as manifest
est ex libro suo. Et hi libri licet non sint in Canone,
it-is from the-book his and these books although not they-be in the-Canon
tamen sancti et sapientes Graeci et Latini usi sunt eis
yet the-saints and wise Greek and Latin used have them
a principio Ecclesiae. Nam beatus Judas de hoc Enoch
from the-beginning of-the-Church for blessed Jude from this Enoch
accepit auctoritatem, et Augustinus decimo de Civitate Dei,
took authority and Augustine in-the-tenth on the-City of-God
multum fundatur super illum librum, ut ostendatur quod
much is-founded upon that book that it-may-be-shown that
primo fuit sapientia apud sanctos quam apud philosophos, et
first was wisdom among the-saints than among the-philosophers and

ait quod jam propter nimiam antiquitatem ille liber non
he-says that now because-of excessive antiquity that book not
est in auctoritate, quam propter aliquid aliud. De libris
is in authority rather-than because-of anything other about the-books
autem aliis manifestum est quod in usu sanctorum et
moreover others manifest it-is that in the-use of-the-saints and
sapientum antiquorum sunt propter hoc quod planas veritates
of-the-wise ancient they-are because-of this that plain truths
de Christo continere noscimus. Philosophi igitur curiosi et
about Christ to-contain we-know the-philosophers therefore curious and
diligentes in studio sapientiae peragrarunt regiones diversas, ut
diligent in the-study of-wisdom traveled-through regions diverse that
sapientiam inquirerent, et libros sanctorum perlegerunt, et
wisdom they-might-inquire and the-books of-the-saints read-through and
didicerunt ab Hebraeis multa. Nam Avicenna in radicibus
learned from the-Hebrews many-things for Avicenna in the-roots
moralis philosophiae recitat verba Esaiae de vita aeterna,
of-moral philosophy recites the-words of-Isaiah about life eternal
dicens illam esse quam oculus non vidit, nec auris audivit,
saying it to-be that-which the-eye not has-seen nor the-ear has-heard
et recitat, Eleemosyna tollit peccatum, sicut propheta
and he-recites Almsgiving takes-away sin as the-prophet
veritatis dicit, scilicet Tobias. Et Augustinus vult decimo
of-truth says namely Tobias and Augustine wishes in-the-tenth
octavo de Civitate Dei, quod Plato legerat librum Geneseos,
and-eighth on the-City of-God that Plato had-read the-book of-Genesis
propter creationem mundi quam posuit similem ei quae
because-of the-creation of-the-world which he-posited like to-that which
ibi describitur. Et quod legis librum legit, videlicet Exodi,
there is-described and that of-the-law the-book he-read namely of-Exodus
propter nomen Dei quod ibi ponitur, scilicet, Ego sum qui
because-of the-name of-God which there is-placed namely I am who

sum. Nam hoc usus est Plato, et alibi non potuit invenire,
am for this used has Plato and elsewhere not could to-find
ut dicit Augustinus. Et praeter sacros libros prophetales
as says Augustine and besides the-sacred books prophetic
composuerunt libros philosophiae; immo totam philosophiam
composed books of-philosophy nay the-whole philosophy
his perfecerunt. Et quod philosophi non habuerunt nisi
with-these they-perfected and that the-philosophers not it-had except
ab eis, ostensum est in praecedentibus evidenter, et quia
from them shown it-is in the-preceding-things evidently and because
una est sapientia, quae sufficit humano generi; ideo sancti
one is the-wisdom which suffices for-the-human race therefore the-saints
in libris philosophicis miscuerunt divina multa cum aliis,
in books philosophical mingled divine-things many with others
quantum potuit philosophia recipere. Et propterea propter
as-much-as could philosophy to-receive and therefore because-of
istos libros philosophicos sanctorum multa perceperunt
these books philosophical of-the-saints many-things perceived
philosophi de divinis veritatibus.
the-philosophers about divine truths

Capitulum xv

THE SIBYLS FORETOLD CHRIST

God gave the philosophers greater truths for our sake, and the ten Sibyls proclaimed Christ's passion and the judgment, as Augustine records. Bacon quotes their acrostic on the signs of judgment and tells of a buried man and a Saracen who confessed Christ.

Praeterea cum philosophi fuerunt dediti veritatibus et omni
moreover since the-philosophers were devoted to-truths and to-all
vitae bonitati, contemnentes divitias, delicias, et honores,
of-life goodness despising riches delights and honors
aspirantes ad futuram felicitatem quantum potuit humana
aspiring to future happiness as-far-as could human
fragilitas, immo victores effecti humanae naturae, sicut
frailty nay victors made of-human nature as
Hieronymus scribit de Diogene in libro contra Jovinianum,
Jerome writes about Diogenes in the-book against Jovinian
non est mirum, si Deus, qui in his minoribus illuminavit,
not it-is wonderful if God who in these lesser-things illumined
daret eis alia lumina veritatum majorum. Et si non
should-give to-them other lights of-truths greater and if not
principaliter propter eos, tamen propter nos, ut eorum
principally because-of them yet because-of us that by-their
persuasionibus mundus disponeretur ad fidem. Et ad hoc
persuasions the-world might-be-disposed to faith and to this
facit quod Sibyllae multae inventae sunt, scilicet decem; sicut
it-makes that Sibyls many found are namely ten as
omnes sancti concordant, et Augustinus decimo octavo de
all the-saints agree and Augustine in-the-tenth and-eighth on
Civitate Dei, et Isidorus libro Etymologicorum septimo.
the-City of-God and Isidore in-the-book of-the-Etymologies seventh

Necnon historiae et philosophiae et poetae concordant
and-also the-histories and philosophies and poets agree
universaliter in his Sibyllis. Sed certum est eas recitasse
universally on these Sibyls but certain it-is them to-have-recited
divina, et ea quae de Christo habentur et de judicio
divine-things and those which about Christ are-held and about the-judgment
futuro, et hujusmodi. Ergo multo magis probabile est
future and of-this-kind therefore much more probable it-is
quod philosophi sapientissimi et optimi a Deo receperunt
that the-philosophers wisest and best from God received
hujusmodi veritates. Quod vero Sibyllae locutae sunt praeclare
of-this-kind truths that but the-Sibyls spoken have splendidly
veritates divinas, manifestum est per sanctos et alios,
truths divine manifest it-is through the-saints and others
et sufficit recitare quod Augustinus dicit decimo octavo
and it-suffices to-recite what Augustine says in-the-tenth and-eighth
de Civitate Dei. 'Dixerunt igitur istae mulieres hujusmodi
on the-City of-God said therefore these women of-this-kind
sermones; dabunt Deo alapas manibus incestis, imputato
speeches they-shall-give to-God blows with-hands unchaste with-a-befouled
ore exspuent venenatos sputus; dabit vero ad verbera
mouth they-shall-spit-out poisoned spittle shall-give but to the-lashes
simpliciter suum dorsum, colaphos accipiens tacebit, et
simply his back buffets receiving he-shall-be-silent and
corona spinea coronabitur. Ad cibum autem fel, et ad
with-a-crown thorny shall-be-crowned for food moreover gall and for
potum acetum dederunt. Insipiens gens, Dominum tuum non
drink vinegar they-gave foolish nation Lord your not
intellexisti ludentem mortalium mentibus, sed spinis
you-have-understood playing of-mortals with-the-minds but with-thorns
coronasti, et horridum fel miscuisti. Templi vero velum
you-have-crowned and horrid gall you-have-mingled of-the-temple but the-veil

scinditur, et medio die nox erit tenebrosa tribus horis, et
is-rent and at-mid day night shall-be dark for-three hours and
morte morietur tribus diebus, somno suscepto.' Et iterum
by-death he-shall-die three days with-sleep taken-up and again
metrice dixit Sibylla, 'Judicii signum, tellus sudore madescet,
in-meter said the-Sibyl of-judgment the-sign the-earth with-sweat shall-grow-wet
Ex coelo rex adveniet per secla futurus, Scilicet in carne
From heaven the-king shall-come through the-ages to-be Namely in flesh
praesens ut judicet orbem. Unde Deum cernent incredulus
present that he-may-judge the-world whence God shall-see the-unbelieving
atque fidelis, Celsum cum sanctis ejus jam termino in ipso.
and the-faithful Lofty with the-saints his now at-the-term in itself
Sic animae cum carne aderunt, quas judicet ipse. Exuret
so souls with the-flesh shall-be-present which may-judge he-himself shall-burn
terras ignis pontumque polumque; Sanctorum sed enim
the-lands fire and-the-sea and-the-sky Of-the-saints but for
cunctae lux libera carni Tradetur, sontes aeternum flamma
to-all light free to-the-flesh Shall-be-given the-guilty eternally the-flame
cremabit. Actus occultos retegens tunc quisque loquetur
shall-burn deeds hidden uncovering then each shall-speak
Secreta, atque Deus reserabit pectora luci. Eripitur solis
Secret-things and God shall-unlock the-breasts to-the-light is-snatched of-the-sun
jubar et chorus interit astris: Solvetur coelum,
the-radiance and the-chorus perishes to-the-stars shall-be-dissolved the-heaven
lunaris splendor abibit. Dejiciet colles, valles extollet
the-lunar splendor shall-depart he-shall-cast-down hills the-valleys he-shall-raise
ab imo. Sic pariter fontes torrentur, fluminaque igni,
from the-bottom so equally the-fountains are-parched and-the-rivers by-fire
Tartareumque Chaos monstrabit terra dehiscens, Excidet
And-the-Tartarean Chaos shall-show the-earth gaping Shall-fall
e coelis ignisque et sulphuris amnis.'
from the-heavens both-fire and of-sulfur a-river

Si igitur mulierculae fragiles hujusmodi dixerunt, longe magis
if therefore little-women frail such-things said far more
credendum philosophos sapientissimos hujusmodi gustasse
to-be-believed the-philosophers wisest of-this-kind to-have-tasted
veritates. Et Augustinus vult decimo octavo de Civitate
truths and Augustine wishes in-the-tenth and-eighth on the-City
Dei, alios percepisse Dei veritatem, quam illi qui de linea
of-God others to-have-perceived of-God the-truth than those who from the-line
Abraham usque ad Christum et deinceps descenderunt. Nam
of-Abraham up to Christ and thereafter descended for
Job scivit resurrectionem et Dei veritates. Et in chronicis
Job knew the-resurrection and of-God the-truths and in the-chronicles
Eusebii legitur, quod Irene et Constantino imperantibus
of-Eusebius it-is-read that with-Irene and Constantine ruling
fuit cadaver effossum, in quo inveniebatur scriptura haec,
was a-corpse dug-up in which was-found writing this
'Credo in Christum; sub Irene et Constantino iterum videbit
I-believe in Christ under Irene and Constantine again shall-see
me Sol.' Et nunc tempore Domini Alexandri Papae quarti
me the-Sun and now in-the-time of-the-Lord Alexander Pope the-fourth
Saracenus in Borea mundum contemnens, vacans in lege
a-Saracen in the-North the-world despising being-free in law
sua Deo et virtuti et contemplationi alterius vitae, recepit
his for-God and virtue and contemplation of-another life received
visitationem angelicam et consilium ut converteretur ad
a-visitation angelic and counsel that he-should-be-converted to
fidem Christi, et baptizatus est. Hoc Domino Alexandro
the-faith of-Christ and baptized is this to-the-Lord Alexander
notum est et multis aliis, et adhuc recolunt quamplures.
known is and to-many others and still recall very-many

Capitulum xvi

METAPHYSICS POINTS BEYOND PHILOSOPHY

Metaphysics shows that there must be a science beyond philosophy, which the philosophers call theology. They sought the sect of salvation, and moral philosophy can prove the faith's principles to unbelievers, who would deny any argument drawn from Scripture.

Potest hoc idem adhuc etiam ostendi per proprietates
can this same still also to-be-shown through properties
duas metaphysicae. Nam haec scientia est de illis, quae
two of-metaphysics for this science is about those which
omnibus rebus et scientiis conveniunt, et ideo ostendit
to-all things and sciences belong and therefore it-shows
numerum scientiarum, et quod oportet esse aliam scientiam
the-number of-the-sciences and that it-behooves to-be another science
ultra philosophiam, cujus proprietates tangit in universali;
beyond philosophy whose properties it-touches in universal
licet in particulari non posset eam assignare. Scit enim
although in particular not it-could it to-assign knows for
philosophia suas imperfectiones, et quod deficit a plena
philosophy its imperfections and that it-falls-short of the-full
cognitione eorum quae maxime sunt cognoscenda, sicut
knowledge of-those which most are to-be-known as
Aristoteles docet in Metaphysica; et Avicenna similiter, ut
Aristotle teaches in the-Metaphysics and Avicenna likewise as
tactum est superius. Et propter hoc devenit philosophia ad
touched it-is above and because-of this comes philosophy to
inveniendam scientiam altiorem, quam dicit esse scientiam
finding a-science higher which it-says to-be the-science
divinorum, quam Theologiam perfectam vocant philosophi, et
of-divine-things which Theology perfect call the-philosophers and

ideo philosophia elevat se ad scientiam divinorum. Item
therefore philosophy raises itself to the-science of-divine-things likewise
solliciti fuerunt philosophi super omnia inquirere sectam
solicitous were the-philosophers above all-things to-inquire-into the-sect
in qua esset salus hominis, et dant modos probandi
in which should-be the-salvation of-man and they-give ways of-proving
hic praeclaros, sicut ex moralibus manifestum est. Et
here splendid as from the-morals manifest it-is and
invenerunt certitudinaliter, quod aliqua debet esse secta fidelis
they-found with-certainty that some ought to-be a-sect faithful
et sufficiens mundo, cujus proprietates assignant, quae non
and sufficient for-the-world whose properties they-assign which not
possunt reperiri nisi in secta Christi, ut probatur suis locis,
can to-be-found except in the-sect of-Christ as is-proved in-their places
et ostenditur quod de bonitate Dei est de necessitate humana
and it-is-shown that of the-goodness of-God it-is of necessity human
quod sciatur haec secta fidelis. Sed non potest hoc probari
that be-known this sect faithful but not can this to-be-proved
infidelibus per legem Christi, nec per auctores sacros, quia
to-unbelievers through the-law of-Christ nor through the-authors sacred because
ex lege disputationis possunt negari omnia quae in lege
by the-law of-disputation can to-be-denied all-things which in the-law
Christi sunt, sicut Christiani negant ea quae in aliis legibus
of-Christ are as Christians deny those which in other laws
continentur. Et etiam quia Christum negant, non est mirum,
are-contained and also because Christ they-deny not it-is wonderful
si auctores Christianorum negent. Persuasio autem fidei
if the-authors of-the-Christians they-deny the-persuasion moreover of-faith
necessaria est; sed non potest hoc esse nisi duobus modis, aut
necessary is but not can this to-be except in-two ways either
per miracula quae sunt supra fideles et infideles, de quibus
through miracles which are above the-faithful and unbelievers about which

nullus potest praesumere; aut per viam communem fidelibus
no-one can to-presume or through a-way common to-the-faithful
et infidelibus; sed hoc non est nisi per philosophiam.
and unbelievers but this not is except through philosophy
Ergo philosophia habet dare probationes fidei Christianae.
therefore philosophy has to-give proofs of-the-faith Christian
Articuli vero hujus fidei sunt principia propria theologiae;
the-articles but of-this faith are the-principles proper of-theology
ergo philosophia habet descendere ad probationes principiorum
therefore philosophy has to-descend to the-proofs of-the-principles
theologiae, licet minus profunde quam ad principia aliarum
of-theology although less deeply than to the-principles of-other
scientiarum. Et hoc modo supponatur ex hac ratione, donec
sciences and this for-now let-it-be-supposed from this reason until
veniatur ad probationem sectarum. Nam ibi ostendetur quod
one-come to the-proof of-the-sects for there it-shall-be-shown that
moralis philosophia efficacius theologia deservit in hac parte,
moral philosophy more-effectively theology serves in this part
et ideo licet secundum veritatem hujusmodi sunt theologica,
and therefore although according-to truth of-this-kind are theological
nihilominus tamen sunt philosophica, sed propter theologiam.
nonetheless yet they-are philosophical but because-of theology

Capitulum xvii

CHRISTIAN PHILOSOPHY MUST BE COMPLETED

Speculative philosophy serves moral philosophy, and among Christians moral science is theology. Christian philosophers should add to the unbelievers' philosophy every truth common to faith and reason, gathering them from the saints and the philosophers alike.

Praeterea tota philosophia speculativa ordinatur in finem
moreover the-whole philosophy speculative is-ordered to end
suum, qui est philosophia moralis. Et quia finis imponit
its which is philosophy moral and because the-end imposes
necessitatem eis, quae sunt ad finem ut Aristoteles dicit
necessity on-those which are for the-end as Aristotle says
secundo Physicorum, ideo philosophia speculativa semper
in-the-second of-the-Physics therefore philosophy speculative always
aspirat ad finem suum, et erigit se ad eum, et quaerit
aspires to end its and raises itself to it and seeks
vias utiles in ipsum, et propter hoc potest philosophia
ways useful toward it and because-of this can philosophy
speculativa praeparare principia moralis philosophiae. Sic
speculative to-prepare the-principles of-moral philosophy thus
igitur se habent duae partes sapientiae apud infideles
therefore themselves hold the-two parts of-wisdom among the-unbelieving
philosophos: sed apud Christianos philosophantes scientia
philosophers but among Christian philosophers the-science
moralis proprie et perfecte est theologia, quae super majorem
moral properly and perfectly is theology which over the-greater
philosophiam infidelium addit fidem Christi, et veritates quae
philosophy of-the-unbelievers adds the-faith of-Christ and the-truths which
sunt proprie divinae. Et hic finis habet suam speculationem
are properly divine and this end has its speculation

praecedentem, sicut moralis philosophia infidelium habet
preceding as moral philosophy of-the-unbelievers has
suam; quae igitur est proportio finis ad finem, est proportio
its what therefore is the-proportion of-end to end is the-proportion
speculationis ad speculationem: sed finis ut lex Christiana
of-speculation to speculation but the-end as the-law Christian
supra legem philosophorum addit articulos fidei expressos,
over the-law of-the-philosophers adds articles of-faith expressed
per quos complet legem moralis philosophiae, ut fiat
through which it-completes the-law of-moral philosophy that may-become
una lex completa. Nam lex Christi leges et mores
one law complete for the-law of-Christ the-laws and morals
philosophiae sumit et assumit, ut certum est per sanctos, et
of-philosophy takes and takes-up as certain it-is through the-saints and
in usu theologiae et ecclesiae. Ergo speculatio Christianorum
in the-use of-theology and of-the-church therefore the-speculation of-Christians
praecedens legem suam debet super speculationem alterius
preceding law its ought over the-speculation of-the-other
legis addere ea quae valent ad legem Christi docendam et
law to-add those which avail for the-law of-Christ to-be-taught and
probandam, ut surgat una speculatio completa, cujus initium
to-be-proved that may-arise one speculation complete whose beginning
erit speculativa philosophorum infidelium, et complementum
shall-be the-speculative of-the-philosophers unbelieving and the-complement
ejus erit superinductum theologiae, et secundum proprietatem
its shall-be the-superadded of-theology and according-to the-property
legis Christianae. Et ideo philosophia apud Christianos
of-the-law Christian and therefore philosophy among Christians
debet sapere multum de divinis, plus quam apud philosophos
ought to-savor much of divine-things more than among philosophers
infideles, et propter hoc debent philosophi considerare
unbelieving and because-of this ought philosophers to-consider

philosophiam, ac si modo esset de novo inventa, ut eam
philosophy as if just-now it-were from new found that it
facerent aptam fini suo. Et ideo debent multa addi
they-might-make apt to-end its and therefore ought many-things to-be-added
in philosophia Christianorum; quae philosophi infideles scire
in the-philosophy of-Christians which the-philosophers unbelieving to-know
non potuerant. Et hujusmodi sunt rationes exsurgentes in
not had-been-able and of-this-kind are the-reasons rising-up in
nobis ex fide et auctoribus legis et sanctorum qui
us from faith and the-authors of-the-law and of-the-saints who
sapiunt philosophiam; et possunt esse communia philosophiae
savor philosophy and can to-be common to-philosophy
completae et theologiae. Et haec cognoscuntur per hoc quod
complete and to-theology and these are-known by this that
debent esse communia fidelibus et infidelibus, ut sint ita
they-ought to-be common to-the-faithful and unbelievers that they-be so
nota cum proferuntur et probantur, quod negari non
known when they-are-brought-forth and are-proved that to-be-denied not
possunt a sapientibus et instructis in philosophia infidelium.
they-can by the-wise and instructed in the-philosophy of-the-unbelievers
Nam philosophi infideles multa ignorant in praesenti de
for the-philosophers unbelieving many-things are-ignorant-of at present about
divinis quae proponerentur eis, ut probarentur per
divine-things which if-they-were-proposed to-them so-that they-were-proved through
principia philosophia completae, hoc est, per vivacitates
the-principles of-philosophy complete that is through the-livelinesses
rationis quae sumunt originem a philosophia infidelium;
of-reason which take origin from the-philosophy of-the-unbelievers
licet complementum a fide Christi reciperent sine
although the-complement from the-faith of-Christ they-would-receive without
contradictione, et gauderent de proposita sibi veritate,
contradiction and would-rejoice about the-proposed to-them truth

quia avidi sunt sapientiae et magis studiosi quam Christiani.
because avid they-are of-wisdom and more studious than Christians
Non tamen dico, quod aliquid de spiritualibus articulis fidei
not yet I-say that anything of the-spiritual articles of-faith
Christianae reciperetur in probatione, sed multae veritates
Christian would-be-received in proof but many truths
sunt communes rationales, quas omnis sapiens de facili
are common rational which every wise-man with ease
reciperet ab alio, quamvis secundum se ignoraret.
would-receive from another although according-to himself he-were-ignorant-of
Non igitur mirentur philosophantes, si habeant elevare
not therefore let-wonder those-philosophizing if they-have to-raise
philosophiam ad divina et ad theologiae veritates et
philosophy to divine-things and to of-theology the-truths and
sanctorum auctoritates, et uti eis abundanter cum
of-the-saints the-authorities and to-use them abundantly when
fuerit opportunum, et probare eas cum necesse est,
it-shall-have-been opportune and to-prove them when necessary it-is
et per illas alias probare; quoniam proculdubio philosophia
and through those others to-prove since without-doubt philosophy
et theologia communicant in multis. Et sancti non solum
and theology communicate in many-things and the-saints not only
loquuntur theologice, sed philosophice, et philosophica
speak theologically but philosophically and philosophical-things
multipliciter introducunt. Et ideo Christiani, philosophiam
manifoldly bring-in and therefore Christians philosophy
volentes complere, debent in suis tractatibus non solum
wishing to-complete ought in their treatises not only
dicta philosophorum de divinis veritatibus colligere, sed
the-sayings of-the-philosophers about divine truths to-gather but
longe ulterius progredi, usquequo potestas philosophiae totius
far further to-proceed until the-power of-philosophy whole

compleatur. Et propter hoc complens philosophiam per
be-completed and because-of this one-completing philosophy through
hujusmodi veritates non debet dici theologicus nec
of-this-kind truths not ought to-be-called a-theologian nor
transcendere metas philosophiae; quoniam ista quae sunt
to-transgress the-bounds of-philosophy since these which are
communia philosophiae et theologiae potest secure tractare
common to-philosophy and to-theology he-can safely to-treat
et ea quae communiter habent recipi a fidelibus
and those which in-common they-have to-be-received by the-faithful
et infidelibus. Et talia multa sunt praeter dicta
and unbelievers and such many-things there-are besides the-sayings
philosophorum infidelium, quae tanquam propria infra limites
of-the-philosophers unbelieving which as-if proper within the-limits
philosophiae debet recte philosophans colligere, ubicunque
of-philosophy ought the-one-rightly philosophizing to-gather wherever
ea invenit, et tanquam sua habet congregare, sive in libris
them he-finds and as-if his-own he-has to-assemble whether in the-books
sanctorum, sive philosophorum, sive in sacra scriptura, sive in
of-the-saints or of-the-philosophers or in sacred scripture or in
historiis, sive alibi. Nullus enim auctor est quin praeter
histories or elsewhere no for author is-there but-that besides
principalem intentionem aliqua incidenter recitet quae sunt
the-principal intention some-things incidentally he-recites which are
alibi magis propria; et hujus causa est annexio scientiarum,
elsewhere more proper and of-this the-cause is the-connection of-the-sciences
quia quaelibet ab alia quodam modo dependet; sed omnis,
because each from another in-a-certain way depends but every-one
qui debito modo tractat, debet quae sunt propria ei assignare,
who in-due way treats ought what are proper to-it to-assign
et quae necessaria et suae competentia dignitati, et ideo
and what-things necessary and to-its befitting dignity and therefore

ubicunque ea inveniat velut sua cognoscere, et tanquam
wherever them he-find as-if his-own to-recognize and as-if
propria habet rapere, et in locis propriis collocare. Propter
proper he-has to-seize and in places proper to-place because-of
quod philosophans Christianus potest multas auctoritates et
which the-one-philosophizing Christian can many authorities and
rationes et sententias quamplurimas de scriptis aliis, quoque
reasons and opinions very-many from the-writings others also
de libris philosophorum infidelium adunare, dummodo sint
from the-books of-the-philosophers unbelieving to-unite provided-that they-be
propria philosophiae, vel communia ei et theologiae, et
proper to-philosophy or common to-it and to-theology and
quae communiter habent fideles et infideles reperire. Et nisi
which in-common have the-faithful and unbelievers to-find and unless
hoc fiat, non perficietur, sed multum ei derogabitur.
this be-done not it-shall-be-perfected but much from-it shall-be-detracted
Et non solum debet hoc fieri propter complementum
and not only ought this to-be-done because-of the-complement
philosophiae, sed propter conscientiam Christianam, quae
of-philosophy but because-of the-conscience Christian which
habet omnem veritatem ducere ad divinam, ut ei subjiciatur
has all truth to-lead to divine that to-it it-be-subjected
et famuletur. Atque propter hoc, philosophia infidelium est
and serve and because-of this the-philosophy of-the-unbelievers is
penitus nociva, et nihil valet secundum se considerata, nam
wholly harmful and nothing avails according-to itself considered for
philosophia secundum se ducit ad caecitatem infernalem et
philosophy according-to itself leads to blindness infernal and
ideo oportet quod secundum se sit tenebrae et caligo.
therefore it-behooves that according-to itself it-be darkness and fog

Capitulum xviii

PHILOSOPHY THE UNFOLDING OF DIVINE WISDOM

All unbelieving philosophers came after the patriarchs and learned from the Hebrews; Solomon perfected philosophy a second time, and Thales and Aristotle restored it. So philosophy is nothing but the unfolding of the one wisdom contained in Scripture.

His consideratis, patet intentum principale; et manifestum
with-these considered is-plain the-intent principal and manifest
est quod omnes philosophi infideles et Poetae et Sibyllae et
it-is that all the-philosophers unbelieving and the-Poets and the-Sibyls and
quicunque sapientiae sunt dediti, inventi sunt post philosophos
whoever to-wisdom are devoted found are after the-philosophers
veros et fideles, qui fuerunt filii Seth et Noe cum filiis
true and faithful who were the-sons of-Seth and Noah with sons
suis, quibus Deus dedit vivere sexcentos annos propter studium
his to-whom God gave to-live six-hundred years because-of the-study
sapientiae complendum, ut dicit Josephus primo Antiquitatum,
of-wisdom to-be-completed as says Josephus in-the-first of-the-Antiquities
asserens quod in minore tempore non potuerant complere
asserting that in less time not they-had-been-able to-complete
philosophiam praecipue propter astronomiam in qua est major
philosophy especially because-of astronomy in which is greater
difficultas, eo quod a caelestibus homines mortales
difficulty by-this that from the-heavenly-things men mortal
multum distant; sed Deus eis revelavit omnia, et dedit
much are-distant but God to-them revealed all-things and gave
eis vitae longitudinem, ut philosophiam per experientias
them of-life length that philosophy through experiences
complerent. Sed propter malitiam hominum qui abusi sunt
they-might-complete but because-of the-malice of-men who abused have

viis sapientiae, ut Nimroth, et Zoroaster, et Atlas, et
the-ways of-wisdom as Nimrod and Zoroaster and Atlas and
Prometheus, et Mercurius aut Trismegistus, et Aesculapius,
Prometheus and Mercury or Trismegistus and Aesculapius
et Apollo, et alii qui colebantur sicut Dii propter sapientiam,
and Apollo and others who were-worshiped as Gods because-of wisdom
Deus obscuravit cor multitudinis, et recidit paulatim usus
God darkened the-heart of-the-multitude and fell-back little-by-little the-use
philosophiae usquequo iterum Salomon eam revocavit et
of-philosophy until again Solomon it recalled and
perfecit omnino, sicut Josephus docet octavo Antiquitatum.
perfected wholly as Josephus teaches in-the-eighth of-the-Antiquities
Et iterum propter peccata hominum evanuit studium sapientiae,
and again because-of the-sins of-men vanished the-study of-wisdom
donec Thales Milesius resumpsit eam, et ejus successores
until Thales the-Milesian took-up-again it and his successors
dilataverunt, usquequo Aristoteles consummavit, quantum
spread until Aristotle consummated as-far-as
fuit possibile juxta idem tempus. Sed isti ab Hebraeis
was possible according-to the-same time but these from the-Hebrews
didicerunt omnia, sicut Aristoteles dicit in libro secretorum,
learned all-things as Aristotle says in the-book of-secrets
quoniam philosophi infideles, ut Nimroth et alii, fuerunt
since the-philosophers unbelieving as Nimrod and others were
post Seth, Noe, Sem, et Abraham; et post Salomonem, qui
after Seth Noah Shem and Abraham and after Solomon who
secundo perfecit eam, fuerunt reliqui philosophi infideles ut
secondly perfected it were the-remaining philosophers unbelieving as
Thales et Pythagoras, Socrates et Plato, et Aristoteles. Ideo
Thales and Pythagoras Socrates and Plato and Aristotle therefore
manifestum est, quod philosophiae perfectio fuit primo data
manifest it-is that of-philosophy the-perfection was first given

sanctis, Patriarchis et Prophetis, quibus lex Dei similiter
to-the-holy Patriarchs and Prophets to-whom the-law of-God likewise
fuit ab uno et eodem Deo revelata; quod non fuisset
was by one and the-same God revealed which not would-have-been
factum, nisi philosophia omnino esset sanctis Dei et
done unless philosophy wholly were to-the-saints of-God and
legi sacrae conformis et utilis ac necessaria propter
to-the-law sacred conformed and useful and necessary because-of
intellectum legis et excusationem et defensionem; insuper
the-understanding of-the-law and the-excuse and defense moreover
ut fiat ejus persuasio, et probetur et communicetur
that may-be-made its persuasion and it-be-proved and be-communicated
et dilatetur; nam omnibus his modis necessaria est, sicut
and be-spread for in-all these ways necessary it-is as
discurrendo per partes singulas philosophiae apparebit. Et
running through the-parts single of-philosophy shall-appear and
ideo philosophia non est nisi sapientiae divinae explicatio
therefore philosophy not is except of-wisdom divine the-unfolding
per doctrinam et opus, et propter hoc una est sapientia
through teaching and work and because-of this one is the-wisdom
perfecta, quae sacris literis continetur.
perfect which in-the-sacred letters is-contained

WHY TRANSLATIONS FAIL

The first of five necessary sciences is grammar in foreign tongues. Nothing translates exactly, as Jerome shows of Homer; the translators lacked Latin words and put in Spanish ones; and only Boethius knew the tongues and only Grosseteste the sciences.

Declarato igitur, quod una est sapientia perfecta, quae sacris
with-declared therefore that one is the-wisdom perfect which in-the-sacred
literis continetur per jus canonicum et philosophiam,
letters is-contained through the-law canon and philosophy
qua mundus habet regi, nec alia requiritur scientia pro
by-which the-world has to-be-ruled nor other is-required science for
utilitate generis humani, nunc volo descendere ad ea hujus
the-utility of-the-race human now I-wish to-descend to those of-this
sapientiae magnifica, quae maxime valent exponi. Et sunt
wisdom magnificent-things which most avail to-be-set-forth and they-are
quinque, sine quibus nec divina nec humana sciri
five without which neither divine nor human-things to-be-known
possunt, quorum certa cognitio reddit nos faciles ad omnia
can of-which the-certain knowledge renders us ready for all-things
cognoscenda. Et primum est Grammatica in linguis alienis
to-be-known and the-first is Grammar in tongues foreign
exposita, ex quibus emanavit sapientia Latinorum. Impossibile
set-forth from which has-flowed the-wisdom of-the-Latins impossible
enim est, quod Latini perveniant ad ea quae necessaria
for it-is that the-Latins arrive at those which necessary
sunt in divinis et humanis, nisi notitiam habeant aliarum
are in divine and human-things unless knowledge they-have of-other
linguarum, nec perficietur eis sapientia absolute, nec relate
tongues nor shall-be-perfected for-them wisdom absolutely nor relatively

ad ecclesiam Dei et reliqua tria praenominata. Quod volo
to the-church of-God and the-other three named-before which I-wish
nunc declarare, et primo respectu scientiae absolutae. Nam
now to-declare and first in-respect of-science absolute for
totus textus sacer a Graeco et Hebraeo transfusus est, et
the-whole text sacred from Greek and Hebrew poured-over is and
philosophia ab his et Arabico deducta est; sed impossibile
philosophy from these and Arabic derived is but impossible
est quod proprietas unius linguae servetur in alia. Nam
it-is that the-property of-one tongue be-kept in another for
et idiomata ejusdem linguae variantur apud diversos, sicut
even the-idioms of-the-same tongue vary among diverse-peoples as
patet de lingua Gallicana, quae apud Gallicos et Picardos
is-plain of the-tongue French which among the-French and Picards
et Normannos et Burgundos multiplici variatur idiomate. Et
and Normans and Burgundians in-manifold varies idiom and
quod proprie dicitur in idiomate Picardorum horrescit apud
what properly is-said in the-idiom of-the-Picards grates among
Burgundos, immo apud Gallicos viciniores: quanto igitur
the-Burgundians nay among the-French nearer by-how-much therefore
magis accidet hoc apud linguas diversas? Quapropter, quod
more shall-happen this among tongues diverse wherefore what
bene factum est in una lingua, non est possibile ut transferatur
well made is in one tongue not is possible that it-be-transferred
in aliam secundum ejus proprietatem quam habuerit in priori.
into another according-to its property which it-had in the-former
Unde Hieronymus, in epistola de optimo genere interpretandi,
whence Jerome in the-epistle on the-best kind of-interpreting
sic dicit, 'Si ad verbum interpretor, absurdum resonat.' Quod
thus says if to the-word I-translate absurd it-sounds but
si cuiquam videatur linguae gratiam interpretatione non
if to-anyone it-seem of-the-tongue the-grace by-translation not

mutari, Homerum exprimat in Latinum ad verbum. Si
to-be-changed Homer let-him-render into Latin to the-word if
quis autem eundem in sua lingua per se interpretetur,
anyone moreover the-same in his tongue by himself should-interpret
videbit ordinem ridiculosum, et poetam eloquentissimum vix
he-shall-see an-order ridiculous and the-poet most-eloquent scarcely
loquentem. Quicunque enim aliquam scientiam ut logicam vel
speaking whoever for any science as logic or
aliam quamcunque bene sciat, eam, etsi nitatur in linguam
other whatsoever well know it even-if be-strive into the-tongue
convertere maternam, videbit non solum in sententiis sed
to-turn maternal he-shall-see not only in opinions but
in verbis deficere. Et ideo nullus Latinus sapientiam sacrae
in words to-fail and therefore no Latin the-wisdom of-sacred
scripturae et philosophiae poterit ut oportet intelligere,
scripture and of-philosophy shall-be-able as it-behooves to-understand
nisi intelligat linguas a quibus sunt translatae.
unless he-understand the-tongues from which they-are translated
Et secundo considerandum est quod interpretes non habuerunt
and secondly to-be-considered it-is that the-translators not had
vocabula in Latino pro scientiis transferendis, quia non fuerunt
words in Latin for the-sciences to-be-translated because not they-were
primo compositae in lingua Latina. Et propter hoc posuerunt
first composed in the-tongue Latin and because-of this they-put
infinita de linguis alienis, quae sicut nec intelliguntur
infinite-things from tongues foreign which as neither are-understood
ab eis qui linguas ignorant, sic nec recte proferuntur nec
by those who the-tongues are-ignorant-of so neither rightly are-uttered nor
scribuntur ut decet; atque, quod vile est, propter ignorantiam
are-written as befits and what vile is because-of ignorance
linguae Latinae posuerunt Hispanicam, et alias linguas
of-the-tongue Latin they-put Spanish and other tongues

maternas, quasi infinities pro Latino. Nam pro mille
maternal almost infinitely for Latin for for a-thousand
millibus exemplis unum ponatur de libro vegetabilium
thousands examples one let-be-put from the-book of-plants
Aristotelis, ubi dicit, 'Belenum in Perside pernitiosissimum,
of-Aristotle where he-says Belenum in Persia most-pernicious
sed transplantatum Jerusalem fit comestibile.' Hoc
but transplanted to-Jerusalem becomes edible this
vocabulum non est scientiale laico Hispanicorum. Nam
word not is scientific to-the-layman of-the-Spaniards for
jusquiamus vel semen cassilaginis est nomen ejus in Latino.
jusquiamus or the-seed of-cassilago is the-name its in Latin
Quae sicut multa alia prius ab Hispanis scholaribus
which as many other-things earlier by Spanish scholars
derisus cum non intelligebam quod legebam, ipsis vocabula
mocked when not I-understood what I-read to-them the-words
linguae maternae scientibus, tandem didici ab eisdem.
of-the-tongue maternal knowing at-last I-learned from the-same
Tertio, oportet quod interpres optime sciat scientiam quam
thirdly it-behooves that the-translator best know the-science which
vult transferre, et duas linguas a quibus et in
he-wishes to-translate and the-two tongues from which and into
quas transferat. Solus Boethius primus interpres novit
which he-translates alone Boethius the-first translator knew
plenarie potestatem linguarum. Et solus dominus Robertus,
fully the-power of-the-tongues and alone the-lord Robert
dictus Grossum Caput, novit scientias. Alii quidem mendici
called Great Head knew the-sciences others indeed beggarly
translatores defecerunt multum tam in scientiis quam in linguis;
translators failed much as in sciences as in tongues
quod ostendit ipsorum translatio. Nam tanta est perversitas
which shows their translation for so-great is the-perversity

et horribilis difficultas, maxime in libris Aristotelis translatis,
and horrible difficulty most in the-books of-Aristotle translated
quod nullus potest eos intelligere. Sed quilibet alii contradicit,
that no-one can them to-understand but each another contradicts
et multiplex reperitur falsitas, ut patet ex collatione
and manifold is-found falsity as is-plain from the-comparison
diversorum interpretum et textuum diversarum linguarum.
of-diverse translators and texts of-diverse tongues
Et similiter in textu sacro inveniuntur falsa, et male translata
and likewise in the-text sacred are-found false and badly translated-things
quamplurima. Nam Hieronymus probat translationem LXX
very-many for Jerome proves the-translation of-the-Seventy
interpretum et Theodotionis et Aquilae multas habuisse
translators and of-Theodotion and of-Aquila many to-have-had
falsitates, quae fuerunt vulgatae per totam Ecclesiam.
falsities which were made-common through the-whole Church
Et omnes stabant maxime pro translatione LXX, sicut
and all stood most for the-translation of-the-Seventy as
pro vita, et reputabatur Hieronymus falsarius et corruptor
for life and was-reckoned Jerome a-falsifier and corrupter
scripturarum, donec paulatim claruit veritas Hebraica per
of-the-scriptures until little-by-little shone-forth the-truth Hebrew through
solum Hieronymum in Latinum conversa. Ne tamen nimia
sole Jerome into Latin turned lest yet too-great
novitae deterreret Latinos, ideo, ut ipse scribit, aliquando
novelty should-deter the-Latins therefore as he writes sometimes
coaptavit se LXX interpretibus et aliquando Theodotioni,
he-fitted himself to-the-Seventy translators and sometimes to-Theodotion
aliquando Aquilae, et ideo multa dimisit, et propter hoc
sometimes to-Aquila and therefore many-things he-let-go and because-of this
remanserunt plura falsa. Nam ut Augustinus probat de
remained more false-things for as Augustine proves on

doctrina Christi libro secundo male translatum est quod habetur
the-doctrine of-Christ in-book second badly translated is what is-had
in libro Sapientiae, 'Spuria vitulamina non dabunt radices
in the-book of-Wisdom bastard calf-shoots not shall-give roots
altas.' Nam debent esse spuriae plantationes, ut Augustinus
deep for there-ought to-be bastard plantings as Augustine
probat per Graecum. Et tamen Hieronymus dimisit hoc, sicut
proves through the-Greek and yet Jerome let-go this as
alia, propter pacem Ecclesiae et doctorum. Atque scitur
other-things because-of the-peace of-the-Church and of-the-doctors and it-is-known
manifeste, quod Hieronymus humanum aliquid passus
manifestly that Jerome human something having-suffered
aliquando in translatione sua oberravit, sicut ipsemet pluries
sometimes in translation his strayed as he-himself many-times
confitetur. Nam quod decimum nonum male transtulerat Isaiae,
confesses for what in-the-tenth ninth badly he-had-translated of-Isaiah
resumit in saginali quinto dicens, 'in eo quo transtulimus
he-takes-up-again in saginali fifth saying in that where we-translated
incurvantem et lascivientem nos autem verbum Hebraicum
bending and wanton we moreover the-word Hebrew
acmon dum celeriter scripto vertimus, ambiguitate decepti
acmon while quickly in-writing we-turned by-ambiguity deceived
refraenantem diximus.' Et aliud quod in eodem capitulo
bridling we-said and another-thing which in the-same chapter
male transtulerat revolvit dicens, 'Melius reor proprium
badly he-had-translated he-turns-over saying better I-think own
errorem reprehendere, quam dum erubesco imperitiam confiteri,
error to-reprehend than while I-blush unskill to-confess
in errore persistere. In eo vero quo transtuli, "et erit
in error to-persist in that but where I-translated and shall-be
terra Juda Aegypto in festivitatem," in Hebraico legitur
the-land of-Judah to-Egypt for a-festival in the-Hebrew is-read

agga, quod interpretari potest etiam festivitas, unde aggus
agga which to-be-interpreted can also festival whence aggus
in festivum vertitur, et timor, quod significantius Aquila
into festive is-turned and fear which more-significantly Aquila
transtulit gerosin, cum aliquis pavidus et timens circumfert
translated gerosin when anyone fearful and fearing carries-around
oculos, et adveniens formidat initium; ergo, si voluerimus
the-eyes and coming dreads the-beginning therefore if we-shall-wish
in bonam partem accipere quod recordatio Judaeae Aegypto
in good part to-take that the-remembrance of-Judea to-Egypt
sit gaudii recte festivitas dicitur; sin autem, ut arbitror, in
be of-joy rightly festival it-is-called but-if moreover as I-think in
timore pro festivitate vertitur in formidinem vel pavorem.'
fear for festival it-is-turned into dread or fear

WHAT THE LATINS STILL LACK

Many books of theology and philosophy are untranslated or corrupt: Josephus, the Greek fathers, much of Aristotle and Avicenna. The Latins' logic lacks its best book and has the second only badly translated, on the rhetorical and poetic arguments that move the practical intellect.

