LATIN SERIES · VOLUME 1

On Architecture

VITRUVIUS

De Architectura

On Architecture

Books I, III, IV, VI, and VII,
on the Architect, the Temple, and the House

---

with a word-for-word interlinear English translation

preserving the original word order



CANES NOBILES · MMXXVI

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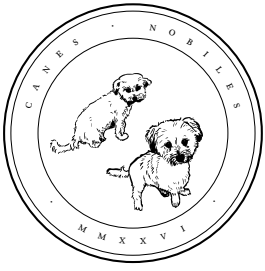

Volume 1 of the Canes Nobiles Latin interlinear texts

The Latin text follows Friedrich Krohn's Teubner text of 1912

Set from the Perseus Digital Library's canonical Latin corpus, with corrections

Translated and composed with AI, edited by Christopher Hench
Artwork by Esther Steves

Krohn prints v for consonantal u. His Roman numerals and his S
for the half-unit stand in the gloss row as they stand in the Latin,
and so do the letters that label the points of a diagram;
∗∗∗ marks a gap in the text, and the dagger a reading Krohn
could not mend. The Greek words Vitruvius quotes are set in the same face.

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BOOK I

I · PREFACE

Vitruvius dedicates the work to Augustus. He recalls that he was on hand for the making of ballistas and the repair of the other engines, and that the allowance he received was kept up through the emperor's sister. Free of the fear of want, he has written out fixed rules so that Augustus can know for himself what the buildings already made and those still to come are like.

Cum divina tua mens et numen, imperator Caesar, 1
when divine your mind and power emperor Caesar
imperio potiretur orbis terrarum invictaque virtute
with-empire was-taking-possession of-the-circle of-lands and-by-unconquered valor
cunctis hostibus stratis triumpho victoriaque tua cives
all enemies laid-low in-the-triumph and-victory your the-citizens
gloriarentur et gentes omnes subactae tuum spectarent
were-glorying and nations all subdued your were-watching
nutum populusque Romanus et senatus liberatus timore
nod and-the-people Roman and the-senate freed from-fear
amplissimis tuis cogitationibus consiliisque gubernaretur, non
by-most-ample your thoughts and-counsels was-being-steered not
audebam, tantis occupationibus, de architectura scripta
I-was-daring amid-such-great occupations about architecture writings
et magnis cogitationibus explicata edere, metuens, ne non
and by-great reflections worked-out to-publish fearing lest not
apto tempore interpellans subirem tui animi offensionem.
at-a-fit time interrupting I-should-incur of-your mind the-displeasure
Cum vero attenderem te non solum de vita communi 2
when but I-noticed that-you not only about life common
omnium curam publicaeque rei constitutione habere sed
of-all care and-of-the-public thing the-ordering to-have but

etiam de opportunitate publicorum aedificiorum, ut civitas
also about the-fitness of-public buildings so-that the-state
per te non solum provinciis esset aucta, verum etiam ut
through you not only with-provinces had-been enlarged but also so-that
maiestas imperii publicorum aedificiorum egregias haberet
the-majesty of-the-empire of-public buildings outstanding might-have
auctoritates, non putavi praetermittendum, quin primo
authorities not I-thought to-be-passed-over but-that at-the-first
quoque tempore de his rebus ea tibi ederem,
very time about these matters those-things to-you I-should-publish
ideo quod primum parenti tuo fueram notus et eius
for-this-reason that first to-parent your I-had-been known and of-his
virtutis studiosus. Cum autem concilium caelestium in
valor an-admirer when moreover the-council of-the-heavenly-ones in
sedibus inmortalitatis eum dedicavisset et imperium parentis
the-seats of-immortality him had-consecrated and the-empire of-the-parent
in tuam potestatem transtulisset, idem studium meum in
into your power had-transferred the-same devotion my in
eius memoria permanens in te contulit favorem.
his memory abiding toward you conferred favor
Itaque cum M. Aurelio et P. Minidio et Gn. Cornelio
and-so with Marcus Aurelius and Publius Minidius and Gnaeus Cornelius
ad apparationem ballistarum et scorpionum reliquorumque
for the-preparing of-ballistas and scorpions and-of-the-remaining
tormentorum refectionem fui praesto et cum eis commoda
engines the-repair I-was at-hand and with them emoluments
accepi, quae, cum primo mihi tribuisti recognitionem, per
I-received which when first to-me you-granted the-recognition through
sororis commendationem servasti.
of-(your)-sister the-commendation you-kept

Cum ergo eo beneficio essem obligatus, ut ad exitum vitae 3
when therefore by-that kindness I-was bound so-that to the-end of-life
non haberem inopiae timorem, haec tibi scribere coepi,
not I-should-have of-want fear these-things for-you to-write I-began
quod animadverti multa te aedificavisse et nunc aedificare,
because I-observed many-things that-you to-have-built and now to-be-building
reliquo quoque tempore et publicorum et privatorum
for-the-remaining also time both of-public and private
aedificiorum, pro amplitudine rerum gestarum ut posteris
buildings in-keeping-with the-greatness of-things done that to-posterity
memoriae traderentur, curam habiturum. Conscripsi
for-remembrance they-might-be-handed-down care about-to-have I-have-written-out
praescriptiones terminatas, ut eas attendens et ante facta et
rules defined so-that them attending-to both before made and
futura qualia sint opera per te posses nota habere;
to-come of-what-sort they-are works by yourself you-might-be-able known to-have
namque his voluminibus aperui omnes disciplinae rationes.
for in-these volumes I-have-opened all of-the-discipline the-methods

I.1 · THE EDUCATION OF THE ARCHITECT

Architecture is born of craft and reasoning, and Vitruvius says the man who has only his hands wins no authority, while the man who has only letters has chased a shadow. He lists the studies an architect needs: letters, drawing, geometry, history, philosophy, music, medicine, law, and astronomy. He tells the stories of the Caryatids and the Persian portico to show why history is among them, and answers Pytheos, who held that the architect must outdo every specialist.

Architecti est scientia pluribus disciplinis et variis 1
of-the-architect is the-knowledge by-many branches-of-learning and various
eruditionibus ornata, cuius iudicio probantur omnia quae ab
kinds-of-instruction adorned whose by-judgment are-approved all which by

ceteris artibus perficiuntur opera. Ea nascitur ex fabrica et
the-other arts are-completed works it is-born from craft and
ratiocinatione. Fabrica est continuata ac trita usus meditatio,
reasoning craft is continued and practiced of-use exercise
quae manibus perficit e materia cuiuscumque generis opus
which by-the-hands completes from material of-whatever kind the-work
ad propositum deformationis. Ratiocinatio autem est, quae
to the-purpose of-the-design reasoning moreover is which
res fabricatas sollertiae ac rationis proportione demonstrare
things made of-skill and of-method by-proportion to-show
atque explicare potest.
and to-explain can

2 Itaque architecti, qui sine litteris contenderant, ut manibus
and-so architects who without letters had-striven that in-hands
essent exercitati, non potuerunt efficere, ut haberent pro
they-might-be practiced not were-able to-bring-about that they-should-have for
laboribus auctoritatem; qui autem ratiocinationibus et litteris
their-labors authority who moreover on-reasonings and letters
solis confisi fuerunt, umbram non rem persecuti videntur.
alone relying have-been the-shadow not the-thing having-pursued seem
At qui utrumque perdidicerunt, uti omnibus armis ornati
but who both have-learned-thoroughly as with-all arms equipped
citius cum auctoritate, quod fuit propositum, sunt adsecuti.
more-quickly with authority what was proposed have attained

3 Cum in omnibus enim rebus, tum maxime etiam in
both in all for things and most-of-all also in
architectura haec duo insunt: quod significatur et quod
architecture these two are-present that-which is-signified and that-which
significat. Significatur proposita res, de qua dicitur; hanc
signifies is-signified the-proposed thing about which it-is-spoken this
autem significat demonstratio rationibus doctrinarum explicata.
moreover signifies a-demonstration by-the-methods of-the-sciences unfolded

Quare videtur utraque parte exercitatus esse debere, qui se
wherefore it-seems in-each part practiced to-be to-ought who himself
architectum profiteatur. Itaque eum etiam ingeniosum oportet
an-architect professes and-so him also gifted it-behooves
esse et ad disciplinam docilem; neque enim ingenium sine
to-be and to instruction teachable nor for talent without
disciplina aut disciplina sine ingenio perfectum artificem
instruction or instruction without talent a-finished craftsman
potest efficere. Et ut litteratus sit, peritus graphidos,
can to-make and so lettered let-him-be skilled in-drawing
eruditus geometria, historias complures noverit, philosophos
trained in-geometry histories very-many let-him-know philosophers
diligenter audierit, musicam scierit, medicinae
diligently let-him-have-heard music let-him-have-learned of-medicine
non sit ignarus, responsa iurisconsultorum noverit,
not let-him-be ignorant the-answers of-the-jurists let-him-know
astrologiam caelique rationes cognitas habeat.
astronomy and-of-the-sky the-reckonings known let-him-have
Quae cur ita sint, haec sunt causae. Litteras architectum 4
which-things why so are these are the-reasons letters the-architect
scire oportet, uti commentariis memoriam firmiorem
to-know it-behooves so-that by-notes memory firmer
efficere possit. Deinde graphidis scientiam habere, quo
to-make he-may-be-able next of-drawing the-knowledge to-have whereby
facilius exemplaribus pictis quam velit operis speciem
more-easily by-models painted which he-may-wish of-the-work the-look
deformare valeat. Geometria autem plura praesidia praestat
to-draw-out he-may-avail geometry moreover more aids furnishes
architecturae; et primum ex euthygrammis circini
to-architecture and first from straight-lines of-the-compass
tradit usum regulaeque, e quo maxime facilius
it-hands-down the-use and-of-the-rule from which most-of-all more-easily

aedificiorum in areis expediuntur descriptiones normarumque
of-buildings on the-sites are-set-out the-plans and-of-the-squares
et librationum et linearum directiones. Item per opticen in
and of-the-levels and of-lines the-alignments likewise through optics in
aedificiis ab certis regionibus caeli lumina recte ducuntur.
buildings from fixed quarters of-the-sky lights rightly are-drawn
Per arithmeticen vero sumptus aedificiorum consummantur,
through arithmetic but the-costs of-buildings are-summed-up
mensurarum rationes explicantur, difficilesque symmetriarum
of-measures the-methods are-unfolded and-the-difficult of-symmetries
quaestiones geometricis rationibus et methodis inveniuntur.
questions by-geometrical reckonings and methods are-found
5 Historias autem plures novisse oportet, quod multa
histories moreover several to-know it-behooves because many
ornamenta saepe in operibus architecti designant, de quibus
ornaments often in works architects set-out about which
argumenti rationem, cur fecerint, quaerentibus reddere debent.
of-the-theme the-account why they-made to-those-asking to-render they-ought
Quemadmodum si quis statuas marmoreas muliebres stolatas,
just-as if anyone statues marble of-women robed
quae caryatides dicuntur, pro columnis in opere statuerit
which caryatids are-called in-place-of columns in a-work shall-have-set
et insuper mutulos et coronas conlocaverit, percontantibus
and above mutules and cornices shall-have-placed to-inquirers
ita reddet rationem. Carya, civitas Peloponnensis, cum
thus he-will-render the-account Carya a-state of-the-Peloponnese with
Persis hostibus contra Graeciam consensit. Postea
the-Persians enemies against Greece made-common-cause afterward
Graeci per victoriam gloriose bello liberati communi
the-Greeks through victory gloriously from-the-war freed by-common
consilio Caryatibus bellum indixerunt. Itaque oppido capto,
counsel on-the-Caryans war declared and-so the-town taken

viris interfectis, civitate deflagrata matronas eorum in
the-men killed the-state burnt-down the-matrons of-them into
servitutem abduxerunt, nec sunt passi stolas neque ornatus
slavery they-led-away nor did suffer (their)-robes nor adornments
matronales deponere, non uti una triumpho ducerentur,
matronly to-lay-aside not so-that together in-the-triumph they-might-be-led
sed aeterno servitutis exemplo, gravi contumelia pressae
but by-an-eternal of-slavery example by-heavy insult weighed-down
poenas pendere viderentur pro civitate. Ideo qui tunc
penalties to-pay they-might-seem for their-state therefore who then
architecti fuerunt aedificiis publicis designaverunt earum
architects were for-buildings public they-drew their
imagines oneri ferendo conlocatas, ut etiam posteris
images for-a-burden to-be-borne placed so-that also to-posterity
poena peccati Caryatium memoriae traderetur.
the-punishment of-the-sin of-the-Caryans for-remembrance might-be-handed-down
Non minus Lacones, Pausania Agesilae filio duce, Plataico 6
not less the-Laconians Pausanias of-Agesilaus son being-leader at-the-Plataean
proelio pauca manu infinitum numerum exercitus Persarum
battle with-a-small band a-boundless number of-the-army of-the-Persians
cum superavissent, acto cum gloria triumpho spoliorum et
when they-had-overcome held with glory a-triumph of-spoils and
praedae, porticum Persicam ex manubiis, laudis et virtutis
booty a-portico Persian from the-plunder of-praise and valor
civium indicem, victoriae posteris pro tropaeo constituerunt.
of-the-citizens a-token of-victory for-posterity for a-trophy they-set-up
Ibique captivorum simulacra barbarico vestis ornatu, superbia
and-there of-the-captives the-figures with-barbaric of-dress adornment (their)-pride
meritis contumeliis punita, sustinentia tectum conlocaverunt,
by-deserved insults punished upholding the-roof they-placed
uti et hostes horrescerent timore eorum fortitudinis
so-that both the-enemy might-shudder through-fear of-their bravery's

effectus, et cives id exemplum virtutis aspicientes gloria
effects and the-citizens that example of-valor beholding by-glory
erecti ad defendendam libertatem essent parati. Itaque ex
lifted-up for to-be-defended liberty might-be ready and-so from
eo multi statuas Persicas sustinentes epistylia et ornamenta
that many statues Persian upholding architraves and ornaments
eorum conlocaverunt, et ita ex eo argumento varietates
of-them they-placed and so from that theme varieties
egregias auxerunt operibus. Item sunt aliae eiusdem generis
remarkable they-increased to-works likewise there-are other of-the-same kind
historiae, quarum notitiam architectos tenere oporteat.
histories of-which the-knowledge architects to-hold it-behooves
7 Philosophia vero perficit architectum animo magno et uti
philosophy but perfects the-architect in-spirit great and so-that
non sit adrogans, sed potius facilis, aequus et fidelis,
not he-may-be arrogant but rather approachable fair and faithful
sine avaritia, quod est maximum; nullum enim opus vere
without greed which is greatest no for work truly
sine fide et castitate fieri potest; ne sit cupidus
without good-faith and purity to-be-done can that-not he-be covetous
neque in muneribus accipiendis habeat animum occupatum,
nor in gifts to-be-taken he-have his-mind engrossed
sed cum gravitate suam tueatur dignitatem bonam famam
but with gravity his-own let-him-guard dignity a-good name
habendo; et haec enim philosophia praescribit. Praeterea
by-having and these-things for philosophy prescribes besides
de rerum natura, quae graece φυσιολογία dicitur, philosophia
about of-things the-nature which in-Greek nature-study is-called philosophy
explicat. Quam necesse est studiosius novisse, quod habet
unfolds which necessary it-is more-carefully to-know because it-has
multas et varias naturales quaestiones. Ut etiam in aquarum
many and various natural questions as also in of-waters

ductionibus. Incursibus enim et circumitionibus et librata
the-conductings by-inrushes for and windings and leveled
planitie expressionibus spiritus naturales aliter atque aliter
on-a-plane by-squeezings breaths natural one-way and another
fiunt, quorum offensionibus mederi nemo poterit, nisi qui
arise whose obstructions to-remedy no-one will-be-able unless who
ex philosophia principia rerum naturae noverit. Item qui
from philosophy the-first-principles of-things of-nature has-learned likewise who
Ctesibii aut Archimedis et ceterorum, qui eiusdem generis
of-Ctesibius or of-Archimedes and of-the-others who of-the-same kind
praecepta conscripserunt, leget, sentire non poterit, nisi
precepts have-written shall-read to-understand not will-be-able unless
his rebus a philosophis erit institutus.
in-these matters by philosophers he-shall-have-been trained
Musicen autem sciat oportet, uti canonicam rationem 8
music moreover let-him-know it-behooves so-that the-canonic reckoning
et mathematicam notam habeat, praeterea ballistarum,
and mathematical known he-may-have besides of-ballistas
catapultarum, scorpionum temperaturas possit recte
catapults scorpions the-tunings he-may-be-able rightly
facere. In capitulis enim dextra ac sinistra sunt foramina
to-make in the-capitals for right and left there-are holes
hemitoniorum, per quae tenduntur suculis et vectibus
of-half-tones through which are-stretched by-windlasses and levers
e nervo torti funes, qui non praecluduntur nec
from sinew twisted ropes which not are-shut-off nor
praeligantur, nisi sonitus ad artificis aures certos et
are-tied-fast unless sounds to the-craftsman's ears sure and
aequales fecerint. Bracchia enim, quae in eas tentiones
equal they-shall-have-made the-arms for which into those tensions
includuntur, cum extenduntur, aequaliter et pariter utraque
are-enclosed when they-are-drawn-out equally and alike both

plagam mittere debent; quodsi non homotona fuerint,
the-blow to-send ought but-if not of-like-tone they-shall-have-been
inpedient directam telorum missionem.
they-will-hinder the-straight of-the-missiles discharge
9 Item theatris vasa aerea, quae in cellis sub gradibus
likewise for-theaters vessels bronze which in cells beneath the-seats
mathematica ratione conlocantur sonitum ex discrimine,
by-mathematical reckoning are-placed the-sound from the-interval
quae Graeci ἠχεῖα appellant, ad symphonias musicas sive
which the-Greeks sounding-jars call to concords musical or
concentus componuntur divisa in circinatione diatessaron et
harmonies are-arranged divided in the-circuit the-fourth and
diapente et diapason ad disdiapason, uti vox scaenici, sonitu
the-fifth and the-octave to the-double-octave so-that the-voice of-the-actor in-sound
conveniens in dispositionibus tactu cum offenderit, aucta
agreeing in the-arrangements by-touch when it-shall-have-struck increased
cum incremento clarior et suavior ad spectatorum perveniat
with growth clearer and sweeter to of-the-spectators may-come
aures. Hydraulicas quoque machinas et cetera, quae sunt similia
ears water-organ also machines and the-rest which are like
his organis, sine musicis rationibus efficere nemo poterit.
these instruments without musical methods to-make no-one will-be-able
10 Disciplinam vero medicinae novisse oportet propter
the-science but of-medicine to-know it-behooves because-of
inclinationem caeli, quae Graeci κλίματα dicunt, et aeris et
the-inclination of-the-sky which the-Greeks climates call and of-air and
locorum, qui sunt salubres aut pestilentes, aquarumque usus;
of-places which are healthful or pestilent and-of-waters the-uses
sine his enim rationibus nulla salubris habitatio fieri
without these for methods no healthful dwelling to-be-made
potest. Iura quoque nota habeat oportet, ea quae necessaria
can laws also known let-him-have it-behooves those which necessary

sunt aedificiis locis communibus parietum ad ambitum,
are for-buildings in-places common of-party-walls as-to the-surrounding-space
stillicidiorum et cloacarum, luminum, item aquarum ductiones
of-gutter-drips and of-drains of-lights likewise of-waters the-conductings
et cetera, quae eiusmodi sunt. Nota oportet sint architectis,
and the-rest which of-that-sort are known it-behooves they-be to-architects
uti ante caveant quam instituant aedificia, ne
so-that beforehand they-may-take-care before they-begin buildings lest
controversiae factis operibus patribus familiarum relinquantur,
disputes made the-works to-the-fathers of-households be-left
et ut legibus scribendis prudentia cavere possit et
and so-that for-contracts to-be-written foresight to-provide may-be-able both
locatori et conductori; namque si lex perite fuerit
for-the-lessor and for-the-contractor for if the-contract skillfully shall-have-been
scripta, erit ut sine captione uterque ab utroque
written it-will-be that without entrapment each from the-other
liberetur. Ex astrologia autem cognoscitur oriens, occidens,
may-be-released from astronomy moreover is-learned east west
meridies, septentrio, etiam caeli ratio, aequinoctium,
south north also of-the-sky the-reckoning equinox
solstitium, astrorum cursus; quorum notitiam si quis non
solstice of-the-stars the-courses of-which the-knowledge if anyone not
habuerit, horologiorum rationem omnino scire non poterit.
shall-have-had of-sundials the-method at-all to-know not will-be-able
Cum ergo tanta haec disciplina sit, condecorata et abundans 11
since therefore so-great this science is graced and abounding
eruditionibus variis ac pluribus, non puto posse se
in-learnings various and many not I-think to-be-able themselves
iuste repente profiteri architectos, nisi qui ab aetate
justly suddenly to-profess architects except those-who from age
puerili his gradibus disciplinarum scandendo scientia
boyish by-these steps of-the-sciences by-climbing by-the-knowledge

plerarumque litterarum et artium nutriti pervenerint ad
of-most letters and arts nourished have-come to
summum templum architecturae.
the-highest temple of-architecture

12 At fortasse mirum videbitur inperitis, hominis posse naturam
but perhaps a-marvel it-will-seem to-the-unskilled that-man's to-be-able nature
tantum numerum doctrinarum perdiscere et memoria
so-great a-number of-studies to-learn-thoroughly and in-memory
continere. Cum autem animadverterint omnes disciplinas inter
to-hold when moreover they-shall-have-noticed all sciences among
se coniunctionem rerum et communicationem habere,
themselves a-connection of-matters and a-sharing to-have
fieri posse faciliter credent; encyclios enim disciplina uti
to-be-done to-be-able easily they-will-believe the-encyclic for learning as
corpus unum ex his membris est composita. Itaque qui
a-body one from these limbs is composed and-so those-who
a teneris aetatibus eruditionibus variis instruuntur, omnibus
from tender ages in-learnings various are-instructed in-all
litteris agnoscunt easdem notas communicationemque
branches-of-letters recognize the-same marks and-the-sharing
omnium disciplinarum, et ea re facilius omnia
of-all the-sciences and for-this reason more-easily all-things
cognoscunt. Ideoque de veteribus architectis Pytheos, qui
they-learn and-therefore of the-old architects Pytheos who
Prieni aedem Minervae nobiliter est architectatus, ait in
at-Priene the-temple of-Minerva nobly has built says in
suis commentariis architectum omnibus artibus et doctrinis
his-own notebooks the-architect in-all arts and studies
plus oportere posse facere, quam qui singulas res
more to-behoove to-be-able to-do than those-who single things

suis industriis et exercitationibus ad summam claritatem
by-their-own exertions and practicings to the-highest renown
perduxerunt. Id autem re non expeditur.
have-brought that moreover in-fact not is-borne-out
Non enim debet nec potest esse architectus grammaticus, 13
not for ought nor can to-be the-architect a-grammarian
uti fuerat Aristarchus, sed non agrammatus, nec musicus
as had-been Aristarchus but not unlettered nor a-musician
ut Aristoxenus, sed non amusos, nec pictor ut Apelles, sed
as Aristoxenus but not unmusical nor a-painter as Apelles but
graphidos non inperitus, nec plastes quemadmodum Myron
of-drawing not unskilled nor a-modeler such-as Myron
seu Polyclitus, sed rationis plasticae non ignarus, nec denuo
or Polyclitus but of-the-method of-modeling not ignorant nor again
medicus ut Hippocrates, sed non aniatrologetus, nec in ceteris
a-physician as Hippocrates but not unversed-in-medicine nor in the-other
doctrinis singulariter excellens, sed in is non inperitus.
studies singularly excelling but in them not unskilled
Non enim in tantis rerum varietatibus elegantias singulares
not for in such-great of-things varieties refinements single
quisquam consequi potest, quod earum ratiocinationes
anyone to-attain can because of-them the-reasonings
cognoscere et percipere vix cadit in potestatem.
to-learn and to-grasp scarcely falls within power
Nec tamen non tantum architecti non possunt in omnibus 14
nor yet not only architects not can in all
rebus habere summum effectum, sed etiam ipsi, qui
things to-have the-highest achievement but even they-themselves who
privatim proprietates tenent artium, non efficiunt, ut habeant
severally the-special-skills hold of-the-arts not bring-it-about that they-have
omnes summum laudis principatum. Ergo si in singulis
all the-highest of-praise first-place therefore if in single

doctrinis singuli artifices neque omnes sed pauci aevo
studies single craftsmen and-not all but few in-an-age
perpetuo nobilitatem vix sunt consecuti, quemadmodum
whole renown scarcely have attained how
potest architectus, qui pluribus artibus debet esse peritus,
can the-architect who in-many arts ought to-be skilled
non id ipsum mirum et magnum facere, ne quid ex his
not that very marvelous and great to-do that-not anything of these
indigeat, sed etiam ut omnes artifices superet, qui singulis
be-lack but even that all craftsmen be-surpass who to-single
doctrinis adsiduitatem cum industria summa praestiterunt?
studies constancy with industry highest have-shown
15 Igitur in hac re Pytheos errasse videtur, quod non
therefore in this matter Pytheos to-have-erred seems because not
animadvertit ex duabus rebus singulas artes esse compositas,
be-noticed from two things single arts to-be composed
ex opere et eius ratiocinatione, ex his autem unum
from the-work and its reasoning of these moreover one
proprium esse eorum, qui singulis rebus sunt exercitati,
proper to-be to-those who in-single things are practiced
id est operis effectus, alterum commune cum omnibus
that is of-the-work the-execution the-other common with all
doctis, id est rationem, uti medicis et musicis et
the-learned that is the-method as with-physicians and musicians both
de venarum rythmo et pedum; at si vulnus mederi aut
about of-the-veins rhythm and of-the-feet but if a-wound to-heal or
aegrum eripere de periculo oportuerit, non accedet
the-sick-man to-snatch from danger it-shall-be-needful not will-approach
musicus, sed id opus proprium erit medici; item in
the-musician but that work proper will-be of-the-physician likewise on

organo non medicus sed musicus modulabitur, ut
an-instrument not the-physician but the-musician will-play so-that
aures suavem cantionibus recipiant iucunditatem.
the-ears sweet from-the-songs may-receive delight
Similiter cum astrologis et musicis est disputatio communis 16
likewise with astronomers and musicians there-is discussion common
de sympathia stellarum et symphoniarum in quadratis et
about the-sympathy of-the-stars and of-concords in squares and
trigonis diatessaron et diapente, a geometris qui graece λόγος
triangles the-fourth and the-fifth by geometers which in-Greek reasoning
ὀπτικός appellatur; ceterisque omnibus doctrinis multae
optical is-called and-with-the-other all studies many
res vel omnes communes sunt dumtaxat ad disputandum.
things or all common are at-least for discussing
Operum vero ingressus, qui manu aut tractationibus ad
of-works but the-undertakings which by-hand or by-handlings to
elegantiam perducuntur, ipsorum sunt, qui proprie una
refinement are-brought of-those-very-men are who specially in-one
arte ad faciendum sunt instituti. Ergo satis abunde
art for doing have-been trained therefore enough amply
videtur fecisse, qui ex singulis doctrinis partes et rationes
he-seems to-have-done who from single studies the-parts and methods
earum mediocriter habet notas, eas quae necessariae sunt
of-them moderately has known those which necessary are
ad architecturam, uti, si quid de his rebus et artibus
for architecture so-that if anything about these matters and arts
iudicare et probare opus fuerit, ne deficiatur.
to-judge and to-approve need shall-have-been that-not be-be-found-wanting
Quibus vero natura tantum tribuit sollertiae, acuminis, 17
to-whom but nature so-much has-granted of-skill of-keenness
memoriae, ut possint geometriam, astrologiam, musicen
of-memory that they-can geometry astronomy music

ceterasque disciplinas penitus habere notas, praetereunt officia
and-the-other sciences thoroughly to-have known they-pass-beyond the-duties
architectorum et efficiuntur mathematici. Itaque faciliter
of-architects and become mathematicians and-so easily
contra eas disciplinas disputare possunt, quod pluribus telis
against those sciences to-argue they-can because with-many weapons
disciplinarum sunt armati. Hi autem inveniuntur raro, ut
of-the-sciences they-are armed these moreover are-found rarely as
aliquando fuerunt Aristarchus Samius, Philolaus et Archytas
once were Aristarchus the-Samian Philolaus and Archytas
Tarentini, Apollonius Pergaeus, Eratosthenes Cyrenaeus,
of-Tarentum Apollonius of-Perga Eratosthenes of-Cyrene
Archimedes et Scopinas ab Syracusis, qui multas res
Archimedes and Scopinas from Syracuse who many things
mechanicas, organicas, gnomonicas numero naturalibusque
mechanical instrumental gnomonic by-number and-by-natural
rationibus inventas atque explicatas posteris reliquerunt.
methods found-out and explained to-posterity have-left

18 Cum ergo talia ingenia ab naturali sollertia non passim
since therefore such talents from natural skill not everywhere
cunctis gentibus sed paucis viris habere concedatur, officium
to-all peoples but to-few men to-have is-granted the-office
vero architecti omnibus eruditionibus debeat esse exercitatum,
but of-the-architect in-all learnings ought to-be practiced
et ratio propter amplitudinem rei permittat non
and reason because-of the-greatness of-the-subject allows not
iuxta necessitatem summas sed etiam mediocres scientias
according-to necessity the-highest but even middling knowledges
habere disciplinarum, peto, Caesar, et a te et ab is,
to-have of-the-sciences I-ask Caesar both from you and from those
qui ea volumina sunt lecturi, ut, si quid parum ad
who these volumes are about-to-read that if anything too-little to

regulam artis grammaticae fuerit explicatum, ignoscatur.
the-rule of-the-art grammatical shall-have-been set-out it-be-pardoned
Namque non uti summus philosophus nec rhetor disertus
for not as a-supreme philosopher nor an-orator eloquent
nec grammaticus summis rationibus artis exercitatus, sed
nor a-grammarian in-the-highest methods of-the-art practiced but
ut architectus his litteris imbutus haec nisus sum
as an-architect in-these letters steeped these-things striven I-have
scribere. De artis vero potestate quaeque insunt in ea
to-write about of-the-art but the-power and-which are-present in it
ratiocinationes polliceor, uti spero, his voluminibus non
the-reasonings I-promise as I-hope by-these volumes not
modo aedificantibus sed etiam omnibus sapientibus cum
only to-builders but also to-all the-wise with
maxima auctoritate me sine dubio praestaturum.
the-greatest authority that-I without doubt about-to-make-good

I.2 · THE SIX PRINCIPLES OF ARCHITECTURE

Vitruvius names the six things architecture is made of: ordering, arrangement, shapeliness, symmetry, decorum, and distribution. He defines each in turn. Three things give a building its decorum — siting it as the god's character requires, established usage, and the nature of the place itself. Distribution is the thrifty use of materials and money, matched to the owner's station.

Architectura autem constat ex ordinatione, quae graece 1
architecture moreover consists of ordering which in-Greek
τάξις dicitur, et ex dispositione, hanc autem Graeci
order is-called and of arrangement this moreover the-Greeks

διάθεσιν vocitant, et eurythmia et symmetria et decore
disposition they-call and shapeliness and symmetry and decorum
et distributione, quae graece οἰκονομία dicitur.
and distribution which in-Greek economy is-called

2 Ordinatio est membrorum operis separatim universeque
ordering is of-the-members of-the-work severally and-as-a-whole
proportionis ad symmetriam comparatio. Haec componitur ex
of-proportion to symmetry adjustment this is-composed of
quantitate, quae graece ποσότης dicitur. Quantitas autem est
quantity which in-Greek quantity is-called quantity moreover is
modulorum ex ipsius operis e singulisque membrorum
of-modules from of-the-very of-the-work from and-the-individual of-the-members
partibus sumptio universi operis conveniens effectui.
parts a-taking of-the-whole work suiting the-effect
Dispositio autem est rerum apta conlocatio elegansque
arrangement moreover is of-things fit placing and-elegant
compositionibus effectus operis cum qualitate. Species
in-the-compositions the-effect of-the-work with quality the-kinds
dispositionis, quae graece dicuntur ἰδέαι, sunt hae:
of-arrangement which in-Greek are-called ideas are these
ichnographia, orthographia, scaenographia. Ichnographia est
ground-plan elevation perspective-view ground-plan is
circini regulaeque modice continens usus, e qua capiuntur
of-the-compass and-of-the-rule measured continuous use from which are-taken
formarum in solis arearum descriptiones. Orthographia
of-the-shapes on the-grounds of-the-areas the-outlines elevation
autem est erecta frontis imago modiceque picta rationibus
moreover is an-upright of-the-front image and-measuredly drawn by-the-methods
operis futuri figura. Item scaenographia est frontis et
of-the-work to-come the-figure likewise perspective-view is of-the-front and
laterum abscedentium adumbratio ad circinique centrum
of-the-sides receding the-shading to and-of-the-compass the-center

omnium linearum responsus. Hae nascuntur ex cogitatione
of-all the-lines the-answering these arise from reflection
et inventione. Cogitatio est cura studii plena et industriae
and invention reflection is care of-zeal full and of-industry
vigilantiaeque effectus propositi cum voluptate. Inventio
and-of-vigilance the-achieving of-the-thing-proposed with pleasure invention
autem est quaestionum obscurarum explicatio ratioque novae
moreover is of-questions obscure the-unraveling and-the-method of-a-new
rei vigore mobili reperta. Hae sunt terminationes dispositionum.
thing by-vigor nimble found-out these are the-bounds of-the-arrangements
Eurythmia est venusta species commodusque in compositionibus 3
shapeliness is a-graceful look and-fitting in the-compositions
membrorum aspectus. Haec efficitur, cum membra operis
of-the-members the-look this is-achieved when the-members of-the-work
convenientis sunt altitudinis ad latitudinem, latitudinis ad
of-suitable are of-height to breadth of-breadth to
longitudinem, et ad summam omnia respondent suae
length and to the-sum all-things answer to-their-own
symmetriae.
symmetry
Item symmetria est ex ipsius operis membris conveniens 4
likewise symmetry is from the-very work's members a-fitting
consensus ex partibusque separatis ad universae figurae
agreement from and-the-parts separate to of-the-whole figure
speciem ratae partis responsus. Uti in hominis corpore e
the-look of-a-fixed part the-answering as in of-a-man the-body from
cubito, pede, palmo, digito ceterisque particulis symmetros
the-forearm foot palm finger and-the-other small-parts commensurate
est eurythmiae qualitas, sic est in operum perfectionibus.
is of-shapeliness the-quality so it-is in of-works the-completions
Et primum in aedibus sacris aut e columnarum
and first in temples sacred either from of-the-columns

crassitudinibus aut triglypho aut etiam embatere, ballista
the-thicknesses or the-triglyph or even the-step in-a-catapult
e foramine capituli, quod Graeci περίτρητον vocitant,
from the-hole of-the-capital which the-Greeks bore-hole they-call
navibus interscalmio, quae διάπηγμα dicitur, item ceterorum
in-ships the-oar-space which cross-piece is-called likewise of-the-other
operum e membris invenitur symmetriarum ratiocinatio.
works from the-members is-found of-the-symmetries the-reasoning
5 Decor autem est emendatus operis aspectus probatis rebus
decorum moreover is a-faultless of-the-work look from-approved things
compositi cum auctoritate. Is perficitur statione, quod graece
composed with authority it is-achieved by-siting which in-Greek
θεματισμῷ dicitur, seu consuetudine aut natura. Statione,
positioning is-called or by-usage or by-nature by-siting
cum Iovi Fulguri et Caelo et Soli et Lunae
when to-Jupiter the-Lightning and to-Heaven and to-the-Sun and to-the-Moon
aedificia sub divo hypaethraque constituentur; horum
buildings under the-open-sky and-hypaethral shall-be-set-up of-these
enim deorum et species et effectus in aperto mundo atque
for gods both the-forms and the-workings in the-open heaven and
lucenti praesentes videmus. Minervae et Marti et Herculi
shining present we-see to-Minerva and to-Mars and to-Hercules
aedes doricae fient; his enim diis propter virtutem
temples Doric shall-be-made to-these for gods because-of valor
sine deliciis aedificia constitui decet. Veneri, Florae,
without delicacies buildings to-be-set-up it-is-fitting to-Venus to-Flora
Proserpinae, fontium nymphis corinthio genere constitutae
to-Proserpina of-springs to-the-nymphs in-the-Corinthian kind set-up
aptas videbuntur habere proprietates, quod his diis propter
fit they-will-seem to-have properties because to-these gods because-of
teneritatem graciliora et florida foliisque et volutis ornata
delicacy slenderer and flowering and-with-leaves and volutes adorned

opera facta augere videbuntur iustum decorem. Iunoni, Dianae,
works made to-increase will-seem due decorum to-Juno to-Diana
Libero Patri ceterisque diis, qui eadem sunt similitudine, si
to-Liber Father and-to-the-other gods who the-same are in-likeness if
aedes ionicae construentur, habita erit ratio mediocritatis,
temples Ionic shall-be-built taken there-will-be account of-the-mean
quod et ab severo more doricorum et ab teneritate
because both from the-severe manner of-the-Doric and from the-delicacy
corinthiorum temperabitur earum institutio proprietatis.
of-the-Corinthian will-be-tempered their the-establishing of-character
Ad consuetudinem autem decor sic exprimitur, cum 6
according-to usage moreover decorum thus is-expressed when
aedificiis interioribus magnificis item vestibula convenientia
for-buildings inner magnificent likewise forecourts suitable
et elegantia erunt facta. Si enim interiora prospectus
and elegant shall-be made if for the-inner-parts views
habuerint elegantes, aditus autem humiles et inhonestos,
shall-have-had elegant the-approaches but mean and unseemly
non erunt cum decore. Item si doricis epistyliis in coronis
not they-will-be with decorum likewise if on-Doric architraves on the-cornices
denticuli sculpentur aut in pulvinatis columnis ex ionicis
dentils shall-be-carved or on cushioned columns from Ionic
epistyliis exprimentur triglyphi, translatis ex alia ratione
architraves shall-be-brought-out triglyphs transferred from another method
proprietatibus in aliud genus operis offendetur aspectus
the-properties into another kind of-work will-be-offended the-look
aliis ante ordinis consuetudinibus institutus.
by-other before of-order usages schooled
Naturalis autem decor sic erit, si primum omnibus templis 7
natural moreover decorum thus will-be if first for-all temples
saluberrimae regiones aquarumque fontes in is locis idonei
most-healthful regions and-of-waters springs in those places suitable

eligentur, in quibus fana constituantur, deinde maxime
shall-be-chosen in which shrines are-to-be-set-up then especially
Aesculapio, Saluti, ut eorum deorum, quorum plurimi
for-Aesculapius for-Salus as of-those gods whose very-many
medicinis aegri curari videntur. Cum enim ex pestilenti
by-medicines sick-men to-be-cured are-seen when for from a-pestilent
in salubrem locum corpora aegra translata fuerint et e
into a-healthful place bodies sick carried shall-have-been and from
fontibus salubribus aquarum usus subministrabuntur, celerius
springs healthful of-waters uses shall-be-supplied more-quickly
convalescent. Ita efficietur, uti ex natura loci maiores
they-will-recover so it-will-come-about that from the-nature of-the-place greater
auctasque cum dignitate divinitas excipiat opiniones. Item
and-increased with dignity the-godhead may-receive esteem likewise
naturae decor erit, si cubiculis et bybliothecis ab oriente
of-nature decorum will-be if for-bedrooms and libraries from the-east
lumina capiuntur, balneis et hibernaculis ab occidente
lights are-taken for-baths and winter-rooms from the-west
hiberno, pinacothecis et quibus certis luminibus opus est
wintry for-picture-galleries and for-which steady (of)-lights need there-is
partibus, a septentrione, quod ea caeli regio neque
parts from the-north because that of-the-sky quarter neither
exclaratur neque obscuratur solis cursu sed est certa
is-brightened nor is-darkened of-the-sun by-the-course but is steady
inmutabilis die perpetuo.
unchanging through-the-day unbroken

8 Distributio autem est copiarum locique commoda dispensatio
distribution moreover is of-supplies and-of-the-site convenient managing
parcaque in operibus sumptus ratione temperatio. Haec
and-thrifty in works of-expense by-the-reckoning control this
ita observabitur, si primum architectus ea non quaeret,
thus will-be-observed if first the-architect those-things not will-seek

quae non poterunt inveniri aut parari nisi magno. Namque
which not will-be-able to-be-found or to-be-got except at-great-cost for
non omnibus locis harenae fossiciae nec caementorum nec
not in-all places of-sand pit-dug nor of-rubble nor
abietis nec sappinorum nec marmoris copia est, sed aliud
of-fir nor of-lower-fir nor of-marble plenty there-is but one-thing
alio loco nascitur, quorum comportationes difficiles sunt
in-another place is-produced of-which the-transports difficult are
et sumptuosae. Utendum autem est, ubi non est harena
and costly to-be-used moreover it-is where not there-is sand
fossicia, fluviatica aut marina lota; inopiae quoque abietis
pit-dug river or sea washed the-shortages also of-fir
aut sappinorum vitabuntur utendo cupresso, populo, ulmo,
or of-lower-fir shall-be-avoided by-using cypress poplar elm
pinu; reliquaque his similiter erunt explicanda.
pine and-the-rest to-these likewise will-be to-be-worked-out
Alter gradus erit distributionis, cum ad usum patrum 9
a-second degree there-will-be of-distribution when to the-use of-the-fathers
familiarum et ad pecuniae copiam aut ad eloquentiae
of-households and to of-money abundance or to of-eloquence
dignitatem aedificia apte disponentur. Namque aliter urbanas
dignity buildings fitly shall-be-arranged for one-way town
domos oportere constitui videtur, aliter quibus
houses to-behoove to-be-set-up it-seems another-way for-those-to-whom
ex possessionibus rusticis influunt fructus; non item
from holdings country flow-in the-returns not the-same
feneratoribus, aliter beatis et delicatis; potentibus vero,
for-money-lenders another-way for-the-rich and the-luxurious for-the-powerful but
quorum cogitationibus respublica gubernatur, ad usum
whose by-thoughts the-commonwealth is-steered to use

conlocabuntur; et omnino faciendae sunt aptae omnibus
they-shall-be-laid-out and altogether to-be-made are fit for-all
personis aedificiorum distributiones.
persons of-buildings the-distributions

I.3 · THE PARTS OF ARCHITECTURE

Architecture has three parts: building, dialing, and machinery. Building divides again into public works — defense, religion, and convenience — and private buildings. Whatever is built must be sound, useful, and beautiful, and Vitruvius says what each of the three demands.

1 Partes ipsius architecturae sunt tres: aedificatio, gnomonice,
the-parts of-the-very architecture are three building dialing
machinatio. Aedificatio autem divisa est bipertito, e quibus
machinery building moreover divided is in-two of which
una est moenium et communium operum in publicis locis
one is of-town-walls and of-common works in public places
conlocatio, altera est privatorum aedificiorum explicatio.
the-siting the-other is of-private buildings the-setting-out
Publicorum autem distributiones sunt tres, e quibus est
of-public-(works) moreover the-distributions are three of which is
una defensionis, altera religionis, tertia opportunitatis.
one of-defense another of-religion the-third of-convenience
Defensionis est murorum turriumque et portarum ratio ad
of-defense is of-walls and-of-towers and of-gates the-method for
hostium impetus perpetuo repellendos excogitata, religionis
of-enemies the-assaults for-ever to-be-driven-back devised of-religion
deorum inmortalium fanorum aediumque sacrarum conlocatio,
of-the-gods immortal of-shrines and-of-temples sacred the-siting
opportunitatis communium locorum ad usum publicum
of-convenience of-common places for use public

dispositio, uti portus, fora, porticus, balinea, theatra,
the-arrangement such-as harbors forums colonnades baths theaters
ambulationes ceteraque, quae isdem rationibus in publicis
promenades and-the-rest which by-the-same methods in public
locis designantur.
places are-laid-out
Haec autem ita fieri debent, ut habeatur ratio firmitatis, 2
these-things moreover so to-be-done ought that be-had account of-soundness
utilitatis, venustatis. Firmitatis erit habita ratio, cum
of-usefulness of-beauty of-soundness there-will-be taken account when
fuerit fundamentorum ad solidum depressio, quaque
there-shall-have-been of-the-foundations to the-solid a-sinking and-whatever
e materia, copiarum sine avaritia diligens electio; utilitatis
from material of-supplies without stinginess a-careful choosing of-usefulness
autem, cum fuerit emendata et sine inpeditione usus
moreover when there-shall-have-been faultless and without hindrance of-use
locorum dispositio et ad regiones sui cuiusque generis apta
of-the-places the-arrangement and toward the-quarters of-its each kind fit
et commoda distributio; venustatis vero, cum fuerit
and convenient distribution of-beauty but when there-shall-have-been
operis species grata et elegans membrorumque commensus
of-the-work the-appearance pleasing and elegant and-of-the-members the-measuring
iustas habeat symmetriarum ratiocinationes.
just may-have of-symmetries the-reasonings

I.4 · CHOOSING A HEALTHY SITE

A town wants high ground, free of fog and frost, facing neither a scorching nor a freezing quarter, and clear of marshes. Vitruvius explains sickness by the balance of the elements in the body, and points to birds, fish, and land animals as proof that the mixture differs from kind to kind. He recalls the old practice of inspecting the livers of grazing cattle before choosing a site, and the moving of Salpia to a healthier shore.