Quarta causa est et ratio hujus rei, quod quamplurima adhuc
the-fourth cause is and reason of-this thing that very-many-things still
desunt Latinis tam philosophica quam theologica. Nam
are-lacking to-the-Latins as philosophical as theological for
vidi duos libros Machabaeorum in Graeco, viz. tertium,
I-have-seen two books of-Maccabees in Greek namely the-third
et quartum, et Scriptura facit mentionem de libris Samuel
and fourth and Scripture makes mention of the-books of-Samuel
et Nathan et Gad videntis et aliorum, quos non habemus.
and Nathan and Gad the-seer and of-others which not we-have

Atque cum tota certificatio historiae sacrae sit a Josepho
and since the-whole certification of-history sacred be from Josephus
in Antiquitatum libris, et omnes sancti expositionum suarum
in of-the-Antiquities the-books and all the-saints of-expositions their
radices accipiant a libris illis, necesse est Latinis ut habeant
the-roots take from books those necessary it-is for-the-Latins that they-have
illum librum incorruptum; sed probatum est quod codices
that book uncorrupted but proved it-is that the-copies
Latini omnino sunt corrupti in omnibus locis, in quibus vis
Latin wholly are corrupt in all places in which the-force
historiae consistit; ita ut textus ille sibi contradicat ubique,
of-the-history consists so that text that itself contradicts everywhere
quod non est vitium tanti auctoris; igitur ex translatione
which not is the-vice of-so-great an-author therefore from translation
mala hoc accidit et corruptione ejus per Latinos. Nec est
bad this happens and corruption its through the-Latins nor is-there
remedium nisi de novo transferantur vel ad singulas radices
a-remedy unless from new they-be-translated or to single roots
corrigantur. Similiter libri doctorum magnorum, ut beatorum
be-corrected likewise the-books of-doctors great as of-the-blessed
Dionysii, Basilii, Johannis Damasceni, et aliorum multorum
Dionysius Basil John of-Damascus and of-others many
deficiunt; quorum tamen aliquos dominus Robertus praefatus
are-lacking of-which yet some the-lord Robert aforesaid
episcopus vertit in Latinum, et alii quosdam alios ante eum;
bishop turned into Latin and others certain others before him
cujus opus est valde gratum theologis. Et si libri istorum
whose work is very pleasing to-theologians and if the-books of-these
translati essent, non solum augmentaretur sapientia Latinorum,
translated were not only would-be-increased the-wisdom of-the-Latins
sed haberet Ecclesia fortia adjutoria contra Graecorum
but would-have the-Church strong helps against of-the-Greeks

haereses et schismata, quoniam per sanctorum eorum
the-heresies and schisms since by of-the-saints their
sententias, quibus non possunt contradicere, convincerentur.
the-opinions which not they-can to-contradict they-would-be-convinced
Similiter fere omnia secreta philosophiae adhuc jacent in
likewise almost all the-secrets of-philosophy still lie in
linguis alienis. Nam solum quaedam communia et vilia ut
tongues foreign for only certain common and vile-things as
in pluribus translata sunt; et de hujusmodi etiam multa
in most-cases translated are and of such-things also many-things
desunt. Nam libri integri omittuntur in mathematicis et
are-lacking for books whole are-omitted in mathematical-matters and
in naturalibus et in logicalibus et aliis, praeter magna
in natural-matters and in logical-matters and others besides the-great
secreta scientiarum, et artium, et naturae arcana quae
secrets of-the-sciences and arts and of-nature the-mysteries which
nondum sunt translata; ut est secunda philosophia Avicennae,
not-yet are translated as is the-second philosophy of-Avicenna
quam vocant orientalem, quae traditur secundum puritatem
which they-call oriental which is-handed-down according-to the-purity
philosophiae in se, nec timet ictus contradicentium
of-philosophy in itself nor fears the-blows of-those-contradicting
lancearum; et tertia quae fuit contermina vitae suae, in qua
lances and the-third which was bordering-on the-life his in which
experientias secretas congregavit, sicut ipse in prologo primae
experiences secret he-gathered as he in the-prologue of-the-first
philosophiae suae annotavit. Et similiter cum Aristoteles
philosophy his noted and likewise since Aristotle
complevit octo partes naturalis philosophiae principales, quae
completed eight parts of-natural philosophy principal which
multas sub se continet scientias, de prima parte non
many under itself contains sciences of the-first part not

habemus omnia, de aliis vero quasi nihil. Et eodem modo
we-have all-things of the-others but almost nothing and in-the-same way
de metaphysica, quae sunt novem, cum ipse compleverit
of metaphysics which are nine since he completed
eas, nihil habemus quod de metaphysica ulla dignitate
them nothing we-have which of metaphysics by-any dignity
vocari potest propter defectus multiplices et praegrandes.
to-be-called can because-of defects manifold and very-great
De mathematicis vero, cum sint quinque scientiae magnae,
of mathematical-things but since there-are five sciences great
non habemus nisi primam, et parum de secunda. Etiam de
not we-have except the-first and little of the-second also of
logica deficit liber melior inter omnes alios, et alius post
logic is-lacking the-book better among all others and another after
eum in bonitate secundus male translatus est, nec potest
it in goodness second badly translated is nor can-it
sciri, nec adhuc in usu vulgi est, quia nuper venit ad
to-be-known nor yet in use of-the-crowd is-it because lately it-came to
Latinos, et cum defectu translationis et squalore. Nec est
the-Latins and with defect of-translation and squalor nor is-it
mirum si dico istos libros logicae meliores; nam oportet esse
wonderful if I-call these books of-logic better for it-behooves to-be
quatuor argumenta veridica; duo enim movent intellectum
four arguments truthful two for move the-intellect
speculativum seu rationem, scilicet dialecticum per debilem
speculative or reason namely the-dialectical through a-weak
habitum et initialem, qui est opinio, ut disponamur ad
habit and initial which is opinion that we-may-be-disposed to
scientiam, quae est habitus completus et finalis, in quo
science which is the-habit complete and final in which
quiescet mens speculando veritatem. Et hic habitus non
shall-rest the-mind in-speculating truth and this habit not

adquiritur per demonstrationem. Sed cum voluntas seu
is-acquired through demonstration but since the-will or
intellectus practicus sit nobilior quam speculativus, et virtus
the-intellect practical be nobler than the-speculative and virtue
cum felicitate excellit in infinitum scientiam nudam, et
with happiness surpasses to infinity knowledge bare and
nobis est magis necessaria sine comparatione, necesse est
to-us is more necessary without comparison necessary it-is
ut habeamus argumenta ad exercitandum per intellectum
that we-have arguments for exercising through the-intellect
practicum, praecipue cum magis simus infirmi in hac parte
practical especially since more we-be weak in this part
quam in speculatione. Libenter enim gustamus de ligno
than in speculation gladly for we-taste of the-tree
scientiae boni et mali; sed difficiles sumus ad lignum
of-knowledge of-good and evil but difficult we-are toward the-tree
vitae, ut virtutem dignitatem amplectamur propter futuram
of-life that virtue dignity we-may-embrace because-of future
felicitatem. Quapropter oportet quod habeat intellectus
happiness wherefore it-behooves that have the-intellect
practicus sua adjutoria ut excitetur per propria argumenta,
practical its helps that it-be-roused through proper arguments
sicut speculativus per sua, et ideo necesse fuit ut
as the-speculative through its-own and therefore necessary it-was that
traderetur de his argumentis quibus moralis philosophia et
be-handed-down about these arguments which moral philosophy and
theologia utuntur abundanter. Nam sicut speculativae scientiae
theology use abundantly for as speculative sciences
gaudent argumentis speculativis opinionis et scientiae nudae,
rejoice in-arguments speculative of-opinion and of-knowledge bare
sic practicae scientiae, ut theologia, et moralis philosophia
so practical sciences as theology and moral philosophy

practica, considerant argumenta, quibus ad praxim, i.e. ad
practical consider arguments by-which to practice that-is to
opus bonum excitemur, et flectamur ad amorem felicitatis
work good we-may-be-roused and may-be-bent to the-love of-happiness
aeternae. Et hic sunt duo modi flectendi nos; unus est
eternal and here are two ways of-bending us one is
qui promovet animam ad credendum et consentiendum
which moves the-soul to believing and consenting
et commiserandum, et ad complacendum, et eorum actus,
and pitying and to being-pleased and of-them the-acts
et ad contraria cum necessitate. Et hoc argumentum
and to contraries with necessity and this argument
vocatur rhetoricum, et est respectu intellectus practici, sicut
is-called rhetorical and is in-respect-of the-intellect practical as
argumentum dialecticum ad intellectum speculativum. Et hic
the-argument dialectical to the-intellect speculative and this
habitus qui flectit nos ad amorem boni operis habetur per
habit which bends us to the-love of-good work is-had through
argumentum poeticum; quia poetae, ut Horatius et alii
the-argument poetic because the-poets as Horace and other
Graeci et Latini, vitia prosequuntur, et virtutes magnificant,
Greeks and Latins vices pursue and virtues magnify
ut alliciantur homines ad honorem et odium peccati. Nam,
that may-be-enticed men to honor and the-hatred of-sin for
ut ille dicit, 'Aut prodesse volunt, aut delectare poetae.
as he says either to-profit wish or to-delight the-poets
Omne tulit punctum qui miscuit utile dulci.' Non enim
every took point who mingled the-useful with-the-sweet not for
parum prodest civibus, qui delectat in moribus; oportet
little profits to-the-citizens who delights in morals it-behooves
enim non solum docere, sed delectare et promovere. Unde
for not only to-teach but to-delight and to-move whence

tam poeta quam orator debet haec tria facere, ut docendo
as-well the-poet as the-orator ought these three to-do that by-teaching
reddat auditores dociles, per delectationem faciat
he-may-render the-hearers docile by delight he-may-make
attentos, et promovendo seu flectendo cogat in opus.
attentive and by-moving or bending he-may-compel into work
Et haec argumenta in salutiferis rebus sunt fortissima, in
and these arguments in salutary things are strongest in
puris speculativis impotentia, sicut demonstratio efficacissima
pure speculative-things powerless as demonstration most-effective
est in speculationibus nudis, sed impotens est omnino in
is in speculations bare but powerless it-is wholly in
practicis, et in his quae pertinent ad salutem, secundum
practical-things and in those which pertain to salvation according-to
quod Aristoteles dicit, primo moralis philosophiae, quod
what Aristotle says in-the-first of-moral philosophy that
perprimum est mathematicum uti argumento rhetorico, et
very-like it-is the-mathematician to-use the-argument rhetorical and
rhetorem demonstrationem experiri, quoniam, ut dicit secundo,
the-rhetor demonstration to-attempt since as he-says in-the-second
haec scientia non est contemplationis gratia, sed ut boni
this science not is for-contemplation sake but that good
fiamus. Aristoteles igitur fecit libros de his argumentis, et
we-may-become Aristotle therefore made books about these arguments and
Alpharabius in libro de scientiis affirmat duas partes logicae
Alfarabi in the-book on the-sciences affirms two parts of-logic
debere constitui de his duobus argumentis, quia sola
ought to-be-constituted about these two arguments because sole
logica deberet docere cujusmodi sunt argumenta, et qualiter
logic ought to-teach of-what-kind are arguments and how
componantur propter usum omnium aliarum scientiarum. Et
they-be-composed because-of the-use of-all other sciences and

tunc logica speculativis scientiis per argumenta, videlicet
then logic to-speculative sciences through arguments namely
duo, quae sunt dialecticum et demonstrativum, moralibus
two which are dialectical and demonstrative to-moral-ones
autem ministrat practica argumenta. Et quia theologia et
moreover it-ministers practical arguments and since theology and
jus canonicum mores et leges et jura determinant, ideo
the-law canon morals and laws and rights determine therefore
haec duo argumenta sunt eis necessaria. Etiam quamvis
these two arguments are to-them necessary also although
Latini nondum habent scientiam horum argumentorum
the-Latins not-yet have the-science of-these arguments
secundum artis logicae traditionem, tamen necessaria sunt
according-to of-the-art logical the-tradition yet necessary they-are
multis modis. Qualiter autem componantur haec argumenta,
in-many ways how moreover be-composed these arguments
non est ad praesens dicendum. Sed in hoc opere, quod
not it-is for the-present to-be-said but in this work which
Vestra Beatitudo postulavit dicitur explicari. Nihil tamen de
Your Beatitude requested it-is-said to-be-unfolded nothing yet of
scientiis speculativis utilius est propter fidem probandam
the-sciences speculative more-useful is because-of the-faith to-be-proved
infidelibus ut flectantur ad credendum et amorem fidei
to-unbelievers that they-be-bent to believing and the-love of-the-faith
Christianae. Et similiter ut artificialiter praedicemus omnibus
Christian and likewise that artfully we-may-preach to-all
quibus praedicatio necessaria est, et sic de aliis utilibus
to-whom preaching necessary is and so of other useful
persuasionibus ad salutem. Magnum autem adjutorium
persuasions for salvation great moreover help
habemus per Augustinum in tertio et quarto de doctrina
we-have through Augustine in the-third and fourth on the-doctrine

Christi, et per libros Tullianos, et per libros Senecae et
of-Christ and through the-books Tullian and through the-books of-Seneca and
epistolas, quae possunt colligi in lingua Latina de his
the-letters which can to-be-gathered in the-tongue Latin about these
argumentis, quamvis ipsa textura Aristotelis nobis deficiat.
arguments although the-very texture of-Aristotle to-us be-lacking

HEBREW WORDS AND LETTERS

The saints and philosophers left the Latins words of every tongue, and the theologians misread them: the pericope of Jeremiah is not Lamentations but a verse in Chaldean. Bacon sets out the Hebrew alphabet and the points that mark its vowel sounds.

Quinta ratio est ad hoc, quoniam ex sensu sunt compositae
the-fifth reason is for this since from sense they-are composed
et expositae, et ideo cum scientiae fuerunt traditae
and set-forth and therefore since the-sciences were handed-down
Latinis a linguis alienis, omnes sancti et philosophi
to-the-Latins from tongues foreign all the-saints and philosophers
Latini, qui exponunt scientias, usi sunt caeteris copiose, et
Latin who expound the-sciences used have the-others copiously and
multiplicant nobis vocabula Graeca et Hebraea et Chaldaea
multiply for-us words Greek and Hebrew and Chaldean
et Arabica, praeter ea quae in textibus continentur. Et nos
and Arabic besides those which in the-texts are-contained and we
sumus filii et successores sanctorum et sapientum usque
are the-sons and successors of-the-saints and of-the-wise up
ad haec ultima tempora. Nam vidimus aliquos de antiquis
to these last times for we-have-seen some of the-ancients
qui multum laboraverunt, sicut fuit dominus Robertus
who much labored as was the-lord Robert

praefatus translator, Episcopus Lincolniensis, et dominus
aforesaid translator the-Bishop of-Lincoln and the-lord
Thomas venerabilis antistes sancti David nuper defunctus, et
Thomas venerable prelate of-Saint David lately dead and
frater Adam de Marisco, et magister Hermannus translator
brother Adam of Marsh and master Hermann translator
et quidam alii sapientes. Sed quoniam eos non imitamur,
and certain other wise-men but since them not we-imitate
ideo ultra illud quod credi potest deficimus a potestate
therefore beyond that which to-be-believed can we-fall-short of the-power
scientiarum, quia expositiones authenticas non possumus
of-the-sciences because the-expositions authentic not we-can
intelligere, et per eas nec intellectum scientiarum
to-understand and through them neither the-understanding of-the-sciences
possumus obtinere. Et pro infinitis pono duo exempla.
can-we to-obtain and for infinite-things I-put two examples
Hieronymus dicit in prologo Daniel, quod Daniel et Esdras
Jerome says in the-prologue of-Daniel that Daniel and Ezra
scribuntur libris Hebraicis, sed Chaldaeo sermone, et una
are-written in-books Hebrew but in-Chaldean speech and one
pericope Jeremiae. Hanc autem pericopen Jeremiae omnes
pericope of-Jeremiah this moreover pericope of-Jeremiah all
theologi dicunt esse Threnos Jeremiae: quia pericope
theologians say to-be the-Lamentations of-Jeremiah because pericope
idem est quod pars parva seu particula; sed omnes Hebraei
the-same is as a-part small or a-particle but all Hebrews
sciunt quod scribimus Threni literis Hebraicis et
know that we-write the-Lamentations in-letters Hebrew and
Hebraeo sermone. Deinde possumus hanc pericopen sumere
in-Hebrew speech then we-can this pericope to-take
decimo capitulo Jeremiae, ubi dicitur sic, 'Ergo dicetis
in-the-tenth chapter of-Jeremiah where it-is-said thus therefore you-shall-say

eis, Dii qui coelum et terram non fecerunt pereant
to-them The-Gods who the-heaven and the-earth not made let-them-perish
de terra, de his quae sub coelo sunt.' Nam hoc tantum
from the-earth from those which under heaven are for this alone
in Jeremia habet sermonem Chaldaeum, sicut omnes Hebraei
in Jeremiah has speech Chaldean as all Hebrews
sciunt literati. Et certum est quod Hebraei et Chaldaei
know lettered and certain it-is that the-Hebrews and Chaldeans
eandem habent linguam, sed diversum idioma, sicut Gallicus
the-same have tongue but diverse idiom as the-French
et Picardus. Idioma enim est proprietas linguae apud aliquam
and the-Picard idiom for is the-property of-a-tongue among some
nationem determinatam, unde Hebraeus dicit Eloim pro Deo
nation determined whence the-Hebrew says Eloim for God
vel Diis; Chaldaeus dicit Eloa, pro coelo vel coelis. Pro
or Gods the-Chaldean says Eloa for heaven or heavens for
non, Hebraeus dicit lo, Chaldaeus dicit la, et sic in aliis.
not the-Hebrew says lo the-Chaldean says la and so in others
Tamen quod haec pericope scribatur sermone hic Hebraeo
yet that this pericope be-written in-speech here Hebrew
et Chaldeo, ponetur alphabetum Hebraeum, ut facilius
and Chaldean there-shall-be-set the-alphabet Hebrew that more-easily
valeat intelligi quaestio proposita, et primo scribuntur
may-be-able to-be-understood the-question proposed and first are-written
figurae Hebraicae; secundo in linea superiori ponuntur
the-figures Hebrew secondly in the-line upper are-placed
nomina; et supremo assignantur litterae quae literis
the-names and in-the-uppermost are-assigned the-letters which to-the-letters
Hebraicis correspondent; ut literarum Hebraicarum sciamus
Hebrew correspond that of-the-letters Hebrew we-may-know

virtutes et potestatem sonorum, secundum quod quaedam
the-virtues and power of-sounds according-to what some
sunt vocales et quaedam consonantes.
are vowels and some consonants

iot teth heth zain vaf he dalet gimel beth aleph
yod teth heth zayin vav he daleth gimel beth aleph
i t h z v e d g b a
i t h z v e d g b a
pe pe ain samech nun mem lamet chaf chaf
pe pe ayin samekh nun mem lamed kaph kaph
p p s n m l ch ch
p p s n m l ch ch
taf shin rish koph tsadik
taw shin resh qoph tsade
t sh r k ts
t sh r k ts

Sunt autem sex vocales, viz. aleph, ain, he, heth, iot,
there-are moreover six vowels namely aleph ayin he heth yod
vau; reliquae sunt consonantes: he et heth aspirantur, ut
vav the-remaining are consonants he and heth are-aspirated as
he in principio, heth non solum in primo sed in fine,
he in the-beginning heth not only in the-first but in the-end
et generatur in gutture, he in ore; aleph similiter in
and is-generated in the-throat he in the-mouth aleph likewise in
ore; ain in gutture; sed considerandum quod solum iot
the-mouth ayin in the-throat but to-be-considered that only yod
habet unum sonum sicut i nostrum, et sit consonans et
has one sound as i our and be-it consonant and
vocalis sicut apud nos j. Vau vero, ut dicit Hieronymus
vowel as among us j vav but as says Jerome

in Hebraicis quaestionibus, habet duplicem sonum, viz. v
in the-Hebrew questions has a-double sound namely v
nostrum et o: reliqua vero quatuor habent sonum quinque
our and o the-remaining but four have the-sound of-the-five
vocalium nostrarum, viz. a, e, i, o, et u; sicut patet per
vowels our namely a e i o and u as is-plain through
Hieronymum in libro interpretationum. Et hanc diversitatem
Jerome in the-book of-interpretations and this diversity
sonorum signant per puncta et tractus. Nam si sub aleph
of-sounds they-mark through points and strokes for if under aleph
trahatur linea sine puncto sic, ‹ʾa›, vel cum puncto, ‹ʾā›
be-drawn a-line without a-point thus ʾa or with a-point ʾā
sonatur a. Si vero duo puncta fiant jacentia sub aleph
it-is-sounded a if but two points be-made lying under aleph
e transverso ‹ʾē›, vel duo stantia ‹ʾə›, vel tria in modum
from across ʾē or two standing ʾə or three in the-manner
trianguli ‹ʾe›, vel quinque puncta hoc modo ‹ʾĕ›, sonatur e.
of-a-triangle ʾe or five points in-this way ʾĕ it-is-sounded e
Si vero tria puncta iaceant sub aleph ex obliquo descendentia
if but three points lie under aleph from slanting descending
sic ‹ʾu› sonatur u. Si vero unus punctus ponatur sub litera
thus ʾu it-is-sounded u if but one point be-placed under the-letter
‹ʾi› sonatur i. Si vero unus punctus fiat supra sonatur o,
ʾi it-is-sounded i if but one point be-made above it-is-sounded o
sic, ‹ʾō›. Et ita est de ain, et he, et heth, quae habent hos
thus ʾō and so it-is of ayin and he and heth which have these
quinque sonos per istorum signorum diversitatem. Et cum
five sounds through of-these signs the-diversity and when
vaf sonatur v potest esse signum trium punctorum ut dictum
vav is-sounded v can to-be the-sign of-three points as said
est sic ‹wu›, vel potest poni unus punctus sic ‹wō›.
it-is thus wu or can to-be-placed one point thus wō

Ideo oportet quod ad consonantes ponantur haec signa, ut
therefore it-behooves that to the-consonants be-placed these signs that
sciatur sonus vocalis syllabicandus cum consonante: ut si
be-known the-sound of-the-vowel to-be-syllabled with the-consonant as if
volo designare ba, be, bi, bo, bu, scribam sic: ‹bā› ‹bē› ‹bi›
I-wish to-designate ba be bi bo bu I-shall-write thus bā bē bi
‹bō› ‹bu›. Et habent alia signa per quae designant sonos
bō bu and they-have other signs through which they-designate the-sounds
consonantium aliquando fortificari aliquando remitti. Unde
of-consonants sometimes to-be-strengthened sometimes to-be-relaxed whence
quando tractus ponitur super literam tunc remittitur: quando
when a-stroke is-placed over the-letter then it-is-relaxed when
punctus in ventre ponitur tunc fortificatur. Ut quando super
a-point in the-belly is-placed then it-is-strengthened as when over
Dalet ponitur tractus sic ‹d› tunc debilem sonum reddit ut
Daleth is-placed a-stroke thus d then a-weak sound it-renders as
nostri z, ut cum dico, adamas. Quando punctus in ventre ejus
our z as when I-say adamas when a-point in the-belly its
collocatur, sic, ‹d›, tunc fortiter sonat, ut cum dico, dabo....
is-placed thus d then strongly it-sounds as when I-say dabo
Manifestus ergo et vilis est error omnium in hac parte
manifest therefore and vile is the-error of-all in this part
propter ignorantiam harum linguarum.
because-of ignorance of-these tongues

Bacon sets out the Greek alphabet and its diphthongs and their sounds. Jacob's words to Esau, as if I had seen the face of God, show why the Greek article matters: the Seventy left it off where the true God was not meant, as French li marks the king of the place.

Aliud exemplum accipiam de Graeco et multa exempla
another example I-shall-take from Greek and many examples
Graeca addentur in sequentibus. Sed volo hic ponere
Greek shall-be-added in the-following-things but I-wish here to-put
alphabetum Graecum cum diphthongis quibus scribunt;
the-alphabet Greek with the-diphthongs with-which they-write
multo enim evidentius per hoc patebit quae dicenda sunt.
much for more-evidently through this shall-be-plain what to-be-said are

a b g d e z i th i
a b g d e z i th i
alpha vita gemma delta e pente zita ita thita iota
alpha beta gamma delta e pente zeta eta theta iota
α β γ δ ε ζ Η θ ι
alpha beta gamma delta epsilon zeta Eta theta iota
k l m n x o p r s t
k l m n x o p r s t
kappa labda mi ni xi o micron pi ro sima taf
kappa lambda mu nu xi o micron pi rho sigma tau
κ λ μ Ν ξ ο π ρ σ τ
kappa lambda mu Nu xi omicron pi rho sigma tau

y ph ch ps

y ph ch ps

ypsilo phi chi psi o mega

upsilon phi chi psi o mega

υ φ χ ψ ω

upsilon phi chi psi omega

Sunt autem septem vocales quantum ad figuras diversas,

there-are moreover seven vowels as-far-as to figures diverse

quum habent triplex i et duplex o; sed quatuor tantum

since they-have a-threefold i and a-double o but four only

habent quantum ad sonum principalem, videlicet, a, e, i, o.

they-have as-far-as to the-sound principal namely a e i o

Diphthongus apud Graecos est conjunctio duarum vocalium.

a-diphthong among the-Greeks is the-joining of-two vowels

Sonus unius vocalis habetur ut vocalis cum consonante.

the-sound of-one vowel is-had as a-vowel with a-consonant

Et finales literae in diphthongis sunt iota et ipsilo. Potest

and the-final letters in diphthongs are iota and upsilon can

igitur ipsilo consequi alpha sic, αυ, et tunc sonat quantum

therefore upsilon to-follow alpha thus αυ and then it-sounds as-much-as

a cum v consonante, quia sonus aliquantulum similis est

a with v consonant because the-sound somewhat like is

sono ipsius a cum f, et ideo vulgariter exemplificamus

to-the-sound of-the-very a with f and therefore commonly we-exemplify

quod sonat af. Et potest consequi e, sic ευ, et tunc sonat

that it-sounds af and it-can to-follow e thus ευ and then it-sounds

quantum e vocalis cum v consonante, quasi ef, ut dictum de

as-much-as e vowel with v consonant as-if ef as said of

alpha et ipsilo. Vel potest consequi iota, sic ιυ, et sonat

alpha and upsilon or it-can to-follow iota thus ιυ and it-sounds

quasi if, ut dictum de aliis. Vel ipsilo potest consequi
as-if if as said of the-others or upsilon can to-follow
o micron, sic ου, et tunc sonat u vocalem. Et sic solum
o micron thus ου and then it-sounds u vowel and thus only
habent Graeci sonum hujus vocalis u. Quum autem iota
have the-Greeks the-sound of-this vowel u when moreover iota
consequitur alpha sic, αι, tunc sonat e, quasi e. Quum e,
follows alpha thus αι then it-sounds e as-if e when e
sic ει, tunc sonat i per iota: si o, sic οι, tunc sonat y
thus ει then it-sounds i through iota if o thus οι then it-sounds y
per ypsilo. Et hi octo diphthongi vocantur proprii. Et alii
through upsilon and these eight diphthongs are-called proper and other
tres dicuntur improprii; et fiunt per subscriptionem hujus
three are-called improper and are-made through the-subscription of-this
literae iota ad alpha, ita, et o mega, sic, ᾳ, ῃ, ῳ. Aliquando
letter iota to alpha eta and o mega thus ᾳ ῃ ῳ sometimes
ponitur iota in linea, sicut in aliis diphthongis sic αι, ηι, ωι.
is-placed iota in the-line as in other diphthongs thus αι ηι ωι
Sed remanet sonus literae principalis, scilicet ejus cui
but remains the-sound of-the-letter principal namely of-that to-which
subscribitur iota. Nam cum subscribitur α, quae est alpha,
is-subscribed iota for when is-subscribed-to α which is alpha
sonat a: quum vero η, quae est ita, sonat ita: si vero ω, quae
it-sounds a when but η which is eta it-sounds eta if but ω which
est o mega, sonat solum o mega. Et his tribus diphthongis
is o mega it-sounds only o mega and these three diphthongs
utuntur Graeci semper in dativo casu primae declinationis.
use the-Greeks always in the-dative case of-the-first declension
... Et licet exemplificare in praesenti loco de Jacob qui
and it-is-permitted to-exemplify in the-present place about Jacob who
cum obviaret Esau fratri suo veniens de Mesopotamia et
when he-met Esau brother his coming from Mesopotamia and

distaret dicit, Vidi faciem tuam quasi faciem Dei vidissem.
was-distant says I-saw face your as-if the-face of-God I-had-seen
Quaerit Augustinus, qualiter poterat homo sanctus hominem
asks Augustine how could a-man holy a-man
reprobatum comparare Deo? et solvit quod multipliciter Deus
reprobate to-compare to-God and solves that manifoldly God
in scriptura accipitur pro vero Deo, aliquando aliter. Et hoc
in scripture is-taken for the-true God sometimes otherwise and this
multis modis: sed ut LXX interpretes designaverunt quod
in-many ways but as the-Seventy translators designated that
non loquebatur de vero Deo ideo apposuerunt articulum
not he-was-speaking about the-true God therefore they-added the-article
Graecum ad nomen dei. Nam hoc est de proprietate articuli
Greek to the-name of-god for this is of the-property of-the-article
ut veritatem rei designet. Sed hoc non apparet in Latino,
that the-truth of-the-thing it-designate but this not appears in Latin
quia Latini non habent articulum. Nam satis innotescit in
because the-Latins not have the-article for enough it-becomes-known in
Gallico. Unde cum dicitur Parisius Li reis vent, iste articulus
French whence when it-is-said at-Paris Li reis vent this article
li designat proprium et verum regem talis loci, quasi regis
li designates the-proper and true king of-such a-place as-if of-the-king
Franciae. Et non sufficeret hoc ut denotaret adventum
of-France and not would-suffice this that it-should-denote the-coming
regis Angliae. Nullus enim diceret de rege Angliae veniente
of-the-king of-England no-one for would-say of the-king of-England coming
Parisius, Li reis vent, sed adjungeret aliud dicens, Li reis
to-Paris Li reis vent but he-would-add another-thing saying Li reis
de Engletere vent. Et ideo articulus solus sufficit ad veritatem
de Engletere vent and therefore the-article alone suffices for the-truth
et proprietatem rei de qua est sermo designandam.
and property of-the-thing about which is the-speech to-be-designated

Propter quod Augustinus dicit quod Graecum hoc sit
because-of which Augustine says that the-Greek this is
πρόσωπον θεοῦ, quod in Graeco sonat prosopon theu; cum
πρόσωπον θεοῦ which in Greek sounds prosopon theu with
articulo enim non sic, prosopon tu theu, πρόσωπον τοῦ θεοῦ.
the-article for not thus prosopon tu theu πρόσωπον τοῦ θεοῦ
Prosopon hic significat vultum vel faciem. Theu est genitivus
Prosopon here signifies countenance or face Theu is the-genitive
casus hujus nominis theos quod est Deus, et tu est articulus
case of-this noun theos which is God and tu is the-article
genitivi. Magna ergo necessitas est ut Latini sciant
of-the-genitive great therefore necessity is that the-Latins know
linguas propter dicta sanctorum et caeterorum sapientum.
tongues because-of the-sayings of-the-saints and of-the-other wise-men

THE CORRUPT PARIS BIBLE

The common Paris text of the Bible is infinitely corrupt, and the friars' rival corrections make it worse. Bacon gives examples: superfluous prologues, the raven that did return, thirty pieces for Joseph's twenty, fountain for strong, testacio, and a misplaced aspiration.

Sexta ratio est propter errorum falsitatum infinitarum
the-sixth reason is because-of of-errors of-falsities infinite
correctionem in textu tam theologiae quam philosophiae,
the-correction in the-text as of-theology as of-philosophy
non solum in litera, sed in sensu. Quod autem correctio
not only in the-letter but in the-sense that moreover correction
sit necessaria, probo per corruptionis magnitudinem. Et
be necessary I-prove through of-the-corruption the-greatness and
quoniam violentius et periculosius erratur in textu Dei quam
since more-violently and more-dangerously it-is-erred in the-text of-God than

textu philosophiae, ideo convertam linguarum potestatem
in-the-text of-philosophy therefore I-shall-turn of-the-tongues the-power
ad corruptionem textus sacri, ut pateat necessitas earum,
to the-corruption of-the-text sacred that may-be-plain the-necessity their
propter corruptionem infinitam exemplaris vulgati quod
because-of the-corruption infinite of-the-copy made-common which
est Parisiense. Et Deus novit quod nihil tam valida indigens
is the-Parisian and God knows that nothing so strong needing
correptione potest Apostolicae Sedi praesentari sicut haec
correction can to-the-Apostolic See to-be-presented as this
corruptio infinita. Nam litera ubique in exemplari vulgato
corruption infinite for the-letter everywhere in the-copy made-common
falsa est, et si litera sit falsa vel dubia, tunc sensus literalis
false is and if the-letter be false or doubtful then the-sense literal
et spiritualis falsitatem et dubitationem ineffabilem continebit,
and spiritual falsity and doubt unspeakable shall-contain
quod volo nunc ostendere sine contradictione possibili.
which I-wish now to-show without contradiction possible
Nam Augustinus contra Faustum dicit, 'Si discordia in
for Augustine against Faustus says if discord in
Latinis codicibus est, recurrendum est ad antiquos et plures.
the-Latin codices is to-be-recurred it-is to the-ancient and more
Nam antiqui praeponendi sunt novis, et plures paucioribus
for the-ancient to-be-put-before are the-new and the-more to-the-fewer
praeferuntur.' Sed omnes antiquae Bibliae quae jacent in
are-preferred but all the-ancient Bibles which lie in
monasteriis, quae non sunt adhuc glossatae nec tactae, habent
monasteries which not are yet glossed nor touched have
veritatem translationis, quam sacrosancta a principio recepit
the-truth of-the-translation which the-most-holy from the-beginning received
Romana Ecclesia, et jussit per omnes Ecclesias divulgari.
Roman Church and ordered through all Churches to-be-divulged

Sed hae in infinitum contradicunt exemplari Parisiensi: igitur
but these to infinity contradict the-copy Parisian therefore
hoc exemplar magna indiget correctione per antiqua.
this copy great needs correction through the-ancient-ones
Caeterum Augustinus ibidem dicit, 'Quod si dubitatio
moreover Augustine in-the-same-place says but if doubt
adhuc remaneat in antiquis bibliis, recurrendum est ad linguas,
still remain in the-ancient bibles to-be-recurred it-is to the-tongues
scilicet Hebraicam et Graecam'; et hoc dicit secundo de
namely Hebrew and Greek and this he-says in-the-second on
doctrina Christiana, et ostendit in exemplis. Et Hieronymus
doctrine Christian and shows in examples and Jerome
hoc dicit ad Frecellam sororem et super Zachariam, et
this says to Fretela the-sister and on Zechariah and
omnes sancti concordant; sed antiquis bibliis concordant
all the-saints agree but with-the-ancient bibles agree
linguae Graecorum et Hebraeorum contra exemplar Parisiense;
the-tongues of-the-Greeks and of-the-Hebrews against the-copy Parisian
igitur oportet quod corrigatur. Caeterum Hieronymus dicit ad
therefore it-behooves that it-be-corrected moreover Jerome says to
Damascenum in hoc casu, 'Ubi est diversitas, non est veritas
Damasus in this case where is diversity not is truth
nota.' Sed illi qui nituntur cum omni veritate quantum
known but those who strive with all truth as-far-as
possint corrigere textum sunt duo ordines Praedicatorum et
they-can to-correct the-text are the-two orders of-the-Preachers and
Minorum. Jam de correctione formaverunt varias scripturas,
of-the-Minors already about correction they-have-formed various writings
et plus quam una biblia contineat; contendunt ad invicem,
and more than one bible may-contain they-contend with each-other
et contradicunt infinities, et non solum ordines ad invicem,
and contradict infinitely and not only the-orders with each-other

sed utriusque ordinis fratres sibi invicem contrariantes plus
but of-each order the-brothers each other contradicting more
quam ordines totales; nam omnis dominus alii contradicit,
than the-orders whole for every lord another contradicts
et in eadem correctores sibi invicem succedentes mutuas
and in the-same the-correctors each other succeeding mutual
eradunt positiones cum infinito scandalo et confusione. Unde
scrape-out positions with infinite scandal and confusion whence
cum ad viginti annos praedicatores redegerunt correctionem
when about twenty years-ago the-Preachers reduced the-correction
in scripturis, jam venerunt alii, et novam ordinaverunt
into writings now came others and a-new ordained
correctionem, quae continet plus medietate unius bibliae;
correction which contains more than-half of-one bible
quantum vix ponatur in tanta scriptura quantum Novum
as-much-as scarcely be-placed in so-great a-writing as-much-as the-New
continet Testamentum. Et quia vident se errasse in
contains Testament and because they-see themselves to-have-erred in
antiqua correctione, jam fecerunt statuta quod nullus ei
the-old correction now they-have-made statutes that no-one to-it
adhaereat; et tamen secunda correctio propter horribilem
adhere and yet the-second correction because-of the-horrible
sui quantitatem simul cum veritatibus multis habet sine
its quantity together with truths many has without
comparatione plures falsitates quam prima correctio.
comparison more falsities than the-first correction
Quod autem dixi in universali, potest patere in exemplis;
what moreover I-said in universal can to-be-plain in examples
nam infinities accidit corruptio additione, subtractione,
for infinitely happens corruption by-addition subtraction
conjunctione, divisione orationis, dictionis, syllabae, literae,
conjunction division of-speech of-word of-syllable of-letter

diphthongi, aspirationis notae: et non solum litera, sed
of-diphthong of-aspiration of-the-mark and not only the-letter but
sensus literalis et spiritualis mutantur; et non solum cadunt
the-sense literal and spiritual are-changed and not only fall
haec vitia circa unam orationem, sed circa multas, immo
these vices about one speech but about many nay
penes folia quamplurima; et de singulis unum ponam
as-to leaves very-many and of single-ones one I-shall-put
exemplum vel duo. Nam multi prologi superflui ponuntur
example or two for many prologues superfluous are-placed
in textu, cum non sint prologi textus in quibus redditur
in the-text since not they-be prologues of-the-text in which is-rendered
ratio translationis librorum quibus praeponuntur, sed sunt
the-reason of-the-translation of-the-books to-which they-are-prefixed but they-are
epistolae familiaribus missae, ut epistola Hieronymi ad
letters to-friends sent as the-letter of-Jerome to
Paulinum, quae in capite bibliae reputatur prologus et
Paulinus which at the-head of-the-bible is-reckoned a-prologue and
vocatur a vulgo, quae tamen in libro epistolarum Jeronymi
is-called-so by the-crowd which yet in the-book of-letters of-Jerome
continetur; vel respectu prologi in commentarios et in
is-contained or in-respect of-a-prologue to commentaries and to
originalia non in textum, sicut idem quod praemittitur
originals not to the-text as the-same which is-set-before
ante librum Ecclesiastis. Nam patet quod prologus est ibi
before the-book of-Ecclesiastes for it-is-plain that the-prologue is there
originalis, et patet ex sententia. Et sic est de multis
original and it-is-plain from the-sense and so it-is of many
aliis, quae non sunt in bibliis antiquitatis. De una oratione
others which not are in the-bibles of-antiquity of one speech
superflua est exemplum Deuteronomii 27. ‘Maledictus qui
superfluous is the-example of-Deuteronomy 27 cursed who

dormit cum uxore proximi sui, et dicet omnis populus
sleeps with the-wife of-neighbor his and shall-say all the-people
Amen;' quoniam nec antiqui codices, nec Hebraeus, nec
Amen since neither the-ancient codices nor the-Hebrew nor
Graecus habent versum hunc. De superfluitate dictionis
the-Greek have verse this of the-superfluity of-a-word
horribile est ac nefandum octavo Genesis, cum dicitur
horrible it-is and unspeakable in-the-eighth of-Genesis when it-is-said
quod 'Corvus ad arcam non est reversus,' et Hebraei et
that the-Raven to the-ark not is returned and the-Hebrews and
Hieronymus in originali habent affirmativam. Et accepta est
Jerome in the-original have the-affirmative and taken is
negatio a paucis temporibus de alia translatione, scilicet
the-negation from a-few times from another translation namely
LXX interpretum, cujus falsitatem Hieronymus ostendit
of-the-Seventy translators whose falsity Jerome shows
locis infinitis, et jam a tempore Isidori et antea evacuata
in-places infinite and now from the-time of-Isidore and before emptied
est. Nam ipse dicit in libro de officiis quod generaliter omnes
it-is for he says in the-book on offices that generally all
ecclesiae Latinae utuntur translatione Hieronymi, pro eo
churches Latin use the-translation of-Jerome for this
quod veracior sit in sententiis et clarior in verbis; excepto
that more-truthful it-be in opinions and clearer in words except
quod propter nimium usum psallendi in ecclesia solius
that because-of the-excessive use of-psalm-singing in the-church of-the-sole
psalterii translatio scilicet LXX interpretum remansit.
psalter the-translation namely of-the-Seventy translators has-remained
Sed antiquitus Romana Ecclesia jussit translationem hanc
but anciently the-Roman Church ordered translation this
ubicunque haberi. Augustinus et alii et ipsemet Hieronymus
everywhere to-be-had Augustine and others and the-very Jerome

tempore suo usi sunt sicut Ecclesia translatione antiqua.
in-the-time his used have as the-Church the-translation old
Et ideo Augustinum quum recitat textum hunc decimo
and therefore Augustine when he-recites text this in-the-tenth
sexto de Civitate Dei et exponit oportuit quod uteretur
sixth on the-City of-God and expounds it-behooved that he-should-use
translatione quae fuit vulgata et recepta apud Latinos, nec
the-translation which was made-common and received among the-Latins nor
potuit aliud facere. Omnis vero glossator qui infixit glossas
could-he other-thing to-do every but glossator who fixed glosses
super textum accepit auctoritatem Augustini de Civitate
over the-text took the-authority of-Augustine from the-City
Dei et eam posuit infra textum, sed non mutavit eam nec
of-God and it placed below the-text but not he-changed it nor
intulit negationem... inter caeteros hoc fecit. Et sic vulgatus
brought-in the-negation among the-others this he-did and so made-common
est error horribilis cum contradictorium pro contradictione
is the-error horrible since the-contradictory for the-contradiction
ponatur. Nam videtur in philosophia quod ejusdem libri
is-placed for it-is-seen in philosophy that of-the-same book
est aliquando duplex et triplex translatio; et una habet
there-is sometimes a-double and triple translation and one has
diversum vel aliquando contrarium alteri. Sed nullus est
diverse or sometimes contrary to-the-other but no-one is
qui ausus est translationem unam miscere cum alia.
who dared has translation one to-mingle with another
Quod autem ecclesiastici habent in legendo negationem
that moreover the-churchmen have in reading the-negation
hoc est de corruptione exemplaris apud studentes ad
this is from the-corruption of-the-copy among students to
ecclesiasticos derivatum, et de syllabae mutatione, et per
the-churchmen derived and from of-a-syllable the-change and by

consequens totius dictionis. Et exemplum mirabile est de
consequence of-the-whole word and an-example wonderful is about
Joseph, qui dicitur in exemplari vulgato venditus fuisse
Joseph who is-said in the-copy made-common sold to-have-been
triginta argenteis propter exemplum Domini, sed secundum
for-thirty pieces-of-silver because-of the-example of-the-Lord but according-to
antiquos codices et Hebraeum, et Graecum, et Arabicum,
the-ancient codices and the-Hebrew and Greek and Arabic
et Hieronymum in originali, et Josephum in antiquitatum
and Jerome in the-original and Josephus in of-the-antiquities
libro, debent esse viginti non triginta. Et similiter in
the-book they-ought to-be twenty not thirty and likewise in
Psalterio ad syllabae mutationem mutatur tota dictio cum
the-Psalter at of-a-syllable the-change is-changed the-whole word with
infinito errore, cum dicitur, 'Sitivit anima mea ad Deum
infinite error when it-is-said has-thirsted soul my for God
fontem vivum.' Nam cum ecclesia in solo Psalterio utatur
the-fountain living for since the-church in the-sole Psalter use
translatione LXX interpretum, Hieronymus correxit hanc
the-translation of-the-Seventy translators Jerome corrected this
translationem bis, et posuit fortem ubi ponimus fontem
translation twice and put strong where we-put fountain
per errorem propter similitudinem dictionis, et propter
through error because-of the-likeness of-the-word and because-of
hoc quod in praecedenti versu fit mentio de fonte;
this that in the-preceding verse is-made mention of a-fountain
sed ut dixi Hieronymus correxit fortem, et ita est in
but as I-said Jerome corrected strong and so it-is in
Hebraeis bibliis et in psalteriis antiquis monasticis. Nam
Hebrew bibles and in psalters ancient monastic for

hoc diligenter inspexi; et omnino certum est quod non
this diligently I-have-inspected and wholly certain it-is that not
est hic error vilissimus propter similitudines praedictas.
is here the-error most-vile because-of the-likenesses aforesaid
De literae mutatione est exemplum notabile primo Judicum,
of of-a-letter the-change is an-example notable in-the-first of-Judges
cum dicitur in monte Ares, quod interpretatur testaceo,
when it-is-said on the-mount Ares which is-interpreted earthen
ut penultima litera sit e non i, sed communiter habetur
so-that the-penultimate letter be e not i but commonly is-had
testacio per i, ut sit nominativus casus, et idem
testacio through i so-that it-be the-nominative case and the-same
quod testificatio a teste; sed si deberet esse ablativus,
as testifying from a-witness but if it-ought to-be the-ablative
derivatur a testa. Nam in omnibus antiquis bibliis est
it-is-derived from testa for in all ancient bibles is
testaceo per e, et in Graeco, et in Hebraeo, ubi
testaceo through e and in the-Greek and in the-Hebrew where
habetur hares, Hieronymus transtulit testam, vel aliquid
is-had hares Jerome translated potsherd or something
derivatum a testa; nam hares in Hebraeo testam vel aliquid
derived from testa for hares in Hebrew potsherd or something
praedictorum significat in Latino. Unde Hieronymus in sexto
of-the-aforesaid signifies in Latin whence Jerome in the-sixth
libro super Isaiam exponens idem verbum decimo sexto
book on Isaiah expounding the-same word in-the-tenth sixth
capite, 'His qui laetantur super muros cocti lateris,' dicit
chapter to-those who rejoice over the-walls of-baked brick says
hares testam sive coctum laterem significat. Et in decimo
hares a-potsherd or baked brick signifies and in the-tenth
octavo libro super idem vicesimo quarto Isaiae, 'Erubescet
eighth book on the-same in-the-twentieth fourth of-Isaiah shall-blush

luna,' dicit quod hares testam sive coctum vel ariditatem
the-moon he-says that hares a-potsherd or baked or dryness
sonat. Quod vero tricesimo primo et tricesimo secundo
sounds that but in-the-thirtieth first and thirtieth second
Jeremiae confunduntur haec nomina Ananeel et Anameel
of-Jeremiah are-confounded these names Hananeel and Hanameel
per errorem, ut in litera indifferenter ponitur m in
through error so-that in the-letter indifferently is-placed m in
penultima, est error magnus in mutatione unius literae.
the-penultimate is an-error great in the-change of-one letter
Nam Hieronymus dicit in originali, quod Ananeel per n
for Jerome says in the-original that Hananeel through n
scriptum est turris, per m est filius patruelis Jeremiae, et
written is a-tower through m is the-son of-the-uncle of-Jeremiah and
sic invenitur in Hebraeo. De aspirationis nota exemplum
so it-is-found in the-Hebrew of of-aspiration the-mark the-example
primo ad Thessalonicenses, cum dicitur, ad cujus ore, ut
in-the-first to the-Thessalonians when it-is-said at whose mouth so-that
sit ablativus casus hujus nominis os, oris, et non genitivus
it-be the-ablative case of-this noun os oris and not the-genitive
hujus nominis hora, horae; scribitur enim in ablativo casu,
of-this noun hora horae it-is-written for in the-ablative case
et glossatur non a sancto, sed a magistro sententiarum, qui
and is-glossed not by a-saint but by the-master of-the-sentences who
glossavit epistolas; sed sicut defecit multipliciter in expositione
glossed the-epistles but as he-failed manifoldly in exposition
propter ignorantiam Graeci, ita fecit hic. Quum procul dubio
because-of ignorance of-Greek so he-did here since without doubt
in Graeco, a quo sumptus est genitivus hujus nominis
in the-Greek from which taken is the-genitive of-this noun
hora, invenitur horas, et aspiratur tam apud Graecum quam
hora is-found horas and it-is-aspirated as among the-Greek as

apud Latinum. Scilicet Os, oris, non aspiratur. Hoc enim
among the-Latin namely Os oris not is-aspirated this for
verbum, hora, est Graecum, licet Latino nomine declinatur,
word hora is Greek although by-a-Latin name it-is-declined
sicut Domina: sed Graecus declinat sic, hora, horas, hora,
as Domina but the-Greek declines thus hora horas hora
horam, hora. Unde nominativus et dativus, et vocativus,
horam hora whence the-nominative and dative and vocative
similes sunt: accusativus in am, genitivus in as; ablativum
alike are the-accusative in am the-genitive in as an-ablative
non habent Graeci. Et hoc in Graeco est horas, sicut ego
not have the-Greeks and this in Greek is horas as I
legi diligenter et omnibus possim probare qui sciunt
have-read diligently and to-all I-can to-prove who know
Graecum, et in Graeco invenitur aspiratio. Haec exempla
Greek and in Greek is-found aspiration these examples
volui assumere ut quae probant quod necesse est linguas
I-wished to-take-up that which prove that necessary it-is tongues
sciri propter textus Latini corruptionem tam in theologia
to-be-known because-of of-the-text Latin the-corruption as in theology
quam in philosophia. Quomodo vere de corruptione plene
as in philosophy how but about corruption fully
probo et in speciali per omnes corruptiones bibliae, in
I-prove and in special through all the-corruptions of-the-bible to
aliud tempus differtur propter rei magnitudinem quae
another time it-is-deferred because-of of-the-thing the-greatness which
potest Vestrae Sanctitati praesentari, sed non nunc ut
can to-Your Holiness to-be-presented but not now that
sufficiat, sed magis per alium in sequentibus explicabo.
it-may-suffice but more through another in the-following-things I-shall-unfold

Without the tongues the Latins mistake interpretations. Israel is not a man seeing God, as the crowd holds, but prince with God, as Jerome proves from the Hebrew letters, the sense, and the text; the theologians' four meanings of one Hebrew word are a like error.