1 In ipsis vero moenibus ea erunt principia. Primum electio
in the-very but town-walls these will-be the-first-points first the-choosing
loci saluberrimi. Is autem erit excelsus et non nebulosus,
of-a-site most-healthful it moreover will-be lofty and not foggy
non pruinosus regionesque caeli spectans neque aestuosas
not frosty and-the-quarters of-the-sky facing neither sweltering
neque frigidas sed temperatas, deinde si vitabitur palustris
nor cold but temperate next if shall-be-avoided marshy
vicinitas. Cum enim aurae matutinae cum sole oriente
neighborhood when for the-breezes morning with the-sun rising
ad oppidum pervenient et his ortae nebulae adiungentur
to the-town shall-come and to-these risen mists shall-be-joined
spiritusque bestiarum palustrium venenatos cum nebula
and-the-breaths of-creatures marsh poisonous with the-mist
mixtos in habitatorum corpora flatu spargent, efficient
mingled into of-the-inhabitants the-bodies by-the-blast shall-scatter they-will-make
locum pestilentem. Item si secundum mare erunt moenia
the-place pestilent likewise if along the-sea shall-be the-town-walls
spectabuntque ad meridiem aut occidentem, non erunt
and-shall-face to the-south or the-west not they-will-be
salubria, quod per aestatem caelum meridianum sole
healthful because through the-summer a-sky southern with-the-sun
exoriente calescit, meridie ardet; item quod spectat ad
rising grows-warm at-noon burns likewise that-which faces to
occidentem, sole exorto tepescit, meridie calet, vespere
the-west with-the-sun risen grows-lukewarm at-noon is-hot at-evening
fervet.
is-scorching

2 Igitur mutationibus caloris et refrigerationis corpora, quae in
therefore by-the-changes of-heat and of-cooling the-bodies which in
his locis sunt, vitiantur. Hoc autem licet animadvertere etiam
these places are are-impaired this moreover one-may to-observe even

ex is, quae non sunt animalia. In cellis enim vinariis
from those-things which not are living-things in cellars for wine
tectis lumina nemo capit a meridie nec ab occidente, sed a
roofed lights no-one takes from the-south nor from the-west but from
septentrione, quod ea regio nullo tempore mutationes recipit
the-north because that quarter at-no time changes receives
sed est firma perpetuo et inmutabilis. Ideo etiam ea granaria,
but is firm always and unchanging therefore also those granaries
quae ad solis cursum spectant, bonitatem cito mutant,
which to of-the-sun the-course face goodness quickly change
obsoniaque et poma, quae non in ea parte caeli ponuntur,
and-victuals and fruits which not in that part of-the-sky are-placed
quae est aversa a solis cursu, non diu servantur.
which is turned-away from of-the-sun the-course not long are-kept
Nam semper calor cum excoquit e rebus firmitatem et 3
for always heat when it-bakes-out from things firmness and
vaporibus fervidis eripit exsugendo naturales virtutes,
with-vapors burning snatches-away by-sucking-out natural powers
dissolvit eas et fervore mollescentes efficit inbecillas. Ut
it-dissolves them and by-the-heat softening makes weak as
etiam in ferro animadvertimus, quod, quamvis natura sit
also in iron we-observe which although by-nature it-is
durum, in fornacibus ab ignis vapore percalefactum ita
hard in furnaces by of-fire the-vapor thoroughly-heated so
mollescit, uti in omne genus formae faciliter fabricetur; et
grows-soft that into every kind of-shape easily it-is-wrought and
idem, cum molle et candens refrigeretur tinctum frigida,
the-same when soft and white-hot it-is-cooled dipped in-cold(-water)
redurescit et restituitur in antiquam proprietatem.
it-hardens-again and is-restored to its-old character

4 Licet etiam considerare haec ita esse ex eo, quod aestate
one-may also to-consider these-things so to-be from that because in-summer
non solum in pestilentibus locis sed etiam in salubribus omnia
not only in pestilent places but even in healthful all
corpora calore fiant inbecilla, et per hiemem etiam quae
bodies by-heat become weak and through the-winter even which
pestilentissimae sint regiones efficiantur salubres, ideo
most-pestilent are regions are-made healthful for-this-reason
quod a refrigerationibus solidantur. Non minus etiam quae
that by coolings they-are-made-firm not less also which
ab frigidis regionibus corpora traducuntur in calidas, non
from cold regions bodies are-carried-across into hot-ones not
possunt durare sed dissolvuntur; quae autem ex calidis locis
can to-endure but are-broken-up which moreover from hot places
sub septentrionum regiones frigidas, non modo non laborant
under of-the-north regions cold not only not suffer
inmutatione loci valetudinibus sed etiam confirmantur.
by-the-change of-place in-health but even are-strengthened

5 Quare cavendum esse videtur in moenibus conlocandis
wherefore to-be-guarded-against to-be it-seems in town-walls to-be-sited
ab is regionibus, quae caloribus flatus ad corpora hominum
from those quarters which by-heats blasts to the-bodies of-men
possunt spargere. Namque e principiis, quae Graeci
can to-scatter for from first-elements which the-Greeks
στοιχεῖα appellant, ut omnia, corpora sunt composita, id est
elements call as all bodies are composed that is
e calore et umore, terreno et aere, et ita mixtionibus
from heat and moisture earthy and air and so by-mixtures
naturali temperatura figurantur omnium animalium in mundo
by-natural tempering are-shaped of-all living-things in the-world
generatim qualitates.
kind-by-kind the-qualities

Ergo in quibusvis corporibus cum exsuperat e principiis 6
therefore in whatever bodies when overpowers among the-elements
calor, tunc interficit dissolvitque cetera fervore. Haec autem
heat then it-kills and-dissolves the-rest by-the-heat these moreover
vitia efficit fervidum ab certis partibus caelum, cum insidit
faults makes a-burning from certain quarters sky when it-settles
in apertas venas plus quam patitur e mixtionibus naturali
into the-open veins more than endures from the-mixtures by-natural
temperatura corpus. Item si umor occupavit corporum venas
tempering the-body likewise if moisture has-seized of-bodies the-veins
inparesque eas fecit, cetera principia liquido corrupta
and-unequal them has-made the-other elements by-the-fluid spoiled
diluuntur, et dissolvuntur compositionibus virtutes. Item haec
are-washed-away and are-dissolved in-the-compositions the-powers likewise these
e refrigerationibus umoris ventorum et aurarum infunduntur
from the-coolings of-moisture of-winds and of-breezes are-poured
vitia corporibus. Non minus aeris etiamque terreni in
faults into-bodies not less of-air and-also of-the-earthy in
corpore naturalis compositio augendo aut minuendo infirmat
the-body natural the-composition by-increasing or by-diminishing weakens
cetera, principia terrena cibi plenitate, aer gravitate caeli.
the-rest elements earthy of-food by-fullness air by-the-heaviness of-the-sky
Sed si qui voluerit diligentius haec sensu percipere, 7
but if anyone shall-wish more-carefully these-things by-sense to-grasp
animadvertat attendatque naturas avium et piscium et
let-him-note and-attend-to the-natures of-birds and of-fishes and
terrestrium animalium, et ita considerabit discrimina
of-land creatures and so he-will-consider the-differences
temperaturae. Aliam enim mixtionem habet genus avium,
of-tempering one for mixture has the-kind of-birds
aliam piscium, longe aliter terrestrium natura. Volucres
another of-fishes far otherwise of-land-creatures the-nature winged-things

minus habent terreni, minus umoris, caloris temperate, aeris
less have of-the-earthy less of-moisture of-heat moderately of-air
multum; igitur levioribus principiis compositae facilius in
much therefore of-lighter elements composed more-easily into
aeris impetum nituntur. Aquatiles autem piscium naturae,
of-the-air the-onrush they-press watery moreover of-fishes the-natures
quod temperatae sunt a calido plurimumque ex aeris et
because tempered are by the-hot and-most-of-all from of-air and
terreni principiis sunt compositae, sed umoris habent oppido
of-earthy elements are composed but of-moisture they-have exceedingly
quam paulum, quo minus habent e principiis umoris in
how little whereby less they-have of the-elements of-moisture in
corpore, facilius in umore perdurant; itaque cum ad terram
the-body more-easily in water they-bold-out and-so when to land
perducuntur, animam cum aqua relinquunt. Item terrestria,
they-are-brought (their)-life with the-water they-leave likewise land-creatures
quod e principiis ab aere caloreque sunt temperata minusque
because from the-elements by air and-heat are tempered and-less
habent terreni plurimumque umoris, quod abundant umidae
they-have of-the-earthy and-most of-moisture because abound the-moist
partes, non diu possunt in aqua vitam tueri.
parts not long they-can in water life to-keep

8 Ergo si haec ita videntur, quemadmodum proposuimus,
therefore if these-things so appear as we-have-set-out
et e principiis animalium corpora composita sensu
and from the-elements of-living-things the-bodies composed by-sense
percipimus et e superationibus aut defectionibus ea
we-perceive and from excesses or deficiencies (that)-they
laborare dissolvique iudicamus, non dubitamus, quin
suffer and-are-broken-up we-judge not we-doubt but-that
diligentius quaeri oporteat, uti temperatissimas caeli
more-carefully to-be-sought it-behooves that the-most-temperate of-the-sky

regiones eligamus, cum quaerenda fuerit in moenium
quarters we-choose when to-be-sought shall-have-been in of-town-walls
conlocationibus salubritas.
the-siting healthfulness
Itaque etiam atque etiam veterem revocandam censeo rationem. 9
and-so again and again the-old to-be-recalled I-judge the-method
Maiores enim pecoribus immolatis, quae pascebantur in is
(our)-forefathers for cattle sacrificed which were-grazing in those
locis, quibus aut oppida aut castra stativa constituebantur,
places in-which either towns or camps standing were-being-set-up
inspiciebant iocinera, et si erant livida et vitiosa primo,
they-used-to-inspect the-livers and if they-were livid and diseased at-first
alia immolabant dubitantes, utrum morbo an pabuli vitio
others they-sacrificed doubting whether by-disease or of-fodder by-the-fault
laesa essent. Cum pluribus experti erant et probaverant
harmed they-had-been when with-many having-tried they-had and had-proved
integram et solidam naturam iocinerum ex aqua et pabulo,
sound and firm the-nature of-the-livers from water and fodder
ibi constituebant munitiones; si autem vitiosa inveniebant,
there they-established the-fortifications if moreover diseased they-found
iudicio transferebant item humanis corporibus pestilentem
by-judgment they-transferred likewise for-human bodies pestilent
futuram nascentem in his locis aquae cibique copiam, et
about-to-be arising in these places of-water and-food the-supply and
ita transmigrabant et mutabant regiones quaerentes omnibus
so they-migrated and changed regions seeking in-all
rebus salubritatem.
things healthfulness
Hoc autem fieri, uti pabulo ciboque salubres proprietates 10
this moreover to-happen that by-fodder and-food healthful the-qualities
terrae videantur, licet animadvertere et cognoscere ex
of-the-earth are-seen one-may to-observe and to-learn from

agris Cretensium, qui sunt circa Pothereum flumen, quod
the-fields of-the-Cretans which are about the-Pothereus river which
est Cretae inter duas civitates Gnoson et Gortynam.
is in-Crete between two states Gnosus and Gortyna
Dextra enim et sinistra eius fluminis pascuntur pecora;
on-the-right for and on-the-left of-that river graze cattle
sed ex his quae pascuntur proxime Gnoson si ***
but of these which graze nearest Gnosus if (lacuna)
quae autem ex altera parte proxime Gortynam, non
those-which moreover on the-other side nearest Gortyna not
habent apparentem splenem. Unde etiam medici quaerentes
have a-visible spleen whence also physicians inquiring
de ea re invenerunt in his locis herbam, quam pecora
about that matter found in these places a-plant which the-cattle
rodendo inminuerunt lienes. Ita eam herbam colligendo
by-gnawing shrank their-spleens so that plant by-gathering
curant lienosos hoc medicamento, quod etiam Cretenses
they-treat the-spleen-sick with-this remedy which also the-Cretans
ἄσπληνον vocitant. Ex eo licet scire cibo atque aqua
spleenwort they-call from that one-may to-know by-food and water
proprietates locorum naturaliter pestilentes aut salubres esse.
the-qualities of-places naturally pestilent or healthful to-be
11 Item si in paludibus moenia constituta erunt, quae paludes
likewise if in marshes town-walls set-up shall-be which marshes
secundum mare fuerint, spectabuntque ad septentrionem aut
along the-sea shall-be and-shall-face to the-north or
inter septentrionem et orientem, eaeque paludes excelsiores
between north and east and-those marshes higher
fuerint quam litus marinum, ratione videbuntur esse
shall-be than the-shore sea with-reason they-will-seem to-have-been
constituta. Fossis enim ductis fit aquae exitus ad litus, et
set-up ditches for drawn is-made for-the-water an-outlet to the-shore and

mare tempestatibus actum in paludes redundantia motionibus
the-sea by-storms driven into the-marshes overflowing by-the-movements
concitata marisque mixtionibus non patitur bestiarum
stirred-up and-of-the-sea by-the-mixtures not allows of-creatures
palustrium genera ibi nasci, quaeque de superioribus locis
marsh the-kinds there to-breed and-those-which from higher places
natando proxime litus perveniunt, inconsueta salsitudine
by-swimming nearest the-shore come by-the-unaccustomed saltness
necantur. Exemplar autem huius rei Gallicae paludes possunt
are-killed an-example moreover of-this thing the-Gallic marshes can
esse, quae circumcingunt Altinum, Ravennam, Aquileiam,
to-be which surround Altinum Ravenna Aquileia
aliaque quae in eiusmodi locis municipia sunt proxima paludibus,
and-others which in of-that-sort places towns are nearest to-marshes
quod his rationibus habent incredibilem salubritatem.
because by-these methods they-have incredible healthfulness
Quibus autem insidentes sunt paludes et non habent 12
for-those moreover settled are marshes and not have
exitus profluentes neque per flumina neque per fossas,
outlets flowing either through rivers or through ditches
uti Pomptinae, stando putescunt et umores graves et
as the-Pomptine by-standing they-grow-foul and vapors heavy and
pestilentes in is locis emittunt.
pestilent in those places they-give-off
Item in Apulia oppidum Salpia vetus, quod Diomedes
likewise in Apulia the-town Salpia old which Diomedes
ab Troia rediens constituit sive, quemadmodum nonnulli
from Troy returning founded or as some
scripserunt, Elpias Rhodius, in eiusmodi locis fuerat
have-written Elpias the-Rhodian in of-that-sort places had-been
conlocatum, ex quo incolae quotannis aegrotando
sited from which the-inhabitants every-year by-falling-ill

laborantes aliquando pervenerunt ad M. Hostilium ab
suffering at-length came to Marcus Hostilius from
eoque publice petentes impetraverunt, ut is idoneum locum
and-him publicly petitioning they-obtained that he a-suitable place
ad moenia transferenda conquireret eligeretque. Tunc is
for the-town-walls to-be-moved should-seek-out and-choose then he
moratus non est, sed statim rationibus doctissime quaesitis
delayed not did but at-once the-methods most-learnedly examined
secundum mare mercatus est possessionem loco salubri ab
along the-sea bought he an-estate in-a-place healthful from
senatuque populoque Romano petit, ut liceret transferre
and-the-senate and-people Roman he-asked that it-be-lawful to-move
oppidum, constituitque moenia et areas divisit nummoque
the-town and-he-laid-out the-town-walls and the-plots divided and-for-a-coin
sestertio singulis municipibus mancipio dedit. His
sesterce to-each townsman by-conveyance he-gave these-things
confectis lacum aperuit in mare et portum e lacu
completed the-lagoon he-opened into the-sea and a-harbor out-of the-lagoon
municipio perfecit. Itaque nunc Salpini quattuor milia
for-the-town he-made and-so now the-Salpians four thousand
passus progressi ab oppido veteri habitant in salubri loco.
paces having-moved from the-town old they-dwell in a-healthful place

I.5 · WALLS, TOWERS, AND FOUNDATIONS

Foundations go down to solid ground and are laid thicker than the walls they carry. Towers are thrown forward so that a man attacking the wall takes fire on both exposed flanks, and the gate approaches turn left, which puts his unshielded right side nearest the wall. The town's outline is curved rather than angled, and the wall itself gets its thickness, its charred olive bond-timbers, and the earth ramp banked behind it.

Cum ergo his rationibus salubritatis regiones electae 1
when therefore by-these methods of-healthfulness regions chosen
fuerint fructibus ad alendam civitatem copiosae, et viarum
shall-have-been in-produce for to-be-fed the-state plentiful and of-roads
munitiones aut opportunitates fluminum seu per portus
the-making or the-conveniences of-rivers or through harbors
marinae subvectionis habuerit ad moenia comportationes
of-sea carriage it-shall-have-had to the-town conveyances
expeditas, tunc turrium murorumque fundamenta sic sunt
easy then of-towers and-of-walls the-foundations thus are
facienda, uti fodiantur, si queat inveniri, ad solidum et in
to-be-made that they-be-dug if it-can to-be-found to the-solid and into
solido, quantum ex amplitudine operis pro ratione
the-solid as-much from the-size of-the-work according-to the-reckoning
videatur, crassitudine ampliore quam parietum, qui supra terram
it-seems with-a-thickness greater than of-the-walls which above ground
sunt futuri, et ea impleantur quam solidissima structura.
are to-be and they be-filled as most-solid with-masonry
Item turres sunt proiciendae in exteriorem partem, 2
likewise towers are to-be-thrown-forward into the-outer part
uti, cum ad murum hostis impetu velit adpropinquare,
so-that when to the-wall the-enemy in-an-assault wishes to-draw-near
a turribus dextra ac sinistra lateribus apertis telis
from the-towers on-the-right and on-the-left on-the-flanks exposed by-missiles
vulnerentur. Curandumque maxime videtur, ut non facilis
they-may-be-wounded and-to-be-cared-for most-of-all it-seems that not easy
aditus sit ad oppugnandum murum, sed ita circumdandum
approach be for assaulting the-wall but so to-be-carried-round
ad loca praecipitia et excogitandum, uti portarum itinera
to places sheer and to-be-contrived that of-the-gates the-ways
non sint directa sed scaeva. Namque cum ita factum
not be straight but leftward for when so done

fuerit, tum dextrum latus accedentibus, quod scuto
it-shall-have-been then the-right side to-those-approaching which by-the-shield
non erit tectum, proximum erit muro. Conlocanda autem
not will-be covered nearest will-be to-the-wall to-be-laid-out moreover
oppida sunt non quadrata nec procurrentibus angulis sed
towns are not square nor with-projecting corners but
circinationibus, uti hostis ex pluribus locis conspiciatur.
in-curves so-that the-enemy from several points may-be-seen
In quibus enim anguli procurrunt, difficiliter defenditur,
in which for corners project with-difficulty it-is-defended
quod angulus magis hostem tuetur quam civem.
because the-corner more the-enemy protects than the-citizen

3 Crassitudinem autem muri ita faciendam censeo, uti armati
the-thickness moreover of-the-wall so to-be-made I-judge that armed
homines supra obviam venientes alius alium sine inpeditione
men on-top to-meet coming one the-other without hindrance
praeterire possint, dum in crassitudine perpetuae taleae
to-pass-by may-be-able provided-that in the-thickness continuous bond-timbers
oleagineae ustilatae quam creberrime instruantur, uti utraeque
of-olive-wood charred as most-thickly be-laid so-that both
muri frontes inter se, quemadmodum fibulis, his
of-the-wall faces between themselves as by-clamps by-these
taleis conligatae aeternam habeant firmitatem; namque ei
bond-timbers bound-together everlasting may-have firmness for to-that
materiae nec caries nec tempestates nec vetustas potest nocere,
timber neither rot nor storms nor age can to-harm
sed ea et in terra obruta et in aqua conlocata permanet
but it both in earth buried and in water laid remains
sine vitiis utilis sempiterno. Itaque non solum in muro sed
without faults serviceable for-ever and-so not only in the-wall but

etiam in substructionibus quique parietes murali crassitudine
also in substructures and-whatever walls of-wall thickness
erunt faciundi, hac ratione religati non cito vitiabuntur.
shall-be to-be-made by-this method tied not quickly will-be-impaired
Intervalla autem turrium ita sunt facienda, ut ne longius sit 4
the-intervals moreover of-the-towers so are to-be-made that not further be
alia ab alia sagittae missionis, uti, si qua oppugnetur,
one from another (than)-of-an-arrow the-shot so-that if any is-assaulted
tum a turribus, quae erunt dextra sinistra, scorpionibus
then from the-towers which shall-be on-the-right on-the-left by-scorpions
reliquisque telorum missionibus hostes reiciantur.
and-the-remaining of-missiles discharges the-enemy may-be-driven-back
Etiamque contra interiores partes turrium dividendus est
and-also opposite the-inner parts of-the-towers to-be-divided is
murus intervallis tam magnis, quam erunt turres, ut
the-wall by-gaps as great as shall-be the-towers so-that
itinera sint interioribus partibus turrium contignata, neque
the-ways be in-the-inner parts of-the-towers floored-with-beams and-not
ea ferro fixa; hostis enim si quam partem muri
they with-iron fastened the-enemy for if any part of-the-wall
occupaverit, qui repugnabunt rescindent et, si celeriter
shall-have-seized those-who will-fight-back will-cut-(them)-away and if quickly
administraverint, non patientur reliquas partes turrium
they-shall-have-acted not they-will-allow the-remaining parts of-the-towers
murique hostem penetrare, nisi se voluerit praecipitare.
and-of-the-wall the-enemy to-penetrate unless himself he-shall-wish to-hurl-down
Turres itaque rotundae aut polygonoe sunt faciendae; 5
towers and-so round or many-angled are to-be-made
quadratas enim machinae celerius dissipant, quod angulos
square-ones for engines more-quickly shatter because the-corners
arietes tundendo frangunt, in rotundationibus autem uti
rams by-battering break in curves moreover as

cuneos ad centrum adigendo laedere non possunt. Item
wedges to the-center by-driving to-hurt not they-can likewise
munitiones muri turriumque aggeribus coniunctae maxime
defenses of-wall and-of-towers to-earthworks joined most-of-all
sunt tutiores, quod neque arietes neque suffossiones neque
are safer because neither rams nor undermining nor
machinae ceterae eis valent nocere.
engines other to-them are-strong to-harm

6 Sed non in omnibus locis est aggeris ratio facienda,
but not in all places is of-an-earthwork the-method to-be-made
nisi quibus extra murum ex alto loco plano pede accessus
except where outside the-wall from high ground on-level foot approach
fuerit ad moenia oppugnanda. Itaque in eiusmodi locis
there-shall-be to the-walls to-be-assaulted and-so in of-that-sort places
primum fossae sunt faciendae latitudinibus et altitudinibus
first ditches are to-be-made with-breadths and depths
quam amplissimis, deinde fundamentum muri deprimendum
as most-ample next the-foundation of-the-wall to-be-sunk
est infra alveum fossae et id extruendum est ea
is below the-bed of-the-ditch and it to-be-built-up is with-such
crassitudine, ut opus terrenum facile sustineatur.
thickness that the-work earthen easily is-supported

7 Item interiore parte substructionis fundamentum distans ab
likewise on-the-inner side of-the-substructure the-foundation standing-apart from
exteriore introrsus amplo spatio, ita uti cohortes possint
the-outer inward by-an-ample space so that cohorts may-be-able
quemadmodum in acie instructae ad defendendum supra
as in line-of-battle drawn-up for defending upon
latitudinem aggeris consistere. Cum autem fundamenta ita
the-breadth of-the-earthwork to-stand when moreover the-foundations so
distantia inter se fuerint constituta, tunc inter ea
apart between themselves shall-have-been set then between them

alia transversa, coniuncta exteriori et interiori fundamento,
others crosswise joined to-the-outer and inner foundation
pectinatim disposita conlocentur; cum enim sic erit
comb-fashion arranged let-them-be-placed when for thus it-will-have-been
factum, tunc ita oneris terreni magnitudo distributa in
done then so of-the-load earthen the-bulk distributed into
parvas partes neque universa pondere premens non poterit
small parts and-not whole with-its-weight pressing not will-be-able
ulla ratione extrudere muri substructiones.
by-any method to-thrust-out of-the-wall the-substructures
De ipso autem muro, e qua materia struatur aut 8
about the-very moreover wall from what material it-is-built or
perficiatur, ideo non est praefiniendum, quod in omnibus
it-is-finished for-this-reason not is to-be-prescribed because in all
locis, quas optamus copias, eas non possumus habere. Sed
places which we-wish supplies them not we-can to-have but
ubi sunt saxa quadrata sive silex seu caementum aut
where there-are stones squared or flint or rubble or
coctus later sive crudus, his erit utendum. Non enim,
baked brick or unbaked these it-will-be to-be-used not for
uti Babylone abundantes liquido bitumine pro calce et
as at-Babylon abounding in-liquid bitumen instead-of lime and
harena ex cocto latere factum habent murum, sic item
sand from baked brick made they-have a-wall so likewise
possunt omnes regiones seu locorum proprietates habere
can all regions or of-places the-properties to-have
tantas eiusdem generis utilitates, uti ex his comparationibus
such-great of-the-same kind advantages that from these provisions
ad aeternitatem perfectus habeatur sine vitio murus.
for everlastingness a-finished may-be-had without fault wall

Streets must be laid out so that the winds cannot run down them. Vitruvius explains what wind is, names the eight winds and the lesser ones between them, and gives a construction with a gnomon and a compass for finding their quarters on the ground. The lanes are then set on the angles between two winds, so that the blast breaks on the corners of the blocks.

1 Moenibus circumdatis sequuntur intra murum arearum
the-walls carried-round there-follow within the-wall of-the-plots
divisiones platearumque et angiportum ad caeli regionem
the-divisions and-of-the-streets and of-the-lanes to of-the-sky the-quarter
directiones. Dirigentur haec autem recte, si exclusi erunt
the-alignments they-will-be-aligned these moreover rightly if shut-out shall-be
ex angiportis venti prudenter. Qui si frigidi sunt, laedunt;
from the-lanes the-winds prudently which if cold are they-hurt
si calidi, vitiant; si umidi, nocent. Quare vitandum videtur
if hot they-taint if damp they-harm wherefore to-be-avoided it-seems
hoc vitium et avertendum, ne fiat quod in multis
this fault and to-be-turned-aside lest it-happen which in many
civitatibus usu solet venire. Quemadmodum in insula
states in-practice is-wont to-come just-as in the-island
Lesbo oppidum Mytilenae magnificenter est aedificatum et
Lesbos the-town Mytilene magnificently is built and
eleganter, sed positum non prudenter. In qua civitate auster
elegantly but placed not prudently in which state the-auster
cum flat, homines aegrotant; cum corus, tussiunt; cum
when blows men fall-ill when the-corus they-cough when
septentrio, restituuntur in salubritatem, sed in angiportis et
the-septentrio they-are-restored to health but in the-lanes and
plateis non possunt consistere propter vehementiam frigoris.
streets not they-can to-stand because-of the-violence of-the-cold

Ventus autem est aeris fluens unda cum certa motus 2
wind moreover is of-air a-flowing wave with a-fixed of-motion
redundantia. Nascitur, cum fervor offendit umorem et
overflow it-is-born when heat strikes moisture and
impetus spiritus factionis exprimit vim flatus. Id autem
the-onrush of-breath of-the-making forces-out the-force of-the-blast that moreover
verum esse ex aeolis aereis licet aspicere et de
true to-be from Aeolus-balls bronze one-may to-see and about
latentibus caeli rationibus artificiosis rerum inventionibus
hidden of-the-sky reckonings by-artful of-things inventions
divinitatis exprimere veritatem. Fiunt enim aeoli pilae
of-divinity to-bring-out the-truth there-are-made for of-Aeolus balls
aereae cavae, — hae habent punctum angustissimum — quae
bronze hollow these have an-opening very-narrow which
aqua infunduntur conlocanturque ad ignem; et antequam
with-water are-filled and-are-set by the-fire and before
calescant, non habent ullum spiritum, simul autem ut fervere
they-grow-warm not they-have any breath as-soon moreover as to-boil
coeperint, efficiunt ad ignem vehementem flatum. Ita scire
they-have-begun they-make toward the-fire a-violent blast so to-know
et iudicare licet e parvo brevissimoque spectaculo de
and to-judge one-may from a-small and-very-brief spectacle about
magnis et inmanibus caeli ventorumque naturae rationibus.
the-great and vast of-the-sky and-of-the-winds of-nature the-reckonings
Venti autem si ex habitationibus exclusi fuerint, non 3
the-winds moreover if from dwellings shut-out shall-have-been not
solum efficient corporibus valentibus locum salubrem, sed
only they-will-make for-bodies strong the-place healthful but
etiam si qui morbi ex aliis vitiis forte nascentur, qui
also if any diseases from other faults by-chance shall-arise which
in ceteris minus salubribus locis habent curationes medicinae
in the-other less healthful places have cures of-medicine

contrariae, in his propter exclusiones ventorum temperatura
contrary in these because-of the-shutting-out of-winds by-the-tempering
expeditius curabuntur. Vitia autem sunt, quae difficulter
more-readily will-be-cured the-ailments moreover are which with-difficulty
curantur in regionibus, quae sunt supra scriptae, haec:
are-cured in regions which are above written these
gravitudo arteriace, tussis, pleuritis, pthisis, sanguinis eiectio
catarrh throat-disease cough pleurisy consumption of-blood the-spitting
et cetera, quae non detractionibus sed adiectionibus curantur.
and the-rest which not by-withdrawings but by-additions are-cured
Haec ideo difficulter medicantur, primum quod ex
these for-this-reason with-difficulty are-treated first because from
frigoribus concipiuntur, deinde quod defatigatis morbo viribus
chills they-are-conceived next because worn-out by-disease the-strength
eorum aer agitatus est molestus; namque ubi ventorum
their the-air stirred is troublesome for when of-winds
agitationibus extenuatur, a vitiosis corporibus detrahit sucum
by-the-stirrings it-is-thinned from ailing bodies it-draws-off the-juice
et efficit ea exiliora. Contra vero lenis et crassus
and makes them more-shrunken on-the-contrary but a-mild and dense
aer, qui perflatus non habet neque crebras redundantias,
air which drafts not has nor frequent surges
propter inmotam stabilitatem adiciendo ad membra eorum
because-of unmoved steadiness by-adding to the-limbs their
alit eos et reficit, qui in his sunt inpliciti morbis.
nourishes them and restores who in these are entangled diseases

4 Nonnullis placuit esse ventos quattuor: ab oriente
to-some it-has-seemed-good to-be winds four from the-east
aequinoctiali solanum, a meridie austrum, ab occidente
equinoctial the-solanus from the-south the-auster from the-west
aequinoctiali favonium, ab septentrionali septentrionem. Sed
equinoctial the-favonius from the-northern-(quarter) the-septentrio but

qui diligentius perquisierunt, tradiderunt eos esse octo,
those-who more-carefully have-searched-out have-handed-down them to-be eight
maxime quidem Andronicus Cyrrestes, qui etiam exemplum
especially indeed Andronicus of-Cyrrhus who also a-proof
conlocavit Athenis turrem marmoream octagonon et in
set-up at-Athens a-tower marble eight-sided and on
singulis lateribus octagoni singulorum ventorum imagines
the-several sides of-the-octagon of-the-several winds figures
excalptas contra suos cuiusque flatus designavit, supraque
carved facing their-own of-each blasts he-marked-out and-above
eam turrim metam marmoream perfecit et insuper Tritonem
that tower a-cone marble he-finished and upon-it a-Triton
aereum conlocavit dextra manu virgam porrigentem,
bronze he-placed with-(his)-right hand a-rod holding-out
et ita est machinatus, uti vento circumageretur et
and so he-has contrived that by-the-wind it-would-be-turned-round and
semper contra flatum consisteret supraque imaginem flantis
always against the-blast would-stand and-over the-figure blowing
venti indicem virgam teneret.
of-the-wind (as)-indicator the-rod would-hold
Itaque sunt conlocati inter solanum et austrum ab oriente 5
and-so are placed between the-solanus and the-auster from the-east
hiberno eurus, inter austrum et favonium ab occidente
winter the-eurus between the-auster and the-favonius from the-west
hiberno africus, inter favonium et septentrionem caurus,
winter the-africus between the-favonius and the-septentrio the-caurus
quem plures vocant corum, inter septentrionem et solanum
which many call the-corus between the-septentrio and the-solanus
aquilo. Hoc modo videtur esse expressum, uti pateat
the-aquilo in-this way it-seems to-have-been set-out so-that may-be-plain
numerus et nomina et partes, unde flatus certi ventorum
the-number and the-names and the-quarters whence blasts fixed of-the-winds

spirent. Quod cum ita exploratum habeatur, ut inveniantur
blow which when so ascertained is-held that may-be-found
regiones et ortus eorum, sic erit ratiocinandum.
the-quarters and the-risings of-them thus it-will-be to-be-reckoned

6 Conlocetur ad libellam marmoreum amusium mediis
let-there-be-set to the-level a-marble slab in-the-middle-of-the
moenibus, aut locus ita expoliatur ad regulam et libellam, ut
town or a-place so let-it-be-smoothed to the-rule and the-level that
amusium non desideretur, supraque eius loci centrum medium
a-slab not is-wanted and-above of-that place the-center middle
conlocetur aeneus gnomon, qui graece σκιαθήρας dicitur. Huius
let-there-be-set a-bronze gnomon which in-Greek shadow-catcher is-called of-this
antemeridiana circiter hora quinta sumenda est extrema
before-noon about at-hour the-fifth to-be-taken is the-outermost
gnomonis umbra et puncto signanda, deinde circino diducto
of-the-gnomon shadow and with-a-point to-be-marked then the-compass opened-out
ad punctum, quod est gnomonis umbrae longitudinis signum,
to the-point which is of-the-gnomon of-the-shadow of-the-length the-mark
ex eoque a centro circumagenda linea rotundationis. Itemque
from and-that from the-center to-be-swung-round a-line of-a-circle and-likewise
observanda postmeridiana istius gnomonis crescens umbra, et
to-be-watched afternoon of-that gnomon's growing shadow and
cum tetigerit circinationis lineam et fecerit parem
when it-shall-have-touched of-the-circumference the-line and shall-have-made equal
antemeridianae umbrae postmeridianam, signanda puncto.
to-the-before-noon shadow the-afternoon-one to-be-marked with-a-point

7 Ex his duobus signis circino decusatim describendum, et
from these two marks with-the-compass crosswise to-be-described and
per decusationem et medium centrum linea perducenda ad
through the-intersection and the-middle center a-line to-be-drawn to
extremum, ut habeatur meridiana et septentrionalis regio.
the-end so-that may-be-had the-southern and northern quarter

Tum postea sumenda est sexta decima pars circinationis
then afterward to-be-taken is the-sixth (and)-tenth part of-the-circumference
lineae totius rotundationis, centrumque conlocandum in
line of-the-whole circle and-the-center to-be-placed on
meridiana linea, qua tangit circinationem, et signandum
the-southern line where it-touches the-circumference and to-be-marked
dextra ac sinistra in circinatione et meridiana et
on-the-right and on-the-left on the-circumference both in-the-southern and
septentrionali parte. Tunc ex signis his quattuor per
northern part then from marks these four through
centrum medium decusatim lineae ab extremis ad extremas
the-center middle crosswise lines from the-ends to the-farthest
circinationes perducendae. Ita austri et septentrionis
circumferences to-be-drawn so of-the-auster and of-the-septentrio
habebitur octavae partis designatio. Reliquae partes
there-will-be-had of-an-eighth part the-marking-out the-remaining parts
dextra ac sinistra tres et tres aequales his distribuendae
on-the-right and on-the-left three and three equal to-these to-be-distributed
sunt, in tota rotundatione ut aequales divisiones octo
are over the-whole circle so-that equal divisions of-eight
ventorum designatae sint in descriptione. Tum per angulos
winds marked-out may-be in the-drawing then along the-angles
inter duas ventorum regiones et platearum et angiportorum
between two of-winds quarters both of-the-streets and of-the-lanes
videntur deberi dirigi descriptiones.
they-seem to-have-to to-be-aligned the-layouts

His enim rationibus et ea divisione exclusa erit ex 8
by-these for methods and that division shut-out will-be from
habitationibus et vicis ventorum vis molesta. Cum enim
dwellings and streets of-the-winds the-force troublesome when for
plateae contra directos ventos erunt conformatae, ex aperto
the-streets facing straight winds shall-be shaped from the-open

caeli spatio impetus ac flatus frequens conclusus in
of-the-sky space the-onrush and blast constant confined in
faucibus angiportorum vehementioribus viribus pervagabitur.
the-throats of-the-lanes with-more-violent forces will-range-through
Quas ob res convertendae sunt ab regionibus
which on-account-of things to-be-turned are from the-quarters
ventorum directiones vicorum, uti advenientes ad angulos
of-winds the-alignments of-the-streets so-that arriving at the-corners
insularum frangantur repulsique dissipentur.
of-the-blocks they-be-broken and-driven-back they-be-scattered

9 Fortasse mirabuntur i, qui multa ventorum nomina noverunt,
perhaps will-wonder those who many of-winds names know
quod a nobis expositi sunt tantum octo esse venti. Si autem
that by us set-out have-been only eight to-be winds if moreover
animadverterint orbis terrae circumitionem per solis
they-shall-have-noticed of-the-circle of-earth the-circuit through of-the-sun
cursum et umbras gnomonis aequinoctialis ex inclinatione
the-course and the-shadows of-the-gnomon equinoctial from the-inclination
caeli ab Eratosthene Cyrenaeo rationibus mathematicis
of-the-sky by Eratosthenes of-Cyrene by-reckonings mathematical
et geometricis methodis esse inventam ducentorum
and geometrical methods to-have-been found of-two-hundred
quinquaginta duum milium stadium, quae fiunt passus
fifty two thousand stades which make paces
trecenties et decies quinquies centena milia, huius autem
three-hundred-times and ten-times five-times a-hundred thousand of-this moreover
octava pars, quam ventus tenere videtur, est triciens nongenta
an-eighth part which a-wind to-hold seems is thirty-times nine-hundred
triginta septem milia et passus quingenti, non debebunt
thirty seven thousand and paces five-hundred not they-will-need

mirari, si in tam magno spatio unus ventus vagando
to-wonder if in so great a-space one wind by-wandering
inclinationibus et recessionibus varietates mutatione flatus faciat.
by-bendings and retreats variations by-a-change of-blast makes
Itaque dextra et sinistra austrum leuconotus et altanus 10
and-so on-the-right and on-the-left (of)-the-auster the-leuconotus and the-altanus
flare solet, circa africum libonotus et subvesperus, circa
to-blow is-wont about the-africus the-libonotus and the-subvesperus about
favonium argestes et certis temporibus etesiae, ad latera
the-favonius the-argestes and at-certain seasons the-etesians at the-flanks
cauri circius et corus, circa septentrionem thracias et
of-the-caurus the-circius and the-corus about the-septentrio the-thracias and
gallicus, dextra ac sinistra aquilonem supernas et caecias,
the-gallicus on-the-right and on-the-left (of)-the-aquilo the-supernas and the-caecias
circa solanum carbas et certo tempore ornithiae, euri
about the-solanus the-carbas and at-a-certain season the-ornithiae of-the-eurus
vero medias partes tenentis in extremis euricircias et
but the-middle quarters holding at the-outer-parts the-euricircias and
volturnus. Sunt autem et alia plura nomina flatusque
the-volturnus there-are moreover also other many names and-blasts
ventorum e locis aut fluminibus aut montium procellis tracta.
of-winds from places or rivers or of-mountains storms drawn
Praeterea aurae matutinae, qua sol, cum emergit, de 11
besides breezes morning whereby the-sun when emerges from
subterranea parte versando pulsat aeris umorem et
the-underground part by-turning strikes of-the-air the-moisture and
scandendo praeurens exprimit aurarum antelucano impetu
by-climbing scorching forces-out of-breezes with-a-before-dawn rush
flatus. Qui cum exorto sole permanserunt, euri venti
blasts which when risen the-sun have-lasted of-the-eurus wind
tenent partes, et ea re, quod ex auris procreatur, ab
hold the-quarters and for-this reason because from breezes it-is-begotten by

Graecis εὖρος videtur esse appellatus, crastinusque dies
the-Greeks eurus it-seems to-have-been named and-the-morrow's day
propter auras matutinas αὔριον fertur esse vocitatus.
because-of the-breezes morning tomorrow is-said to-have-been called
Sunt autem nonnulli, qui negant Eratosthenem potuisse
there-are moreover some who deny (that)-Eratosthenes to-have-been-able
veram mensuram orbis terrae colligere. Quae sive est certa
a-true measure of-the-circle of-earth to-gather which whether is sure
sive non vera, non potest nostra scriptura non veras habere
or not true not can our writing not true to-have
terminationes regionum, unde spiritus ventorum oriuntur.
the-bounds of-the-quarters whence the-breaths of-winds arise
12 Ergo si ita est, tantum erit, uti non certam mensurae
therefore if so it-is only it-will-be that not a-sure of-measure
rationem sed aut maiores impetus aut minores habeant
reckoning but either greater forces or lesser have
singuli venti.
the-several winds
Quoniam haec a nobis sunt breviter exposita, ut facilius
since these-things by us have-been briefly set-out so-that more-easily
intellegatur, visum est mihi in extremo volumine
it-may-be-understood seen-fit it-has-been to-me at the-end-of-the book
formas sive, uti Graeci dicunt, σχήματα duo explicare, unum
figures or as the-Greeks say schemata two to-set-out one
ita deformatum, ut appareat, unde certi ventorum spiritus
so drawn that it-may-appear whence the-fixed of-winds breaths
oriantur, alterum, quemadmodum ab impetu eorum aversis
arise the-other how from the-onrush of-them turned-away
directionibus vicorum et platearum evitentur nocentes
by-alignments of-the-quarters and of-the-streets may-be-avoided harmful
flatus. Erit autem in exaequata planitie centrum, ubi est
blasts there-will-be moreover on a-leveled plane a-center where is

littera A, gnomonis autem antemeridiana umbra, ubi est B,
the-letter A of-the-gnomon moreover before-noon the-shadow where is B
et a centro, ubi est A, diducto circino ad id signum
and from the-center where is A opened the-compass to that mark
umbrae, ubi est B, circumagatur linea rotundationis.
of-the-shadow where is B let-there-be-swung-round a-line of-a-circle
Reposito autem gnomone ubi antea fuerat, expectanda est,
replaced moreover the-gnomon where before it-had-been to-be-waited-for it-is
dum decrescat faciatque iterum crescendo parem antemeridianae
until it-shrinks and-makes again by-growing equal to-the-before-noon
umbrae postmeridianam tangatque lineam rotundationis, ubi
shadow an-afternoon-one and-touches the-line of-the-circle where
erit littera C. Tunc a signo, ubi est B, et a signo, ubi
will-be the-letter C then from the-mark where is B and from the-mark where
est C, circino decusatim describatur, ubi erit D; deinde
is C with-the-compass crosswise let-it-be-described where will-be D then
per decusationem et centrum, ubi est A, perducatur
through the-intersection and the-center where is A let-there-be-drawn
linea ad extremum, in qua linea erunt litterae E et F. Haec
a-line to the-end on which line will-be the-letters E and F this
linea erit index meridianae et septentrionalis regionis.
line will-be the-indicator of-the-southern and northern quarter
Tunc circino totius rotundationis sumenda est pars 13
then with-the-compass of-the-whole circle to-be-taken is part
XVI, circinique centrum ponendum est in meridiana linea,
XVI and-of-the-compass the-center to-be-set is on the-southern line
qua tangit rotundationem, ubi est littera E, et signandum
where it-touches the-circle where is the-letter E and to-be-marked
dextra sinistra, ubi erunt litterae G H. Item in septentrionali
on-the-right on-the-left where will-be the-letters G H likewise in the-northern
parte centrum circini ponendum in rotundationis et
part the-center of-the-compass to-be-set on of-the-circle and

septentrionali linea, ubi est littera F, et signandum dextra
northern line where is the-letter F and to-be-marked on-the-right
ac sinistra, ubi sunt litterae I et K, et ab G ad K
and on-the-left where are the-letters I and K and from G to K
et ab H ad I per centrum lineae perducendae. Ita quod
and from H to I through the-center lines to-be-drawn so which
erit spatium ab G ad H, erit spatium venti austri et
will-be the-space from G to H will-be the-space of-the-wind auster and
partis meridianae; item quod erit spatium ab I ad K,
of-the-quarter southern likewise which will-be the-space from I to K
erit septentrionis. Reliquae partes dextra ter ac sinistra
will-be of-the-septentrio the-remaining parts on-the-right thrice and on-the-left
ter dividendae sunt aequaliter, quae sunt ad orientem, in
thrice to-be-divided are equally which are toward the-east in
quibus litterae L M, et ab occidente, in quibus sunt litterae
which the-letters L M and from the-west in which are the-letters
N et O. Ab M ad O et ab L ad N perducendae sunt lineae
N and O from M to O and from L to N to-be-drawn are lines
decusatim. Et ita erunt aequaliter ventorum octo spatia in
crosswise and so there-will-be equally of-winds eight spaces in
circumitione. Quae cum ita descripta erunt, in singulis angulis
the-circuit which when so drawn shall-be at the-several angles
octagoni, cum a meridie incipiemus, inter eurum et
of-the-octagon when from the-south we-shall-begin between the-eurus and
austrum in angulo erit littera G, inter austrum et africum
the-auster at the-angle will-be the-letter G between the-auster and the-africus
H, inter africum et favonium N, inter favonium et caurum
H between the-africus and the-favonius N between the-favonius and the-caurus
O, inter caurum et septentrionem K, inter septentrionem et
O between the-caurus and the-septentrio K between the-septentrio and
aquilonem I, inter aquilonem et solanum L, inter solanum
the-aquilo I between the-aquilo and the-solanus L between the-solanus

et eurum M. Ita his confectis inter angulos octagoni
and the-eurus M so these-things completed between the-angles of-the-octagon
gnomon ponatur, et ita dirigantur angiportorum divisiones.
the-gnomon let-it-be-set and so let-them-be-aligned of-the-lanes the-divisions

I.7 · SITES FOR THE TEMPLES

Once the streets are laid out, the sites for the temples are chosen. Jupiter, Juno, and Minerva take the highest ground, Mercury the forum, Apollo and Liber the theater, Hercules the circus in cities that have no gymnasium or amphitheater, Mars the field outside the city, and Venus the harbor. Vitruvius then reports the Etruscan rule that keeps the shrines of Venus, Vulcan, and Mars beyond the wall, and gives the reason offered for each.

Divisis angiportis et plateis constitutis arearum electio ad 1
divided the-alleys and the-streets laid-out of-the-sites the-choosing for
opportunitatem et usum communem civitatis est explicanda
the-convenience and use common of-the-state is to-be-worked-out
aedibus sacris, foro reliquisque locis communibus. Et
for-temples sacred for-the-forum and-the-remaining for-places common and
si erunt moenia secundum mare, area, ubi forum constituatur,
if shall-be the-walls along the-sea the-site where the-forum is-to-be-set
eligenda proxime portum, sin autem mediterraneo, in oppido
to-be-chosen nearest the-harbor but-if moreover inland in a-town
medio. Aedibus vero sacris, quorum deorum maxime in
middle for-temples but sacred of-what gods most-of-all in
tutela civitas videtur esse, et Iovi et Iunoni et
the-keeping the-state seems to-be both for-Jupiter and for-Juno and
Minervae, in excelsissimo loco, unde moenium maxima pars
for-Minerva on the-loftiest ground whence of-the-walls the-greatest part
conspiciatur, areae distribuantur. Mercurio autem in foro
may-be-seen sites let-them-be-allotted for-Mercury moreover in the-forum

aut etiam, ut Isidi et Serapi, in emporio; Apollini Patrique
or also as for-Isis and for-Serapis in the-market for-Apollo and-Father
Libero secundum theatrum; Herculi, in quibus civitatibus
Liber beside the-theater for-Hercules in which states
non sunt gymnasia neque amphitheatra, ad circum; Marti
not there-are gymnasia nor amphitheaters by the-circus for-Mars
extra urbem sed ad campum; itemque Veneri ad portum.
outside the-city but by the-field and-likewise for-Venus by the-harbor
Id autem etiam Etruscis haruspicibus disciplinarum scripturis
that moreover also by-Etruscan soothsayers of-their-lore in-the-writings
ita est dedicatum, extra murum Veneris, Volcani, Martis
so is laid-down outside the-wall of-Venus of-Vulcan of-Mars
fana ideo conlocari, uti non insuescat in urbe
the-shrines for-this-reason to-be-sited that not may-become-habitual in the-city
adulescentibus seu matribus familiarum veneria libido,
for-the-young or for-the-mothers of-households venereal lust
Volcanique vi e moenibus religionibus et sacrificiis
and-of-Vulcan the-power from the-walls by-rites and sacrifices
evocata ab timore incendiorum aedificia videantur liberari.
called-out from the-fear of-fires the-buildings may-seem to-be-freed
Martis vero divinitas cum sit extra moenia dedicata, non
of-Mars but the-godhead when is outside the-walls consecrated not
erit inter cives armigera dissensio, sed ab hostibus
there-will-be among the-citizens armed strife but from enemies
ea defensa belli periculo conservabit.
it defended of-war from-the-peril will-preserve

2 Item Cereri extra urbem loco, quo non quolibet nomine
likewise for-Ceres outside the-city in-a-place to-which not on-any pretext
semper homines nisi per sacrificium necesse habeant
always men except through sacrifice necessary they-may-have
adire; cum religione, caste sanctisque moribus is locus
to-go with reverence chastely and-with-holy ways that place

debet tueri. Ceterisque diis ad sacrificiorum rationes aptae
ought to-be-kept and-for-the-other gods for of-sacrifices the-methods fit
templis areae sunt distribuendae.
for-temples sites are to-be-allotted
De ipsis autem aedibus sacris faciundis et de earum
about the-very moreover temples sacred to-be-made and about their
symmetriis in tertio et quarto volumine reddam rationes,
symmetries in the-third and fourth book I-shall-render the-accounts
quia in secundo visum est mihi primum de materiae
because in the-second seemed-good it-has to-me first about of-material
copiis, quae in aedificiis sunt parandae, quibus sint
the-supplies which in buildings are to-be-got with-what they-are
virtutibus et quem habeant usum, exponere, deinde
qualities and what they-have use to-set-forth then
commensus aedificiorum et ordines et genera singula
the-measures of-buildings and the-orders and the-kinds several
symmetriarum peragere et in singulis voluminibus explicare.
of-symmetries to-go-through and in the-several books to-set-out

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BOOK III

III · PREFACE

Apollo's oracle called Socrates the wisest of men, and Socrates said that men's breasts should have been made with windows, so that their thoughts could be seen. Vitruvius wishes the same for his own art: sculptors and painters of no less skill than the famous ones are forgotten because fortune deserted them, and dinner-party favor often carries off the approval true judgment should give. He will not contend for favor with the unlearned, and publishes these rules to let his knowledge show its worth.