Septima ratio est, quia necesse est ut Latini sciant
the-seventh reason is that necessary it-is that the-Latins know
linguas specialiter propter sensus falsitatem, etsi litera
tongues specially because-of of-the-sense the-falsity even-if the-letter
esset verissima. Nam tam in theologia quam in philosophia
were most-true for as in theology as in philosophy
necessariae sunt interpretationes et praecipue in textu sacro,
necessary are interpretations and especially in the-text sacred
et in textu medicinae et scientiarum secretarum; quae
and in the-text of-medicine and of-the-sciences secret which
nimis occultantur propter ignorantiam interpretationum.
too-much are-hidden because-of ignorance of-interpretations
Nam medici confusi sunt propter malas interpretationes,
for the-physicians confused are because-of bad interpretations
quas vocant synonyma; non est autem eis possibile uti
which they-call synonyms not it-is moreover for-them possible to-use
medicinis authenticis propter errorum istorum synonymorum
medicines authentic because-of of-the-errors of-these synonyms
ignorantiam; et ideo accidit in manibus eorum infinitum
ignorance and therefore happens in the-hands their infinite
periculum. Eodem modo est in textu sacro; nam summa
danger in-the-same way it-is in the-text sacred for the-highest
difficultas, quae est apud ipsum sciendum est propter
difficulty which is in it to-be-known is because-of

varietatem et obscuritatem infinitarum interpretationum,
the-variety and obscurity of-infinite interpretations
et in exemplo familiari pro infinitis aliis apparet. Vulgus
and in an-example familiar for infinite others it-appears the-crowd
enim hoc nomen Israel pro patriarcha interpretatur virum
for this name Israel for the-patriarch interprets a-man
videntem Deum. Et praevaluit hoc in usu usque ad tempus
seeing God and prevailed this in use up to the-time
Hieronymi, et etiam usque quo sua translatio et sua
of-Jerome and even up to-which his translation and his
expositio jussae sunt per omnes ecclesias divulgari. Sed
exposition ordered are through all churches to-be-divulged but
ipse dicit in originali quantae grandis auctoritatis sunt, et
he says in the-original of-how-great great authority they-are and
eorum verbis nos opprimit qui Israel virum videntem Deum
their by-words us overwhelms who Israel a-man seeing God
interpretati sunt. Nos tamen magis consentimus Domino vel
interpreted have we yet more agree with-the-Lord or
Angelo qui illi hoc nomen imposuit quam auctoritati
with-the-Angel who on-him this name imposed than with-the-authority
alicujus saecularis eloquentiae. Et ideo probat egregie quod
of-any secular eloquence and therefore he-proves excellently what
affirmat. Nam illi qui sic interpretati sunt crediderunt quod
he-affirms for those who so interpreted have believed that
hoc vocabulum significet idem conjunctum vel divisum, sicut
this word signify the-same joined or divided as
respublica apud nos. Sed hoc non est generaliter verum,
respublica among us but this not is generally true
immo in pluribus habet instantiam in omni lingua. Nam apud
nay in many it-has an-instance in every tongue for among
Hebraeos Is est vir, Ra videns, El Deus; et ideo crediderunt
the-Hebrews Is is man Ra seeing El God and therefore believed

multi quod hoc nomen patriarchae habet resolutionem in
many that this name of-the-patriarch has a-resolution into
illa tria. Sed Hieronymus reprobat per multa argumenta;
those three but Jerome refutes through many arguments
quatuor enim possunt sumi e dictis suis a parte
four for can to-be-taken from sayings his from the-part
vocis, et quatuor vel quinque a parte rei. Nam
of-the-word and four or five from the-part of-the-thing for
in illis tribus nominibus aliae literae sunt et plures quam
in those three names other letters are and more than
in nomine patriarchae, et aliter ordine et syllabicatae
in the-name of-the-patriarch and differently in-order and syllabled
reperiuntur. Ex hoc ergo triplici argumento sumto penes
are-found from this therefore threefold argument taken in-respect-of
literas concluditur per Hieronymum quod id significari non
the-letters is-concluded by Jerome that it to-be-signified not
potest hinc inde; cum potentia significationis ejusdem sumitur
can hither thither since the-power of-signification the-same is-taken
propter vocis identitatem, sed vocem et literas nimis
because-of of-the-word the-identity but the-word and the-letters too-much
variari, quum in nomine patriarchae sunt hae quinque literae
to-vary since in the-name of-the-patriarch are these five letters
per ordinem: Iod, Sin, Resh, Aleph, Lamet, sicut ipsum
in order Yod Shin Resh Aleph Lamed as the-very
Hebraeum hic positum declarat ‹yišərāʾēl›, Israel. Sed in
Hebrew here placed declares yišərāʾēl Israel but in
hoc triplici vocabulo hae octo literae habent hunc ordinem,
this threefold word these eight letters have this order
scilicet, Aleph, Iod, Sin, Resh, Aleph, He, Aleph, Lamet, ut
namely Aleph Yod Shin Resh Aleph He Aleph Lamed as
hic Hebraeum ostendit, ‹ʾiyšərʾhʾēl›. Et quarto argui potest
here the-Hebrew shows ʾiyšərʾhʾēl and fourthly to-be-argued it-can

explicatione. Nam sicut puncta ostendunt nomen proprium
from-the-explication for as the-points show the-name proper
non retinet apud Hebraeum sonum praecisum illorum
not keeps among the-Hebrew the-sound precise of-those
vocabulorum. Nam secundum majorem quasi Iserael sonatur
words for according-to the-greater as-if Iserael it-is-sounded
in quatuor syllabis, tamen ibi vocabulorum sonus in solis
in four syllables yet there of-the-words the-sound into only
tribus syllabis coarctatur, quoniam punctum sub litera sonat
three syllables is-compressed since the-point under the-letter sounds
i, et duo puncta sonant e, et linea cum puncto sub ea
i and two points sound e and a-line with a-point under it
sonat a. Sed argumenta fortiora trahuntur ex sensu vocis
sounds a but arguments stronger are-drawn from the-sense of-the-word
secundum Hieronymum. Et hoc ostendit ipsum Hebraeum
according-to Jerome and this shows the-very Hebrew
hic scriptum hoc modo: Et textus Graecus habet sic: 'quia
here written in-this way and the-text Greek has thus because
invaluisti cum Domino [et cum hominibus valebis].'
you-have-prevailed with the-Lord and with men you-shall-prevail
Nam secundum Hieronymum et per textum Hebraeum, et
for according-to Jerome and through the-text Hebrew and
Graecum, et Latinum, et per Josephum patet quod Israel
Greek and Latin and through Josephus it-is-plain that Israel
non debet dici vir videns Deum, sed principalis vel
not ought to-be-called a-man seeing God but principal or
princeps cum Deo, quoniam in Hebraeo ad literam est sic:
prince with God since in the-Hebrew to the-letter it-is thus
'Et dixit Deus non vocabitur nomen tuum a modo Jacob,
and said God not shall-be-called name your from now Jacob
sed Israel; quoniam principalis vel princeps fuisti cum
but Israel since principal or prince you-have-been with

Deo, et cum hominibus poteris principari.' Et ideo
God and with men you-shall-be-able to-rule and therefore
dicit Hieronymus quod sensus est, 'Non vocabitur nomen
says Jerome that the-sense is not shall-be-called name
tuum supplantator, hoc est Jacob, sed vocabitur nomen tuum
your supplanter that is Jacob but shall-be-called name your
princeps cum Deo, hoc est Israel. Quoniam ego princeps
prince with God that is Israel since I prince
sum, sic tu, qui mecum luctari potuisti, princeps vocaberis.
am so you who with-me to-wrestle you-could prince you-shall-be-called
Si autem mecum pugnare invaluisti, quanto magis cum
if moreover with-me to-fight you-have-prevailed how-much more with
hominibus; hoc est, cum Esau, quem formidare non debes?'
men that is with Esau whom to-dread not you-ought
Et quoque Latinum habet: 'Quoniam si contra Dominum
and also the-Latin has since if against the-Lord
fuisti, quanto magis contra homines praevalebis?' Et
you-have-been how-much more against men you-shall-prevail and
Josephus primo antiquitatum libro, Israel ideo appellatum
Josephus in-the-first of-the-antiquities book Israel therefore named
dicit, quia contra Angelum steterit. Omnia igitur haec,
says because against the-Angel he-stood all therefore these-things
scilicet principari cum Deo, et invalescere, et fortem esse, et
namely to-rule with God and to-grow-strong and strong to-be and
stare cum Deo ut patet reducuntur ad eundem sensum, sed
to-stand with God as is-plain are-brought-back to the-same sense but
diversis vocabulis interpretationum, quorum nullum de virtute
by-diverse words of-interpretations of-which none from the-power
significationis suae potest elicere visionem Dei. Et ideo
of-signification its can to-draw-out the-vision of-God and therefore
vera interpretatio est princeps cum Deo. Et adhuc confirmat
the-true interpretation is prince with God and still confirms

hoc Hieronymus per argumentum derivationis; nam Sarith
this Jerome through the-argument of-derivation for Sarith
et ab Israel nomine derivatur, et principem sonat. Unde
and from Israel the-name is-derived and prince sounds whence
Sara uxor Abrahae princeps dicitur, ut dicit Hieronymus
Sarah the-wife of-Abraham princess is-called as says Jerome
super septimum decimum capitulum Geneseos; quapropter
on the-seventh tenth chapter of-Genesis wherefore
si vulgus vel aliqui antiqui, ut Eusebius Caesariensis in
if the-crowd or some ancients as Eusebius of-Caesarea in
libro nominum Hebraeorum quem Hieronymus in Latinum
the-book of-names Hebrew which Jerome into Latin
vertit, et alii, famosa abutentes interpretatione dicunt
turned and others famous abusing the-interpretation say
Israel interpretari per virum videntem Deum, dicamus cum
Israel to-be-interpreted by a-man seeing God let-us-say with
Hieronymo. Illud vero quod in libro Nominum interpretatur
Jerome that but which in the-book of-Names is-interpreted
Israel Vir videns Deum omnium pene sermone decretum
Israel A-man seeing God of-all almost by-the-speech decreed
non tam vero quam violenter interpretatum videtur. Et
not so truly as violently interpreted it-seems and
igitur per Eusebium in libro Nominum quem Hieronymus
therefore through Eusebius in the-book of-Names which Jerome
transtulit in Latinum et per Ambrosium et alios forsitan
translated into Latin and through Ambrose and other perhaps
sanctos allegare si quis concedat quod recta hujus vocabuli,
saints to-allege if anyone grant that the-right of-this word
Israel, expositio sit Vir videns Deum, dicendum est quod
Israel exposition be A-man seeing God to-be-said it-is that
locuti sunt secundam vulgatam expositionem, antequam
spoken they-have according-to the-common exposition before

veritas fuerit patefacta quam postea beatus Hieronymus
the-truth had-been laid-open which afterward blessed Jerome
vera et perfecta interpretatione Latinis revelavit, sicut in
by-true and perfect interpretation to-the-Latins revealed as in
ejus libris continetur et in glosa etiam habetur.
his books is-contained and in the-gloss also is-had
Et si forsan dicitur quod consuetudo vulgi theologorum
and if perhaps it-is-said that the-custom of-the-crowd of-theologians
modernorum hanc interpretationem frequentet, patet responsio
modern this interpretation frequents is-plain the-reply
per supradicta secundum Augustinum, et Cyprianum,
through the-aforesaid according-to Augustine and Cyprian
et Isidorum, et alios et per varias declarationes. Nam
and Isidore and others and through various declarations for
secundum eos manifestatae veritati cedat consuetudo, et
according-to them to-manifested truth let-yield custom and
relicto errore vulgi sequamur veritatem. Et quod ex
with-left the-error of-the-crowd let-us-follow truth and what from
mera ignorantia venit non debet allegari, sicut accidit in
mere ignorance comes not ought to-be-alleged as happens in
proposito, et praecipue contra auctorem et doctorem sacrum
the-proposition and especially against an-author and doctor sacred
non licet contraire, nisi pro se rationes sufficientes
not it-is-permitted to-go-against unless for himself reasons sufficient
et auctoritates allegat. Et ad omnem affirmationem poterit
and authorities he-alleges and for every affirmation shall-be-able
quilibet Hebraicae peritos consulere, et inveniet sententiam
anyone of-Hebrew the-skilled to-consult and he-shall-find the-opinion
Hieronymi ratam et inconcussam. Summa vero necessitas
of-Jerome ratified and unshaken the-highest but necessity
remediorum falsitatis requiritur in his interpretationibus
of-remedies of-falsity is-required in these interpretations

propter formam Hebraei sermonis; nam in interpretationibus
because-of the-form of-the-Hebrew speech for in the-interpretations
vulgatis quae in fine bibliae ponuntur, sunt infinitae
made-common which at the-end of-the-bible are-placed are infinite
occasiones errorum: propter hoc erramus quod unum
occasions of-errors because-of this we-err that one
vocabulum aestimatur simplex secundum normam Latinorum,
word is-reckoned simple according-to the-norm of-the-Latins
quod est multiplex apud Hebraeos: et abundantius erratur
which is manifold among the-Hebrews and more-abundantly it-is-erred
quod tali vocabulo dantur variae interpretationes tanquam
that to-such a-word are-given various interpretations as-if
ejusdem sint vocabuli Hebraei, cum tamen quaelibet sit
of-the-same they-be word Hebrew though yet each be
diversi, eo quod vocabulum Hebraeum apud nos male
of-another by-this that a-word Hebrew among us badly
consideratum in scriptura una habet diversas literas apud
considered in writing one has diverse letters among
Hebraeos, penes quos recepit diversas interpretationes,
the-Hebrews with whom it-received diverse interpretations
secundum quod Hieronymus ponit exemplum in epistola de
according-to what Jerome puts an-example in the-epistle on
mansionibus. Nam oportet si ar scribatur per aleph, significat
the-stations for it-behooves if ar be-written through aleph it-signifies
lumen; si per ain, inimicum, si per heth, foramen; per
light if through ayin an-enemy if through heth a-hole through
he, montem; dicit igitur quod vicesimo Numerorum quidam
he a-mountain he-says therefore that in-the-twentieth of-Numbers certain-ones
interpretati sunt his modis quatuor; sed opiniones tres
interpreted have in-these ways four but opinions three
destruit, quia in Hebraeo scribitur hic per he, et ideo
he-destroys because in the-Hebrew it-is-written here through he and therefore

solum montem in hoc loco designat. Sed in praedicando et
only mountain in this place it-designates but in preaching and
legendo theologi recurrunt ad omnes quatuor expositiones
reading the-theologians recur to all four expositions
in hoc vocabulo, et sic alias, igitur multipliciter errant.
in this word and so elsewhere therefore manifoldly they-err

LATIN WORDS FROM OTHER TONGUES

Latin grammar and much of its vocabulary come from Greek and Hebrew, and errors in words breed errors in argument. The Latins derive Greek and Hebrew words from Latin and Latin words from Greek: amen, dogma, jubilee, coelum, and ave are all wrongly explained.

Est ultima ratio scientialis de necessitate linguarum,
there-is a-last reason scientific about the-necessity of-tongues
quod Grammatica in lingua Latinorum tracta est a
that Grammar in the-tongue of-the-Latins drawn is from
Graeco et Hebraeo. Nam litteras accepimus a Graecis,
Greek and Hebrew for letters we-received from the-Greeks
ut docet Priscianus, et totam rationem tractandi partes
as teaches Priscian and the-whole method of-treating the-parts
omnes Priscianus accepit a Graecis et miscet Graecum in
all Priscian received from the-Greeks and mingles Greek in
multa abundantia per omnes libros suos. Et ipsa vocabula
great abundance through all books his and the-very words
linguae Latinae, et tam theologica quam philosophica, ab
of-the-tongue Latin and as theological as philosophical from
alienis linguis pro parte maxima sunt transfusa, quorum aliqua
foreign tongues for the-part greatest are poured-over of-which some
suspicantur Latini esse alterius linguae; et de aliquibus
suspect the-Latins to-be of-another tongue and about some

non considerant quod ab aliena lingua descendunt. Multa
not they-consider that from a-foreign tongue they-descend many
vero aestimantur quod sint penitus Latina, cum tamen sint
but are-reckoned that they-be wholly Latin though yet they-be
Graeca, vel Hebraea, vel Chaldaea, seu Arabica, in quibus tam
Greek or Hebrew or Chaldean or Arabic in which as
in pronunciatione quam in scriptura et sensu accidit multiplex
in pronunciation as in writing and sense happens manifold
error Latinorum; nec est modicum errare in vocabulis, quia
error of-the-Latins nor is-it small to-err in words because
per consequens errabitur in orationibus, deinde in argumentis,
by consequence it-shall-be-erred in speeches then in arguments
tandem in his quae aestimantur concludi. Nam Aristoteles
at-last in those which are-reckoned to-be-concluded for Aristotle
dicit quod 'qui nominum ignari sunt, saepe paralogizantur.'
says that those-who of-names ignorant are often reason-falsely
Et primum et principale fundamentum doctrinae ponit
and the-first and principal foundation of-teaching places
Boethius in certa et integra cognitione terminorum, sicut
Boethius in certain and entire knowledge of-terms as
docet in libro de disciplina scholarium, atque nos experimur
he-teaches in the-book on the-discipline of-scholars and we experience
hoc in singulis scientiis. Nam principalis difficultas et
this in single sciences for the-principal difficulty and
utilitas est, quod homo sciat intelligere vocabula quae
utility is that a-man know-how to-understand the-words which
dicuntur in scientia et prudenter sine errore proferre;
are-said in a-science and prudently without error to-utter
quando veraciter scit hoc, potest per scriptum perficere
when truly he-knows this he-can through writing to-perfect
sine ulteriori doctrina si sit diligens in studio. Nam textus
without further teaching if he-be diligent in study for the-texts

scientiarum sunt ei plani, quando noverit proprie ac
of-the-sciences are to-him plain when he-shall-have-known properly and
certe intelligere et interpretari; et sine difficultate potest
certainly to-understand and to-interpret and without difficulty he-can
quemlibet sapientem intelligere, et cum quolibet sufficienter
any wise-man to-understand and with anyone sufficiently
conferre, et a quolibet si necesse est edoceri. Et Aristoteles
to-confer and by anyone if necessary it-is to-be-taught and Aristotle
dicit in primo coeli et mundi, quod parvus error in
says in the-first of-the-heaven and the-world that a-small error in
principio est magnus in principiatis; qui enim in fundamentis
the-beginning is great in the-things-derived who for in the-foundations
errat, necesse est ei in errore totum aedificium cumulare.
errs necessary it-is for-him in error the-whole building to-heap-up
Aestimamus igitur linguam nostram Latinis dictionibus esse
we-reckon therefore tongue our of-Latin words to-be
compositam, et pauca esse vocabula aliarum linguarum,
composed and few to-be the-words of-other tongues
cum tamen quae communiter utuntur sunt de linguis
though yet those-which commonly they-use are from tongues
alienis, ut domus, scyphus, clericus, laicus, diabolus, Satanas,
foreign as domus scyphus clericus laicus diabolus Satanas
ego, pater, mater, ambo, leo, ago, malum, et sic de
ego pater mater ambo leo ago malum and so of
infinitis, quae vix in magno volumine possunt congregari;
infinite-ones which scarcely in a-great volume can to-be-gathered
praecipue si scrutemur vocabula singularum scientiarum, et
especially if we-search the-words of-single sciences and
maxime theologiae et medicinae; quo volumine nihil
most of-theology and of-medicine than-which volume nothing
esset utilius, si vocabulorum omnium recta scriptura
would-be more-useful if of-the-words of-all the-right writing

ac pronunciatio debita cum fideli derivatione et recta
and pronunciation due with faithful derivation and right
interpretatione probarentur. Sed nunc in his quatuor erratur
interpretation were-proved but now in these four it-is-erred
in magnum totius detrimentum sapientiae, quod paucis
to the-great of-the-whole detriment of-wisdom which by-few
exemplis potest intelligi. Nos enim non consideramus
examples can to-be-understood we for not consider
ordinem linguarum, nec quod prior lingua non recepit
the-order of-tongues nor that the-prior tongue not received
interpretationem posterioris, nec quod diversae linguae in eo
interpretation of-the-later nor that diverse tongues in that
quo diversae sunt non se mutuo exponunt: sed quod
by-which diverse they-are not themselves mutually expound but what
dicit Hieronymus, et maxime prior ex posteriori non
says Jerome and most the-prior from the-later not
potest originem habere, ut certum est omni homini rationem
can origin to-have as certain it-is to-every man reason
habenti; unde Graecum non oritur ex Latino, nec Hebraeum
having whence Greek not arises from Latin nor Hebrew
ex Graeco, et non debet Hebraeum capere etymologiam
from Greek and not ought Hebrew to-take etymology
ex Graeco, nec Graecum ex Latino: unde Hieronymus
from Greek nor Greek from Latin whence Jerome
dicit contra quosdam in dicto loco memorato, quod Sara
says against certain-ones in the-said place recalled that Sara
non Graecam sed Hebraicam debet habere rationem, Hebraea
not a-Greek but a-Hebrew ought to-have reason Hebrew
enim est. Et saepius dicit quod Lenaeus a λήνη, id
for it-is and more-often he-says that Lenaeus from λήνη that
est, lacus, dicitur, non a lenio, quia Graecum non potest
is a-vat is-called not from lenio because Greek not can

Latinam etymologiam recipere; sed quod hoc facimus graviter
a-Latin etymology to-receive but which this we-do gravely
et indifferenter. Et nos contra; nam dicimus quod amen,
and indifferently and we against-it for we-say that amen
licet sit Hebraeum, dicitur ab a, quod est sine, et
although it-be Hebrew is-called from a which is without and
mene Graeco, quod est defectus. Et cum parasceue sit
mene in-Greek which is defect and though parasceue be
Graecum, dicimus quod derivatur a paro, paras, et coena,
Greek we-say that it-is-derived from paro paras and coena
coenae, quae sunt Latina. Et dicunt quod dogma dicitur a
coenae which are Latin and they-say that dogma is-called from
doceo, et sic de infinitis quae omnia falsa sunt. Et non
doceo and so of infinite-ones which all false are and not
solum vulgus Latinorum sed auctores in his oberrant, et
only the-crowd of-the-Latins but the-authors in these stray and
Hugo et ejus sectatores qui aestimant jubileum a jubilo
Hugh and his followers who reckon jubileum from jubilo
derivari, cum tamen jubileum debet esse Hebraeum. Jubilo
to-be-derived though yet jubileum ought to-be Hebrew Jubilo
est Latinum; sed non debet dici Jubileum ut litera i
is Latin but not ought to-be-said Jubileum so-that the-letter i
sit in secunda syllaba sicut in Jubilo. Debet i esse e litera
be in the-second syllable as in Jubilo ought i to-be e the-letter
ut dicatur jubeleus, sicut vult Isidorus et Papias, et
so-that it-be-said jubeleus as wishes Isidore and Papias and
omnes libri antiqui sic habent. Nam dicitur a jobel quod
all books ancient so have for it-is-said from jobel which
est Hebraeum. Ita aestimamus quod multa vocabula quae
is Hebrew so we-reckon that many words which
sunt in usu Latinorum debent exponi per alias linguas.
are in use of-the-Latins ought to-be-expounded through other tongues

Assueti autem in hoc credimus quod longe plura, quam veritas
accustomed moreover in this we-believe that far more than truth
sit, capiunt etymologiam aliunde. Nam sola illa vocabula,
be take etymology from-elsewhere for sole those words
quae oriuntur et derivantur ex Graeco et Hebraeo, debent
which arise and are-derived from Greek and Hebrew ought
habere interpretationes per linguas illas. Ea enim, quae
to-have interpretations through tongues those those for which
pure Latina sunt, non possunt habere expositionem nisi per
purely Latin are not can to-have exposition except through
vocabula Latina. Nam purum Latinum est omnino diversum
words Latin for pure Latin is wholly diverse
ab omni lingua, et ideo non potest habere interpretationem
from every tongue and therefore not can to-have interpretation
aliunde: sed Latini non hoc considerant: imo indifferenter
from-elsewhere but the-Latins not this consider nay indifferently
pura Latina per alias linguas interpretantur. Unde multis
pure Latin-words through other tongues they-interpret whence in-many
modis hoc verbum coelum quod est pure Latinum Graece
ways this word coelum which is purely Latin in-Greek
interpretantur dicentes quod coelum dicitur quasi casa helios,
they-interpret saying that coelum is-called as-if casa helios
i.e. domus solis, nam sol dicitur helios; sed incongrue
that-is the-house of-the-sun for the-sun is-called helios but incongruously
dicunt et falso. Debent enim dicere, Casa heliu, cum helios
they-say and falsely they-ought for to-say Casa heliu since helios
sit nominativi casus, heliu genitivi. Deinde falso dicitur.
be of-the-nominative case heliu of-the-genitive then falsely it-is-said
Nam sicut Varro peritissimus Latinorum et Plinius in prologo
for as Varro the-most-skilled of-the-Latins and Pliny in the-prologue
plene confirmat, coelum dicitur a coelo, coelas, quod est
fully confirms coelum is-called from coelo coelas which is

sculpo, is, quia stellis sculptum est et ornatum. Quod etiam
sculpo is because with-stars carved it-is and adorned which also
est lege scripturae vocabulorum. Nam coelo, coelas, pro
is by-the-law of-the-writing of-words for coelo coelas for
sculpo, sculpis, scribitur per diphthongum ae in omnibus
sculpo sculpis is-written through the-diphthong ae in all
libris antiquis. Et sic hoc verbum coelum apud omnes codices
books ancient and so this word coelum in all codices
antiquos scribitur per diphthongum eandem. Et ideo
ancient is-written through the-diphthong same and therefore
derivatur a coelo quod est sculpo. Et ex hoc sequitur quod
it-is-derived from coelo which is sculpo and from this it-follows that
non derivatur a celo, celas quod est occulto, occultas, sicut
not it-is-derived from celo celas which is occulto occultas as
illi qui huic nomini dant etymologiam absurdam dicentes sic
those who to-this name give an-etymology absurd saying so
dici quod occultatur et elongatur a nobis, vili errore
to-be-called because it-is-hidden and is-removed from us by-a-vile error
sicut priores decepti. Similiter hoc nomen ave, quod est
as the-earlier deceived likewise this name ave which is
pure Latinum, Graece exponunt, dicentes quod dicitur ab a,
purely Latin in-Greek they-expound saying that it-is-called from a
quod est sine, et ve, quasi sine ve: sed hoc fieri non
which is without and ve as-if without woe but this to-be-done not
debet, quia hoc vocabulum non sumitur a Graeco vocabulo
ought because this word not is-taken from a-Greek word
cognatae significationis. Nam chaere in Graeco signat ave in
of-kindred signification for chaere in Greek signifies ave in
Latino, sed haec duo non concordant. Hic ergo est unus
Latin but these two not agree here therefore is one
modus quo in infinitis Graecis vocabulis errat Latinus.
way in-which in infinite Greek words errs the-Latin

Greek words of like sound differ in spelling, as cenos, cinos, xenos, and scena, and Rabanus erred by confusing them. Malum keeps its Greek neuter gender; Greek adjectives in -inus are short in the penultimate; and ptisana, butyrum, and the accents are mispronounced.

Alius modus est, quod in Graecis vocabulis non intelligimus
another way is that in Greek words not we-understand
eorum scripturam, quam habent multipliciter variatam; quia
their writing which they-have manifoldly varied because
vocabula consimilia in sono distinguunt in significato: unde
words very-like in sound they-distinguish in meaning whence
habent triplex et duplex o, et duplex t, ac p et c; et
they-have a-triple and double o and double t and p and c and
habent undecim diphthongos, et multa alia, ut sic
they-have eleven diphthongs and many other-things so-that thus
varietatem suorum vocabulorum in significando designent.
the-variety of-their words in signifying they-may-designate
Nam cenos quod est inanis, a quo cenodoxia, i.e. inanis
for cenos which is empty from which cenodoxia that-is empty
gloria, de quo Deuteronomi septimo, per e breve scribitur.
glory of which of-Deuteronomy in-the-seventh through e short it-is-written
Et cenos quod est novus, a quo encenia, i.e. innovationes,
and cenos which is new from which encenia that-is renewals
ut nova festa et dedicationes, de quo Johannes decimo, et
as new feasts and dedications of which John in-the-tenth and
scribitur per ae diphthongum, sic caenos. Cenos vero quod
it-is-written through ae diphthong thus caenos Cenos but which-is
communis, a quo cenobium et epicenium, scribitur per oi
common from which cenobium and epicenium is-written through oi

diphthongum, quam Latinus proferat e, sed deberet proferri
diphthong which the-Latin may-utter e but it-ought to-be-uttered
i, ut diceret cinos, unde ab hoc dicitur cinomia, quod
i so-that he-should-say cinos whence from this is-called cinomia which
est secundum Hieronymum in correctione Psalterii, communis
is according-to Jerome in the-correction of-the-Psalter the-common
vel omnimoda musca. Unde Papias dicit quod scribitur
or all-kinds fly whence Papias says that it-is-written
per diphthongum in prima syllaba, sic coinomia. Et hoc
through the-diphthong in the-first syllable thus coinomia and this
manifestum est in Graeco Psalterio. Et cynos, canis, qui
manifest is in the-Greek Psalter and cynos dog which
scribitur per y Graecum, unde cynomia, i.e. musca canina,
is-written through y Greek whence cynomia that-is the-fly canine
de qua Exodi octavo, et xenos per x, quod est peregrinus,
of which of-Exodus in-the-eighth and xenos through x which is stranger
a quo xenia, quae sunt munera seu dona, de quibus liber
from which xenia which are presents or gifts of which the-book
Machabaeorum, et secundus Ecclesiastici. Et schenos per
of-Maccabees and the-second of-Ecclesiasticus and schenos through
sche est funis, a quo schenobates, qui graditur in fune et
sche is a-rope from which schenobates who walks on a-rope and
super funem. Scena est umbra, vel tabernaculum, a quo
upon a-rope Scena is a-shade or tabernacle from which
scenopegia, i.e. fixio tabernaculi, et scenofactoria ars
scenopegia that-is the-fixing of-the-tabernacle and scenofactoria an-art
est in qua Paulus Apostolus laborabat. Cum igitur derivativa
is in which Paul the-Apostle labored since therefore the-derivatives
istorum vocabulorum et composita sic variantur in significatis,
of-these words and compounds so vary in meanings
licet sint similia in sermone et sono, manifestum est
although they-be like in speech and sound manifest it-is

quod non est possibile evadere in sensu literali sine errore,
that not is possible to-escape in the-sense literal without error
qui non advertit scripturam hujusmodi. Unde magni viri
who not notices the-writing of-this-kind whence great men
et famosi expositores aliquando decepti sunt, sicut Rabanus,
and famous expositors sometimes deceived are as Rabanus
qui dicit quod scenofactoria ars docet facere funes, quia
who says that scenofactoria the-art teaches to-make ropes because
aestimabat quod schenos, quod est funis, esset idem a quo
he-reckoned that schenos which is a-rope were that from which
nomen derivatur. Sed Beda docet contrarium volens quod
the-name is-derived but Bede teaches the-contrary holding that
a scena derivatur, et hoc manifestum est per scripturam
from scena it-is-derived and this manifest is through the-writing
vocabuli. Scilicet ignoratione Actuum in Graeco textu scribitur
of-the-word namely in-the-ignorance of-the-Acts in the-Greek text is-written
vocabulum penultima syllaba sine aspiratione et per
the-word in-the-penultimate syllable without aspiration and through
vocalem quae vocatur ita, quod est i longum, et sic scribitur
the-vowel which is-called eta which is i long and so is-written
scena pro tabernaculo; sed schenos pro fune scribitur per
scena for tabernacle but schenos for rope is-written through
oe diphthongum et per aspirationem. Et sic contentio est
oe diphthong and through aspiration and so contention is
inter doctores de cinomia et de caeteris praedictis. Unde
among the-doctors about cinomia and about the-others aforesaid whence
de xeniis credit vulgus quod nihil sit, et corrigunt in textu
of xenia believes the-crowd that nothing it-be and they-correct in the-text
Latino dicentes exenia. Sed in Bibliis antiquis non est sic,
Latin saying exenia but in Bibles ancient not is so
nec in Graeco; nec potest sic dici secundum Graecam
nor in the-Greek nor can-it so to-be-said according-to Greek

grammaticam quia oporteret quod ex praepositio Graeca
grammar because it-would-behoove that ex the-preposition Greek
poneretur primo quod non est possibile, quia vocabulum incipit
be-placed first which not is possible because the-word begins
per consonantem sicut patet per grammaticam Graecam.
through a-consonant as is-plain through grammar Greek
Per hunc modum accidit error quasi in infinitis vocabulis.
in this way happens error almost in infinite words
Tertius modus est, quod licet Latini multum communicant
the-third way is that although the-Latins much communicate
cum Graecis, tamen in aliquibus differant, quod non
with the-Greeks yet in some-things they-differ which not
observatur ut oportet. Nam cum dicat Priscianus et omnes
is-observed as it-behooves for when says Priscian and all
Latini sciunt, quod nomen arboris apud Latinos est foeminini
Latins know that the-name of-a-tree among the-Latins is of-feminine
generis et terminatur in us, et nomen fructus est neutrius,
gender and ends in us and the-name of-the-fruit is of-neuter
et terminatur in um; ut pomus, pomum; pyrus, pyrum;
and ends in um as pomus pomum pyrus pyrum
et sic de aliis, aestimatur quod hoc sit intelligendum de
and so of others it-is-reckoned that this be to-be-understood of
omnibus vocabulis, quae sunt in usu Latinorum, ut de malo
all words which are in use of-the-Latins as of malum
et de amygdalo et aliis. Nam regula Latinorum est solum
and of amygdalum and others for the-rule of-the-Latins is only
intelligenda de Latinis dictionibus, non de Graecis nec aliis.
to-be-understood of Latin words not of Greek nor others
Et quod hoc sit verum patet primo quod Latinus dat regulas
and that this be true is-plain first that the-Latin gives rules
de Latinis, et non pertinet ad eum ordinare regulas de
about Latin-words and not it-pertains to him to-order rules about

linguis alienis. Deinde Priscianus dicit quod omne Graecum
tongues foreign then Priscian says that every Greek-word
cadens in usum Latinorum retinet genus suum quod habuit
falling into the-use of-the-Latins keeps gender its which it-had
apud Graecos. Et ideo cum malum pro arbore sit Graecum
among the-Greeks and therefore since malum for tree be Greek
et neutrius generis, est sic apud usum Latinorum. Et ideo
and of-neuter gender it-is so in the-use of-the-Latins and therefore
tam pro fructu quam pro arbore est ejusdem generis et
as for fruit as for tree it-is of-the-same gender and
ejusdem terminationis. Et hoc probatur per Virgilium qui
of-the-same ending and this is-proved through Virgil who
dicit in Georgicis mala insita arbores quae inservantur in
says in the-Georgics mala grafted trees which are-grafted into
fructus. Et super hoc Servius commentator qui fuit major
fruits and upon this Servius the-commentator who was greater
quam Priscianus, cujus auctoritate saepius utitur, dicit, quod
than Priscian whose authority more-often he-uses says that
hoc, omne nomen arboris est foeminini generis, intelligendum
this every name of-a-tree is of-feminine gender to-be-understood
est de Latinis, non de Graecis. Et certum est quod malum
is of Latin-words not of Greek and certain it-is that malum
est Graecum, licet secundum morem Latinorum aliquantulum
is Greek although according-to the-custom of-the-Latins somewhat
sit aliter prolatum. Nulla dictio apud Graecos terminatur
it-be otherwise pronounced no word among the-Greeks ends
in m literam, sed in n; et Latini omnes consueverunt
in the-m letter but in n and the-Latins all have-been-accustomed
terminare dictiones suas in m, ut scamnum, lignum, pomum,
to-end words their in m as scamnum lignum pomum
et hujusmodi. Idem multoties Latinus mutat aliquam vocalem
and of-this-kind the-same many-times the-Latin changes some vowel

in vocabulo Graeco, ut ubi dicit Graecus grammaticos,
in a-word Greek as where says the-Greek grammaticos
Latinus dicit grammaticus, et sic multipliciter; et sic est
the-Latin says grammaticus and so manifoldly and so it-is
hic. Nam Graecus dicit melon pro arbore et fructu, Latinus
here for the-Greek says melon for tree and fruit the-Latin
mutat e in a, sicut n in m, et dicit malum. Sed ista
changes e into a as n into m and says malum but this
mutatio non mutat vocabulum secundum substantiam et
change not changes the-word according-to substance and
secundum radicem, quia acceptum est a Graeco, licet
according-to root because taken it-is from the-Greek although
aliter prolatum, et hoc omnes auctores testantur. Caeterum
otherwise pronounced and this all authors witness moreover
per textum Latinorum in antiquis libris, tam de theologia,
through the-text of-the-Latins in ancient books as of theology
quam de philosophia, invenitur semper malum pro arbore.
as of philosophy is-found always malum for tree
Nam in primo Joel invenitur communiter apud omnes Biblias
for in the-first of-Joel is-found commonly among all Bibles
malum pro arbore, etiam usque correctores dimiserunt illud
malum for tree even until the-correctors let-go it
in novis Bibliis: et quarto Canticorum ubi dicitur, 'sicut
in new Bibles and in-the-fourth of-the-Canticles where it-is-said as
malum inter ligna sylvarum'; sic exponit Beda in originali,
apple-tree among the-trees of-the-woods so expounds Bede in the-original
et duodecimo. Ecclesiastis est amygdalum et malogranatum
and in-the-twelfth of-Ecclesiastes is amygdalum and malogranatum
in singulari et malogranata in plurali, quod non fieret, si
in the-singular and malogranata in the-plural which not were-done if
malum non esset neutrius generis. Mutantur igitur hujusmodi
malum not were of-neuter gender are-changed therefore of-this-kind

vocabula secundum formam Latinorum. Et praecipue mirum
words according-to the-form of-the-Latins and especially wonderful
est quod in aliquo correctores dimittunt antiquam literam
it-is that in one-thing the-correctors let-go the-ancient letter
et in alio abradunt, quod est omnino contra rationem.
and in another scrape-out which is wholly against reason
Similiter in pronunciatione literarum Graecarum multum
likewise in the-pronunciation of-letters Greek much
erratur, propter hoc, quod Latini volunt formam suam servare
it-is-erred because-of this that the-Latins wish form their to-keep
in Graecis dictionibus; et in hoc peccatur maxime, cum
in Greek words and in this it-is-sinned most since
omnes Poetae et omnes antiqui Latini proferebant secundum
all the-Poets and all ancient Latins uttered according-to
primam institutionem. Sed nos moderni violavimus hoc multis
the-first institution but we moderns have-violated this in-many
modis contra usum omnium antiquorum; verbi gratia, cum
ways against the-use of-all the-ancients of-a-word for-the-sake when
Priscianus dicit, quod nomina possessiva desinentia in nus
Priscian says that names possessive ending in nus
longantur et acuuntur in penultima, ut Bovinus, Latinus,
are-lengthened and are-made-acute in the-penultimate as Bovinus Latinus
equinus, intelligenda est regula de Latinis dictionibus, non
equinus to-be-understood is the-rule of Latin words not
de Graecis, propter aliquas rationes tactas prius. Et ideo
of Greek because-of some reasons touched earlier and therefore
cum Adamantinum, Byssinum, Chrystallinum, Hyacinthinum,
since Adamantinum Byssinum Chrystallinum Hyacinthinum
Bombycinum, Onychinum, Amethystinum, Smaragdinum, et
Bombycinum Onychinum Amethystinum Smaragdinum and
hujus modi sunt Graeca, debent breviari in penultima,
of-this kind are Greek they-ought to-be-shortened in the-penultimate

sicut Graeci faciunt. Praeterea nec ista sunt possessiva. Nam
as the-Greeks do moreover neither these are possessives for
duae tantum sunt terminationes possessivorum apud Graecos,
two only are the-endings of-possessives among the-Greeks
scilicet in cos, ut Grammaticos; et in nios, ut Uranios, i.e.
namely in cos as Grammaticos and in nios as Uranios that-is
coelestis. Caeterum omnes Poetae Latini breviant penultimam,
heavenly moreover all the-Poets Latin shorten the-penultimate
et ideo non est poetica licentia quia communiter fit ab
and therefore not is poetic license because commonly it-is-done by
omnibus et ubicunque: quod enim raro fit et ex causa,
all and everywhere what for rarely is-done and from cause
licentiae poeticae ascribendum est, sed non quod fit semper
of-license poetic to-be-ascribed is but not what is-done always
et communiter. Unde Juvenalis, 'amethystina convenit illi.'
and commonly whence Juvenal amethyst-robes befits him
Et idem dicit, 'Grandia tolluntur crystallina'; penultimam
and the-same says great-ones are-lifted crystal-cups the-penultimate
corripiendo, sicut omnes faciunt, et nullus facit contrarium:
shortening as all do and no-one does the-contrary
igitur non est poetica licentia sed ex lege naturali. Et cum
therefore not is poetic license but by law natural and since
secundo Regum septimo decimo capitulo habeatur, 'siccaret
in-the-second of-Kings in-the-seventh tenth chapter there-be-had siccaret
ptisanas,' expositio famosa vocabulorum Bibliae, cui omnes
ptisanas the-exposition famous of-the-words of-the-Bible to-which all
adhaerent, nititur probare quod media sit producta; et
adhere strives to-prove that the-middle be lengthened and
auctor illius expositionis defendit se per versum Horatii,
the-author of-that exposition defends himself through the-verse of-Horace
'Tu cessas, agedum sume hoc ptisanarium orizae.' Sed error
you delay come take this gruel of-rice but error

est, nam sicut per omnes auctores probatur, nunquam
it-is for as through all authors is-proved never
abscinditur in metro, nisi una syllaba in fine dictionis; et
is-cut-off in meter except one syllable at the-end of-a-word and
ideo sic debet scandi, 'Ptisanari' orizae,' ut haec syllaba
therefore so it-ought to-be-scanned gruel of-rice so-that this syllable
sa brevietur, et haec syllaba na longetur. Et hoc patet
sa be-shortened and this syllable na be-lengthened and this is-plain
aliter, quia in omnibus derivativus a ante rium longatur; ut
otherwise because in all derivatives a before rium is-lengthened as
contrarium, armarium et hujusmodi infinita quae observantur
contrarium armarium and of-this-kind infinite-ones which are-observed
in hac scansione, sed non modo vulgato cum dicitur
in this scansion but not in-the-way made-common when is-said
ptisanar' orizae ut duae syllabae auferantur, quia ibi
gruel of-rice so-that two syllables be-taken-away because there
breviatur haec syllaba na, ut patet. Ergo oportet quod media
is-shortened this syllable na as is-plain therefore it-behooves that the-middle
hujus dictionis ptisana sit brevis. Praeterea erratur in scriptura,
of-this word ptisana be short moreover it-is-erred in writing
nam in novis Bibliis habetur tipsanas quod nihil est, et
for in the-new Bibles is-had tipsanas which nothing is and
debet p anteponi, sicut in hoc nomine Ptolemaeus. Et in
ought p to-be-put-before as in this name Ptolemaeus and in
hoc modo erratur infinities in aliis vocabulis, et tam violenter
this way it-is-erred infinitely in other words and so violently
mutamus veras accidentium causas et regulas, quod non est
we-change the-true of-accidents causes and rules that not there-is
remedium per magistros. Quoniam consuetudo cogit omnes
a-remedy through masters since custom compels all
male proferre, ut in uno patet exemplo pro mille millibus.
badly to-utter as in one is-plain example for a-thousand thousands

Butyrum habet penultimam correptam apud auctores; unde
Butyrum has the-penultimate shortened among the-authors whence
Statius, 'Lac tenerum cum melle bibit, butyrumque comedit.'
Statius milk tender with honey he-drinks and-butter eats
Et Macer in libro herbarum: 'Cum butyro modicoque oleo
and Macer in the-book of-herbs with butter and-a-little oil
decocta tumorem.' Et Graecus sic breviat. Atque componentia
boiled the-swelling and the-Greek so shortens and the-components
ipsum requirunt hoc. Nam componitur de tyros et bos, et
it require this for it-is-compounded of tyros and bos and
tyros est breve in prima syllaba et est lacticinium, quod
tyros is short in the-first syllable and is milk-food which
a bove venit. Sed longe sunt majores errores apud multos,
from the-ox comes but far are greater errors among many
et ignorantia veritatis apud omnes circa accentus. Sed major
and ignorance of-truth among all about accents but a-greater
disputatio requiritur quam praesens scriptura concedit.
disputation is-required than the-present writing grants

THE TONGUES AND THE CHURCH

The Church needs the tongues for the divine office, alleluia, hosanna, and Maria; for the sacraments and the consecration of churches; for ruling the Greek and eastern nations; for the doctrine of the letters; and the commonwealth needs them for trade.

Cum jam manifestavi quomodo cognitio linguarum sit
since now I-have-shown how the-knowledge of-tongues be
necessaria Latinis propter studium sapientiae absolutum nunc
necessary to-the-Latins because-of the-study of-wisdom absolute now
volo declarare quomodo oportet eum haberi propter sapientiam
I-wish to-declare how it-behooves it to-be-had because-of wisdom

comparatam ad Dei Ecclesiam et rem publicam fidelium
compared to of-God the-Church and the-thing public of-the-faithful
et confusionem infidelium et eorum reprobationem qui
and the-confounding of-unbelievers and of-those the-rejection who
converti non possunt. Nam quadrupliciter in eis necessaria
to-be-converted not can for fourfold in them necessary
est ecclesiae, primo videlicet propter officium divinum, eo
it-is to-the-church first namely because-of the-office divine by-this
quod Graecis et Hebraeis et Chaldaeis utuntur in officio
that Greek and Hebrew and Chaldean-things they-use in the-office
sicut in Scriptura. Et plura accipimus quorum Scriptura
as in Scripture and more-things we-take of-which Scripture
non facit usum, ut agios, atheos, athanatos, iskiros, ymas,
not makes use as agios atheos athanatos iskiros ymas
eleison, et hujusmodi. Cum ergo ignoramus scripturam
eleison and of-this-kind when therefore we-are-ignorant-of the-writing
et pronuntiationem rectam et sensum multum deficimus a
and pronunciation right and the-sense much we-fall-short of
veritate et devotione psallendi. Nam loquimur sicut pica
the-truth and devotion of-psalm-singing for we-speak as a-magpie
et psittacus et talia bruta animalia quae voces emittunt
and parrot and such brute animals which voices give-forth
humanas, sed nec recte proferuntur nec intelliguntur quae
human but neither rightly are-uttered nor are-understood what
dicuntur. Quum enim dicimus alleluia infinities in anno,
are-said when for we-say alleluia infinitely in the-year
deceret multum et expediret ut omnes per totam
it-would-befit much and would-avail that all through the-whole
ecclesiam psallentes scirent quid sint duo vocabula, scilicet
church psalm-singing should-know what be the-two words namely
allelu et ia. Nam allelu significat idem quod Laudate, et
allelu and ia for allelu signifies the-same as Praise and

ia denotat Dominum, quum est unum de decem nominibus
ia denotes the-Lord since it-is one of the-ten names
Dei, sicut Hieronymus scribit ad Marcellum; et praecipue
of-God as Jerome writes to Marcella and especially
significat invisibilem, et Deus est maxime invisibilis. Verum
it-signifies invisible and God is most invisible truly
non quodcunque invisibile, sed Deum designat. Et cum in
not whatever invisible but God it-designates and when in
omni Missa dicimus Osanna, haec dictio est composita ex
every Mass we-say Osanna this word is compounded from
corrupto et integro. Nam ut Hieronymus dicit ad Damasum
corrupt and whole for as Jerome says to Damasus
Papam, Os est idem quod Salvifica, et anna est indicatio
the-Pope Os is the-same as Save and anna is the-indication
deprecantis, secundum quod per aleph scribitur syllaba
of-one-entreating according-to what through aleph is-written the-syllable
prima; unde significat idem quod, salva deprecor. Nam
first whence it-signifies the-same as save I-pray for
aliter scribitur prima syllaba per e literam, et tunc
otherwise is-written the-first syllable through the-e letter and then
significat conjunctionem quod Latinus sermo non habet.
it-signifies a-conjunction which the-Latin speech not has
Et cum gloriosam Virginem salutamus, dicentes, Ave Maria
and when the-glorious Virgin we-greet saying Hail Mary
gratia plena Dominus tecum, multum esset necessarium
of-grace full the-Lord is-with-you much it-would-be necessary
ad intellectum veracem et intellectum ut quilibet litteratus
for the-understanding true and understanding that each lettered-man
sciret sensum vocabuli; et praecipue cum multi aestimantes
know the-sense of-the-word and especially since many reckoning
scire in hoc oberrent. Mirum quidem vocabulum est Maron,
to-know in this stray wonderful indeed the-word is Maron

et significat dominum a quo venit Maria, et idem est
and it-signifies lord from which comes Maria and the-same is
quod dominatrix, ut dicit Hieronymus in interpretationibus.
as mistress as says Jerome in the-interpretations
Et hoc valde competit beatissimae Virgini, quae dominatur
and this greatly befits the-most-blessed Virgin who rules
supra omnem immunditiam peccati expellendam a nobis et
over all uncleanness of-sin to-be-expelled from us and
diabolicae fraudis et nequitiae, quia ipsa est terribilis peccato
of-diabolical fraud and wickedness because she is terrible to-sin
et de moribus sicut castrorum acies ordinata. Haec vero
and of morals as of-camps a-battle-line ordered this but
interpretatio est peritissima et sine calumnia. Dicit autem
interpretation is most-skilled and without calumny says moreover
Hieronymus quod multi aestimaverunt interpretari.... quod
Jerome that many reckoned to-interpret what
ipse non recipit et dicit quod debet dici Stella Maris,
he not receives and he-says that it-ought to-be-called Star of-the-Sea
vel amarum mare secundum Hebraicam interpretationem. Et
or bitter sea according-to the-Hebrew interpretation and
vere dicitur Stella Maris ut nos dirigat ad portum
truly she-is-called Star of-the-Sea that us she-may-direct to the-port
salutis, et Amarum Mare quia in omni paupertate et
of-salvation and Bitter Sea because in all poverty and
amaritudine temporali vixit in hoc mundo, et ipsius animam
bitterness temporal she-lived in this world and her soul
pertransivit gladio in morte Filii, ut sit nobis exemplum
pierced-through a-sword in the-death of-the-Son that she-be for-us an-example
omnis patientiae et consolatrix in omnibus adversitatibus
of-all patience and a-consoler in all adversities
hujus mundi. Necesse est ergo nobis in omnibus psalmodiis
of-this world necessary it-is therefore for-us in all psalmodies

et obsecrationibus nostris ut sciamus recte proponere et
and supplications our that we-know rightly to-set-forth and
intelligere quaecunque et juxta verborum proprietatem
to-understand whatever and according-to of-the-words the-property
devote nostras petitiones sonare, ut quod recte et devote
devoutly our petitions to-sound that what rightly and devoutly
petimus, Dei et sanctorum pietatem et merita ecclesiae
we-ask of-God and of-the-saints the-mercy and the-merits of-the-church
consequamur. Sed hoc non possumus facere sine notitia
we-may-obtain but this not we-can to-do without knowledge
vocabulorum alterius linguae. Et ideo multum expedit
of-the-words of-another tongue and therefore much it-is-expedient
et necessarium est ut hoc sciamus.
and necessary it-is that this we-know
Secunda causa est quod Ecclesiae necessaria est cognitio
the-second cause is that to-the-Church necessary is the-knowledge
linguarum propter sacramenta et consecrationes. Nam intentio
of-tongues because-of the-sacraments and consecrations for intention
necessaria est sacramento, ut theologi sciunt. Et intentionem
necessary is to-a-sacrament as theologians know and intention
praecedit intellectus et notitia rei faciendae. Et ideo
precedes the-understanding and knowledge of-the-thing to-be-done and therefore
per omnem modum expediret Ecclesiae ut sacerdotes et
in every way it-would-avail to-the-Church that priests and
praelati omnia vocabula sacrificiorum et sacramentorum et
prelates all the-words of-sacrifices and of-sacraments and
consecrationum scirent recte proferre et intelligere, sicut
of-consecrations should-know-how rightly to-utter and to-understand as
a principio sacri et summi pontifices et omnes sancti
from the-beginning the-sacred and supreme pontiffs and all the-holy
patres et institutores ordinum ecclesiasticorum constituerunt
fathers and founders of-orders ecclesiastical established

et sciverunt qualiter in verbis et sensibus mysteria Dei
and knew how in words and senses the-mysteries of-God
consisterent. Unde incipiendo a primis ut ab exorcismis
should-consist whence beginning from the-first as from exorcisms
et catharizationibus, et sic per baptismum et omnia
and catharizations and so through baptism and all
sacramenta discurrendo, non solum decens sed expediens et
the-sacraments running-through not only fitting but expedient and
necessaria est ut ab eis qui ministrant sacramenta sciretur
necessary it-is that by those who minister the-sacraments be-known
recta pronuntiatio et debitus intellectus, quatenus in nullo
the-right pronunciation and due understanding so-that in nothing
derogaretur sacramento. Sed modo per universam Ecclesiam
it-be-detracted from-the-sacrament but now through the-whole Church
innumerabiles proferunt verba instituta ab Ecclesia et nesciunt
innumerable-men utter words established by the-Church and know-not
quod dicunt, nec verborum servant rectam pronuntiationem,
what they-say nor of-the-words keep the-right pronunciation
quod esse non potest sine injuria sacramenti. Utinam fiat
which to-be not can without injury of-the-sacrament would-that be-done
cum plena efficacia effectus sacramentalis! Et cum Ecclesia
with full efficacy the-effect sacramental and since the-Church
statuit hoc ex certa notitia, et omnes patres antiqui
established this from certain knowledge and all the-fathers ancient
sciverunt rectam pronuntiationem et sensum vocabulorum
knew the-right pronunciation and sense of-the-words
secundum quod competebat sacramentis, nos nullam habemus
according-to what befitted the-sacraments we no have
excusationem; sed turpis et vilis ignorantia est nulla
excuse but a-shameful and vile ignorance it-is by-no
tergiversatione excusanda. Et quum in consecrationibus
evasion to-be-excused and when in the-consecrations

ecclesiarum cuspide baculi pastoralis fuerint factae literae
of-churches with-the-point of-the-staff pastoral have-been made letters
alterius linguae secundum ordinem alphabeti, certum est quod
of-another tongue according-to the-order of-the-alphabet certain it-is that
paucissimi faciunt figuras debitas secundum quod a sanctis
very-few make the-figures due according-to what by the-holy
patribus et Ecclesia fuerint institutae, propter ignorantiam
fathers and the-Church they-had-been established because-of ignorance
characterarum alterius linguae. Et praecipue in hoc erratur quod
of-the-characters of-the-other tongue and especially in this it-is-erred that
tres figurae sunt quae nullo modo scribi deberent in Graeco
three figures there-are which in-no way to-be-written ought in the-Greek
alphabeto. Nam procul dubio figurae quae vocantur episemon,
alphabet for without doubt the-figures which are-called episemon
koppa, sanpi non sunt de alphabeto Graecorum, nec Graecis
koppa sanpi not are of the-alphabet of-the-Greeks nor to-the-Greeks
inservierunt in ordine literarum; sed sunt figurae et notae
served in the-order of-letters but they-are figures and marks
numerorum. Modo vero Latini non considerant quod Graeci
of-numbers now but the-Latins not consider that the-Greeks
numerant per literas alphabeti, et quod ad complendam
number through the-letters of-the-alphabet and that to complete
computationem interserunt tres figuras prius nominatas, scilicet
the-computation they-insert three figures earlier named namely
has ϛ, ϟ, ϡ. Sed hoc faciunt quum numerant, non quasi
these ϛ ϟ ϡ but this they-do when they-number not as-if
nominetur figura pro literis et scriptis. Unde in scribendo
be-named the-figure for letters and writings whence in writing
nunquam utuntur his tribus figuris nec ponunt eas in ordine
never they-use these three figures nor place them in the-order
alphabeti. Sed Ecclesia instituit quod literae solae alphabeti
of-the-alphabet but the-Church established that the-letters alone of-the-alphabet

scriberentur in consecratione ecclesiae, et deceret uti literis
should-be-written in the-consecration of-a-church and it-would-befit to-use letters
non notis numerorum. Quapropter valde indignum est quod
not marks of-numbers wherefore very unworthy it-is that
per universam Ecclesiam fiat hujus erronea scriptura.
through the-whole Church be-made of-this the-erroneous writing
Et vile est quod haec nomina IHC, XPC, scribuntur per
and vile it-is that these names IHC XPC are-written through
literas Graecas et aestimatur quod sunt Latinae, aut nescitur
letters Greek and it-is-reckoned that they-are Latin or it-is-not-known
cujus modi sunt Graecae. Nam procul dubio in hoc nomine
of-what kind they-are Greek for without doubt in this name
IHC prima est iota quae valet i nostrum; secunda est ita, quae
IHC the-first is iota which is-worth i our the-second is eta which
valet e longum. Tertia est sima quae valet s nostrum. Et
is-worth e long the-third is sigma which is-worth s our and
in hoc nomine XPC, prima est chi quae valet ch aspiratum.
in this name XPC the-first is chi which is-worth ch aspirated
Secunda est ro quae valet r nostrum. Tertia est sima.
the-second is rho which is-worth r our the-third is sigma
Tertia vero causa est de notitia linguarum Ecclesiae Dei
the-third but cause is about the-knowledge of-tongues to-the-Church of-God
necessaria. Nam multi Graeci et Chaldaei et Armeni et
necessary for many Greeks and Chaldeans and Armenians and
Syrii et Arabes et aliarum linguarum nationes subjiciuntur
Syrians and Arabs and of-other tongues nations are-subject
Ecclesiae Latinorum, cum quibus multa habet ordinare
to-the-Church of-the-Latins with whom many-things it-has to-order
et illis varia mandare. Sed non possunt haec recte
and to-them various-things to-command but not can these-things rightly
pertractari nec ut oportet utiliter nisi Latini sciant linguas
to-be-treated nor as it-behooves usefully unless the-Latins know the-tongues

earum. Cujus signum est quod omnes dictae nationes
of-them of-which a-sign is that all the-said nations
vacillant fide et moribus, et ordines ecclesiae salutares
waver in-faith and morals and the-orders of-the-church salutary
per sincerum non recipiunt in lingua materna. Unde
through the-sincere not they-receive in the-tongue maternal whence
accidit quod apud tales nationes sunt mali Christiani et
it-happens that among such nations there-are bad Christians and
ecclesia non regitur ut oportet.
the-church not is-ruled as it-behooves
Quarta causa est propter totius Ecclesiae doctrinam a
the-fourth cause is because-of of-the-whole Church the-teaching from
principio usque in finem dierum. Nam dicit Dominus,
the-beginning up to the-end of-days for says the-Lord
Iota unum aut unum apex non peribit a lege donec
Iota one or one tittle not shall-perish from the-law until
omnia fiant. Et ideo docetur publice in libro de senibus
all-things be-done and therefore it-is-taught publicly in the-book on the-elders
Scripturarum quod singulae literae alphabeti Graeci figurabant
of-the-Scriptures that the-single letters of-the-alphabet Greek figured
super populum antiquum, et oportet numerum centenariorum
over the-people ancient and it-behooves the-number of-the-hundreds
annorum quibus decurrebat status illius gentis juxta
of-years through-which ran the-state of-that nation according-to
singulas aetates et saecula [computare] secundum spirituales
single ages and generations to-reckon according-to the-spiritual
vires et potestates literarum. Et deinde.... ecclesiae Latinae
forces and powers of-the-letters and then of-the-church Latin
per necessitates literarum Latinarum. Et consimilis est
through the-necessities of-the-letters Latin and very-like is
consideratio super ecclesia Graeca per literas sui alphabeti. Et
the-consideration over the-church Greek through the-letters of-its alphabet and

in hujus consideratione mirabili tempora ponuntur secundum
in of-this consideration wonderful the-times are-placed according-to
omnes status Ecclesiae usque in finem, et per quot
all the-states of-the-Church up to the-end and through how-many
centenarios annos durabit quaelibet immutatio quae accidet
hundreds of-years shall-last each change which shall-befall
Ecclesiae in decursu suo, cui si prophetias et testimonia
to-the-Church in course its to-which if prophecies and testimonies
digna necteremus possemus per Dei gratiam praesentire
worthy we-should-join we-could through of-God the-grace to-foresee
utiliter ea quae Ecclesia recipiet tam in prosperis quam in
usefully those which the-Church shall-receive as in prosperity as in
adversis. Et ideo nil utilius esset hujus veritatis literarum
adversity and therefore nothing more-useful would-be of-this truth of-the-letters
consideratione et aliis considerationibus similibus. Nam ad
than-the-consideration and other considerations similar for for
certificationem harum rerum multae materiae requiruntur,
the-certification of-these things many materials are-required
quarum saltem una non ignobilis est per literas linguarum
of-which at-least one not ignoble is through the-letters of-tongues
diversarum. Et nequeo satis admirari cum videatur inexpertis
diverse and I-cannot enough to-wonder since it-seems to-the-inexperienced
habere debile fundamentum, scilicet literas alphabeti quae
to-have a-weak foundation namely the-letters of-the-alphabet which
sunt prima puerorum rudimenta, sed secundum documentum
are the-first of-boys rudiments but according-to the-teaching
apostoli munera sunt magis necessaria et majori honore
of-the-apostle the-members are more necessary and with-greater honor
circumdanda. Et sicut Deus elegit infirma ut fortia
to-be-surrounded and as God chose the-weak-things that the-strong
quaecumque confundat, ita in rebus quas reputamus minimas
whatever he-might-confound so in things which we-reckon least

posuit majestas majora quam possit intelligere mens
has-placed the-majesty greater-things than can to-understand the-mind
humana. Et sic est in his literis triplicis alphabeti. Unde non
human and so it-is in these letters of-the-threefold alphabet whence not
sine maxima causa in epitaphio Domini scriptum est Hebraice
without the-greatest cause on the-epitaph of-the-Lord written is in-Hebrew
Graece Latine, ut doceremur quod Ecclesia cruce Domini
in-Greek in-Latin that we-might-be-taught that the-Church by-the-cross of-the-Lord
redempta habeat considerare veritates literarum triplicis
redeemed has to-consider the-truths of-the-letters of-the-threefold
alphabeti; praecipue cum Ecclesia incepit in Hebraeis et
alphabet especially since the-Church began among the-Hebrews and
profecit in Graecis et consummata est in Latinis.
advanced among the-Greeks and consummated is among the-Latins
Quinto multum est necessaria reipublicae Latinorum
fifthly much is necessary to-the-state of-the-Latins
dirigendae cognitio linguarum propter tria. Unum est
to-be-directed the-knowledge of-tongues because-of three-things one is
commeatio utilitatum necessariarum et mercatis et negotiis
the-traffic of-utilities necessary and markets and business
sine quibus Latini esse non possunt, quia medicina et
without which the-Latins to-be not can because medicine and
omnia pretiosa recipiuntur ab aliis nationibus. Et inde
all precious-things are-received from other nations and thence
oritur magnum malum Latinis et fraus eis infertur
arises great evil for-the-Latins and fraud on-them is-brought
infinita quia linguas ignorant alienas, licet per
infinite because the-tongues they-are-ignorant-of foreign although through
interpretationes eloquantur. Nam hae raro sufficiunt....
interpretations they-speak for these rarely suffice

Ex his ergo quae circa linguas dicta sunt patens est
from these therefore which about tongues said are evident it-is
quod Latini magnum habent sapientiae detrimentum propter
that the-Latins great have of-wisdom detriment because-of
linguarum ignorantiam. Unde ex hac parte gloriari non
of-tongues ignorance whence on this part to-glory not
possunt de sapientia; immo multum inglorii et cum vario
they-can about wisdom nay much inglorious and with various
sapientiae damno languent.
of-wisdom loss they-languish

Capitulum i

WITHOUT EXPERIENCE NOTHING IS KNOWN

Argument concludes but does not certify; only experience lets the mind rest in truth, as with fire, the equilateral triangle, adamant, castoreum, and freezing water. Experience is outward, through the senses, and inward, by divine illumination in seven degrees.

Positis radicibus sapientiae Latinorum penes Linguas et
with-placed the-roots of-the-wisdom of-the-Latins in-respect-of Tongues and
Mathematicam et Perspectivam, nunc volo revolvere radices
Mathematics and Perspective now I-wish to-turn-over the-roots
a parte Scientiae Experimentalis, quia sine experientia nihil
on the-part of-Science Experimental because without experience nothing
sufficienter scire potest. Duo enim sunt modi cognoscendi,
sufficiently to-be-known can two for are the-ways of-knowing
scilicet per argumentum et experimentum. Argumentum
namely through argument and experiment argument
concludit et facit nos concedere conclusionem, sed non certificat
concludes and makes us to-grant the-conclusion but not it-certifies
neque removet dubitationem ut quiescat animus in intuitu
nor removes doubt that may-rest the-mind in the-intuition
veritatis, nisi eam inveniat via experientiae; quia multi habent
of-truth unless it it-find by-way of-experience because many have
argumenta ad scibilia, sed quia non habent experientiam,
arguments for knowable-things but because not they-have experience
negligunt ea, nec vitant nociva nec persequuntur bona.
they-neglect them nor avoid harmful-things nor pursue good-things
Si enim aliquis homo qui nunquam vidit ignem probavit
if for some man who never has-seen fire proved

per argumenta sufficientia quod ignis comburit et laedit res
through arguments sufficient that fire burns and injures things
et destruit, nunquam propter hoc quiesceret animus audientis,
and destroys never because-of this would-rest the-mind of-the-hearer
nec ignem vitaret antequam poneret manum vel rem
nor fire would-he-avoid before he-put the-hand or a-thing
combustibilem ad ignem, ut per experientiam probaret
combustible to the-fire that through experience he-might-prove
quod argumentum edocebat. Sed assumpta experientia
what the-argument taught but with-taken-up the-experience
combustionis certificatur animus et quiescit in fulgore
of-burning is-certified the-mind and rests in the-brightness
veritatis. Ergo argumentum non sufficit, sed experientia.
of-truth therefore argument not suffices but experience
Et hoc patet in mathematicis, ubi est potissima demonstratio.
and this is-plain in mathematics where is the-strongest demonstration
Qui vero habet demonstrationem potissimam de triangulo
who but has demonstration the-strongest about the-triangle
aequilatero sine experientia nunquam adhaerebit animus
equilateral without experience never shall-adhere the-mind
conclusioni, nec curabit, sed negliget usquequo detur ei
to-the-conclusion nor shall-he-care but shall-neglect until be-given to-him
experientia per intersectionem duorum circulorum, a
experience through the-intersection of-two circles from
quorum alterutra sectione ducantur duae lineae ad extremitates
of-which either intersection be-drawn two lines to the-extremities
lineae datae; sed tunc recipit homo conclusionem cum
of-the-line given but then receives man the-conclusion with
omni quiete. Quod ergo dicit Aristoteles quod demonstratio
all quiet what therefore says Aristotle that demonstration
syllogismus est faciens scire, intelligendum est si experientia
a-syllogism is making to-know to-be-understood is if experience

comitetur, et non de nuda demonstratione. Quod etiam dicit
accompany and not of bare demonstration what also he-says
primo Metaphysicae, quod habentes rationem et causam
in-the-first of-the-Metaphysics that those-having the-reason and cause
sunt sapientiores expertis, loquitur de expertis qui solum
are wiser than-experts he-speaks of the-experienced who only
noscunt nudam veritatem sine causa. Sed hic loquor de
know the-bare truth without the-cause but here I-speak of
experto, qui rationem et causam novit per experientiam.
the-expert who the-reason and cause knows through experience
Et hi sunt perfecti in sapientia, ut Aristoteles vult sexto
and these are perfect in wisdom as Aristotle wishes in-the-sixth
Ethicorum, quorum sermonibus simplicibus tunc credendum
of-the-Ethics whose speeches simple then to-be-believed
est ac si afferrent demonstrationem, ut dicit ibidem.
it-is as if they-brought demonstration as he-says in-the-same-place
Qui ergo vult sine demonstratione gaudere de veritatibus
who therefore wishes without demonstration to-rejoice about the-truths
rerum, oportet quod experientiae sciat vacare; et hoc
of-things it-behooves that to-experience he-know-how to-be-free and this
patet ex exemplis. Nam multa scribunt auctores, et vulgus
is-plain from examples for many-things write the-authors and the-crowd
tenet per argumenta quae fingit sine experientia, quae sunt
holds through arguments which it-feigns without experience which are
omnino falsa. Vulgatum enim est apud omnes quod adamas
wholly false made-common for it-is among all that adamant
non potest frangi nisi sanguine hircino, et philosophi et
not can to-be-broken except by-blood of-a-goat and philosophers and
theologi hac sententia abutuntur. Sed nondum certificatum
theologians this opinion abuse but not-yet certified
est de fractione per hujusmodi sanguinem, quanquam
it-is about the-breaking through of-this-kind blood although

elaboratum est ad hoc; et sine illo sanguine potest frangi
labored it-is for this and without that blood it-can to-be-broken
de facili. Hoc enim vidi oculis meis; et necesse est hoc,
with ease this for I-have-seen with-eyes my and necessary it-is this
quia gemmae non possunt sculpi nisi per fragmenta
because gems not can to-be-carved except through fragments
hujus lapidis. Similiter vulgatum est quod castorea quibus
of-this stone likewise made-common it-is that the-castorea which
medici utuntur sunt testes masculi animalis. Sed non est
physicians use are the-testicles of-the-male animal but not it-is
ita, quia castor habet ea sub pectore, et tam mas quam
so because the-beaver has them under the-breast and as-well the-male as
foemina hujusmodi testes producit. Et praeter ista castorea
the-female such testicles produces and besides these castorea
habet mas sua testimonia in loco naturali; et ideo quod
has the-male his testicles in the-place natural and therefore what
subinfertur est mendacium horribile, scilicet quando ipsi
is-inferred-further is a-lie horrible namely when the-very
venatores insequuntur castorem, ipse sciens quid quaerant
hunters pursue the-beaver he knowing what they-seek
dentibus abscindit castorea. Deinde vulgatum est, quod aqua
with-teeth cuts-off the-castorea then made-common it-is that water
calida citius congelatur quam frigida in vasis, et arguitur
hot more-quickly is-frozen than cold in vessels and it-is-argued
ad hoc quod contrarium excitatur per contrarium, sicut inimici
for this that a-contrary is-roused by a-contrary as enemies
sibi obviantes. Sed certum est quod aqua frigida citius
each-other meeting but certain it-is that water cold more-quickly
congelatur experienti. Et imponunt hoc Aristoteli secundo
is-frozen to-the-tester and they-impose this on-Aristotle in-the-second
Meteorologicorum; sed pro certo non dicit hoc, sed simile
of-the-Meteorologics but for certain not he-says this but a-like-thing

affirmat quo decepti sunt, scilicet quod si aqua frigida
he-affirms by-which deceived they-are namely that if water cold
et calida infundantur in locum frigidum, ut super glaciem,
and hot be-poured into a-place cold as upon ice
citius congelatur calida, et hoc est verum. Sed si in duobus
more-quickly is-frozen the-hot and this is true but if in two
vasis ponantur aqua calida et frigida, citius congelabitur
vessels be-placed water hot and cold more-quickly shall-be-frozen
frigida. Oportet ergo omnia certificari per viam experientiae.
the-cold it-behooves therefore all-things to-be-certified by the-way of-experience
Sed duplex est experientia; una est per sensus exteriores, et
but double is experience one is through the-senses exterior and
sic experimenta ea, quae in coelo sunt per instrumenta
so experiments those which in the-heaven are through instruments
ad haec facta, et haec inferiora per opera certificata ad
for these-things made and these lower-things through works certified to
visum experimur. Et quae non sunt praesentia in locis
sight we-experience and the-things-which not are present in the-places
in quibus sumus, scimus per alios sapientes qui experti
in which we-are we-know through other wise-men who experienced
sunt. Sicut Aristoteles auctoritate Alexandri misit duo millia
have as Aristotle by-the-authority of-Alexander sent two thousand
hominum per diversa loca mundi ut experirentur omnia
men through diverse places of-the-world that they-might-experience all-things
quae sunt in superficie terrae, sicut Plinius testatur in
which are on the-surface of-the-earth as Pliny witnesses in
Naturalibus. Et haec experientia est humana et philosophica,
the-Natural-History and this experience is human and philosophical
quantum homo potest facere secundum gratiam ei datam; sed
as-far-as man can to-do according-to the-grace to-him given but
haec experientia non sufficit homini, quia non plene certificat
this experience not suffices for-man because not fully it-certifies

de corporalibus propter sui difficultatem, et de spiritualibus
about bodily-things because-of its difficulty and of spiritual-things
nihil attingit. Ergo oportet quod intellectus hominis aliter
nothing it-touches therefore it-behooves that the-intellect of-man otherwise
juvetur, et ideo sancti patriarchae et prophetae, qui primo
be-helped and therefore the-holy patriarchs and prophets who first
dederunt scientias mundo, receperunt illuminationes interiores
gave the-sciences to-the-world received illuminations interior
et non solum stabant in sensu. Et similiter multi post
and not only stood in sense and likewise many after
Christum fideles. Nam gratia fidei illuminat multum, et divinae
Christ faithful for the-grace of-faith illumines much and divine
inspirationes, non solum in spiritualibus, sed corporalibus et
inspirations not only in spiritual-things but bodily-things and
scientiis philosophiae; secundum quod Ptolemaeus dicit in
the-sciences of-philosophy according-to what Ptolemy says in
Centilogio quod duplex est via deveniendi ad notitiam
the-Centiloquium that double is the-way of-coming to the-knowledge
rerum, una per experientiam philosophiae, alia per
of-things one through the-experience of-philosophy the-other through
divinam inspirationem, quae longe melior est, ut dicit.
divine inspiration which far better is as he-says
Et sunt septem gradus hujus scientiae interioris, unus
and there-are seven degrees of-this science interior one
per illuminationes pure scientiales. Alius gradus consisit in
through illuminations purely scientific another degree consists in
virtutibus. Nam malus est ignorans, ut dicit Aristoteles
virtues for the-evil-man is ignorant as says Aristotle
secundo Ethicorum. Et Algazel in Logica dicit, quod anima
in-the-second of-the-Ethics and Algazel in the-Logic says that the-soul
deturpata peccatis est sicut speculum rubiginosum, in quo
befouled by-sins is like a-mirror rusty in which

non possunt species rerum bene apparere; sed anima ornata
not can the-species of-things well to-appear but the-soul adorned
virtutibus est sicut speculum bene politum, in quo formae
with-virtues is like a-mirror well polished in which the-forms
rerum bene apparent. Et propter hoc philosophi veri plus
of-things well appear and because-of this the-philosophers true more
laboraverunt in moralibus pro virtutis honestate, diffitentes
labored in moral-matters for of-virtue the-honesty denying
apud se quod causas rerum videre non possunt nisi
among themselves that the-causes of-things to-see not they-can unless
animas a peccatis mundas haberent. Sicut Augustinus
souls from sins clean they-had as Augustine
recitat de Socrate in octavo de Civitate Dei, capitulo tertio.
relates of Socrates in the-eighth on the-City of-God in-chapter third
Propter quod ait Scriptura, in malevolam animam, &c. Nam
because-of which says Scripture into a-malicious soul &c for
impossibile est quod anima quiescat in luce veritatis, dum
impossible it-is that the-soul rest in the-light of-truth while
est peccatis maculata, sed sicut psittacus vel pica recitabit
it-is with-sins stained but as a-parrot or magpie it-shall-recite
verba aliena quae per longam meditationem didicit. Et
words foreign which through long meditation it-has-learned and
hoc experimentum est, quod pulchritudo veritatis cognitae
this experiment is that the-beauty of-truth known
in suo fulgore allicit homines ad ejus amorem, sed probatio
in its brightness entices men to its love but the-proof
amoris est exhibitio operis. Et ideo qui contra veritatem
of-love is the-showing of-work and therefore who against truth
operatur, necesse est ut eam ignoret, licet sciat
works necessary it-is that it he-be-ignorant-of although he-know-how
verba decoratissima componere, et alienas sententias recitare,
words most-decorated to-compose and other opinions to-recite

sicut brutum animal quod voces humanas imitatur, et velut
as a-brute animal which voices human imitates and like
simia quae opera hominum nititur peragere, quamvis non
an-ape which the-works of-men strives to-perform although not
intelligat horum rationem. Virtus ergo clarificat mentem
it-understand of-them the-reason virtue therefore clarifies the-mind
ut non solum moralia sed etiam scientialia homo facilius
so-that not only moral-things but also scientific-things man more-easily
comprehendat. Et hoc probavi diligenter in multis juvenibus
may-comprehend and this I-have-proved diligently in many youths
mundis, qui propter animae innocentiam profecerunt ultra id
pure who because-of of-soul the-innocence advanced beyond that
quod dici potest, quando habuerunt consilium sanum de
which to-be-said can when they-had counsel sound about
doctrina. De quibus est lator praesentium, ad cujus radices
teaching of whom is the-bearer of-the-present-letters to whose roots
paucissimi Latinorum attingunt. Cum enim sit satis juvenis,
very-few of-the-Latins reach since for he-be quite young
ut circiter viginti annorum, et pauper omnino, nec potuit
as about twenty of-years and poor wholly nor could
habere magistros, nec quantitatem unius anni posuit in
to-have masters nor the-quantity of-one year he-put in
addiscendo magnalia quae scit, nec est magni ingenii nec
learning the-great-things which he-knows nor is-he of-great wit nor
memoriae, non potest esse alia causa nisi gratia Dei quae
of-memory not can to-be another cause except the-grace of-God which
propter munditiam animae suae dedit ei illa quae fere
because-of the-purity of-soul his gave to-him those which almost
omnibus studentibus donare denegavit. Nam virgo immaculata
to-all students to-give it-refused for a-virgin immaculate
recessit a me nec aliquod genus peccati mortalis potui in
he-withdrew from me nor any kind of-sin mortal could-I in

eo invenire, quanquam diligenter inquisivi, et ideo habet
him to-find although diligently I-inquired and therefore he-has
animam ita claram et perspicuam quod modica instructione
a-soul so clear and transparent that with-small instruction
cepit plus quam potest aestimari. Et feci ut juvarem ad hoc,
he-took more than can to-be-reckoned and I-did so-that I-might-help to this
ut hi duo juvenes forent vasa utilia in Ecclesia Dei, quatenus
that these two youths might-be vessels useful in the-Church of-God so-that
totum studium per gratiam Dei rectificent Latinorum.
the-whole study through the-grace of-God they-may-set-right of-the-Latins
Tertius gradus est in septem donis Spiritus Sancti, quae
the-third degree is in the-seven gifts of-the-Spirit Holy which
enumerat Isaias. Quartus est in beatitudinibus, quas Dominus
enumerates Isaiah the-fourth is in the-beatitudes which the-Lord
in evangeliis determinat. Quintus est in sensibus spiritualibus.
in the-gospels determines the-fifth is in the-senses spiritual
Sextus est in fructibus, de quibus est pax Domini quae
the-sixth is in the-fruits of which is the-peace of-the-Lord which
exsuperat omnem sensum. Septimus consistit in raptibus et
surpasses every sense the-seventh consists in raptures and
modis eorum secundum quod diversi diversimode capiuntur,
the-modes of-them according-to what diverse-men diversely are-caught-up
ut videant multa, quae non licet homini loqui. Et
that they-may-see many-things which not it-is-permitted to-man to-speak and
qui in his experientiis vel in pluribus eorum est diligenter
who in these experiences or in more of-them is diligently
exercitatus, ipse potest certificare se et alios non solum
exercised he can to-certify himself and others not only
de spiritualibus, sed omnibus scientiis humanis. Et ideo
about spiritual-things but all sciences human and therefore
cum omnes partes philosophiae speculativae procedant per
since all the-parts of-philosophy speculative proceed through

argumenta, quae vel fiunt per locum ab auctoritate vel
arguments which either are-made through the-place from authority or
per caeteros locos argumentandi praeter hanc quam nunc
through the-other places of-arguing besides this which now
investigo, necessaria est nobis scientia, quae experimentalis
I-investigate necessary is to-us the-science which experimental
vocatur. Et volo eam explanare, non solum ut utilis est
is-called and I-wish it to-explain not only as useful it-is
philosophiae, sed sapientiae Dei, et totius mundi regimini;
to-philosophy but to-the-wisdom of-God and of-the-whole world to-the-rule
sicut in prioribus comparavi linguas et scientias ad suum
as in the-earlier-things I-compared tongues and sciences to their
finem, qui est divina sapientia qua omnia disponuntur.
end which is divine wisdom by-which all-things are-disposed

Capitulum ii

THE RAINBOW'S COLORS FOUND BY EXPERIMENT

Experimental science alone tests what nature, art, and fraud can do. Its first prerogative is to certify the conclusions of the other sciences, as with the rainbow, whose colors the experimenter finds in hexagonal stones, sprays, dew, and a candle.

Et quia haec Scientia Experimentalis a vulgo studentium
and because this Science Experimental by the-crowd of-students
est penitus ignorata, ideo non possum persuadere de ejus
is wholly unknown therefore not I-can to-persuade about its
utilitate, nisi simul ejus virtus et proprietas ostendantur.
utility unless together its power and property be-shown
Haec ergo sola novit perfecte experiri quid potest fieri
this therefore alone knows perfectly to-test what can to-be-done

per naturam, quid per artis industriam, quid per
through nature what through of-art the-industry what through
fraudem, quid volunt et somniant carmina conjurationes
fraud what mean and dream charms conjurations
invocationes deprecationes sacrificia, quae sunt magica, et
invocations deprecations sacrifices which are magical and
quid fit in illis ut tollatur omnis falsitas et sola veritas
what is-done in them that be-removed all falsity and alone the-truth
artis teneatur. Haec sola docet considerare omnes insanias
of-art be-held this alone teaches to-consider all the-insanities
magicorum, non ut confirmentur sed ut vitentur, sicut
of-the-magicians not that they-be-confirmed but that they-be-avoided as
logica considerat sophisticam artem.
logic considers the-sophistical art
Et haec scientia habet tres magnas praerogativas respectu
and this science has three great prerogatives in-respect
aliarum scientiarum. Una est quod omnium illarum conclusiones
of-the-other sciences one is that of-all them the-conclusions
nobiles investigat per experientiam. Scientiae enim aliae sciunt
noble it-investigates through experience the-sciences for other know-how
sua principia invenire per experimenta, sed conclusiones
their principles to-find through experiments but the-conclusions
per argumenta facta ex principiis inventis. Si vero debeant
through arguments made from the-principles found if but they-ought
habere experientiam conclusionum suarum particularem et
to-have experience of-conclusions their particular and
completam, tunc oportet quod habeant per adjutorium istius
complete then it-behooves that they-have through the-help of-this
scientiae nobilis. Verum est enim quod mathematica habet
science noble true it-is for that mathematics has
experientias universales circa conclusiones suas in figurando et
experiences universal about conclusions its in figuring and

numerando, quae etiam applicantur ad omnes scientias et ad
numbering which also are-applied to all sciences and to
hanc experientiam, quia nulla scientia potest sciri sine
this experience because no science can to-be-known without
mathematica. Sed si attendamus ad experientias particulares
mathematics but if we-attend to experiences particular
et completas et omnino in propria disciplina certificatas,
and complete and wholly in its-own discipline certified
necessarium est ire per considerationes istius scientiae,
necessary it-is to-go through the-considerations of-this science
quae experimentalis auctoritate vocatur. Et pono exemplum in
which experimental by-authority is-called and I-put an-example in
iride et ei annexis, cujusmodi sunt circulus circa solem
the-rainbow and to-it annexed-things of-which-kind are the-circle around the-sun
et stellas, virga quoque jacens a latere solis vel stellae,
and stars the-rod also lying from the-side of-the-sun or of-a-star
quae apparet visui in linea recta, et vocatur ab Aristotele
which appears to-sight in a-line straight and is-called by Aristotle
tertio Meteorologicorum perpendicularis, sed a Seneca dicitur
in-the-third of-the-Meteorologics perpendicular but by Seneca is-called
virga, et circulus dicitur corona, quae pluries habent colores
rod and the-circle is-called crown which many-times have the-colors
iridis. Naturalis vero philosophus sermocinatur de eis, et
of-the-rainbow the-natural but philosopher discourses about them and
perspectivus habet multa addere, quae pertinent ad modum
the-perspectivist has many-things to-add which pertain to the-mode
videndi, qui necessarius est in hac parte. Sed nec Aristoteles
of-seeing which necessary is in this part but neither Aristotle
nec Avicenna in suis Naturalibus hujusmodi rerum notitiam
nor Avicenna in their Natural-works of-such things knowledge

nobis dederunt, nec Seneca, qui de eis librum composuit
to-us gave nor Seneca who about them a-book composed
specialem. Sed Scientia Experimentalis ista certificat.
special but Science Experimental these-things certifies
Experimentator ergo consideret, in rebus scilicet visibilibus,
the-experimenter therefore let-consider in things namely visible
ut inveniat colores ordinatos in praedictis et figuram.
that he-may-find the-colors ordered in the-aforesaid and the-figure
Accipiat enim lapides de Hibernia vel India hexagonos, qui
let-him-take for stones from Ireland or India hexagonal which
irides vocantur apud Solinum de Mirabilibus Mundi, et eos
rainbows are-called in Solinus on the-Wonders of-the-World and them
teneat in radio solari cadente per fenestram, et colores
let-him-hold in a-ray solar falling through a-window and the-colors
omnes iridis, et ordinatos sicut in ea, inveniet in opaco
all of-the-rainbow and ordered as in it he-shall-find in the-shade
juxta radium. Et ulterius idem experimentator convertat se
near the-ray and further the-same experimenter let-turn himself
ad locum aliquantulum tenebrosum, et ponat lapidem ad
to a-place somewhat dark and let-him-put the-stone to
oculum fere clausum, et videbit colores iridis manifeste
the-eye almost closed and he-shall-see the-colors of-the-rainbow manifestly
ordinatos sicut in iride. Et quia multi utentes lapidibus
ordered as in the-rainbow and because many using stones
istis aestimant quod sit ex speciali virtute illorum lapidum
these reckon that it-be from the-special power of-those stones
et propter figuram hexagonam, ideo experimentator procedet
and because-of the-figure hexagonal therefore the-experimenter shall-proceed
ulterius et inveniet hoc in lapide crystallino recte figurato,
further and shall-find this in a-stone crystalline rightly shaped
et in aliis perspicuis lapidibus. Et non solum in albis
and in other transparent stones and not only in white-ones

sicut sunt Hibernici, sed in nigris ut patet in crystallo fusco
as are the-Irish but in black as is-plain in crystal dusky
et in omnibus lapidibus perspicuitatis consimilis. Insuper in
and in all stones of-transparency like moreover in
figura alia ab hexagona, dummodo sint rugosae superficiei,
a-figure other than hexagonal provided-that they-be of-wrinkled surface
ut lapides Hibernici, et non omnino politae, nec magis
as the-stones Irish and not wholly polished nor more
asperae quam illi, et sunt tales in proprietate superficiei,
rough than those and they-are such in the-property of-the-surface
quales natura producit Hibernicos. Nam rugarum diversitas
as nature produces the-Irish for of-the-wrinkles the-diversity
facit diversitatem coloris. Et ulterius considerat remigantes, et
makes the-diversity of-color and further he-considers rowers and
in rorationibus distillantibus ab instrumentis elevatis colores
in the-sprays dripping from the-instruments raised the-colors
eosdem experitur quando radii solares penetrant hujusmodi
the-same he-experiences when the-rays solar penetrate such
rorationes. Similiter est de aquis cadentibus a rotis
sprays likewise it-is of waters falling from the-wheels
molendini; et quando homo aspicit in aestate de mane
of-a-mill and when a-man looks in summer in the-morning
herbas contingentes guttas roris in prato vel campo, videbit
at-grasses touching drops of-dew in a-meadow or field he-shall-see
colores. Et similiter quando pluit, si stet in loco umbroso
colors and likewise when it-rains if he-stand in a-place shady
et radii ultra eum transcurrant in stillicidiis, tunc in
and the-rays beyond him run-through in the-drippings then in
opaco prope apparebunt colores; et multoties de nocte circa
the-shade near shall-appear colors and many-times at night around
candelam apparent colores. Atque si homo in aestate, quando
a-candle appear colors and if a-man in summer when

surgit a somno et habet oculos nondum bene apertos,
he-rises from sleep and has eyes not-yet well opened
subito aspiciat ad foramen per quod intrat radius solis,
suddenly look at a-hole through which enters a-ray of-the-sun
videbit colores. Et si sedens ultra solem extendat capitium
he-shall-see colors and if sitting beyond the-sun he-stretch hood
suum ultra oculos, videbit colores; et similiter si claudat
his beyond the-eyes he-shall-see colors and likewise if he-close
oculum, contingit idem sub umbra superciliorum: et iterum
the-eye happens the-same under the-shade of-the-eyebrows and again
idem accidit per vas vitreum plenum aqua in radiis
the-same happens through a-vessel glass full of-water in the-rays
solis. Vel similiter si quis tenens aquam in ore, et
of-the-sun or likewise if anyone holding water in the-mouth and
fortiter spargat aquam in radiis, et stet a latere radiorum;
strongly scatter the-water in the-rays and stand at the-side of-the-rays
et si per lampadem olei pendentis in aere transeant radii
and if through a-lamp of-oil hanging in the-air pass the-rays
in debito situ, ut lumen cadat super olei superficiem,
in due position so-that the-light fall upon of-the-oil the-surface
fient colores. Et sic per infinitos modos, tam naturales
there-shall-be colors and so through infinite ways as natural
quam artificiales, contingit colores hujusmodi apparere, sicut
as artificial it-happens colors of-this-kind to-appear as
diligens experimentator novit reperire.
the-diligent experimenter knows-how to-find

Capitulum iii

THE FIGURE OF THE COLORS

The experimenter can test the figure of the colors as well: crystal gives a straight band, eyelashes and the holes of cloth give whole circles, and a full spray in a dark enough place gives a complete circle.