Delphicus Apollo Socratem omnium sapientissimum Pythiae 1
the-Delphic Apollo Socrates of-all the-wisest of-the-Pythia
responsis est professus. Is autem memoratur prudenter
by-the-answers has declared he moreover is-recorded wisely
doctissimeque dixisse, oportuisse hominum pectora
and-most-learnedly to-have-said (that)-it-should-have-been of-men the-breasts
fenestrata et aperta esse, uti non occultos haberent
windowed and open to-be so-that not hidden they-might-have
sensus sed patentes ad considerandum. Utinam vero rerum
feelings but open for examining would-that indeed of-things
natura sententiam eius secuta explicata et apparentia ea
the-nature the-opinion his having-followed unfolded and visible them
constituisset! Si enim ita fuisset, non solum laudes aut vitia
had-made if for so it-had-been not only the-merits or faults
animorum ad manum aspicerentur, sed etiam disciplinarum
of-minds at hand would-be-seen but also of-studies
scientiae sub oculorum consideratione subiectae non
the-knowledges under of-the-eyes the-scrutiny laid not
incertis iudiciis probarentur, sed et doctis et scientibus
by-uncertain judgments would-be-tested but both to-the-learned and to-the-knowing
auctoritas egregia et stabilis adderetur ipsique artifices
authority outstanding and lasting would-be-added and-the-very craftsmen

pellicerent sua prudentia, qui, etiamsi non pecunia
would-win-(men)-over by-their-own wisdom who even-if not in-money
sint copiosi seu vetustate officinarum habuerint notitiam
are rich or by-the-age of-their-workshops shall-have-had repute
aut etiam gratia forensi et eloquentia, cum fuerint
or even by-favor of-the-forum and eloquence when they-shall-have-been
parati, pro industria studiorum auctoritates possent
furnished in-proportion-to the-industry of-their-studies authorities they-might
habere, ut eis, quod profitentur scire, id crederetur.
to-have so-that to-them what they-profess to-know that would-be-believed
Igitur quoniam haec non ita, sed uti natura rerum
therefore since these-things not so but as the-nature of-things
voluit, sunt constituta, non efficitur, ut possint homines
has-willed are ordered not it-comes-about that can men
obscuratis sub pectoribus ingeniis scientias artificiorum
darkened beneath breasts talents the-knowledges of-the-crafts
penitus latentes, quemadmodum sint, iudicare.
deeply lying-hidden how they-are to-judge

2 Maxime autem id animadvertere possumus ab antiquis
most-of-all moreover that to-observe we-can from the-old
statuariis et pictoribus, quod ex his, qui dignitatis notas
sculptors and painters because of these who of-rank marks
et commendationis gratiam habuerunt, aeterna memoria ad
and of-recommendation the-favor had in-eternal remembrance to
posteritatem sunt permanentes, uti Myron, Polycletus, Phidias,
posterity are abiding such-as Myron Polycletus Phidias
Lysippus ceterique, qui nobilitatem ex arte sunt consecuti.
Lysippus and-the-rest who renown from (their)-art have attained
Namque ut civitatibus magnis aut regibus aut civibus nobilibus
for as for-states great or for-kings or for-citizens noble
opera fecerunt, ita id sunt adepti. At qui non minore studio
works they-made so that have won but those-who not with-less zeal

et ingenio sollertiaque fuerunt nobilibus et humili fortuna
and talent and-skill have-been for-noble and of-humble fortune
civibus non minus egregie perfecta fecerunt opera, nullam
citizens not less excellently finished made works no
memoriam sunt adsecuti, quod hi non ab industria neque artis
remembrance have attained because these not by industry nor of-art
sollertia sed a felicitate fuerunt deserti, ut Hegias Atheniensis,
skill but by good-fortune were deserted such-as Hegias the-Athenian
Chion Corinthius, Myagrus Phocaeus, Pharax Ephesius,
Chion the-Corinthian Myagrus the-Phocaean Pharax the-Ephesian
Boedas Byzantius etiamque alii plures. Non minus item
Boedas the-Byzantine and-also others many not less likewise
pictores, uti Aristomenes Thasius, Polycles et Androcydes
painters such-as Aristomenes the-Thasian Polycles and Androcydes
Cyziceni, Theo Magnes ceterique, quos neque industria
of-Cyzicus Theo the-Magnesian and-the-rest whom neither industry
neque artis studium neque sollertia defecit, sed aut rei
nor of-art zeal nor skill failed but either of-estate
familiaris exiguitas aut inbecillitas fortunae seu in ambitione
family the-smallness or the-weakness of-fortune or in the-canvassing
certationis contrariorum superatio obstitit eorum dignitati.
of-competition of-rivals the-outdoing stood-in-the-way of-their standing
Nec tamen est admirandum, si propter ignotitiam artis 3
nor yet is to-be-wondered-at if because-of ignorance of-art
virtutes obscurantur, sed maxime indignandum, cum etiam
merits are-darkened but most-of-all to-be-resented when even
saepe eblandiatur gratia conviviorum a veris iudiciis falsam
often wheedles-away the-favor of-dinner-parties from true judgments a-false
probationem. Ergo, uti Socrati placuit, si ita sensus
approval therefore as to-Socrates it-seemed-good if so feelings
et sententiae scientiaeque disciplinis auctae perspicuae et
and opinions and-knowledges by-studies increased clear and

perlucidae fuissent, non gratia neque ambitio valeret, sed
transparent had-been not favor nor canvassing would-avail but
si qui veris certisque laboribus doctrinarum pervenissent
if any by-true and-sure labors of-learning had-come
ad scientiam summam, eis ultro opera traderentur.
to knowledge the-highest to-them unasked works would-be-handed-over
Quoniam autem ea non sunt inlustria neque apparentia
since moreover these-things not are plain nor visible
in aspectu, ut putamus oportuisse, et animadverto potius
in sight as we-think to-have-behooved and I-observe rather
indoctos quam doctos gratia superare, non esse certandum
the-unlearned than the-learned by-favor to-prevail not (it)-to-be to-be-contended
iudicans cum indoctis ambitione, potius his praeceptis
judging with the-unlearned in-canvassing rather these precepts
editis ostendam nostrae scientiae virtutem.
published I-shall-show of-our knowledge the-worth

4 Itaque, imperator, in primo volumine tibi de arte et quas
and-so emperor in the-first book to-you about the-art and what
habeat ea virtutes quibusque disciplinis oporteat esse auctum
it-has that qualities and-with-what studies it-behooves to-be enriched
architectum, exposui et subieci causas, quid ita earum oporteat
the-architect I-set-forth and I-added the-reasons why so of-them it-behooves
eum esse peritum, rationesque summae architecturae partitione
him to-be skilled and-the-accounts of-the-whole of-architecture by-division
distribui finitionibusque terminavi. Deinde, quod erat primum
I-distributed and-by-definitions I-bounded next what was first
et necessarium, de moenibus, quemadmodum eligantur loci
and necessary about the-walls how may-be-chosen sites
salubres, ratiocinationibus explicui, ventique qui sint et e
healthful by-reasonings I-explained and-the-winds which they-are and from
quibus regionibus singuli spirant, deformationibus grammicis
which quarters each blow by-drawings linear

ostendi, platearumque et vicorum uti emendate fiant
I-showed and-of-the-streets and of-the-lanes how faultlessly are-made
distributiones in moenibus, docui et ita finitionem primo
the-distributions within the-walls I-taught and so an-end for-the-first
volumine constitui. Item in secundo de materia, quas habeat
book I-set likewise in the-second about material what it-has
in operibus utilitates et quibus virtutibus e natura rerum est
in works uses and with-what qualities from the-nature of-things it-is
comparata, peregi. Nunc in tertio de deorum inmortalium
provided I-went-through now in the-third about of-the-gods immortal
aedibus sacris dicam et, uti oportet, perscriptas exponam.
temples sacred I-shall-speak and as it-behooves written-out I-shall-set-forth

III.1 · THE PROPORTIONS OF THE HUMAN BODY

Symmetry in a temple must follow the proportions of a well-made man. Vitruvius measures the body out in tenths, eighths, sixths, and quarters, and shows that a man lying spread-eagled touches a circle drawn from the navel and fits a square as well. The Roman foot, palm, and finger come from the same body, which is why six and ten are the perfect numbers.

Aedium compositio constat ex symmetria, cuius rationem 1
of-temples the-composition consists of symmetry whose method
diligentissime architecti tenere debent. Ea autem paritur
most-carefully architects to-hold ought it moreover is-produced
a proportione, quae graece ἀναλογία dicitur. Proportio
from proportion which in-Greek analogy is-called proportion
est ratae partis membrorum in omni opere totiusque
is of-a-fixed part of-the-members in every work and-of-the-whole
commodulatio, ex qua ratio efficitur symmetriarum.
a-measuring-together from which the-method is-produced of-the-symmetries

Namque non potest aedis ulla sine symmetria atque
for not can temple any without symmetry and
proportione rationem habere compositionis, nisi uti hominis
proportion method to-have of-composition unless as of-a-man
bene figurati membrorum habuerit exactam rationem.
well shaped of-the-limbs it-shall-have exact the-method

2 Corpus enim hominis ita natura composuit, uti os capitis
the-body for of-man so nature framed that the-face of-the-head
a mento ad frontem summam et radices imas capilli
from the-chin to the-forehead topmost and the-roots lowest of-the-hair
esset decimae partis, item manus pansa ab articulo ad
should-be of-a-tenth part likewise the-hand spread from the-wrist to
extremum medium digitum tantundem, caput a mento ad
the-outermost middle finger just-as-much the-head from the-chin to
summum verticem octavae, cum cervicibus imis ab summo
the-topmost crown of-an-eighth with the-neck lowest from the-top
pectore ad imas radices capillorum sextae, a medio
breast to the-lowest roots of-the-hairs of-a-sixth from the-middle
pectore ad summum verticem quartae. Ipsius autem oris
breast to the-topmost crown of-a-fourth of-the-very moreover face
altitudinis tertia est pars ab imo mento ad imas nares,
of-the-height a-third is part from the-lowest chin to the-lowest nostrils
nasum ab imis naribus ad finem medium superciliorum
the-nose from the-lowest nostrils to the-line middle of-the-eyebrows
tantundem, ab ea fine ad imas radices capilli frons
just-as-much from that line to the-lowest roots of-the-hair the-forehead
efficitur item tertiae partis. Pes vero altitudinis corporis
is-made likewise of-a-third part the-foot but of-the-height of-the-body
sextae, cubitum quartae, pectus item quartae. Reliqua
of-a-sixth the-forearm of-a-fourth the-chest likewise of-a-fourth the-remaining
quoque membra suas habent commensus proportiones,
also limbs their-own have of-measure proportions

quibus etiam antiqui pictores et statuarii nobiles usi
which also ancient painters and sculptors famous having-used
magnas et infinitas laudes sunt adsecuti.
great and boundless praises have attained
Similiter vero sacrarum aedium membra ad universam totius 3
similarly indeed of-sacred temples the-members to the-whole of-the-entire
magnitudinis summam ex partibus singulis convenientissimum
magnitude sum from parts single most-fitting
debent habere commensus responsum. Item corporis centrum
they-ought to-have of-measure answering likewise of-the-body the-center
medium naturaliter est umbilicus. Namque si homo conlocatus
middle naturally is the-navel for if a-man laid
fuerit supinus manibus et pedibus pansis circinique
shall-have-been on-his-back hands and feet spread and-of-the-compass
conlocatum centrum in umbilico eius, circumagendo
placed the-point on the-navel his by-swinging-round
rotundationem utrarumque manuum et pedum digiti linea
a-circle of-both hands and feet the-digits by-the-line
tangentur. Non minus quemadmodum schema rotundationis
will-be-touched not less just-as the-figure of-a-circle
in corpore efficitur, item quadrata designatio in eo invenietur.
in the-body is-made likewise a-square outline in it will-be-found
Nam si a pedibus imis ad summum caput mensum erit
for if from the-feet lowest to the-topmost head measured it-shall-be
eaque mensura relata fuerit ad manus pansas, invenietur
and-that measure carried shall-have-been to the-hands spread will-be-found
eadem latitudo uti altitudo, quemadmodum areae, quae ad
the-same breadth as height just-as areas which to
normam sunt quadratae.
the-set-square are squared

4 Ergo si ita natura composuit corpus hominis, uti
therefore if so nature framed the-body of-man that
proportionibus membra ad summam figurationem eius
in-proportions the-limbs to the-whole shaping of-it
respondeant, cum causa constituisse videntur antiqui, ut
answer with reason to-have-laid-down they-seem the-ancients that
etiam in operum perfectionibus singulorum membrorum
also in of-works the-completions of-the-single members
ad universam figurae speciem habeant commensus
to the-whole of-the-figure look they-should-have of-measure
exactionem. Igitur cum in omnibus operibus ordines
exactness therefore when in all works the-orders
traderent, maxime in aedibus deorum, quod eorum operum
they-handed-down most-of-all in the-temples of-the-gods because of-those works
et laudes et culpae aeternae solent permanere.
both the-praises and the-faults eternal are-wont to-remain

5 Nec minus mensurarum rationes, quae in omnibus operibus
nor less of-measures the-methods which in all works
videntur necessariae esse, ex corporis membris collegerunt, uti
seem necessary to-be from of-the-body the-members they-gathered as
digitum, palmum, pedem, cubitum, et eas distribuerunt in
the-finger palm foot forearm and them they-distributed into
perfectum numerum, quem Graeci τέλειον dicunt. Perfectum
the-perfect number which the-Greeks complete call perfect
autem antiqui instituerunt numerum qui decem dicitur;
moreover the-ancients established the-number which ten is-called
namque ex manibus digitorum numero est inventus. Si
for from the-hands of-the-fingers by-the-number it-was found if
autem in utrisque palmis ex articulis ab natura decem sunt
moreover in both palms from the-joints by nature ten have-been
perfecti, etiam Platoni placuit esse eum numerum ea re
perfected also to-Plato it-pleased to-be that number for-this reason

perfectum, quod ex X singularibus rebus, quae μονάδες
perfect because from X single things which units
apud Graecos dicuntur, perficitur decusis. Simul autem
among the-Greeks are-called is-completed a-ten as-soon-as moreover
undecim aut duodecim sunt facti, quod superaverint, non
eleven or twelve they-are made because they-have-exceeded not
possunt esse perfecti, donec ad alterum decusis perveniant;
they-can to-be perfect until to a-second ten they-come
singulares enim res particulae sunt eius numeri.
single for things small-parts are of-that number
Mathematici vero contra disputantes ea re perfectum 6
the-mathematicians but against arguing for-this reason perfect
dixerunt esse numerum qui sex dicitur, quod is numerus
they-said to-be the-number which six is-called because that number
habet partitiones eorum rationibus sex numero convenientes
has divisions of-them by-the-reckonings six in-number agreeing
sic: sextantem unum, trientes duo, semissem tria, besem quem
thus a-sixth one a-third two a-half three two-thirds which
δίμοιρον dicunt quattuor, quintarium quem πεντάμοιρον dicunt
two-parts they-call four five-part which five-parts they-call
quinque, perfectum sex. Cum ad duplicationem crescat, supra
five perfect six when to doubling it-grows beyond
sex adiecto asse ἔφεκτον; cum facta sunt octo, quod est tertia
six added a-unit a-sixth-over when made they-are eight which is a-third
adiecta, tertiarium alterum, qui ἐπίτριτος dicitur; dimidia adiecta
added third-part second which a-third-over is-called a-half added
cum facta sunt novem, sesquialterum, qui ἡμιόλιος appellatur;
when made they-are nine half-again which a-half-over is-named
duabus partibus additis et decusis facto bes alterum, quem
two parts added and a-ten made two-thirds second which
ἐπιδίμοιρον vocitant; in undecim numero quod adiecti sunt
two-thirds-over they-call in eleven the-number because added they-are

quinque, quintarium, quem ἐπίπεμπτον dicunt; duodecim autem,
five five-part which a-fifth-over they-call twelve moreover
quod ex duobus numeris simplicibus est effectus, διπλάσιονα.
because from two numbers simple is produced twofold

7 Non minus etiam, quod pes hominis altitudinis sextam habet
not less also because the-foot of-a-man of-the-height a-sixth has
partem, (ita etiam, ex eo quod perficitur pedum numero
part so also from that because is-completed of-feet by-the-number
corporis altitudo, veteribus columnis basis scapi elata sexies
of-the-body the-height (in)-ancient columns the-base of-the-shaft raised six-times
altitudines terminavit) eum perfectum constituerunt, cubitumque
the-heights bounded that perfect they-established and-the-forearm
animadverterunt ex sex palmis constare digitisque XXIIII. Ex
they-observed from six palms to-consist and-fingers XXIIII from
eo etiam videntur civitates Graecorum fecisse, quemadmodum
that also they-seem the-states of-the-Greeks to-have-done just-as
cubitus est sex palmorum, in drachma, qua nummo uterentur,
the-forearm is six of-palms in the-drachma which as-coin they-were-using
aereos signatos uti asses ex aequo sex, quos obolos appellant,
bronze stamped as asses from equal six which obols they-call
quadrantesque obolorum, quae alii dichalca, nonnulli trichalca
and-quarters of-obols which some two-coppers some three-coppers
dicunt, pro digitis viginti quattuor in drachma constituisse.
call for fingers twenty four in the-drachma to-have-set

8 Nostri autem primo fecerunt perfectum antiquum numerum
our-people moreover at-first made perfect the-ancient number
et in denario denos aeris constituerunt, et ea re
and in the-denarius ten of-bronze they-established and for-this reason
compositio nominis ad hodiernum diem denarium retinet.
the-formation of-the-name to today's day denarius keeps
Etiamque quarta pars quod efficiebatur ex duobus assibus
and-also a-fourth part because it-was-made from two asses

et tertio semisse, sestertium vocitaverunt. Postea autem
and a-third half sesterce they-called afterward moreover
quam animadverterunt utrosque numeros esse perfectos, et
when they-observed both numbers to-be perfect both
sex et decem, utrosque in unum coiecerunt et fecerunt
six and ten both into one they-threw and made
perfectissimum decusis sexis. Huius autem rei auctorem
most-perfect ten six of-this moreover thing the-author
invenerunt pedem. E cubito enim cum dempti sunt
they-found the-foot from the-forearm for when taken-away are
palmi duo, relinquitur pes quattuor palmorum, palmus
palms two is-left a-foot of-four palms a-palm
autem habet quattuor digitos. Ita efficitur, ut habeat pes
moreover has four fingers so it-comes-about that has the-foot
sedecim digitos et totidem asses aeracius denarius.
sixteen fingers and just-as-many asses the-bronze denarius
Ergo si convenit ex articulis hominis numerum inventum 9
therefore if it-is-agreed from the-joints of-man the-number found
esse et ex membris separatis ad universam corporis
to-have-been and from the-members separate to the-whole of-the-body
speciem ratae partis commensus fieri responsum,
look of-a-fixed part of-measure to-be-made the-answering
relinquitur, ut suspiciamus eos, qui etiam aedes deorum
it-remains that we-admire those who also the-temples of-the-gods
inmortalium constituentes ita membra operum ordinaverunt,
immortal founding so the-members of-the-works ordered
ut proportionibus et symmetriis separatae atque universae
that by-proportions and symmetries separate and whole
convenientes efficerentur eorum distributiones.
agreeing might-be-made of-those the-distributions

Temples take one of seven plans: in antis, prostyle, amphiprostyle, peripteral, pseudodipteral, dipteral, and hypaethral. Vitruvius sets out the columns and walls of each. He points to buildings at Rome for most of them, and to Magnesia and Athens for the pseudodipteral and the hypaethral, which Rome has not.

1 Aedium autem principia sunt, e quibus constat figurarum
of-temples moreover the-elements are from which consists of-the-forms
aspectus, ea: primum in antis, quod graece ναὸς ἐν
the-look they first in antae which in-Greek temple in
παραστάσιν dicitur, deinde prostylos, amphiprostylos,
pilasters is-called then prostyle amphiprostyle
peripteros, pseudodipteros, dipteros, hypaethros. Horum
peripteral pseudodipteral dipteral hypaethral of-these
exprimuntur formationes his rationibus.
are-set-out the-forms by-these methods

2 In antis erit aedes, cum habebit in fronte antas parietum,
in antae will-be a-temple when it-shall-have on the-front antae of-the-walls
qui cellam circumcludunt, et inter antas in medio columnas
which the-cella enclose and between the-antae in the-middle columns
duas supraque fastigium symmetria ea conlocatum, quae in
two and-above a-pediment by-the-symmetry that placed which in
hoc libro fuerit perscripta. Huius autem exemplar erit ad
this book shall-have-been written-out of-this moreover an-example will-be at
Tres Fortunas ex tribus quod est proxime portam Collinam.
the-Three Fortunes from the-three which is nearest the-gate Colline

3 Prostylos omnia habet quemadmodum in antis, columnas autem
prostyle all-things has as in antae columns moreover
contra antas angulares duas supraque epistylia, quemadmodum
opposite the-antae corner two and-above architraves as

et in antis, et dextra ac sinistra in versuris singula. Huius
also in antae and on-the-right and on-the-left on the-returns one-each of-this
exemplar est in insula Tiberina in aede Iovis et Fauni.
an-example is on the-island Tiberine in the-temple of-Jupiter and of-Faunus
Amphiprostylos omnia habet ea, quae prostylos, praetereaque 4
amphiprostyle all-things has those which prostyle and-besides
habet in postico ad eundem modum columnas et fastigium.
has at the-rear in the-same way columns and a-pediment
Peripteros autem erit, quae habebit in fronte et postico 5
peripteral moreover will-be that-which shall-have on the-front and rear
senas columnas, in lateribus cum angularibus undenas. Ita
six columns on the-sides with the-corner-ones eleven so
autem sint hae columnae conlocatae, ut intercolumnii
moreover let-them-be these columns placed that of-an-intercolumniation
latitudinis intervallum sit a parietibus circum ad
of-breadth a-space there-be from the-walls around to
extremos ordines columnarum, habeatque ambulationem circa
the-outermost rows of-columns and-let-it-have a-walk around
cellam aedis, quemadmodum est sine postico in porticu
the-cella of-the-temple as is without a-rear in the-colonnade
Metelli Iovis Statoris Hermodori et Mariana Honoris et
of-Metellus of-Jupiter the-Stayer by-Hermodorus and the-Marian of-Honor and
Virtutis a Mucio facta.
of-Valor by Mucius made
Pseudodipteros autem sic conlocatur, ut in fronte et postico 6
pseudodipteral moreover thus is-laid-out that on the-front and rear
sint columnae octonae, in lateribus cum angularibus quinae
there-be columns eight on the-sides with the-corner-ones five
denae. Sint autem parietes cellae contra quaternas
(and)-ten let-there-be moreover the-walls of-the-cella opposite four
columnas medianas in fronte et postico. Ita duorum
columns middle on the-front and rear so of-two

intercolumniorum et imae crassitudinis columnae spatium
intercolumniations and of-the-lowest thickness of-a-column a-space
erit ab parietibus circa ad extremos ordines columnarum.
there-will-be from the-walls around to the-outermost rows of-columns
Huius exemplar Romae non est, sed Magnesiae Dianae
of-this an-example at-Rome not there-is but at-Magnesia of-Diana
Hermogenis Alabandei et Apollinis a Menesthe facta.
by-Hermogenes of-Alabanda and of-Apollo by Menesthes made

7 Dipteros autem octastylos et pronao et postico,
dipteral moreover eight-columned both (in)-the-pronaos and the-rear
sed circa aedem duplices habet ordines columnarum, uti
but around the-temple double it-has rows of-columns as
est aedis Quirini dorica et Ephesi Dianae ionica a
is the-temple of-Quirinus Doric and at-Ephesus of-Diana Ionic by
Chersiphrone constituta.
Chersiphron built

8 Hypaethros vero decastylos est in pronao et postico.
hypaethral but ten-columned is in the-pronaos and the-rear
Reliqua omnia eadem habet quae dipteros, sed interiore
the-remaining all the-same it-has as the-dipteral but in-the-inner
parte columnas in altitudine duplices, remotas a parietibus
part columns in height double set-back from the-walls
ad circumitionem ut porticus peristyliorum. Medium autem
for a-walk-round as the-colonnades of-peristyles the-middle moreover
sub divo est sine tecto. Aditus valvarum ex utraque
under the-open-sky is without a-roof approaches of-folding-doors on each
parte in pronao et postico. Huius item exemplar Romae
side in the-pronaos and the-rear of-this likewise an-example at-Rome
non est, sed Athenis octastylos ex templo Olympio.
not there-is but at-Athens the-eight-columned of the-temple Olympian

Temples are also classed by the space between their columns: pycnostyle, systyle, diastyle, araeostyle, and eustyle. The first two crowd the steps and hide the doors, the third breaks its architraves, and the fourth cannot carry stone or marble architraves at all. Hermogenes fixed the eustyle proportions, which serve use, looks, and strength alike; columns thicken as the spacing widens, and the corner columns thicker still, because the surrounding air eats their outline away.

Species autem aedium sunt quinque, quarum ea sunt 1
the-kinds moreover of-temples are five whose these are
vocabula: pycnostylos, id est crebris columnis, systylos
the-names thick-columned that is with-close-set columns close-columned
paulo remissioribus, diastylos amplius quam oportet inter
a-little slacker wide-columned more than is-right between
se diductis, araeostylos spatiis intercolumniorum
themselves drawn-apart far-columned with-the-spaces of-the-intercolumniations
patentibus rare, eustylos intervallorum iusta distributione.
standing-open sparsely well-columned of-the-intervals with-a-just distribution
Ergo pycnostylos est, cuius intercolumnio unius 2
therefore thick-columned is whose in-the-intercolumniation of-one
et dimidiatae columnae crassitudo interponi potest,
and a-half column the-thickness to-be-set-between can
quemadmodum est divi Iulii et in Caesaris foro
as is of-the-deified Julius and in of-Caesar the-forum
Veneris et si quae aliae sic sunt compositae. Item systylos
of-Venus and if any others so are composed likewise close-columned
est, in qua duarum columnarum crassitudo in intercolumnio
is in which of-two columns the-thickness in the-intercolumniation
poterit conlocari, et spirarum plinthides aeque magnae sint
will-be-able to-be-set and of-the-bases the-plinths equally great may-be
ei spatio, quod fuerit inter duas plinthides, quemadmodum
to-that space which shall-be between two plinths as

est Fortunae Equestris ad theatrum lapideum reliquaeque,
is of-Fortune Equestrian by the-theater stone and-the-rest
quae eisdem rationibus sunt compositae.
which by-the-same methods are composed

3 Haec utraque genera vitiosum habent usum. Matres enim
these both kinds a-faulty have use the-mothers for
familiarum cum ad supplicationem gradibus ascendunt,
of-households when for supplication the-steps they-climb
non possunt per intercolumnia amplexae adire, nisi
not they-can through the-intercolumniations having-embraced to-approach unless
ordines fecerint; item valvarum aspectus abstruditur
files they-shall-have-made likewise of-the-doors the-view is-hidden
columnarum crebritate ipsaque signa obscurantur; item
of-the-columns by-the-closeness and-the-very statues are-darkened likewise
circa aedem propter angustias inpediuntur ambulationes.
around the-temple because-of the-narrowness are-hindered the-walks

4 Diastyli autem haec erit compositio, cum trium
of-the-wide-columned moreover this will-be the-composition when of-three
columnarum crassitudinem intercolumnio interponere
columns the-thickness in-the-intercolumniation to-set-between
possumus, tamquam est Apollinis et Dianae aedis. Haec
we-can as is of-Apollo and of-Diana the-temple this
dispositio hanc habet difficultatem, quod epistylia propter
arrangement this has difficulty that the-architraves because-of
intervallorum magnitudinem franguntur.
of-the-intervals the-greatness are-broken

5 In araeostylis autem nec lapideis nec marmoreis epistyliis
in far-columned-ones moreover neither stone nor marble architraves
uti datur, sed inponendae de materia trabes perpetuae. Et
to-use is-granted but to-be-laid-on of timber beams continuous and
ipsarum aedium species sunt varicae, barycephalae, humiles,
of-those-very temples the-looks are straddling heavy-headed low

latae, ornanturque signis fictilibus aut aereis inauratis
broad and-are-adorned with-figures of-clay or bronze gilded
earum fastigia tuscanico more, uti est ad Circum Maximum
their pediments in-the-Tuscan manner as is at the-Circus Maximus
Cereris et Herculis Pompeiani, item Capitolii.
of-Ceres and of-Hercules Pompeian likewise of-the-Capitol
Reddenda nunc est eustyli ratio, quae maxime 6
to-be-rendered now is of-the-well-columned the-method which most-of-all
probabilis et ad usum et ad speciem et ad firmitatem
approvable both for use and for look and for strength
rationes habet explicatas. Namque facienda sunt in intervallis
reasons has worked-out for to-be-made are in the-intervals
spatia duarum columnarum et quartae partis columnae
spaces of-two columns and of-a-fourth part of-a-column
crassitudinis, mediumque intercolumnium unum, quod erit
thickness and-the-middle intercolumniation one which will-be
in fronte, alterum, quod in postico, trium columnarum
on the-front the-other which at the-rear of-three columns
crassitudine. Sic enim habebit et figurationis aspectum
of-the-thickness so for it-will-have both of-the-shaping a-look
venustum et aditus usum sine inpeditionibus et circa
graceful and of-the-approach the-use without hindrances and around
cellam ambulatio auctoritatem.
the-cella the-walk dignity
Huius autem rei ratio explicabitur sic. Frons loci quae 7
of-this moreover thing the-method will-be-set-out thus the-front of-the-site which
in aede constituta fuerit, si tetrastylos facienda fuerit,
for the-temple appointed shall-have-been if four-columned to-be-made it-shall-be
dividatur in partes XI S praeter crepidines et proiecturas
let-it-be-divided into parts XI S besides the-plinth-courses and projections
spirarum; si sex erit columnarum, in partes XVIII; si
of-the-bases if six it-shall-be of-columns into parts XVIII if

octastylos constituetur, dividatur in XXIV et semissem.
eight-columned it-shall-be-set let-it-be-divided into XXIV and a-half
Item ex his partibus sive tetrastyli sive hexastyli sive
likewise of these parts whether of-the-four-columned or of-the-six-columned or
octastyli una pars sumatur, eaque erit modulus. Cuius
of-the-eight-columned one part let-it-be-taken and-that will-be the-module of-which
moduli unus erit crassitudinis columnarum. Intercolumnia
module one will-be of-the-thickness of-the-columns the-intercolumniations
singula, praeter media, modulorum duorum et moduli
each except the-middle-ones of-modules two and of-a-module
quartae partis; mediana in fronte et postico singula ternum
of-a-fourth part the-middle-ones on the-front and rear each of-three
modulorum. Ipsarum columnarum altitudo modulorum VIIII
modules of-the-very columns the-height of-modules VIIII
et dimidiae moduli partis. Ita ex ea divisione intercolumnia
and of-a-half of-a-module part so from that division the-intercolumniations
altitudinesque columnarum habebunt iustam rationem.
and-the-heights of-the-columns will-have a-just reckoning
8 Huius exemplar Romae nullum habemus, sed in Asia Teo
of-this an-example at-Rome none we-have but in Asia at-Teos
hexastylon Liberi Patris.
the-six-columned of-Liber Father
Eas autem symmetrias constituit Hermogenes, qui etiam
those moreover symmetries established Hermogenes who also
primus invenit octastylon pseudodipterive rationem. Ex
first devised the-eight-columned or-pseudodipteral method from
dipteri enim aedis symmetria distulit interiores ordines
of-a-dipteral for temple the-symmetry he-took-away the-inner rows
columnarum XXXIV eaque ratione sumptus operasque
of-columns XXXIV and-by-that reckoning expense and-labors
compendii fecit. Is in medio ambulationi laxamentum
(a-matter)-of-saving he-made he in the-middle for-the-walk room

egregie circa cellam fecit de aspectuque nihil inminuit,
admirably around the-cella made from and-the-look nothing he-lessened
sed sine desiderio supervacuorum conservavit auctoritatem
but without a-longing of-superfluities he-preserved the-dignity
totius operis distributione.
of-the-whole work by-the-distribution
Pteromatos enim ratio et columnarum circum aedem 9
of-the-pteroma for the-method and of-columns around the-temple
dispositio ideo est inventa, ut aspectus propter
the-arrangement for-this-reason has been-devised that the-look because-of
asperitatem intercolumniorum habeat auctoritatem, praeterea,
the-roughness of-the-intercolumniations may-have dignity besides
si ex improviso imbrium aquae vis occupaverit et
if from the-unforeseen of-showers of-water a-force shall-have-caught and
intercluserit hominum multitudinem, ut habeat in aede
shall-have-shut-in of-men a-crowd that it-may-have in the-temple
circaque cellam cum laxamento liberam moram. Haec autem
and-around the-cella with room free a-lingering these-things moreover
ut explicantur in pseudodipteris aedium dispositionibus!
how are-worked-out in pseudodipteral of-temples arrangements
Quare videtur acuta magnaque sollertia effectus operum
wherefore it-seems with-keen and-great skill the-achievements of-works
Hermogenes fecisse reliquisseque fontes, unde posteri
Hermogenes to-have-made and-to-have-left springs whence later-men
possent haurire disciplinarum rationes.
might to-draw of-the-sciences the-methods
Aedibus araeostylis columnae sic sunt faciendae, uti 10
for-temples far-columned columns thus are to-be-made that
crassitudines earum sint partis octavae ad altitudines.
the-thicknesses their may-be of-a-part eighth in-relation-to the-heights
Item in diastylo dimetienda est altitudo columnae in
likewise in the-wide-columned to-be-measured-out is the-height of-a-column into

partes octo et dimidiam, et unius partis columnae crassitudo
parts eight and a-half and of-one part of-the-column the-thickness
conlocetur. In systylo altitudo dividatur in novem et
let-it-be-set in the-close-columned the-height let-it-be-divided into nine and
dimidiam partem, et ex eis una ad crassitudinem columnae
a-half part and of them one for the-thickness of-the-column
detur. Item in pycnostylo dividenda est altitudo in partes
let-it-be-given likewise in the-thick-columned to-be-divided is the-height into parts
decem, et eius una pars facienda est columnae crassitudo.
ten and of-it one part to-be-made is of-the-column the-thickness
Eustyli autem aedis columnae, uti systyli, in
of-the-well-columned moreover temple of-the-column as of-the-close-columned into
novem partes altitudo dividatur et dimidiam partem, et
nine parts the-height let-it-be-divided and a-half part and
eius una pars constituatur in crassitudine imi scapi. Ita
of-it one part let-it-be-set in the-thickness of-the-lowest shaft so
habebitur pro rata parte intercolumniorum ratio.
there-will-be-had in due-proportion part of-the-intercolumniations the-method
11 Quemadmodum enim crescunt spatia inter columnas,
just-as for grow the-spaces between columns
proportionibus adaugendae sunt crassitudines scaporum. Namque
in-proportion to-be-increased are the-thicknesses of-the-shafts for
si in araeostylo nona aut decima pars crassitudinis fuerit,
if in the-far-columned a-ninth or tenth part of-thickness shall-be
tenuis et exilis apparebit, ideo quod per latitudinem
thin and meager it-will-appear for-this-reason because through the-breadth
intercolumniorum aer consumit et inminuit aspectu
of-the-intercolumniations the-air eats-away and lessens in-appearance
scaporum crassitudinem. Contra vero pycnostylis
of-the-shafts the-thickness on-the-other-hand but for-thick-columned-ones
si octava pars crassitudinis fuerit, propter crebritatem et
if an-eighth part of-thickness shall-be because-of the-closeness and

angustias intercolumniorum tumidam et invenustam efficiet
narrowness of-the-intercolumniations a-swollen and ungraceful it-will-make
speciem. Itaque generis operis oportet persequi symmetrias.
look and-so of-the-kind of-the-work it-behooves to-follow-out the-symmetries
Etiamque angulares columnae crassiores faciendae sunt ex
and-also corner columns thicker to-be-made are by
sua diametro quinquagesima parte, quod eae ab aere
their-own diameter a-fiftieth part because they by the-air
circumciduntur et graciliores videntur esse aspicientibus.
are-cut-round and slenderer seem to-be to-onlookers
Ergo quod oculus fallit, ratiocinatione est exaequandum.
therefore what the-eye deceives by-reasoning is to-be-made-equal
Contracturae autem in summis columnarum hypotracheliis ita 12
the-taperings moreover at the-topmost of-the-columns necking-bands so
faciendae videntur, uti, si columna sit ab minimo ad pedes
to-be-made seem that if a-column be from the-least to feet
quinos denos, ima crassitudo dividatur in partes sex et
five (and)-ten the-lowest thickness let-it-be-divided into parts six and
earum partium quinque summa constituatur. Item quae erit
of-those parts five the-top let-it-be-made likewise which shall-be
ab quindecim pedibus ad pedes viginti, scapus imus in
from fifteen feet to feet twenty the-shaft lowest into
partes sex et semissem dividatur, earumque partium quinque
parts six and a-half let-it-be-divided and-of-those parts five
et semisse superior crassitudo columnae fiat. Item quae
and a-half the-upper thickness of-the-column let-it-be-made likewise which
erunt a pedibus viginti ad pedes triginta, scapus imus
shall-be from feet twenty to feet thirty the-shaft lowest
dividatur in partes septem, earumque sex summa contractura
let-it-be-divided into parts seven and-of-those six the-top tapering
perficiatur. Quae autem ab triginta pedibus ad quadraginta
let-it-be-finished which moreover from thirty feet to forty

alta erit, ima dividatur in partes septem et dimidiam; ex
high shall-be the-lowest let-it-be-divided into parts seven and a-half of
his sex et dimidiam in summo habeat contracturae rationem.
these six and a-half at the-top let-it-have of-tapering the-reckoning
Quae erunt ab quadraginta pedibus ad quinquaginta, item
which shall-be from forty feet to fifty likewise
dividendae sunt in octo partes, et earum septem in summo
to-be-divided are into eight parts and of-those seven at the-topmost
scapo sub capitulo contrahantur. Item si quae altiores erunt,
shaft beneath the-capital let-them-be-drawn-in likewise if any taller shall-be
eadem ratione pro rata constituantur contracturae.
by-the-same method in due-proportion let-them-be-fixed the-taperings
13 Haec autem propter altitudinis intervallum scandentis oculi
these moreover because-of of-height the-interval of-the-climbing eye
species adiciuntur crassitudinibus temperaturae. Venustates
the-sight are-added to-the-thicknesses the-adjustments graces
enim persequitur visus, cuius si non blandimur voluptati
for pursues the-sight whose if not we-flatter the-pleasure
proportione et modulorum adiectionibus, uti quod
by-proportion and of-modules by-additions so-that what
fallitur temperatione adaugeatur, vastus et invenustus
is-cheated by-adjustment is-made-up an-unshapely and ungraceful
conspicientibus remittetur aspectus. De adiectione, quae
to-beholders will-be-sent-back look about the-addition which
adicitur in mediis columnis, quae apud Graecos ἔντασις
is-added in the-middle-of columns which among the-Greeks entasis
appellatur, in extremo libro erit forma et ratio eius,
is-called at the-end-of-the book there-will-be a-figure and the-method of-it
quemadmodum mollis et conveniens efficiatur, subscripta.
how soft and fitting it-may-be-made appended

The foundations are dug down to solid ground. Where there is none, the site is emptied out and packed with charred piles of alder, olive, or oak driven as close together as possible. The steps in front are always odd in number, so that the climb begins and ends on the right foot; and where a podium runs round the temple, its stylobate is raised a little through the middle, or the eye reads it as hollow.

Fundationes eorum operum fodiantur, si queat inveniri, ad 1
the-foundations of-those works let-them-be-dug if it-can to-be-found to
solidum et in solido, quantum ex amplitudine operis
the-solid and into the-solid as-much from the-size of-the-work
pro ratione videbitur, extruaturque structura totum
according-to reckoning it-shall-seem and-let-there-be-built masonry the-whole
solum quam solidissima. Supraque terram parietes extruantur
ground as most-solid and-above the-ground walls let-them-be-built
sub columnas dimidio crassiores quam columnae sunt futurae,
beneath the-columns by-a-half thicker than the-columns are to-be
uti firmiora sint inferiora superioribus; quae stereobates
so-that stronger may-be the-lower-parts than-the-upper which stereobates
appellantur, nam excipiunt onera. Spirarumque proiecturae
are-called for they-take-up the-loads and-of-the-bases the-projections
non procedant extra solidum; item supra parietis ad eundem
not let-them-go beyond the-solid likewise above of-the-wall in the-same
modum crassitudo servanda est. Intervalla autem concamaranda
way the-thickness to-be-kept is the-spaces moreover to-be-vaulted
aut solidanda festucationibus, uti distineantur.
or to-be-made-solid by-rammings so-that they-be-held-apart
Sin autem solidum non invenietur, sed locus erit 2
but-if moreover the-solid not shall-be-found but the-place shall-be
congesticius ad imum aut paluster, tunc is locus fodiatur
made-ground to the-bottom or marshy then that place let-it-be-dug

exinaniaturque et palis alneis aut oleagineis aut robusteis
and-emptied and with-piles of-alder or of-olive or of-oak
ustilatis configatur, sublicaque machinis adigatur quam
charred let-it-be-pinned and-the-pile by-engines let-it-be-driven as
creberrime, carbonibusque expleantur intervalla palorum, et
most-thickly and-with-charcoal let-them-be-filled the-spaces of-the-piles and
tunc structuris solidissimis fundamenta impleantur. Extructis
then with-masonry most-solid the-foundations let-them-be-filled built-up
autem fundamentis ad libramentum stylobatae sunt conlocandi.
moreover the-foundations to the-level the-stylobates are to-be-set
3 Supra stylobatas columnae disponendae, quemadmodum
above the-stylobates columns to-be-arranged as
supra scriptum est, sive in pycnostylo, quemadmodum
above written has-been whether in the-thick-columned as
pycnostyla, sive systylo aut diastylo aut
thick-columned-ones or the-close-columned or the-wide-columned or
eustylo, quemadmodum supra scripta sunt et
the-well-columned as above written have-been and
constituta. In araeostylis enim libertas est quantum
settled in far-columned-ones for liberty there-is as-much-as
cuique libet constituendi. Sed ita columnae in peripteris
to-each it-pleases of-establishing but so columns in peripteral-ones
conlocentur, uti, quot intercolumnia sunt in fronte,
let-them-be-set that as-many-as intercolumniations there-are on the-front
totidem bis intercolumnia fiant in lateribus; ita
as-many twice intercolumniations let-there-be-made on the-sides so
enim erit duplex longitudo operis ad latitudinem.
for will-be double the-length of-the-work in-relation-to the-breadth
Namque qui columnarum duplicationes fecerunt, erravisse
for those-who of-columns doublings have-made to-have-erred

videntur, quod unum intercolumnium in longitudine plus
seem because one intercolumniation in the-length more
quam oporteat procurrere videtur.
than is-right to-run-on seems
Gradus in fronte constituendi ita sunt, uti sint semper 4
the-steps on the-front to-be-set so are that they-be always
inpares; namque cum dextro pede primus gradus
odd for when with-the-right foot the-first step
ascendatur, item in summo templo primus erit ponendus.
is-climbed likewise at the-topmost temple first will-be to-be-set
Crassitudines autem eorum graduum ita finiendas censeo, ut
the-thicknesses moreover of-those steps so to-be-fixed I-judge that
neque crassiores dextante nec tenuiores dodrante sint
neither thicker than-ten-twelfths nor thinner than-nine-twelfths may-be
conlocatae; sic enim durus non erit ascensus. Retractiones
set so for hard not will-be the-climb the-set-backs
autem graduum nec minus quam sesquipedales nec plus
moreover of-the-steps neither less than a-foot-and-a-half nor more
quam bipedales faciendae videntur. Item si circa aedem
than two-feet to-be-made seem likewise if around the-temple
gradus futuri sunt, ad eundem modum fieri debent.
steps to-be are in the-same way to-be-made they-ought
Sin autem circa aedem ex tribus lateribus podium faciendum 5
but-if moreover around the-temple on three sides a-podium to-be-made
erit, id constituatur, uti quadrae, spirae, trunci, coronae,
shall-be it let-it-be-set so-that the-squares bases trunks cornices
lysis ad ipsum stylobatam, qui erit sub columnarum
the-lysis with the-very stylobate which will-be beneath of-the-columns
spiris, conveniant. Stylobatam ita oportet exaequari, uti
the-bases may-agree the-stylobate so it-behooves to-be-leveled that
habeat per medium adiectionem per scamillos inpares;
it-may-have through the-middle an-addition by little-steps uneven

si enim ad libellam dirigetur, alveolatum oculo videbitur.
if for to the-plumb-level it-shall-be-set hollowed to-the-eye it-will-look
Hoc autem, ut scamilli ad id convenientes fiant, item
this moreover how the-little-steps for it suitable may-be-made likewise
in extremo libro forma et demonstratio erit descripta.
at the-end-of-the book a-figure and a-demonstration will-be drawn

III.5 · THE IONIC ORDER

Vitruvius sets out the Ionic base, then the capital, whose volute is drawn round an eye as wide as one of its eight parts, and then the architrave, frieze, dentils, cornice, and pediment above. All of that is tilted forward by a twelfth of its height, because the eye's line to the top of a building is longer than its line to the foot and makes an upright front look as if it leans back. Lions' heads on the side simas, pierced only where they stand over a column, spout the gutter's rainwater clear of the intercolumniations.