Similiter quoque figuram colorum poterit experiri. Nam per
likewise also the-figure of-the-colors he-shall-be-able to-test for through
lapidem crystallinum et hujusmodi inveniet figuram rectam. Et
a-stone crystalline and of-this-kind he-shall-find the-figure straight and
per cilia et supercilia et multa alia, atque per foramina
through eyelashes and eyebrows and many other-things and through the-holes
pannorum, inveniet circulos coloratos integros. Similiter in loco,
of-cloths he-shall-find circles colored whole likewise in a-place
ubi fit roratio plena et sufficienter ad capiendum circulum
where is-made a-spraying full and sufficiently for taking-in the-circle
integrum, et locus ubi circulus iridis debet fieri sit
whole and the-place where the-circle of-the-rainbow ought to-be-made be
obscurus proportionaliter, quia in lucido non apparet, tunc
dark proportionally because in the-bright not appears then
circulus completus fiet. Similiter integri circuli apparent
the-circle complete shall-be-made likewise whole circles appear
saepius circa candelas, ut Aristoteles dicit et experimur.
more-often around candles as Aristotle says and we-experience

Capitulum iv

MEASURING THE RAINBOW'S ALTITUDE

With an instrument the experimenter finds that the rainbow stands opposite the sun and rises as the sun sinks, on one line through sun, eye, and rainbow. Its greatest altitude is 42 degrees, so at Paris it cannot appear at noon in summer.

Postquam autem conformiter impressionibus in aere, iridis
after moreover in-conformity-with the-impressions in the-air of-the-rainbow
scilicet coronae et virgae, sic invenimus colores et figuras
namely of-the-crown and of-the-rod thus we-find colors and figures
varias, confirmamur et excitamur multum ad intelligendam
various we-are-confirmed and roused much to understanding
veritatem in his quae in coelo contingunt. Et ulterius capiat
the-truth in those which in the-heaven happen and further let-take
experimentator instrumentum debitum, et inveniat altitudinem
the-experimenter an-instrument due and let-him-find the-altitude
solis super horizonta, et instrumento immobili manente
of-the-sun above the-horizon and with-the-instrument unmoved remaining
convertat se in oppositam partem et aspiciat per foramina
let-him-turn himself to the-opposite part and let-him-look through the-holes
instrumenti, donec videat gibbositatem iridis supremam,
of-the-instrument until he-see the-convexity of-the-rainbow highest
et respiciat altitudinem iridis super horizonta; et
and let-him-regard the-altitude of-the-rainbow above the-horizon and
inveniet quod quanto sol est altius, tanto iris
he-shall-find that by-how-much the-sun is higher by-so-much the-rainbow
est inferius, et e converso. Per hoc scit quod iris
is lower and from the-converse through this he-knows that the-rainbow
semper est in opposito solis, et quod linea una transit per
always is in the-opposite of-the-sun and that line one passes through

centrum solis, et per centrum oculi aspicientis, et per
the-center of-the-sun and through the-center of-the-eye looking and through
centrum iridis usque ad nadir solis, quod est punctus
the-center of-the-rainbow up to the-nadir of-the-sun which is the-point
in coelo oppositus centro solis. Et secundum quod
in the-heaven opposite to-the-center of-the-sun and according-to what
extremitas illius lineae versus solem elevatur super horizontem,
the-extremity of-that line toward the-sun is-raised above the-horizon
reliqua deprimitur, quae per centrum iridis transit, et
the-rest is-depressed which through the-center of-the-rainbow passes and
e converso; sicut est de regula in dorso astrolabii, cujus
from the-converse as it-is with the-rule on the-back of-the-astrolabe of-which
una extremitas deprimitur secundum quod altera elevatur.
one extremity is-depressed according-to what the-other is-raised
Et experimentator perfectus potest experiri ad hoc, quod
and the-experimenter perfect can to-test for this that
inveniat oppositam altitudinem iridis et solis, scilicet
he-may-find the-opposite altitude of-the-rainbow and of-the-sun namely
illam ultra quam non potest esse iridis apparitio. Et
that beyond which not can to-be of-the-rainbow the-appearance and
tunc oportet considerare rationem altitudinis circulorum.
then it-behooves to-consider the-reason of-the-altitude of-the-circles
Considerandum est ergo horizontem esse circulum, et in
to-be-considered it-is therefore the-horizon to-be a-circle and in
centro ejus elevari axem usque in coelum stellatum ad zenith
the-center its to-be-raised an-axis up to the-heaven starry to the-zenith
capitis aspicientis, et transeat unus circulus per illum
of-the-head of-the-one-looking and let-pass one circle through that
punctum et per duas partes horizontis, ut si velimus per
point and through two parts of-the-horizon as if we-wish through
orientem et occidentem, et sub terra declinet usque ad
the-east and the-west and under the-earth let-it-decline up to

punctum oppositum zenith capitis. Et hic circulus est circulus
the-point opposite the-zenith of-the-head and this circle is the-circle
altitudinis stellae fixae, et transit per corpus ejus, nam
of-altitude of-a-star fixed and passes through the-body its for
quando stella oritur super horizontem, dicimus quod ascendit
when a-star rises above the-horizon we-say that it-ascends
secundum gradus illius circuli donec venit ad lineam meridiei.
according-to the-degrees of-that circle until it-comes to the-line of-noon
Et tunc est in maxima altitudine, et hic circulus intersecat
and then it-is in the-greatest altitude and this circle intersects
horizontem ad angulos rectos; et dividunt se mutuo
the-horizon at angles right and they-divide themselves mutually
in partes aequales, et uterque eorum est major circulus in
into parts equal and each of-them is a-greater circle in
sphaera. Altitudo igitur stellae fixae super horizontem est arcus
the-sphere the-altitude therefore of-a-star fixed above the-horizon is the-arc
hujus circuli interceptus inter stellam et finem horizontis.
of-this circle intercepted between the-star and the-end of-the-horizon
Sed altitudo Saturni et caeterorum super horizontem non est
but the-altitude of-Saturn and of-the-others above the-horizon not is
notanda per circulum intersecantem horizontem, sed per
to-be-noted through a-circle intersecting the-horizon but through
minorem et ei concentricum, quia circulus transiens per
a-lesser and to-it concentric because the-circle passing through
corpus Saturni, vel alterius rei inferioris, non transit per
the-body of-Saturn or of-another thing lower not passes through
extremitatem axis horizontis, sed per aliud punctum in
the-extremity of-the-axis of-the-horizon but through another point on
axe inferius, quod est punctum suppositum zenith capitis,
the-axis lower which is the-point placed-under the-zenith of-the-head
et ideo transit hic circulus non per fines horizontis qui
and therefore passes this circle not through the-ends of-the-horizon which

est a b circulus, sed per concentricum ei, ut per c
is the-a b circle but through one-concentric to-it as through the-c
d circulum, et hic circulus altitudinis Saturni transit per
d circle and this circle of-altitude of-Saturn passes through
corpus Saturni, quod in eo elevatur super horizontem et
the-body of-Saturn which in it is-raised above the-horizon and
deprimitur sub horizonte. Et circulus Jovis transit per
is-depressed below the-horizon and the-circle of-Jupiter passes through
minorem concentricum et per punctum inferius in axe
a-lesser concentric and through a-point lower on the-axis
suppositum zenith capitis, et sic de caeteris planetis; ita
placed-under the-zenith of-the-head and so of the-other planets so
quod quanto res est inferior, tanto habet minorem
that by-how-much a-thing is lower by-so-much it-has a-lesser
circulum transeuntem per punctum inferius in axe
circle passing through a-point lower on the-axis
horizontis et intersecantem circulum minorem concentricum
of-the-horizon and intersecting the-circle lesser concentric
horizonti. Et quamvis ita sit secundum veritatem, tamen
to-the-horizon and although so it-be according-to truth yet
in usu loquendi non distinguimus illa puncta in axe
in the-use of-speaking not we-distinguish those points on the-axis
a zenith capitis, nec circulos aequidistantes horizonti
from the-zenith of-the-head nor the-circles equidistant to-the-horizon
distinguimus ab horizonte, sed omnes vocamus horizontes;
do-we-distinguish from the-horizon but all we-call horizons
et circulos altitudinis reputamus omnes aequales et transire
and the-circles of-altitude we-reckon all equal and to-pass
per zenith capitis, cum tamen sint inaequales; et licet
through the-zenith of-the-head though yet they-be unequal and although
propter evidentiam posui sic omnes in eadem superficie, et
for evidence I-placed thus all in the-same surface and

quia hoc potest contingere, tamen pluries contingit eos esse
because this can to-happen yet many-times it-happens them to-be
in diversis superficiebus et intersecare se multipliciter.
in diverse surfaces and to-intersect themselves manifoldly
Considerandum est etiam ulterius quod radius visualis
to-be-considered it-is also further that the-ray visual
aequidistat horizonti et circulis ei concentricis, et ideo
is-equidistant to-the-horizon and to-the-circles to-it concentric and therefore
arcus circuli altitudinis qui est inter horizontem et radium
the-arc of-the-circle of-altitude which is between the-horizon and the-ray
visualem debet annotari, qui est secundum quantitatem
visual ought to-be-noted which is according-to the-quantity
elevationis corporis aspicientis. Verum licet communiter
of-the-elevation of-the-body of-the-one-looking truly although commonly
sumpta altitudo rei super horizontem dicitur arcus
taken the-altitude of-a-thing above the-horizon is-called the-arc
circuli altitudinis interceptus inter rem elevatam et inter
of-the-circle of-altitude intercepted between the-thing raised and between
horizontem, tamen si proprie loquendo sumatur altitudo
the-horizon yet if properly speaking be-taken the-altitude
rei, tunc arcus circuli altitudinis inter horizontem inter
of-a-thing then the-arc of-the-circle of-altitude between the-horizon between
rem et radium visualem est ejus altitudo; quia oculus non
the-thing and the-ray visual is its altitude because the-eye not
est in centro horizontis; sed superius in axe suo, et ideo
is in the-center of-the-horizon but higher on axis its and therefore
res, quae sunt in aere et luna, considerantur secundum
the-things which are in the-air and the-moon are-considered according-to
hujusmodi altitudinem. Nam habent diversitatem aspectus quia
such altitude for they-have diversity of-aspect because
prope terram sunt, sed sol et caetera remotiora non
near the-earth they-are but the-sun and the-other more-remote-things not

sic, propter nimiam remotionem. Nam quantitas elevationis
so because-of the-excessive remoteness for the-quantity of-the-elevation
aspicientis non habet differentiam sensibilem ad remotionem
of-the-one-looking not has difference sensible to the-remoteness
corporum illorum, sed solum habet comparationem ad ea quae
of-the-bodies those but only it-has comparison to those which
in aere apparent, ut sunt cometae et irides. Ex his igitur
in the-air appear as are comets and rainbows from these therefore
patet quod altitudo iridis proprie sumpta erit arcus sui
is-plain that the-altitude of-the-rainbow properly taken shall-be the-arc of-its
circuli altitudinis interceptus inter supremam gibbositatem
circle of-altitude intercepted between the-highest convexity
iridis et inter radium visibilem aequidistantem horizonti,
of-the-rainbow and between the-ray visible equidistant to-the-horizon
quod necessarium est sciri propter sequentia.
which necessary is to-be-known because-of the-following-things
Experimentator igitur, sumpta altitudine solis et iridis
the-experimenter therefore with-taken the-altitude of-the-sun and of-the-rainbow
super horizontem, inveniet quod ultima altitudo qua potest
above the-horizon shall-find that the-last altitude at-which can
apparere iris super horizontem est 42 graduum, et haec
to-appear the-rainbow above the-horizon is of-42 degrees and this
est maxima elevatio iridis. Et haec elevatio continet arcum
is the-greatest elevation of-the-rainbow and this elevation contains the-arc
inter suppositam gibbositatem et inter radium visualem, et
between the-placed-under convexity and between the-ray visual and
est propria ejus altitudo, quamvis praeter eam sit arcus,
is proper its altitude although besides it there-be the-arc
qui est inter radium et finem horizontis, vel fines circuli
which is between the-ray and the-end of-the-horizon or the-ends of-the-circle
concentrici horizontis, per quem transit circulus altitudinis
concentric of-the-horizon through which passes the-circle of-altitude

iridis. Et ad hanc maximam elevationem pervenit iris,
of-the-rainbow and to this greatest elevation arrives the-rainbow
quando sol est in horizonte, scilicet in ortu vel occasu; et
when the-sun is in the-horizon namely at rising or setting and
etiam quando est prope ortum vel occasum sub horizonte,
also when it-is near rising or setting below the-horizon
non usque ad finem crepusculi vespertini, neque usque
not up to the-end of-twilight evening nor up
ad principium crepusculi matutini, sed prope ortum aut
to the-beginning of-twilight morning but near rising or
occasum, ut dictum est. Et tunc, si materia rorida sit
setting as said it-is and then if the-matter dewy be
superius praeparata in nubibus, apparebit gibbositas iridis,
above prepared in the-clouds shall-appear the-convexity of-the-rainbow
licet sol sit parum sub horizonte, quando ejus radii
although the-sun be a-little below the-horizon when its rays
possunt attingere ad vapores altos in aere, licet non
can to-reach to vapors high in the-air although not
ad vapores prope horizontem. Et experimentator novit
to vapors near the-horizon and the-experimenter knows-how
experiri quod quando sol est in altitudine 42 graduum
to-test that when the-sun is at an-altitude of-42 degrees
tunc iris non apparet in coelo, nisi quod modicum
then the-rainbow not appears in the-heaven except that a-little
gibbositatis lividae suae potest apparere juxta horizontem, si
of-convexity livid its can to-appear near the-horizon if
materia rorida sit ibi praeparata. Et quando sol ascendit
the-matter dewy be there prepared and when the-sun ascends
ulterius, tunc nusquam potest iris apparere. Et ideo
further then nowhere can the-rainbow to-appear and therefore
dicit Aristoteles et Seneca quod in aestate apud fervorem
says Aristotle and Seneca that in summer at the-heat

diei non apparet iris. Et hujus causa est, quia in
of-the-day not appears the-rainbow and of-this the-cause is because in
climate Parisius est altitudo solis in meridie aequinoctii
the-clime of-Paris is the-altitude of-the-sun at noon of-the-equinox
41 graduum et 12 minutorum, tunc sol est fere in tanta
41 degrees and 12 minutes then the-sun is almost at so-great
altitudine, ut non possit iris apparere, et ideo post
altitude that not can the-rainbow to-appear and therefore after
paucum debet elevari in tantum altius, ut sit in meridie
a-little it-ought to-be-raised in so-much higher that it-be at noon
super horizontem ultra 42 gradus in circulo altitudinis, et
above the-horizon beyond 42 degrees in the-circle of-altitude and
ideo in fervore aestatis non accidit iris in meridie usque
therefore in the-heat of-summer not happens the-rainbow at noon until
sol descendat ad altitudinem minorem quam sit 42 gradus.
the-sun descend to an-altitude less than be 42 degrees

Capitulum v

THE RAINBOW'S PYRAMID

The rainbow is the base of a round pyramid with its cone in the eye. As the earth cuts more or less of the base, a whole circle, a greater portion, a semicircle, or a lesser portion appears; in clouds the whole circle never appears.

Postquam igitur experimentator invenit hoc, tunc cogitur
after therefore the-experimenter has-found this then he-is-compelled
per suas experientias cognoscere quantitatem et figuram
through his experiences to-know the-quantity and figure
iridis, et ad hoc habendum imaginatur unam pyramidem
of-the-rainbow and for this to-be-had he-imagines one pyramid

rotundam cujus conus est in oculo, et basis est circulus
round whose cone is in the-eye and the-base is the-circle
iridis cujus portio apparet colorata. Et axis pyramidis
of-the-rainbow whose portion appears colored and the-axis of-the-pyramid
est linea de qua superius dictum est, quae transit per
is the-line of which above said it-is which passes through
centrum oculi et centrum solis et centrum iridis
the-center of-the-eye and the-center of-the-sun and the-center of-the-rainbow
usque ad nadir solis. Et basis hujus pyramidis elevatur
up to the-nadir of-the-sun and the-base of-this pyramid is-raised
et deprimitur ad elevationem et depressionem solis, ut
and is-depressed at the-elevation and depression of-the-sun as
dictum est de illa linea, et secundum quod deprimitur cadit
said it-is of that line and according-to what it-is-depressed it-falls
aliquando in terram, et secat eam, et secatur ab ea. Et
sometimes onto the-earth and cuts it and is-cut by it and
potest haec pyramis imaginari ut non secet terram, sed
can this pyramid to-be-imagined so-that not it-cut the-earth but
tota sit elevata super horizontem, et tota basis sua sit super
wholly be raised above the-horizon and whole base its be above
horizontem, et haec varietas accidit secundum brevitatem
the-horizon and this variety happens according-to the-shortness
et longitudinem pyramidum. Nam aut potest esse tam
and length of-the-pyramids for either it-can to-be of-so
brevis quantitatis quod basis sua sit super horizontem, et
short quantity that base its be above the-horizon and
tunc potest totus circulus apparere coloratus, sicut potest
then can the-whole circle to-appear colored as can
fieri in aspersionibus debitis si prope sint, sicut prius
to-be-done in sprinklings due if near they-be as earlier
exemplificatum est in rorationibus, quando aqua spargitur ab
exemplified it-is in sprayings when water is-scattered by

homine debito modo, et quando descendit aqua ab alto loco.
a-man in-due way and when descends water from a-high place
Quando vero extenduntur pyramides in tantum ut contingant
when but are-extended the-pyramids in so-far that they-touch
terram, tunc ad ultimum potest circulus integer apparere.
the-earth then at the-last can the-circle whole to-appear
Si vero in tantum extendantur quod basis secetur a terra,
if but in so-far they-be-extended that the-base be-cut by the-earth
tunc secundum quantitatem sectionis apparebit portio circuli
then according-to the-quantity of-the-section shall-appear a-portion of-the-circle
colorati. Et primo potest apparere major portio quando minus
colored and first can to-appear the-greater portion when less
secatur basis pyramidis; et deinde si medietas circuli secetur,
is-cut the-base of-the-pyramid and then if half of-the-circle be-cut
altera medietas tunc apparebit; et minor portio, si plus secetur.
the-other half then shall-appear and a-lesser portion if more be-cut
Sic secundum quod majus vel minus secatur, et extenditur
so according-to what more or less it-is-cut and is-extended
pyramis, major vel minor apparebit portio; et in tantum potest
the-pyramid a-greater or lesser shall-appear portion and in so-far it-can
extendi quod nihil apparet; et sic secundum longitudinem
to-be-extended that nothing appears and so according-to the-length
et brevitatem pyramidum fiunt majores bases vel minores,
and shortness of-the-pyramids become greater bases or lesser
et circuli majores colorati vel minores, et majores portiones
and circles greater colored or lesser and greater portions
vel minores resecatae, et portiones majorum circulorum et
or lesser cut-off and portions of-greater circles and
minorum, ut jam satis patet cuilibet consideranti. Et
lesser as now sufficiently is-plain to-anyone considering and
haec apparitio circulorum et portionum consideratur penes
this appearance of-circles and of-portions is-considered in-respect-of

brevitatem et longitudinem pyramidum, ut dixi, licet non
the-shortness and length of-the-pyramids as I-said although not
consideremus elevationem et depressionem solis. Sed tamen
we-consider the-elevation and depression of-the-sun but yet
in nubibus nunquam apparet circulus integer iridis, sed
in clouds never appears the-circle whole of-the-rainbow but
ut in pluribus minor portio, et aliquando semicirculus et
as in most-cases a-lesser portion and sometimes a-semicircle and
major portio. Nam basis pyramidis secat terram semper in
a-greater portion for the-base of-the-pyramid cuts the-earth always in
generatione iridis in nubibus propter ejus longitudinem
the-generation of-the-rainbow in clouds because-of its length
ab oculo, et ideo nunquam apparet circulus completus.
from the-eye and therefore never appears the-circle complete
Quando vero sol est in oriente, et iris elevatur super
when but the-sun is in the-east and the-rainbow is-raised above
horizontem quasi per 42 gradus, et materia sit praeparata
the-horizon as-if through 42 degrees and the-matter be prepared
rorida distillans habens stillicidia infinita, tunc apparet major
dewy dripping having drippings infinite then appears the-greater
portio circuli per quantitatem arcus inter radium visualem
portion of-the-circle by the-quantity of-the-arc between the-ray visual
et horizontem; et quando sol est in altitudine illius
and the-horizon and when the-sun is at the-altitude of-that
lineae, tunc iris habet semicirculum; et quando sol
line then the-rainbow has a-semicircle and when the-sun
transcendit illam lineam, tunc fit minor portio circuli; sic
passes-beyond that line then is-made a-lesser portion of-the-circle so
ulterius quanto sol altius ascendit, fit iris minor
further by-how-much the-sun higher ascends is-made the-rainbow less
et minor, quia magis abscinditur de suo circulo per terram.
and less because more is-cut-off from its circle by the-earth

Considerandum est tamen hic quod secundum Aristotelem,
to-be-considered it-is yet here that according-to Aristotle
praecipue in nova translatione, minor portio circuli apparens
especially in the-new translation the-lesser portion of-the-circle appearing
est portio majoris circuli, et major portio est portio minoris
is a-portion of-a-greater circle and the-greater portion is a-portion of-a-lesser
circuli. Verum quando sol est in oriente, licet appareat plus
circle truly when the-sun is in the-east although there-appear more
semicirculo coloratum, tamen illud est portio minoris circuli
than-a-semicircle colored yet that is a-portion of-a-lesser circle
quam quando sol est in elevatione magna immo in elevatione
than when the-sun is in elevation great nay in elevation
maxima super radium visualem, in qua potest minimum
greatest above the-ray visual in which can the-least
iridis apparere: verum quando sola ejus gibbositas apparet
of-the-rainbow to-appear truly when only its convexity appears
prope terram, dum sol est in maxima altitudine determinata
near the-earth while the-sun is in the-greatest altitude determined
generationi iridis, tunc illa modica portio est pars basis
for-the-generation of-the-rainbow then that small portion is part of-the-base
majoris circuli. Nam non est aestimandum quod pyramis
of-a-greater circle for not it-is to-be-reckoned that the-pyramid
eadem maneat et eadem basis in elevatione et depressione
same remain and the-same base in the-elevation and depression
solis, sed intelligendum quod nova et nova renovari debet
of-the-sun but to-be-understood that new and new to-be-renewed it-ought
in imaginatione habenda de iride, ita quod major aestimatur
in the-imagination to-be-had of the-rainbow so that greater it-is-reckoned
quando iris est inferior, et minor quando est superior.
when the-rainbow is lower and lesser when it-is higher
Quum vero major portio circuli iridis apparet, quando
when but the-greater portion of-the-circle of-the-rainbow appears when

sol est in oriente secundum quantitatem aspicientis, tunc
the-sun is in the-east according-to the-quantity of-the-one-looking then
si esset in alto monte vel in turri alta videret longe
if he-were on a-high mountain or on a-tower high he-would-see far
majorem portionem secundum quantitatem totius elevationis.
greater portion according-to the-quantity of-the-whole elevation
Et considerandum est quod quando sol est sub horizonte
and to-be-considered it-is that when the-sun is below the-horizon
prope, tamen potest iris apparere. Sed tamen est portio
near yet can the-rainbow to-appear but yet it-is the-portion
minor, et non major, nec semicirculus, et hoc non est
lesser and not greater nor a-semicircle and this not is
nisi propter defectum materiae, nam tunc radii solares
except because-of the-defect of-matter for then the-rays solar
non attingunt vapores prope terram, sed in alto positos,
not reach vapors near the-earth but in high-places placed
et ideo non potest compleri semicirculus coloratus nec
and therefore not can to-be-completed the-semicircle colored nor
major portio sed parum circa gibbositatem, quamvis major
the-greater portion but a-little around the-convexity although the-greater
portio circuli sit super horizontem.
portion of-the-circle be above the-horizon
Et intelligendum est quod pyramis visualis et pyramis
and to-be-understood it-is that the-pyramid visual and the-pyramid
iridis non sunt eaedem, licet sint aequales, et jaceant
of-the-rainbow not are the-same although they-be equal and lie
superius in eodem loco. Nam dicunt, quando oculus fit
above in the-same place for they-say when the-eye is-made
immotus sunt hae pyramides simul. Quando vero oculus flectit
unmoved are these pyramids together when but the-eye bends
se ad dextram vel sinistram, sursum vel deorsum, capite
itself to the-right or left upward or downward with-the-head

tamen manente immobili, cadit pyramis visualis secundum
yet remaining unmoved falls the-pyramid visual according-to
partem vel secundum totum extra locum pyramidis iridis.
part or according-to the-whole outside the-place of-the-pyramid of-the-rainbow
Quod fieri potest quia centrum oculi in hoc motu est
which to-be-done can because the-center of-the-eye in this motion is
immobile per quod transit axis pyramidis iridis, et
unmoved through which passes the-axis of-the-pyramid of-the-rainbow and
ideo pyramis haec iridis jacet fixa in loco suo, licet
therefore pyramid this of-the-rainbow lies fixed in place its although
pyramis visualis moveatur et mutetur secundum quod oculus
the-pyramid visual be-moved and be-changed according-to what the-eye
aspicit inferius vel superius, aut a latere. Et tunc nihil de
looks lower or higher or from the-side and then nothing of
iride apparebit, nisi quantum de basi pyramidis iridis
the-rainbow shall-appear except as-much-as of the-base of-the-pyramid of-the-rainbow
capit basim pyramidis visualis, quum nihil videtur nisi quod
takes the-base of-the-pyramid visual since nothing is-seen except what
cadit infra pyramidem visualem, nihil dico per speciem
falls within the-pyramid visual nothing I-say through a-species
venientem ad rectos angulos, et quod fit visibile principale,
coming at right angles and which becomes visible principal
sicut hic est iris (vel pars, secundum quod pyramis
as here is the-rainbow or a-part according-to what the-pyramid
visualis capit de loco suo), et secundum hoc apparebit arcus
visual takes of place its and according-to this shall-appear the-arc
iridis major vel minor. Et istud est valde considerandum,
of-the-rainbow greater or lesser and this is greatly to-be-considered
ut sciatur veritas iridis, et de hoc inferius fiet sermo.
that be-known the-truth of-the-rainbow and of this below shall-be-made speech

Et cum jam habitum est, quod cum altitudo solis fuerit
and since now had it-is that when the-altitude of-the-sun shall-have-been
42 graduum vel major, non potest iris apparere, potest
of-42 degrees or greater not can the-rainbow to-appear it-can
de facili apparere quo tempore anni et in quibus locis
with ease to-appear at-what time of-the-year and in which places
debeat iris ut poterit apparere in meridie diei.
ought the-rainbow so-that it-shall-be-able to-appear at noon of-the-day

Capitulum vi

WHEN AND WHERE THE RAINBOW MAY APPEAR

From the altitudes Bacon computes the times and places of the rainbow: south of 24 degrees 25 minutes of latitude it never appears at noon; northward, as the sun's noon altitude falls below 42 degrees, it may, and beyond 66 degrees 25 minutes at any hour.

Et cum jam habitum est de altitudine et magnitudine
and since now had it-is about the-altitude and magnitude
et figurae varietate, potest de facili patere de tempore
and of-the-figure the-variety it-can with ease to-be-plain about the-time
generationis et loco. Nam quare in aestate apud fervorem
of-generation and the-place for why in summer at the-heat
diei non apparet, causa assignata est per rationem
of-the-day not it-appears the-cause assigned is through the-reason
altitudinis compositae a parte solis et iridis deputatae
of-the-altitude composed on the-part of-the-sun and of-the-rainbow assigned
suae generationi; sed tunc ante meridiem et post dum sol
to-its generation but then before noon and after while the-sun
est infra altitudinem 42 graduum, potest apparere. Sed tamen
is below the-altitude of-42 degrees it-can to-appear but yet

hoc potest esse in climatibus notis, quae septem vocantur;
this can to-be in the-climes known which seven are-called
sed non oportet quod sit in omnibus regionibus a medio
but not it-behooves that it-be in all regions from the-middle
mundi usque ad polum. Considerandum est igitur quod
of-the-world up to the-pole to-be-considered it-is therefore that
major altitudo solis super horizontem est in hora meridiei,
the-greater altitude of-the-sun above the-horizon is at the-hour of-noon
et minor altitudo solis in omnibus climatibus in quibus
and the-lesser altitude of-the-sun in all climes in which
sol lucet super horizontem, tam in hyeme quam in aestate
the-sun shines above the-horizon as in winter as in summer
est in Capricorno, scilicet in solstitio hyemali; et propter
is in Capricorn namely at the-solstice winter and because-of
hoc sunt breviores dies. Sed iris non potest generari
this are the-shorter days but the-rainbow not can to-be-generated
in omnibus his locis, quando sol est in meridie. Nam in
in all these places when the-sun is at noon for in
regione cujus latitudo, id est, distantia zenith capitis ab
a-region whose latitude that is the-distance of-the-zenith of-the-head from
aequinoctiali circulo seu medio mundi, est 24 graduum
the-equinoctial circle or the-middle of-the-world is 24 degrees
et 25 minutorum vel minus, et hoc est habitantibus prope
and 25 minutes or less and this is for-those-dwelling near
finem secundi climatis sub tropico Cancri ultra Jerusalem,
the-end of-the-second clime under the-tropic of-Cancer beyond Jerusalem
nunquam potest iris esse, quando sol est in meridie.
never can the-rainbow to-be when the-sun is at noon
Nam si hoc posset esse, fieret quando sol est minoris
for if this could to-be it-would-be-made when the-sun is of-lesser
altitudinis super horizontem, et hoc esset quando foret in
altitude above the-horizon and this would-be when it-should-be at

solstitio hyemali, scilicet in primo gradu Capricorni. Sed non
the-solstice winter namely in the-first degree of-Capricorn but not
potest esse, quoniam tunc altitudo solis est 42 graduum
it-can to-be since then the-altitude of-the-sun is 42 degrees
super horizontem. Quod autem altitudo solis in regione
above the-horizon that moreover the-altitude of-the-sun in region
illa apud solstitium hyemale fuerit 42 graduum, manifestum
that at the-solstice winter be of-42 degrees manifest
est per hoc, quod quarta coeli est ab horizonte ad
it-is through this that the-quarter of-the-heaven is from the-horizon to
zenith capitis; et zenith capitis distat ab aequinoctiali
the-zenith of-the-head and the-zenith of-the-head is-distant from the-equinoctial
per 24 gradus et 25 minuta, ut dictum est; subtrahatur
by 24 degrees and 25 minutes as said it-is let-be-subtracted
enim hoc a quarta coeli, scilicet a 90 gradibus, et
for this from the-quarter of-the-heaven namely from 90 degrees and
iterum tota solis declinatio quae est inter aequinoctialem
again the-whole of-the-sun declination which is between the-equinoctial
et Capricornum, scilicet 23 gradus et 35 minuta, quae
and Capricorn namely 23 degrees and 35 minutes which
simul juncta faciunt 48 gradus, quibus subtractis a 90,
together joined make 48 degrees with-which subtracted from 90
remanebunt 42 gradus, qui sunt altitudo capitis Capricorni.
shall-remain 42 degrees which are the-altitude of-the-head of-Capricorn
Ergo cum sol fuerit in eo erit in meridie super
therefore when the-sun shall-have-been in it it-shall-be at noon above
horizontem per 42 gradus; quare iris non poterit
the-horizon by 42 degrees wherefore the-rainbow not shall-be-able
generari in meridie illa. Quare nec in aliqua totius
to-be-generated at noon that wherefore neither on any of-the-whole
anni, quia et ante et post erit meridies majoris altitudinis.
year because both before and after shall-be a-noon of-greater altitude

Sed si ambulaverimus ab illo loco versus septentrionem
but if we-shall-have-walked from that place toward the-north
usquequo latitudo regionis sit 66 graduum et 25 minutorum,
until the-latitude of-the-region be of-66 degrees and 25 minutes
et hoc est ultra Scotiam, ubi in solstitio hyemali nullus est
and this is beyond Scotland where at the-solstice winter no is
dies, nisi quod subito medietas corporis solaris super terram
day except that suddenly half of-the-body solar above the-earth
apparet, potest in omnibus his regionibus iris apparere
appears it-can in all these regions the-rainbow to-appear
quando sol est in meridie, et in Capricorno, quia semper
when the-sun is at noon and in Capricorn because always
minuitur altitudo capitis Capricorni, et ideo altitudo solis
is-diminished the-altitude of-the-head of-Capricorn and therefore the-altitude of-the-sun
in meridie. Et magis ac magis potest iris grandior
at noon and more and more can the-rainbow larger
apparere, non solum illa die in hora meridiei in omnibus
to-appear not only on-that day at the-hour of-noon in all
regionibus, sed in diebus prope solstitium, et secundum
regions but on days near the-solstice and according-to
quod plus et plus deambulaverimus versus septentrionem,
what more and more we-shall-have-walked toward the-north
et fuerit latitudo regionis major. Sed hoc plus potest
and shall-have-been the-latitude of-the-region greater but this more can
apparere dum sol est in meridie, non solum dum sol est
to-appear while the-sun is at noon not only while the-sun is
prope Capricornum, sed in multis aliis temporibus; secundum
near Capricorn but at many other times according-to
quod in septimo climate, ubi latitudo est 48 graduum et
what in the-seventh clime where the-latitude is of-48 degrees and
42 minutorum, potest apparere iris, sole exeunte in
42 minutes can to-appear the-rainbow with-the-sun going-out at

meridie ab autumnali aequinoctio usque ad vernale. Nam
noon from the-autumnal equinox up to the-vernal for
sol in isto tempore in meridie non habet in septimo
the-sun in that time at noon not has in the-seventh
climate altitudinem 42 graduum, nec etiam in diebus
clime an-altitude of-42 degrees nor even on the-days
aequinoctiorum, quoniam altitudo capitis Arietis et Librae
of-the-equinoxes since the-altitude of-the-head of-Aries and of-Libra
super horizontem non est nisi 41 gradus et 10 minuta, ut
above the-horizon not is except 41 degrees and 10 minutes as
prius tactum est, et patet hoc per latitudinem regionis
earlier touched it-is and is-plain this through the-latitude of-the-region
subtractam a 90. Nam 48 gradibus et 48 minutis, quae
subtracted from 90 for with-48 degrees and 48 minutes which
sunt latitudo regionis, subtractis a 90, non remanent nisi 41
are the-latitude of-the-region subtracted from 90 not remain except 41
gradus et 12 minuta, et hoc est minus quam 42 gradus, qui
degrees and 12 minutes and this is less than 42 degrees which
faciunt altitudinem solis in qua potest iris apparere.
make the-altitude of-the-sun in which can the-rainbow to-appear
Et si ultra hoc clima deambulaverimus ad septentrionem,
and if beyond this clime we-shall-have-walked to the-north
adhuc poterit iris in fervore aestatis apparere, quando
still shall-be-able the-rainbow in the-heat of-summer to-appear when
sol est in meridie. Nam altitudo capitis Arietis est parva, et
the-sun is at noon for the-altitude of-the-head of-Aries is small and
similiter altitudo capitis Cancri quando latitudo regionis est
likewise the-altitude of-the-head of-Cancer when the-latitude of-the-region is
54 graduum vel 60, et maxime quando est 66 graduum et
of-54 degrees or 60 and most when it-is of-66 degrees and
25 minutorum. Nam tunc nulla altitudo est Capricorni, quia
25 minutes for then no altitude is of-Capricorn because

horizon transit per idem, et in solstitiis in instanti jacet
the-horizon passes through the-same and at the-solstices in an-instant lies
horizon sub zodiaco, non declinans ab eo. Et quia zodiacus
the-horizon under the-zodiac not declining from it and because the-zodiac
movetur cum coelo, subito separatur ab horizonte, et
is-moved with the-heaven suddenly it-is-separated from the-horizon and
revolvitur caput Capricorni sub horizonte per diem naturalem,
is-revolved the-head of-Capricorn below the-horizon through the-day natural
nisi quod medietas solis apparet super terram. Verum ei
except that half of-the-sun appears above the-earth truly to-it
nulla est altitudo super horizontem in solstitio hyemali. Et
no is altitude above the-horizon at the-solstice winter and
tunc iris potest apparere, quando sol est in meridie,
then the-rainbow can to-appear when the-sun is at noon
dum medietas apparet super terram, et potest esse major quam
while half appears above the-earth and it-can to-be greater than
semicirculus. Et quia repente occidit medietas solis, ideo
a-semicircle and because suddenly sets half of-the-sun therefore
statim disparet iris. Similiter in aliis diebus fere totius
at-once disappears the-rainbow likewise on other days almost of-the-whole
anni apud illum locum potest apparere, quia maxima altitudo
year at that place it-can to-appear because the-greatest altitude
solis est quando sol est in Cancro, sed non elevatur tunc
of-the-sun is when the-sun is in Cancer but not is-raised then
sol super horizontem nisi per ambas solis declinationes
the-sun above the-horizon except by both of-the-sun declinations
maximas, quarum una est 23 graduum et 35 minutorum,
greatest of-which one is of-23 degrees and 35 minutes
et altera totidem, quorum summa est 47 graduum et 10
and the-other as-many of-which the-sum is of-47 degrees and 10
minutorum, quae non excedunt maximam altitudinem solis,
minutes which not exceed the-greatest altitude of-the-sun

in qua potest iris apparere, nisi in 5 gradibus et 10
in which can the-rainbow to-appear except by 5 degrees and 10
minutis; et ideo in paucis diebus respectu totius anni
minutes and therefore on few days in-respect of-the-whole year
impedietur generatio iridis sole exeunte in meridie.
shall-be-hindered the-generation of-the-rainbow with-the-sun going-out at noon
Sed si deambulaverimus ultra haec loca, nunquam erit
but if we-shall-have-walked beyond these places never shall-be
sol in meridie, sed in aquilone et oriente et occidente
the-sun at noon but in the-north and east and west
tantum, quia sol semper hominibus habitantibus ultra loca
only because the-sun always to-men dwelling beyond places
illa apparet ante eos versus polum mundi, et aliquando
those appears before them toward the-pole of-the-world and sometimes
per mensem sine nocte, aliquando per duos, aliquando per
for a-month without night sometimes for two sometimes for
plures usquequo appareat per 6 menses, scilicet habitantibus
more until it-appear for 6 months namely to-those-dwelling
sub polo. Et ideo ille locus, cujus latitudo 66 graduum
under the-pole and therefore that place whose latitude of-66 degrees
et 25 minutorum, est ultimus in quo iris potest
and 25 minutes is the-last in which the-rainbow can
apparere dum sol est in meridie; sicut primus in quo
to-appear while the-sun is at noon as the-first in which
sole exeunte in meridie, fuit ille locus cujus latitudo
with-the-sun going-out at noon was that place whose latitude
incipit esse plus quam 24 gradus et 25 minuta.
begins to-be more than 24 degrees and 25 minutes
Sic ergo considerandum est in quo tempore, et praecipue
thus therefore to-be-considered it-is in what time and especially
sole exeunte in meridie, et in quibus climatibus potest
with-the-sun going-out at noon and in which climes can

iris apparere. Et in istis regionibus potest accidere in
the-rainbow to-appear and in these regions it-can to-happen in
vero aquilone, quando scilicet sol est in meridie, et in aliis
the-true north when namely the-sun is at noon and in other
partibus inter orientem et aquilonem, et inter occidentem
parts between the-east and the-north and between the-west
et aquilonem. Et etiam in aestate potest accidere in vespere
and the-north and also in summer it-can to-happen in the-evening
inter orientem et meridiem, et in mane inter occidentem
between the-east and the-south and in the-morning between the-west
et meridiem, quia in solstitio aestivali sol declinat
and the-south because at the-solstice summer the-sun declines
mane multum ad aquilonem, et tunc in opposito loco
in-the-morning much to the-north and then in the-opposite place
inter occidentem et meridiem fieri potest iris; et
between the-west and the-south to-be-made can the-rainbow and
in vespere declinat ad aquilonem, et ideo fieri potest
in the-evening it-declines to the-north and therefore to-be-made can
iris inter orientem et meridiem. Sed nunquam in vera
the-rainbow between the-east and the-south but never at true
meridie potest esse iris in his climatibus ab aequinoctiali
noon can to-be the-rainbow in these climes from the-equinoctial
usque ad latitudinem 66 graduum et 25 minutorum. Potest
up to the-latitude of-66 degrees and 25 minutes it-can
tamen bene fieri in meridie in locis ultra hanc latitudinem,
yet well to-be-made at noon in places beyond this latitude
et hoc usque ad polum; quoniam sol in illis regionibus
and this up to the-pole since the-sun in those regions
est semper in parte aquilonari vel in oriente aut occidente;
is always in the-part northern or in the-east or west
et iris fit in oppositum solis, et tunc omni hora
and the-rainbow is-made in the-opposite of-the-sun and then at-every hour

diei potest fieri iris. Nam nunquam elevatur sol
of-the-day can to-be-made the-rainbow for never is-raised the-sun
super horizontem nisi per maximam solis declinationem
above the-horizon except by the-greatest of-the-sun declination
per 23 gradus et 35 minuta, propter quod iris semper
by 23 degrees and 35 minutes because-of which the-rainbow always
potest eis apparere de die, quando materia est praeparata.
can to-them to-appear by day when the-matter is prepared
Ex his igitur patet quod iris sequitur motum solis
from these therefore is-plain that the-rainbow follows the-motion of-the-sun
dupliciter; uno modo secundum elevationem et depressionem
doubly in-one way according-to the-elevation and depression
solis in suo circulo altitudinis, prout prius dictum est;
of-the-sun in its circle of-altitude as earlier said it-is
et alio modo secundum motum solis super horizontem
and in-another way according-to the-motion of-the-sun above the-horizon
motu diurno, quia iris semper sequitur nadir solis,
by-motion diurnal because the-rainbow always follows the-nadir of-the-sun
et nadir vadit continue in oppositum solis.
and the-nadir goes continually in the-opposite of-the-sun

Capitulum vii

EACH VIEWER SEES HIS OWN RAINBOW

The rainbow follows, flees, or keeps pace with the viewer, and two viewers moving apart see two rainbows. So it is made by reflection, not by rays passing through the cloud; it appears only where the air is dark enough, and so it shifts with the eye.

Experimentator ulterius inquirere nititur annon fiat
the-experimenter further to-inquire strives whether-not be-made
iris per radios incidentes vel per reflexionem vel per
the-rainbow through rays incident or through reflection or through
refractionem, et an sit solis imago, ut suppositum est in
refraction and whether it-be of-the-sun an-image as supposed it-is in
his quae de Perspectiva dicta sunt, et an sint veri colores
those which about Perspective said are and whether there-be true colors
in ipsa nube, et de varietate, et de causa figurationis;
in the-very cloud and about the-variety and about the-cause of-the-shaping
cum superius tantum sit dictum de quantitate figurae,
since above only be said about the-quantity of-the-figure
scilicet quod aliquando sit circulus completus, et aliquando
namely that sometimes it-be a-circle complete and sometimes
major portio, et aliquando minor. Sed ad haec intelligenda
a-greater portion and sometimes lesser but for these-things to-be-understood
necessarium est uti experientiis certis. Quae sunt hujusmodi,
necessary it-is to-use experiences certain which are of-this-kind
videlicet quod aspiciens iridem, si moveatur aequidistanter
namely that one-looking-at the-rainbow if he-be-moved equidistantly
iridi, tunc iris sequitur ipsum a latere; si vero
to-the-rainbow then the-rainbow follows him from the-side if but
moveatur versus iridem, iris fugit; si vero retro
he-be-moved toward the-rainbow the-rainbow flees if but backward

cedat, iris sequitur ipsum, et non solum tardo motu,
he-withdraw the-rainbow follows him and not only with-slow motion
sed eadem velocitate qua videns movetur. Verum si
but with-the-same speed with-which the-one-seeing is-moved truly if
velocissime currat homo vel equitet, videbitur iris pari
most-swiftly run a-man or ride shall-seem the-rainbow with-equal
velocitate transferri, sicut manifeste potest homo deprehendere,
speed to-be-carried as manifestly can a-man to-detect
si villae vel nemora, vel alia corpora sint ante eum circa
if farms or groves or other bodies be before him around
locum iridis; videbit enim iridem accedere ad ea
the-place of-the-rainbow he-shall-see for the-rainbow approach to them
valde velociter, si sint post illam, vel recedere si sint ante.
very swiftly if they-be behind it or recede if they-be before
Item per experientiam scimus quod sol, propter distantiam
likewise through experience we-know that the-sun because-of the-distance
maximam a nobis quam non possumus judicare, videtur
greatest from us which not we-can to-judge seems
semper esse in eadem distantia fugienti ante ipsum; et
always to-be at the-same distance to-one-fleeing before it and
propter hoc videtur quod sol sequitur fugientem, quia
because-of this it-seems that the-sun follows the-one-fleeing because
aliter eadem distantia non judicaretur. Et similiter quando
otherwise the-same distance not would-be-judged and likewise when
accedit versus solem, videtur quod sol fugiat ante
one-approaches toward the-sun it-seems that the-sun flees before
eum propter hoc quod apparet semper in eadem distantia;
him because-of this that it-appears always at the-same distance
quae apparentia salvari non potest nisi visus judicet solem
which appearance to-be-saved not can unless the-sight judge the-sun
moveri ante se. Et hujusmodi motum apparentem videmus
to-be-moved before itself and of-this-kind motion apparent we-see

manifeste, quando sol transit super nemora vel caetera
manifestly when the-sun passes over groves or other-things
elevata in aere a quibus recedit, vel ad quae accedit. Item
raised in the-air from which one-recedes or to which one-approaches likewise
scimus quod sol videtur esse in directo aspicientis et
we-know that the-sun seems to-be in line-with of-the-one-looking and
apparet moveri aequidistanter, et hoc propter superfluitatem
appears to-be-moved equidistantly and this because-of the-superfluity
distantiae. Et propter hoc semper apparet sol in oppositum
of-distance and because-of this always appears the-sun in the-opposite
videntis iridem, quocunque moveatur aequidistanter
of-the-one-seeing the-rainbow wherever he-be-moved equidistantly
iridi. Ut si sol sit in meridie, et iris in aquilone,
to-the-rainbow as if the-sun be at noon and the-rainbow in the-north
videns motus ad orientem aspicit solem ex uno latere
the-one-seeing moved to the-east looks-at the-sun from one side
contra eum, et iridem ex alio, ita quod linea transit a
against him and the-rainbow from the-other so that a-line passes from
centro solis per centrum oculi et iridis; et variatur
the-center of-the-sun through the-center of-the-eye and of-the-rainbow and is-varied
motus iridis per hoc quod sol videtur moveri
the-motion of-the-rainbow through this that the-sun seems to-be-moved
aequidistanter aspicienti et iridi. Si enim sol staret
equidistantly to-the-one-looking and to-the-rainbow if for the-sun stood
secundum judicium visus, tunc iris moveretur secundum
according-to the-judgment of-sight then the-rainbow would-be-moved according-to
motum videntis, sed plus pertransiret de spatio quam
the-motion of-the-one-seeing but more it-would-pass-through of space than
videns et transiret videntem.
the-one-seeing and it-would-pass the-one-seeing

Nam sic est generaliter, quod visibili quieto, si videns
for thus it-is generally that with-the-visible at-rest if the-one-seeing
moveatur, imago movebitur si speculum continuetur; sed si
be-moved the-image shall-be-moved if the-mirror be-continued but if
res visa simul moveatur in partem videntis, motus
the-thing seen together be-moved in the-direction of-the-one-seeing the-motion
imaginis non pertransibit nisi spatium aequale motui
of-the-image not shall-pass-through except a-space equal to-the-motion
videntis. Si vero visibile quiescat, imago majus spatium
of-the-one-seeing if but the-visible rest the-image a-greater space
pertransibit. Nam sit a centrum solis immobile, b
shall-pass-through for let-be a the-center of-the-sun unmoved b
centrum oculi, c centrum iridis in linea a b c, et b
the-center of-the-eye c the-center of-the-rainbow on the-line a b c and b
et c moveantur ita quod b in d, et c in f, manifestum est
and c be-moved so that b to d and c to f manifest it-is
quod c f spatium est majus quam b d, et tunc linea a c
that the-c f space is greater than b d and then the-line a c
et linea a f non aequidistant sed a parte a concurrunt, et
and the-line a f not are-equidistant but on the-side a they-meet and
ab altera parte separantur, ut apparet in figura. Si vero a
on the-other side are-separated as appears in the-figure if but a
moveatur versus g in directo d, tunc c erit in h, et tunc
be-moved toward g in line-with d then c shall-be at h and then
linea b d, et c h, et a g erunt aequales, et a c linea
the-line b d and c h and a g shall-be equal and the-a c line
et g h aequidistantes. Sed centrum iridis est semper in
and g h equidistant but the-center of-the-rainbow is always in
directo centri oculi facialiter. Quapropter oportet ponere
line-with of-the-center of-the-eye face-on wherefore it-behooves to-posit

quod sol videtur moveri in directo videntis, ut sic
that the-sun seems to-be-moved in line-with of-the-one-seeing so-that thus
possit iris moveri aequidistanter videnti.
can the-rainbow to-be-moved equidistantly to-the-one-seeing
Item scimus quod sol apparet in oculum cujuslibet. Si mille
likewise we-know that the-sun appears into the-eye of-anyone if a-thousand
homines ordinarentur secundum lineam unam ab oriente
men were-ordered along line one from the-east
ad occidens; umbrae eorum essent aequidistantes secundum
to the-west the-shadows their would-be equidistant according-to
sensum, et radii solares cadentes super eos. Et hoc est propter
sense and the-rays solar falling upon them and this is because-of
hoc, quod non percipimus concursum radiorum solarium
this that not we-perceive the-concourse of-the-rays solar
in centrum ejus propter nimiam distantiam. Item propter
into the-center its because-of the-excessive distance likewise because-of
eandem distantiam, non percipimus motum solis diurnum in
the-same distance not we-perceive the-motion of-the-sun diurnal in
parvo tempore, sed videtur nobis quod sol stet in coelo.
small time but it-seems to-us that the-sun stands in the-heaven
Ex quo ostenditur quod nihilominus experimur, scilicet
from which is-shown what nonetheless we-experience namely
quod iris numeratur secundum numerum hominum
that the-rainbow is-numbered according-to the-number of-men
aspicientium. Nam si duo simul stent aspicientes iridem in
looking for if two together stand looking-at the-rainbow in
aquilone, et unus recedat ad occidens, iris movebitur
the-north and one withdraw to the-west the-rainbow shall-be-moved
aequidistanter ei, et si alius vadit ad oriens, iris
equidistantly to-him and if the-other goes to the-east the-rainbow
movetur aequidistanter illi, vel si stet in loco primo,
is-moved equidistantly to-him or if he-stand in the-place first

stabit iris. Manifestum est ergo quod iris
shall-stand the-rainbow manifest it-is therefore that the-rainbow
numeratur secundum numerum hominum aspicientium; et
is-numbered according-to the-number of-men looking and
ideo impossibile est quod duo videant unam et eandem
therefore impossible it-is that two see one and the-same
iridem, quamvis inexpertus hoc non percipiat. Nam umbra
rainbow although the-inexperienced this not perceive for the-shadow
cujuslibet dividit arcum iridis in duo aequalia, et ideo,
of-anyone divides the-arc of-the-rainbow into two equal-parts and therefore
cum umbrae sint aequidistantes quoad sensum, non concurrunt
since the-shadows be equidistant as-to sense not they-meet
ad medium ejusdem iridis, et ideo cuilibet aspicienti debetur
at the-middle of-the-same rainbow and therefore to-each-one looking is-owed
propria iris. Et hoc patet, quia si in diversas et contrarias
his-own rainbow and this is-plain because if in diverse and contrary
partes duae moveantur irides, movebuntur secundum motum
directions two be-moved rainbows shall-be-moved according-to the-motion
videntium, et ideo quot sunt videntes, tot sunt irides.
of-those-seeing and therefore as-many-as are those-seeing so-many are rainbows
Ex his ergo sequitur quod iris non videtur nisi per
from these therefore follows that the-rainbow not is-seen except through
radios solis reflexos, quia si per radios incidentes, tunc
rays of-the-sun reflected because if through rays incident then
esset iris res fixa in uno loco nubis, quae non
would-be the-rainbow a-thing fixed in one place of-the-cloud which not
variaretur secundum motum aspicientis, neque secundum
would-be-varied according-to the-motion of-the-one-looking nor according-to
numerum eorum; nam quando radii solares transeunt nubem
the-number of-them for when the-rays solar pass-through a-cloud
aliquam raram, apparet nubes illa colorata colore albo, et si
some rare appears cloud that colored with-color white and if

per multum spissam, colore nigro, et si per mediocrem,
through a-very thick with-color black and if through a-middling
colore aliquo de mediis. Sed idem color nubis diversis
with-color some of the-middle-ones but the-same color of-the-cloud to-diverse
apparet aspicientibus, nec sequitur motum aspicientis, quia
appears lookers nor follows the-motion of-the-one-looking because
non videtur per radios reflexos, sed per incidentes vel
not it-is-seen through rays reflected but through incident or
fractos. Similiter quando fit color per radios incidentes
broken likewise when is-made color through rays incident
per lapidem crystallinum, ibi fit fractio, sed idem
through a-stone crystalline there is-made refraction but the-same
color in eodem situ videtur a diversis. Manifestum ergo
color in the-same position is-seen by diverse-men manifest therefore
est quod non fit iris per rectos radios incidentes
it-is that not is-made the-rainbow through straight rays incident
vel fractos. Ergo per reflexos; quia non est nisi
or broken therefore through reflected because not there-is except
triplex radius principalis. Nec per radios accidentales
a-threefold ray principal nor through rays accidental
videbitur, quum illi situm non mutant nisi causentur a
shall-it-be-seen since those position not change unless they-be-caused by
reflexione. Verum ex proprietate reflexionis patet idem; nam
reflection truly from the-property of-reflection is-plain the-same for
locus reflexionis et imaginis mutatur secundum mutationem
the-place of-reflection and of-the-image is-changed according-to the-change
aspicientis. Sed sic est hic; ergo fit per reflexionem.
of-the-one-looking but so it-is here therefore it-is-made through reflection
Nec potest dici quod substantia iridis manet, et
nor can to-be-said that the-substance of-the-rainbow remains and
locus imaginis variatur in fractione radiorum, quum loci
the-place of-the-image is-varied in the-refraction of-the-rays since of-the-place

mutatio in iride est secundum distantiam sensibilem valde,
the-change in the-rainbow is according-to a-distance sensible very
ut pari velocitate qua homo curreret vel equitaret
so-that with-equal speed with-which a-man should-run or should-ride
quantum posset velocissime. Sed locus imaginis rei
as-much-as he-could most-swiftly but the-place of-the-image of-a-thing
quietae, quamvis varietur, tamen non eadem velocitate
at-rest although it-be-varied yet not with-the-same speed
qua iris, quia tota varietas imaginis est in loco
with-which the-rainbow because the-whole variety of-the-image is in place
uno communi, et ideo vocatur transitus spatii. Item imago
one common and therefore it-is-called the-passage of-space likewise the-image
rei visae per fractionem non sequitur videntem si
of-a-thing seen through refraction not follows the-one-seeing if
retrocedit, neque fugit si appropinquat, neque movetur ei
he-goes-back nor flees if he-approaches nor is-moved to-him
aequidistanter; quod patet cum videmus piscem quietum in
equidistantly which is-plain when we-see a-fish at-rest in
aqua, aut baculum fixum in ea, aut solem aut lunam per
water or a-staff fixed in it or the-sun or the-moon through
medium vaporum, aut literas mediante crystallo vel vitro.
the-midst of-vapors or letters by-means-of crystal or glass
Sed potest objici, quod non sit nisi locus imaginis
but it-can to-be-objected that not there-be except the-place of-the-image
motus, et ideo potest fieri per refractionem sicut
moved and therefore it-can to-be-made through refraction as
per reflexionem. Quod autem non sit nisi mutatio loci
through reflection that moreover not there-be except a-change of-place
imaginis videtur, quia speculum, ut materia apta iridi,
of-the-image it-seems because the-mirror as matter apt for-the-rainbow
est immobile; sed quando sic est, licet videns accedit ad
is unmoved but when so it-is although the-one-seeing approaches to

speculum, non propter hoc mutatur nisi solus locus imaginis,
the-mirror not because-of this is-changed except the-sole place of-the-image
ut citius concurrat radius visualis cum catheto,
so-that more-quickly meet the-ray visual with the-perpendicular
et non fugiet locus reflexionis mutari, praecipue cum
and not shall-escape the-place of-reflection to-be-changed especially since
speculum non in superficie sit, sed in profundo, quum tota
the-mirror not on the-surface be but in the-depth since the-whole
materia rorationis habet naturam speculi, et ideo locus
matter of-the-spraying has the-nature of-a-mirror and therefore the-place
reflexionis mutat situm sensibiliter secundum judicium visus.
of-reflection changes position sensibly according-to the-judgment of-sight
Sed totum hoc est, cum sol secundum veritatem sit in
but all this is since the-sun according-to truth be at
eadem distantia respectu speculi, non est diversitas in
the-same distance in-respect of-the-mirror not there-is diversity in
hora apparitionis iridis de qua curandum est, sive
the-hour of-the-appearance of-the-rainbow about which to-be-cared it-is whether
moveatur a Cancro versus meridiem sive a Capricorno
it-be-moved from Cancer toward the-south or from Capricorn
versus septentrionem, quia in die naturali non movetur per
toward the-north because in a-day natural not it-is-moved through
unum gradum. Et ideo in hora apparitionis iridis
one degree and therefore in the-hour of-the-appearance of-the-rainbow
non est aliqua distantia solis a nube diversa de qua
not there-is any distance of-the-sun from the-cloud diverse about which
sit curandum. Quapropter apprehendet ejus radius eandem
there-be to-be-cared wherefore shall-take its ray the-same
rorationem vel partem rorationis, ut primam vel secundam; et
spraying or part of-the-spraying as the-first or second and
ideo pars aliqua certa, vel ipsa roratio tota, fit speculum
therefore part some certain or the-very spraying whole becomes a-mirror

immotum. Et non sufficit dicere quod iris fugit ante
unmoved and not it-suffices to-say that the-rainbow flees before
videntem, quum sol videtur persequi, quamvis hoc sit verum,
the-one-seeing since the-sun seems to-pursue although this be true
ut sic videretur variari locus reflexionis et iridis, quia
so-that thus would-seem to-be-varied the-place of-reflection and of-the-rainbow because
solis radii penetrant totam materiam roridam, et ab omni
of-the-sun the-rays penetrate the-whole matter dewy and from every
stillicidio fit reflexio. Et propter hoc, nisi aliud esset in
drip is-made reflection and because-of this unless something-else were in
causa, iris una appareret immobilis et fixa per totam
the-cause the-rainbow one would-appear unmoved and fixed through the-whole
rorationem, habens spissitudinem secundum totam rorationem.
spraying having thickness according-to the-whole spraying
Quapropter dicendum est, quod iris non apparet nisi in
wherefore to-be-said it-is that the-rainbow not appears except in
certa dispositione aeris secundum majorem et minorem
a-certain disposition of-the-air according-to greater and lesser
luciditatem, ut a parte oculi sit illuminatio debita, et in
brightness so-that on the-part of-the-eye be illumination due and in
loco iridis obscuritas determinata, quia res debilis
the-place of-the-rainbow darkness determined because the-thing weak
est et non apparet nisi in loco obscurato. Quum ergo aer
is and not appears except in a-place darkened when therefore the-air
inter oculum et iridem est debito modo dispositus, tunc
between the-eye and the-rainbow is in-due way disposed then
extenditur pyramis ab oculo cujus basis est circulus iridis
is-extended a-pyramid from the-eye whose base is the-circle of-the-rainbow
et terminatur in nube rorida ad locum debitae tenebrositatis,
and it-is-bounded in a-cloud dewy at the-place of-due darkness
et apparet iris in illo loco. Sed quando oculus mutatur
and appears the-rainbow in that place but when the-eye is-changed

in partem iridis, jam attingit aerem ulteriorem qui
in the-direction of-the-rainbow now it-reaches air further which
lucidus est, et appropinquat ad locum priorem iridis, ita
bright is and it-approaches to the-place former of-the-rainbow so
quod propter approximationem videntis jam non invenitur
that because-of the-approach of-the-one-seeing now not is-found
locus idem ejusdem dispositionis, immo clarior quam
the-place same of-the-same disposition nay brighter than
requiratur ad iridis apparitionem. Non enim in omni dicta
be-required for of-the-rainbow the-appearance not for in every said
loci dispositione potest apparere, quoniam licet materia sit
of-place disposition can-it to-appear since although the-matter be
rorida usque ad oculum, non tamen videbitur nisi in loco
dewy up to the-eye not yet shall-it-be-seen except in a-place
proportionalis obscuritatis; ideo oportet quod basis pyramidis
of-proportional darkness therefore it-behooves that the-base of-the-pyramid
cadat in nube ulterius in loco debitae obscuritatis. Et sic
fall in the-cloud further in a-place of-due darkness and so
tota pyramis mutat locum secundum motum aspicientis,
the-whole pyramid changes place according-to the-motion of-the-one-looking
ac si portetur pyramis ante faciem hominis ambulantis, cujus
as if be-carried a-pyramid before the-face of-a-man walking whose
conus sit in oculo fixus, et corpus ejus extendatur in aere
cone be in the-eye fixed and the-body its be-extended in the-air
usque ad locum iridis, ubi propter distantiam ab oculo
up to the-place of-the-rainbow where because-of the-distance from the-eye
invenitur umbrositas propter spissitudinem vaporum et nubis
is-found shadiness because-of the-thickness of-vapors and of-the-cloud
obumbrantis. Et est simile de homine aspiciente vaporem
overshadowing and it-is like with a-man looking-at a-vapor
nebulosum a longe quem videre non potest de prope,
misty from afar which to-see not he-can from near

nam propter distantiam debilitatur species visus, et potest
for because-of distance is-weakened the-species of-sight and it-can
a spissitudine vaporum terminari, quem de prope potest
by the-thickness of-vapors to-be-bounded which from near it-can
penetrare; et propter hoc patet quod licet ubique sit in
to-penetrate and because-of this is-plain that although everywhere there-be in
materia rorida reflexio, tamen non ubique apparet iris,
the-matter dewy reflection yet not everywhere appears the-rainbow
sed in loco determinato. Sic solvitur illa objectio prima.
but in a-place determined thus is-solved that objection first
Secunda patet ex eodem; nam non manet hic idem
the-second is-plain from the-same for not remains here the-same
speculum, nec in eodem loco, propter umbrositatem quae
mirror nor in the-same place because-of the-shadiness which
exigitur ad apparitionem colorum, et ideo nunc in una
is-demanded for the-appearance of-colors and therefore now in one
parte rorationis apparet iris, nunc in alia.
part of-the-spraying appears the-rainbow now in another
Si dicitur, quod moto vidente ad orientem sol
if it-is-said that with-moved the-one-seeing to the-east the-sun
movetur ad occidentem, ideo punctum reflexionis mutabitur
is-moved to the-west therefore the-point of-reflection shall-be-changed
secundum motum solis, et ideo accedet iris ad
according-to the-motion of-the-sun and therefore shall-approach the-rainbow to
solem magis quam ad videntem, patet per supradicta
the-sun more than to the-one-seeing it-is-plain through the-things-said-above
quod non; quia motus solis ad orientem in hora
that not because the-motion of-the-sun to the-east in the-hour
apparitionis iridis est insensibilis, et ideo aestimatur
of-the-appearance of-the-rainbow is insensible and therefore it-is-reckoned
stare, id est non moveri ad occidentem.
to-stand that is not to-be-moved to the-west

Capitulum viii

THE RAINBOW IS MERE APPEARANCE

Since sight cannot create colors, and the colors change with every viewer, the rainbow has no true color but only an appearance, born of the eye's weakness, as dew seen with half-closed eyes shows. Colors in crystal, which many see in one place, are true; the rainbow's are not.

Sed tunc patet per hoc, quod nihil erit in loco
but then it-is-plain through this that nothing shall-be in the-place
iridis nisi apparentia colorum, et non erit nisi
of-the-rainbow except the-appearance of-colors and not it-shall-be except
quando apparet. Nam dictum est quod secundum diversitatem
when it-appears for said it-is that according-to the-diversity
aspicientium diversificatur iris. Sed aspectus non facit
of-those-looking is-diversified the-rainbow but the-looking not makes
colores. Visus enim non potest creare colores in nube, ut
colors the-sight for not can to-create colors in the-cloud as
patet; quare nihil erit nisi per apparentiam. Item visio
is-plain wherefore nothing shall-be except through appearance likewise vision
per reflexionem habet visibile in termino radii visualis
through reflection has the-visible at the-end of-the-ray visual
reflexi, ut patuit prius, et ideo non in puncto reflexionis
reflected as was-plain earlier and therefore not at the-point of-reflection
nec alibi; quia res visa est terminus reflexionis et lineae
nor elsewhere because the-thing seen is the-end of-the-reflection and of-the-line
reflexae, ergo per reflexionem nihil videtur in nube.
reflected therefore through reflection nothing is-seen in the-cloud
Si vero dicatur, quod sensibiliter et vivaciter movetur visus per
if but it-be-said that sensibly and vividly is-moved the-sight by
iridem, et apparent colores valde vivi in iride, ergo non
the-rainbow and appear colors very vivid in the-rainbow therefore not

potest esse sola apparentia colorum; dicendum est quod sicut
it-can to-be sole appearance of-colors to-be-said it-is that as
est sola apparentia colorum, sic est sola apparentia sensus et
is sole appearance of-colors so is sole appearance of-sense and
vivacitatis immutationis visus; quoniam hujusmodi immutatio
of-vividness of-the-alteration of-sight since of-this-kind alteration
non est nisi ex defectu visus, sicut videmus in exemplis.
not is except from defect of-sight as we-see in examples
Quum enim in aestate de mane aliquis demittit caput ad
when for in summer in the-morning someone lets-down the-head to
terram, ut videat guttulas roris in summitatibus herbarum,
the-earth that he-may-see the-little-drops of-dew on the-tips of-grasses
si sit negligens in videndo et languidus, et semiclaudat
if he-be negligent in seeing and languid and half-close
oculos, videbit secundum apparentiam omnes colores iridis.
the-eyes he-shall-see according-to appearance all the-colors of-the-rainbow
Et similiter de circulo colorato circa candelam; et similiter
and likewise of the-circle colored around a-candle and likewise
quando aliquis surgit de somno in aestate, habens oculos
when someone rises from sleep in summer having eyes
male apertos et vaporosos, et aspiciat ad aliquid foramen
badly opened and vaporous and look at some hole
parvum per quod transit radius solaris, apparebunt ei
small through which passes a-ray solar shall-appear to-him
colores; et maxime eis qui habent debiles oculos et
colors and most to-those who have weak eyes and
male vident a longe. Et ideo oportet quod apparitio sit
badly see from afar and therefore it-behooves that the-appearance be
propter defectum visus, et propter hoc est sola apparentia,
because-of defect of-sight and because-of this it-is sole appearance
et non veritas. Fortificatur autem haec apparitio, tanquam in
and not truth is-strengthened moreover this appearance as-if in

loco iridis sit, propter hoc quod cito concurrit radius
the-place of-the-rainbow it-be because-of this that quickly meets the-ray
visualis cum catheto propter parvitatem stillicidiorum; et
visual with the-perpendicular because-of the-smallness of-the-drips and
ideo prope punctum reflexionis fit hujusmodi apparitio,
therefore near the-point of-reflection is-made of-this-kind appearance
et propter hoc in ipsa materia et loco iridis.
and because-of this in the-very matter and place of-the-rainbow
Si vero dicatur, quod radii solares transeuntes per
if but it-be-said that the-rays solar passing through
crystallum faciunt colores veros et fixos, qui speciem faciunt
crystal make colors true and fixed which a-species make
et sunt in ratione objecti; dicendum est, quod aliud est
and are in the-notion of-an-object to-be-said it-is that one-thing is
hic et ibi. Solum aspiciens facit iridem, nec est ibi nisi
here and there alone the-one-looking makes the-rainbow nor there-is there except
sola reflexio. Hic autem est causa naturalis, scilicet radius
sole reflection here moreover is a-cause natural namely the-ray
et lapis rugosus qui habet magnam superficiei diversitatem,
and the-stone wrinkled which has great of-surface diversity
ut secundum casum lucis diversitas colorum resultet. Et
so-that according-to the-fall of-light a-diversity of-colors may-result and
aspectus in illos facit hic adesse colores, nam prius est
the-looking on them makes here to-be-present colors for earlier is
color quam videatur hic, et a diversis videtur in eodem
the-color than it-be-seen here and by diverse-men it-is-seen in the-same
loco. Sed hic ex aspectu est apparitio, et ideo non potest
place but here from the-looking is the-appearance and therefore not it-can
esse veritas sed sola apparentia. Et hoc est manifestum per
to-be truth but sole appearance and this is manifest through
superius dicta de pyramide visuali; quae quum cadit
above the-things-said about the-pyramid visual which when it-falls

tota in locum pyramidis iridis, tunc apparet tota iris
whole into the-place of-the-pyramid of-the-rainbow then appears the-whole rainbow
secundum quantitatem ei possibilem juxta altitudinem
according-to the-quantity to-it possible according-to the-altitude
et depressionem solis et juxta materiae dispositionem;
and depression of-the-sun and according-to of-the-matter the-disposition
ita quod si sol sit in horizonte, et materia sit praeparata,
so that if the-sun be in the-horizon and the-matter be prepared
apparet iris semicircularis vel major portio sphaerae,
appears the-rainbow semicircular or the-greater portion of-the-sphere
dummodo pyramis visualis tota cadat in locum pyramidis
provided-that the-pyramid visual whole fall into the-place of-the-pyramid
iridis. Quod si sol sit in horizonte et materia sit
of-the-rainbow but if the-sun be in the-horizon and the-matter be
praeparata, sed pyramis visualis non cadat tota in locum
prepared but the-pyramid visual not fall whole into the-place
pyramidis iridis, tunc solum apparebit de arcu iridis,
of-the-pyramid of-the-rainbow then only shall-appear of the-arc of-the-rainbow
quantum capit basis pyramidis visus de loco iridis; ergo
as-much-as takes the-base of-the-pyramid of-sight of the-place of-the-rainbow therefore
manifestum est quod iris non est nisi solum in conspectu.
manifest it-is that the-rainbow not is except only in the-sight

Capitulum ix

THE RAINBOW AS AN IMAGE OF THE SUN

Following Seneca, the rainbow is an image of the sun in countless drops, each a small spherical mirror, which seem continuous at a distance. Such mirrors distort figure, size, and color, and can make what has no color appear colored.

Deinde considerandum est quod iris est imago solis,
then to-be-considered it-is that the-rainbow is the-image of-the-sun
et ad hoc imaginandum debemus considerare sententiam
and for this to-be-imagined we-ought to-consider the-opinion
Senecae in libro de iride, quoniam oportet ponere nubem
of-Seneca in the-book on the-rainbow since it-behooves to-posit a-cloud
suspensam in aere, et rorationem descendentem ab ea, cujus
suspended in the-air and a-spraying descending from it whose
conus cadit in terram, et basis circularis attingit concavitatem
cone falls onto the-earth and the-base circular reaches the-concavity
nubis. Sunt ergo stillicidia infinita parvae quantitatis, et
of-the-cloud there-are therefore drips infinite of-small quantity and
a quolibet fit reflexio sicut a sphaerico speculo, et
from each is-made reflection as from a-spherical mirror and
quoniam sine intervallo descendunt, videntur ex distantia
since without interval they-descend they-seem from distance
continuari, et ideo videtur imago solis continua et non
to-be-continued and therefore seems the-image of-the-sun continuous and not
multiplex secundum multitudinem stillicidiorum; et similiter
manifold according-to the-multitude of-the-drips and likewise
est in circulis coloratis per aspersionem. Et sic solvitur
it-is in the-circles colored through sprinkling and so is-solved
objectio quae posset fieri de multitudine imaginum. Sed
the-objection which could to-be-made about the-multitude of-images but

de figura, quantitate et colore dubitatur; et dicendum est,
about the-figure quantity and color it-is-doubted and to-be-said it-is
quod specula sphaerica et maxime parva mutant quantitatem
that mirrors spherical and most small change the-quantity
et figuram rei visae multis modis, et reddunt figuras
and figure of-the-thing seen in-many ways and render figures
monstruosas, et dissipant totam proportionem partium
monstrous and scatter the-whole proportion of-the-parts
rei ab invicem, ut patet in perspectivis. Et dissipata
of-the-thing from each-other as is-plain in the-perspectives and with-scattered
figura et quantitate, etiam per consequens dissipatur ordinatio
figure and quantity also by consequence is-scattered the-ordering
proprietatum, quae exigunt figuram et debitam quantitatem,
of-the-properties which require figure and due quantity
et possunt colorem immutare, et de non colorato facere
and they-can color to-change and from not colored to-make
colorem apparere, et e converso. Et quia lux incorporata in
color to-appear and from the-converse and because light incorporated in
materia assimilatur colori, licet in veritate non sit color, ut
matter is-likened to-color although in truth not it-be color as
nubes rarae videntur albae et spissae videntur nigrae quando
clouds rare seem white and thick seem black when
radii penetrant eas, sic potest hic de facili lux solis
the-rays penetrate them so can here with ease the-light of-the-sun
cadens ad hujusmodi specula ostendere quid simile colori,
falling to such mirrors to-show something like to-color
praecipue cum non sit nisi sola apparentia, ut dictum est.
especially since not it-be except sole appearance as said it-is

Capitulum x

ERRORS IN THE TRANSLATED METEOROLOGICS

The common view that the colors come from the cloud's thickness is false, as crystal and sprays show; the error lies in the translation, not in Aristotle. So does the claim that the moon makes a rainbow only twice in fifty years.

Cum his considerandum est de diversitate colorum. Et
with these to-be-considered it-is about the-diversity of-colors and
omnes dicunt quod accidit ex diversitate nubis roridae,
all say that it-happens from the-diversity of-the-cloud dewy
et hoc habetur in textu Aristotelis vulgato, unde dicunt
and this is-had in the-text of-Aristotle made-common whence they-say
secundum quod materia spissior est, videtur esse nigrior;
according-to what the-matter thicker is it-seems to-be blacker
et secundum quod minus spissa, videtur esse color lazuli;
and according-to what less thick it-seems to-be the-color of-lapis
et secundum quod minus spissa, videtur viridis esse; et
and according-to what less thick it-seems green to-be and
si minus, videtur vinosa, et rubea; secundum quod adhuc
if less it-seems wine-colored and red according-to what still
minus, videtur esse glauca et subrubea; et secundum
less it-seems to-be gray and reddish and according-to
quod rarior, videtur esse alba. Secundum quod ponitur
what rarer it-seems to-be white according-to what is-placed
exemplum Aristotelis de flamma, quae propter raritatem
the-example of-Aristotle about the-flame which because-of the-rarity
et spissitudinem fumi terrestris apparet clara et rubea et
and thickness of-smoke earthy appears clear and red and
nigra, et sic diversis modis. Sed istud nihil est, sicut patet
black and so in-diverse ways but that nothing is as is-plain

per experientiam lapidis crystallini. Nam ibi generantur
through the-experience of-the-stone crystalline for there are-generated
colores, et nulla est diversitas materiae in spissitudine et
colors and no is diversity of-matter in thickness and
raritate, et tamen hic veri colores generantur. Et iterum,
rarity and yet here true colors are-generated and again
cum non sit verus color in iride, sed apparentia, non
since not there-be true color in the-rainbow but appearance not
oportet ponere nisi causam apparentiae, vel apparentiam
it-behooves to-posit except a-cause of-appearance or the-appearance
causae. Item per experientiam in rorationibus ex aspersione
of-a-cause likewise through experience in sprayings from sprinkling
non accidit aliquid de his diversitatibus, nec in guttis roris
not happens anything of these diversities nor in the-drops of-dew
in summitatibus herbarum; ergo manifestum est, quod haec
on the-tips of-grasses therefore manifest it-is that this
causa diversitatis falsa est. Et non est contra Aristotelem,
cause of-diversity false is and not it-is against Aristotle
quia multa alia falsa continentur in capitulo de iride, et
because many other false-things are-contained in the-chapter on the-rainbow and
alibi in translationibus vulgatis, sicut manifestum est per
elsewhere in the-translations made-common as manifest it-is through
totam philosophiam Latinorum, si quis diversas translationes
the-whole philosophy of-the-Latins if anyone the-diverse translations
inquirat et Graecum ipsum, a quo transumptum est
inquire and the-Greek itself from which transferred is
quod habent Latini. Verum non est sententia Aristotelis
what have the-Latins truly not is the-opinion of-Aristotle
ubique translata, sed error fuit exemplarium Graecorum et
everywhere translated but the-error was of-the-copies Greek and

Arabicorum, vel potius vitium translatorum, quorum nullus
Arabic or rather the-vice of-the-translators of-whom none
perfecte scivit linguas nec scientias, ut praetactum est.
perfectly knew the-tongues nor the-sciences as touched-before it-is
Necesse autem est aliud mendacium quod in hoc capitulo de
necessary moreover it-is another lie which in this chapter on
iride reperitur evacuari; et ideo sic intelligendum est de
the-rainbow is-found to-be-emptied and therefore thus to-be-understood it-is about
hac falsitate jam evacuata. Et ne animus suspendatur, dico,
this falsity now emptied and lest the-mind be-suspended I-say
quod idem est falsum quod habetur in textu vulgato, scilicet
that the-same is false which is-had in the-text made-common namely
quod iris non causatur a luna nisi bis in quinquaginta
that the-rainbow not is-caused by the-moon except twice in fifty
annis. Nam quandocunque luna plena est, et non impeditur
years for whenever the-moon full is and not is-hindered
per nubem, et sit materia rorida in opposito ejus, potest
by a-cloud and there-be matter dewy in the-opposite its can
iris apparere sicut per solem; et hoc potest experientia
the-rainbow to-appear as through the-sun and this can the-experience
cujuslibet probare, et probatum est per experientias certas.
of-anyone to-prove and proved it-is through experiences certain

Capitulum xi

WHY THE RAINBOW IS A CIRCLE

Refraction cannot explain the rainbow's curve, since a spray gives the same figure with one refraction. The figure must be a circle, because only in a circle do all parts have the same position to the sun and the eye, as the colors of a dove's neck show.

De figura vero iridis est maxima difficultas. Nam
about the-figure but of-the-rainbow is the-greatest difficulty for
aliqui aestimant quod debeat figurari sicut est basis
some reckon that it-ought to-be-figured as is the-base
pyramidis rorationis distillantis; et hoc est impossibile. Nam
of-the-pyramid of-the-spraying dripping and this is impossible for
in rorationibus ex aspersione, patet per experientiam,
in sprayings from sprinkling it-is-plain through experience
quod in globo rorationis irregularis figurae apparet figura
that in a-globe of-spraying of-irregular figure appears the-figure
iridis. Similiter illi, qui dicunt iridem causari ex
of-the-rainbow likewise those who say the-rainbow to-be-caused from
fractione, ut habeat figuram pyramidis assimilatae curvae
refraction so-that it-have the-figure of-a-pyramid likened to-the-curved
superficiei pyramidis rotundae expansam in oppositum solis,
surface of-a-pyramid round spread-out in the-opposite of-the-sun
propter quod figurae aestimatur secundum eos arcualis. Et
because-of which of-figure it-is-reckoned according-to them arc-shaped and
quia conus praedictae pyramidis, ut dicunt, est prope terram,
because the-cone of-the-aforesaid pyramid as they-say is near the-earth
et ejus expansio est in oppositum solis, necesse est ut
and its spreading is in the-opposite of-the-sun necessary it-is that
medietas illius figurae vel amplius cadat in superficiem
half of-that figure or more fall onto the-surface

terrae, et reliqua medietas vel minus cadat in oppositum
of-the-earth and the-remaining half or less fall into the-opposite
solis in nube. Sed istud reprobatur per hoc quod
of-the-sun in the-cloud but that is-refuted through this that
probatum est quod iris non potest generari per
proved it-is that the-rainbow not can to-be-generated through
fractionem, quoniam in roratione aspersionis non possumus
refraction since in the-spraying of-sprinkling not we-can
hujusmodi causam figurae dare. Dicunt enim quod radii
of-this-kind cause of-figure to-give they-say for that the-rays
prius franguntur in contiguitate aeris et nubis, et postea in
first are-broken at the-contiguity of-air and cloud and afterward at
contiguitate nubis et partis superioris ipsius rorationis,
the-contiguity of-the-cloud and of-the-part upper of-the-very spraying
ut per has fractiones concurrant radii in parte inferiori
so-that through these refractions may-meet the-rays in the-part lower
rorationis et densiori; nam pars densior est inferior quia
of-the-spraying and denser for the-part denser is lower because
gravior. Ibi enim radii fracti sicut a cono pyramidali se
heavier there for the-rays broken as from a-cone pyramidal themselves
diffundunt non in pyramidem rotundam, ut dicunt, sed in
diffuse not into a-pyramid round as they-say but into
figuram assimilatam curvae superficiei pyramidis rotundae.
a-figure likened to-the-curved surface of-a-pyramid round
Patet ergo quod per tres fractiones veniunt ad hanc
it-is-plain therefore that through three refractions they-come to this
figuram. Sed non possunt esse tres in aspersione facta in
figure but not can to-be three in a-sprinkling made in
radiis, sed una tantum; et tamen eadem figura accidit sicut
the-rays but one only and yet the-same figure happens as
in coelo; quapropter non est causa hujusmodi fractionis.
in the-heaven wherefore not it-is the-cause of-this-kind refraction

Postremo, quare non dabunt pyramidem rotundam, sed
lastly why not shall-they-give a-pyramid round but
figuram assimilatam curvae superficiei pyramidis rotundae?
a-figure likened to-the-curved surface of-a-pyramid round
non enim secundum legem fractionis erit hoc, quia fractio
not for according-to the-law of-refraction shall-be this because refraction
pyramidem rotundam habet facere regularem, quia fractio
a-pyramid round has to-make regular because the-refraction
omnium radiorum cadentium in unam circulationem corporis
of-all rays falling in one circling of-a-body
sphaerici est ad angulos aequales, et ideo non incurvabitur
spherical is at angles equal and therefore not it-shall-be-curved
magis in una parte quam in altera, et erit omnino regularis
more in one part than in another and it-shall-be wholly of-regular
figurae et uniformis. Nec a roratione potest esse haec curvitas,
figure and uniform nor from the-spraying can to-be this curvature
quia roratio non est talis figurae, sed est globus ex stillicidiis
because the-spraying not is of-such figure but is a-globe from drips
infinitis compositus pyramidalis figurae rotundae secundum eos,
infinite composed of-pyramidal figure round according-to them
et ideo non est ratio illius figurationis per hunc modum.
and therefore not it-is the-reason of-that shaping through this way
Quaerenda est igitur alia ratio; et potest dici quod
to-be-sought is therefore another reason and it-can to-be-said that
necesse est quod sit in figura arcuali circulari. Nam
necessary it-is that it-be in a-figure arc-shaped circular for
secundum diversitatem situs rei respectu lucis apparet
according-to the-diversity of-position of-a-thing in-respect of-light appears
diversus color, ut in collo columbae. Cum igitur idem color
a-diverse color as in the-neck of-a-dove since therefore the-same color
in uno circulo iridis apparet ab extremitate una ad
in one circle of-the-rainbow appears from extremity one to

alteram, oportet quod eundem situm habeant omnes partes
the-other it-behooves that the-same position have all the-parts
respectu radii solaris et respectu oculi. Sed talis situs
in-respect of-the-ray solar and in-respect of-the-eye but such position
identitatis non potest esse nisi in circulari figura propter
of-sameness not can to-be except in a-circular figure because-of
aequalem partium declinationem. Et etiam in vapore sphaerico
the-equal of-the-parts declination and also in a-vapor spherical
possunt signari duo genera circulorum. Unum est transiens
can to-be-marked two kinds of-circles one is passing
per polos, ut sunt coluri in sphaera; aliud est aliquod de
through the-poles as are the-colures in the-sphere the-other is some-one of
aequidistantibus intersecantibus istos coluros ex transverso.
the-equidistant-ones intersecting these colures from across
Circulatio vero coluri absconditur semper ex distantia, quia
the-circling but of-the-colure is-hidden always from distance because
non habet eundem situm respectu oculi in extremitatibus et
not it-has the-same position in-respect of-the-eye at the-extremities and
in medio, sed aequidistantes bene apparent in sua circulatione,
in the-middle but the-equidistant-ones well appear in their circling
propter aequalem situm respectu oculi, ut dictum est in
because-of the-equal position in-respect of-the-eye as said it-is in
Perspectiva de luna. Cum igitur circulus iridis fit
the-Perspective about the-moon since therefore the-circle of-the-rainbow is-made
de aequidistantibus, poterit in sua circulatione apparere.
of the-equidistant-ones it-shall-be-able in its circling to-appear
Sed si objiciatur contra hoc, quod non solum coloraretur
but if it-be-objected against this that not only would-be-colored
in gibbositate sua arcus basis pyramidis sed alibi in
in convexity its the-arc of-the-base of-the-pyramid but elsewhere on
superficie per totum, sicut luna plena tota illuminatur in
the-surface through the-whole as the-moon full wholly is-illumined in

parte nobis objecta, et ideo tota superficies basis quae
the-part to-us opposed and therefore the-whole surface of-the-base which
est super terram, coloraretur; ad hoc potest dici differenter,
is above the-earth would-be-colored to this it-can to-be-said differently
quod stillicidia non sunt ubique a quibus reflectuntur
that drips not are everywhere from which are-reflected
radii ad oculos ad angulos aequales angulo incidentiae.
rays to the-eyes at angles equal to-the-angle of-incidence
Hoc enim non est nisi in situ circuli, sicut apparet
this for not is except in the-position of-a-circle as appears
in reflexionibus et fractionibus speculi concavi et aliorum;
in the-reflections and refractions of-a-mirror concave and others
et ideo cum circulationes quatuor vel quinque iridis
and therefore since circlings four or five of-the-rainbow
possunt esse in stillicidiis a quibus fiunt reflexiones in
can to-be in drips from which are-made reflections into
visum ad angulos aequales angulo incidentiae, potest color
the-sight at angles equal to-the-angle of-incidence can color
generari in eis, et impressio iridis apparere.
to-be-generated in them and the-impression of-the-rainbow to-appear

Capitulum xii

THE FIVE COLORS, THE HALO, AND THE ROD

The cloud is not colored throughout, for only drops at equal angles reflect to the eye. The five principal colors may come from the eye's humors and coats. The halo and the rod are formed by refraction through a dense vapor, but only experiment can certify them.