1 His perfectis in suis locis spirae conlocentur, eaeque
these-things finished in their-own places the-bases let-them-be-set and-they
ad symmetriam sic perficiantur, uti crassitudo cum plintho
to symmetry thus let-them-be-finished that the-thickness with the-plinth
sit columnae ex dimidia crassitudine proiecturamque, quam
be of-the-column from half the-thickness and-the-projection which
Graeci ἐκφορὰν vocitant, habeant S extantem: ita tum lata
the-Greeks outcarrying call let-them-have S standing-out so then broad
et longa erit columnae crassitudinis unius et dimidiae.
and long it-will-be of-the-column of-the-thickness one and a-half
2 Altitudo eius, si atticurges erit, ita dividatur, ut superior
the-height of-it if Attic-worked it-shall-be so let-it-be-divided that the-upper
pars tertia parte sit crassitudinis columnae, reliquum plintho
part a-third part be of-the-thickness of-the-column the-rest for-the-plinth

relinquatur. Dempta plintho reliquum dividatur in partes
let-it-be-left taken-away the-plinth the-rest let-it-be-divided into parts
quattuor, fiatque superior torus quartae; reliquae
four and-let-there-be-made the-upper torus of-a-fourth the-remaining
tres aequaliter dividantur, et una sit inferior torus, altera
three equally let-them-be-divided and one be the-lower torus the-other
pars cum suis quadris scotia, quam Graeci τροχίλον dicunt.
part with its-own square-edges the-scotia which the-Greeks trochilus call
Sin autem ionicae erunt faciendae, symmetriae earum sic erunt 3
but-if moreover Ionic shall-be to-be-made the-symmetries of-them thus will-be
constituendae, uti latitudo spirae quoqueversus sit columnae
to-be-fixed that the-breadth of-the-base each-way be of-the-column
crassitudinis adiecta e crassitudine quarta et octava. Altitudo
of-the-thickness added from the-thickness a-fourth and an-eighth the-height
ita uti atticurges; item et eius plinthos; reliquumque praeter
so as the-Attic-worked likewise also its plinth and-the-rest except
plinthum, quod erit tertia pars crassitudinis columnae,
the-plinth which will-be a-third part of-the-thickness of-the-column
dividatur in partes septem: inde trium partium torus, qui
let-it-be-divided into parts seven thence of-three parts the-torus which
est in summo; reliquae quattuor partes dividendae sunt
is at the-top the-remaining four parts to-be-divided are
aequaliter, et una pars fiat cum suis astragalis et
equally and one part let-it-be-made with its-own astragals and
supercilio superior trochilus, altera pars inferiori trochilo
fillet the-upper trochilus the-other part for-the-lower trochilus
relinquatur; sed inferior maior apparebit, ideo quod
let-it-be-left but the-lower greater will-appear for-this-reason because
habebit ad extremam plinthum proiecturam. Astragali faciendi
it-will-have to the-outer plinth projection the-astragals to-be-made

sunt octavae partis trochili. Proiectura erit spirae pars
are of-an-eighth part of-the-trochilus the-projection will-be of-the-base part
octava et sexta decuma pars crassitudinis columnae.
an-eighth and sixth (and)-tenth part of-the-thickness of-the-column
4 Spiris perfectis et conlocatis columnae sunt medianae
the-bases finished and set the-columns are the-middle-ones
in pronao et postico ad perpendiculum medii centri
in the-pronaos and the-rear to the-plumb-line of-the-middle center
conlocandae, angulares autem quaeque e regione earum
to-be-set the-corner-ones moreover and-those-which from the-line of-them
futurae sunt in lateribus aedis dextra ac sinistra, uti
to-be are on the-sides of-the-temple on-the-right and on-the-left so-that
partes interiores, quae ad parietes cellae spectant, ad
the-parts inner which toward the-walls of-the-cella look to
perpendiculum latus habeant conlocatum, exteriores autem
the-plumb-line a-side may-have set the-outer moreover
partes †uti dicant se earum contracturam. Sic enim
parts so-that they-may-show themselves of-them the-tapering so for
erunt figurae compositionis aedium contractura eius tali
will-be the-figures of-the-composition of-temples by-the-tapering of-it by-such
ratione exactae.
a-method worked-out
5 Scapis columnarum statutis capitulorum ratio sic est habenda.
the-shafts of-the-columns set-up of-the-capitals the-method thus is to-be-had
Si pulvinata erunt, his symmetriis conformabuntur, uti,
if cushioned they-shall-be by-these symmetries they-will-be-shaped that
quam crassus imus scapus fuerit addita octava decuma
as thick the-lowest shaft shall-have-been added an-eighth (and)-tenth
parte scapi, abacus habeat longitudinem et latitudinem;
part of-the-shaft the-abacus let-it-have length and breadth
crassitudinem cum volutis eius dimidiam. Recedendum autem
the-thickness with the-volutes of-it a-half to-be-drawn-back moreover

est ab extremo abaco in interiorem partem frontibus volutarum
it-is from the-outer abacus into the-inner part by-the-faces of-the-volutes
parte duodevicensima et eius dimidia. Tunc crassitudo
by-a-part eighteenth and of-it a-half then the-thickness
dividenda est in partes novem et dimidiam, et secundum
to-be-divided is into parts nine and a-half and along
abacum in quattuor partibus volutarum secundum extremi abaci
the-abacus in four parts of-the-volutes along of-the-outer abacus
quadram lineae demittendae, quae cathetoe dicuntur. Tunc
the-square-edge lines to-be-let-fall which catheti are-called then
ex novem partibus et dimidia una pars et dimidia abaci
of nine parts and a-half one part and a-half of-the-abacus
crassitudo relinquatur, reliquae octo volutis constituantur.
(as)-the-thickness let-it-be-left the-remaining eight for-the-volutes let-them-be-appointed
Tunc ab linea, quae secundum abaci extremam partem 6
then from the-line which along of-the-abacus the-outer part
demissa erit, in interiorem partem alia recedat
let-fall shall-have-been into the-inner part another let-it-draw-back
unius et dimidiatae partis latitudine. Deinde hae lineae
of-one and a-half part by-the-breadth then these lines
dividantur ita, ut quattuor partes et dimidia sub abaco
let-them-be-divided so that four parts and a-half beneath the-abacus
relinquantur. Tunc in eo loco, qui locus dividit quattuor
be-left then at that place which place divides four
et dimidiam et tres et dimidiam partem, centrum oculi
and a-half and three and a-half part the-center of-the-eye
conlocetur signeturque ex eo centro rotunda circinatio
let-it-be-set and-let-there-be-marked from that center a-round circle
tam magna in diametro, quam una pars ex octo partibus
as great in diameter as one part of eight parts
est. Ea erit oculi magnitudine, et in ea catheto
is that will-be of-the-eye in-size and in it to-the-cathetus

respondens diametros agatur. Tunc ab summo sub
answering a-diameter let-it-be-drawn then from the-top beneath
abaco inceptum schema volutae in singulis tetrantorum
the-abacus begun the-figure of-the-volute in the-several of-the-quadrants
actionibus dimidiatum oculi spatium minuatur, doneque
turnings (by)-half of-the-eye the-space let-it-be-lessened until
in eundem tetrantem, qui subest, conveniat.
into the-same quadrant which lies-beneath it-comes-together

7 Capituli autem crassitudo sic est facienda, ut ex novem
of-the-capital moreover the-thickness thus is to-be-made that of nine
partibus et dimidia tres partes praependeant infra astragalum
parts and a-half three parts hang-down below the-astragal
summi scapi; cymatio, adempto abaco et canali,
of-the-topmost shaft for-the-cyma taken-away the-abacus and the-channel
reliqua sit pars. Proiectura autem cymatii habeat extra
the-remaining be part the-projection moreover of-the-cyma let-it-have beyond
abaci quadram oculi magnitudinem. Pulvinorum baltei
of-the-abacus the-square-edge of-the-eye the-size of-the-cushions the-bands
ab abaco hanc habeant proiecturam, uti circini centrum
from the-abacus this let-them-have projection that of-the-compass the-center
unum cum sit positum in capituli tetrante et alterum
one when is placed in of-the-capital the-quadrant and the-other
diducatur ad extremum cymatium, circumactum balteorum
is-drawn-out to the-outer cyma swung-round of-the-bands
extremas partes tangat. Axes volutarum ne crassiores sint
the-outer parts it-may-touch the-axes of-the-volutes let-not thicker be
quam oculi magnitudo, volutaeque ipsae succidantur
than of-the-eye the-size and-the-volutes themselves let-them-be-cut-under
altitudinis suae duodecimam partem. Haec erunt symmetriae
of-height their-own a-twelfth part these will-be the-symmetries
capitulorum, quae columnae futurae sunt ab minimo ad
of-the-capitals which columns to-be are from the-least to

pedes XXV. Quae supra erunt, reliqua habebunt ad eundem
feet XXV which above shall-be the-rest will-have in the-same
modum symmetrias, abacus autem erit longus et latus,
way symmetries the-abacus moreover will-be long and broad
quam crassa columna est ima adiecta parte VIIII, uti,
as thick the-column is at-the-bottom added a-part VIIII so-that
quo minus habuerit altior columna contractum, eo
by-how-much less shall-have-had a-taller column drawn-in by-so-much
ne minus habeat capitulum suae symmetriae proiecturam
not less may-have the-capital of-its-own symmetry the-projection
et in latitudine suae partis adiectionem.
and in breadth of-its-own part the-addition
De volutarum descriptionibus, uti ad circinum sint 8
about of-the-volutes the-drawings so-that by the-compass they-may-be
recte involutae, quemadmodum describantur, in extremo
rightly coiled how they-are-drawn at the-end-of-the
libro forma et ratio earum erit subscripta.
book a-figure and the-method of-them will-be written-below
Capitulis perfectis, deinde in scapis columnarum non ad libellam
the-capitals finished then on the-shafts of-the-columns not to the-level
sed ad aequalem modulum conlocatis, ut, quae adiectio in
but to an-equal module set so-that what addition in
stylobatis facta fuerit, in superioribus membris respondeat,
the-stylobates made shall-have-been in the-upper members may-answer
epistyliorum ratio sic est habenda, uti, si columnae fuerint
of-the-architraves the-method thus is to-be-had that if the-columns shall-be
a minima XII pedum ad quindecim pedes, epistylii
from the-least XII feet to fifteen feet of-the-architrave
sit altitudo dimidia crassitudinis imae columnae; item
let-there-be the-height half of-the-thickness of-the-lowest column likewise
si ab XV pedibus ad XX, columnae altitudo dimetiatur in
if from XV feet to XX of-the-column the-height let-it-be-measured-out into

partes tredecim, et unius partis altitudo epistylii fiat;
parts thirteen and of-one part the-height of-the-architrave let-it-be-made
item si XX ad XXV pedes, dividatur altitudo in partes
likewise if XX to XXV feet let-it-be-divided the-height into parts
XII et semissem, et eius una pars epistylium in altitudine
XII and a-half and of-it one part the-architrave in height
fiat; item si ab XXV pedibus ad XXX, dividatur in
let-it-be-made likewise if from XXV feet to XXX let-it-be-divided into
partes XII, et eius una pars altitudo fiat. Item si quae
parts XII and of-it one part the-height let-it-be-made likewise if any
altiores erunt, rata parte ad eundem modum ex altitudine
taller shall-be in-due part in the-same way from the-height
columnarum expediendae sunt altitudines epistyliorum.
of-the-columns to-be-worked-out are the-heights of-the-architraves

9 Quo altius enim scandit oculi species, non facile
by-how-much higher for climbs of-the-eye the-sight not easily
persecat aeris crebritatem; dilapsa itaque altitudinis
cuts-through of-the-air the-density worn-away and-so of-height
spatio et viribus exuta incertam modulorum renuntiat
by-the-distance and of-strength stripped an-uncertain of-modules it-reports
sensibus quantitatem. Quare semper adiciendum est rationis
to-the-senses quantity wherefore always to-be-added is of-reckoning
supplementum in symmetriarum membris, ut, cum fuerint
a-supplement in of-the-symmetries the-members so-that when they-shall-be
aut altioribus locis opera aut etiam ipsa colossicotera,
either in-higher places works or even themselves more-colossal
habeant magnitudinum rationem. Epistylii latitudo in
they-may-have of-magnitudes a-reckoning of-the-architrave the-breadth at
imo, quod supra capitulum erit, quanta crassitudo
the-bottom which above the-capital will-be as-great the-thickness

summae columnae sub capitulo erit, tanta fiat;
of-the-topmost column beneath the-capital will-be so-great let-it-be-made
summum, quantum imus scapus.
the-top as-much-as the-lowest shaft
Cymatium epistylii septima parte suae altitudinis est 10
the-cyma of-the-architrave a-seventh part of-its-own height is
faciendum, et in proiectura tantundem. Reliqua pars praeter
to-be-made and in projection just-as-much the-remaining part except
cymatium dividenda est in partes XII, et earum trium
the-cyma to-be-divided is into parts XII and of-those of-three
ima fascia est facienda, secunda IIII, summa V. Item
the-lowest fascia is to-be-made the-second IIII the-top V likewise
zophorus supra epistylium quarta parte minus altus quam
the-frieze above the-architrave a-fourth part less high than
epistylium; sin autem sigilla designari oportuerit, quarta
the-architrave but-if moreover figures to-be-marked-out it-shall-behoove a-fourth
parte altior quam epistylium, uti auctoritatem habeant
part higher than the-architrave so-that dignity may-have
scalpturae. Cymatium suae altitudinis partis septimae;
the-carvings the-cyma of-its-own height of-a-part seventh
proiecturae cymatium quantum crassitudo.
of-projection the-cyma as-much-as the-thickness
Supra zophorum denticulus est faciendus tam altus quam 11
above the-frieze the-dentil-band is to-be-made as high as
epistylii media fascia; proiectura eius quantum altitudo.
of-the-architrave the-middle fascia the-projection of-it as-much-as the-height
Intersectio, quae graece μετόπη dicitur, sic est dividenda, uti
the-space-between which in-Greek between-holes is-called thus is to-be-divided that
denticulus altitudinis suae dimidiam partem habeat in fronte,
the-dentil-band of-height its-own a-half part may-have on the-front
cavus autem intersectionis huius frontis e tribus duas partes;
the-hollow moreover of-the-space-between of-this front of three two parts

huius cymatium altitudinis eius sextam partem. Corona cum
of-this the-cyma of-height its a-sixth part the-cornice with
suo cymatio, praeter simam, quantum media fascia epistylii;
its-own cyma except the-sima as-much-as the-middle fascia of-the-architrave
proiectura coronae cum denticulo facienda est, quantum
the-projection of-the-cornice with the-dentil-band to-be-made is as-much-as
erit altitudo a zophoro ad summum coronae cymatium;
will-be the-height from the-frieze to the-topmost of-the-cornice cyma
et omnino omnes ecphorae venustiorem habeant speciem,
and in-general all outcarryings a-more-graceful let-them-have look
quae quantum altitudinis tantundem habent proiecturae.
which as-much-as of-height just-so-much have of-projection

12 Tympani autem, quod est in fastigio, altitudo sic est
of-the-tympanum moreover which is in the-pediment the-height thus is
facienda, uti frons coronae ab extremis cymatiis tota
to-be-made that the-front of-the-cornice from the-outermost cymas whole
dimetiatur in partes novem et ex eis una pars in medio
let-it-be-measured-out into parts nine and of them one part at the-middle
cacumini tympani constituatur, dum contra epistylia
for-the-peak of-the-tympanum let-it-be-set provided-that opposite the-architraves
columnarumque hypotrachelia ad perpendiculum respondeant.
and-of-the-columns the-necking-bands to the-plumb-line may-answer
Coronaeque supra aequaliter imis praeter simas sunt
and-the-cornices above equally to-the-lower-ones except the-simas are
conlocandae. Insuper coronas simae, quas Graeci ἐπαιετίδες
to-be-set upon the-cornices the-simas which the-Greeks gable-moldings
dicunt, faciendae sunt altiores octava parte coronarum
call to-be-made are higher an-eighth part of-the-cornices
altitudinis. Acroteria angularia tam alta, quantum est tympanum
of-the-height the-acroteria corner as high as is the-tympanum
medium, mediana altiora octava parte quam angularia.
middle the-middle-ones higher an-eighth part than the-corner-ones

Membra omnia, quae supra capitula columnarum sunt futura, 13
the-members all which above the-capitals of-the-columns are to-be
id est epistylia, zophora, coronae, tympana, fastigia, acroteria,
that is architraves friezes cornices tympana pediments acroteria
inclinanda sunt in fronte suae cuiusque altitudinis parte
to-be-tilted are toward the-front of-their each height by-a-part
XII, ideo quod, cum steterimus contra frontes, ab oculo
XII for-this-reason because when we-shall-have-stood before the-fronts from the-eye
lineae duae si extensae fuerint et una tetigerit imam
lines two if stretched shall-have-been and one shall-have-touched the-lowest
operis partem, altera summam, quae summam tetigerit,
of-the-work part the-other the-topmost that-which the-topmost shall-have-touched
longior fiet. Ita quo longior visus linea in superiorem
longer will-become so by-how-much longer of-sight the-line into the-upper
partem procedit, resupinatam facit eius speciem. Cum autem,
part goes-forward tilted-back it-makes of-it the-look when moreover
uti supra scriptum est, in fronte inclinata fuerint,
as above written has-been toward the-front tilted they-shall-have-been
tunc in aspectu videbuntur esse ad perpendiculum et normam.
then in view they-will-seem to-be to the-plumb-line and the-square
Columnarum striae faciendae sunt XXIIII ita excavatae, uti 14
of-the-columns the-flutes to-be-made are XXIIII so hollowed that
norma in cavo striae cum fuerit coniecta, circumacta
a-square in the-hollow of-a-flute when it-shall-have-been placed turned-round
anconibus angulos striarum dextra ac sinistra tangat
with-its-arms the-corners of-the-flutes on-the-right and on-the-left may-touch
cacumenque normae circum rotundationem tangendo pervagari
and-the-point of-the-square around the-curve by-touching to-range
possit. Crassitudines striarum faciendae sunt, quantum
may-be-able the-thicknesses of-the-flutes to-be-made are as-much-as
adiectio in media columna ex descriptione invenietur.
the-addition in the-middle column from the-drawing shall-be-found

15 In simis, quae supra coronam in lateribus sunt aedium, capita
on the-simas which above the-cornice on the-sides are of-temples heads
leonina sunt scalpenda, disposita ita, uti contra columnas
leonine are to-be-carved arranged so that opposite columns
singulas primum sint designata, cetera aequali modo disposita,
the-several first they-be marked-out the-rest in-an-equal way arranged
uti singula singulis mediis tegulis respondeant. Haec autem,
so-that each to-the-several middle tiles may-answer these moreover
quae erunt contra columnas, perterebrata sint ad canalem,
which shall-be opposite the-columns bored-through let-them-be to the-gutter
qui excipit e tegulis aquam caelestem; mediana autem
which catches from the-tiles the-water of-the-sky the-middle-ones moreover
sint solida, uti, quae cadit vis aquae per tegulas
let-them-be solid so-that which falls the-mass of-water through the-tiles
in canalem, ne deiciatur per intercolumnia neque
into the-gutter may-not be-thrown-down through the-intercolumniations nor
transeuntes perfundat, sed quae sunt contra columnas,
those-passing may-drench but those-which are opposite the-columns
videantur emittere vomentia ructus aquarum ex ore.
may-seem to-send-out vomiting gushes of-waters from the-mouth
Aedium ionicarum, quam apertissime potui, dispositiones
of-temples Ionic as plainly-as-possible I-could the-arrangements
hoc volumine scripsi; doricarum autem et corinthiarum
in-this volume I-have-written of-Doric moreover and of-Corinthian
quae sint proportiones, insequenti libro explicabo.
what are the-proportions in-the-following book I-shall-set-out

BOOK IV

IV · PREFACE

Vitruvius says that earlier writers left their notes on architecture unordered, like wandering scraps, and that he set out to bring the whole science into a finished ordering. He recalls his first three volumes: the architect's training, the materials buildings are made of, and the arrangement and kinds of temples. This book takes up the Doric and Corinthian orders, and sets out what distinguishes each of the three from the others.

Cum animadvertissem, imperator, plures de architectura 1
when I-had-noticed emperor many about architecture
praecepta voluminaque commentariorum non ordinata sed
precepts and-volumes of-notes not ordered but
incepta uti particulas errabundas reliquisse, dignam et
begun like fragments wandering to-have-left a-worthy and
utilissimam rem putavi tantae disciplinae corpus ad perfectam
most-useful thing I-thought of-so-great a-science the-body to a-finished
ordinationem perducere et praescriptas in singulis voluminibus
ordering to-bring and prescribed in the-several volumes
singulorum generum qualitates explicare. Itaque, Caesar,
of-the-several kinds the-qualities to-set-out and-so Caesar
primo volumine tibi de officio eius et quibus eruditum
in-the-first volume to-you about the-duty of-it and in-what learned
esse rebus architectum oporteat, exposui. Secundo de
to-be matters the-architect it-behooves I-set-forth in-the-second about
copiis materiae, e quibus aedificia constituuntur, disputavi;
the-supplies of-material from which buildings are-built I-discussed
tertio autem de aedium sacrarum dispositionibus et de
in-the-third moreover about of-temples sacred the-arrangements and about

earum generum varietate quasque et quot habeant species
their of-kinds the-variety and-what and how-many they-have kinds
earumque quae sunt in singulis generibus distributiones.
and-of-them what are in the-several kinds the-distributions
2 Ex tribus generibus quae subtilissimas haberent proportionibus
of three kinds which the-most-refined had in-proportions
modulorum quantitates ionici generis moribus, docui; nunc
of-modules quantities of-the-Ionic kind in-the-usages I-taught now
hoc volumine de doricis corinthiisque constitutis et omnibus
in-this volume about the-Doric and-Corinthian established and all
dicam eorumque discrimina et proprietates explicabo.
I-shall-speak and-their the-differences and the-properties I-shall-set-out

IV.1 · THE ORIGIN OF THE THREE ORDERS

The Corinthian column differs from the Ionic only in its taller capital. The Doric began with Dorus's shrine at Argos; the Ionian colonists, copying it for Apollo, found a man's foot a sixth of his height and made the column six thicknesses tall. For Diana they made a slenderer one on a woman's proportions, with a base for a shoe, volutes for ringlets, and flutes for a robe's folds. The Corinthian imitates a girl; Callimachus took its capital, whose proportions Vitruvius gives, from a basket on a grave with acanthus grown round it.

1 Columnae corinthiae praeter capitula omnes symmetrias
columns Corinthian except the-capitals all symmetries
habent uti ionicae, sed capitulorum altitudines efficiunt
have as the-Ionic but of-the-capitals the-heights make
eas pro rata excelsiores et graciliores, quod ionici
them in due-proportion taller and more-slender because of-the-Ionic
capituli altitudo tertia pars est crassitudinis columnae,
capital the-height a-third part is of-the-thickness of-the-column

corinthii tota crassitudo scapi. Igitur quod duae
of-the-Corinthian the-whole thickness of-the-shaft therefore because two
partes e crassitudine corinthiarum adiciuntur, efficiunt
parts from the-thickness of-the-Corinthian are-added they-make
excelsitate speciem earum graciliorem.
by-the-loftiness the-look of-them more-slender
Cetera membra, quae supra columnas inponuntur, aut 2
the-other members which above columns are-set either
e doricis symmetriis aut ionicis moribus in corinthiis
from Doric symmetries or Ionic usages on Corinthian
columnis conlocantur, quod ipsum corinthium genus propriam
columns are-placed because the-very Corinthian kind its-own
coronarum reliquorumque ornamentorum non habuerat
of-cornices and-of-the-other ornaments not had-had
institutionem, sed aut e triglyphorum rationibus mutuli in
a-practice but either from of-triglyphs the-methods mutules on
coronis et epistyliis guttae dorico more disponuntur,
the-cornices and on-the-architraves drops in-the-Doric manner are-arranged
aut ex ionicis institutis zophoroe scalpturis ornati cum
or from Ionic practices friezes with-carvings adorned with
denticulis et coronis distribuuntur.
dentils and cornices are-distributed
Ita e generibus duobus capitulo interposito tertium genus in 3
so from kinds two a-capital interposed a-third kind in
operibus est procreatum. E columnarum enim formationibus
works has been-begotten from of-the-columns for the-shapings
trium generum factae sunt nominationes, dorica, ionica,
of-three kinds made have-been the-namings Doric Ionic
corinthia, e quibus prima et antiquitus dorica est nata.
Corinthian of which first and in-old-time the-Doric was born

Namque Achaia Peloponnesoque tota Dorus, Hellenos et
for over-Achaia and-the-Peloponnese whole Dorus of-Hellen and
Pthias nymphae filius, regnavit, isque Argis, vetusta civitate,
of-Phthia the-nymph son reigned and-he at-Argos an-ancient state
Iunonis templo aedificavit eius generis fortuito formae
of-Juno for-the-temple built of-that kind by-chance of-form
fanum, deinde isdem generibus in ceteris Achaiae civitatibus,
a-shrine then in-the-same kinds in the-other of-Achaia states
cum etiamnum non esset symmetriarum ratio nata.
although even-then not was of-symmetries the-method born
4 Postea autem quam Athenienses ex responsis Apollinis
afterward moreover when the-Athenians from the-answers of-Apollo
Delphici, communi consilio totius Hellados, XIII colonias
Delphic by-the-common counsel of-the-whole of-Hellas XIII colonies
uno tempore in Asiam deduxerunt ducesque singulis
at-one time into Asia led-out and-leaders for-the-several
coloniis constituerunt et summam imperii potestatem Ioni,
colonies appointed and the-supreme of-command power to-Ion
Xuthi et Creusae filio, dederunt, quem etiam Apollo Delphis
of-Xuthus and of-Creusa son they-gave whom also Apollo at-Delphi
suum filium in responsis est professus, isque eas colonias in
his-own son in the-answers has declared and-he those colonies into
Asiam deduxit et Cariae fines occupavit ibique civitates
Asia led-out and of-Caria the-borders seized and-there states
amplissimas constituit Ephesum, Miletum, Myunta, (quae olim
most-ample he-founded Ephesus Miletus Myus which once
ab aqua est devorata; cuius sacra et suffragium Milesiis
by water was swallowed-up whose rites and vote to-the-Milesians
Iones attribuerunt), Prienen, Samum, Teon, Colophona,
the-Ionians assigned Priene Samos Teos Colophon
Chium, Erythras, Phocaeam, Clazomenas, Lebedon, Meliten
Chios Erythrae Phocaea Clazomenae Lebedos Melite

(haec Melite propter civium adrogantiam ab his civitatibus
this Melite because-of of-(its)-citizens the-arrogance by these states
bello indicto communi consilio est sublata; cuius loco postea
war declared by-common counsel was destroyed whose in-place afterward
regis Attali et Arsinoes beneficio Zmyrnaeorum civitas inter
of-king Attalus and of-Arsinoe by-the-favor of-the-Smyrnaeans the-state among
Ionas est recepta): hae civitates, cum Caras et 5
the-Ionians was received these states when the-Carians and
Lelegas eiecissent, eam terrae regionem a duce suo Ione
the-Leleges had-driven-out that of-land region from leader their Ion
appellaverunt Ioniam ibique deorum inmortalium templa
they-called Ionia and-there of-the-gods immortal temples
constituentes coeperunt fana aedificare. Et primum Apollini
setting-up they-began shrines to-build and first to-Apollo
Panionio aedem, uti viderant in Achaia, constituerunt et
Panionian a-temple as they-had-seen in Achaia they-set-up and
eam Doricam appellaverunt, quod in Dorieon civitatibus
it Doric they-called because in of-the-Dorians states
primum factam eo genere viderunt.
first made in-that kind they-saw
In ea aede cum voluissent columnas conlocare, non habentes 6
in that temple when they-had-wished columns to-set not having
symmetrias earum et quaerentes, quibus rationibus efficere
symmetries of-them and seeking by-what methods to-bring-it-about
possent, uti et ad onus ferendum essent idoneae et
they-might-be-able that both for a-load to-be-borne they-might-be fit and
in aspectu probatam haberent venustatem, dimensi sunt
in look an-approved they-might-have grace measured they
virilis pedis vestigium et id retulerunt in altitudinem. Cum
of-a-man's foot the-print and it they-referred to the-height when
invenissent pedem sextam partem esse altitudinis in homine,
they-had-found the-foot a-sixth part to-be of-the-height in a-man

item in columnam transtulerunt et, qua crassitudine
likewise to the-column they-carried-it-over and with-what thickness
fecerunt basim scapi, tantas sex cum capitulo in altitudinem
they-made the-base of-the-shaft so-great six with the-capital in height
extulerunt. Ita dorica columna virilis corporis proportionem
they-raised-it so the-Doric column of-a-man's body the-proportion
et firmitatem et venustatem in aedificiis praestare coepit.
and strength and grace in buildings to-furnish began
7 Item postea Dianae cum cogitarent constituere aedem,
likewise afterward for-Diana when they-were-planning to-set-up a-temple
quaerentes novi generis speciem isdem vestigiis ad
seeking of-a-new kind a-look by-the-same footprints to
muliebrem transtulerunt gracilitatem, et fecerunt primum
womanly they-carried-over slenderness and they-made first
columnae crassitudinem altitudinis octava parte, ut haberet
of-the-column the-thickness of-the-height an-eighth part so-that it-might-have
speciem excelsiorem. Basi spiram supposuerunt pro calceo,
a-look loftier to-the-base a-base they-set-under instead-of a-shoe
capitulo volutas uti capillamento concrispatos cincinnos
on-the-capital volutes like from-a-head-of-hair curled ringlets
praependentes dextra ac sinistra conlocaverunt et cymatiis
hanging-down on-the-right and on-the-left they-placed and with-cymas
et encarpis pro crinibus dispositis frontes ornaverunt
and festoons instead-of tresses arranged the-faces they-adorned
truncoque toto strias uti stolarum rugas matronali more
and-on-the-trunk whole flutes like of-robes folds in-matronly fashion
demiserunt. Ita duobus discriminibus columnarum inventionem,
they-let-fall so by-two distinctions of-columns the-invention
unam virili sine ornatu nuda specie, alteram muliebri
one in-manly without adornment bare look the-other in-womanly

subtilitate et ornatu symmetriaque sunt mutuati. Posteri vero 8
in-refinement and adornment and-symmetry they borrowed later-men but
elegantia subtilitateque iudiciorum progressi et gracilioribus
in-elegance and-refinement of-judgments having-advanced and in-slenderer
modulis delectati septem crassitudinis diametros in altitudinem
modules delighted seven of-thickness diameters for the-height
columnae doricae, ionicae novem constituerunt. Id autem
of-the-column Doric of-the-Ionic nine they-appointed that moreover
genus, quod Iones fecerunt primo, Ionicum est nominatum.
kind which the-Ionians made first Ionic was named
Tertium vero, quod Corinthium dicitur, virginalis habet
the-third but which Corinthian is-called of-maidenly has
gracilitatis imitationem, quod virginis propter aetatis
slenderness an-imitation because of-a-maiden because-of of-age
teneritatem gracilioribus membris figuratae effectus recipiunt
the-tenderness with-slenderer limbs shaped the-effects admit
ornatus venustiores.
adornments more-graceful
Eius autem capituli prima inventio sic memoratur esse 9
of-that moreover capital the-first invention thus is-recorded to-have
facta. Virgo civis Corinthia iam matura nuptiis inplicata
been-made a-maiden citizen Corinthian now ripe for-marriage caught
morbo decessit. Post sepulturam eius, quibus ea virgo viva
by-sickness died after the-burial of-her with-which that maiden alive
pupulis delectabatur, nutrix collecta et composita in calatho
dolls used-to-be-delighted the-nurse gathered and put-together in a-basket
pertulit ad monumentum et in summo conlocavit et,
carried(-them) to the-tomb and on the-top placed(-them) and
uti ea permanerent diutius subdiu, tegula texit. Is
so-that they might-last longer in-the-open with-a-tile she-covered-them that
calathus fortuito supra acanthi radicem fuerat conlocatus.
basket by-chance above of-an-acanthus a-root had-been set

Interim pondere pressa radix acanthi media folia et
meanwhile by-the-weight pressed the-root of-the-acanthus in-the-middle leaves and
cauliculos circum vernum tempus profudit, cuius cauliculi
little-stalks about spring time poured-forth whose little-stalks
secundum calathi latera crescentes et ab angulis tegulae
along of-the-basket the-sides growing and from the-corners of-the-tile
ponderis necessitate expressi flexuras in extremas partes
of-the-weight by-the-constraint forced-out curves at the-outermost parts
volutarum facere sunt coacti.
of-volutes to-make were compelled

10 Tunc Callimachus, qui propter elegantiam et subtilitatem artis
then Callimachus who because-of the-elegance and refinement of-his-art
marmoreae ab Atheniensibus κατατηξίτεχνος fuerat nominatus,
in-marble by the-Athenians art-melter had-been named
praeteriens hoc monumentum animadvertit eum calathum
passing-by this tomb noticed that basket
et circa foliorum nascentem teneritatem, delectatusque
and around of-the-leaves springing tenderness and-delighted
genere et formae novitate ad id exemplar columnas apud
by-the-kind and of-the-form the-newness after that model columns among
Corinthios fecit symmetriasque constituit et ex eo in
the-Corinthians he-made and-symmetries established and from that in
operis perfectionibus Corinthii generis distribuit rationes.
of-work the-completions of-the-Corinthian kind he-distributed the-methods

11 Eius autem capituli symmetria sic est facienda, uti, quanta
of-that moreover capital the-symmetry thus is to-be-made that as-great
fuerit crassitudo imae columnae, tanta sit altitudo
shall-have-been the-thickness of-the-lowest column so-great be the-height
capituli cum abaco. Abaci latitudo ita habeat rationem,
of-the-capital with the-abacus of-the-abacus the-breadth so let-it-have a-reckoning
ut, quanta fuerit altitudo, tanta duo sint diagonia ab
that as-great shall-have-been the-height so-great two be diagonal from

angulo ad angulum spatia; ita enim iustas habebunt frontes
corner to corner the-spaces so for proper they-will-have the-faces
quoquoversus latitudines. Frontes sinuentur introrsus ab
each-way breadths the-faces let-them-be-curved inward from
extremis angulis abaci suae frontis latitudinis nona.
the-outermost corners of-the-abacus of-their-own front breadth a-ninth
Imum capituli tantam habeat crassitudinem, quantam
the-bottom of-the-capital so-great let-it-have a-thickness as
habet summa columna praeter apothesim et astragalum.
has the-topmost column except the-apophyge and astragal
Abaci crassitudo septima capituli altitudinis.
of-the-abacus the-thickness a-seventh of-the-capital height
Dempta abaci crassitudine dividatur reliqua pars 12
taken-away of-the-abacus the-thickness let-it-be-divided the-remaining part
in partes tres, e quibus una imo folio detur;
into parts three of which one to-the-lowest leaf let-it-be-given
secundum folium mediam altitudinem teneat; coliculi
the-second leaf the-middle height let-it-hold the-little-stalks
eandem habeant altitudinem, e quibus folia nascuntur
the-same let-them-have height from which leaves spring
proiecta, uti excipiant quae ex coliculis natae
jutting-out so-that they-may-receive those-which from the-little-stalks born
procurrunt ad extremos angulos volutae; minoresque helices
run-out to the-outermost corners the-volutes and-the-smaller spirals
infra sinum medium, qui est in abaco, sub flores
below the-hollow middle which is in the-abacus beneath flowers
subiecti scalpantur. Flores in quattuor partibus, quanta
set-under let-them-be-carved the-flowers on four sides as-great
erit abaci crassitudo, tam magni formentur. Ita his
will-be of-the-abacus the-thickness so great let-them-be-shaped so by-these
symmetriis corinthia capitula suas habebunt exactiones.
symmetries Corinthian capitals their-own will-have finishings

Sunt autem, quae isdem columnis inponuntur, capitulorum
there-are moreover which on-the-same columns are-set of-capitals
genera variis vocabulis nominata, quorum nec proprietates
kinds by-various names named whose neither the-properties
symmetriarum nec columnarum genus aliud nominare
of-symmetries nor of-columns a-kind other to-name
possumus, sed ipsorum vocabula traducta et commutata ex
we-can but their-own names carried-over and changed from
corinthiis et pulvinatis et doricis videmus, quorum symmetriae
Corinthian and cushioned and Doric we-see whose symmetries
sunt in novarum scalpturarum translatae subtilitatem.
have into of-new carvings been-transferred the-refinement

IV.2 · THE ORNAMENTS COME FROM TIMBER

Every member above the columns copies something the old carpenters did in wood. Triglyphs are the tablets fastened over the cut ends of the joists and painted with blue wax; mutules are the sloping rafter-ends, and dentils the ends of the battens. Vitruvius denies that triglyphs are images of windows, and says dentils must never stand under mutules, because battens cannot lie under rafters.

1 Quoniam autem de generibus columnarum origines et
since moreover about the-kinds of-columns the-origins and
inventiones supra sunt scriptae, non alienum mihi videtur
inventions above have been-written not out-of-place to-me it-seems
isdem rationibus de ornamentis eorum, quemadmodum
by-the-same methods about the-ornaments of-them how
sunt prognata et quibus principiis et originibus inventa,
they-have come-forth and from-what beginnings and origins devised
dicere. In aedificiis omnibus insuper conlocatur materiatio
to-speak in buildings all above is-set timberwork

variis vocabulis nominata. Ea autem uti in nominationibus,
by-various names named it moreover as in the-namings
ita in re varias habet utilitates. Trabes enim supra columnas
so in fact various has uses beams for above columns
et parastaticas et antas ponuntur; in contignationibus tigna
and pilasters and antae are-laid in floorings joists
et axes; sub tectis, si maiora spatia sunt, et transtra et
and planks beneath roofs if greater spans there-are both cross-beams and
capreoli, si commoda, columen, et cantherii prominentes ad
struts if moderate a-ridge-piece and rafters jutting-out to
extremam suggrundationem; supra cantherios templa; deinde
the-outermost eaves above the-rafters purlins then
insuper sub tegulas asseres ita prominentes, uti parietes
above beneath the-tiles battens so jutting-out that the-walls
proiecturis eorum tegantur.
by-the-projections of-them are-covered
Ita unaquaeque res et locum et genus et ordinem proprium 2
so each thing both a-place and a-kind and an-order its-own
tuetur. E quibus rebus et a materiatura fabrili
keeps from which things and from the-timberwork of-the-carpenter
in lapideis et marmoreis aedium sacrarum aedificationibus
in stone and marble of-temples sacred buildings
artifices dispositiones eorum scalpturis sunt imitati et eas
craftsmen the-arrangements of-them by-carvings have imitated and those
inventiones persequendas putaverunt. Ideo, quod antiqui
inventions to-be-followed-out they-thought for-this-reason that the-old
fabri quodam in loco aedificantes, cum ita ab interioribus
carpenters a-certain in place building when so from the-inner
parietibus ad extremas partes tigna prominentia habuissent
walls to the-outermost parts joists jutting-out they-had
conlocata, inter tigna struxerunt supraque coronas et
laid between the-joists they-built and-above cornices and

fastigia venustiore specie fabrilibus operibus ornaverunt,
pediments with-a-more-graceful look with-carpenter's work they-adorned
tum proiecturas tignorum, quantum eminebant, ad lineam
then the-projections of-the-joists as-far-as they-stood-out to the-line
et perpendiculum parietum praesecuerunt, quae species
and the-plumb of-the-walls they-cut-off which look
cum invenusta is visa esset, tabellas ita formatas, uti
when ungraceful to-them seen had-been tablets so shaped as
nunc fiunt triglyphi, contra tignorum praecisiones in
now are-made triglyphs against of-the-joists the-cut-ends on
fronte fixerunt et eas cera caerulea depinxerunt, ut
the-front they-fastened and them with-wax blue they-painted so-that
praecisiones tignorum tectae non offenderent visum: ita
the-cut-ends of-the-joists covered not might-offend the-sight so
divisiones triglyphorum et metoparum tignorum dispositione
divisions of-triglyphs and of-metopes of-joists by-the-arrangement
et intertignium habere in doricis operibus coeperunt.
and the-space-between-joists to-have in Doric works they-began
3 Postea alii in aliis operibus ad perpendiculum triglyphorum
afterward others in other works to the-plumb of-the-triglyphs
cantherios prominentes proiecerunt eorumque proiecturas
rafters jutting-out they-thrust-forward and-their projections
simaverunt. Ex eo, uti tignorum dispositionibus triglyphi, ita
they-curved from that as of-joists from-the-arrangements triglyphs so
e cantheriorum proiecturis mutulorum sub coronis ratio
from of-rafters the-projections of-mutules beneath the-cornices the-method
est inventa. Ita fere in operibus lapideis et marmoreis
was devised so generally in works stone and marble
mutuli inclinatis scalpturis deformantur, quod imitatio est
mutules with-sloping carvings are-shaped because an-imitation it-is
cantheriorum; etenim necessario propter stillicidia proclinati
of-rafters for-indeed necessarily because-of the-eaves-drip sloped

conlocantur. Ergo et triglyphorum et mutulorum in doricis
they-are-laid therefore both of-triglyphs and of-mutules in Doric
operibus ratio ex ea imitatione inventa est.
works the-method from that imitation devised was
Non enim, quemadmodum nonnulli errantes dixerunt 4
not for just-as some erring have-said
fenestrarum imagines esse triglyphos, ita potest esse,
of-windows images to-be triglyphs so can it-be
quod in angulis contraque tetrantes columnarum triglyphi
because at the-corners and-opposite the-quarters of-the-columns triglyphs
constituuntur, quibus in locis omnino non patitur res
are-set which in places at-all not allows the-case
fenestras fieri. Dissolvuntur enim angulorum in aedificiis
windows to-be-made are-broken-up for of-the-corners in buildings
iuncturae, si in is fenestrarum fuerint lumina relicta.
the-joints if in them of-windows shall-have-been openings left
Etiamque ubi nunc triglyphi constituuntur, si ibi luminum
and-also where now triglyphs are-set if there of-openings
spatia fuisse iudicabuntur, isdem rationibus denticuli
spaces to-have-been shall-be-judged by-the-same methods dentils
in ionicis fenestrarum occupavisse loca videbuntur.
in Ionic-(works) of-windows to-have-taken-up the-places will-seem
Utraque enim, et inter denticulos et inter triglyphos
the-two for both between dentils and between triglyphs
quae sunt intervalla, metopae nominantur. ὀπαί enim Graeci
which are the-spaces metopes are-named holes for the-Greeks
tignorum cubicula et asserum appellant, uti nostri ea cava
of-joists the-beds and of-battens call as our-people those hollows
columbaria. Ita quod inter duas opas est intertignium,
dove-holes so what between two holes is the-space-between-joists
id μετόπη est apud eos nominata.
that between-holes is among them named

Ita uti autem in doricis triglyphorum et mutulorum est
so as moreover in Doric-works of-triglyphs and of-mutules was
inventa ratio, item in ionicis denticulorum constitutio
devised the-method likewise in Ionic-works of-dentils the-establishment
propriam in operibus habet rationem, et quemadmodum
its-own in works has a-method and just-as
mutuli cantheriorum proiecturae ferunt imaginem, sic in
mutules of-rafters of-the-projection bear the-image so in
ionicis denticuli ex proiecturis asserum habent imitationem.
Ionic-works dentils from the-projections of-battens have an-imitation
Itaque in graecis operibus nemo sub mutulo denticulos
and-so in Greek works no-one beneath a-mutule dentils
constituit; non enim possunt subtus cantherios asseres esse.
has-set not for can below rafters battens to-be
Quod ergo supra cantherios et templa in veritate debet esse
what therefore above rafters and purlins in truth ought to-be
conlocatum, id in imaginibus si infra constitutum fuerit,
set that in the-images if below set shall-have-been
mendosam habebit operis rationem. Etiam quod antiqui
a-faulty it-will-have of-the-work method also because the-ancients
non probaverunt, neque instituerunt in fastigiis mutulos aut
not approved nor appointed on pediments mutules or
denticulos fieri sed puras coronas, ideo quod nec
dentils to-be-made but plain cornices for-this-reason that neither
cantherii nec asseres contra fastigiorum frontes distribuuntur
rafters nor battens against of-pediments the-fronts are-set-out
nec possunt prominere, sed ad stillicidia proclinati conlocantur.
nor can to-jut-out but for the-eaves-drip sloped they-are-laid
Ita quod non potest in veritate fieri, id non putaverunt
so what not can in truth to-be-done that not they-thought
in imaginibus factum posse certam rationem habere.
in the-images made to-be-able a-sure method to-have

Omnia enim certa proprietate et a veris naturae 6
all-things for with-a-sure propriety and from true of-nature
deducta moribus transduxerunt in operum perfectiones, et
drawn usages they-carried-over into of-works the-completions and
ea probaverunt, quorum explicationes in disputationibus
those they-approved whose the-explanations in discussion
rationem possunt habere veritatis. Itaque ex eis originibus
an-account can to-have of-truth and-so from those origins
symmetrias et proportiones uniuscuiusque generis constitutas
symmetries and proportions of-each kind established
reliquerunt. Quorum ingressus persecutus de ionicis et
they-left whose beginnings having-followed about Ionic and
corinthiis institutionibus supra dixi; nunc vero doricam
Corinthian practices above I-have-spoken now but the-Doric
rationem summamque eius speciem breviter exponam.
method and-the-whole of-it look briefly I-shall-set-forth

IV.3 · THE DORIC ORDER

Some old architects refused to build temples in the Doric, because its triglyphs and metopes will not come out even at the corners. Vitruvius sets the order out anyway, as his teachers gave it to him. The front is divided into equal parts and one part is the module: the column stands fourteen modules high, and every other member follows from that one unit. He gives the arrangement for the wide-columned temple and for the close-columned one, which carries a single triglyph over each intercolumniation.