Aliqui vero aestimabant, quod nubes rorida esset colorata
some but reckoned that the-cloud dewy would-be colored
per totum, quia in omnibus stillicidiis est reflexio, et
through the-whole because in all drips is reflection and
iris ex reflexione causatur. Item quia secundum numerum
the-rainbow from reflection is-caused likewise because according-to the-number
videntium et diversitatem situs ejusdem videntis apparet
of-those-seeing and the-diversity of-position of-the-same seer appears
iris ubique. Sed dicendum est ad primum, quod ubique
the-rainbow everywhere but to-be-said it-is to the-first that everywhere
est aptitudo ut fiat iris, sed actualiter non est nisi in
is aptitude that be-made the-rainbow but actually not it-is except in
stillicidiis a quibus reflexio venit ad oculum; quia apparentia
drips from which reflection comes to the-eye because the-appearance
colorum sola est, quae apparentia venit ex fantasia et
of-colors alone is which appearance comes from fantasy and
deceptione visus, ut dictum est. Et ideo nusquam in nube
deception of-sight as said it-is and therefore nowhere in the-cloud
rorida est coloris veritas, nec apparentia nisi in stillicidiis a
dewy is of-color the-truth nor appearance except in drips from
quibus fit ad visum reflexio. Sed ab omni stillicidio non
which is-made to the-sight reflection but from every drip not
fit reflexio in eodem tempore, dum oculus est in uno loco,
is-made reflection in the-same time while the-eye is in one place

propter aequalitatem angulorum incidentiae et reflexionis. Ad
because-of the-equality of-the-angles of-incidence and reflection to
secundum dicendum, quod colores ubique apparere possumus
the-second to-be-said-it-is that colors everywhere to-appear we-can
imaginari ex duabus causis, uno modo quod color esset
to-imagine from two causes in-one way that the-color were
fixus, sicut in aliis rebus; et faceret speciem a se ad
fixed as in other things and made a-species from itself to
oculum, et tunc ubique esset, et sic ubicunque essent
the-eye and then everywhere it-would-be and so wherever were
aspersiones, videret colorem. Sed sic non est hic, quia non
sprinklings he-would-see color but so not it-is here because not
est verus color, sed solum ex visus fantasia; et ideo causa
it-is true color but only from of-sight fantasy and therefore the-cause
apparentiae est solius visus erroneum judicium, et ideo non
of-the-appearance is of-sole sight the-erroneous judgment and therefore not
apparet nisi in loco a quo ad oculum fit reflexio; et ex
it-appears except in the-place from which to the-eye is-made reflection and from
hac causa, non prima, mutatur secundum mutationem videntis.
this cause not first is-changed according-to the-change of-the-seer
Quinque vero sunt colores principales, ut albedo, glaucitas,
five but are the-colors principal as whiteness grayness
rubedo, viriditas, et nigredo. Rubeus enim aequidistat ab
redness greenness and blackness red for is-equidistant from
extremis, et habet unum medium respectu albi, et aliud
the-extremes and has one middle in-respect of-white and another
respectu nigri. Quum enim Aristoteles dicit in Sensu et
in-respect of-black when for Aristotle says in the-Sense and
Sensato septem esse colores, hoc est verum dividendo
the-Sensed seven to-be colors this is true by-dividing
glaucum in plures gradus, ut caeruleum et puniceum, et
gray into more degrees as blue and purple and

similiter dividendo viriditatem in gradus diversos; sed quinque
likewise by-dividing greenness into degrees diverse but five
principales colores sunt per naturam distincti. Nam quinarius
principal colors are by nature distinct for the-fivefold
est melior numeris omnibus, ut Aristoteles dicit libro
is better than-numbers all as Aristotle says in-the-book
Secretorum, et hoc quantum ad numerum certitudinaliter
of-Secrets and this as-far-as to number certainly
distinguendum; licet quantum ad proprietatem naturalem in
to-be-distinguished although as-far-as to property natural in
quolibet repertam ternarius est melior. Nam hunc extrahimus
each found the-threefold is better for this we-draw-out
a natura rerum, ut Aristoteles dicit primo Coeli et
from the-nature of-things as Aristotle says in-the-first of-the-Heaven and
Mundi, quia in omni re trinitas consistit, ut ibi docet,
the-World because in every thing a-trinity consists as there he-teaches
tam in Creatore quam in creatura. Et quia numerus quinarius
as in the-Creator as in the-creature and because the-number five
res certius distinguit et melius, ut dictum est, ideo
things more-certainly distinguishes and better as said it-is therefore
natura magis intendit quinque colores. Et ideo isti quinque
nature more intends five colors and therefore these five
colores sunt in iride, magis quam alii, ex ordinatione
colors are in the-rainbow more than others from the-ordering
communi naturae operantis et intendentis quod melius est.
common of-nature working and intending what better is
Color quidem lazuli, quem vocant coelestem, niger est cum
the-color indeed of-lapis which they-call heavenly black is with
quadam splendoris suavitate, et ideo sub nigro computatur.
a-certain of-splendor sweetness and therefore under black it-is-reckoned

Et aestimatur ab expertis quod isti colores causantur ab
and it-is-reckoned by the-experienced that these colors are-caused by
humoribus et tunicis oculi; isti enim sunt colores tantum
the-humors and coats of-the-eye these for are colors only
apparentes, et oculi partes habent aliquid de natura
apparent and of-the-eye the-parts have something of the-nature
colorum licet debiliter, secundum quorum esse apparent
of-colors although weakly according-to whose being appear
colores in iride. Et quinque sunt corpora in oculo, scilicet
the-colors in the-rainbow and five are the-bodies in the-eye namely
tres humores, et duae tunicae, scilicet uvea et cornea;
three humors and two coats namely the-uvea and the-cornea
consolidativa quidem nihil operatur ad visionem; et ideo
the-consolidative indeed nothing works for vision and therefore
quinque colores apparent secundum proprietates eorum. Et
five colors appear according-to the-properties of-them and
quandoque illa corpora non habent distinctos colores. Nam in
sometimes those bodies not have distinct colors for in
oculis diversorum variantur, et apparent irides diversae aliter
the-eyes of-diverse-men they-vary and appear rainbows diverse otherwise
et aliter variari in eadem hora, etiam in diversis temporibus,
and otherwise to-vary at the-same hour also at diverse times
secundum quod aer inter ipsum et iridem in dispositione
according-to what the-air between him and the-rainbow in disposition
sua secundum lucidum et obscurum variatur. Signum autem
its according-to bright and dark is-varied a-sign moreover
quod colores iridis possunt apparere per oculum, est
that the-colors of-the-rainbow can to-appear through the-eye is
quod lapide hexagono posito ad oculum in loco tenebroso
that with-a-stone hexagonal placed at the-eye in a-place dark

fiunt hujusmodi colores, et ideo similiter in materia apta
are-made of-this-kind colors and therefore likewise in matter apt
in loco tenebroso in nube possunt saltem apparere.
in a-place dark in a-cloud they-can at-least to-appear
Et juxta jam dicta patet facilius causa coronae, et
and according-to now the-things-said is-plain more-easily the-cause of-the-crown and
similiter impressionis apparentis in figura recta, quam Seneca
likewise of-the-impression appearing in a-figure straight which Seneca
vocat virgam, et Aristoteles perpendicularem; istae enim
calls the-rod and Aristotle the-perpendicular these for
impressiones sunt coloratae et non aliae. Dicit igitur Seneca,
impressions are colored and not others says therefore Seneca
si vaporem erexeris, virga est; si incurves in portione
if the-vapor you-shall-have-raised a-rod it-is if you-bend into a-portion
circuli, iris est; si in completum circulum, corona est;
of-a-circle a-rainbow it-is if into a-complete circle a-crown it-is
quam Aristoteles vocat circulum circa solem et lunam, et
which Aristotle calls the-circle around the-sun and moon and
Halo et Halaleti. Et aliam differentiam assignant, quod
Halo and Halaleti and another difference they-assign that
iris generatur in opposito solis, virga a latere, corona
the-rainbow is-generated in the-opposite of-the-sun the-rod at the-side the-crown
sub sole. Sed quae de circulo et corona dicta sunt
under the-sun but what-things about the-circle and crown said are
possunt dici sine calumnia. De perpendiculari tamen et
can to-be-said without calumny about the-perpendicular yet and
virga aliud est. Nam non est nisi portio parva coronae,
the-rod another-thing it-is for not it-is except a-portion small of-the-crown
quae ex distantia superflua videtur esse linea recta, quum
which from distance superfluous seems to-be a-line straight when
materia deficit ad ejus complementum. Globus autem vaporis
the-matter fails for its completion a-globe moreover of-vapor

grossi aliquando concurrit in directum solis sub eo, scilicet
thick sometimes meets in line-with of-the-sun under it namely
qui est densior aere, et tamen non est superfluae densitatis
which is denser than-air and yet not is of-superfluous density
sed proportionatae ad hujusmodi impressionem. Dico ergo
but proportioned to of-this-kind impression I-say therefore
quod cum vapor ille sit densior aere, et sit quasi sphaericae
that since vapor that be denser than-air and be as-if of-spherical
figurae, quae aequidistat terrae quantum potest propter
figure which is-equidistant to-the-earth as-far-as it-can because-of
naturam gravis, radii omnes exeuntes a puncto o praeter
the-nature of-the-heavy the-rays all going-out from the-point o besides
perpendicularem o d franguntur in superficie vaporis inter
the-perpendicular o d are-broken at the-surface of-the-vapor between
incessum rectum et perpendicularem ducendam a loco
the-course straight and the-perpendicular to-be-drawn from the-place
fractionis, et omnes qui cadent in una circulatione circa
of-refraction and all which shall-fall in one circling around
axem illum franguntur ad angulos aequales, quia anguli
axis that are-broken at angles equal because the-angles
incidentiae omnes sunt aequales, sicut a et f, et anguli
of-incidence all are equal as a and f and the-angles
fractionum intra corpus sunt aequales, et sic de omnibus
of-the-refractions within the-body are equal and so of all
angulis radiorum cadentium in circumferentia, quae transit
the-angles of-the-rays falling in the-circumference which passes
per puncta a g f, et eodem modo radii qui cadunt in
through the-points a g f and in-the-same way the-rays which fall in
circumferentia, quae transit per b g, omnes franguntur ad
the-circumference which passes through b g all are-broken at
angulos aequales, quia incidunt ad aequales, sicut manifestum
angles equal because they-fall-in at equal-ones as manifest

est per demonstrationem geometricam. Radii ergo unius
it-is through demonstration geometrical the-rays therefore of-one
circulationis ut o a et o f et omnes qui in circumferentia
circling as o a and o f and all which in the-circumference
transeunt per a et f, cadunt et vadunt post fractionem in
passing through a and f fall and go after refraction in
corpore vaporis aequidistantis. Deinde quum ad concavitatem
the-body of-the-vapor equidistant then when at the-concavity
vaporis occurrit aer, quod est corpus subtilius, franguntur
of-the-vapor meets air which is a-body finer they-are-broken
declinando a perpendiculari ducenda a loco fractionis,
declining from the-perpendicular to-be-drawn from the-place of-refraction
et concurrunt necessario ad punctum unum ut in o. Et
and they-meet necessarily at point one as at o and
similiter est de illis qui cadunt in alia circulatione, ut o
likewise it-is of those which fall in another circling as o
b et c g, et sunt in eadem circumferentia conterminales,
b and c g and they-are in the-same circumference conterminous
et concurrunt per secundam fractionem ad punctum
and meet through the-second refraction at a-point
remotius ut in d, quia radii cadentes in circulatione majori
more-remote as at d because the-rays falling in a-circling greater
concurrunt in punctum remotius. Et sic de aliis cadentibus
meet at a-point more-remote and so of the-others falling
in aliis circumferentiis semper verum est quod omnes radii
in other circumferences always true it-is that all the-rays
unius circulationis cadent in unum punctum diversum a
of-one circling shall-fall into one point diverse from
puncto, a quo concurrunt radii aliarum circulationum. Et
the-point at which meet the-rays of-other circlings and
sicut radii unius circulationis stant in introitu vaporis in
as the-rays of-one circling stand at the-entrance of-the-vapor in

figura circulari super eum, sic quando exeunt, fiunt a
a-figure circular upon it so when they-go-out they-become from
basi circulari, et concurrunt in unum punctum pyramidis;
a-base circular and meet at one point of-a-pyramid
nam lumen hoc totum, quod pertransit vaporem veniens ab
for the-light this whole which passes-through the-vapor coming from
uno puncto solis fractum in radiis infinitis est quasi una
one point of-the-sun broken into rays infinite is as-if one
columna rotunda, et habet figuram circularem in utraque
column round and has a-figure circular at each
extremitate, dum est in vapore, sed postquam exivit
extremity while it-is in the-vapor but after it-has-gone-out-of
vapores declinantur radii in corpus pyramidale, cujus basis
the-vapors are-declined the-rays into a-body pyramidal whose base
est extremitas lucis columnaris, et conus cadit in terram.
is the-extremity of-the-light columnar and the-cone falls onto the-earth
Si igitur oculus conum recipiat unius pyramidis, videbit
if therefore the-eye the-cone receive of-one pyramid it-shall-see
basim illius pyramidis, et quia ille vapor densior est tanta
the-base of-that pyramid and because that vapor denser is with-such
densitate ut sit visibilis, praecipue cum habeat in se lumen
density that it-be visible especially since it-have in itself light
potest videri infra bases pyramidis, et ideo in circulari.
it-can to-be-seen within the-bases of-the-pyramid and therefore in circular
Sed sicut experientiae multae requiruntur ad certificationem
but as experiences many are-required for the-certification
iridis, et de colore et de figura, sic est hic, ubi
of-the-rainbow both about color and about figure so it-is here where
considerandum est quod radii possunt dupliciter intelligi,
to-be-considered it-is that the-rays can doubly to-be-understood
vel scilicet venientes ab uno puncto et in unum circulum
either namely coming from one point and into one circle

in vapore qui concurrunt ad conum unius pyramidis; et alii
in the-vapor which meet at the-cone of-one pyramid and others
qui ab eodem puncto et in alium circulum cadunt faciunt
which from the-same point and into another circle fall make
aliam pyramidem, et sic de aliis; sed coni omnium illarum
another pyramid and so of others but the-cones of-all those
pyramidum cadunt in axem et perpendicularem venientes
pyramids fall into the-axis and perpendicular coming
a puncto illo, a quo veniunt radii fracti, et pyramides
from point that from which come the-rays broken and the-pyramids
fiunt curtae, nec transeunt ad puncta concursus propter
become truncated nor pass to the-points of-meeting because-of
objectum aspicientis, et ideo nullus videbit per illas
the-object of-the-one-looking and therefore no-one shall-see through those
pyramides curtas. Quare si plures aspiciant coronam, oportet
pyramids truncated wherefore if several look-at the-crown it-behooves
unum eligi ex duobus, vel quod ab aliis punctis solis
one to-be-chosen of two either that from other points of-the-sun
veniant radii frangendi in pyramidem, ita quod ad singulos
come rays to-be-broken into a-pyramid so that to single
aspicientes radii veniant a singulis punctis solis, vel quod
lookers rays come from single points of-the-sun or that
a basi pyramidis unius, cujus conus cadit in oculum
from the-base of-the-pyramid of-one whose cone falls into the-eye
aspicientis unius, veniant ad alios aspicientes pyramides aliae
of-the-one-looking one come to the-other lookers pyramids other
quae fiunt ex radiis accidentalibus; ut basis pyramidis
which are-made from rays accidental so-that the-base of-the-pyramid
principalis quae venit ad oculum unius videatur ab aliis per
principal which comes to the-eye of-one be-seen by others through
pyramidem accidentalem, sicut illi qui sunt in angulo domus
a-pyramid accidental as those who are in the-corner of-a-house

vident per radios accidentales lumen incidens per fenestram.
see through rays accidental the-light falling through the-window
Sed hoc secundum non potest stare, quia judicium per
but this second not can to-stand because judgment through
radios principales et accidentales non potest esse aequale, sed
rays principal and accidental not can to-be equal but
aspicientes simul coronam judicant aequaliter. Item quilibet
those-looking together the-crown judge equally likewise each-one
judicat solem esse centrum coronae; ergo quilibet videt
judges the-sun to-be the-center of-the-crown therefore each-one sees
solem, sed radii accidentales non ducunt visum in rem,
the-sun but rays accidental not lead the-sight into the-thing
sed in speciem, ut exiens in angulo domus non potest
but into the-species as one-going-out in the-corner of-a-house not can
videre solem, licet videat radium cadentem per foramen.
to-see the-sun although he-see the-ray falling through the-hole
Manifestum est ergo quod ad oculum cujuslibet venit una
manifest it-is therefore that to the-eye of-anyone comes one
pyramis, cujus radii veniunt a puncto solis determinato,
pyramid whose rays come from a-point of-the-sun determined
ita quod ab uno puncto ad unum oculum veniant radii,
so that from one point to one eye come rays
et ad alium oculum ab alio, et ad tertium a tertio.
and to another eye from another and to a-third from a-third
Sed haec omnia docet experientia, sicut de iride. Unde
but these all teaches experience as about the-rainbow whence
argumenta non certificant haec, sed grandes experientiae per
arguments not certify these-things but great experiences through
instrumenta perquiruntur, et per varia necessaria; et ideo
instruments are-searched-out and through various necessary-things and therefore
nullus sermo in his potest certificare; totum enim dependet
no speech in these can to-certify the-whole for it-depends

ab experientia. Et propter hoc non reputo me attigisse hic
on experience and because-of this not I-reckon myself to-have-reached here
plenam veritatem; quia nondum expertus sum omnia quae sunt
the-full truth because not-yet experienced I-have all-things which are
hic necessaria, et quia in hoc opere procedo via persuasionis,
here necessary and because in this work I-proceed by-way of-persuasion
et ostensionis quae oporteat requiri in studio sapientiae,
and of-showing what it-behooves to-be-required in the-study of-wisdom
et non per viam componendi scripta de ea. Et ideo non
and not through the-way of-composing writings about it and therefore not
pertinet ad me hac hora dare certificationem impossibilem,
it-pertains to me at-this hour to-give certification impossible
sed sub forma persuadendi de studio sapientiae pertransire.
but under the-form of-persuading about the-study of-wisdom to-pass-through
De circulo vero circa candelam aestimatur quod sit a
about the-circle but around a-candle it-is-reckoned that it-be from
vaporibus resolutis a cibis et potibus in mensa; vel quando
vapors released from foods and drinks at table or when
aer humidus est potest apparere, aut in vaporibus oculi
the-air humid is it-can to-appear or in the-vapors of-the-eye
humidi generatur distans a candela. Sic igitur quilibet
humid it-is-generated distant from the-candle thus therefore every
sapiens de facili recipiet quod experientia certificat quaestiones
wise-man with ease shall-receive that experience certifies the-questions
circa has res, et non argumentum. Sed nunc transeo ad
about these things and not argument but now I-pass to
secundam praerogativam istius scientiae experimentalis.
the-second prerogative of-this science experimental

Capitulum de secunda praerogativa scientiae experimentalis

THE SECOND PREROGATIVE

The second prerogative of experimental science is that it gives the other sciences truths within their bounds which they cannot reach. The inexperienced must first believe those who have tested such things, as one who has not seen a magnet draw iron.

Haec autem est quod veritates magnificas in terminis aliarum
this moreover is that truths magnificent in the-terms of-other
scientiarum, in quas per nullam viam possunt illae scientiae,
sciences in which through no way can those sciences
haec sola scientiarum domina speculativarum potest dare; unde
this alone of-the-sciences mistress of-the-speculative can to-give whence
hae veritates non sunt de primarum substantia, sed penitus
these truths not are of of-the-first-ones the-substance but wholly
extra eas, licet sint in terminis earum, quum nec sint
outside them although they-be in the-terms of-them since neither they-be
conclusiones ibi, nec principia. Et possunt poni exempla
conclusions there nor principles and can to-be-placed examples
manifesta de his; sed in istis omnibus quae sequuntur, non
manifest of these but in these all which follow not
oportet hominem inexpertum quaerere rationem ut primo
it-behooves a-man inexperienced to-seek the-reason that first
intelligat, hanc enim nunquam habebit nisi prius habeat
he-may-understand this for never shall-he-have unless first he-have
experientiam; unde oportet primo credulitatem fieri, donec
experience whence it-behooves first belief to-be-made until
secundo sequitur experientia, ut tertio ratio comitetur. Si
secondly follows experience that thirdly reason may-accompany if
enim inexpertus magnetem trahere ferrum, nec audiens
for the-inexperienced the-magnet to-draw iron nor hearing

ab aliis, quod trahat, quaerat rationem, ante experientiam
from others that it-draws seek the-reason before experience
nunquam inveniet. Et ideo in principio debet credere his
never shall-be-find and therefore in the-beginning be-ought to-believe those
qui experti sunt, vel qui ab expertis fideliter habuerunt,
who experienced have or who from the-experienced faithfully have-had
nec debet reprobare veritatem propter hoc, quod eam
nor ought-be to-reject the-truth because-of this that it
ignorat, et quia ad eam non habet argumentum. Recitabo
he-is-ignorant-of and because for it not he-has argument I-shall-recite
igitur ea, quae per experientiam teneo esse probata.
therefore those which through experience I-hold to-be proved

Exemplum i

THE FIRST EXAMPLE: A MOVING SPHERE

Mathematics can make a spherical astrolabe, but only experiment can make it turn with the daily motion of the heavens, as tides, comets, marrow, and flowers follow the heavenly bodies; such an instrument would be worth a king's treasure.

Mathematica bene producere potest astrolabium sphaericum,
mathematics well to-produce can an-astrolabe spherical
in quo describuntur quaecunque de coelo necessaria sunt
in which are-described whatever of the-heaven necessary are
homini, secundum longitudines et latitudines certas, tam
to-man according-to longitudes and latitudes certain as
de circulis quam de stellis juxta artificium Ptolemaei
of the-circles as of the-stars according-to the-artifice of-Ptolemy
in octavo Almagesti, juxta quod dixi per quandam
in the-eighth of-the-Almagest according-to which I-said through a-certain

similitudinem, sed non tamen omnino per artificium illud,
likeness but not yet wholly through artifice that
oportet enim plus esse operis. Sed quod hoc corpus sic
it-behooves for more to-be of-work but that this body thus
factum moveatur naturaliter motu diurno, non est in
made be-moved naturally with-the-motion diurnal not is in
potestate mathematicae. Experimentator autem perfectus potest
the-power of-mathematics the-experimenter moreover perfect can
considerare vias hujus motus, excitatus ad eas considerandas
to-consider the-ways of-this motion roused for them to-be-considered
per multas res quae sequuntur motum coelestium, ut
through many things which follow the-motion of-the-heavenly-bodies as
sunt primo tria elementa, quae rotantur circulariter per
are first the-three elements which are-rotated circularly through
influentiam coelestem, sicut dicit Alpharagius in libro de
influence heavenly as says Alfraganus in the-book on
Motibus Coelestibus, et Averroes in primo Coeli et
the-Motions Heavenly and Averroes in the-first of-the-Heaven and
Mundi; deinde cometae, maria, et flumina fluentia, medullae
the-World then comets seas and rivers flowing marrows
et cerebella et morborum materiae. Herbae etiam in partibus
and brains and of-diseases the-matters herbs also in parts
suis multum aperiunt se et claudunt secundum solis
their much open themselves and close according-to of-the-sun
motum. Et multa talia inveniuntur quae secundum motum
the-motion and many such-things are-found which according-to the-motion
localem totius vel partium moventur motu coeli.
local of-the-whole or of-the-parts are-moved with-the-motion of-the-heaven
Sapiens igitur excitatur per considerationem hujusmodi
the-wise-man therefore is-roused through the-consideration of-this-kind
rerum similem in parte illi quod intendit, ut ad illud
things like in part to-that which he-intends that to that

perveniat aliquando. Et tunc thesaurum unius regis valeret
he-may-arrive sometime and then the-treasure of-one king would-be-worth
hoc instrumentum et cessarent instrumenta astronomiae, et
this instrument and would-cease the-instruments of-astronomy and
horologia, et esset pulcherrimum spectaculum sapientiae.
clocks and it-would-be a-most-beautiful spectacle of-wisdom
Sed pauci de tanto miraculo et similibus in mathematicae
but few about so-great a-miracle and similar-things in of-mathematics
terminis praeclare et utiliter scirent cogitare.
the-terms splendidly and usefully would-know-how to-think

Exemplum ii

THE SECOND EXAMPLE: PROLONGING LIFE

Life was long at first and is now cut short by bad regimen and sin, a corruption handed from father to son. Medicine offers only a regimen of health, but experiment has found remedies, gold, pearl, rosemary, ambergris, aloes, the bone of the stag's heart, and dragon's flesh, by which some lived for centuries.

Potest vero aliud exemplum poni in terminis medicinae,
can but another example to-be-placed in the-terms of-medicine
et est de prolongatione vitae humanae, ubi ars medicinalis
and it-is about the-prolongation of-life human where the-art medicinal
remedium non habet nisi regimen sanitatis. Est autem
remedy not has except the-regimen of-health there-is moreover
ulterior longae vitae extensio possibilis. A principio mundi
a-further of-long life extension possible from the-beginning of-the-world
fuit magna prolongatio vitae, sed nunc abbreviata est
there-was great prolongation of-life but now shortened it-is
ultra modum. Causam autem hujus prolongationis et
beyond measure the-cause moreover of-this prolongation and

abbreviationis aestimaverunt multi esse a parte coeli.
shortening reckoned many to-be from the-part of-the-heaven
Nam aestimaverunt quod coeli dispositio fuerit optima
for they-reckoned that of-the-heaven the-disposition was best
a principio, et mundo senescente omnia tabescunt,
from the-beginning and with-the-world growing-old all-things waste-away
aestimantes stellas fuisse creatas in locis convenientioribus,
reckoning the-stars to-have-been created in places more-fitting
in quibus stellae suas habent dignitates, quae vocantur
in which the-stars their have dignities which are-called
domus, exaltatio, triplicitas, facies et terminus, et in
house exaltation triplicity face and term and in
meliori proportione earum ad invicem secundum diversitatem
better proportion of-them to each-other according-to the-diversity
aspectuum vel projectionem radiorum invisibilem, et quod ab
of-aspects or the-projection of-rays invisible and that from
illo statu paulatim recesserunt, et secundum hunc recessum
that state little-by-little they-receded and according-to this receding
ponunt vitae decurtationem usque ad aliquem terminum fixum,
they-posit of-life the-curtailing up to some term fixed
in quo est status. Sed hoc habet multas contradictiones
in which is the-standing but this has many contradictions
et difficultates, de quibus est modo dicendum.
and difficulties about which it-is now to-be-spoken
Et sive hoc fuerit verum sive non, necesse est aliam
and whether this was true or not necessary it-is another
causam assignari, quae nobis prompta est et plana, cui
cause to-be-assigned which to-us ready is and plain to-which
contradici non potest, quam scimus per experientiam. Et
to-be-contradicted not can which we-know through experience and
ideo circa illam negotiandum est, ut appareat mirabilis et
therefore about it to-be-busied it-is that may-appear the-wonderful and

ineffabilis utilitas et magnificentia Scientiae Experimentalis,
unspeakable utility and magnificence of-Science Experimental
et aperiatur via ad maximum secretum secretorum, quod
and be-opened the-way to the-greatest secret of-secrets which
Aristoteles occultavit in libro de Regimine Vitae. Cum
Aristotle hid in the-book on the-Regimen of-Life since
enim regimen sanitatis debeat esse in cibo et potu, somno
for the-regimen of-health ought to-be in food and drink sleep
et vigilia, motu et quiete, evacuatione et retentione, aeris
and waking motion and rest evacuation and retention of-the-air
dispositione, et passionibus animi; ut haec in debito
the-disposition and the-passions of-the-mind that these in due
temperamento habeantur ab infantia; de his temperandis
temper be-had from infancy about these to-be-tempered
nullus homo vult curare, etiam nec medici, quia nos
no man wishes to-care even nor physicians because we
videmus quod de millenario medicorum vix erit unus
see that of a-thousand physicians scarcely shall-be one
qui saltem leviter curabit. Et rarissime accidit quod aliquis
who at-least lightly shall-care and most-rarely it-happens that anyone
curat sufficienter, et hoc nunquam accidit in juventute, sed
cares sufficiently and this never happens in youth but
aliquando inter tria millia unus cogitat de his, quum
sometimes among three thousand one thinks about these-things when
senescit et tendit ad mortem, tunc enim timet sibi et
he-grows-old and tends to death then for he-fears for-himself and
cogitat ut valet. Sed tunc non potest apponere remedium
thinks as he-is-able but then not he-can to-apply a-remedy
propter debilitatem virium et sensus et propter experientiae
because-of the-weakness of-the-powers and sense and because-of of-experience
defectum. Et ideo patres corrumpuntur, et generant filios
the-defect and therefore fathers are-corrupted and beget sons

corruptos, et habentes dispositionem ad mortis festinationem.
corrupted and having a-disposition to of-death hastening
Et deinde per defectum regiminis filii corrumpunt seipsos,
and then through defect of-regimen the-sons corrupt themselves
et sic filius filii habet dispositionem malam duplicem, et
and so the-son of-the-son has a-disposition evil double and
tertio seipsum corrumpit propter defectum regiminis. Et sic
thirdly himself corrupts because-of defect of-regimen and so
currit de patre in filios corruptio complexionis, usquequo
runs from father to sons the-corruption of-complexion until
festinatio facta sit ultimata, sicut accidit his temporibus.
the-hastening made be extreme as happens in-these times
Et non solum haec causa accidentalis invenitur, sed alia
and not only this cause accidental is-found but another
quae consistit in defectu regiminis morum. Peccata enim
which consists in the-defect of-the-regimen of-morals sins for
debilitant vires animae, ita quod impotens est ad corporis
weaken the-powers of-the-soul so that powerless it-is for of-the-body
regimen naturale; et ideo debilitantur vires corporis,
the-rule natural and therefore are-weakened the-powers of-the-body
et festinat ad mortem; et haec corruptio currit a patre
and it-hastens to death and this corruption runs from father
ad filium, et sic ulterius. Et ideo oportuit propter has
to son and so further and therefore it-behooved because-of these
duas causas naturales, quod longaevitas hominis non servaret
two causes natural that the-longevity of-man not should-keep
ordinem naturalem a principio; sed propter has duas causas
the-order natural from the-beginning but because-of these two causes
abbreviata est longaevitas hominis contra naturam. Praeterea
shortened is the-longevity of-man against nature moreover
certis experimentis probatum est, quod ista festinatio nimia
by-certain experiments proved it-is that this hastening excessive

est retardata pluries, et longaevitas prolongata per multos
is retarded many-times and longevity prolonged through many
annos per experientias secretas; et multi hoc scribunt
years through experiences secret and many this write
auctores. Propter quod oportet quod sit haec nimia festinatio
authors because-of which it-behooves that be this excessive hastening
accidentalis, habens remedium possibile.
accidental having a-remedy possible
Postquam vero ostensum est, quod causa hujusmodi
after but shown it-is that the-cause of-this-kind
festinationis est accidentalis, et ideo quod remedium sit
hastening is accidental and therefore that a-remedy be
possibile, nunc redeo ad hoc exemplum quod volui in terminis
possible now I-return to this example which I-wished in the-terms
medicinae declarare, in quo potestas artis medicinalis non
of-medicine to-declare in which the-power of-the-art medicinal not
habet unde compleat. Sed ars experimentalis supplet
has whence it-may-complete but the-art experimental supplies
defectum medicinae in hac parte. Non enim potest ars
the-defect of-medicine in this part not for can the-art
medicinalis nisi dare regimen sanitatis sufficiens secundum
medicinal except to-give a-regimen of-health sufficient according-to
omnes aetates. Quamvis enim de sufficienti regimine senum
all ages although for about the-sufficient regimen of-old-men
insufficienter locuti sunt auctores noti, hoc tamen fuit arti
insufficiently spoken have the-authors known this yet was to-the-art
medicinae possibile. Et hoc regimen consistit in temperato
of-medicine possible and this regimen consists in the-tempered
usu cibi et potus, motus et quietis, somni et vigiliae,
use of-food and drink of-motion and rest of-sleep and waking
evacuationis et retentionis, aeris et passionum animae. Quod
of-evacuation and retention of-air and of-the-passions of-the-soul but

si a nativitate homo haberet sufficiens regimen usque ad
if from birth a-man had sufficient regimen up to
finem vitae, tunc veniret ad terminum vitae quem Deus
the-end of-life then he-would-come to the-term of-life which God
et natura constituerunt, secundum possibilitatem regiminis
and nature established according-to the-possibility of-regimen
sufficientis. Sed quia impossibile est quod hoc regimen
sufficient but because impossible it-is that this regimen
servetur ab aliquo, et pauci immo etiam quasi nullus a
be-kept by anyone and few nay even as-if none from
juventute curat de hoc regimine, et paucissimi senes
youth cares about this regimen and very-few old-men
servant hoc regimen ut possibile est, ideo oportet quod
keep this regimen as possible it-is therefore it-behooves that
veniant accidentia senectutis ante senectutem et senium,
come the-accidents of-old-age before old-age and decrepitude
scilicet in tempore consistendi, quae est aetas pulchritudinis
namely in the-time of-standing which is the-age of-beauty
et fortitudinis humanae, quae his temporibus non durat
and strength human which in-these times not lasts
ultra quadraginta quinque vel quinquaginta annos.
beyond forty five or fifty years
Et haec omnia accidentia senectutis et senii sunt canities,
and these all accidents of-old-age and decrepitude are grayness
palliditas, cutis corrugatio, multitudo mucilaginis, excreatus
pallor of-the-skin wrinkling abundance of-mucus spitting
putridus, lippitudo oculorum, et universalis laesio organorum
putrid bleariness of-the-eyes and universal injury of-the-organs
sensibilium, diminutio sanguinis et spirituum, debilitas
sensible diminution of-blood and of-spirits weakness
motus et anhelitus et totius corporis, defectus virium
of-motion and of-breath and of-the-whole body the-failure of-the-powers

animae tam animalium quam naturalium, insomnietas, ira, et
of-the-soul as animal as natural sleeplessness anger and
inquietatio animi, et oblivio, de qua dicit Haly regalis,
disquiet of-mind and forgetfulness of which says Haly in-the-royal-book
quod senectus est domus oblivionis: et Plato, quod est mater
that old-age is the-house of-forgetfulness and Plato that it-is the-mother
lethargiae. Et propter defectum regiminis sanitatis haec
of-lethargy and because-of defect of-the-regimen of-health these
accidentia omnia et plura alia veniunt hominibus in aestate
accidents all and more others come to-men in the-age
consistendi, scilicet secundum majus et minus: et secundum
of-standing namely according-to more and less and according-to
quod melius et pejus se rexerint homines in sanitate,
what better and worse themselves have-ruled men in health
et secundum quod sunt melioris et fortioris complexionis
and according-to what they-are of-better and stronger complexion
et secundum quod melius vel pejus rexerunt se in
and according-to what better or worse they-ruled themselves in
moribus. Sed ars medicinae non dat remedia contra istam
morals but the-art of-medicine not gives remedies against this
corruptionem quae venit ex impotentia et defectu regiminis,
corruption which comes from powerlessness and defect of-regimen
sicut sciunt omnes medici in sua arte experti, cum tamen
as know all physicians in their art experienced though yet
fateantur medicinae auctores quod remedia possibilia sunt, sed
confess of-medicine the-authors that remedies possible are but
non docent. Haec enim remedia semper fuerunt occultata non
not they-teach these for remedies always were hidden not
solum a medicis, sed a vulgo sapientium omni, et solum
only from physicians but from the-crowd of-the-wise all and only
manifestata maxime notis, quos Aristoteles tangit primo
made-manifest to-the-most known whom Aristotle touches in-the-first

Topicorum in dictione probabilis. Et non solum sunt remedia
of-the-Topics in the-word probable and not only are remedies
possibilia contra passiones senectutis venientes in tempore
possible against the-passions of-old-age coming in the-time
consistendi et ante tempus senectutis, sed etiam si regimen
of-standing and before the-time of-old-age but also if the-regimen
senectutis esset completum, possunt adhuc passiones senectutis
of-old-age were complete can still the-passions of-old-age
et senii retardari, ne statim suo tempore venirent,
and decrepitude to-be-retarded lest at-once in-their time they-should-come
et cum venerint possunt mitigari et temperari, ut
and when they-shall-have-come they-can to-be-mitigated and to-be-tempered so-that
sic tum per retardationem tum per mitigationem eorum,
thus both through retarding and through mitigating of-them
prolongetur vita ultra terminum qui secundum regimen
be-prolonged life beyond the-term which according-to the-regimen
plenum senectutis consistit in dictis sex articulis. Et alius
full of-old-age consists in the-said six articles and another
est terminus ulterior, qui positus est a Deo et a natura,
is a-term further which placed is by God and by nature
secundum proprietatem remediorum retardantium accidentia
according-to the-property of-the-remedies retarding the-accidents
senectutis et senii et mitigantium malitiam eorum, et
of-old-age and decrepitude and mitigating the-malice of-them and
primus terminus transgredi potest, sed secundus non.
the-first term to-be-transgressed can but the-second not
Et propter hos duos terminos dicit Scriptura pluraliter,
and because-of these two terms says Scripture in-the-plural
Constituisti terminos ejus, qui praeteriri non potuerunt:
You-have-established terms his which to-be-passed not could
impossibile enim est ultimum terminum praeteriri, sed tamen
impossible for it-is the-last term to-be-passed but yet

prior pertransiri potest, licet raro pertranseatur; sed
the-former to-be-passed-through can although rarely it-be-passed-through but
secundus non potest. Regimen ergo sanitatis sufficiens,
the-second not can the-regimen therefore of-health sufficient
quantum homo possit habere, prolongaret vitam ultra
as-much-as man could to-have would-prolong life beyond
communem terminum vivendi accidentalem, quem homo
the-common term of-living accidental which man
propter stultitiam suam sibi non servat; et sic vixerunt
because-of folly his for-himself not keeps and so lived
aliqui per multos annos ultra communem statum vivendi. Sed
some for many years beyond the-common state of-living but
regimen speciale per remedia retardantia dictum communem
a-regimen special through remedies retarding the-said common
statum quem ars regendi sanitatem non transgreditur, potest
state which the-art of-ruling health not transgresses can
longe plus vitam prolongare. Et quod sit possibile patet per
far more life to-prolong and that it-be possible is-plain through
Dioscoridem, qui dicit, possibile est quod sit medicina aliqua,
Dioscorides who says possible it-is that there-be medicine some
quae prohibeat hominem a velocitate senectutis et frigore et
which may-prevent man from the-speed of-old-age and the-cold and
siccitate membrorum, ut per illud elongetur vita hominis.
dryness of-the-members so-that through that be-lengthened the-life of-man
Et hoc vult Haly supra Tegni circa finem. Et dicit iterum,
and this wishes Haly on the-Tegni near the-end and he-says again
Illi qui vixerunt diu usi sunt medicinis quibus elongata
Those who lived long used have medicines by-which lengthened
est vita eorum. Et de hujusmodi Avicenna in secundo
is the-life of-them and about of-this-kind Avicenna in the-second
Causarum dicit sic, Est medicina quae ponit et dividit
of-the-Causes says thus There-is a-medicine which places and divides

omnem complexionem ad partem quam meretur. Sed auctores
every complexion to the-part which it-merits but the-authors
medicinae non dederunt medicinas istas, nec in libris eorum
of-medicine not gave medicines these nor in the-books their
scriptae sunt, solum artem regiminis sanitatis attendentes;
written are-they only the-art of-the-regimen of-health attending-to
et hoc non ut oportet sufficienter de senibus et senioribus,
and this not as it-behooves sufficiently about old-men and older-men
[ut] est jam dictum. Sed sapientes dediti experimentali
as it-is now said but the-wise devoted to-experimental
scientiae de his excogitaverunt, non solum moti propter
science about these-things have-devised not only moved because-of
utilitatem, sed excitati per brutorum animalium industriam,
utility but roused through of-brute animals the-industry
quae multis modis obviant festinationi moriendi, ut cervus et
which in-many ways meet the-hastening of-dying as the-stag and
aquila et serpens, et multa alia suam vitam prolongantia per
the-eagle and the-serpent and many others their life prolonging through
industriam naturalem, sicut auctores scribunt et experientia
industry natural as authors write and experience
docuit. Quorum exemplis excitati crediderunt, quod Deus ipse
has-taught by-whose examples roused they-believed that God himself
brutis hoc concessit ad instructionem hominis mortalis. Et
to-the-brutes this granted for the-instruction of-man mortal and
ideo insidiati sunt animalibus brutis ut scirent vires
therefore lain-in-wait-for have animals brute that they-might-know the-powers
herbarum et lapidum et metallorum et aliarum rerum, quibus
of-herbs and of-stones and of-metals and of-other things by-which
sua corpora rectificabant multis modis tanquam miraculosis,
their bodies they-set-right in-many ways as-if miraculous
sicut ex libris Plinii, Solini, Avicennae de Animalibus, et
as from the-books of-Pliny of-Solinus of-Avicenna on Animals and

Tullii de Natura Divina, ex philosophia Artephii, et libris
of-Tully on Nature Divine from the-philosophy of-Artephius and books
aliis et auctoribus variis, certissime colligitur, et experti sunt
other and authors various most-certainly is-gathered and experienced have
multi. Nam Parisius nuper fuit unus sapiens, qui serpentes
many for at-Paris lately there-was one wise-man who serpents
quaesivit et unum accepit et scidit eum in parva frusta,
sought and one he-took and cut it into small pieces
nisi quod pellis ventris, super quam reperet, remansit integra,
except that the-skin of-the-belly upon which it-crawled remained whole
et iste serpens repebat ut poterat ad herbam quandam,
and that serpent crawled as it-could to an-herb certain
cujus tactu statim sanabatur. Et experimentator collegit
by-whose touch at-once it-was-healed and the-experimenter gathered
herbam admirandae viriditatis. Et quia potest humana ratio
the-herb of-wonderful greenness and because can human reason
supra omnem prudentiam bestialem, ideo sic excitati per
above all prudence bestial therefore thus roused through
exempla brutorum excogitaverunt vias meliores et majores.
the-examples of-the-brutes they-devised ways better and greater
Et praecipue haec sapientia mundo concessa est per primos,
and especially this wisdom to-the-world granted is through the-first
scilicet per Adam et filios ejus, qui receperunt ab ipso
namely through Adam and sons his who received from the-very
Deo specialem cognitionem in hac parte, quatenus vitam suam
God special knowledge in this part so-that life their
longius protenderent. Sic videndum est per Aristotelem in
longer they-might-extend so to-be-seen it-is through Aristotle in
libro Secretorum, ubi dicit quod Deus excelsus et gloriosus
the-book of-Secrets where he-says that God exalted and glorious
ordinavit modum et remedium ad temperantiam humorum et
ordained a-mode and a-remedy for the-temperance of-the-humors and

conservationem sanitatis, et ad plura adquirenda scilicet ad
the-conservation of-health and for more-things to-be-acquired namely for
obviandum passionibus senectutis et ad retardandum eas, et
meeting the-passions of-old-age and for retarding them and
mitigandum hujusmodi; et revelavit ea sanctis et prophetis
mitigating of-this-kind-things and revealed them to-saints and prophets
suis, et quibusdam aliis, sicut patriarchis, quos praeelegit et
his and certain others as patriarchs whom he-chose-before and
illustravit spiritu divinae sapientiae, &c. Et infra dicit quod
illumined with-the-spirit of-divine wisdom &c and below he-says that
est medicina, quae vocatur gloria ineffabilis et thesaurus
there-is a-medicine which is-called glory unspeakable and treasure
philosophorum, quae totum corpus humanum rectificat ad
of-philosophers which the-whole body human sets-right to
plenum, quae dicitur inventa ab Adam vel ab Enoch, habita
the-full which is-said found by Adam or by Enoch had
per visionem, sicut ipsemet refert, licet non fuerit
through vision as he-himself relates although not it-has-been
certificatum ad plenum, quis eorum eam primo perceperit. Sed
certified to the-full which of-them it first perceived but
haec et hujusmodi secretorum secretissima semper fuerunt
these and of-this-kind of-secrets the-most-secret always were
occultata a vulgo philosophantium, et maxime postquam
hidden from the-crowd of-those-philosophizing and most after
homines coeperunt abuti sapientia, disponentes ad malum quod
men began to-abuse wisdom disposing to evil what
Deus in salutem hominum et utilitatem plenam concessit.
God for the-salvation of-men and utility full granted
Horum autem exempla scribuntur multa. Artephius, qui omnes
of-these moreover examples are-written many Artephius who all
regiones orientis peragravit propter sapientiam inquirendam,
the-regions of-the-east traveled because-of wisdom to-be-inquired

Tantalum magistrum regis Indiae invenit in aureo throno
Tantalus the-master of-the-king of-India found on a-golden throne
sedentem, de natura et motibus coelestibus docentem,
sitting about nature and the-motions heavenly teaching
cui Artephio idem Tantalus humiliavit se in discipulum,
to-whom Artephius the-same Tantalus humbled himself as disciple
fertur in libro suae philosophiae vixisse multis annorum
is-reported in the-book of-his philosophy to-have-lived many of-years
centenariis per secretas experientias. Verum et Plinius
hundreds through secret experiences truly also Pliny
vicesimo secundo libro Naturalis Historiae coram Octaviano
in-the-twentieth second book of-the-Natural History before Octavian
Augusto refert hominem stetisse, qui ultra centum annos
Augustus relates a-man to-have-stood who beyond a-hundred years
vitam suam prolongasset, fortis et robustus et strenuus in
life his had-prolonged strong and robust and vigorous to
stuporem astantium: itaque imperator admiratus quaesivit
the-amazement of-those-standing-by and-so the-emperor wondering asked
ab eo, quid faceret ut ita viveret; et ipse respondit in
from him what he-did that so he-should-live and he answered in
aenigmate, ut ait Plinius, quod posuerat oleum exterius, et
a-riddle as says Pliny that he-had-put oil outside and
mulsum interius. Deinde quod dicitur libro de Accidentibus
mead inside then what is-said in-the-book on the-Accidents
Senectutis, a tempore regis Guillelmi Siciliae inventus
of-Old-Age from the-time of-king William of-Sicily found
est homo, qui statum juventutis in robore et sensu et
is a-man who the-state of-youth in strength and sense and
prudentia renovavit ultra omnem aestimationem humanam
prudence renewed beyond all reckoning human
circiter sexaginta annos; et de rustico bubulco factus est
about sixty years and from a-rustic oxherd made is

regis bajulus. Qui recepit liquorem optimum aureo vase
of-the-king the-porter who received a-liquor most-excellent in-a-golden vessel
in campis occultato sub terra, quod vas, aratro terram
in the-fields hidden under the-earth which vessel with-the-plow the-earth
dividente, reperit, et aestimans rorem coelestem bibit, et
dividing he-found and reckoning dew heavenly he-drank and
faciem lavit, et renovatus est mente et corpore supra
the-face washed and renewed is in-mind and body beyond
modum. Et in libro nunc tacto scribitur, quod homo totus
measure and in the-book now touched it-is-written that a-man wholly
perunctus unguento optimo, praeter plantas pedum, vixit
anointed with-ointment most-excellent except the-soles of-the-feet lived
pluribus annorum centenariis incorruptus, excepto quod in
several of-years hundreds uncorrupted except that in
plantis, quas neglexerat ungere, recepit corruptionem, et
the-soles which he-had-neglected to-anoint he-received corruption and
ideo quia semper equitavit. Et auctor istius libri testatus
therefore because always he-rode and the-author of-that book witnessed
est, quod hominem videret et cum eo locutus fuerat, qui
has that the-man he-saw and with him spoken he-had who
pluribus annorum centenariis vixerat, eo quod medicinam
several of-years hundreds had-lived by-this that the-medicine
a sapientibus magno regi paratam desperanti pro seipso et
by the-wise for-a-great king prepared despairing for himself and
volenti indocto homini probare medicinam, recepit eam.
wishing on-an-unlearned man to-prove the-medicine received it
Et sic prolongata est vita hominis, et a summo pontifice
and so prolonged is the-life of-the-man and from the-supreme pontiff
illius temporis et aliis habuit litteras bullatas de hac veritate.
of-that time and others he-had letters sealed about this truth

Et ideo dicit experimentator bonus in libro de Regimine
and therefore says the-experimenter good in the-book on the-Regimen
Senum, quod si illud quod est in quarto gradu temperatum,
of-Old-Men that if that which is in the-fourth degree tempered
et quod natat in mari, et quod vegetatur in aere, et quod
and what swims in the-sea and what grows in the-air and what
a mari projicitur, et planta Indiae, et quod est in visceribus
by the-sea is-thrown-up and the-plant of-India and what is in the-entrails
animalis longae vitae, et duo repentia quae sunt esca
of-an-animal of-long life and the-two crawling-things which are the-food
Tyrorum et Aethiopum, praepararentur et adhiberentur, ut
of-the-Tyrians and of-the-Ethiopians were-prepared and were-applied as
oportet, et minera nobilis animalis adesset, multum posset
it-behooves and the-mineral of-a-noble animal were-present much could
vita hominis prolongari, et passiones senectutis et senii
the-life of-man to-be-prolonged and the-passions of-old-age and decrepitude
retardari et mitigari. Quod vero est in quarto gradu
to-be-retarded and to-be-mitigated what but is in the-fourth degree
temperatum est aurum, secundum quod dicitur in libro de
tempered is gold according-to what is-said in the-book on
Spiritibus et Corporibus, quod est maxime amicum naturae
Spirits and Bodies that it-is most friendly to-nature
inter omnia. Et si per experientiam certam fieret
among all-things and if through experience certain there-were-made
optimum quod potest esse, vel saltem longe melius quam
the-best which can to-be or at-least far better than
natura et ars alkimiae possunt facere, sicut fuit vas
nature and the-art of-alchemy can to-make as was the-vessel
quod rusticus invenit, et resolveretur illud in aquam
which the-rustic found and there-were-dissolved that into water
qualem bibit bubulcus, tunc miram operationem faceret
such-as drank the-oxherd then a-wonderful operation it-would-make

in corpus hominis. Et si jungitur illud quod natat in
in the-body of-man and if is-joined that which swims in
mari, videlicet, margarita, quae est res multum efficax
the-sea namely the-pearl which is a-thing very efficacious
ad vitae conservationem, ac etiam addatur res quae in
for of-life the-conservation and also be-added the-thing which in
aere vegetatur, et est anthos, et est flos roris marini,
the-air grows and is anthos and is the-flower of-dew marine
qui ineffabilem habet virtutem contra passionem senectutis.
which unspeakable has power against the-passion of-old-age
Sed quod ponitur in electuario dianthos non est flos, sed
but what is-placed in the-electuary dianthos not is the-flower but
mixtum ex foliis et fragmentis arbusti et parum de flore.
a-mixture of leaves and fragments of-the-shrub and little of the-flower
Purus enim flos in tempore suo debet colligi, et
pure for the-flower in time its ought to-be-gathered and
multis modis contingit uti eo tam in cibis quam in potibus
in-many ways it-happens to-use it as in foods as in drinks
et electuariis. Quibus addendum est quod a mari projicitur
and electuaries to-which to-be-added is what by the-sea is-thrown-up
et est ambra, quae est sperma cetae, res mirae
and is ambergris which is the-sperm of-the-whale a-thing of-wonderful
virtutis in hac parte. Planta Indiae his est conformis, et
power in this part the-plant of-India to-these is conformable and
est bonum lignum aloes, novum, non sophisticatum. Quibus
is good wood of-aloes new not adulterated to-which
annectitur quod est in corde animalis longae vitae, scilicet
is-annexed what is in the-heart of-an-animal of-long life namely
cervi, et est os quod generatur in corde cervi,
of-the-stag and it-is the-bone which is-generated in the-heart of-the-stag
habens magnam proprietatem contra festinationem senectutis.
having great property against the-hastening of-old-age