Nonnulli antiqui architecti negaverunt dorico genere aedes 1
some old architects denied in-the-Doric kind temples
sacras oportere fieri, quod mendosae et disconvenientes in
sacred to-behoove to-be-made because faulty and ill-fitting in

his symmetriae conficiebantur. Itaque negavit Arcesius, item
these symmetries were-worked-out and-so denied(-it) Arcesius likewise
Pytheos, non minus Hermogenes. Nam is cum paratam
Pytheos not less Hermogenes for he when made-ready
habuisset marmoris copiam in doricae aedis perfectionem,
he-had of-marble a-supply for of-a-Doric temple the-completion
commutavit ex eadem copia et eam ionicam Libero Patri
he-changed-over out-of the-same supply and it Ionic to-Liber Father
fecit. Sed tamen non quod invenusta est species aut genus
he-made but yet not because ungraceful is the-look or the-kind
aut formae dignitas, sed quod inpedita est distributio et
or of-the-form the-dignity but because hampered is the-distribution and
incommoda in opere triglyphorum et lacunariorum.
awkward in the-work of-triglyphs and of-coffers

2 Namque necesse est triglyphos constitui contra medios tetrantes
for necessary it-is triglyphs to-be-set opposite the-middle quarters
columnarum, metopasque, quae inter triglyphos fient, aeque
of-the-columns and-the-metopes which between triglyphs will-be-made equally
longas esse quam altas. Contraque in angulares columnas
long to-be as high and-on-the-contrary at the-corner columns
triglyphi in extremis partibus constituuntur et non contra
triglyphs at the-outermost parts are-set and not opposite
medios tetrantes. Ita metopae, quae proximae ad angulares
the-middle quarters so the-metopes which nearest to the-corner
triglyphos fiunt, non exeunt quadratae sed oblongiores
triglyphs are-made not come-out square but longer
triglyphi dimidia latitudine. At qui metopas aequales volunt
of-a-triglyph by-half the-breadth but those-who the-metopes equal they-wish
facere, intercolumnia extrema contrahunt triglyphi dimidia
to-make intercolumniations the-outermost they-narrow of-a-triglyph by-half
latitudine. Hoc autem, sive metoparum longitudinibus
the-breadth this moreover whether of-metopes by-lengths

sive intercolumniorum contractionibus efficietur, est
or of-intercolumniations by-narrowings it-shall-be-brought-about is
mendosum. Quapropter antiqui vitare visi sunt in aedibus
faulty wherefore the-ancients to-avoid seen have-been in temples
sacris doricae symmetriae rationem.
sacred of-the-Doric symmetry the-method
Nos autem exponimus, uti ordo postulat, quemadmodum a 3
we moreover set-forth as the-order demands as from
praeceptoribus accepimus, uti, si qui voluerit his rationibus
(our)-teachers we-received so-that if anyone shall-wish to-these methods
attendens ita ingredi, habeat proportiones explicatas, quibus
attending so to-proceed he-may-have the-proportions set-out by-which
emendatas et sine vitiis efficere possit aedium sacrarum
corrected and without faults to-make he-may-be-able of-temples sacred
dorico more perfectiones. Frons aedis doricae in loco,
in-the-Doric manner the-completions the-front of-a-temple Doric in the-place
quo columnae constituuntur, dividatur, si tetrastylos erit,
where the-columns are-set let-it-be-divided if four-columned it-shall-be
in partes XXVII, si hexastylos, XXXXII. Ex his pars una erit
into parts XXVII if six-columned XXXXII of these part one will-be
modulus, qui graece ἐμβάτης dicitur, cuius moduli constitutione
the-module which in-Greek the-step is-called of-which module by-the-fixing
ratiocinationibus efficiuntur omnis operis distributiones.
by-reasonings are-brought-about of-the-whole work the-distributions
Crassitudo columnarum erit duorum modulorum, altitudo 4
the-thickness of-the-columns will-be of-two modules the-height
cum capitulo XIIII. Capituli crassitudo unius moduli,
with the-capital XIIII of-the-capital the-thickness of-one module
latitudo duorum et moduli sextae partis. Crassitudo
the-breadth of-two and of-a-module a-sixth part the-thickness
capituli dividatur in partes tres, e quibus una plinthus
of-the-capital let-it-be-divided into parts three of which one the-plinth

cum cymatio fiat, altera echinus cum anulis, tertia
with the-cyma let-it-be-made the-second the-echinus with the-annulets the-third
hypotrachelion. Contrahatur columna ita, uti in tertio libro
the-necking let-it-be-tapered the-column so as in the-third book
de ionicis est scriptum. Epistylii altitudo unius moduli
about Ionic-ones has-been written of-the-architrave the-height of-one module
cum taenia et guttis; taenia moduli septima; guttarum
with the-fillet and the-drops the-fillet of-a-module a-seventh of-the-drops
longitudo sub taenia contra triglyphos alta cum regula
the-length beneath the-fillet opposite the-triglyphs high with the-band
parte sexta moduli praependeat. Item epistylii latitudo
a-part sixth of-a-module let-it-hang-down likewise of-the-architrave the-breadth
ima respondeat hypotrachelio summae columnae. Supra
lowest let-it-answer to-the-necking of-the-topmost column above
epistylium conlocandi sunt triglyphi cum suis metopis, alti
the-architrave to-be-set are triglyphs with their-own metopes high
unius et dimidiati moduli, lati in fronte unius moduli, ita
of-one and a-half module broad on the-front of-one module so
divisi, ut in angularibus columnis et in mediis contra
divided that on the-corner columns and on the-middle-ones opposite
tetrantes medios sint conlocati, et intercolumniis reliquis
the-quarters middle they-be set and for-the-intercolumniations remaining
bini, in mediis pronao et postico terni. Ita relaxatis
two-each in the-middle pronaos and rear three-each so widened
mediis intervallis sine inpeditionibus aditus accedentibus
the-middle intervals without hindrances approach for-those-approaching
erit ad deorum simulacra.
there-will-be to of-the-gods the-images

5 Triglyphorum latitudo dividatur in partes sex, ex quibus
of-the-triglyphs the-breadth let-it-be-divided into parts six of which
partibus quinque in medio, duae dimidiae dextra ac
parts five in the-middle two halves on-the-right and

sinistra designentur regula. Una in medio deformetur
on-the-left let-them-be-marked by-a-rule one in the-middle let-there-be-shaped
femur, quod graece μηρός dicitur; secundum eam canaliculi
a-thigh which in-Greek thigh is-called beside it little-channels
ad normae cacumen inprimantur; ex ordine eorum dextra
to of-a-square the-point let-them-be-cut-in in order of-them on-the-right
ac sinistra altera femina constituantur; in extremis partibus
and on-the-left other thighs let-them-be-set at the-outermost parts
semicanaliculi intervertantur. Triglyphis ita conlocatis,
half-channels let-them-be-turned-in the-triglyphs so set
metopae, quae sunt inter triglyphos, aeque altae sint
the-metopes which are between triglyphs equally high let-them-be
quam longae; item in extremis angulis hemimetopia sint
as long likewise at the-outermost corners half-metopes let-them-be
inpressa dimidia moduli latitudine. Ita enim erit, ut omnia
cut-in by-half a-module the-breadth so for it-will-be that all
vitia et metoparum et intercolumniorum et lacunariorum,
the-faults both of-metopes and of-intercolumniations and of-coffers
quod aequales divisiones factae erunt, emendentur.
because equal divisions made will-have-been be-corrected
Triglyphi capitula sexta parte moduli sunt faciunda. Supra 6
of-the-triglyph the-capitals a-sixth part of-a-module are to-be-made above
triglyphorum capitula corona est conlocanda in proiectura
of-the-triglyphs the-capitals the-cornice is to-be-set in a-projection
dimidiae et sextae partis habens cymatium doricum in
of-a-half and a-sixth part having a-cyma Doric at
imo, alterum in summo. Item cum cymatiis corona
the-bottom another at the-top likewise with the-cymas the-cornice
crassa ex dimidia moduli. Dividendae autem sunt in corona
thick of a-half module to-be-divided moreover are on the-cornice
ima ad perpendiculum triglyphorum et medias metopas
lowest to the-plumb-line of-the-triglyphs and the-middle metopes

viarum directiones et guttarum distributiones, ita uti
of-the-channels the-alignments and of-the-drops the-distributions so that
guttae sex in longitudinem, tres in latitudinem pateant.
drops six in length three in breadth lie-open
Reliqua spatia, quod latiores sunt metopae quam triglyphi,
the-remaining spaces because broader are the-metopes than the-triglyphs
pura relinquantur aut †flumina scalpantur, ad ipsumque
plain let-them-be-left or streams let-them-be-carved at and-the-very
mentum coronae incidatur linea quae scotia dicitur.
chin of-the-cornice let-there-be-cut a-line which scotia is-called
Reliqua omnia, tympana, simae, coronae, quemadmodum
the-remaining all tympana simas cornices as
supra scriptum est in ionicis, ita perficiantur.
above written has-been in Ionic-ones so let-them-be-finished

7 Haec ratio in operibus diastylis erit constituta. Si vero
this method in works wide-columned will-be set if but
systylon et monotriglyphon opus erit faciundum, frons
close-columned and single-triglyph work shall-be to-be-made the-front
aedis, si tetrastylos erit, dividatur in partes XVIIII S,
of-the-temple if four-columned it-shall-be let-it-be-divided into parts XVIIII S
si hexastylos erit, dividatur in partes XXVIIII S. Ex
if six-columned it-shall-be let-it-be-divided into parts XXVIIII S of
his pars una erit modulus, ad quem, uti supra scriptum
these part one will-be the-module by which as above written
est, dividantur.
has-been let-them-be-divided

8 Ita supra singula epistylia et metopae et triglyphi bini
so above the-several architraves both metopes and triglyphs two-each
erunt conlocandi, in angularibus hoc amplius dimidiatus et,
will-be to-be-set at the-corner-ones by-this more a-half and
quantum est spatium hemitriglyphi, id accedit. In mediano
as-much-as is the-space of-a-half-triglyph that is-added in the-middle

contra fastigium trium triglyphorum et trium metoparum
opposite the-pediment of-three triglyphs and of-three metopes
spatium distabit, quo latius medium intercolumnium
a-space will-stand-apart whereby wider the-middle intercolumniation
accedentibus ad aedem habeat laxamentum et adversus
for-those-approaching to the-temple may-have room and toward
simulacra deorum aspectus dignitatem.
the-images of-the-gods the-view dignity
Columnas autem striari XX striis oportet. Quae si 9
the-columns moreover to-be-fluted XX with-flutes it-behooves which if
planae erunt, angulos habeant XX designatos. Sin autem
flat shall-be angles let-them-have XX marked-out but-if moreover
excavabuntur, sic est forma facienda, ita uti quam
they-shall-be-hollowed thus is the-shape to-be-made so that as
magnum est intervallum striae, tam magnis paribus lateribus
great is the-interval of-a-flute so great equal with-sides
quadratum describatur; in medio autem quadrato circini
a-square let-it-be-drawn in the-middle moreover square of-the-compass
centrum conlocetur et agatur linea rotundationis, quae
the-point let-it-be-set and let-there-be-drawn a-line of-a-circle which
quadrationis angulos tangat, et quantum erit curvaturae
of-the-square the-corners may-touch and as-much-as will-be of-curve
inter rotundationem et quadratam descriptionem, tantum
between the-circle and the-square drawing so-much
ad formam excaventur. Ita dorica columna sui generis
to the-shape let-them-be-hollowed so the-Doric column of-its-own kind
striaturae habebit perfectionem.
of-fluting will-have the-finish

10 De adiectione eius, qua media adaugetur, uti in tertio
about the-swelling of-it by-which the-middle is-increased as in the-third
volumine de ionicis est perscripta, ita et in his
book about Ionic-ones has-been written-out so also in these
transferatur.
let-it-be-carried-over
Quoniam exterior species symmetriarum et corinthiorum et
since the-outer look of-symmetries both of-the-Corinthian and
doricorum et ionicorum est perscripta, necesse est etiam
Doric and Ionic has-been written-out necessary it-is also
interiores cellarum pronaique distributiones explicare.
the-inner of-cellas and-of-the-pronaos the-distributions to-set-out

IV.4 · THE CELLA AND THE PRONAOS

The temple is twice as long as it is broad, and the cella takes the larger share of the length. In a wide temple a second row of columns stands inside, thinner than those on the front. Vitruvius gives the inner columns more flutes to make up the loss, because the eye travels a longer way round a fluted shaft and reads it as thicker. The cella walls are built of the smallest rubble, or of moderate and equal squared blocks, so that each stone binds the joint below it.

1 Distribuitur autem longitudo aedis, uti latitudo sit
is-laid-out moreover the-length of-the-temple so-that the-breadth be
longitudinis dimidiae partis, ipsaque cella parte quarta longior
of-the-length of-a-half part and-the-very cella by-a-part fourth longer
sit, quam est latitudo, cum pariete, qui paries valvarum habuerit
be than is the-breadth with the-wall which wall of-the-doors shall-have
conlocationem. Reliquae tres partes pronai ad antas
the-setting the-remaining three parts of-the-pronaos to the-antae
parietum procurrant, quae antae columnarum crassitudinem
of-the-walls let-them-run-forward which antae of-the-columns the-thickness

habere debent. Et si aedes erit latitudine maior quam
to-have ought and if the-temple shall-be in-breadth greater than
pedes XX, duae columnae inter duas antas interponantur,
feet XX two columns between two antae let-them-be-interposed
quae disiungant pteromatos et pronai spatium. Item
which may-divide of-the-pteroma and of-the-pronaos the-space likewise
intercolumnia tria, quae erunt inter antas et columnas,
intercolumniations three which shall-be between the-antae and the-columns
pluteis marmoreis sive ex intestino opere factis intercludantur,
by-screens marble or of joiner's work made let-them-be-closed-off
ita uti fores habeant, per quas itinera pronao fiant.
so that doors they-may-have through which ways into-the-pronaos may-be-made
Item si maior erit latitudo quam pedes XL, columnae 2
likewise if greater shall-be the-breadth than feet XL columns
contra regiones columnarum, quae inter antas sunt,
opposite the-lines of-the-columns which between the-antae are
introrsus conlocentur. Et hae altitudinem habeant aeque
inward let-them-be-set and these height let-them-have equally
quam quae sunt in fronte, crassitudines autem earum
as those-which are on the-front the-thicknesses moreover of-them
extenuentur his rationibus, uti, si octava parte erunt
let-them-be-thinned by-these methods that if an-eighth part shall-be
quae sunt in fronte, hae fiant X parte, sin autem
those-which are on the-front these let-them-be-made X part but-if moreover
VIIII aut decima, pro rata parte. In concluso enim aere
VIIII or a-tenth in due proportion in enclosed for air
si quae extenuatae erunt, non discernentur. Sin autem
if any thinned shall-be not they-will-be-noticed but-if moreover
videbuntur graciliores, cum exterioribus fuerint striae
they-shall-seem more-slender when to-the-outer-ones there-shall-have-been flutes
XX aut XXIIII, in his faciendae erunt XXVIII aut XXXII.
XX or XXIIII in these to-be-made will-be XXVIII or XXXII

Ita quod detrahitur de corpore scapi, striarum numero
so what is-taken-away from the-body of-the-shaft of-flutes by-the-number
adiecto adaugebitur ratione, quo minus videatur, et ita
added will-be-increased by-reckoning whereby less it-may-seem and so
exaequabitur dispari ratione columnarum crassitudo.
will-be-evened-out by-an-unequal reckoning of-the-columns the-thickness

3 Hoc autem efficit ea ratio, quod oculus plura
this moreover brings-about that reason because the-eye more-numerous
et crebriora signa tangendo maiore visus circumitione
and closer-set marks by-touching with-a-greater of-sight circuit
pervagatur. Namque si duae columnae aeque crassae lineis
ranges-round for if two columns equally thick with-lines
circummetientur, e quibus una sit non striata, altera striata,
shall-be-measured-round of which one be not fluted the-other fluted
et circa striglium cava et angulos striarum linea corpora
and around of-the-fillets the-hollows and the-corners of-the-flutes the-line the-bodies
tangat, tametsi columnae aeque crassae fuerint, lineae, quae
may-touch even-though the-columns equally thick shall-have-been the-lines which
circumdatae erunt, non erunt aequales, quod striarum et
drawn-round shall-have-been not will-be equal because of-the-flutes and
striglium circuitus maiorem efficit lineae longitudinem. Sin
of-the-fillets the-circuit a-greater makes of-the-line length but-if
autem hoc ita videbitur, non est alienum in angustis locis et
moreover this so it-shall-seem not is out-of-place in narrow places and
in concluso spatio graciliores columnarum symmetrias in opere
in an-enclosed space more-slender of-columns symmetries in the-work
constituere, cum habeamus adiutricem striarum temperaturam.
to-set since we-have as-helper of-the-flutes the-adjustment

4 Ipsius autem cellae parietum crassitudinem pro rata
of-the-very moreover cella of-the-walls the-thickness in due
parte magnitudinis fieri oportet, dum antae eorum
proportion to-the-size to-be-made it-behooves provided-that the-antae their

crassitudinibus columnarum sint aequales. Et si ex structis
to-the-thicknesses of-the-columns be equal and if of rubble-work
futuri sunt, quam minutissimis caementis struantur,
to-be they-are as smallest-possible with-stones let-them-be-built
sin autem quadrato saxo aut marmore, maxime modicis
but-if moreover of-squared stone or marble especially moderate
paribusque videtur esse faciundum, quod media coagmenta
and-equal it-seems to-be to-be-made because the-middle joints
medii lapides continentes firmiorem facient omnis operis
middle stones holding-together a-firmer will-make of-the-whole work
perfectionem. Item circum coagmenta et cubilia eminentes
completion likewise around the-joints and the-beds projecting
expressiones graphicoteran efficient in aspectu delectationem.
moldings a-more-picturesque will-make in look delight

IV.5 · WHICH WAY A TEMPLE FACES

A temple and the statue in it should look west, so that those at the altar face east and see both the image and the rising sky as they make their vows. Where the site forbids it, the temple turns so that as much of the town as possible is in view from it. Temples on rivers face the bank, and temples on a public road are set so that passers-by can look in and salute.

Regiones autem, quas debent spectare aedes sacrae deorum 1
the-quarters moreover which ought to-face temples sacred of-the-gods
inmortalium, sic erunt constituendae, uti, si nulla ratio
immortal thus will-be to-be-appointed that if no reason
inpedierit liberaque fuerit potestas, aedis signumque,
shall-have-hindered and-free shall-have-been the-choice the-temple and-the-statue
quod erit in cella conlocatum, spectet ad vespertinam
which will-be in the-cella set let-it-face toward the-evening

caeli regionem, uti, qui adierint ad aram immolantes
of-the-sky quarter so-that those-who shall-approach to the-altar offering
aut sacrificia facientes, spectent ad partem caeli orientis
or sacrifices making may-face toward the-part of-the-sky rising
et simulacrum, quod erit in aede, et ita vota suscipientes
and the-image which will-be in the-temple and so vows undertaking
contueantur aedem et orientem caelum ipsaque simulacra
may-behold the-temple and the-rising sky and-the-very images
videantur exaudientia contueri supplicantes et sacrificantes, quod
may-seem hearing to-behold those-praying and sacrificing because
aras omnes deorum necesse esse videatur ad orientem spectare.
altars all of-the-gods necessary to-be it-may-seem toward the-east to-face

2 Sin autem loci natura interpellaverit, tunc convertendae
but-if moreover of-the-site the-nature shall-have-interfered then to-be-turned
sunt earum regionum constitutiones, uti quam plurima
are of-those quarters the-appointments so-that as the-greatest
pars moenium e templis earum conspiciatur. Item si
part of-the-walls from the-temples of-them may-be-seen likewise if
secundum flumina aedis sacra fiet, ita uti Aegypto
along rivers a-temple sacred shall-be-made so as in-Egypt
circa Nilum, ad fluminis ripas videntur spectare debere.
about the-Nile toward of-the-river the-banks they-seem to-face to-ought
Similiter si circum vias publicas erunt aedificia deorum,
likewise if around roads public shall-be buildings of-the-gods
ita constituantur, uti praetereuntes possint respicere et in
so let-them-be-set that those-passing-by may-be-able to-look and in
conspectu salutationes facere.
sight salutations to-make

Doorways come in three kinds — Doric, Ionic, and Attic. Vitruvius takes the height of the opening from the floor-to-ceiling measure, then narrows it toward the top by a fraction of the casing that grows smaller as the door grows taller. He sets out the casing, lintel, hyperthyron, and cornice for each kind. The leaves are framed with hinge-stiles, panels, and rails, and the Attic door is neither latticed nor two-leaved but folds outward.

Ostiorum autem et eorum antepagmentorum in aedibus hae 1
of-doorways moreover and of-their casings in temples these
sunt rationes, uti primum constituatur, quot genera sint.
are the-methods that first it-may-be-settled how-many kinds there-are
Genera sunt enim thyromaton haec: doricum, ionicum,
kinds are for of-doorways these Doric Ionic
atticurges.
Attic-worked
Horum dorici generis symmetriae conspiciuntur his
of-these of-the-Doric kind the-symmetries are-seen by-these
rationibus, uti corona summa, quae supra antepagmentum
methods that the-cornice topmost which above the-casing
superius inponitur, aeque librata sit capitulis summis
upper is-set equally leveled be with-the-capitals topmost
columnarum, quae in pronao fuerint. Lumen autem thyretri
of-the-columns which in the-pronaos shall-be the-opening moreover of-the-doorway
constituatur sic, uti quae altitudo aedis a pavimento
let-it-be-fixed thus that what height of-the-temple from the-floor
ad lacunaria fuerit, dividatur in partes tres semis
to the-coffered-ceiling shall-have-been let-it-be-divided into parts three and-a-half
et ex eis duae partes semis lumini valvarum altitudine
and of them two parts and-a-half for-the-opening of-the-doors as-the-height
constituantur. Haec autem dividatur in partes XII et
let-them-be-appointed this moreover let-it-be-divided into parts XII and

ex eis quinque et dimidia latitudo luminis fiat in
of them five and a-half the-breadth of-the-opening let-it-be-made at
imo. Et in summo contrahatur, si erit lumen ab imo
the-bottom and at the-top let-it-be-drawn-in if shall-be the-opening from the-bottom
ad sedecim pedes, antepagmenti III parte; si XVI pedum
to sixteen feet of-the-casing III by-a-part if XVI of-feet
ad XXV, superior pars luminis contrahatur antepagmenti
to XXV the-upper part of-the-opening let-it-be-drawn-in of-the-casing
parte IIII; si ab pedibus XXV ad XXX, summa pars
by-a-part IIII if from feet XXV to XXX the-top part
contrahatur antepagmenti parte VIII. Reliqua, quo
let-it-be-drawn-in of-the-casing by-a-part VIII the-rest by-how-much
altiora erunt, ad perpendiculum videntur oportere conlocari.
taller shall-be to the-plumb-line they-seem to-behoove to-be-set
2 Ipsa autem antepagmenta *** contrahantur in summo
the-very moreover casings (lacuna) let-them-be-drawn-in at the-top
suae crassitudinis XIIII parte. Supercilii crassitudo, quanta
of-their-own thickness XIIII by-a-part of-the-lintel the-thickness as-great
antepagmentorum in summa parte erit crassitudo. Cymatium
of-the-casings at the-topmost part will-be the-thickness the-cyma
faciundum est antepagmenti parte sexta; proiectura autem,
to-be-made is of-the-casing by-a-part sixth the-projection moreover
quanta est eius crassitudo. Sculpendum est cymatium lesbium
as-great is its thickness to-be-carved is a-cyma Lesbian
cum astragalo. Supra cymatium, quod erit in supercilio,
with an-astragal above the-cyma which will-be on the-lintel
conlocandum est hyperthyrum crassitudine supercilii, et in
to-be-set is the-hyperthyron of-the-thickness of-the-lintel and on
eo scalpendum est cymatium doricum, astragalum lesbium
it to-be-carved is a-cyma Doric an-astragal Lesbian
sima scalptura. Corona plana cum cymatio; proiectura
in-low carving the-cornice flat with a-cyma the-projection

autem eius erit quanta altitudo. Supercilii, quod supra
moreover of-it will-be as-great the-height of-the-lintel which above
antepagmenta inponitur, dextra atque sinistra proiecturae
the-casings is-set on-the-right and on-the-left the-projections
sic sunt faciundae, uti crepidines excurrant et in unguem
thus are to-be-made that the-ledges run-out and to a-nicety
ipso cymatio coniungantur.
with-the-very cyma let-them-be-joined

Sin autem ionico genere futura erunt, lumen altum ad 3
but-if moreover in-the-Ionic kind to-be they-shall-be the-opening high in
eundem modum quemadmodum in doricis fieri videtur.
the-same way as in Doric-ones to-be-made it-seems
Latitudo constituatur, ut altitudo dividatur in partes
the-breadth let-it-be-fixed so-that the-height may-be-divided into parts
duas et dimidiam, eiusque partis unius ima luminis
two and a-half and-of-that part one the-lowest of-the-opening
fiat latitudo. Contracturae ita uti in doricis. Crassitudo
let-it-be-made breadth the-taperings so as in Doric-ones the-thickness
antepagmentorum ex altitudine luminis in fronte XIIII
of-the-casings of the-height of-the-opening on the-front XIIII
parte, cymatium huius crassitudinis sexta. Reliqua pars
a-part the-cyma of-this thickness a-sixth the-remaining part
praeter cymatium dividatur in partes XII. Harum trium
besides the-cyma let-it-be-divided into parts XII of-these of-three
prima corsa fiat cum astragalo, secunda quattuor, tertia
the-first band let-it-be-made with an-astragal the-second four the-third
quinque, et eae aeque corsae cum astragalis circumcurrant.
five and they equally bands with astragals let-them-run-round

Hyperthyra autem ad eundem modum componantur 4
the-hyperthyra moreover in the-same way let-them-be-composed
quemadmodum in doricis. Pro crepidinibus ancones, sive
as in Doric-ones instead-of ledges consoles or

parotides vocantur, excalptae dextra ac sinistra praependeant
ear-pieces they-are-called carved on-the-right and on-the-left let-them-hang-down
ad imi supercilii libramentum, praeter folium. Eae
to of-the-lowest lintel the-level except the-leaf they
habeant in fronte crassitudinem ex antepagmenti tribus
let-them-have on the-front a-thickness of of-the-casing three
partibus, imo quarta parte graciliore quam superiora.
parts at-the-bottom by-a-fourth part slenderer than the-upper-parts
Fores ita compingantur, uti scapi cardinales sint ex
the-doors so let-them-be-framed that the-stiles hinge be of
latitudine luminis totius XII parte. Inter duos scapos
the-breadth of-the-opening whole XII a-part between two stiles
tympana ex XII partibus habeant ternas partes.
the-panels of XII parts let-them-have three-each parts
5 Inpagibus distributiones ita fient, uti divisis altitudinibus
for-the-rails the-distributions so will-be-made that divided the-heights
in partes V duae superiori, tres inferiori designentur.
into parts V two to-the-upper three to-the-lower let-them-be-marked
Super medium medii inpages conlocentur, ex reliquis alii
above the-middle the-middle rails let-them-be-set of the-remaining some
in summo, alii in imo compingantur. Altitudo inpagis
at the-top others at the-bottom let-them-be-framed the-height of-a-rail
fiat tympani tertia parte, cymatium sexta parte inpagis.
let-it-be-made of-the-panel a-third part the-cyma a-sixth part of-the-rail
Scaporum latitudines inpagis dimidia parte, item replum
of-the-stiles the-breadths of-a-rail a-half part likewise the-meeting-strip
de inpage dimidia et sexta parte. Scapi, qui sunt secundum
of a-rail a-half and a-sixth part the-stiles which are beside
antepagmentum, dimidium inpagis constituantur. Sin autem
the-casing a-half of-a-rail let-them-be-fixed but-if moreover
valvatae erunt, altitudines ita manebunt, in latitudinem
folding they-shall-be the-heights so will-remain in breadth

adiciatur amplius foris latitudo. Si quadriforis futura
let-there-be-added more of-a-leaf the-breadth if four-leaved to-be
est, altitudo adiciatur.
it-is the-height let-it-be-added
Atticurge autem isdem rationibus perficiuntur, quibus 6
Attic-worked-ones moreover by-the-same methods are-finished as
dorica. Praeterea corsae sub cymatiis in antepagmentis
Doric-ones besides bands beneath the-cymas on the-casings
circumdantur, quae ita distribui debent, uti antepagmenti
are-carried-round which so to-be-distributed ought that of-the-casing
praeter cymatium ex partibus VII habeant duas partes.
besides the-cyma of parts VII they-have two parts
Ipsaque non fiunt clathrata neque bifora sed valvata, et
and-they not are-made latticed nor two-leaved but folding and
aperturas habent in exteriores partes.
(their)-openings they-have toward the-outer parts
Quas rationes aedium sacrarum in formationibus oporteat
what methods of-temples sacred in the-shaping it-behooves
fieri doricis, ionicis corinthiisque operibus, quoad potui
to-be-made in-Doric Ionic and-Corinthian works so-far-as I-could
attingere, veluti legitimis moribus exposui. Nunc de
to-touch as-it-were by-lawful usages I-have-set-forth now about
tuscanicis dispositionibus, quemadmodum institui oporteat,
Tuscan arrangements how to-be-established it-behooves
dicam.
I-shall-speak

The Tuscan temple is six parts long to five broad, with the back half given to the cellas and the front to the columns. Vitruvius fixes the column at a seventh of its height in thickness and a third of the temple's breadth in height, and describes its base, capital, and built-up beams. The beams are dovetailed with a two-finger gap between them, because timbers that touch grow hot and rot.

1 Locus, in quo aedis constituetur, cum habuerit in
the-site in which the-temple shall-be-set when it-shall-have in
longitudine sex partes, una dempta reliquum quod erit,
length six parts one taken-away the-rest which will-be
latitudini detur. Longitudo autem dividatur bipertito,
to-the-breadth let-it-be-given the-length moreover let-it-be-divided in-two
et quae pars erit interior, cellarum spatiis designetur,
and which part shall-be inner of-the-cellas for-the-spaces let-it-be-marked-out
quae erit proxima fronti, columnarum dispositioni
which shall-be nearest to-the-front of-columns for-the-arrangement
relinquatur. Item latitudo dividatur in partes X.
let-it-be-left likewise the-breadth let-it-be-divided into parts X

2 Ex his ternae partes dextra ac sinistra cellis minoribus,
of these three-each parts on-the-right and on-the-left to-the-cellas smaller
sive ibi alae futurae sunt, dentur; reliquae quattuor
or there wings to-be are let-them-be-given the-remaining four
mediae aedi attribuantur. Spatium, quod erit ante cellas
to-the-middle temple let-them-be-assigned the-space which will-be before the-cellas
in pronao, ita columnis designetur, ut angulares contra
in the-pronaos so with-columns let-it-be-set-out that the-corner-ones opposite
antas, parietum extremorum e regione, conlocentur; duae
the-antae of-the-walls outermost in line let-them-be-set two
mediae e regione parietum, qui inter antas et mediam
the-middle-ones in line of-the-walls which between the-antae and the-middle

aedem fuerint, ita distribuantur; et inter antas et
temple shall-be so let-them-be-distributed and between the-antae and
columnas priores per medium isdem regionibus alterae
the-columns front through the-middle in-the-same lines others
disponantur. Eaeque sint ima crassitudine altitudinis
let-them-be-arranged and-they let-them-be at-the-bottom in-thickness of-the-height
parte VII; altitudo tertia parte latitudinis templi; summaque
a-part VII the-height a-third part of-the-breadth of-the-temple and-the-topmost
columna quarta parte crassitudinis imae contrahatur.
column by-a-fourth part of-the-thickness lowest let-it-be-drawn-in
Spirae earum altae dimidia parte crassitudinis fiant. 3
the-bases of-them high a-half part of-the-thickness let-them-be-made
Habeant spirae earum plinthum ad circinum, altam suae
let-them-have the-bases of-them a-plinth to the-compass high of-their-own
crassitudinis dimidia parte, torum insuper cum apophysi
thickness a-half part a-torus above with an-apophyge
crassum quantum plinthus. Capituli altitudo dimidia
thick as-much-as the-plinth of-the-capital the-height a-half
crassitudinis. Abaci latitudo quanta ima crassitudo
of-the-thickness of-the-abacus the-breadth as-great the-lowest thickness
columnae. Capitulique crassitudo dividatur in partes tres,
of-the-column and-of-the-capital the-thickness let-it-be-divided into parts three
e quibus una plintho, quae est abacus, detur, altera
of which one to-the-plinth which is the-abacus let-it-be-given the-second
echino, tertia hypotrachelio cum apophysi.
to-the-echinus the-third to-the-necking with the-apophyge
Supra columnas trabes compactiles inponantur ut altitudinis 4
above the-columns beams built-up let-them-be-laid as of-the-height
modulis is, qui a magnitudine operis postulabuntur.
by-the-modules (with)-those which by the-size of-the-work shall-be-demanded
Eaeque trabes compactiles eam habeant crassitudinem,
and-those beams built-up that let-them-have thickness

quanta summae columnae erit hypotrachelium, et ita
as-great of-the-topmost column will-be the-necking and so
sint compactae subscudibus et securiclis, ut compactura
let-them-be joined with-dovetails and cramps that by-the-joining
duorum digitorum habeant laxationem. Cum enim inter
of-two fingers they-may-have a-clearance when for between
se tangunt et non spiramentum et perflatum venti
themselves they-touch and not a-vent and a-draft of-wind
recipiunt, concalefaciuntur et celeriter putrescunt.
they-admit they-grow-hot and quickly they-rot
5 Supra trabes et supra parietes traiecturae mutulorum parte
above the-beams and above the-walls the-overhangs of-mutules by-a-part
IIII altitudinis columnae proiciantur; item in eorum
IIII of-the-height of-the-column let-them-be-thrown-out likewise on their
frontibus antepagmenta figantur. Supraque is tympanum
fronts casings let-them-be-fastened and-above them the-tympanum
fastigii structura seu de materia conlocetur. Supraque eum
of-the-pediment of-masonry or of timber let-it-be-set and-above it
fastigium, columen, cantherii, templa ita sunt conlocanda,
the-pediment the-ridge-piece rafters purlins so are to-be-set
ut stillicidium tecti absoluti tertiario respondeat.
that the-eaves-drip of-the-roof finished to-a-third may-answer

IV.8 · ROUND TEMPLES AND OTHERS

Round temples are of two kinds: monopteral, a ring of columns with no cella, and peripteral, which has a cella within. The dome is half as high as the whole work is wide. Vitruvius then describes other plans built on the same symmetries in a different arrangement, among them the pseudoperipteral, made by pushing the cella walls out to the columns; not every god's temple follows one rule, because the rites differ.

Fiunt autem aedes rotundae, e quibus aliae monopteroe 1
there-are-made moreover temples round of which some monopteral
sine cella columnatae constituuntur, aliae peripteroe dicuntur.
without a-cella columned are-set-up others peripteral are-called
Quae sine cella fiunt, tribunal habent et ascensum ex
those-which without a-cella are-made a-platform have and an-ascent of
sua diametro tertiae partis. Insuper stylobatam columnae
their-own diameter of-a-third part above the-stylobate columns
constituuntur tam altae, quanta ab extremis parietibus
are-set as high as-great from the-outermost walls
est diametros stylobatarum, crassae altitudinis suae cum
is the-diameter of-the-stylobates thick of-height their-own with
capitulis et spiris decumae partis. Epistylium altum columnae
capitals and bases of-a-tenth part the-architrave high of-the-column
crassitudinis dimidia parte. Zophorum et reliqua, quae insuper
of-the-thickness by-a-half part the-frieze and the-rest which above
inponuntur, ita uti in III volumine de symmetriis scripsi.
are-placed-on so as in III book about symmetries I-have-written
Sin autem peripteros ea aedes constituetur, duo gradus et 2
but-if moreover peripteral that temple shall-be-set two steps and
stylobata ab imo constituantur. Deinde cellae paries
a-stylobate from the-bottom let-them-be-set then of-the-cella the-wall
conlocetur cum recessu eius a stylobata circa partem
let-it-be-set with a-setting-back of-it from the-stylobate about a-part
latitudinis quintam, medioque valvarum locus ad aditus
of-the-breadth fifth and-in-the-middle of-the-doors a-place for entrance
relinquatur; eaque cella tantam habeat diametrum praeter
let-it-be-left and-that cella so-great let-it-have a-diameter besides
parietes et circumitionem, quantam altitudinem columna.
the-walls and the-walk-round as-great the-height the-column

Supra stylobatam columnae circum cellam isdem symmetriis,
above the-stylobate columns around the-cella by-the-same symmetries
quae supra scriptae sunt, disponantur.
which above written have-been let-them-be-arranged

3 In medio tecti ratio ita habeatur, uti, quanta
in the-middle of-the-roof the-reckoning so let-it-be-had that as-great
diametros totius operis erit futura, dimidia altitudo
the-diameter of-the-whole work shall-be about-to-be half the-height
fiat tholi praeter florem; flos autem tantam
let-it-be-made of-the-dome besides the-flower the-flower moreover so-great
habeat magnitudinem, quantam habuerit columnae capitulum,
let-it-have a-size as-great shall-have-had of-the-column the-capital
praeter pyramidem. Reliqua, uti supra scripta sunt ea,
besides the-pyramid the-rest as above written have-been those
pro portionibus atque symmetriis facienda videntur.
according-to proportions and symmetries to-be-made seem

4 Item generibus aliis constituuntur aedes ex isdem symmetriis
likewise in-kinds other are-set-up temples from the-same symmetries
ordinatae et alio genere dispositiones habentes, uti est
ordered and in-another kind arrangements having as is
Castoris in circo Flaminio et inter duos lucos Veiovis,
of-Castor in the-circus Flaminian and between two groves of-Veiovis
item augustius Nemori Dianae columnis adiectis dextra
likewise more-solemnly in-the-Grove of-Diana with-columns added on-the-right
ac sinistra ad umeros pronai. Hoc autem genere primo
and on-the-left at the-shoulders of-the-pronaos in-this moreover kind first
facta est, uti est Castoris in circo, Athenis in arce et
made was as is of-Castor in the-circus at-Athens on the-citadel and
in Attica Sunio Palladis Minervae. Earum non aliae sed
in Attic Sunium of-Pallas Minerva of-them not different but
eaedem sunt proportiones. Cellae enim longitudinibus duplices
the-same are the-proportions the-cellas for in-lengths double

sunt ad latitudines uti reliquae; ex is omnia, quae
are in-relation-to the-breadths as the-rest from them all-things which
solent esse in frontibus, ad latera sunt translata.
are-wont to-be on the-fronts to the-sides have-been carried-over
Nonnulli etiam de tuscanicis generibus sumentes columnarum 5
some also from Tuscan kinds taking of-columns
dispositiones transferunt in corinthiorum et ionicorum
the-arrangements carry-(them)-over into of-Corinthian and Ionic
operum ordinationes, et quibus in locis in pronao procurrunt
works the-orderings and which in places in the-pronaos run-forward
antae, in isdem e regione cellae parietum columnas binas
the-antae in the-same in line of-the-cella of-the-walls columns in-pairs
conlocantes efficiunt tuscanicorum et graecorum operum
setting they-produce of-Tuscan and Greek works
communem ratiocinationem.
a-common reasoning
Alii vero removentes parietes aedis et adplicantes ad 6
others but drawing-back the-walls of-the-temple and applying-(them) to
intercolumnia, pteromatos spatiis sublati efficiunt amplum
the-intercolumniations of-the-pteroma of-the-spaces deprived they-make ample
laxamentum cellae; reliqua autem proportionibus et
room for-the-cella the-rest moreover in-proportions and
symmetriis isdem conservantes aliud genus figurae nominisque
symmetries the-same keeping another kind of-shape and-of-name
videntur pseudoperipterum procreavisse. Haec autem genera
they-seem the-pseudoperipteral to-have-begotten these moreover kinds
propter usum sacrificiorum convertuntur. Non enim omnibus
because-of the-use of-sacrifices are-changed not for for-all
diis isdem rationibus aedes sunt faciundae, quod alius
gods by-the-same methods temples are to-be-made because one
alia varietate sacrorum religionum habet effectus.
by-another variety of-sacred rites has effects

7 Omnes aedium sacrarum ratiocinationes, uti mihi traditae
all of-temples sacred the-reasonings as to-me handed-down
sunt, exposui ordinesque et symmetrias earum
they-have-been I-have-set-forth and-the-orders and symmetries of-them
partitionibus distinxi, et quarum dispares sunt figurae
by-divisions I-have-distinguished and whose different are the-shapes
et quibus discriminibus inter se sunt disparatae,
and by-what distinctions between themselves they-have-been separated
quoad potui significare scriptis, exposui. Nunc de aris
so-far-as I-could to-signify in-writing I-have-set-forth now about altars
deorum inmortalium, uti aptam constitutionem habeant
of-the-gods immortal how a-fit setting they-may-have
ad sacrificiorum rationem, dicam.
for of-sacrifices the-method I-shall-speak

IV.9 · THE ALTARS

Altars face east and stand lower than the images in the temple, so that those who pray and sacrifice look up at the god. Their heights differ with the god they belong to: as lofty as may be for Jupiter and the heavenly gods, low for Vesta, Earth, and the Mother.

1 Arae spectent ad orientem et semper inferiores sint
altars let-them-face toward the-east and always lower let-them-be
conlocatae quam simulacra, quae fuerint in aede, uti
set than the-images which shall-be in the-temple so-that
suspicientes divinitatem, qui supplicant, et sacrificent.
looking-up-at the-godhead those-who pray and may-sacrifice
Disparibus altitudinibus ad sui cuiusque dei decorem
with-unequal heights according-to of-its each god the-decorum
componantur. Altitudines autem earum sic sunt explicandae,
let-them-be-composed the-heights moreover of-them thus are to-be-worked-out

uti Iovi omnibusque caelestibus quam excelsissimae
that for-Jupiter and-for-all the-heavenly-ones as most-lofty
constituantur, Vestae Terrae Matrique humiles conlocentur.
let-them-be-set for-Vesta for-Earth and-for-Mother low let-them-be-placed
Ita idoneae his institutionibus explicabuntur modulationibus
so fitting by-these rules will-be-worked-out in-modulations
ararum deformationes.
of-altars the-designs
Explicatis aedium sacrarum compositionibus in hoc libro,
having-been-set-out of-temples sacred the-compositions in this book
insequenti de communium operum reddemus distributionibus
in-the-following about of-common works we-shall-render the-distributions
explicationes.
explanations

BOOK VI

VI · PREFACE

Aristippus, shipwrecked on the shore of Rhodes, sees geometrical figures drawn there and tells his companions to take heart, since he sees the traces of men. He sends word home that the possessions worth getting for children are the ones that can swim ashore from a wreck. Vitruvius thanks his parents for having him trained in a craft, and explains why he has never canvassed for work: a man should be asked, not ask.

Aristippus philosophus Socraticus, naufragio cum eiectus 1
Aristippus the-philosopher Socratic by-shipwreck when cast-ashore
ad Rhodiensium litus animadvertisset geometrica schemata
on of-the-Rhodians the-shore he-had-noticed geometrical figures
descripta, exclamavisse ad comites ita dicitur: 'bene
drawn to-have-cried-out to (his)-companions thus he-is-said well
speremus! Hominum enim vestigia video.' Statimque in
let-us-hope of-men for traces I-see and-at-once into
oppidum Rhodum contendit et recta gymnasium devenit,
the-town Rhodes he-hastened and straight to-the-gymnasium he-came-down
ibique de philosophia disputans muneribus est donatus, ut
and-there about philosophy discoursing with-gifts he-was presented so-that
non tantum se ornaret, sed etiam eis, qui una fuerunt,
not only himself he-might-fit-out but also for-those who together were
et vestitum et cetera, quae opus essent ad victum, praestaret.
both clothing and the-rest which need they-were for living he-might-furnish
Cum autem eius comites in patriam reverti voluissent
when moreover his companions into their-country to-return had-wished
interrogarentque eum, quidnam vellet domum renuntiari, tunc
and-were-asking him what he-wished home to-be-reported then

ita mandavit dicere: eiusmodi possessiones et viatica liberis
so he-charged to-say of-that-sort possessions and provisions for-children
oportere parari, quae etiam e naufragio una possent enatare.
to-behoove to-be-got which even from a-shipwreck together could to-swim-out
2 Namque ea vera praesidia sunt vitae, quibus neque fortunae
for those the-true defenses are of-life to-which neither of-fortune
tempestas iniqua neque publicarum rerum mutatio neque
the-storm unkind nor of-public affairs a-change nor
belli vastatio potest nocere. Non minus eam sententiam
of-war the-devastation can to-harm not less that opinion
augendo Theophrastus, hortando doctos potius esse quam
enlarging Theophrastus urging learned rather to-be than
pecuniae confidentes, ita ponit: doctum ex omnibus
in-money trusting thus lays-it-down the-learned-man of all
solum neque in alienis locis peregrinum neque amissis
alone neither in foreign places a-stranger nor having-been-lost
familiaribus et necessariis inopem amicorum, sed in omni
intimates and kinsfolk destitute of-friends but in every
civitate esse civem difficilesque fortunae sine timore posse
state to-be a-citizen and-the-hard of-fortune without fear to-be-able
despicere casus; at qui non doctrinarum sed felicitatis
to-look-down-on chances but he-who not of-studies but of-good-luck
praesidiis putaret se esse vallatum, labidis itineribus
by-the-defenses should-think himself to-be fenced on-slippery roads
vadentem non stabili sed infirma conflictari vita.
walking not by-a-steady but by-an-unsteady to-struggle life
3 Epicurus vero non dissimiliter ait: pauca sapientibus
Epicurus but not differently says few-things to-the-wise
fortunam tribuere, quae autem maxima et necessaria sunt,
fortune to-grant what moreover greatest and necessary are
animi mentisque cogitationibus gubernari. Haec ita etiam
of-the-soul and-of-the-mind by-the-thoughts to-be-governed these-things so also

plures philosophi dixerunt. Non minus poetae, qui antiquas
many philosophers have-said not less the-poets who old
comoedias graece scripserunt, easdem sententias versibus in
comedies in-Greek wrote the-same opinions in-verses on
scaena pronuntiaverunt, ut Crates, Chionides, Aristophanes,
the-stage delivered as Crates Chionides Aristophanes
maxime etiam cum his Alexis, qui Athenienses ait oportere
most-of-all also with these Alexis who the-Athenians says to-behoove
ideo laudari, quod omnium Graecorum leges cogunt
for-this-reason to-be-praised because of-all the-Greeks the-laws compel
parentes ali a liberis, Atheniensium non omnes nisi
parents to-be-supported by children of-the-Athenians not all except
eos, qui liberos artibus erudissent. Omnia enim munera
those who (their)-children in-arts had-trained all for the-gifts
fortunae cum dantur, ab ea faciliter adimuntur; disciplinae
of-fortune when they-are-given by her easily are-taken-away studies
vero coniunctae cum animis nullo tempore deficiunt, sed
but joined with minds at-no time fail but
permanent stabiliter ad summum exitum vitae.
abide steadily to the-last end of-life
Itaque ego maximas infinitasque parentibus ago atque 4
and-so I greatest and-boundless to-(my)-parents give and
habeo gratias, quod Atheniensium legem probantes me
hold thanks because of-the-Athenians the-law approving me
arte erudiendum curaverunt, et ea, quae non potest esse
in-a-craft to-be-trained they-saw-to and that which not can to-be
probata sine litteratura encyclioque doctrinarum omnium
approved without letters and-the-encyclic of-studies all
disciplina. Cum ergo et parentium cura et praeceptorum
discipline when therefore both of-my-parents by-the-care and of-teachers
doctrinis auctas haberem copias disciplinarum, philologis
by-the-teachings increased I-had stores of-learning in-literary

et philotechnis rebus commentariorumque scripturis me
and art-loving pursuits and-of-notebooks in-the-writing myself
delectans eas possessiones animo paravi, e quibus haec
delighting those possessions in-my-mind I-got from which this
est fructuum summa: nullas plus habendi esse necessitates
is of-the-fruits the-sum no more of-having to-be needs
eamque esse proprietatem, divitiarum maxime nihil desiderare.
and-that to-be the-peculiar-quality of-riches most-of-all nothing to-want
Sed forte nonnulli haec levia iudicantes putant eos
but perhaps some these-things trifling judging think those
esse sapientes, qui pecunia sunt copiosi. Itaque plerique ad
to-be wise who in-money are rich and-so most-people to
id propositum contendentes audacia adhibita cum
that aim straining boldness having-been-employed along-with
divitiis etiam notitiam sunt consecuti.
riches also notice have attained
5 Ego autem, Caesar, non ad pecuniam parandam ex arte
I moreover Caesar not to money getting from (my)-art
dedi studium, sed potius tenuitatem cum bona fama quam
have-given zeal but rather slenderness with good repute than
abundantiam cum infamia sequendam probavi. Ideo
abundance with ill-repute to-be-followed I-have-approved for-this-reason
notities parum est adsecuta. Sed tamen his voluminibus
notice little has followed but yet these books
editis, ut spero, etiam posteris ero notus. Neque
having-been-published as I-hope even to-posterity I-shall-be known and-not
est mirandum, quid ita pluribus sim ignotus. Ceteri
is to-be-wondered why so to-most I-am unknown the-other
architecti rogant et ambiunt, ut architectent; mihi autem
architects ask and canvass that they-may-build to-me moreover
a praeceptoribus est traditum: rogatum, non rogantem
by my-teachers it-was handed-down one-asked not one-asking

oportere suscipere curam, quod ingenuus color movetur
to-behoove to-take-up the-charge because a-free-born complexion is-stirred
pudore petendo rem suspiciosam. Nam beneficium dantes,
by-shame in-asking-for a-thing suspect for a-favor those-giving
non accipientes ambiuntur. Quid enim putemus suspicari,
not those-receiving are-courted what for are-we-to-think to-suspect
qui rogetur de patrimonio sumptus faciendos committere
he-who is-asked out-of a-patrimony expenses to-be-made to-entrust
gratiae petentis, nisi praedae compendiique eius causa
to-the-favor of-the-asker unless of-plunder and-of-gain his for-the-sake
iudicet faciundum?
he-judges it-to-be-done
Itaque maiores primum a genere probatis operam 6
and-so our-forefathers first by family to-approved their-work
tradebant architectis, deinde quaerebant, si honeste
used-to-hand-over architects then they-would-ask whether honorably
essent educati, ingenuo pudori, non audaciae protervitatis
they-had-been brought-up to-free-born modesty not to-the-boldness of-impudence
permittendum iudicantes. Ipsi autem artifices non erudiebant
to-be-entrusted judging the-very moreover craftsmen not used-to-train
nisi suos liberos aut cognatos et eos viros bonos
except their-own children or kinsmen and them men good
instituebant, quibus tantarum rerum fidei pecuniae sine
they-formed to-whom of-so-great matters to-the-trust moneys without
dubitatione permitterentur.
hesitation might-be-entrusted
Cum autem animadverto ab indoctis et inperitis tantae
when moreover I-observe by the-unlearned and unskilled of-so-great
disciplinae magnitudinem iactari et ab is, qui non
a-science the-greatness to-be-bandied-about and by those who not
modo architecturae sed omnino ne fabricae quidem notitiam
only of-architecture but at-all not of-building even knowledge

habent, non possum non laudare patres familiarum eos,
have not I-can not to-praise the-fathers of-households those
qui litteraturae fiducia confirmati per se aedificantes
who in-letters by-confidence strengthened by themselves building
ita iudicant: si inperitis sit committendum, ipsos potius
so judge if to-the-unskilled it-is to-be-entrusted themselves rather
dignioresesse ad suam voluntatem quam ad alienam
worthier to-be for their-own will than for another's
pecuniae consumere summam.
of-money to-spend the-sum

7 Itaque nemo artem ullam aliam conatur domi facere, uti
and-so no-one a-craft any other attempts at-home to-practice such-as
sutrinam, fullonicam aut ex ceteris, quae sunt faciliores, nisi
shoemaking fulling or of the-rest which are easier except
architecturam, ideo quod, qui profitentur, non arte
architecture for-this-reason that those-who profess-(it) not by-art
vera sed falso nominantur architecti. Quas ob res
true but falsely are-named architects which on-account-of things
corpus architecturae rationesque eius putavi diligentissime
the-body of-architecture and-the-methods of-it I-thought most-carefully
conscribendas, opinans munus omnibus gentibus non ingratum
to-be-written-out thinking a-gift to-all nations not unwelcome
futurum. Igitur, quoniam in quinto de opportunitate
to-be-going-to-be therefore since in the-fifth about the-convenience
communium operum perscripsi, in hoc volumine privatorum
of-common works I-have-written-out in this book of-private
aedificiorum ratiocinationes et commensus symmetriarum
buildings the-reasonings and the-measures of-symmetries
explicabo.
I-shall-set-out

Buildings must be set differently in Egypt, in Spain, in Pontus, and at Rome, because the sun bears on each place differently. Vitruvius derives the size, coloring, courage, and even the pitch of a people's voice from the sun and the moisture of their air. He reads the whole universe as a scale of sounds running from the shrill south to the deep north, and says the divine mind set the Roman people at its middle so that they might win the empire of the world.