Repens autem quod est esca Tyrorum, est tyrus
the-crawling-thing moreover which is the-food of-the-Tyrians is the-tyrus
serpens de quo fit Tyriaca, et cujus carnes praeparantur
a-serpent of which is-made Theriac and whose flesh is-prepared
ut oportet, et comeduntur cum rebus aromaticis; et haec
as it-behooves and is-eaten with things aromatic and this
est res omnino electa contra passionem senectutis et contra
is a-thing wholly choice against the-passion of-old-age and against
omnes corruptiones complexionis, si cum rebus accipiatur
all corruptions of-complexion if with things it-be-taken
congruis cuilibet complexioni et passioni, ut docetur in libro
fitting to-each complexion and passion as is-taught in the-book
de Regimine Senum. Et Aristoteles in libro Secretorum
on the-Regimen of-Old-Men and Aristotle in the-book of-Secrets
docet maximum documentum contra malas passiones per
teaches the-greatest teaching against evil passions through
hujusmodi carnes tyri. Repens quod est esca
such flesh of-the-tyrus the-crawling-thing which is the-food
Aethiopum est draco, secundum quod David dicit in psalmo,
of-the-Ethiopians is the-dragon according-to what David says in the-psalm
Dedisti eam escam populis Aethiopum. Nam certum est
You-have-given it as-food to-the-peoples of-the-Ethiopians for certain it-is
quod Aethiopes sapientes venerunt in Italiam et Hispaniam
that Ethiopian wise-men came into Italy and Spain
et Franciam et Angliam, et in istas terras Christianorum in
and France and England and into those lands of-Christians in
quibus sunt dracones boni volantes, et per artem occultam
which are dragons good flying and through an-art hidden
quam habent excitant dracones de cavernis suis, et habent
which they-have they-rouse dragons from caverns their and they-have
sellas et froena in promptu, et equitant super eos et agitant
saddles and bridles in readiness and they-ride upon them and drive

in aere volatu fortissimo, ut dometur rigiditas carnium et
in the-air with-flight most-strong that be-tamed the-stiffness of-the-flesh and
temperetur durities, sicut apri et ursi et tauri agitantur
be-tempered the-hardness as boars and bears and bulls are-driven
canibus et variis percussionibus flagellantur, antequam
by-dogs and with-various blows are-whipped before
occidantur pro comestione. Cum ergo sic domesticaverint
they-be-killed for eating when therefore so they-have-domesticated
eos, habent artem praeparandi carnes eorum, sicut est ars
them they-have the-art of-preparing the-flesh of-them as is the-art
praeparandi carnes tyri, et utuntur eis contra accidentia
of-preparing the-flesh of-the-tyrus and they-use them against the-accidents
senectutis, et vitam prolongant et intellectum subtiliant
of-old-age and life they-prolong and intellect they-make-subtle
ultra omnem aestimationem. Nam nulla doctrina quae per
beyond all reckoning for no teaching which through
hominem fieri potest tantam sapientiam inducere valet
man to-be-done can so-much wisdom to-bring-in is-able
sicut esus istarum carnium, secundum quod per homines
as the-eating of-these flesh according-to what through men
probatae fidei didicimus sine mendacio et dubitatione.
of-proven faith we-have-learned without lie and doubt
Si vero elementa praepararentur et purificarentur in aliquo
if but the-elements were-prepared and purified in some
mixto quocunque, ita quod nulla infectio esset unius per aliud,
mixture whatever so that no infection were of-one by another
sed reducerentur ad puram simplicitatem, tunc aestimaverunt
but they-were-brought-back to pure simplicity then reckoned
sapientissimi quod summam medicinam haberent. Nam sic
the-wisest that the-highest medicine they-would-have for so
essent elementa aequalia. Et Averroes arguit contra Galienum
would-be the-elements equal and Averroes argues against Galen

super decimo Metaphysicae, quod si mixtum esset per
on the-tenth of-the-Metaphysics that if the-mixture were through
aequalitatem miscibilium, tunc non esset actio et passio
equality of-the-miscibles then not would-be action and passion
elementorum nec corruptio. Et hoc vult Aristoteles in quinto
of-the-elements nor corruption and this wishes Aristotle in the-fifth
Metaphysicae, ubi sanxit, quod potentiae activae cum
of-the-Metaphysics where he-sanctioned that the-powers active when
fuerint aequales non accidit corruptio; et hoc est certum.
they-shall-have-been equal not happens corruption and this is certain
Nam sic erit in corporibus post resurrectionem. Aequalitas
for so it-shall-be in bodies after the-resurrection the-equality
enim elementorum in corporibus illis excludit corruptionem
for of-the-elements in bodies those excludes corruption
in aeternum. Nam haec aequalitas est ultimus finis materiae
for ever for this equality is the-last end of-matter
naturalis in corporibus mixtis, quia nobilissimum est, et ideo
natural in bodies mixed because most-noble it-is and therefore
in eo quiesceret appetitus materiae, et non desideraret aliquid
in it would-rest the-appetite of-matter and not would-desire anything
ultra. Corpus autem Adae non habuit elementa in plena
further the-body moreover of-Adam not had the-elements in full
aequalitate, et ideo fuerunt in eo actio et passio elementorum
equality and therefore there-were in it action and passion of-the-elements
contrariorum, et per consequens deperditio, et ideo indiguit
contrary and by consequence loss and therefore it-needed
nutrimento. Et propter hoc fuit ei praeceptum, ut non
nourishment and because-of this it-was to-him commanded that not
comederet de fructu vitae. Sed quia elementa in eo fuerunt
he-should-eat of the-fruit of-life but because the-elements in him were
prope aequalitatem, ideo modica fuit in eo deperditio;
near equality therefore small was in him the-loss

et propter hoc fuit aptus ad immortalitatem quam posset
and because-of this he-was apt for immortality which he-could
consequi, si fructum ligni vitae semper comedisset. Hic enim
to-attain if the-fruit of-the-tree of-life always he-had-eaten this for
fructus aestimatur habere elementa prope aequalitatem; et
fruit is-reckoned to-have the-elements near equality and
ideo potuit continuare incorruptionem in Adam, quod factum
therefore it-could to-continue incorruption in Adam which done
fuisset, si non peccasset. Sapientes ergo laboraverunt,
would-have-been if not he-had-sinned the-wise therefore labored
ut in aliquo comestibili vel potabili reducerent elementa
that in some edible or drinkable they-might-bring-back the-elements
ad aequalitatem vel prope, et docuerunt vias ad hoc. Sed
to equality or near and they-taught ways to this but
tum propter difficultatem istius experientiae maximae, tum
both because-of the-difficulty of-this experience greatest and
quia pauci curant de experientiis, quia multiplex est
because few care about experiences because manifold is
ibi labor et expensarum magna effusio, nec advertunt
there the-labor and of-expenses a-great outpouring nor notice
homines naturae secreta et artis possibilia, ideo accidit
men of-nature the-secrets and of-art the-possible-things therefore it-happens
quod paucissimi laboraverunt in hujusmodi arcanum scientiae
that very-few labored in such a-mystery of-science
maximae, et pauciores venerunt ad finem laudabilem.
greatest and fewer came to an-end praiseworthy
Illi tamen de quibus facta est mentio, qui per annorum
those yet of whom made is mention who through of-years
centenarios vitam protraxerunt, habuerunt hujusmodi medicinam
hundreds life drew-out had such medicine
secundum magis et minus praeparatam. Nam Artephius, qui
according-to more and less prepared for Artephius who

legitur vixisse mille viginti et quinque annis, habuit
is-read to-have-lived a-thousand twenty and five years had
meliorem medicinam quam bubulcus senex, in quo renovata
a-better medicine than the-oxherd old in whom renewed
fuit juventus per sexaginta annos. Liquor ille, quem bibit
was youth for sixty years liquor that which drank
ille rusticus, aestimatur versus aequalitatem elementorum
that rustic is-reckoned toward the-equality of-the-elements
accessisse longe ultra cibos et potus communes; sed tamen
to-have-approached far beyond the-foods and drinks common but yet
multum deficit ab aequalitate plena. Gradus enim multi sunt
much it-falls-short of equality full the-degrees for many are
in accessu ad ultimum aequalitatis; quod etiam non attigit
in the-approach to the-last of-equality which even not reached
Artephii medicina, sicut nec illa quae per quingentos annos
of-Artephius the-medicine as neither that which for five-hundred years
fecit illum vivere qui literam papalem habuit in attestatione
made him live who the-letter papal had in attestation
tanti miraculi, de quo dictum est superius. Nec mirum
of-so-great a-miracle about which said it-is above nor wonder
si Aristoteles non tantum vixit, nec Plato, nec multi
if Aristotle not so-long lived nor Plato nor many
famosi philosophi; quum in praedicamentis dicit Aristoteles
famous philosophers since in the-predicaments says Aristotle
se ignorasse quadraturam circuli, quae non habet
himself not-to-have-known the-squaring of-the-circle which not has
comparationem ad hujusmodi secretum. Et Avicenna dicit in
comparison to this secret and Avicenna says in
tertio Physicorum, se nondum scivisse praedicamentum
the-third of-the-Physics himself not-yet to-have-known the-predicament
habitus; et modo aestimo hoc sciri de facili, et miramur
of-habit and now I-reckon this to-be-known with ease and we-wonder

eos tam aperta nescivisse. Omnis enim sapientia a
them so open-things not-to-have-known all for wisdom from
Domino Deo est; et ideo aliquando simplicibus dantur quae
the-Lord God is and therefore sometimes to-the-simple are-given what
studiosissimi et famosissimi scire non possunt. Sed medicina
the-most-studious and most-famous to-know not can but medicine
ista dare non potest; nec loquitur; sed magnitudo secreti
this to-give not can nor speaks but the-greatness of-the-secret
scientiae experimentalis hujusmodi probavit. Quae vero sunt
of-science experimental of-this-kind has-proved what but are
remedia et quas res accipiunt, invenitur maxime in libro
the-remedies and what things they-take is-found most in the-book
Secretorum Aristotelis et in philosophia Artephii, et in
of-Secrets of-Aristotle and in the-philosophy of-Artephius and in
libro de Passionibus Senectutis, et in tractatu de Senum et
the-book on the-Passions of-Old-Age and in the-treatise on of-Old-Men and
Seniorum Regimine, et in libris Plinii, et alibi multis modis.
of-Older-Men the-Regimen and in the-books of-Pliny and elsewhere in-many ways

Exemplum iii

THE THIRD EXAMPLE: ALCHEMY

Alchemy scarcely turns lead into gold of twenty-four degrees, but experimental science knows gold's degrees and makes gold of thirty and forty; the medicine that purifies base metal could also free the body from corruption.

Tertio exemplificari potest hujus scientiae dignitas in alkimia.
thirdly to-be-exemplified can of-this science the-dignity in alchemy
Nam tota ars illa vix attingit ad hoc, ut de levioribus
for the-whole art that scarcely reaches to this that from lighter

metallis fiant veraciter majora, ut aurum de plumbo,
metals be-made truly greater-ones as gold from lead
et argentum de cupro. Sed illa ars nunquam sufficit
and silver from copper but that art never suffices
ad ostendendum gradus auri naturales et artificiales et
for showing the-degrees of-gold natural and artificial and
modos graduum istius. Nam scientia experimentalis utrumque
the-modes of-the-degrees of-this for science experimental both
produxit in lucem, quoniam et gradus auri invenit,
brought-forth into the-light since both the-degrees of-gold it-found
et quatuor naturales et modos horum septendecim, et
and four natural-ones and the-modes of-these seventeen and
artificiales. Experimenta est possibile produci quantum
artificial-ones experiments it-is possible to-be-produced as-much-as
placet ultra viginti quatuor. Sic vas, in quo continebatur
pleases beyond twenty four so the-vessel in which was-contained
liquor, de quo bubulcus factus est regis bajulus, auri
the-liquor from which the-oxherd made is of-the-king the-porter of-gold
tenuit dignitatem longe ultra viginti quatuor, ut ejus probatio
held the-dignity far beyond twenty four as its proof
et pretium manifestaverunt. Quum vero isti viginti quatuor
and price made-manifest when but these twenty four
gradus inveniuntur in massa auri, tunc est optimum aurum
degrees are-found in a-mass of-gold then it-is the-best gold
quod potest per naturam produci; quum vero sunt viginti
which can through nature to-be-produced when but there-are twenty
quatuor gradus auri et una pars argenti vel unus gradus,
four degrees of-gold and one part of-silver or one degree
tunc est pejus aurum quam prius, et sic vadit diminutio
then it-is worse gold than before and so goes the-diminution
graduum auri usque ad sexdecim, quatenus octo sunt gradus
of-the-degrees of-gold up to sixteen so-that eight are degrees

auri cum admixtione argenti. Virtus vero mineralis in ventre
of-gold with admixture of-silver the-power but mineral in the-belly
terrae non potest aliquando digerere materiam et naturam
of-the-earth not can sometimes to-digest the-matter and nature
auri, et facit quod potest digerens eam in formam
of-gold and it-makes what it-can digesting it into the-form
argenti. Et ne illud fingam ex me, inveniuntur homines in
of-silver and lest that I-feign from myself are-found men in
pluribus partibus mundi, qui istos sexdecim modos apti sunt
many parts of-the-world who these sixteen modes apt are
generare, et invenerunt frusta et massas auri, secundum
to-generate and they-found pieces and masses of-gold according-to
istos septendecim; deinde procuraverunt fieri mixtionem
these seventeen then they-procured to-be-made a-mixture
argenti et aeris cum auro secundum modos praedictos, ut
of-silver and of-bronze with gold according-to the-modes aforesaid that
frusta haberent auri artificialiter facti septendecim, per
pieces they-might-have of-gold artificially made seventeen through
quae cognoscant modos auri naturales. Et quia haec ars
which they-may-know the-modes of-gold natural and because this art
ignoratur a vulgo eorum qui auro inhiant, oportet quod
is-unknown by the-crowd of-those who after-gold gape it-behooves that
multiplices fraudes fiant in hoc mundo. Ars igitur alkimiae
manifold frauds be-made in this world the-art therefore of-alchemy
non solum omittit hos modos, sed ad aurum viginti quatuor
not only omits these modes but to gold of-twenty four
graduum rarissime invenitur, et cum summa difficultate,
degrees most-rarely is-found and with the-highest difficulty
et pauci fuerunt semper, qui simul viventes sciverunt hoc
and few were always who together living knew this
secretum alkimiae; et non pervenit haec scientia ultra
secret of-alchemy and not arrives this science beyond

istud. Sed Scientia Experimentalis novit per Secreta
that but Science Experimental knows-how through the-Secrets
Secretorum Aristotelis producere aurum non solum viginti
of-Secrets of-Aristotle to-produce gold not only of-twenty
quatuor graduum, sed triginta et quadraginta et quantum
four degrees but thirty and forty and as-much-as
volumus. Propter hoc Aristoteles dixit ad Alexandrum
we-wish because-of this Aristotle said to Alexander
'volo ostendere secretum maximum'; et vere est secretum
I-wish to-show the-secret greatest and truly it-is the-secret
maximum, nam non solum procuraret bonum reipublicae
greatest for not only would-procure the-good of-the-commonwealth
et omnibus desideratum propter auri sufficientiam, sed
and by-all desired because-of of-gold the-sufficiency but
quod plus est in infinitum, daret prolongationem vitae.
what more is to infinity it-would-give prolongation of-life
Nam illa medicina, quae tolleret omnes immunditias
for that medicine which would-take-away all impurities
et corruptiones metalli vilioris, ut fieret argentum et
and corruptions of-metal viler so-that it-became silver and
aurum purissimum, aestimatur a sapientibus posse tollere
gold most-pure is-reckoned by the-wise to-be-able to-take-away
corruptiones corporis humani in tantum, ut vitam per
the-corruptions of-the-body human so much that life through
multa secula prolongaret. Et hoc est corpus ex elementis
many ages it-would-prolong and this is the-body from the-elements
temperatum, de quo prius dictum est.
tempered about which earlier said it-is

Capitulum de tertia praerogativa vel dignitate artis experimentalis

THE THIRD PREROGATIVE AND ITS USES

The third prerogative is to search out nature's secrets by its own power: knowledge of the future and wonderful works, magnets, burning oils, the thunder of saltpeter, the drawing together of a split hazel rod. Such wisdom serves theology, the conversion of unbelievers, and the Church against Antichrist, as Aristotle's served Alexander.

Tertia autem dignitas hujus scientiae est. Et est ex propriis
the-third moreover dignity of-this science is and it-is from proper-things
per quae non habet respectum ad alias scientias, sed sua
through which not it-has regard to other sciences but by-its-own
potestate investigat secreta naturae. Et hoc in duobus consistit;
power it-investigates the-secrets of-nature and this in two-things consists
scilicet in cognitione futurorum praeteritorum et praesentium,
namely in the-knowledge of-future past and present-things
et in operibus admirandis quibus excedit astronomiam
and in works wonderful by-which it-exceeds astronomy
judiciariam vulgatam in potestate judicandi. Nam Ptolemaeus
judicial made-common in the-power of-judging for Ptolemy
in libro introductorio Almagesti dicit, quod alia est via
in the-book introductory of-the-Almagest says that another is the-way
quam per astronomiam vulgatam certior; et haec est via
than through astronomy made-common more-certain and this is the-way
experimentalis, quae vadit secundum cursum naturae, ad quam
experimental which goes according-to the-course of-nature to which
intendunt multi fidelium philosophorum, sicut Aristoteles et
aim many of-the-faithful philosophers as Aristotle and
turba multa auctorum judiciorum astrorum, ut ipse dicit,
the-crowd great of-the-authors of-the-judgments of-the-stars as he says

et nos scimus per proprium exercitium, cui contradici
and we know through (our)-own exercise to-which to-be-contradicted
non potest. Et haec sapientia inventa est in purum remedium
not can and this wisdom found is as a-pure remedy
humanae ignorantiae et imprudentiae; difficile enim est habere
of-human ignorance and imprudence difficult for it-is to-have
instrumenta astronomiae certa et sufficienter, et difficilius
instruments of-astronomy certain and sufficiently and more-difficult
est habere tabulas verificatas, praecipue in quibus sit motus
it-is to-have tables verified especially in which be the-motion
planetarum aequatus. Et difficilis est harum tabularum usus,
of-the-planets equated and difficult is of-these tables the-use
sed difficilior usus instrumentorum. Haec autem scientia
but more-difficult the-use of-instruments this moreover science
definitiones et vias adinvenit, per quas expedite ad omnem
definitions and ways has-found through which readily to every
quaestionem respondeat, quantum potest philosophiae singularis
question it-may-answer as-much-as can of-philosophy singular
proprietas, et per quas ostendat nobis figurationes coelestium
the-property and through which it-may-show us the-figurings of-heavenly
virtutum; et impressiones coelestium in hoc mundo, sine
powers and the-impressions of-the-heavenly-bodies in this world without
difficultate astronomiae vulgatae. Et haec pars judicativa
the-difficulty of-astronomy made-common and this part judicative
habet quatuor radices principales, seu scientias secretas.
has four roots principal or sciences secret
Opera vero hujus scientiae, quae ostendunt philosophiam,
the-works but of-this science which show philosophy
quidam testantur esse in alteratione regionis, ut mores
certain-men witness to-be in the-alteration of-a-region so-that the-morals
vulgi alterentur, de quibus Alexandro quaerenti ab
of-the-crowd be-altered about which to-Alexander asking from

Aristotele de gentibus quas invenit, an eos exterminaret
Aristotle about the-nations which he-found whether them he-should-exterminate
propter morum feritatem, an permitteret eos vivere, ipse
because-of of-morals the-fierceness or should-permit them to-live the-very
Aristoteles philosophorum doctissimus in libro Secretorum
Aristotle of-philosophers the-most-learned in the-book of-Secrets
respondit, Si potes alterare aerem ipsorum, permitte eos vivere;
answered If you-can to-alter the-air their permit them to-live
si non, interfice eos. Voluit enim quod aer eorum potuit
if not kill them he-wished for that the-air their could
alterari utiliter, ut complexiones corporum eorum alterentur,
to-be-altered usefully so-that the-complexions of-the-bodies their be-altered
et deinde animi excitati per complexiones elicerent bonos
and then the-minds roused through the-complexions might-draw-out good
mores ex arbitrii libertate; et hoc est unum ex secretis.
morals from of-choice the-freedom and this is one of the-secrets
Quidam vero plus assentiunt in alteratione per solem, de
certain-men but more assent in alteration through the-sun of
quibus est exemplum Aristotelis dicentis ad Alexandrum, da
which is the-example of-Aristotle saying to Alexander give
calidum grano plantae in usum cui volueris, et ipse
the-hot to-the-grain of-the-plant in use to-whom you-shall-wish and he
obediet tibi toto tempore vitae tuae. Quidam ponunt ut
shall-obey you the-whole time of-life your certain-men posit that
exercitus obstupescat et fugiat de quibus Aristoteles dicit ad
an-army be-stunned and flee of which Aristotle says to
Alexandrum, Accipe talem lapidem super te, et fugiet omnis
Alexander Take such a-stone upon you and shall-flee every
exercitus a te. Haec et hujusmodi innumerabilia testantur
army from you these and of-this-kind innumerable-things they-witness
esse vera, non intendentes quod violentia fiat libero arbitrio;
to-be true not intending that violence be-done to-free choice

cum ipse Aristoteles, qui hoc proponit, dicit in Ethicis,
since the-very Aristotle who this proposes says in the-Ethics
quod voluntas cogi non potest. Potest autem corpus
that the-will to-be-compelled not can can moreover the-body
alterari per virtutes rerum, et animi deinde excitantur
to-be-altered through the-powers of-things and the-minds then are-roused
et moventur ut omnino gratis velint illud ad quod
and are-moved that wholly freely they-wish that to which
inclinantur; sicut per potiones et medicinas multas in libro
they-are-inclined as through potions and medicines many in the-book
Medicorum, [videmus] multos non solum in corpore posse
of-Physicians we-see many not only in body to-be-able
alterari sed in passionibus animae et inclinatione voluntatis.
to-be-altered but in the-passions of-the-soul and the-inclination of-the-will
Sunt autem alia opera quae sunt magis naturalia, quae
there-are moreover other works which are more natural which
sic non respiciunt inclinationem voluntatis mirabilem, et
so not regard the-inclination of-the-will wonderful and
hujus sunt diversitatis. Quaedam habent pulchritudinem
of-this are of-diversity some have the-beauty
sapientiae cum aliis utilitatibus, ut de balneis perpetuis
of-wisdom with other utilities as about baths perpetual
humano usui aptissimis absque renovatione artificii alicujus:
for-human use most-apt without renewal of-artifice any
sicut de luminaribus perpetuo lucentibus sine extinctione;
as about lamps perpetually shining without extinction
videmus enim multas res igne non posse comminui, immo
we-see for many things by-fire not to-be-able to-be-diminished nay
purificantur ex igne, sicut pellis salamandrae, et multa talia,
they-are-purified by fire as the-skin of-the-salamander and many such-things
quae etiam sic praeparari possunt ut luceant secundum
which also so to-be-prepared can that they-shine according-to

se extra et virtutem ignis retineant, et flammam et
themselves outside and the-power of-fire keep and flame and
lucem reddant. Et contra inimicos reipublicae adinvenerunt
light render and against the-enemies of-the-commonwealth they-have-found
magnas artes, ut sine ferro, et absque eo quo tangerent
great arts that without iron and without that by-which they-might-touch
aliquem, destruerent omnes resistentes, et eorum sunt multa
anyone they-might-destroy all resisting and of-them are many
genera. Et quaedam nullo sensu percipiuntur, aut solo olfactu,
kinds and some by-no sense are-perceived or by-sole smell
et horum patet liber Aristoteles de alteratione aeris, non
and of-these lies-open the-book of-Aristotle on the-alteration of-the-air not
de quo prius tetigi sed alterius rationis, quoniam per
that-of which earlier I-touched but of-another notion since through
viam infectionis procedunt. Et alia sunt, quae sensum aliquem
the-way of-infection they-proceed and others are which sense some
immutant, et haec diversitas fit secundum omnes sensus.
alter and this diversity is-made according-to all the-senses
Quaedam vero solo tactu immutant et sic tollunt vitam. Nam
some but by-sole touch alter and thus take-away life for
malta, quae est genus bituminis et est in magna copia in hoc
malta which is a-kind of-bitumen and is in great abundance in this
mundo, projecta super hominem armatum comburit eum. Istud
world thrown upon a-man armed burns him this
autem Romani gravi caede perpessi sunt in expugnationibus
moreover the-Romans with-heavy slaughter suffered have in the-conquests
regionum, sicut Plinius testatur secundo Naturalis Historiae, et
of-regions as Pliny witnesses in-the-second of-the-Natural History and
historiae certificant. Similiter oleum citrinum petroleum, id est,
the-histories certify likewise oil yellow petroleum that is
oriens ex petra, comburit quicquid occurrit, si rite praeparetur.
rising from rock burns whatever it-meets if duly it-be-prepared

Nam ignis comburens fit ex eo qui cum difficultate potest
for a-fire burning is-made from it which with difficulty can
extingui; nam aqua non extinguit. Quaedam vero auditum
to-be-extinguished for water not extinguishes some but the-hearing
perturbant in tantum, quod si subito et de nocte et artificio
disturb so much that if suddenly and by night and with-artifice
sufficienti fierent, nec posset civitas nec exercitus sustinere.
sufficient they-were-made neither could a-city nor an-army to-bear
Nullus tonitrui fragor posset talibus comparari. Quaedam
no of-thunder crash could to-such to-be-compared some
tantum terrorem visui incutiunt, quod coruscationes
so-great terror on-the-sight strike that the-flashings
nubium longe minus et sine comparatione perturbant; quibus
of-the-clouds far less and without comparison disturb by-which
operibus Gideon in castris Midianitarum consimilia aestimatur
works Gideon in the-camp of-the-Midianites like-things is-reckoned
fuisse operatus. Et experimentum hujus rei capimus ex hoc
to-have operated and an-experiment of-this thing we-take from this
ludicro puerili, quod fit in multis mundi partibus, scilicet
play childish which is-made in many of-the-world parts namely
ut instrumento facto ad quantitatem pollicis humani, ex
that with-an-instrument made to the-size of-the-thumb human from
violentia illius salis qui sal petrae vocatur tam horribilis
the-violence of-that salt which salt of-rock is-called so horrible
sonus nascitur in ruptura tam modicae rei, scilicet modici
a-sound is-born in the-bursting of-so small a-thing namely of-a-small
pergameni, quod fortis tonitrui sentiatur excedere rugitum,
parchment that of-strong thunder it-be-felt to-exceed the-roar
et coruscationem maximam sui luminis jubar excedit.
and the-flashing greatest of-its light the-radiance exceeds

Sunt etiam res quamplurimae, quae omne animal venenosum
there-are also things very-many which every animal venomous
tactu lenissimo interficiunt, et circulo facto circa illa
by-touch most-gentle kill and with-a-circle made around those
animalia per res hujusmodi, non possunt exire, sed
animals through things of-this-kind not they-can to-go-out but
moriuntur licet non tangantur. Quod si homo sit percussus
they-die although not they-be-touched but if a-man be struck
veneno animalis, rasura pulveris hujusmodi rerum
by-the-venom of-an-animal by-a-scraping of-the-powder of-such things
sanatur, sicut Beda scribit in Ecclesiastica Historia et scimus
he-is-healed as Bede writes in the-Ecclesiastical History and we-know
hoc per experientiam. Et sic sunt res innumerabiles,
this through experience and so there-are things innumerable
quae habent hujusmodi virtutes extraneas, quarum potestates
which have such powers strange of-which the-powers
ignoramus ex sola negligentia experiendi.
we-are-ignorant-of from sole negligence of-experimenting
Sed alia sunt opera quae non tantam habent utilitatem
but other are works which not so-great have utility
reipublicae, sunt tamen spectanda miracula naturae, sicut
for-the-commonwealth they-are yet to-be-looked-at as-miracles of-nature as
est de experientiis magnetis, non solum respectu ferri, sed
is about the-experiences of-the-magnet not only in-respect of-iron but
auri et aliorum metallorum. Et si experimentum respectu
of-gold and of-other metals and if the-experiment in-respect
ferri non esset notum mundo, videretur magnum miraculum.
of-iron not were known to-the-world it-would-seem a-great miracle
Et certe circa operationem magnetis respectu ferri sunt
and certainly about the-operation of-the-magnet in-respect of-iron are
opera incognita eis qui utuntur magnete, quae dissolutiones
works unknown to-those who use the-magnet which the-dissolutions

naturae mirabiliter ostendunt. Sicut etiam experimentator fidelis
of-nature wonderfully show as also the-experimenter faithful
motum rerum ad invicem aliarum ab his novit experiri, ut
the-motion of-things to each-other other than these knows-how to-test as
de lapide qui currit ad acetum, et de bitumine quod capit
about the-stone which runs to vinegar and about the-bitumen which takes
ignem a se longius distantem, secundum quod narrat Plinius
fire from itself farther distant according-to what relates Pliny
secundo Naturalium; et de quibusdam aliis rebus localiter
in-the-second of-the-Natural-History and about certain other things locally
distantibus ad invicem motu naturali concurrentibus. Quod
distant to each-other with-motion natural running-together which
est omnino stupendum super omnia quae vidi et audivi.
is wholly astounding above all-things which I-have-seen and heard
Postquam enim hoc intuitus sum, nihil fuit meo intellectui
after for this beheld I-have nothing was to-my intellect
difficile ad credendum, dummodo habuit auctorem certum.
difficult for believing provided-that it-had an-author certain
Et ne lateat Vestram Reverentiam, hoc accidit in partibus
and lest it-escape Your Reverence this happens in parts
plantarum divisis et localiter separatis. Nam si surculus unius
of-plants divided and locally separated for if a-shoot of-one
anni suscipiatur qui oritur juxta radices coruli, et secundum
year be-taken which rises near the-roots of-the-hazel and along
ejus longitudinem dividatur, et separentur partes divisae per
its length be-divided and be-separated the-parts divided by
spatium palmae seu quatuor digitorum, et unus teneat ex
the-space of-a-palm or four fingers and one hold from
una parte extremitates duarum partium, et alius ex alia
one side the-extremities of-the-two parts and another from the-other
parte similiter, et semper teneant aequaliter et leniter, ita
side likewise and always they-hold equally and gently so

quod sicut partes in toto fuerant contra se positae
that as the-parts in the-whole had-been against each-other placed
sic teneantur, infra spatium dimidii milliaris incipient partes
so they-be-held within the-space of-half a-mile shall-begin the-parts
virgae sibi appropinquare paulatim, sed fortius in fine,
of-the-rod to-each-other to-approach little-by-little but more-strongly at the-end
ut tandem omnino concurrant et sint simul, extremitatibus
so-that at-last wholly they-run-together and be together with-the-extremities
tamen existentibus diversis, quia per violentiam detinentium
yet being diverse because through the-violence of-those-holding
praepediuntur. Et hoc est valde admirabile. Et ideo magici
they-are-hindered and this is very wonderful and therefore magicians
utuntur hoc experimento, et dicunt carmina diversa, et
use this experiment and say charms diverse and
credunt quod ex virtute carminum istud contingat. Et ego
believe that from the-power of-the-charms that happens and I
neglexi carmina et inveni opus naturae mirabile. Et simile est
neglected the-charms and found a-work of-nature wonderful and like it-is
de magnete et ferro. Nam sicut propter similitudinem naturae
with the-magnet and iron for as because-of the-likeness of-nature
quae est in ferro et magnete, unum currit ad aliud, sic est
which is in iron and magnet the-one runs to the-other so it-is
hic; unde virtus naturalis, quae est similis in utraque parte
here whence the-power natural which is like in each part
plantae, movet eas ad conjunctionem. Quod si debito modo
of-the-plant moves them to conjunction but if in-due way
aptarentur, concurrerent in extremitatibus sicut in medio
they-were-fitted they-would-run-together at the-extremities as in the-middle
et citius, ut si subtiliter perforarentur extremitates et
and more-quickly as if finely were-pierced the-extremities and
transirent fila per foramina, quatenus in aere suspenderentur
there-passed threads through the-holes so-that in the-air they-were-suspended

sine impedimento. Et non solum hoc est de surculis coruli,
without hindrance and not only this is about the-shoots of-the-hazel
sed de multis aliis, ut in salicibus, et forsan in omnibus, si
but about many others as in willows and perhaps in all if
debito modo aptarentur. Sed quia in talibus aptius cogitat
in-due way they-were-fitted but because in such-things more-aptly thinks
animus quam calamus scribat, ideo supersedeo ad tempus. Hic
the-mind than the-pen may-write therefore I-desist for a-time here
non scribo nisi recitando dicta sapientum et quae facta
not I-write except by-reciting the-sayings of-the-wise and what-things done
sunt ab eis, quorum ingenia magis admiror quam intelligo.
are by them whose talents more I-admire than I-understand
Et sic faciens finem de scientia ista experimentali absolute,
and thus making an-end about science this experimental absolutely
convertam eam ad utilitatem theologiae, sicut in aliis egi
I-shall-turn it to the-utility of-theology as in the-others I-did
consimiliter. Cum vero jam monstravi proprietatem hujus
similarly since but now I-have-shown the-property of-this
scientiae secundum se, jam cuilibet patet quod utilissima
science according-to itself now to-anyone is-plain that most-useful
est haec scientia post moralem, et primo ipsi theologiae
is this science after the-moral and first to-the-very theology
absolutae propter sensum literalem et spiritualem, in quibus
absolute because-of the-sense literal and spiritual in which
ipsa consistit. Superius enim habitum est quod literalis
it consists above for had it-is that the-literal
sensus consistit in veritate creaturarum per definitiones
sense consists in the-truth of-creatures through the-definitions
et descriptiones earum exprimenda, et similiter habitum
and descriptions of-them to-be-expressed and likewise had
est quod argumentum non attingit ad hanc veritatem, sed
it-is that argument not reaches to this truth but

experientia. Quapropter haec scientia post moralem maxime
experience wherefore this science after the-moral most
dabit veritatem Scripturae literalem, ut per convenientes
shall-give the-truth of-Scripture literal so-that through fitting
adaptationes et similitudines extrahantur sensus spirituales,
adaptations and likenesses be-drawn-out the-senses spiritual
propter proprietatem Scripturae sacrae et secundum vias
because-of the-property of-Scripture sacred and according-to the-ways
sanctorum et omnium sapientum.
of-the-saints and of-all the-wise
Deinde ut refertur ad rempublicam fidelium valet haec
then as it-is-referred to the-commonwealth of-the-faithful avails this
scientia, ut tactum est in futurorum praesentium et
science as touched it-is in of-future present and
praeteritorum cognitione speciali, atque in operum mirabilium
past-things knowledge special and in of-works wonderful
exhibitione pro Ecclesia et Republica, ut promoveantur
the-display for the-Church and the-Commonwealth so-that be-promoted
omnia negotia utilia, et impediantur contraria tam in paucis
all affairs useful and be-hindered the-contrary as in few
quam in multitudine, sicut exemplificatum est. Et si procedamus
as in a-multitude as exemplified it-is and if we-proceed
ad conversionem infidelium, patet quod valet duobus modis
to the-conversion of-unbelievers it-is-plain that it-avails in-two ways
principalibus, qui habent ramos infinitos, quantum persuasio
principal which have branches infinite as-far-as the-persuasion
fidei notabiliter fieri potest per scientiam hanc; non
of-faith notably to-be-made can through science this not
argumentis sed operibus, quod fortius est. Neganti enim
by-arguments but by-works which stronger is to-one-denying for
veritatem fidei, quia intelligere eam non valeat, proponam
the-truth of-faith because to-understand it not he-be-able I-shall-propose

cursum naturalem rerum ad invicem, sicut exemplificatum fuit.
the-course natural of-things to each-other as exemplified it-was
Similiter quod sine violentia humana dolium frangatur, et
likewise that without violence human a-cask be-broken and
vinum contentum stet immobile per tres dies non fluens; et
the-wine contained stand unmoved for three days not flowing and
quod aurum et argentum in marsupio, et ensis in vagina,
that gold and silver in a-purse and a-sword in the-sheath
consumantur, eis in quibus continentur illaesis; ut Seneca
be-consumed with-those in which they-are-contained unhurt as Seneca
docet in libro Naturalium Quaestionum; et quod aves qui
teaches in the-book of-Natural Questions and that the-birds which
vocantur halcyones mare tempestuosum in profunda hyeme
are-called halcyons the-sea stormy in deep winter
cogant quiescere et se retrahere donec, ova fecerint et
compel to-rest and itself to-withdraw until eggs they-have-made and
foetus produxerint, sicut Basilius et Ambrosius in Hexaemeron,
young have-brought-forth as Basil and Ambrose in the-Hexaemeron
et philosophi et poetae scribunt. Haec enim et his similia
and philosophers and poets write these for and to-these like-things
debent hominem movere, et ad receptionem divinarum
ought man to-move and to the-reception of-divine
veritatum excitare. Quoniam si in vilissimis creaturis reperiuntur
truths to-rouse since if in the-vilest creatures are-found
veritates, quibus oportet subdi superbiam intellectus
truths to-which it-behooves to-be-subjected the-pride of-intellect
humani ut credat eas licet non intelligat, aut injuriabitur
human that it-believe them although not it-understand or it-shall-do-injury
veritati infallibili, quanto magis debet homo humiliare mentem
to-truth infallible how-much more ought man to-humble mind
suam veritatibus Dei gloriosis. Certe non est comparatio.
his to-the-truths of-God glorious certainly not there-is comparison

Est autem alius modus utilissimus; quoniam ad hanc, ut
there-is moreover another way most-useful since to this as
dixi, scientiam pertinet judicare quid potest fieri per
I-said science it-pertains to-judge what can to-be-done through
naturam aut per artis industriam, et quid non. Et novit
nature or through of-art the-industry and what not and it-knows-how
illa separare magicas illusiones, et deprehendere omnes earum
those to-separate magical illusions and to-detect all their
errores in carminibus et invocationibus et conjurationibus
errors in charms and invocations and conjurations
et in sacrificiis et culturis. Sed infideles occupantur his
and in sacrifices and cults but unbelievers are-occupied with-these
insaniis et confidunt in eis, et crediderunt Christianos
insanities and trust in them and have-believed Christians
uti talibus in operibus miraculorum. Quapropter summae
to-use such-things in the-works of-miracles wherefore of-the-highest
utilitatis est haec scientia in fidei persuasione, quum per
utility is this science in of-faith the-persuasion since through
eam solam inter partes philosophiae contingit procedere
it alone among the-parts of-philosophy it-befalls to-proceed
in hoc casu, eo quod haec sola considerat hujusmodi,
in this case by-this that this alone considers of-this-kind-things
et potest convincere omnem falsitatem et superstitionem
and can to-convict all falsity and superstition
et errorem infidelium quantum ad hujusmodi magica, ut
and error of-unbelievers as-far-as to of-this-kind magic-things as
sunt carmina et caetera praetacta. Qualiter autem valeat
are charms and the-rest touched-before how moreover it-avails
ad infidelium obstinatorum reprobationem, jam patet per
for of-unbelievers obstinate the-rejection now is-plain through
opera violenta quae jam tacta sunt, et ideo pertranseo.
the-works violent which now touched are and therefore I-pass-over

Est tamen considerandum, quod licet aliae scientiae multa
it-is yet to-be-considered that although other sciences many
mirabilia faciant, ut geometria practica facit specula
wonderful-things make as geometry practical makes mirrors
comburentia omne contumax, et sic de aliis; tamen
burning everything resistant and so of others yet
omnia hujusmodi utilitatis mirificae in republica pertinent
all of-this-kind utility wonderful in the-commonwealth pertain
principaliter ad hanc scientiam. Nam haec se habet ad alias,
principally to this science for this itself holds to the-others
sicut navigatoria ad carpentariam, et sicut ars militaris ad
as navigation to carpentry and as the-art military to
fabrilem; haec enim praecipit ut fiant instrumenta mirabilia,
the-smithy this for commands that be-made instruments wonderful
et factis utitur, et etiam cogitat omnia secreta propter
and the-things-made it-uses and also thinks-out all secrets because-of
utilitates reipublicae et personarum; et imperat aliis
the-utilities of-the-commonwealth and of-persons and commands the-other
scientiis, sicut ancillis suis, et ideo tota sapientiae
sciences as handmaids its and therefore the-whole of-wisdom
speculativae potestas isti scientiae specialiter attribuitur. Et
speculative power to-this science specially is-attributed and
jam ex istis scientiis tribus patet mirabilis utilitas in hoc
now from these sciences three is-plain the-wonderful utility in this
mundo pro ecclesia Dei contra inimicos fidei, destruendos
world for the-church of-God against the-enemies of-the-faith to-be-destroyed
magis per opera sapientiae, quam per arma bellica
more through the-works of-wisdom than through arms of-war
pugnatorum; quibus Antichristus copiose et efficaciter utetur,
of-fighters which Antichrist copiously and effectively shall-use
ut omnem hujus mundi potentiam conterat et confundat;
that all of-this world the-power he-may-crush and confound

et per quae tyranni, retroactis temporibus, orbem sibi
and through which tyrants in-past times the-world to-themselves
subjugabant. Quod manifestum est per exempla infinita.
subjugated which manifest is through examples infinite
Sed nunc affero unum pro omnibus de Alexandro magno,
but now I-bring-forward one for all about Alexander the-great
qui quum de Graecia profectus est ut mundum expugnaret,
who when from Greece set-out has that the-world he-might-conquer
non habuit peditum nisi triginta duo millia, et equitum
not had of-foot except thirty two thousand and of-horse
quatuor millia et quingentos; tamen, ut dicit Orosius ad
four thousand and five-hundred yet as says Orosius to
Augustinum in libro de Ormesta Mundi, inferens hac tam
Augustine in the-book on the-Ormesta of-the-World bringing with-this so
parva manu bellum universo terrarum orbi, utrum admirabilius
small a-band war on-the-whole of-lands world whether more-wonderful
sit quod vicerit aut quod aggredi ausus fuerit, incertum
be that he-conquered or that to-attack he-dared has uncertain
est. Primo ergo cum Dario rege congressu sexcenta millia
it-is in-the-first therefore with Darius the-king encounter six-hundred thousand
Persarum prostravit, sed in suo exercitu centum viginti equites
of-the-Persians he-laid-low but in his army a-hundred twenty horsemen
et novem pedites defuere. In secundo vero congressu devicit
and nine footmen were-lacking in the-second but encounter he-conquered
quadraginta millia hominum, et de suo exercitu centum triginta
forty thousand men and of his army a-hundred thirty
pedites et centum quinquaginta equites ceciderunt; per hoc
footmen and a-hundred fifty horsemen fell through this
residuum mundi territum facilius subjecit. Sed Orosius dicit,
the-rest of-the-world terrified more-easily he-subjected but Orosius says
non minus arte quam virtute Macedonum superavit. Nec
not less by-art than by-the-valor of-the-Macedonians he-overcame nor

mirum, cum Aristoteles fuerit cum eo in his bellis, ut legimus
wonder since Aristotle was with him in these wars as we-read
in vita Aristotelis. Et etiam Seneca in Naturalibus dicit,
in the-life of-Aristotle and also Seneca in the-Natural-Questions says
quod mundum vicit Alexander, Aristotele et Callisthene
that the-world conquered Alexander with-Aristotle and Callisthenes
ducibus, qui magistri ei fuerunt in omni sapientia. Sed
as-leaders who masters to-him were in all wisdom but
Aristoteles extitit principalis; et facile patet per praedicta
Aristotle stood-forth principal and easily is-plain through the-things-aforesaid
quomodo per vias sapientiae potuit Aristoteles mundum
how through the-ways of-wisdom could Aristotle the-world
tradere Alexandro. Et hoc deberet ecclesia considerare contra
to-hand-over to-Alexander and this ought the-church to-consider against
infideles et rebelles, ut parcatur sanguini Christiano, et
unbelievers and rebels that be-spared the-blood Christian and
maxime propter futura pericula in temporibus Antichristi, quibus
most because-of future dangers in the-times of-Antichrist which
cum Dei gratia facile esset obviare, si praelati et principes
with of-God the-grace easy it-would-be to-meet if prelates and princes
studium promoverent et secreta naturae et artis indagarent.
study would-promote and the-secrets of-nature and of-art would-search-out