Haec autem ita erunt recte disposita, si primo animadversum 1
these-things moreover so will-be rightly arranged if first noticed
fuerit, quibus regionibus aut quibus inclinationibus
it-shall-have-been in-what regions or at-what slants
mundi constituantur. Namque aliter Aegypto, aliter
of-the-heavens they-are-set for one-way in-Egypt another-way
Hispania, non eodem modo Ponto, dissimiliter Romae, item
in-Spain not in-the-same way in-Pontus differently at-Rome likewise
ceteris terrarum et regionum proprietatibus oportere videntur
for-the-other of-lands and of-regions properties to-behoove they-seem
constitui genera aedificiorum, quod alia parte solis cursu
to-be-set the-kinds of-buildings because in-one part of-the-sun by-the-course
premitur tellus, alia longe ab eo distat, alia per medium
is-pressed the-earth another far from it stands-off another through the-middle
temperatur. Igitur, uti constitutio mundi ad terrae
is-tempered therefore as the-frame of-the-heavens in-relation-to of-earth
spatium inclinatione signiferi circuli et solis cursu
the-space by-the-slant of-the-sign-bearing circle and of-the-sun by-the-course
disparibus qualitatibus naturaliter est conlocata, ad eundem
with-unequal qualities naturally has-been set in the-same
modum etiam ad regionum rationes caelique varietates
way also to of-regions the-methods and-of-the-sky the-varieties
videntur aedificiorum debere dirigi conlocationes.
they-seem of-buildings to-be-bound to-be-directed the-sitings

2 Sub septentrione aedificia testudinata et maxime conclusa
under the-north buildings vaulted and most-of-all shut-in
et non patentia, sed conversa ad calidas partes oportere
and not open but turned toward the-warm quarters to-behoove
fieri videntur. Contra autem sub impetu solis
to-be-made they-seem on-the-contrary moreover under the-onrush of-the-sun
meridianis regionibus, quod premuntur a calore, patentiora
in-southern regions because they-are-pressed by heat more-open
conversaque ad septentrionem et aquilonem sunt faciunda.
and-turned toward the-north and north-east are to-be-made
Ita, quod ultra natura laedit, arte erit emendandum.
so what beyond-measure nature hurts by-art will-be to-be-corrected
Item reliquis regionibus ad eundem modum debet
likewise in-the-remaining regions in the-same way it-ought
temperari, quemadmodum caelum est ad inclinationem
to-be-tempered as the-sky has-been to the-slant
mundi conlocatum.
of-the-heavens set

3 Haec autem ex natura rerum sunt animadvertenda et
these-things moreover from the-nature of-things are to-be-noticed and
consideranda atque etiam ex membris corporibusque gentium
to-be-considered and also from the-limbs and-bodies of-races
observanda. Namque sol quibus locis mediocriter profundit
to-be-observed for the-sun in-what places moderately pours-out
vapores, in his conservat corpora temperata; quaeque
(its)-heats in these it-keeps bodies tempered and-those-which
proxime currendo deflagrat, eripit exurendo temperaturam
nearest by-running it-burns-up it-snatches-away by-scorching the-tempering
umoris; contra vero refrigeratis regionibus, quod absunt
of-moisture on-the-contrary but in-cooled regions because they-are-away
a meridie longe, non exhauritur a caloribus umor,
from the-south far not is-drained by heats the-moisture

sed ex caelo roscidus aer in corpora fundens umorem
but from the-sky dewy air into bodies pouring moisture
efficit ampliores corporaturas vocisque sonitus graviores. Ex
makes ampler frames and-of-voice sounds deeper from
eo quoque, quae sub septentrionibus nutriuntur gentes,
that also those-which under the-north are-nourished nations
inmanibus corporibus, candidis coloribus, directo capillo et
with-huge bodies with-fair coloring with-straight hair and
rufo, oculis caesis, sanguine multo ab umoris plenitate
red with-eyes gray with-blood much from of-moisture the-fullness
caelique refrigerationibus sunt conformati;
and-of-the-sky by-the-coolings have-been formed
Qui autem sunt proximi ad axem meridianum subiectique 4
those-who moreover are nearest to the-axis southern and-subject
solis cursui, brevioribus corporibus, colore fusco, crispo
of-the-sun to-the-course with-shorter bodies with-color dark with-curly
capillo, oculis nigris, sanguine exiguo solis impetu
hair with-eyes black with-blood scant of-the-sun by-the-onrush
perficiuntur. Itaque etiam propter sanguinis exiguitatem
are-finished and-so also because-of of-blood the-scantness
timidiores sunt ferro resistere, sed ardores ac febres
more-timid they-are the-sword to-withstand but burnings and fevers
sufferunt sine timore, quod nutrita sunt eorum membra
they-bear without fear because nourished have-been their limbs
cum fervore; itemque corpora, quae nascuntur sub
with heat and-likewise bodies which are-born under
septentrione, a febri sunt timidiora et inbecilla, sanguinis
the-north of fever are more-timid and weak of-blood
autem abundantia ferro resistunt sine timore.
moreover by-the-abundance the-sword they-withstand without fear

5 Non minus sonus vocis in generibus gentium dispares et
not less the-sound of-voice among the-kinds of-nations different and
varias habet qualitates, ideo quod terminatio orientis et
various has qualities for-this-reason that the-boundary of-the-east and
occidentis circa terrae librationem, qua dividitur pars superior
of-the-west about of-earth the-level by-which is-divided the-part upper
et inferior mundi, habere videtur libratam naturali modo
and lower of-the-heavens to-have seems a-leveled in-a-natural way
circumitionem, quam etiam mathematici ὁρίζοντα dicunt. Igitur
circuit which also mathematicians the-bounder call therefore
cum id habemus certum ab imo sustinens, ab labro, quod
when that we-hold sure from the-lowest supporting from the-rim which
est in regione septentrionali, linea traiecta ad id, quod est
is in the-quarter northern a-line drawn-across to that which is
supra meridianum axem, ab eoque altera obliqua in altitudinem
above the-southern axis from and-that another slanting into the-height
ad summum cardinem, qui est post stellas septentrionum,
to the-topmost pivot which is behind the-stars of-the-north
sine dubitatione animadvertemus ex eo esse schema trigonii
without doubt we-shall-notice from that to-be the-figure of-a-triangle
mundo, uti organi, quam σαμβύκη Graeci dicunt.
for-the-heavens like of-the-instrument which sambuca the-Greeks call
6 Itaque quod est spatium proximum imo cardini ab
and-so what is the-space nearest to-the-lowest pivot from
axis linea in meridianis finibus, sub eo loco quae sunt
of-the-axis the-line in southern bounds under that place which are
nationes, propter brevitatem altitudinis ad mundum sonitum
nations because-of the-shortness of-height toward the-heavens a-sound
vocis faciunt tenuem et acutissimum, uti in organo chorda,
of-voice make thin and shrillest like on an-instrument the-string
quae est proxima angulo. Secundum eam autem reliquae ad
which is nearest to-the-angle next-to it moreover the-rest to

mediam Graeciam remissiones efficiunt in nationibus sonorum
middle Greece loosenings make in the-nations of-sounds
scansione. Item a medio in ordinem crescendo ad extremos
by-a-scale likewise from the-middle in order growing to the-farthest
septentriones sub altitudines caeli nationum spiritus
north beneath the-heights of-the-sky of-nations the-breaths
sonitibus gravioribus a natura rerum exprimuntur. Ita videtur
in-sounds deeper by the-nature of-things are-forced-out so it-seems
mundi conceptio tota propter inclinationem consonantissime
of-the-heavens the-conception whole because-of the-slant most-harmoniously
per solis temperaturam ad harmoniam esse composita.
through of-the-sun the-tempering to harmony to-have-been composed
Igitur quae nationes sunt inter axis meridiani cardinem ac 7
therefore which nations are between of-the-axis southern the-pivot and
septentrionalis medio positae, uti in diagrammate musico
northern in-the-middle placed as in the-diagram musical
medianae vocis habent sonitum in sermone; quaeque
of-the-middle note they-have the-sound in speech and-those-which
progredientibus ad septentrionem sunt nationes, quod altiores
to-those-advancing to the-north are nations because higher
habent distantias mundi, spiritus vocis habentes umore
they-have distances of-the-heavens the-breaths of-voice having by-moisture
repulsos ad hypatas et proslambanomenon, a natura rerum
driven-back to the-hypatai and the-proslambanomenos by the-nature of-things
sonitu graviore coguntur uti; eadem ratione e medio
with-a-sound deeper are-forced to-use by-the-same reason from the-middle
progredientibus ad meridiem gentes paranetarum netarumque
to-those-advancing to the-south nations of-the-paranetai and-netai
acutissimam sonitus vocis perficiunt tenuitatem.
the-shrillest of-sound of-voice achieve thinness

8 Hoc autem verum esse, ex umidis naturae locis graviora
this moreover true to-be from moist of-nature places deeper-(sounds)
fieri et ex fervidis acutiora, licet ita experiendo
to-be-made and from hot-ones shriller one-may thus by-experiment
animadvertere. Calices duo in una fornace aeque cocti aequoque
to-observe cups two in one kiln equally fired and-of-equal
pondere ad crepitumque uno sonitu sumantur. Ex his
weight at and-a-rap with-one sound let-them-be-taken of these
unus in aquam demittatur, postea ex aqua eximatur; tunc
one into water let-it-be-let-down afterward out-of the-water let-it-be-taken then
utrique tangantur. Cum enim ita factum fuerit, largiter
both let-them-be-struck when for so done it-shall-have-been widely
inter eos sonitus discrepabit, aequoque pondere non poterunt
between them the-sound will-differ and-of-equal weight not they-will-be-able
esse. Ita et hominum corpora uno genere figurationis et
to-be so also of-men bodies by-one kind of-shaping and
una mundi coniunctione concepta alia propter regionis
by-one of-the-heavens conjunction conceived some because-of of-the-region
ardorem acutum spiritum aeris exprimunt acutum, alia propter
the-burning a-shrill breath of-air force-out shrill others because-of
umoris abundantiam gravissimas effundunt sonorum qualitates.
of-moisture the-abundance deepest pour-forth of-sounds qualities
9 Item propter tenuitatem caeli meridianae nationes ex acuta
likewise because-of the-thinness of-the-sky southern nations from keen
fervore mente expeditius celeriusque moventur ad consiliorum
by-heat a-mind more-readily and-more-quickly are-moved to of-plans
cogitationes; septentrionales autem gentes infusae crassitudine
the-devising northern moreover races steeped in-the-thickness
caeli, propter obstantiam aeris umore refrigeratae stupentes
of-the-sky because-of the-resistance of-the-air by-moisture cooled sluggish
habent mentes. Hoc autem ita esse a serpentibus licet
have minds this moreover so to-be from snakes one-may

aspicere, quae, per calorem cum exhaustam habent umoris
to-see which through heat when drained they-have of-moisture
refrigerationem, tunc acerrime moventur, per brumalia autem
the-cooling then most-fiercely they-move through midwinter moreover
et hiberna tempora ab mutatione caeli refrigeratae, inmotae
and winter seasons by the-change of-the-sky cooled motionless
sunt stupore. Ita non est mirandum, si acutiores efficit calidus
are in-torpor so not is to-be-wondered if keener makes warm
aer hominum mentes, refrigeratus autem contra tardiores.
air of-men minds cooled moreover on-the-contrary duller
Cum sint autem meridianae nationes animis acutissimis 10
since are moreover southern nations in-minds keenest
infinitaque sollertia consiliorum, simul ut ad
and-with-boundless cleverness of-plans at-the-same-time as to
fortitudinem ingrediuntur, ibi succumbunt, quod habent
courage they-come there they-give-way because they-have
exsuctas ab sole animorum virtutes; qui vero refrigeratis
drained by the-sun of-spirit the-powers those-who but in-cooled
nascuntur regionibus, ad armorum vehementiam paratiores
are-born regions for of-arms the-violence readier
sunt magnis virtutibus sine timore, sed tarditate animi
are with-great powers without fear but by-the-slowness of-mind
sine considerantia inruentes sine sollertia suis consiliis
without forethought rushing-in without cleverness their-own plans
refragantur. Cum ergo haec ita sint ab natura rerum in
they-thwart since therefore these-things so are by the-nature of-things in
mundo conlocata et omnes nationes inmoderatis mixtionibus
the-heavens set and all nations by-unbalanced mixtures
disparatae, veros inter spatium totius orbis terrarum
made-different true between the-space of-the-whole circle of-lands

regionesque medio mundi populus Romanus possidet
and-the-regions in-the-middle of-the-world the-people Roman possesses
fines.
the-territories

11 Namque temperatissimae ad utramque partem et corporum
for most-tempered toward each side both of-bodies
membris animorumque vigoribus pro fortitudine sunt in
in-the-limbs and-of-minds in-the-vigor for bravery are in
Italia gentes. Quemadmodum enim Iovis stella inter Martis
Italy the-races just-as for of-Jupiter the-star between of-Mars
ferventissimam et Saturni frigidissimam media currens
hottest and of-Saturn coldest in-the-middle running
temperatur, eadem ratione Italia inter septentrionalem
is-tempered by-the-same reason Italy between northern
meridianamque ab utraque parte mixtionibus temperatas et
and-southern on each side by-mixtures tempered and
invictas habet laudes. Itaque consiliis refringit barbarorum
unconquered has excellences and-so by-counsels it-breaks of-barbarians
virtutes, forti manu meridianorum cogitationes. Ita divina
the-powers with-a-strong hand of-southerners the-schemes so the-divine
mens civitatem populi Romani egregia temperataque
mind the-state of-the-people Roman in-an-excellent and-tempered
regione conlocavit, uti orbis terrarum imperii potiretur.
region has-set so-that of-the-circle of-lands of-the-empire it-might-possess

12 Quodsi ita est, uti dissimiles regiones ab inclinationibus
but-if so it-is that unlike regions by the-slants
caeli variis generibus sint comparatae, ut etiam naturae
of-the-sky in-various kinds are provided so-that also the-natures
gentium disparibus animis et corporum figuris qualitatibusque
of-nations with-differing minds and of-bodies shapes and-qualities
nascerentur, non dubitemus aedificiorum quoque rationes
were-born not let-us-doubt of-buildings also the-methods

ad nationum gentiumque proprietates apte distribuere, cum
to of-nations and-races the-properties fitly to-distribute since
habeamus ab ipsa rerum natura sollertem et expeditam
we-have from the-very of-things nature a-clever and ready
monstrationem.
showing
Quoad potui summa ratione proprietates locorum
so-far-as I-could with-the-greatest method the-properties of-places
ab natura rerum dispositas animadvertere, exposui
by the-nature of-things arranged to-observe I-have-set-forth
et, quemadmodum ad solis cursum et inclinationes
and how to of-the-sun the-course and the-slants
caeli oporteat constituere aedificiorum qualitates, dixi;
of-the-sky it-behooves to-fix of-buildings the-qualities I-have-said
itaque nunc singulorum generum in aedificiis commensus
and-so now of-the-several kinds in buildings the-measures
symmetriarum et universos et separatos breviter explicabo.
of-symmetries both whole and separate briefly I-shall-set-out

VI.2 · CORRECTING FOR THE EYE

Once the symmetry is settled the architect must still take away or add according to the site, so that nothing is wanting to the look of the thing. Sight does not report truly: painted scenery seems to stand out from a flat panel, and an oar looks broken where it enters the water. So the symmetries are fixed first, then the plan of the site, and then the proportion decorum requires; he begins with the atrium.

Nulla architecto maior cura esse debet, nisi uti proportionibus 1
no for-the-architect greater care to-be ought except that in-proportions
ratae partis habeant aedificia rationum exactiones. Cum
of-a-fixed part may-have buildings of-the-methods the-exact-workings when

ergo constituta symmetriarum ratio fuerit et
therefore settled of-symmetries the-method shall-have-been and
commensus ratiocinationibus explicati, tum etiam acuminis est
the-measures by-reasonings worked-out then also of-keenness it-is
proprium providere ad naturam loci aut usum aut speciem
the-mark to-provide for the-nature of-the-site or use or look
detractionibus aut adiectionibus temperaturas et efficere, cum
by-subtractions or additions adjustments and to-bring-about when
de symmetria sit detractum aut adiectum, uti id videatur
from the-symmetry there-has-been taken-away or added that it may-seem
recte esse formatum in aspectuque nihil desideretur.
rightly to-have-been shaped in and-the-look nothing may-be-wanted

2 Alia enim ad manum species esse videtur, alia in excelso,
one for at hand a-look to-be seems another on a-height
non eadem in concluso, dissimilis in aperto, in quibus magni
not the-same in an-enclosed-place unlike in the-open in which of-great
iudicii est opera, quid tandem sit faciundum. Non enim veros
judgment is a-work what after-all is to-be-done not for true
videtur habere visus effectus, sed fallitur saepius iudicio ab
seems to-have sight effects but is-deceived rather-often in-judgment by
eo mens. Quemadmodum etiam in scaenis pictis videntur
it the-mind just-as also in stage-scenes painted seem
columnarum proiecturae, mutulorum ecphorae, signorum figurae
of-columns projections of-mutules outcarryings of-statues the-shapes
prominentes, cum sit tabula sine dubio ad regulam plana.
jutting-out although is the-panel without doubt to the-rule flat
Similiter in navibus remi, cum sint sub aqua directi, tamen
likewise in ships the-oars although are under water straight yet
oculis infracti videntur; et quatenus eorum partes tangunt
to-the-eyes broken seem and so-far-as their parts touch
summam planitiem liquoris, apparent, uti sunt, directi, cum
the-top surface of-the-water they-appear as they-are straight when

vero sub aqua sunt demissi, per naturae perlucidam raritatem
but under water they-are sunk through of-nature transparent thinness
remittunt enatantes ab suis corporibus fluentes imagines
they-send-back swimming-up from their-own bodies flowing images
ad summam aquae planitiem, atque eae ibi commotae
to the-top of-the-water surface and they there stirred
efficere videntur infractum remorum oculis aspectum.
to-make seem broken of-the-oars to-the-eyes the-look

Hoc autem sive simulacrorum inpulsu seu radiorum ex 3
this moreover whether of-images by-the-impact or of-rays from
oculis effusionibus, uti physicis placet, videmus, utraque
the-eyes by-outpourings as to-the-physicists seems-good we-see by-either
ratione videtur ita esse, uti falsa iudicia oculorum habeat
account it-seems so to-be that false judgments of-the-eyes has
aspectus.
the-sight

Cum ergo, quae sunt vera, falsa videantur et nonnulla 4
since therefore what are true false seem and some-things
aliter quam sunt oculis probentur, non puto oportere
otherwise than they-are by-the-eyes are-judged not I-think to-behoove
esse dubium, quin ad locorum naturas aut necessitates
to-be doubt but-that to of-places the-natures or needs
detractiones aut adiectiones fieri debeant, sed ita, uti
subtractions or additions to-be-made ought but so that
nihil in his operibus desideretur. Haec autem etiam
nothing in these works is-wanted these-things moreover also
ingeniorum acuminibus, non solum doctrinis efficiuntur.
of-talents by-the-keenness not only by-teachings are-brought-about

Igitur statuenda est primum ratio symmetriarum, deinde 5
therefore to-be-settled is first the-method of-symmetries then
explicetur operis futuri locorum imum spatium
let-there-be-worked-out of-the-work to-come of-places lowest space

longitudinis et latitudinis, cuius cum semel constituta
of-length and breadth of-which when once settled
fuerit magnitudo, sequatur eam proportionis ad decorem
shall-have-been the-size let-there-follow it of-proportion for decorum
apparatio, uti non sit considerantibus aspectus eurythmiae
the-fitting-out so-that not be to-those-considering the-look of-shapeliness
dubius. De qua, quibus rationibus efficiatur, est mihi
doubtful about which by-what methods it-is-brought-about it-is for-me
pronuntiandum, primumque de cavis aedium, uti fieri
to-be-declared and-first about the-hollows of-houses how to-be-made
debeant, dicam.
they-ought I-shall-speak

VI.3 · THE ATRIUM AND THE ROOMS

There are five kinds of atrium: Tuscan, Corinthian, four-columned, outward-draining, and vaulted. Vitruvius says how each is roofed and framed, and warns that the outward-draining kind floods and rots the joinery when its pipes block. He then measures out the atrium, the wings, the tablinum, the peristyle, the dining-rooms, and the halls, ending with the Cyzicene hall, which faces north and looks out on greenery through folding windows.

1 Cava aedium quinque generibus sunt distincta, quorum
the-hollows of-houses by-five kinds are distinguished whose
ita figurae nominantur: tuscanicum, corinthium, tetrastylon,
thus the-forms are-named Tuscan Corinthian four-columned
displuviatum, testudinatum. Tuscanica sunt, in quibus trabes in
outward-draining vaulted Tuscan-ones are in which the-beams in
atrii latitudine traiectae habeant interpensiva et collicias
of-the-atrium the-breadth thrown have cross-braces and valley-gutters
ab angulis parietum ad angulos tignorum intercurrentes, item
from the-corners of-the-walls to the-corners of-the-joists running-between likewise

asseribus stillicidiorum in medium compluvium deiectus. In
by-the-battens of-the-eaves-drips into the-middle compluvium the-falls in
corinthiis isdem rationibus trabes et compluvia conlocantur,
Corinthian-ones by-the-same methods beams and compluvia are-set
sed a parietibus trabes recedentes in circumitione circa
but from the-walls the-beams drawing-back in the-circuit around
columnas componuntur. Tetrastyla sunt, quae subiectis
columns are-set-together four-columned-ones are which set-under
sub trabibus angularibus columnis et utilitatem trabibus
beneath the-beams at-the-corners with-columns both usefulness to-the-beams
et firmitatem praestant, quod neque ipsae magnum
and strength furnish because neither they-themselves a-great
impetum coguntur habere neque ab interpensivis onerantur.
thrust are-forced to-have nor by the-cross-braces are-loaded
Displuviata autem sunt, in quibus deliquiae arcam 2
outward-draining-ones moreover are in which gutters the-frame
sustinentes stillicidia reiciunt. Haec hibernaculis maxime
supporting the-eaves-drips throw-back these for-winter-rooms most-of-all
praestant utilitates, quod compluvia eorum erecta non obstant
furnish advantages because the-compluvia of-them raised not block
luminibus tricliniorum. Sed ea habent in refectionibus
the-lights of-dining-rooms but they have in repairs
molestiam magnam, quod circa parietes stillicidia defluentia,
trouble great because around the-walls the-drips running-down
cum tument fistulae, quae non celeriter recipiunt ex canalibus
when swell the-pipes which not quickly take-in from the-gutters
aquam defluentem itaque redundantes restagnant, et intestinum
the-water running-down and-so overflowing they-flood-back both the-joinery
et parietes in eis generibus aedificiorum corrumpunt.
and the-walls in those kinds of-buildings they-ruin

Testudinata vero ibi fiunt, ubi non sunt impetus magni
vaulted-ones but there are-made where not there-are thrusts great
et in contignationibus supra spatiosae redduntur habitationes.
and in the-floors above spacious are-rendered dwellings

3 Atriorum vero latitudines ac longitudines tribus generibus
of-atria but the-breadths and lengths by-three kinds
formantur. Et primum genus distribuitur, uti, longitudo
are-shaped and the-first kind is-distributed so-that the-length
cum in quinque partes divisa fuerit, tres partes latitudini
when into five parts divided shall-have-been three parts to-the-breadth
dentur; alterum, cum in tres partes dividatur, duae
let-them-be-given the-second when into three parts it-is-divided two
partes latitudini tribuantur; tertium, uti latitudo in
parts to-the-breadth let-them-be-assigned the-third that the-breadth in
quadrato paribus lateribus describatur inque eo quadrato
a-square with-equal sides let-it-be-marked-out and-in that square
diagonios linea ducatur, et quantum spatium habuerit
a-diagonal line let-it-be-drawn and as-much space shall-have-had
ea linea diagonii, tanta longitudo atrio detur.
that line of-the-diagonal so-great a-length to-the-atrium let-it-be-given

4 Altitudo eorum, quanta longitudo fuerit quarta dempta,
the-height of-them as-great the-length shall-have-been a-fourth taken-away
sub trabes extollatur; reliquum lacunariorum et arcae
up-to the-beams let-it-be-raised the-rest of-the-ceiling-panels and of-the-frame
supra trabes spatio tribuatur.
above the-beams to-the-space let-it-be-assigned

Alis dextra ac sinistra latitudinis spatium, cum sit
to-the-wings on-the-right and on-the-left of-breadth the-space when is
atrii longitudo ab XXX pedibus ad pedes XL, ex
of-the-atrium the-length from XXX feet to feet XL of
tertia parte eius constituatur. Ab XL ad pedes L longitudo
a-third part of-it let-it-be-fixed from XL to feet L the-length

dividatur in partes tres semis, ex his una pars alis
let-it-be-divided into parts three and-a-half of these one part to-the-wings
detur. Cum autem erit longitudo ab quinquaginta
let-it-be-given when moreover shall-be the-length from fifty
pedibus ad sexaginta, quarta pars longitudinis alis
feet to sixty a-fourth part of-the-length to-the-wings
tribuatur. A pedibus LX ad LXXX longitudo dividatur
let-it-be-assigned from feet LX to LXXX the-length let-it-be-divided
in partes quattuor et dimidiam, ex his una pars fiat
into parts four and a-half of these one part let-it-be-made
alarum latitudo. A pedibus octoginta ad pedes centum in
of-the-wings the-breadth from feet eighty to feet a-hundred into
quinque partes divisa longitudo iustam constituerit latitudinem
five parts divided the-length a-just will-have-fixed the-breadth
alarum. Trabes earum liminares ita altae ponantur, ut
of-the-wings the-beams of-them lintel so high let-them-be-set that
altitudines latitudinibus sint aequales. Imagines cum suis
the-heights to-the-breadths be equal the-portraits with their-own
ornamentis ad latitudinem alarum sint constitutae.
ornaments to the-breadth of-the-wings let-them-be set
Tablinum, si latitudo atrii erit pedum viginti, dempta 5
the-tablinum if the-breadth of-the-atrium shall-be of-feet twenty taken-away
tertia eius spatio reliquum tribuatur. Si erit ab
a-third of-it for-the-space the-rest let-it-be-assigned if it-shall-be from
pedibus XXX ad XL, ex atrii latitudine tablino
feet XXX to XL of of-the-atrium the-breadth to-the-tablinum
dimidium tribuatur. Cum autem ab XL ad LX, latitudo
a-half let-it-be-assigned when moreover from XL to LX the-breadth
dividatur in partes quinque, ex his duae tablino
let-it-be-divided into parts five of these two for-the-tablinum
constituantur. Non enim atria minora maioribus easdem
let-them-be-appointed not for atria smaller as-the-greater the-same

possunt habere symmetriarum rationes. Si enim maiorum
can to-have of-symmetries methods if for of-the-greater
symmetriis utemur in minoribus, neque tablina neque
symmetries we-shall-use in the-smaller neither the-tablina nor
alae utilitatem poterunt habere, sin autem minorum
the-wings usefulness will-be-able to-have but-if moreover of-the-smaller
in maioribus utemur, vasta et inmania in his ea erunt
in the-greater we-shall-use huge and monstrous in these those will-be
membra. Itaque generatim magnitudinum rationes exquisitas
the-members and-so kind-by-kind of-sizes the-methods searched-out
et utilitati et aspectui conscribendas putavi.
both for-usefulness and for-the-look to-be-written-out I-thought

6 Altitudo tablini ad trabem adiecta latitudinis octava
the-height of-the-tablinum to the-beam added of-the-breadth an-eighth
constituatur. Lacunaria eius tertia latitudinis ad altitudinem
let-it-be-fixed the-ceiling-panels of-it a-third of-the-breadth to the-height
adiecta extollantur.
added let-them-be-raised

Fauces minoribus atriis e tablini latitudine dempta
the-passage for-smaller atria from of-the-tablinum the-breadth taken-away
tertia, maioribus dimidia constituantur.
a-third for-greater-ones a-half let-them-be-fixed

Latitudines ostiorum ad altitudinem; si dorica erunt,
the-breadths of-the-doorways to the-height if Doric they-shall-be
uti dorica, si ionica erunt, uti ionica perficiantur,
as Doric-ones if Ionic they-shall-be as Ionic-ones let-them-be-finished
quemadmodum de thyromatis in quarto libro rationes
as about door-frames in the-fourth book the-methods
symmetriarum sunt expositae.
of-symmetries have-been set-forth

Compluvii lumen latum latitudinis atrii ne minus
of-the-compluvium the-opening broad of-the-breadth of-the-atrium not less
quarta, ne plus tertia parte relinquatur; longitudo, uti
a-fourth not more a-third part let-it-be-left the-length so-that
atrii pro rata parte fiat.
of-the-atrium according-to a-fixed part let-it-be-made
Peristyla autem in transverso tertia parte longiora sint quam 7
peristyles moreover in the-cross-way a-third part longer let-them-be than
introrsus. Columnae tam altae quam porticus latae fuerint
inward the-columns as high as the-colonnades broad shall-have-been
peristyliorum; intercolumnia ne minus trium, ne plus quattuor
of-the-peristyles the-intercolumniations not less of-three not more of-four
columnarum crassitudine inter se distent. Sin
columns by-the-thickness between themselves let-them-stand-apart but-if
autem dorico more in peristylo columnae erunt faciundae, uti
moreover in-the-Doric manner in the-peristyle columns shall-be to-be-made as
in quarto libro de doricis scripsi, ita moduli sumantur,
in the-fourth book about Doric-ones I-have-written so the-modules let-them-be-taken
et ad eos modulos triglyphorumque rationes disponantur.
and to those modules and-of-the-triglyphs the-methods let-them-be-arranged
Tricliniorum quanta latitudo fuerit, bis tanta longitudo 8
of-dining-rooms as-great the-breadth shall-have-been twice so-great the-length
fieri debebit. Altitudines omnium conclaviorum, quae
to-be-made will-have-to the-heights of-all rooms which
oblonga fuerint, sic habere debent rationem, uti longitudinis
oblong shall-be thus to-have ought a-method that of-the-length
et latitudinis mensura componatur et ex ea summa
and breadth the-measure let-it-be-put-together and of that sum
dimidium sumatur, et quantum fuerit, tantum altitudini
a-half let-it-be-taken and as-much-as it-shall-be so-much to-the-height
detur. Sin autem exhedrae aut oeci quadrati fuerint,
let-it-be-given but-if moreover exedras or halls square shall-be

latitudinis dimidia addita altitudines educantur. Pinacothecae
of-the-breadth a-half added the-heights let-them-be-raised picture-galleries
uti exhedrae amplis magnitudinibus sunt constituendae. Oeci
like exedras with-ample sizes are to-be-set halls
corinthii tetrastylique quique aegyptii vocantur latitudinis
Corinthian and-four-columned and-those-which Egyptian are-called of-breadth
et longitudinis, uti supra tricliniorum symmetriae scriptae
and of-length as above of-dining-rooms the-symmetries written
sunt, ita habeant rationem, sed propter columnarum
have-been so let-them-have a-method but because-of of-columns
interpositiones spatiosiores constituantur.
the-interposings more-spacious let-them-be-set

9 Inter corinthios autem et aegyptios hoc erit discrimen.
between Corinthian moreover and Egyptian this will-be the-difference
Corinthii simplices habent columnas aut in podio positas
the-Corinthian single have columns either on a-podium set
aut in imo; supraque habent epistylia et coronas aut
or on the-floor and-above they-have architraves and cornices either
ex intestino opere aut albario, praeterea supra coronas
of joiner's work or of-stucco besides above the-cornices
curva lacunaria ad circinum delumbata. In aegyptiis autem
curved ceiling-panels to the-compass bent in the-Egyptian moreover
supra columnas epistylia et ab epistyliis ad parietes, qui
above the-columns architraves and from the-architraves to the-walls which
sunt circa, inponenda est contignatio, supra coaxationem
are around to-be-laid is a-floor above the-planking
pavimentum, subdiu ut sit circumitus. Deinde
a-pavement in-the-open so-that there-may-be a-walk-round then
supra epistylium ad perpendiculum inferiorum columnarum
above the-architrave to the-plumb-line of-the-lower columns
inponendae sunt minores quarta parte columnae. Supra earum
to-be-set are smaller by-a-fourth part columns above their

epistylia et ornamenta lacunariis ornantur, et inter
architraves and ornaments with-ceiling-panels they-are-adorned and between
columnas superiores fenestrae conlocantur; ita basilicarum ea
the-columns upper windows are-set so of-basilicas that
similitudo, non corinthiorum tricliniorum videtur esse.
likeness not of-Corinthian dining-rooms seems to-be
Fiunt autem etiam non italicae consuetudinis oeci, quos 10
there-are-made moreover also not of-Italian custom halls which
Graeci cyzicenos appellant. Hi conlocantur spectantes ad
the-Greeks Cyzicene call these are-set facing toward
septentrionem et maxime viridia prospicientes, valvasque
the-north and most-of-all greenery looking-out-on and-folding-doors
habent in medio. Ipsi autem sunt ita longi et lati, uti
they-have in the-middle they moreover are so long and broad that
duo triclinia cum circumitionibus inter se spectantia
two dining-rooms with walks-round between themselves facing
possint esse conlocata, habentque dextra ac sinistra
may-be-able to-be set and-they-have on-the-right and on-the-left
lumina fenestrarum valvata, uti de lectis per spatia
lights of-windows folding so-that from the-couches through the-spaces
fenestrarum viridia prospiciantur. Altitudines eorum dimidia
of-the-windows the-greenery may-be-looked-out-on the-heights of-them a-half
latitudinis addita constituuntur.
of-the-breadth added are-fixed
In his aedificiorum generibus omnes sunt faciendae earum 11
in these of-buildings kinds all are to-be-made of-those
symmetriarum rationes, quae sine inpeditione loci
symmetries the-methods which without hindrance of-the-site
fieri poterunt, luminaque, parietum altitudinibus si
to-be-made will-be-able and-the-lights of-walls by-the-heights if
non obscurabuntur, faciliter erunt explicata; sin autem
not shall-be-darkened easily will-be worked-out but-if moreover

inpedientur ab angustiis aut aliis necessitatibus, tunc
they-shall-be-hindered by narrowness or other needs then
erit ut ingenio et acumine de symmetriis detractiones
it-will-be that by-talent and keenness from the-symmetries subtractions
aut adiectiones fiant, uti non dissimiles veris symmetriis
or additions be-made so-that not unlike to-the-true symmetries
perficiantur venustates.
may-be-achieved graces

VI.4 · WHICH WAY THE ROOMS FACE

Winter dining-rooms and baths face the winter sunset, for the evening light and the warmth the setting sun sends back. Bedrooms and libraries face east, since they want the morning light and books rot in the damp winds from south and west. Spring and autumn dining-rooms face east and summer ones north, and so do picture-galleries, embroiderers' workrooms, and painters' studios, whose colors need a steady light.

1 Nunc explicabimus, quibus proprietatibus genera aedificiorum
now we-shall-set-out with-what properties the-kinds of-buildings
ad usum et caeli regiones aptas debeant spectare.
toward use and of-the-sky quarters fit ought to-face
Hiberna triclinia et balnearia ad occidentem hibernum
winter dining-rooms and bathrooms toward the-west wintry
spectent, ideo quod vespertino lumine opus est
let-them-face for-this-reason because of-evening light need there-is
uti, praeterea quod etiam sol occidens adversus habens
to-use besides because also the-sun setting facing having
splendorem, calorem remittens efficit vespertino tempore
(its)-brightness heat sending-back makes at-evening time
regionem tepidiorem. Cubicula et bybliothecae ad orientem
the-quarter warmer bedrooms and libraries toward the-east

spectare debent; usus enim matutinum postulat lumen, item
to-face ought (their)-use for morning demands light likewise
in bybliothecis libri non putrescent. Nam quaecumque ad
in libraries the-books not will-rot for whichever toward
meridiem et occidentem spectant, ab tineis et umore libri
the-south and west face by bookworms and damp the-books
vitiantur, quod venti umidi advenientes procreant eas et alunt
are-spoiled because winds damp coming-in breed them and feed
infundentesque umidos spiritus pallore volumina corrumpunt.
and-pouring-in damp breaths with-mold the-rolls they-ruin
Triclinia verna et autumnalia ad orientem; tum enim 2
dining-rooms spring and autumn toward the-east then for
praetenta luminibus adversus solis impetus progrediens
set-facing with-(their)-lights opposite of-the-sun the-onrush advancing
ad occidentem efficit ea temperata ad id tempus, quo
to the-west makes them temperate at that time at-which
his solitum est uti. Aestiva ad septentrionem, quod
them customary it-is to-use summer-ones toward the-north because
ea regio, ut reliquae per solstitium propter calorem
that quarter as the-rest-(which) through the-solstice because-of heat
efficiuntur aestuosae, eo quod est aversa a solis
are-made sweltering for-this because it-is turned-away from of-the-sun
cursu, semper refrigerata et salubritatem et voluptatem
the-course always cooled both healthfulness and pleasure
in usu praestat. Non minus pinacothecae et plumariorum
in use it-furnishes not less picture-galleries and of-embroiderers
textrina pictorumque officinae, uti colores eorum in opere
weaving-rooms and-of-painters workshops so-that the-colors of-them in the-work
propter constantiam luminis inmutata permaneant qualitate.
because-of the-steadiness of-the-light unchanged may-remain in-quality

Some rooms are private, and no one goes into them uninvited: bedrooms, dining-rooms, and baths. Forecourts, atria, and peristyles are common, open to anyone who comes. What a man needs depends on what he does: farmers want stalls and granaries, money-lenders and tax-farmers safe and handsome rooms, advocates room for a crowd, and men in public office lofty forecourts and libraries. In the country the peristyle comes first and the atrium after it.

1 Cum ad regiones caeli ita ea fuerint disposita, tunc etiam
when to the-quarters of-the-sky so they shall-have-been arranged then also
animadvertendum est, quibus rationibus privatis aedificiis propria
to-be-considered it-is by-what methods in-private buildings private
loca patribus familiarum et quemadmodum communia cum
places for-the-fathers of-households and how common-ones with
extraneis aedificari debeant. Namque ex his quae propria sunt,
outsiders to-be-built ought for of these which private are
in ea non est potestas omnibus intro eundi nisi invitatis,
into them not there-is leave for-all in of-going except for-those-invited
quemadmodum sunt cubicula, triclinia, balneae ceteraque, quae
such-as are bedrooms dining-rooms baths and-the-rest which
easdem habent usus rationes. Communia autem sunt, quibus
the-same have of-use methods common moreover are into-which
etiam invocati suo iure de populo possunt venire, id est
even uninvited by-their-own right from the-people can to-come that is
vestibula, cava aedium, peristylia, quaeque eundem habere
forecourts hollows of-houses peristyles and-those-which the-same to-have
possunt usum. Igitur is, qui communi sunt fortuna, non
can use therefore those who of-common are fortune not
necessaria magnifica vestibula nec tabulina neque atria, quod
(are)-necessary magnificent forecourts nor tablina nor atria because
aliis officia praestant ambiundo neque ab aliis ambiuntur.
to-others services they-render by-courting and-not by others are-courted

Qui autem fructibus rusticis serviunt, in eorum vestibulis 2
those-who moreover to-produce country are-devoted in their forecourts
stabula, tabernae, in aedibus cryptae, horrea, apothecae
stalls shops in the-house cellars granaries storerooms
ceteraque, quae ad fructus servandos magis quam ad
and-the-rest which for produce keeping more than for
elegantiae decorem possunt esse, ita sunt facienda. Item
of-elegance the-decorum can to-be so are to-be-made likewise
feneratoribus et publicanis commodiora et speciosiora
for-money-lenders and tax-farmers more-convenient and handsomer
et ab insidiis tuta, forensibus autem et disertis
and from plots safe for-men-of-the-courts moreover and orators
elegantiora et spatiosiora ad conventus excipiundos, nobilibus
more-elegant and more-spacious for gatherings receiving for-nobles
vero, qui honores magistratusque gerundo praestare debent
but who offices and-magistracies by-holding to-render ought
officia civibus, faciunda sunt vestibula regalia alta, atria
services to-the-citizens to-be-made are forecourts royal lofty atria
et peristylia amplissima, silvae ambulationesque laxiores
and peristyles most-ample woods and-walks more-generous
ad decorem maiestatis perfectae; praeterea bybliothecas,
for the-decorum of-majesty perfected besides libraries
pinacothecas, basilicas non dissimili modo quam publicorum
picture-galleries basilicas not in-an-unlike way than of-public
operum magnificentia habeant comparatas, quod in domibus
works the-magnificence let-them-have provided because in the-houses
eorum saepius et publica consilia et privata iudicia
of-them often-enough both public counsels and private judgments
arbitriaque conficiuntur.
and-arbitrations are-transacted

3 Ergo si his rationibus ad singulorum generum personas,
therefore if by-these methods to of-the-several kinds persons
uti in libro primo de decore est scriptum, ita disposita
as in book the-first about decorum it-is written so arranged
erunt aedificia, non erit quod reprehendatur; habebunt
shall-be buildings not there-will-be what may-be-blamed they-will-have
enim ad omnes res commodas et emendatas explicationes.
for toward all things convenient and faultless workings-out
Earum autem rerum non solum erunt in urbe aedificiorum
of-those moreover things not only will-be in the-city of-buildings
rationes, sed etiam ruri, praeterquam quod in urbe atria
the-methods but also in-the-country except that in the-city atria
proxima ianuis solent esse, ruri ab pseudourbanis
next to-the-doors are-wont to-be in-the-country from mock-town-rooms
statim peristylia, deinde tunc atria habentia circum porticus
at-once peristyles next then atria having around colonnades
pavimentatas spectantes ad palaestras et ambulationes.
paved facing toward exercise-grounds and walks
Quoad potui urbanas rationes aedificiorum summatim
so-far-as I-could town the-methods of-buildings in-summary
perscribere, proposui; nunc rusticorum expeditionum
to-write-out I-have-set-out now of-country of-undertakings
apparationes, ut sint ad usum commodae quibusque
the-preparations so-that they-may-be for use convenient and-by-what
rationibus conlocare oporteat eas, dicam.
methods to-lay-out it-behooves them I-shall-speak

The farmyard is sized by the cattle and yokes of oxen it must hold, and the kitchen goes in the warmest place beside the ox-stalls. Vitruvius measures the stalls, baths, press-room, wine and oil cellars, folds, and granaries, and puts the barns and mills outside the house against fire. He ends with a test for daylight in a town room: stretch a line from the top of the wall that blocks it and see whether open sky shows above.

Primum de salubritatibus, uti in primo volumine de 1
first about healthfulness as in the-first book about
moenibus conlocandis scriptum est, regiones aspiciantur
town-walls to-be-sited written has-been the-quarters let-them-be-examined
et ita villae conlocentur. Magnitudines earum ad
and so farmhouses let-them-be-sited the-sizes of-them to
modum agri copiasque fructuum comparentur. Chortes
the-measure of-the-land and-the-plenty of-produce let-them-be-fitted farmyards
magnitudinesque earum ad pecorum numerum, atque quot
and-the-sizes of-them to of-cattle the-number and how-many
iuga boum opus fuerit ibi versari, ita finiantur.
yokes of-oxen need there-shall-be there to-be-kept so let-them-be-bounded
In chorte culina quam calidissimo loco designetur.
in the-farmyard the-kitchen as warm-as-possible in-a-place let-it-be-marked-out
Coniuncta autem habeat bubilia, quorum praesepia ad
joined moreover let-it-have ox-stalls whose mangers toward
focum et orientis caeli regionem spectent, ideo
the-hearth and of-the-rising sky the-quarter let-them-face for-this-reason
quod boves lumen et ignem spectando horridi non fiunt;
that oxen light and fire by-looking-at shaggy not become
item agricolae religione inpediti non putant oportere aliam
likewise farmers by-religion held-back not think to-behoove another
regionem caeli boves spectare nisi ortum solis.
quarter of-the-sky oxen to-face except the-rising of-the-sun

2 Bubilium autem debent esse latitudines nec minores pedum
of-ox-stalls moreover ought to-be the-breadths neither less of-feet
denum nec maiores quindenum; longitudo, uti singula
ten nor more fifteen the-length so-that each
iuga ne minus pedes occupent septenos. Balnearia item
yoke not less feet take-up seven the-bath-rooms likewise
coniuncta sint culinae; ita enim lavationi rusticae
joined let-them-be to-the-kitchen so for for-washing country
ministratio non erit longe. Torcular item proximum sit
the-service not will-be far the-press-room likewise next let-it-be
culinae; ita enim ad molarios fructus commoda erit
to-the-kitchen so for for mill produce convenient will-be
ministratio. Habeatque coniunctam vinariam cellam habentem
the-service and-let-it-have joined wine cellar having
ab septentrione lumina fenestrarum; cum enim alia
from the-north the-lights of-windows when for in-another
parte habuerit, qua sol calfacere possit, vinum, quod
part it-shall-have-had where the-sun to-warm can the-wine which
erit in ea cella, confusum ab calore efficietur inbecillum.
will-be in that cellar disturbed by heat will-be-made weak
3 Olearia autem ita est conlocanda, ut habeat a meridie
the-oil-room moreover so is to-be-sited that it-may-have from the-south
calidisque regionibus lumen; non enim debet oleum congelari,
and-warm quarters light not for ought the-oil to-be-congealed
sed tepore caloris extenuari. Magnitudines autem earum
but by-the-warmth of-heat to-be-thinned the-sizes moreover of-them
ad fructuum rationem et numerum doliorum sunt faciundae,
to of-produce the-reckoning and the-number of-jars are to-be-made
quae, cum sint cullearia, per medium occupare debent pedes
which when are culleus-sized through the-middle to-take-up ought feet
quaternos. Ipsum autem torcular, si non cocleis torquetur
four the-very moreover press if not by-screws is-turned

sed vectibus et prelo premitur, ne minus longum pedes
but by-levers and a-beam is-pressed not less long feet
XL constituatur; ita enim erit vectiario spatium
XL let-it-be-set so for there-will-be for-the-lever-man space
expeditum. Latitudo eius ne minus pedum senum denum;
free the-breadth of-it not less of-feet six (and)-ten
nam sic erit ad prelum opus facientibus libera versatio
for so there-will-be at the-beam work for-those-doing free movement
et expedita. Sin autem duobus prelis loco opus fuerit,
and unhampered but-if moreover for-two beams of-room need there-shall-be
quattuor et viginti pedes latitudini dentur.
four and twenty feet to-the-breadth let-them-be-given
Ovilia et caprilia ita sunt magna facienda, uti singula 4
sheepfolds and goat-pens so are large to-be-made that each
pecora areae ne minus pedes quaternos et semipedem, ne
beast of-floor not less feet four and a-half-foot not
plus senos possint habere. Granaria sublimata et ad
more six may-be-able to-have granaries raised and toward
septentrionem aut aquilonem spectantia disponantur; ita
the-north or north-east facing let-them-be-arranged so
enim frumenta non poterint cito concalescere, sed ab flatu
for the-grain not will-be-able quickly to-heat-up but by the-breeze
refrigerata diu servantur. Namque ceterae regiones procreant
cooled long are-kept for the-other quarters breed
curculionem et reliquas bestiolas, quae frumentis solent
the-weevil and the-other small-creatures which grain are-wont
nocere. Equilibus, quae maxime in villa loca calidissima
to-harm for-stables whatever most-of-all in the-farmhouse places warmest
fuerint, constituantur, dum ne ad focum spectent; cum
shall-be let-them-be-set provided-that not toward the-hearth they-face when
enim iumenta proxime ignem stabulantur, horrida fiunt.
for draft-beasts nearest the-fire are-stabled shaggy they-become

5 Item non sunt inutilia praesepia, quae conlocantur extra
likewise not are useless mangers which are-set outside
culinam in aperto contra orientem; cum enim in hieme
the-kitchen in the-open facing the-east when for in winter
anni sereno caelo in ea traducuntur matutino boves, ad
of-the-year clear sky into them are-led-across in-the-morning oxen in
solem pabulum capientes fiunt nitidiores. Horrea, fenilia,
the-sun fodder taking they-become sleeker barns hay-lofts
farraria, pistrina extra villam facienda videntur, ut ab
meal-stores mills outside the-farmhouse to-be-made seem so-that from
ignis periculo sint villae tutiores. Si quid delicatius in
of-fire the-danger may-be the-farmhouses safer if anything more-refined in
villis faciundum fuerit, ex symmetriis, quae in urbanis
farmhouses to-be-made shall-be from the-symmetries which in town-houses
supra scriptis sunt constitutae, ita struantur, uti
above written have-been settled so let-them-be-constructed that
sine inpeditione rusticae utilitatis aedificentur.
without hindrance of-country usefulness they-may-be-built

6 Omniaque aedificia ut luminosa sint, oportet curari; sed
and-all buildings that well-lighted be it-behooves to-be-seen-to but
quae sunt ad villas, faciliora videntur esse, ideo
those-which are at farmhouses easier seem to-be for-this-reason
quod paries nullius vicini potest obstare, in urbe autem
that a-wall of-no neighbor can to-block in the-city moreover
aut communium parietum altitudines aut angustiae loci
either of-party walls the-heights or the-narrowness of-the-site
inpediundo faciunt obscuritates. Itaque de ea re sic
by-hindering make darkness and-so about that matter thus
erit experiundum. Ex qua parte lumen oporteat sumere,
it-will-be to-be-tested from what side light it-behooves to-take
linea tendatur ab altitudine parietis, qui videtur obstare,
a-line let-it-be-stretched from the-height of-the-wall which seems to-block

ad eum locum, quo oporteat inmittere, et si ab ea linea,
to that place whither it-behooves to-let-it-in and if from that line
in altitudinem cum prospiciatur, poterit spatium puri caeli
into the-height when one-looks-out will-be-able a-space of-clear sky
amplum videri, in eo loco lumen erit sine inpeditione.
ample to-be-seen in that place light there-will-be without hindrance
Sin autem officient trabes ea lumina aut contignationes, 7
but-if moreover shall-obstruct beams those lights or floors
de superioribus partibus aperiatur et ita inmittatur. Et
from the-upper parts let-it-be-opened and so let-it-be-let-in and
ad summam ita est gubernandum, ut, ex quibuscumque
in sum so it-is to-be-managed that from whatever
partibus caelum prospici poterit, per eas fenestrarum loca
parts the-sky to-be-seen shall-be-able through those for-windows places
relinquantur; sic enim lucida erunt aedificia. Cum autem in
let-them-be-left so for bright will-be buildings while moreover in
tricliniis ceterisque conclavibus maximus est usus luminum,
dining-rooms and-the-other rooms greatest is the-use of-lights
tum etiam in itineribus, clivis, scalis, quod in his saepius
then also in passages slopes stairs because on these rather-often
alii aliis obviam venientes ferentes sarcinas solent incurrere.
some others to-meet coming carrying burdens are-wont to-collide
Quoad potui, distributiones operum nostratium, ut
so-far-as I-could the-distributions of-works of-our-own-country so-that
sint aedificatoribus non obscurae, explicui; nunc
they-may-be to-builders not obscure I-have-set-out now
etiam, quemadmodum Graecorum consuetudinibus aedificia
also how of-the-Greeks by-the-customs buildings
distribuantur, uti non sint ignota, summatim exponam.
are-distributed so-that not they-may-be unknown in-summary I-shall-set-forth

The Greeks build no atrium. A narrow passage runs from the door past the stables and the porter's rooms to a peristyle, off which lie the women's rooms; larger houses add a second peristyle for the men, with dining-rooms, libraries, and separate guest quarters. Vitruvius ends on the words themselves, noting that andron, xystus, and prothyra each mean one thing in Greek and another in Latin, and that the figures Romans call telamones the Greeks call Atlases.

1 Atriis Graeci quia non utuntur, neque aedificant, sed ab ianua
atria the-Greeks because not use nor build(-them) but from the-door
introeuntibus itinera faciunt latitudinibus non spatiosis, et ex
for-those-entering passages they-make with-breadths not spacious and on
una parte equilia, ex altera ostiariis cellas, statimque ianuae
one side stables on the-other for-doorkeepers rooms and-at-once the-doors
interiores finiuntur. Hic autem locus inter duas ianuas graece
inner end this moreover place between two doors in-Greek
θυρωρεῖον appellatur. Deinde est introitus in peristylon. Id
door-keeper's-place is-called then there-is an-entrance into the-peristyle that
peristylum in tribus partibus habet porticus inque parte, quae
peristyle on three sides has colonnades and-on the-side which
spectat ad meridiem, duas antas inter se spatio amplo
faces toward the-south two antae between themselves by-a-space ample
distantes, in quibus trabes invehuntur, et quantum inter
standing-apart on which beams are-carried and as-much-as between
antas distat, ex eo tertia dempta spatium datur introrsus.
the-antae stands-apart from that a-third taken-away space is-given inward
Hic locus apud non nullos prostas, apud alios pastas nominatur.
this place among not none prostas among others pastas is-named
2 In his locis introrsus constituuntur oeci magni, in quibus
in these places inward are-set halls large in which
matres familiarum cum lanificis habent sessionem. In
the-mothers of-households with wool-workers have (their)-sitting in

prostadis autem dextra ac sinistra cubicula sunt conlocata,
the-prostas moreover on-the-right and on-the-left bedrooms are set
quorum unum thalamos, alterum amphithalamos dicitur.
of-which one thalamos the-other amphithalamos is-called
Circum autem in porticibus triclinia cotidiana, cubicula,
around moreover in the-colonnades dining-rooms everyday bedrooms
etiam cellae familiaricae constituuntur. Haec pars aedificii
also rooms servants' are-set this part of-the-building
gynaeconitis appellatur.
the-women's-quarter is-called
Coniunguntur autem his domus ampliores habentes lautiora 3
are-joined moreover to-these houses larger having more-splendid
peristylia, in quibus pares sunt quattuor porticus altitudinibus,
peristyles in which equal are four colonnades in-heights
aut una, quae ad meridiem spectat, excelsioribus columnis
or one which toward the-south faces with-loftier columns
constituitur. Id autem peristylum, quod unam altiorem
is-set that moreover peristyle which one higher
habet porticum, rhodiacum dicitur. Habent autem eae domus
has colonnade Rhodian is-called they-have moreover those houses
vestibula egregia et ianuas proprias cum dignitate porticusque
forecourts excellent and doors their-own with dignity and-the-colonnades
peristyliorum albariis et tectoriis et ex intestino opere
of-the-peristyles with-stucco and plaster and of joiner's work
lacunariis ornatas, et in porticibus, quae ad septentrionem
with-coffered-ceilings adorned and in the-colonnades which toward the-north
spectant, triclinia cyzicena et pinacothecas, ad orientem
face dining-rooms Cyzicene and picture-galleries toward the-east
autem bybliothecas, exhedras ad occidentem, ad meridiem
moreover libraries exedras toward the-west toward the-south
vero spectantes oecos quadratos ita ampla magnitudine, uti
but facing halls square so ample in-size that

faciliter in eo quattuor tricliniis stratis ministrationum
easily in it four dining-couches spread of-services
ludorumque operis locus possit esse spatiosus.
and-of-entertainments of-the-work room may-be-able to-be spacious
4 In his oecis fiunt virilia convivia; non enim fuerat institutum
in these halls are-held men's banquets not for it-had-been the-custom
matres familiarum eorum moribus accumbere. Haec autem
the-mothers of-households their by-usages to-recline these moreover
peristylia domus andronitides dicuntur, quod in his viri
peristyles of-the-house men's-quarters are-called because in these the-men
sine interpellationibus mulierum versantur. Praeterea dextra
without interruptions of-women pass-their-time besides on-the-right
ac sinistra domunculae constituuntur habentes proprias ianuas,
and on-the-left little-houses are-set having their-own doors
triclinia et cubicula commoda, uti hospites advenientes
dining-rooms and bedrooms convenient so-that guests arriving
non in peristylia sed in ea hospitalia recipiantur. Nam cum
not into the-peristyles but into those guest-quarters may-be-received for when
fuerunt Graeci delicatiores et fortuna opulentiores, hospitibus
were the-Greeks more-refined and in-fortune wealthier for-guests
advenientibus instruebant triclinia, cubicula, cum penu
arriving they-would-furnish dining-rooms bedrooms with provisions
cellas, primoque die ad cenam invitabant, postero mittebant
storerooms and-on-the-first day to dinner they-would-invite on-the-next they-would-send
pullos, ova, holera, poma reliquasque res agrestes. Ideo pictores
chickens eggs greens fruit and-the-other things country therefore painters
ea, quae mittebantur hospitibus, picturis imitantes xenia
those-things which were-sent to-guests in-paintings imitating guest-gifts
appellaverunt. Ita patres familiarum in hospitio non videbantur
they-called so the-fathers of-households in lodging not seemed
esse peregre, habentes secretam in his hospitalibus libertatem.
to-be abroad having private in these guest-quarters freedom

Inter duo autem peristylia et hospitalia itinera sunt, quae 5
between two moreover peristyles and guest-quarters passages there-are which
mesauloe dicuntur, quod inter duas aulas media sunt
mesaulae are-called because between two courts in-the-middle are
interposita; nostri autem eas andronas appellant.
interposed our-people moreover them androns call
Sed hoc valde est mirandum, nec enim graece nec latine
but this very is to-be-wondered-at neither for in-Greek nor in-Latin
potest id convenire. Graeci enim ἀνδρῶνας appellant oecus,
can that to-fit the-Greeks for men's-halls call the-halls
ubi convivia virilia solent esse, quod eo mulieres non
where banquets men's are-wont to-be because thither women not
accedunt. Item aliae res sunt similes, uti xystus, prothyrum,
come likewise other things are similar such-as xystus prothyrum
telamones et nonnulla alia eius modi. ξυστός enim est
telamones and some others of-that sort the-polished for is
graeca appellatione porticus ampla latitudine, in qua athletae
by-the-Greek name a-colonnade of-ample breadth in which athletes
per hiberna tempora exercentur; nostri autem hypaethrus
through winter seasons train our-people moreover hypaethral
ambulationes xysta appellant, quas Graeci παραδρομίδας dicunt.
walks xysta call which the-Greeks running-tracks call
Item πρόθυρα graece dicuntur, quae sunt ante ianuas vestibula,
likewise fore-doors in-Greek are-called which are before doors the-forecourts
nos autem appellamus prothyra, quae graece dicuntur διάθυρα.
we moreover call prothyra which in-Greek are-called through-doors
Item si qua virili figura signa mutulos aut coronas 6
likewise if any in-manly shape figures mutules or cornices
sustinent, nostri telamones appellant, cuius rationes, quid
support our-people telamones call of-which the-reasons what
ita aut quare dicantur, ex historiis non inveniuntur, Graeci
so or why they-are-called from the-histories not are-found the-Greeks

vero eos ἄτλαντας vocitant. Atlas enim formatur historia
but them Atlases call Atlas for is-shaped in-the-story
sustinens mundum, ideo quod is primum cursum
upholding the-world for-this-reason that he first the-course
solis et lunae siderumque omnium versationum rationes
of-the-sun and moon and-of-the-stars all of-the-turnings the-reckonings
vigore animi sollertiaque curavit hominibus tradenda,
by-the-vigor of-mind and-skill took-care to-men to-be-handed-down
eaque re a pictoribus et statuariis deformatur pro
and-for-that reason by painters and sculptors he-is-portrayed for
eo beneficio sustinens mundum, filiaeque eius Atlantides,
that service upholding the-world and-the-daughters his Atlantides
quas nos vergilias, Graeci autem Πλειάδας nominant, cum
whom we the-Vergiliae the-Greeks moreover Pleiades name with
sideribus in mundo sunt dedicatae.
the-constellations in the-world have-been consecrated

7 Nec tamen ego, ut mutetur consuetudo nominationum aut
nor yet I that be-changed the-custom of-names or
sermonis, ideo haec proposui, sed uti non sint
of-speech for-that these-things I-have-set-out but so-that not they-may-be
ignota philologis, exponenda iudicavi.
unknown to-scholars to-be-set-forth I-judged
Quibus consuetudinibus aedificia italico more et Graecorum
by-what customs buildings in-the-Italian manner and of-the-Greeks
institutis conformantur, exposui et de symmetriis
by-the-practices are-shaped I-have-set-forth and about symmetries
singulorum generum proportiones perscripsi. Ergo quoniam
of-the-several kinds the-proportions I-have-written-out therefore since
de venustate decoreque ante est conscriptum, nunc
about beauty and-decorum before it-has been-written now

exponemus de firmitate, quemadmodum ea sine vitiis
we-shall-set-forth about soundness how they without faults
permanentia ad vetustatem conlocentur.
abiding to old-age may-be-set

VI.8 · BUILDING TO LAST

Piers and columns in an upper story must stand over solid work below, never over a span. Arches turned with wedges answering to a center take the weight off the lintels, and the outermost piers of an arcade are made broader so the thrust cannot push them out. Retaining walls need buttresses in front and a saw-toothed back, since earth heaped behind them grows heavier with winter rain. Vitruvius then names the three tests of a work, of which only its arrangement is the architect's glory.

Aedificia quae plano pede instituuntur, si fundamenta 1
buildings which on-level foot are-begun if the-foundations
eorum facta fuerint ita, ut in prioribus libris de
of-them made shall-have-been so as in earlier books about
muro et theatris a nobis est expositum, ad vetustatem
the-wall and theaters by us has been-set-forth to old-age
ea erunt sine dubitatione firma. Sin autem hypogea
they will-be without doubt sound but-if moreover underground-rooms
concamarationesque instituentur, fundationes eorum fieri
and-vaultings shall-be-begun the-foundations of-them to-be-made
debent crassiores, quam quae in superioribus aedificiis
ought thicker than those-which in the-upper buildings
structurae sunt futurae. Eorumque parietes, pilae, columnae ad
masonry are to-be and-their walls piers columns to
perpendiculum inferiorum medio conlocentur, uti solido
the-plumb-line of-the-lower in-the-middle let-them-be-set so-that to-the-solid

respondeant; nam si in pendentibus onera fuerint parietum
they-answer for if on hanging-parts the-loads shall-be of-walls
aut columnarum, non poterint habere perpetuam firmitatem.
or of-columns not will-be-able to-have lasting soundness

2 Praeterea inter lumina secundum pilas et antas postes si
besides between the-openings along the-piers and antae posts if
supponentur, erunt non vitiosae. Limina enim et trabes
shall-be-set-under they-will-be not faulty lintels for and beams
structuris cum sint oneratae, medio spatio pandantes
with-masonry when are loaded in-the-middle space sagging
frangunt sub lysi structuras; cum autem subiecti fuerint
they-break beneath the-lysis the-masonry when moreover set-under shall-have-been
et subcuneati postes, non patiuntur insidere trabes neque
and wedged-up posts not allow to-settle the-beams nor
eas laedere.
them to-damage

3 Item administrandum est, uti levent onus parietum
likewise to-be-managed it-is that they-lighten the-load of-the-walls
fornicationes cuneorum divisionibus et ad centrum
arches of-wedges by-the-divisions and to the-center
respondentes earum conclusurae. Cum enim extra trabes aut
answering of-them the-closings when for beyond beams or
liminum capita arcus cuneis erunt conclusae, primum non
of-lintels the-heads arches with-wedges shall-be closed first not
pandabit materies levata onere; deinde, si quod vetustate vitium
will-sag the-timber lightened of-load then if any by-age fault
ceperit, sine molitione futurarum faciliter mutabitur.
it-shall-have-taken without the-labor of-props easily it-will-be-changed

4 Itemque, quae pilatim aguntur aedificia et cuneorum
and-likewise which pier-wise are-carried-up buildings and of-wedges
divisionibus coagmentis ad centrum respondentibus fornices
by-the-divisions with-joints to the-center answering vaults

concluduntur, extremae pilae in his latiores spatio sunt
are-closed the-outermost piers in these broader in-space are
faciundae, uti vires eae habentes resistere possint, cum
to-be-made so-that strength they having to-resist may-be-able when
cunei ab oneribus parietum pressi per coagmenta ad
the-wedges by the-loads of-the-walls pressed through the-joints to
centrum se prementes extruderent incumbas. Itaque si
the-center themselves pressing would-thrust-out the-abutments and-so if
angulares pilae erunt spatiosis magnitudinibus, continendo
the-corner piers shall-be of-ample sizes by-holding-in
cuneos firmitatem operibus praestabunt.
the-wedges soundness to-the-works they-will-furnish
Cum in his rebus animadversum fuerit, uti ea 5
when in these matters noticed it-shall-have-been so-that that
diligentia in his adhibeatur, non minus etiam observandum est,
care in these is-applied not less also to-be-observed it-is
uti omnes structurae perpendiculo respondeant neque habeant
that all masonry to-the-plumb-line answer nor have
in ulla parte proclinationes. Maxima autem esse debet cura
in any part leanings greatest moreover to-be ought the-care
substructionum, quod in his infinita vitia solet facere terrae
of-substructures because in these endless faults is-wont to-make of-earth
congestio. Ea enim non potest esse semper uno pondere, quo
the-heaping it for not can to-be always of-one weight by-which
solet esse per aestatem, sed hibernis temporibus recipiendo
it-is-wont to-be through the-summer but in-winter seasons by-taking-in
ex imbribus aquae multitudinem crescens et pondere et
from showers of-water a-mass swelling both by-weight and
amplitudine disrumpit et extrudit structurarum saeptiones.
by-bulk it-bursts and thrusts-out of-the-masonry the-enclosures

6 Itaque, ut huic vitio medeatur, sic erit faciundum,
and-so that this fault may-be-remedied thus it-will-be to-be-done
ut primum pro amplitudine congestionis crassitudo
that first in-proportion-to the-bulk of-the-heap the-thickness
structurae constituatur. Deinde in frontibus anterides, sive
of-the-masonry let-it-be-set then on the-faces buttresses or
erismae sunt, una struantur, eaeque inter se
erismae (as)-they-are together let-them-be-built and-they between themselves
distent tanto spatio, quanta altitudo substructionis est
let-them-stand-apart by-so-great a-space as-great the-height of-the-substructure is
futura, crassitudine eadem, qua substructio; procurrat autem
to-be with-thickness the-same as the-substructure let-it-run-forward moreover
ab imo, pro quam crassitudo constituta fuerit
from the-bottom in-proportion-to how-much the-thickness fixed shall-have-been
substructionis, deinde contrahatur gradatim, ita uti summam
of-the-substructure then let-it-be-drawn-in by-steps so that at-the-top
habeat prominentiam, quanta operis est crassitudo.
it-may-have a-projection as-great of-the-work is the-thickness

7 Praeterea introrsus contra terrenum coniuncta muro serratim
besides inward against the-earthwork joined to-the-wall saw-fashion
struantur, uti singuli dentes ab muro tantum distent,
let-them-be-built so-that each tooth from the-wall so-much stand-apart
quanta altitudo futura erit substructionis; crassitudines autem
as-great the-height to-be shall-be of-the-substructure the-thicknesses moreover
habeant dentium structurae uti muri. Item in extremis
let-them-have of-the-teeth the-masonry as of-the-wall likewise at the-outermost
angulis cum recessum fuerit ab interiore angulo spatio
corners when a-drawing-back shall-have-been from the-inner corner by-a-space
altitudinis substructionis, in utramque partem signetur,
of-the-height of-the-substructure in each direction let-it-be-marked
et ab his signis diagonios structura conlocetur, et ab
and from these marks a-diagonal masonry let-it-be-set and from

ea media altera coniuncta cum angulo muri. Ita dentes
that the-middle another joined with the-corner of-the-wall so the-teeth
et diagonioe structurae non patientur tota vi premere
and diagonal masonries not will-allow with-whole force to-press
murum, sed dissipabunt retinendo impetum congestionis.
the-wall but they-will-scatter by-holding-back the-thrust of-the-heap
Quemadmodum sine vitiis opera constitui oporteat et 8
how without faults works to-be-set it-behooves and
uti caveatur incipientibus, exposui. Namque de
how care-is-to-be-taken for-those-beginning I-have-set-forth for about
tegulis aut tignis aut asseribus mutandis non est eadem
tiles or joists or battens to-be-changed not there-is the-same
cura quemadmodum de his, quod ea, quamvis sunt
care as about these because they although are
vitiosa, faciliter mutantur. Itaque nec, solida quia non
faulty easily are-changed and-so nor solid because not
putantur esse, quibus rationibus haec poterint esse firma
they-are-thought to-be by-what methods these will-be-able to-be sound
et quemadmodum instituantur, exposui.
and how they-are-to-be-begun I-have-set-forth
Quibus autem copiarum generibus oporteat uti, non est 9
which moreover of-supplies kinds it-behooves to-use not is
architecti potestas, ideo quod non in omnibus locis
of-the-architect the-power for-this-reason that not in all places
omnia genera copiarum nascuntur, ut in primo volumine est
all kinds of-supplies are-produced as in the-first book has
expositum; praeterea in domini est potestate, utrum latericio
been-set-forth besides in of-the-owner is the-power whether in-brick
an caementicio an saxo quadrato velit aedificare. Itaque
or rubble or stone squared he-wishes to-build and-so
omnium operum probationes tripertito considerantur, id est
of-all works the-testings in-three-parts are-considered that is

fabrili subtilitate et magnificentia et dispositione. Cum
by-workmanlike refinement and magnificence and arrangement when
magnificenter opus perfectum aspicietur, a domini potestate
magnificently a-work finished shall-be-seen by of-the-owner the-power
inpensae laudabuntur; cum subtiliter, officinatoris probabitur
the-outlay will-be-praised when finely of-the-contractor will-be-approved
exactio; cum vero venuste proportionibus et symmetriis
the-execution when but gracefully by-proportions and symmetries
habuerit auctoritatem, tunc fuerit gloria architecti.
it-shall-have-had authority then it-will-be the-glory of-the-architect
10 Haec autem recte constituuntur, cum is et a fabris
these-things moreover rightly are-settled when he both from craftsmen
et ab idiotis patiatur accipere se consilia. Namque omnes
and from laymen allows to-take himself advice for all
homines, non solum architecti, quod est bonum, possunt
men not only architects what is good can
probare, sed inter idiotas et eos hoc est discrimen, quod
to-approve but between laymen and them this is the-difference that
idiota, nisi factum viderit, non potest scire, quid
a-layman unless the-thing-made he-shall-have-seen not can to-know what
sit futurum, architectus autem, simul animo constituerit,
is to-be the-architect moreover as-soon-as in-mind he-shall-have-settled-it
antequam inceperit, et venustate et usu et decore quale
before he-has-begun both in-beauty and use and decorum of-what-sort
sit futurum, habet definitum.
it-is to-be he-holds determined
Quas res privatis aedificiis utiles putavi et quemadmodum
what things for-private buildings useful I-thought and how
sint faciundae, quam apertissime potui, perscripsi; de
they-are to-be-made as most-plainly I-could I-have-written-out about

expolitionibus	autem	eorum,	uti	sint	elegantes	et	sine
the-finishings	*moreover*	*of-them*	*how*	*they-may-be*	*elegant*	*and*	*without*
vitiis	ad	vetustatem,	insequenti	volumine	exponam.		
faults	*to*	*old-age*	*in-the-following*	*book*	*I-shall-set-forth*		

BOOK VII

VII · PREFACE

Vitruvius thanks the writers who set their thoughts down for posterity, and says that those who steal another man's book deserve punishment. Aristophanes, made the seventh judge of a contest at Alexandria, gave the prize to the poet the crowd liked least and then produced the volumes the others had copied out; Zoilus, the scourge of Homer, died a criminal's death. Vitruvius names his Greek and Roman sources, and announces a book on finishing.

Maiores cum sapienter tum etiam utiliter instituerunt, 1
the-ancestors both wisely and also usefully established
per commentariorum relationes cogitata tradere posteris,
through of-treatises the-reports thoughts to-hand-down to-posterity
ut ea non interirent, sed singulis aetatibus crescentia
so-that they not might-perish but in-each ages growing
voluminibus edita gradatim pervenirent vetustatibus ad
in-volumes published step-by-step might-arrive through-the-ages at
summam doctrinarum subtilitatem. Itaque non mediocres
the-highest of-learning refinement and-so not moderate
sed infinitae sunt his agendae gratiae, quod non invidiose
but boundless are to-them to-be-given thanks because not enviously
silentes praetermiserunt, sed omnium generum sensus
keeping-silent they-passed-over but of-all kinds the-perceptions
conscriptionibus memoriae tradendos curaverunt.
in-writings to-memory to-be-handed-down they-took-care
Namque si non ita fecissent, non potuissemus scire, quae 2
for if not so they-had-done not we-could-have to-know what
res in Troia fuissent gestae, nec quid Thales, Democritus,
things in Troy had-been done nor what Thales Democritus
Anaxagoras, Xenophanes reliquique physici sensissent
Anaxagoras Xenophanes and-the-rest natural-philosophers had-thought

de rerum natura, quasque Socrates, Platon, Aristoteles,
about of-things the-nature and-what Socrates Plato Aristotle
Zenon, Epicurus aliique philosophi hominibus agendae
Zeno Epicurus and-other philosophers for-men to-be-led
vitae terminationes finissent, seu Croesus, Alexander, Darius
of-life the-bounds had-fixed or Croesus Alexander Darius
ceterique reges quas res aut quibus rationibus gessissent,
and-the-other kings what things or by-what methods had-done
fuissent notae, nisi maiores praeceptorum comparationibus
would-have-been known unless the-ancestors of-precepts by-the-collections
omnium memoriae ad posteritatem commentariis extulissent.
of-all to-the-memory to posterity in-treatises had-carried-forth
3 Itaque quemadmodum his gratiae sunt agendae, contra,
and-so just-as to-these thanks are to-be-given on-the-other-hand
qui eorum scripta furantes pro suis praedicant, sunt
those-who their writings stealing as their-own proclaim are
vituperandi, quique non propriis cogitationibus scriptorum
to-be-blamed and-those-who not on-their-own thoughts of-writers
nituntur, sed invidis moribus aliena violantes gloriantur,
rely but with-envious habits others'-work violating boast
non modo sunt reprehendendi, sed etiam, quia impio
not only are to-be-rebuked but also because with-an-impious
more vixerunt, poena condemnandi. Nec tamen haec
manner they-have-lived with-punishment to-be-condemned nor however these
res non vindicatae curiosius ab antiquis esse memorantur.
matters not punished more-carefully by the-ancients to-be are-recorded
Quorum exitus iudiciorum qui fuerint, non est alienum,
of-which the-outcomes of-the-judgments what they-were not it-is out-of-place
quemadmodum sint nobis traditi, explicare.
how they-have to-us been-handed-down to-set-forth

Reges Attalici magnis philologiae dulcedinibus inducti 4
the-kings Attalid by-great of-letters delights led-on
cum egregiam bybliothecam Pergami ad communem
when an-outstanding library at-Pergamum for common
delectationem instituissent, tunc item Ptolomaeus infinito
delight they-had-founded then likewise Ptolemy by-boundless
zelo cupiditatisque incitatus studio non minoribus
zeal and-of-desire spurred by-the-eagerness not with-less
industriis ad eundem modum contenderat Alexandriae
exertions to the-same measure he-had-striven at-Alexandria
comparare. Cum autem summa diligentia perfecisset,
to-provide when moreover with-the-greatest care he-had-finished-it
non putavit id satis esse, nisi propagationibus inseminando
not he-thought that enough to-be unless by-increases by-sowing
curaret augendam. Itaque Musis et Apollini ludos
he-should-take-care to-be-enlarged and-so to-the-Muses and to-Apollo games
dedicavit et, quemadmodum athletarum, sic communium
he-dedicated and just-as of-athletes so of-the-general
scriptorum victoribus praemia et honores constituit.
writers to-the-victors prizes and honors he-established
His ita institutis, cum ludi adessent, iudices 5
these-things so having-been-established when the-games were-at-hand judges
litterati, qui ea probarent, erant legendi. Rex, cum iam sex
lettered who them should-approve were to-be-chosen the-king when already six
civitatis lectos habuisset nec tam cito septumum idoneum
of-the-city chosen he-had and-not so quickly a-seventh suitable
inveniret, retulit ad eos, qui supra bybliothecam fuerunt,
he-was-finding he-referred to those who over the-library had-been
et quaesiit, si quem novissent ad id expeditum. Tunc
and he-asked whether anyone they-knew for that ready then
ei dixerunt esse quendam Aristophanen, qui summo
to-him they-said to-be a-certain Aristophanes who with-the-greatest

studio summaque diligentia cotidie omnes libros ex
zeal and-with-the-greatest care daily all the-books in
ordine perlegeret. Itaque conventu ludorum, cum secretae
order read-through and-so at-the-gathering of-the-games when separate
sedes iudicibus essent distributae, cum ceteris Aristophanes
seats to-the-judges had been-assigned with the-rest Aristophanes
citatus, quemadmodum fuerat locus ei designatus, sedit.
summoned as had a-place for-him been-marked-out he-sat
6 Primo poetarum ordine ad certationem inducto
the-first of-poets rank to the-contest having-been-brought-in
cum recitarentur scripta, populus cunctus significando
when were-being-recited the-writings the-people the-whole by-signaling
monebat iudices, quod probarent. Itaque, cum ab singulis
was-advising the-judges what they-approved and-so when from each-one
sententiae sunt rogatae, sex una dixerunt et, quem
opinions were asked six as-one spoke and whom
maxime animadverterunt multitudini placuisse, ei primum
most they-had-noticed to-the-crowd to-have-pleased to-him the-first
praemium, insequenti secundum tribuerunt. Aristophanes vero,
prize to-the-next the-second they-awarded Aristophanes but
cum ab eo sententia rogaretur, eum primum renuntiari
when from him an-opinion was-asked him first to-be-declared
iussit, qui minime populo placuisset.
he-ordered who least to-the-people had-pleased
7 Cum autem rex et universi vehementer indignarentur,
when moreover the-king and all violently were-indignant
surrexit et rogando impetravit, ut paterentur se dicere.
he-rose and by-asking he-obtained-it that they-should-allow him to-speak
Itaque silentio facto docuit unum ex his eum esse
and-so silence having-been-made he-showed one of these him to-be
poetam, ceteros aliena recitavisse; oportere autem iudicantes
a-poet the-rest others'-work to-have-recited to-behoove moreover those-judging

non furta sed scripta probare. Admirante populo et rege
not thefts but writings to-approve wondering the-people and the-king
dubitante, fretus memoriae certis armariis infinita volumina
doubting relying on-memory from-certain cupboards countless volumes
eduxit et ea cum recitatis conferendo coegit ipsos
he-drew-out and them with the-recited-pieces by-comparing he-forced them-themselves
furatos de se confiteri. Itaque rex iussit cum his
having-stolen about themselves to-confess and-so the-king ordered with these
agi furti condemnatosque cum ignominia dimisit,
to-be-proceeded for-theft and-condemned with disgrace he-dismissed
Aristophanen vero amplissimis muneribus ornavit et supra
Aristophanes but with-the-most-ample gifts he-honored and over
bybliothecam constituit.
the-library he-appointed
Insequentibus annis a Macedonia Zoilus, qui adoptavit 8
in-the-following years from Macedonia Zoilus who took-on
cognomen, ut Homeromastix vocitaretur, Alexandriam venit
a-surname so-that Homer-scourge he-was-called to-Alexandria came
suaque scripta contra Iliadem et Odyssean comparata
and-his-own writings against the-Iliad and the-Odyssey composed
regi recitavit. Ptolomaeus vero, cum animadvertisset
to-the-king he-recited Ptolemy but when he-had-noticed
poetarum parentem philologiaeque omnis ducem absentem
of-poets the-father and-of-letters of-all the-leader absent
vexari et, cuius ab cunctis gentibus scripta suspicerentur,
to-be-harassed and whose by all nations writings were-looked-up-to
ab eo vituperari, indignans nullum ei dedit responsum.
by him to-be-abused indignant no to-him he-gave answer
Zoilus autem, cum diutius in regno fuisset, inopia pressus
Zoilus moreover when too-long in the-kingdom he-had-been by-want pressed
summisit ad regem postulans, ut aliquid sibi tribueretur.
he-sent-word to the-king demanding that something to-him should-be-granted

9 Rex vero respondisse dicitur Homerum, qui ante annos
the-king but to-have-answered is-said that-Homer who before years
mille decessisset, aevo perpetuo multa milia hominum
a-thousand had-died for-an-age unbroken many thousands of-men
pascere, item debere, qui meliore ingenio se profiteretur,
to-feed likewise to-behoove he-who with-a-better talent himself professed
non modo unum sed etiam plures alere posse. Et
not only one but also more to-nourish to-be-able and
ad summam mors eius ut parricidii damnati varie
to the-sum the-death of-him as of-parricide of-one-condemned variously
memoratur. Alii enim scripserunt a Philadelpho esse
is-recorded some for have-written by Philadelphus to-have-been
in crucem fixum, nonnulli Chii lapides esse coniectos,
on a-cross fastened some at-Chios stones to-have-been hurled
alii Zmyrnae vivum in pyram coniectum. Quorum utrum
others at-Smyrna alive onto a-pyre thrown of-which whichever
ei acciderit, merenti digna constitit poena; non enim
to-him has-befallen of-one-deserving worthy was-settled a-penalty not for
aliter videtur promereri, qui citat eos, quorum responsum,
otherwise he-seems to-deserve who cites those whose answer
quid senserint scribentes, non potest coram indicari.
what they-meant writing not can face-to-face to-be-shown

10 Ego vero, Caesar, neque alienis indicibus mutatis
I indeed Caesar neither others' titles having-been-changed
interposito nomine meo id profero corpus neque ullius
having-been-put-in name my this bring-forward body nor of-anyone
cogitata vituperans institui ex eo me adprobare, sed
thoughts disparaging have-I-undertaken from that myself to-commend but
omnibus scriptoribus infinitas ago gratias, quod egregiis
to-all writers boundless I-give thanks because by-outstanding
ingeniorum sollertiis ex aevo conlatis abundantes alius alio
of-talents skills from age gathered abundant one in-another

genere copias praeparaverunt, unde nos uti fontibus haurientes
kind stores they-have-made-ready whence we as from-springs drawing
aquam et ad propria proposita traducentes facundiores et
water and to our-own purposes carrying-it-over more-eloquent and
expeditiores habemus ad scribendum facultates talibusque
readier we-have for writing resources and-in-such
confidentes auctoribus audemus institutiones novas comparare.
trusting authorities we-dare instructions new to-provide
Igitur tales ingressus eorum quia ad propositi mei rationes 11
therefore such beginnings of-theirs because to of-purpose my the-methods
animadverti praeparatos, inde sumendo progredi coepi.
I-noticed prepared thence by-taking to-go-forward I-began
Namque primum Agatharchus Athenis Aeschylo docente
for first Agatharchus at-Athens Aeschylus producing
tragoediam scaenam fecit et de ea commentarium reliquit.
a-tragedy a-stage-setting made and about it a-treatise left
Ex eo moniti Democritus et Anaxagoras de eadem re
from that instructed Democritus and Anaxagoras about the-same matter
scripserunt, quemadmodum oporteat ad aciem oculorum
wrote how it-behooves to the-line-of-sight of-the-eyes
radiorumque extentionem certo loco centro constituto
and-of-the-rays the-extension in-a-fixed place a-center having-been-fixed
lineas ratione naturali respondere, uti de certa re certae
lines by-reason natural to-answer so-that from a-fixed object definite
imagines aedificiorum in scaenarum picturis redderent speciem
images of-buildings in of-stage-sets paintings might-render the-look
et, quae in directis planisque frontibus sint figurata, alia
and which on straight and-flat fronts are drawn some
abscedentia, alia prominentia esse videantur.
receding others projecting to-be may-seem

12 Postea Silenus de symmetriis doricorum edidit volumen;
afterward Silenus about the-symmetries of-Doric-works published a-volume
de aede Iunonis, quae est Sami dorica, Theodorus;
about the-temple of-Juno which is at-Samos Doric Theodorus
ionice Ephesi quae est Dianae, Chersiphron et
in-the-Ionic-manner at-Ephesus which is of-Diana Chersiphron and
Metagenes; de fano Minervae, quod est Priene ionicum,
Metagenes about the-sbrine of-Minerva which is at-Priene Ionic
Pytheos; item de aede Minervae, dorice quae est
Pytheos likewise about the-temple of-Minerva in-the-Doric-manner which is
Athenis in arce, Ictinos et Carpion; Theodorus Phocaeus
at-Athens on the-citadel Ictinus and Carpion Theodorus the-Phocaean
de tholo, qui est Delphis; Philo de aedium sacrarum
about the-round-temple which is at-Delphi Philo about of-temples sacred
symmetriis et de armamentario, quod fuerat Piraei
the-symmetries and about the-arsenal which had-been of-the-Piraeus
portu; Hermogenes de aede Dianae, ionice
in-the-harbor Hermogenes about the-temple of-Diana in-the-Ionic-manner
quae est Magnesia pseudodipteros, et Liberi Patris Teo
which is at-Magnesia pseudodipteral and of-Liber Father at-Teos
monopteros; item Arcesius de symmetriis corinthiis et
monopteral likewise Arcesius about the-symmetries Corinthian and
ionico Trallibus Aesculapio, quod etiam ipse sua manu
the-Ionic at-Tralles to-Aesculapius which also himself with-his-own hand
dicitur fecisse; de Mausoleo Satyrus et Pytheos.
he-is-said to-have-made about the-Mausoleum Satyrus and Pytheos

13 Quibus vero felicitas maximum summumque contulit munus;
to-whom but good-fortune the-greatest and-highest has-brought gift
quorum enim artes aevo perpetuo nobilissimas laudes
whose for arts for-an-age unbroken the-noblest praises
et sempiterno florentes habere iudicantur, ei cogitatis
and everlastingly flourishing to-have are-judged they to-their-designs

egregias operas praestiterunt. Namque singulis frontibus
outstanding workmanship furnished for to-each front
singuli artifices sumpserunt certatim partes ad ornandum et
individual craftsmen took in-rivalry parts for adorning and
probandum Leochares, Bryaxis, Scopas, Praxiteles, nonnulli
proving Leochares Bryaxis Scopas Praxiteles some
etiam putant Timotheum, quorum artis eminens excellentia
also think Timotheus whose of-art outstanding excellence
coegit ad septem spectaculorum eius operis pervenire famam.
compelled to the-seven of-spectacles of-that work to-come the-fame
Praeterea minus nobiles multi praecepta symmetriarum 14
besides less noted many precepts of-symmetries
conscripserunt, uti Nexaris, Theocydes, Demophilos, Pollis,
have-written as Nexaris Theocydes Demophilus Pollis
Leonidas, Silanion, Melampus, Sarnacus, Euphranor. Non
Leonidas Silanion Melampus Sarnacus Euphranor not
minus de machinationibus, uti Diades, Archytas, Archimedes,
less about machinery as Diades Archytas Archimedes
Ctesibios, Nymphodorus, Philo Byzantius, Diphilos, Democles,
Ctesibius Nymphodorus Philo the-Byzantine Diphilus Democles
Charias, Polyidos, Pyrros, Agesistratos. Quorum ex
Charias Polyidus Pyrrhus Agesistratus of-whom from
commentariis, quae utilia esse his rebus animadverti,
the-treatises what useful to-be for-these matters I-noticed
collecta in unum coegi corpus, et ideo maxime,
gathered into one I-have-brought body and for-this-reason especially
quod animadverti in ea re ab Graecis volumina plura edita,
that I-noticed on that subject by the-Greeks volumes many published
ab nostris oppido quam pauca. Fuficius enim nimirum de his
by our-people exceedingly how few Fuficius for doubtless about these

rebus primus instituit edere volumen, item Terentius Varro de
matters first undertook to-publish a-volume likewise Terentius Varro about
novem disciplinis unum de architectura, P. Septimius duo.
nine disciplines one about architecture Publius Septimius two
15 Amplius vero in id genus scripturae adhuc nemo
further but on that kind of-writing as-yet no-one
incubuisse videtur, cum fuissent et antiqui cives magni
to-have-applied-himself seems although there-had-been also ancient citizens great
architecti, qui potuissent non minus eleganter scripta comparare.
architects who could-have not less elegantly writings to-provide
Namque Athenis Antistates et Callaeschros et Antimachides
for at-Athens Antistates and Callaeschros and Antimachides
et Porinos architecti Pisistrato aedem Iovi Olympio facienti
and Porinos the-architects for-Pisistratus a-temple to-Jupiter Olympian making
fundamenta constituerunt, post mortem autem eius propter
the-foundations laid after the-death moreover of-him because-of
interpellationem reipublicae incepta reliquerunt. Itaque
the-interruption of-the-commonwealth the-begun-work they-left and-so
circiter annis quadringentis post Antiochus rex, cum in
about years four-hundred afterward Antiochus the-king when on
id opus inpensam esset pollicitus, cellae magnitudinem
that work the-expense had promised of-the-cella the-size
et columnarum circa dipteron conlocationem epistyliorumque
and of-the-columns around the-dipteron the-placing and-of-the-architraves
et ceterorum ornamentorum ad symmetriam distributionem
and of-the-other ornaments to symmetry the-distribution
magna sollertia scientiaque summa civis Romanus Cossutius
with-great skill and-with-knowledge the-highest citizen Roman Cossutius
nobiliter est architectatus. Id autem opus non modo vulgo,
nobly has designed that moreover work not only commonly
sed etiam in paucis a magnificentia nominatur.
but also among the-few for magnificence is-named

Nam quattuor locis sunt aedium sacrarum marmoreis operibus 16
for in-four places are of-temples sacred with-marble works
ornatae dispositiones, quorum excellentiae prudentesque
adorned the-arrangements whose excellences and-the-prudent
cogitationum apparatus suspectus habent in deorum
of-designs arrangements admiration have among of-the-gods
σημαντικοῖς. Primumque aedes Ephesi Dianae ionico
significant-(things) and-first the-temple at-Ephesus of-Diana Ionic
genere ab Chersiphrone Gnosio et filio eius Metagene est
in-the-kind by Chersiphron the-Cnossian and son his Metagenes was
instituta, quam postea Demetrius, ipsius Dianae servus,
founded which afterward Demetrius of-that-very Diana the-slave
et Paeonius Ephesius dicuntur perfecisse. Mileti Apollini
and Paeonius the-Ephesian are-said to-have-finished at-Miletus for-Apollo
item ionicis symmetriis aedem idem Paeonius Daphnisque
likewise with-Ionic symmetries a-temple the-same Paeonius and-Daphnis
Milesius instituerunt. Eleusine Cereris et Proserpinae cellam
the-Milesian founded at-Eleusis of-Ceres and of-Proserpina the-cella
inmani magnitudine Ictinos dorico more sine exterioribus
of-huge size Ictinus in-the-Doric manner without outer
columnis ad laxamentum usus sacrificiorum pertexit.
columns for the-room of-the-use of-sacrifices completed
Eam autem postea, cum Demetrius Phalereus Athenis rerum 17
it moreover afterward when Demetrius of-Phalerum at-Athens of-affairs
potiretur, Philo ante templum in fronte columnis constitutis
was-in-control Philo before the-temple on the-front columns having-been-set
prostylon fecit; ita aucto vestibulo laxamentum
a-prostyle made so having-been-enlarged the-vestibule room
initiantibus operique summam adiecit auctoritatem. In
for-the-initiates and-to-the-work the-highest he-added authority in
asty vero Olympium amplo modulorum comparatu
the-city but the-Olympieum with-an-ample of-modules provision

corinthiis symmetriis et proportionibus, uti supra scriptum
with-Corinthian symmetries and proportions as above written
est, architectandum Cossutius suscepisse memoratur, cuius
it-is to-be-built Cossutius to-have-undertaken is-recorded whose
commentarium nullum est inventum. Nec tamen a Cossutio
treatise none has been-found nor however by Cossutius
solum de his rebus scripta sunt desideranda sed etiam
only about these matters writings are to-be-wished-for but also
a G. Mucio, qui magna scientia confisus aedis Honoris
by Gaius Mucius who in-great knowledge trusting of-the-temple of-Honor
et Virtutis Marianae cellae columnarumque et epistyliorum
and of-Virtue Marian of-the-cella and-of-the-columns and of-the-architraves
symmetrias legitimis artis institutis perfecit. Id vero si
the-symmetries by-the-lawful of-art rules completed that but if
marmoreum fuisset, ut haberet, quemadmodum ab arte
marble it-had-been so-that it-might-have just-as from art
subtilitatem, sic ab magnificentia et inpensis auctoritatem,
refinement so from magnificence and outlay authority
in primis et summis operibus nominaretur.
among the-first and highest works it-would-be-named

18 Cum ergo et antiqui nostri inveniantur non minus quam
since therefore both ancient our are-found not less than
Graeci fuisse magni architecti et nostra memoria satis
the-Greeks to-have-been great architects and in-our memory enough
multi, et ex his pauci praecepta edidissent, non putavi
many and of these few precepts had-published not I-thought
silendum, sed disposite singulis voluminibus de singulis
to-be-kept-silent but in-order in-separate volumes about separate
exponere rebus. Itaque, quoniam sexto volumine privatorum
to-set-forth matters and-so since in-the-sixth volume of-private
aedificiorum rationes perscripsi, in hoc, qui septimum
buildings the-methods I-have-written-out in this which the-seventh

tenet numerum, de expolitionibus, quibus rationibus et
holds number about finishings by-what methods both
venustatem et firmitatem habere possint, exponam.
beauty and strength to-have they-can I-shall-set-forth

VII.1 · PAVEMENTS

Vitruvius begins with the rubble bed, which holds the first place in finishing. He says how the ground is to be tested or rammed, how the planking is laid and nailed, and in what proportion lime is mixed with new rubble and with old. Above the rubble goes a nucleus of potsherd, and above that the pavement, rubbed until no joint stands proud. Pavements in the open need a second planking laid crosswise.

Primumque incipiam de ruderatione, quae principia tenet 1
and-first I-shall-begin about the-rubble-bed which the-beginnings holds
expolitionum, uti curiosius summaque providentia
of-finishings so-that with-great-care and-with-the-highest foresight
solidationis ratio habeatur. Et si plano pede erit
of-the-consolidation the-method may-be-had and if on-level ground it-will-be
eruderandum, quaeratur, solum si sit perpetuo solidum,
to-be-cleared let-be-sought the-soil whether it-is throughout solid
et ita exaequetur, et inducatur cum statumine rudus.
and so let-it-be-leveled and let-be-laid-over with the-bedding-course the-rubble
Sin autem omnis aut ex parte congesticius locus
but-if moreover wholly or in part made-ground the-place
fuerit, fistucationibus cum magna cura solidetur. In
shall-have-been by-rammings with great care let-it-be-made-solid in
contignationibus vero diligenter est animadvertendum, ne
floorings but carefully it-is to-be-noted lest
qui paries, qui non exeat ad summum, sit extructus sub
any wall which not goes-up to the-top is built-up beneath

pavimentum, sed potius relaxatus supra se pendentem habeat
the-pavement but rather left-clear above itself hanging it-may-have
coaxationem. Cum enim solidus exit, contignationibus
the-planking when for solid it-comes-up the-floorings
arescentibus aut pandatione sidentibus, permanens structurae
drying or by-warping settling remaining of-the-masonry
soliditate dextra ac sinistra secundum se facit in
by-the-solidity right and left along itself it-makes in
pavimentis necessario rimas.
the-pavements necessarily cracks

2 Item danda est opera, ne commisceantur axes aesculini
likewise to-be-given is pains lest be-mixed-together planks of-winter-oak
querco, quod quercei, simul umorem perceperunt, se
with-oak because the-oaken as-soon-as moisture have-taken-in themselves
torquentes rimas faciunt in pavimentis. Sin autem aesculus
twisting cracks they-make in pavements but-if moreover winter-oak
non erit et necessitas coegerit propter inopiam
not there-shall-be and necessity shall-have-forced because-of scarcity
querceis uti, sic videtur esse faciundum, ut secentur tenuiores;
oaken-ones to-use thus it-seems to-be to-be-done that they-be-sawn thinner
quo minus enim valuerint, eo facilius clavis
by-how-much less for they-shall-have-strength by-so-much more-easily with-nails
fixi continebuntur. Deinde in singulis tignis extremis
fastened they-will-be-held then on each joist at-the-outermost
partibus axis bini clavi figantur, uti nulla ex parte
parts of-the-plank two nails let-be-driven so-that no from part
possint se torquendo anguli excitare. Namque de cerro
they-can themselves by-twisting corners to-raise for from turkey-oak
aut fago seu farno nullus ad vestutatem potest permanere.
or beech or ash none to old-age can to-last

Coaxationibus factis, si erit, filex, si non, palea
the-plankings having-been-made if there-is fern if not straw
substernatur, uti materies ab calcis vitiis defendatur.
let-be-strewn-underneath so-that the-timber from of-lime the-harms may-be-protected
Tunc insuper statuminetur ne minore saxo, quam 3
then above let-a-bedding-course-be-laid not with-smaller stone than
qui possit manum implere. Statuminationibus inductis,
which can the-hand to-fill the-bedding-courses having-been-laid
rudus si novum erit, ad tres partes una calcis misceatur,
the-rubble if new it-shall-be to three parts one of-lime let-be-mixed
si redivivum fuerit, quinque ad duo mixtionis habeant
if re-used it-shall-be five to two of-the-mixture let-them-have
responsum. Deinde rudus inducatur et vectibus ligneis,
the-correspondence then the-rubble let-be-laid-over and with-levers wooden
decuriis inductis, crebriter pistatione solidetur, et id
by-gangs brought-in repeatedly by-pounding let-it-be-made-solid and it
non minus pinsum absolutum crassitudine sit dodrantis.
not less pounded finished in-thickness let-it-be of-nine-twelfths
Insuper ex testa nucleus inducatur mixtionem habens ad
above of potsherd a-nucleus let-be-laid-over a-mixture having to
tres partes unam calcis, ne minore crassitudine digitorum
three parts one of-lime not with-less thickness of-fingers
senum. Supra nucleum ad regulam et libellam exacta
six above the-nucleus to the-straightedge and the-level made-true
pavimenta struantur sive sectilia seu tesseris.
pavements let-be-built whether cut-slabs or with-tesserae
Cum ea structa fuerint et fastigia sua ex structione 4
when they built shall-have-been and slopes their-own from the-building
habuerint, ita fricentur, uti, si sectilia sint, nulli gradus
shall-have-had so let-them-be-rubbed that if cut-slabs they-are no steps
in scutulis aut trigonis aut quadratis seu favis extent,
in lozenges or triangles or squares or honeycombs stand-out

sed coagmentorum compositio planam habeat inter se
but of-the-joints the-setting a-level may-have between themselves
directionem, si tesseris structum erit, ut eae omnes
alignment if with-tesserae built it-shall-be that they all
angulos habeant aequales; cum enim anguli non fuerint
corners may-have equal when for the-corners not shall-have-been
omnes aequaliter plani, non erit exacta, ut oportet, fricatura.
all equally flat not will-be exact as it-behooves the-rubbing
Item testacea spicata tiburtina sunt diligenter exigenda, ut
likewise potsherd-work herringbone Tiburtine are carefully to-be-worked so
ne habeant lacunas nec extantes tumulos, sed sint extenta
that-not they-have hollows nor standing-out humps but they-are spread-flat
et ad regulam perfricata. Super fricaturam, levigationibus
and to the-straightedge rubbed-through after the-rubbing by-smoothings
et polituris cum fuerint perfecta, incernatur marmor,
and polishings when they-shall-have-been finished let-be-sifted-on marble
et supra loricae ex calce et harena inducantur.
and above coats of lime and sand let-be-laid-over
5 Subdiu vero maxime idonea faciunda sunt pavimenta, quod
in-the-open but especially suitable to-be-made are pavements because
contignationes umore crescentes aut siccitate decrescentes
the-floorings with-moisture swelling or with-dryness shrinking
seu pandationibus sidentes movendo se faciunt vitia
or by-warpings settling by-moving themselves make faults
pavimentis; praeterea gelicidia et pruinae non patiuntur integra
for-pavements besides frosts and hoar-frosts not allow whole
permanere. Itaque si necessitas coegerit, ut minime vitiosa
to-remain and-so if necessity shall-have-forced that least faulty
fiant, sic erit faciundum. Cum coaxatum fuerit,
they-be-made thus it-will-be to-be-done when planked it-shall-have-been
super altera coaxatio transversa sternatur clavisque fixa
above a-second planking crosswise let-be-laid and-with-nails fastened

duplicem praebeat contignationi loricationem. Deinde ruderi
a-double let-it-give to-the-flooring coating then to-the-rubble
novo tertia pars testae tunsae admisceatur, calcisque duae
new a-third part of-potsherd pounded let-be-added and-of-lime two
partes ad quinque mortarii mixtionibus praestent responsum.
parts to five of-the-mortar for-the-mixtures let-them-furnish the-correspondence
Statuminatione facta rudus inducatur, idque pistum 6
the-bedding-course having-been-made the-rubble let-be-laid-over and-it pounded
absolutum ne minus pede sit crassum. Tunc autem
finished not less by-a-foot let-it-be thick then moreover
nucleo inducto, uti supra scriptum est, pavimentum
the-nucleus having-been-laid as above written it-is a-pavement
e tessera grandi circiter binum digitum caesa struatur
of tessera large about two fingers cut let-be-built
fastigium habens in pedes denos digitos binos; quod si bene
a-slope having for feet ten fingers two which if well
temperabitur et recte fricatum fuerit, ab omnibus
it-shall-be-tempered and properly rubbed it-shall-have-been from all
vitiis erit tutum. Uti autem inter coagmenta materies
faults it-will-be safe so-that moreover between the-joints the-timber
ab gelicidiis ne laboret, fracibus quotannis ante hiemem
from frosts not may-suffer with-oil-lees every-year before winter
saturetur; ita non patietur in se recipere gelicidii pruinam.
let-it-be-soaked so not it-will-allow into itself to-take of-frost the-rime
Sin autem curiosius videbitur fieri oportere, tegulae 7
but-if moreover more-carefully it-shall-seem to-be-done to-behoove tiles
bipedales inter se coagmentatae supra rudus
two-foot between themselves jointed above the-rubble
substrata materia conlocentur habentes singulis
having-been-spread-under timber let-be-laid having on-each
coagmentorum frontibus excelsos canaliculos digitales.
of-the-joints edge raised little-channels a-finger-wide

Quibus iunctis inplicetur calx ex oleo subacta,
which having-been-joined let-be-worked-in lime with oil kneaded
confricenturque inter se coagmenta compressa. Ita
and-let-be-rubbed-together between themselves the-joints pressed so
calx, quae erit haerens in canalibus, durescendo contexteque
the-lime which will-be clinging in the-channels by-hardening and-continuously
solidescendo non patietur aquam neque aliam rem per
by-growing-solid not will-allow water nor another thing through
coagmenta transire. Cum ergo fuerit hoc ita perstratum,
the-joints to-pass when therefore it-shall-have-been this so spread-over
supra nucleus inducatur et virgis caedendo subigatur.
above a-nucleus let-be-laid-over and with-rods by-beating let-it-be-worked
Supra autem sive ex tessera grandi sive ex spica testacea
above moreover whether of tessera large or of herringbone potsherd
pavimenta struantur fastigiis, quibus est supra scriptum, et
pavements let-be-built with-slopes which it-is above written and
cum sic erunt facta, non cito vitiabuntur.
when thus they-shall-have been-made not quickly they-will-be-damaged

VII.2 · SLAKING THE LIME

Stucco is right only if the lime has been slaked long before it is wanted, so that any lump underburned in the kiln is cooked through. Lime taken fresh carries hidden pebbles that throw out blisters and break the polished surface. Vitruvius has the slaked lime chopped with an adze, as timber is hewn: if it clings to the iron like glue it is tempered, and if the iron comes out dry it is not.

1 Cum a pavimentorum cura discessum fuerit, tunc
when from of-pavements the-care departed it-shall-have-been then
de albariis operibus est explicandum. Id autem erit
about stucco works it-is to-be-set-forth that moreover will-be

recte, si glaebae calcis optimae ante multo tempore, quam
rightly if lumps of-lime the-best before by-much time than
opus fuerit, macerabuntur, uti, si qua glaeba parum
the-work shall-have-been they-shall-be-slaked so-that if any lump too-little
fuerit in fornace cocta, in maceratione diuturna liquore
shall-have-been in the-kiln burned in slaking long by-the-liquid
defervere coacta uno tenore concoquatur. Namque cum
to-seethe-out forced with-one course may-be-cooked-through for when
non penitus macerata sed recens sumitur, cum fuerit
not thoroughly slaked but fresh it-is-taken when it-shall-have-been
inducta habens latentes crudos calculos, pustulas emittit.
laid-over having hidden raw pebbles blisters it-throws-out
Qui calculi, in opere uno tenore cum permacerantur,
which pebbles in the-work with-one course when they-are-slaked-through
dissolvunt et dissipant tectorii politiones.
they-break-up and they-scatter of-the-plasterwork the-polished-surfaces
Cum autem habita erit ratio macerationis et id 2
when moreover had shall-have-been the-method of-slaking and it
curiosius operi praeparatum erit, sumatur ascia et,
more-carefully for-the-work prepared shall-have-been let-be-taken an-adze and
quemadmodum materia dolatur, sic calx in lacu macerata
just-as timber is-hewn so the-lime in the-pit slaked
ascietur. Si ad eam offenderint calculi, non erit
let-be-chopped if against it shall-have-struck pebbles not it-will-be
temperata; cumque siccum et purum ferrum educetur,
tempered and-when dry and clean the-iron shall-be-drawn-out
indicabit eam evanidam et siticulosam; cum vero pinguis
it-will-show it spent and thirsty when but rich
fuerit et recte macerata, circa id ferramentum uti
it-shall-have-been and properly slaked around that iron-tool like
glutinum haerens omni ratione probabit se esse temperatam.
glue clinging by-every reckoning it-will-prove itself to-be tempered

Tunc autem machinis comparatis camerarum dispositiones
then moreover machines having-been-got-ready of-vaults the-arrangements
in conclavibus expediantur, nisi lacunariis ea fuerint ornata.
in the-rooms let-be-set-out unless with-coffers they shall-have-been adorned

VII.3 · VAULTS AND THE COATS OF PLASTER

Vaults are framed with straight cypress battens two feet apart, tied back to the flooring with iron nails and bound with Greek reeds and esparto cord. The soffit is rough-cast, laid true with sand, and polished with chalk or marble. Walls take three coats of sand and three of marble, and colors laid on damp plaster hold because the lime, emptied by the kiln, seizes whatever touches it. A wattle wall is faced with canes first.

1 Cum ergo camerarum postulabitur ratio, sic erit
when therefore of-vaults shall-be-called-for the-method thus it-will-be
faciundum. Asseres directi disponantur inter se ne plus
to-be-done battens straight let-be-set-out between themselves not more
spatium habentes pedes binos, et hi maxime cupressei,
space having feet two and these especially of-cypress
quod abiegnei ab carie et ab vetustate celeriter vitiantur.
because of-fir by rot and by age quickly are-damaged
Hique asseres, cum ad formam circinationis fuerint
and-these battens when to the-shape of-the-curve shall-have-been
distributi, catenis dispositis ad contignationes, sive tecta
laid-out ties having-been-set to the-floorings or roofs
erunt, crebriter clavis ferreis fixi religentur. Eaeque
they-shall-be closely with-nails iron fastened let-them-be-tied-back and-those
catenae ex ea materia comparentur, cui nec caries nec
ties of that timber let-be-provided which neither rot nor
vetustas nec umor possit nocere, id est e buxo, iunipero,
age nor moisture can to-harm that is of box juniper

olea, robore, cupresso ceterisque similibus praeter quercum,
olive hard-oak cypress and-the-rest like except oak
cum ea se torquendo rimas faciat quibus inest operibus.
since it itself by-twisting cracks makes in-which it-is-present works
Asseribus dispositis tum tomice ex sparto hispanico 2
the-battens having-been-set-out then with-cord of esparto Spanish
harundines graecae tunsae ad eos, uti forma postulat,
reeds Greek pounded to them as the-shape demands
religentur. Item supra cameram materies ex calce et
let-be-tied likewise above the-vault a-stuff of lime and
harena mixta subinde inducatur, ut, si quae stillae ex
sand mixed immediately let-be-laid-over so-that if any drops from
contignationibus aut tectis ceciderint, sustineantur. Sin autem
the-floorings or roofs shall-have-fallen they-may-be-caught but-if moreover
harundinis graecae copia non erit, de paludibus tenues
of-reed Greek a-supply not there-shall-be from the-marshes thin-ones
colligantur et mataxae tomice ad iustam longitudinem una
let-be-gathered and into-banks with-cord to a-proper length with-one
crassitudine alligationibus temperentur, dum ne plus inter
thickness by-tyings let-them-be-adjusted provided that-not more between
duos nodos binos pedes distent, et hae ad asseres, uti
two knots two feet they-stand-apart and these to the-battens as
supra scriptum est, tomice religentur cultellique lignei in eas
above written it-is with-cord let-be-tied and-little-pegs wooden into them
configantur. Cetera omnia, uti supra scriptum est, expediantur.
let-be-driven the-rest all as above written it-is let-be-carried-out
Cameris dispositis et intextis imum caelum earum 3
the-vaults having-been-set-out and interwoven the-lowest surface of-them
trullissetur, deinde harena dirigatur, postea autem creta
let-be-rough-cast then with-sand let-it-be-laid-true afterward moreover with-chalk
aut marmore poliatur.
or with-marble let-it-be-polished

Cum camerae politae fuerint, sub eas coronae sunt
when the-vaults polished shall-have-been beneath them cornices are
subiciendae, quas maxime tenues et subtiles oportere fieri
to-be-set which especially slender and fine to-behoove to-be-made
videbitur; cum enim grandes sunt, pondere deducuntur
it-will-seem when for large they-are by-weight they-are-dragged-down
nec possunt se sustinere. In hisque minime gypsum
and-not they-can themselves to-hold-up in and-these least gypsum
debet admisceri, sed ex creto marmore uno tenore
ought to-be-mixed-in but of sifted marble with-one course
perduci, uti ne praecipiendo non patiatur uno
to-be-carried-through so-that not by-taking-too-soon not it-may-allow with-one
tenore opus inarescere. Etiamque cavendae sunt in
course the-work to-dry-out and-also to-be-guarded-against are in
cameris †priscorum dispositiones, quod earum planitiae
vaults of-the-ancients arrangements because their the-flat-surfaces
coronarum gravi pondere inpendentes sunt periculosae.
of-the-cornices with-heavy weight overhanging are dangerous
4 Coronarum autem sunt figurae aliae purae, aliae caelatae.
of-cornices moreover there-are forms some plain others carved
Conclavibus autem, ubi ignis aut plura lumina sunt ponenda,
for-rooms moreover where a-fire or several lamps are to-be-placed
purae fieri debent, ut eo facilius extergeantur;
plain to-be-made they-ought so-that by-so-much more-easily they-may-be-wiped
in aestivis et exhedris, ubi minime fumus est nec
in summer-rooms and exedras where least smoke there-is nor
fuligo potest nocere, ibi caelatae sunt faciendae. Semper
soot can to-harm there carved are to-be-made always
enim album opus propter superbiam candoris non modo
for white work because-of the-pride of-its-whiteness not only
ex propriis sed etiam alienis aedificiis concipit fumum.
from its-own but also others' buildings it-takes-in smoke

Coronis explicatis parietes quam asperrime trullissentur, 5
the-cornices having-been-finished the-walls as roughly-as-possible let-be-rough-cast
postea autem supra, trullissatione subarescente, deformentur
afterward moreover above the-rough-cast drying let-be-laid-out
directiones harenati, uti longitudines ad regulam et
the-levelings of-the-sand-coat so-that the-lengths to the-straightedge and
ad lineam, altitudines ad perpendiculum, anguli ad normam
to the-line the-heights to the-plumb the-corners to the-square
respondentes exigantur; namque sic emendata tectoriorum
answering may-be-made-true for thus faultless of-the-plasterwork
in picturis erit species. Subarescente iterum et tertio
in paintings will-be the-look drying again and a-third-time
inducatur; ita cum fundatior erit ex harenato directura,
let-be-laid-over so when better-founded will-be from the-sand-coat the-leveling
eo firmior erit ad vetustatem soliditas tectorii.
by-so-much firmer will-be to age the-solidity of-the-plasterwork
Cum ab harena praeter trullissationem non minus tribus 6
when with sand besides the-rough-cast not less with-three
coriis fuerit deformatum, tunc e marmore graneo
coats it-shall-have-been laid-out then of marble coarse
directiones sunt subigendae, dum ita materies temperetur, uti,
the-levelings are to-be-worked provided so the-stuff be-tempered that
cum subigatur, non haereat ad rutrum, sed purum ferrum e
when it-is-worked not it-clings to the-shovel but clean the-iron from
mortario liberetur. Grandi inducto et inarescente
the-mortar-trough may-come-free the-coarse having-been-laid-over and drying
alterum corium mediocre dirigatur; id cum subactum fuerit
a-second coat middling let-be-laid-true it when worked shall-have-been
et bene fricatum, subtilius inducatur. Ita cum tribus coriis
and well rubbed a-finer let-be-laid-over so when with-three coats

harenae et item marmoris solidati parietes fuerint, neque
of-sand and likewise of-marble made-solid the-walls shall-have-been neither
rimas, neque aliud vitium in se recipere poterunt,
cracks nor another fault into themselves to-take they-will-be-able
7 sed et liaculorum subactionibus fundata soliditate
but also of-polishing-tools by-the-workings founded by-solidity
marmorisque candore firmo levigata, coloribus cum
and-of-marble by-the-whiteness firm smoothed with-colors when
politionibus inductis nitidos expriment splendores.
polishings having-been-laid-over shining they-will-bring-out brilliances
Colores autem, udo tectorio cum diligenter sunt inducti,
colors moreover on-damp plasterwork when carefully are laid-over
ideo non remittunt sed sunt perpetuo permanentes, quod
for-that-reason not they-let-go but are for-ever enduring because
calx, in fornacibus excocto liquore facta raritatibus evanida,
lime in kilns boiled-out the-moisture made with-pores spent
ieiunitate coacta corripit in se quae res forte contigerunt,
by-emptiness forced it-seizes into itself whatever things by-chance have-touched-it
mixtionibusque ex aliis potestatibus conlatis seminibus
and-by-mixtures from other powers brought-together seeds
seu principiis una solidescendo, cum fit arida, redigitur,
or first-elements together by-growing-solid when it-becomes dry it-is-brought
uti sui generis proprias videatur habere qualitates.
so-that of-its-own kind proper it-may-seem to-have qualities
8 Itaque tectoria, quae recte sunt facta, neque vetustatibus
and-so plasterworks which rightly have been-made neither with-age
fiunt horrida neque, cum extergentur, remittunt colores, nisi si
become rough nor when they-are-wiped do-they-let-go the-colors unless if
parum diligenter et in arido fuerint inducti. Cum ergo
too-little carefully and on dry they-shall-have-been laid-over when therefore
ita in parietibus tectoria facta fuerint, uti supra scriptum est,
so on walls plasterworks made shall-have-been as above written it-is

et firmitatem et splendorem et ad vetustatem permanentem
both strength and brilliance and to age enduring
virtutem poterunt habere. Cum vero unum corium harenae
excellence they-will-be-able to-have when but one coat of-sand
et unum minuti marmoris erit inductum, tenuitas eius
and one of-fine marble shall-have been-laid-over the-thinness of-it
minus valendo faciliter rumpitur nec splendorem politionibus
less by-being-strong easily it-breaks nor the-brilliance by-polishings
propter inbecillitatem crassitudinis proprium obtinebit.
because-of the-weakness of-the-thickness proper will-it-hold
Quemadmodum enim speculum argenteum tenui lamella 9
just-as for a-mirror of-silver from-a-thin plate
ductum incertas et sine viribus habet remissiones splendoris,
drawn uncertain and without strength has returns of-brightness
quod autem e solida temperatura fuerit factum,
which moreover from solid a-tempering shall-have-been made
recipiens in se firmis viribus politionem fulgentes in aspectu
receiving into itself with-firm strength the-polish shining in view
certasque considerantibus imagines reddet, sic tectoria, quae
and-sure to-those-looking images will-give-back so plasterworks which
ex tenui sunt ducta materia, non modo sunt rimosa, sed
from thin have been-drawn stuff not only are full-of-cracks but
etiam celeriter evanescunt, quae autem fundata harenationis
also quickly they-fade which moreover founded of-the-sand-coat
et marmoris soliditate sunt crassitudine spissa, cum sunt
and of-marble on-the-solidity are in-thickness dense when they-have
politionibus crebris subacta, non modo sunt nitentia, sed
by-polishings repeated been-worked not only are shining but
etiam imagines expressas aspicientibus ex eo opere remittunt.
also images clear to-those-looking from that work they-send-back

10 Graecorum vero tectores non solum his rationibus utendo
of-the-Greeks but the-plasterers not only these methods by-using
faciunt opera firma, sed etiam mortario conlocato, calce et
they-make works strong but also a-mortar-trough having-been-set lime and
harena ibi confusa, decuria hominum inducta ligneis
sand there poured-together a-gang of-men having-been-brought-in with-wooden
vectibus pisant materiam, et ita ad certamen subacta tunc
levers they-pound the-stuff and so to a-contest worked then
utuntur. Itaque veteribus parietibus nonnulli crustas excidentes
they-use-it and-so from-old walls some slabs cutting-out
pro abacis utuntur, ipsaque tectoria abacorum et speculorum
as panels use-them and-the-very plasterworks of-panels and of-mirror-panels
divisionibus circa se prominentes habent expressiones.
by-divisions around themselves projecting have reliefs

11 Sin autem in craticiis tectoria erunt facienda, quibus necesse
but-if moreover on wattle-work plasterworks shall-be to-be-made in-which necessary
est in arrectariis et transversariis rimas fieri, ideo
it-is at the-uprights and the-cross-pieces cracks to-arise for-this-reason
quod, luto cum linuntur, necessario recipiunt umorem,
that with-mud when they-are-daubed necessarily they-take-in moisture
cum autem arescunt, extenuati in tectoriis faciunt rimas,
when moreover they-dry shrunk in the-plasterwork they-make cracks
id ut non fiat, haec erit ratio. Cum paries
that so-that not may-happen this will-be the-method when the-wall
totus luto inquinatus fuerit, tunc in eo opere cannae
whole with-mud smeared shall-have-been then on that work canes
clavis muscariis perpetuae figantur, deinde iterum luto
with-nails flat-headed unbroken let-be-fastened then again mud
inducto, si priores transversariis harundinibus fixae sunt,
having-been-laid-over if the-first with-crosswise reeds fastened are
secundae erectis figantur, et ita, uti supra scriptum est,
the-second with-upright-ones let-be-fastened and so as above written it-is

harenatum et marmor et omne tectorium inducatur. Ita
the-sand-coat and the-marble-coat and all plasterwork let-be-laid-over so
cannarum duplex in parietibus harundinibus transversis fixa
of-canes a-double on the-walls with-reeds crosswise fastened
perpetuitas nec segmina nec rimam ullam fieri patietur.
the-continuity neither shreds nor a-crack any to-arise will-allow

VII.4 · PLASTER IN DAMP PLACES

In damp rooms the lowest three feet are rough-cast with potsherd instead of sand. Where a wall is always wet a second thin wall is built in front of it, with a channel between and vents to the open air, or else nippled tiles are pitched on the inner face and fastened to the wall. Vitruvius then says which decoration suits which room, and describes the black Greek pavement of charcoal, gravel, lime, and ashes.

Quibus rationibus siccis locis tectoria oporteat fieri, 1
by-what methods in-dry places plasterworks it-behooves to-be-made
dixi; nunc, quemadmodum umidis locis politiones
I-have-said now how in-damp places the-polished-work
expediantur, ut permanere possint sine vitiis, exponam.
may-be-carried-out so-that to-last they-can without faults I-shall-set-forth
Et primum conclavibus, quae plano pede fuerint, in
and first for-rooms which on-level ground shall-have-been on
imo pavimento alte circiter pedibus tribus pro harenato
the-lowest pavement high about feet three instead-of the-sand-coat
testa trullissetur et dirigatur, uti eae partes
with-potsherd let-be-rough-cast and let-it-be-laid-true so-that those parts
tectoriorum ab umore ne vitientur. Sin autem aliqui paries
of-the-plasterwork by moisture not be-damaged but-if moreover any wall
perpetuos habuerit umores, paululum ab eo recedatur
constant shall-have damps a-little from it let-be-drawn-back

et struatur alter tenuis distans ab eo, quantum res
and let-be-built a-second thin standing-apart from it as-far-as the-case
patietur, et inter duos parietes canalis ducatur inferior,
will-allow and between the-two walls a-channel let-be-drawn lower
quam libramentum conclavis fuerit, habens nares ad locum
than the-level of-the-room shall-have-been having vents to a-place
patentem. Item, cum in altitudinem perstructus fuerit,
open likewise when in height built-up it-shall-have-been
relinquantur spiramenta; si enim non per nares umor et
let-be-left air-holes if for not through the-vents the-damp both
in imo et in summo habuerit exitus, non minus in nova
at the-bottom and at the-top shall-have outlets not less into the-new
structura se dissipabit. His perfectis paries testa
masonry itself it-will-spread these having-been-finished the-wall with-potsherd
trullissetur et dirigatur et tunc tectorio poliatur.
let-be-rough-cast and let-it-be-laid-true and then with-plasterwork let-it-be-polished

2 Sin autem locus non patietur structuram fieri, canales
but-if moreover the-place not will-allow masonry to-be-made channels
fiant et nares exeant ad locum patentem. Deinde tegulae
let-be-made and vents let-go-out to a-place open then tiles
bipedales ex una parte supra marginem canalis inponantur,
two-foot on one side above the-edge of-the-channel let-be-set
ex altera parte besalibus laterculis pilae substruantur, in
on the-other side with-eight-inch bricks piers let-be-built-under on
quibus duarum tegularum anguli sedere possint, et ita a
which of-two tiles the-corners to-sit can and so from
pariete eae distent, ut ne plus pateant palmum. Deinde
the-wall they let-stand-apart that not more they-open a-palm then
insuper erectae mammatae tegulae ab imo ad summum
above upright nippled tiles from the-bottom to the-top
ad parietem figantur, quarum interiores partes curiosius
to the-wall let-be-fastened whose inner parts more-carefully

picentur, ut ab se respuant liquorem; item in
let-be-pitched so-that from themselves they-throw-off the-liquid likewise at
imo et in summo supra camaram habeant spiramenta.
the-bottom and at the-top above the-vault let-them-have air-holes
Tum autem calce ex aqua liquida dealbentur, uti 3
then moreover with-lime from water thin let-them-be-whitened so-that
trullissationem testaceam non respuant; namque propter
the-rough-cast of-potsherd not they-throw-off for because-of
ieiunitatem quae est a fornacibus excocta non possunt recipere
the-dryness which is from the-kilns burned-out not they-can to-receive-it
nec sustinere, nisi calx subiecta utrasque res inter se
nor to-hold-it unless lime laid-under both things between themselves
conglutinet et cogat coire. Trullissatione inducta
glues and forces to-come-together the-rough-cast having-been-laid-over
pro harenato testa dirigatur, et cetera omnia, uti
instead-of the-sand-coat with-potsherd let-it-be-laid-true and the-rest all as
supra scripta sunt in tectorii rationibus, perficiantur.
above written have-been in of-plasterwork the-methods let-be-completed
Ipsi autem ∗∗∗ politionibus eorum ornatus proprios 4
they-themselves moreover (lacuna) for-the-polished-work their adornments proper
debent habere ad decoris rationes, uti et ex locis
ought to-have to of-decorum the-methods so-that both from the-places
aptas et generum discriminibus non alienas habeant
fitting and of-kinds by-the-distinctions not foreign they-may-have
dignitates. Tricliniis hibernis non est utilis compositione
dignities for-dining-rooms winter not is useful in-composition
nec megalographia nec camerarum coronario opere subtilis
neither large-scale-painting nor of-vaults cornice in-the-work fine
ornatus, quod ea et ab ignis fumo et ab luminum
adornment because they both by of-the-fire the-smoke and by of-lamps
crebris fuliginibus corrumpuntur. In his vero supra podia
the-frequent soot are-ruined in these but above the-dados

abaci ex atramento sunt subigendi et poliendi cuneis
panels of black are to-be-worked and to-be-polished with-wedges
silaceis seu miniaceis interpositis, et explicandae camerae
of-sil or of-red-lead set-between and to-be-finished the-vaults
pure politae. Etiam pavimentorum non erit displicens,
plainly polished also of-pavements not will-be displeasing
si qui animadvertere voluerit Graecorum hibernaculorum
if anyone to-observe shall-wish of-the-Greeks of-winter-rooms
usum, minime sumptuosus et utilis apparatus.
the-practice least costly and useful arrangement
5 Foditur enim infra libramentum triclinii altitudo circiter
is-dug for below the-level of-the-dining-room a-depth about
pedum binum, et solo festucato inducitur aut
of-feet two and the-ground having-been-rammed is-laid-over either
rudus aut testaceum pavimentum ita fastigatum, ut in
rubble or potsherd pavement so sloped that into
canali habeat nares. Deinde congestis et spisse calcatis
a-channel it-may-have outlets then having-been-heaped and thickly trodden
carbonibus inducitur e sabulone et calce et favilla mixta
charcoal is-laid-over of gravel and lime and ashes mixed
materies crassitudine semipedali. Ad regulam et libellam
a-stuff in-thickness of-half-a-foot to the-straightedge and the-level
summo libramento cote despumato redditur species
at-the-top surface with-a-whetstone scoured is-given the-look
nigri pavimenti. Ita conviviis eorum et, quod poculis
of-a-black pavement so at-banquets their and what from-cups
et pytismatis effunditur, simul cadit siccescitque, quique
and from-spittings is-spilled at-once falls and-dries and-those-who
versantur ibi ministrantes, etsi nudis pedibus fuerint,
move-about there serving even-if with-bare feet they-shall-be
non recipiunt frigus ab eius modi genere pavimenti.
not they-take cold from of-that sort kind of-pavement

The ancients painted what could be seen — marble slabs, buildings, harbors, mountains, and the stories of the poets — but now, Vitruvius says, reeds are painted in place of columns and stalks bear seated figurines, things that neither are nor can be. He tells how Licymnius the mathematician shamed the people of Tralles out of approving Apaturius' stage set, and complains that costly pigments now stand in for the craftsman's skill.

Ceteris conclavibus, id est vernis, autumnalibus, aestivis, 1
for-the-other rooms that is spring autumn summer
etiam atriis et peristylis, constitutae sunt ab antiquis
also for-atria and peristyles established have-been by the-ancients
ex certis rebus certae rationes picturarum. Namque pictura
from fixed things fixed methods of-paintings for a-painting
imago fit eius, quod est seu potest esse, uti homines,
an-image becomes of-that which is or can to-be such-as men
aedificia, naves, reliquarumque rerum, e quibus finitis
buildings ships and-of-the-remaining things from which defined
certisque corporibus figurata similitudine sumuntur exempla.
and-fixed bodies with-figured likeness are-taken models
Ex eo antiqui, qui initia expolitionibus instituerunt,
from that the-ancients who the-beginnings to-finishings established
imitati sunt primum crustarum marmorearum varietates
imitated they-have first of-slabs marble the-varieties
et conlocationes, deinde coronarum, †siliculorum, cuneorum
and arrangements then of-cornices of-little-pods of-wedges
inter sese varias distributiones.
among themselves various distributions
Postea ingressi sunt, ut etiam aedificiorum figuras, 2
afterward entered they-have so-that also of-buildings the-shapes
columnarum et fastigiorum eminentes proiecturas imitarentur,
of-columns and of-pediments projecting the-projections they-might-imitate

patentibus autem locis, uti exhedris, propter amplitudines
in-open moreover places such-as exedras because-of the-breadths
parietum scaenarum frontes tragico more aut comico seu
of-the-walls of-stage-sets fronts in-tragic manner or comic or
satyrico designarent, ambulationibus vero propter spatia
satyric they-marked-out for-walks but because-of the-stretches
longitudinis varietatibus topiorum ornarent ab certis locorum
of-length with-varieties of-landscapes they-adorned from fixed of-places
proprietatibus imagines exprimentes; pinguntur enim portus,
properties images bringing-out are-painted for harbors
promunturia, litora, flumina, fontes, euripi, fana, luci,
headlands shores rivers springs straits shrines groves
montes, pecora, pastores. Nonnulli loci item signorum
mountains flocks shepherds some places likewise of-figures
megalographiam habent et deorum simulacra seu fabularum
large-scale-painting have and of-the-gods images or of-stories
dispositas explicationes, non minus troianas pugnas seu
arranged unfoldings not less Trojan battles or
Ulixis errationes per topia, ceteraque, quae sunt eorum
of-Ulysses the-wanderings through landscapes and-the-rest which are of-them
similibus rationibus ab rerum natura procreata.
by-like methods from of-things the-nature produced

3 Sed haec, quae ex veris rebus exempla sumebantur, nunc
but these which from true things models were-taken now
iniquis moribus inprobantur. Nam pinguntur tectoriis monstra
by-unfair fashions are-disapproved for are-painted on-plasterwork monstrosities
potius quam ex rebus finitis imagines certae: pro columnis
rather than from things defined images fixed instead-of columns
enim struuntur calami striati cum crispis foliis et volutis,
for are-set-up reeds fluted with curled leaves and volutes
pro fastigiis appagineculi, item candelabra aedicularum
instead-of pediments little-appendages likewise candelabra of-shrines

sustinentia figuras, supra fastigia eorum surgentes ex
bearing figures above the-pediments their rising from
radicibus cum volutis teneri flores habentes in se sine
roots with volutes tender flowers having in themselves without
ratione sedentia sigilla, non minus coliculi dimidiata habentes
reason seated figurines not less stalks halved having
sigilla alia humanis, alia bestiarum capitibus.
figurines some with-human others of-beasts heads
Haec autem nec sunt nec fieri possunt nec fuerunt. 4
these-things moreover neither are nor to-be-made can nor have-they-been
Quemadmodum enim potest calamus vere sustinere tectum
how for can a-reed truly to-hold-up a-roof
aut candelabrum ornamenta fastigii, seu coliculus tam
or a-candelabrum the-ornaments of-a-pediment or a-stalk so
tenuis et mollis sustinere sedens sigillum, aut de radicibus
slender and soft to-hold-up a-seated figurine or from roots
et coliculis ex parte flores dimidiataque sigilla procreari?
and stalks in part flowers and-halved figurines to-be-brought-forth
At haec falsa videntes homines non reprehendunt sed
but these false-things seeing men not blame but
delectantur, neque animadvertunt, si quid eorum fieri
they-are-delighted nor do-they-notice whether any of-them to-be-made
potest necne. Ergo ita novi mores coegerunt, uti inertiae
can or-not therefore so new fashions have-forced that of-idleness
mali iudices convincerent artium virtutes; iudiciis autem
bad judges should-convict of-the-arts the-merits by-judgments moreover
infirmis obscuratae mentes non valent probare, quod potest
weak darkened minds not are-strong to-approve what can
esse cum auctoritate et ratione decoris. Neque enim
to-be with authority and the-method of-decorum nor for
picturae probari debent, quae non sunt similes veritati,
paintings to-be-approved ought which not are like to-truth

nec, si factae sunt elegantes ab arte, ideo de
nor if made they-have-been elegant by art for-that-reason about
his statim debet 'recte' iudicari, nisi argumentationis certas
them at-once ought rightly to-be-judged unless of-reasoning sure
rationes habuerint sine offensionibus explicatas.
methods they-shall-have without stumbling-blocks set-out

5 Etenim etiam Trallibus cum Apaturius Alabandeus eleganti
and-indeed also at-Tralles when Apaturius the-Alabandian with-an-elegant
manu finxisset scaenam in minusculo theatro, quod
hand had-fashioned a-stage-set in a-smallish theater which
ἐκκλησιαστήριον apud eos vocitatur, in eaque fecisset columnas,
assembly-hall among them is-called in and-it he-had-made columns
signa, centauros sustinentes epistylia, tholorum rotunda tecta,
figures centaurs bearing architraves of-round-temples round roofs
fastigiorum prominentes versuras, coronasque capitibus leoninis
of-pediments projecting returns and-cornices with-heads lion
ornatas, quae ora stillicidiorum e tectis habent rationem,
adorned which the-mouths of-the-eaves-drips from roofs have the-account
praeterea supra ea nihilominus episcaenum, in qua tholi,
besides above them none-the-less an-upper-stage on which round-temples
pronai, semifastigia omnisque tecti varius picturis fuerat
porches half-pediments and-all of-a-roof varied with-paintings had-been
ornatus, itaque cum aspectus eius scaenae propter asperitatem
adorned and-so when the-look of-that stage-set because-of its-boldness
eblandiretur omnium visus et iam id opus probare fuissent
charmed of-all the-eyes and already that work to-approve they-had-been
parati, tum Licymnius mathematicus prodiit et ait
ready then Licymnius the-mathematician came-forward and said

6 'Alabandis satis acutos ad omnes res civiles haberi, sed
that-the-Alabandians enough keen for all matters civil to-be-held but
propter non magnum vitium indecentiae insipientes eos esse
because-of not great a-fault of-impropriety foolish them to-be

iudicatos, quod in gymnasio eorum quae sunt statuae omnes
judged because in the-gymnasium their which are statues all
sunt causas agentes, foro discos tenentes aut currentes seu
are cases pleading in-the-forum discuses holding or running or
pila ludentes. Ita indecens inter locorum proprietates status
with-a-ball playing so unfitting among of-places the-properties the-posture
signorum publice civitati vitium existimationis adiecit. Videamus
of-the-figures publicly on-the-city a-fault of-reputation has-put let-us-see
item nunc, ne Apaturii scaena efficiat et nos Alabandis aut
likewise now lest of-Apaturius the-stage-set make also us Alabandians or
Abderitas. Qui enim vestrum domos supra tegularum tecta
Abderites who for of-you houses above of-tiles roofs
potest habere aut columnas seu fastigiorum explicationes? Haec
can to-have or columns or of-pediments the-unfoldings these
enim supra contignationes ponuntur, non supra tegularum
for above floorings are-placed not above of-tiles
tecta. Si ergo, quae non possunt in veritate rationem habere
roofs if therefore what not can in truth a-method to-have
facti, in picturis probaverimus, accedemus et nos his
of-making in paintings we-shall-have-approved we-shall-join also we these
civitatibus, quae propter haec vitia insipientes sunt iudicatae.'
cities which because-of these faults foolish have been-judged
Itaque Apaturius contra respondere non est ausus, sed 7
and-so Apaturius in-reply to-answer not did dare but
sustulit scaenam et ad rationem veritatis commutatam postea
he-took-down the-stage-set and to the-method of-truth changed afterward
correctam adprobavit. Utinam dii inmortales fecissent,
corrected he-approved would-that the-gods immortal had-brought-it-about
uti Licymnius revivisceret et corrigeret hanc amentiam
that Licymnius should-come-back-to-life and should-correct this madness
tectoriorumque errantia instituta! Sed quare vincat veritatem
and-of-plasterwork erring practices but why conquers truth

ratio falsa, non erit alienum exponere. Quod enim antiqui
a-method false not it-will-be out-of-place to-set-forth what for the-ancients
insumentes laborem et industriam probare contendebant artibus,
spending labor and industry to-prove strove by-skill
id nunc coloribus et eorum eleganti specie consecuntur, et
that now by-colors and their elegant look they-attain and
quam subtilitas artificis adiciebat operibus auctoritatem,
which the-refinement of-the-craftsman used-to-add to-works authority
nunc dominicus sumptus efficit, ne desideretur.
now the-owner's outlay brings-it-about not it-be-missed

8 Quis enim antiquorum non uti medicamento minio parce
who for of-the-ancients not like a-drug red-lead sparingly
videtur usus esse? At nunc passim plerumque toti
seems having-used to-be but now everywhere for-the-most-part whole
parietes inducuntur. Accedit huc chrysocolla, ostrum,
walls are-coated there-is-added to-this chrysocolla purple
armenium. Haec vero cum inducuntur, etsi non ab arte
armenium these but when they-are-laid-over even-if not by art
sunt posita, fulgentes colorum reddunt visus, et ideo
are placed dazzling of-colors they-give-back sights and for-that-reason
quod pretiosa sunt, legibus excipiuntur, ut ab domino,
because costly they-are by-the-terms they-are-excepted so-that by the-owner
non a redemptore repraesententur.
not by the-contractor they-be-supplied
Quae commonefacere potui, ut ab errore discedatur in
what to-call-to-mind I-could that from error there-be-a-withdrawal in
opere tectorio, satis exposui; nunc de apparitionibus, ut
work plaster enough I-have-set-forth now about the-preparations as
succurrere potuerit, dicam, et primum, quoniam de
to-come-to-mind it-shall-have-been-able I-shall-speak and first since about
calce initio est dictum, nunc de marmore ponam.
lime at-the-beginning it-has been-said now about marble I-shall-set-down

Marble for the finish is not the same everywhere. In some places lumps come up with translucent grains like salt, which are crushed and ground for the work; where those are wanting, the chips that marble-workers throw off are pounded, milled, and sifted. Between Magnesia and Ephesus the ground yields a flour so fine that it needs neither grinding nor sifting. Some colors are dug as they are, and others are compounded.

Marmor non eodem genere omnibus regionibus procreatur, 1
marble not of-the-same kind in-all regions is-produced
sed quibusdam locis glaebae ut salis micas perlucidas habentes
but in-certain places lumps like of-salt grains translucent having
nascuntur, quae contusae et molitae praestant operibus
are-found which crushed and ground furnish to-works
utilitatem. Quibus autem locis eae copiae non sunt, caementa
usefulness in-which moreover places those supplies not there-are rubble
marmorea, sive assulae dicuntur, quae marmorarii ex operibus
marble or chips they-are-called which marble-workers from works
deiciunt, contunduntur et moluntur, et cum est subcretum,
throw-down are-crushed and are-ground and when it-has been-sifted
in operibus utuntur. Aliis locis, ut inter Magnesiae et
in works they-use-it in-other places as between of-Magnesia and
Ephesi fines, sunt loca, unde foditur farina parata, quam
of-Ephesus the-borders there-are places whence is-dug flour ready which
nec molere nec cernere opus est, sed sic est subtilis,
neither to-grind nor to-sift need there-is but so it-is fine
quemadmodum si qua est manu contusa et subcreta.
as if any has-been by-hand crushed and sifted
Colores vero alii sunt, qui per se certis locis procreantur
colors but some are which by themselves in-certain places are-produced
et inde fodiuntur, nonnulli ex aliis rebus tractationibus
and thence are-dug some from other things by-treatments

aut mixtionum temperaturis compositi perficiuntur, uti
or of-mixtures by-the-temperings compounded are-finished so-that
praestent eandem in operibus utilitatem.
they-may-furnish the-same in works usefulness

VII.7 · THE COLORS DUG FROM THE GROUND

Vitruvius lists the colors that are dug as they are. Sil, which the Greeks call ocher, is found in many places, and the best was once Attic, from the galleries the Athenian silver mines drove underground. Red ocher comes from Pontus, Egypt, Spain, the Balearics, and Lemnos, whose revenues the Roman senate granted to the Athenians. Paraetonium and melinum are named from their places, green chalk is best at Smyrna, and orpiment comes from Pontus.

1 Primum autem exponemus, quae per se nascentia fodiuntur,
first moreover we-shall-set-forth what by themselves growing are-dug
uti sil, quod graece ὤχρα dicitur. Haec vero multis locis,
such-as sil which in-Greek ocher is-called this but in-many places
ut etiam in Italia, invenitur; sed quae fuerat optima, attica,
as also in Italy is-found but which had-been the-best Attic
ideo nunc non habetur, quod Athenis argentifodinae
for-this-reason now not is-had because at-Athens the-silver-mines
cum habuerunt familias, tunc specus sub terra fodiebantur
when had gangs then galleries under ground were-dug
ad argentum inveniendum. Cum ibi vena forte inveniretur,
for silver finding when there a-vein by-chance was-found
nihilominus uti argentum persequebantur; itaque antiqui
none-the-less as silver they-followed-it and-so the-ancients
egregia copia silis ad politionem operum sunt usi.
with-an-outstanding supply of-sil for the-polishing of-works have used-it

Item rubricae copiosae multis locis eximuntur, sed optimae 2
likewise red-ochers plentiful in-many places are-taken-out but the-best
paucis, uti Ponto Sinope, et Aegypto, in Hispania
in-few such-as in-Pontus Sinope and in-Egypt in Spain
Balearibus, non minus etiam Lemno, cuius insulae vectigalia
in-the-Balearics not less also in-Lemnos of-which island the-revenues
Atheniensibus senatus populusque Romanus concessit fruenda.
to-the-Athenians the-senate and-the-people Roman granted to-be-enjoyed
Paraetonium vero ex ipsis locis, unde foditur, habet 3
paraetonium but from the-very places whence it-is-dug has
nomen. Eadem ratione melinum, quod eius metallum in
its-name by-the-same reckoning melinum because its mine on
sola cycladi Melo dicitur esse.
only in-the-Cyclad Melos is-said to-be
Creta viridis item pluribus locis nascitur, sed optima Zmyrnae; 4
chalk green likewise in-several places is-found but the-best at-Smyrna
hanc autem Graeci θεοδοτεῖον vocant, quod Theodotus nomine
this moreover the-Greeks Theodotean call because Theodotus by-name
fuerat, cuius in fundo id genus cretae primum est inventum.
there-had-been whose on estate that kind of-chalk first was found
Auripigmentum, quod ἀρσενικόν graece dicitur, foditur Ponto. 5
orpiment which arsenic in-Greek is-called is-dug in-Pontus
Sandaraca item pluribus locis, sed optima Ponto proxime
sandarach likewise in-several places but the-best in-Pontus next-to
flumen Hypanim habet metallum.
the-river the-Hypanis has its-mine

Red-lead was first found in the Cilbian fields of the Ephesians. The ore is a vein like iron, reddish, with red dust around it, and under the pick it sheds drops of quicksilver that the diggers gather at once. Quicksilver carries a hundred-pound stone on its surface but lets a scruple of gold sink through it. It is needed to gild silver and bronze, and it draws the gold out of burnt cloth.

1 Ingrediar nunc minii rationes explicare. Id autem agris
I-shall-proceed now of-red-lead the-methods to-set-forth it moreover in-the-fields
Ephesiorum Cilbianis primum esse memoratur inventum.
of-the-Ephesians Cilbian first to-have-been is-recorded found
Cuius et res et ratio satis magnas habet admirationes.
whose both matter and method enough great has wonders
Foditur enim glaeba quae dicitur, antequam tractationibus
is-dug for a-lump which is-so-called before by-treatments
ad minium perveniant, vena uti ferrum, magis subrufo
to red-lead they-come a-vein like iron rather with-a-reddish
colore, habens circa se rubrum pulverem. Cum id foditur,
color having around itself red dust when it is-dug
ex plagis ferramentorum crebras emittit lacrimas argenti
from by-the-blows of-iron-tools frequent it-sends-out tears of-silver
vivi, quae a fossoribus statim colliguntur.
quick which by the-diggers at-once are-collected

2 Hae glaebae, cum collectae sunt, in officina propter
these lumps when gathered have-been in the-workshop because-of
umoris plenitatem coiciuntur in fornacem, ut interarescant,
of-moisture the-fullness they-are-thrown into a-furnace so-that they-may-dry-out
et is qui ex his ab ignis vapore fumus suscitatur,
and that which from them by of-the-fire the-heat smoke is-raised
cum resedit in solum furni, invenitur esse argentum
when it-has-settled on the-floor of-the-furnace is-found to-be silver

vivum. Exemptis glaebis guttae eae, quae residebunt,
quick having-been-taken-out the-lumps the-drops those which will-settle
propter brevitates non possunt colligi, sed in vas aquae
because-of their-smallness not can to-be-gathered but into a-vessel of-water
converruntur et ibi inter se congruunt et una
they-are-swept and there among themselves they-come-together and together
confunduntur. Id autem cum sint quattuor sextariorum
they-are-run it moreover when they-are of-four pints
mensurae, cum expenduntur, invenientur esse pondo centum.
measures when they-are-weighed they-will-be-found to-be in-weight a-hundred
Cum in aliquo vase est confusum, si supra id lapideum 3
when in some vessel it-has-been poured-together if above it a-stone
centenarium pondus inponatur, natat in summo neque eum
hundred-pound weight be-placed it-floats on the-top and-not that
liquorem potest onere suo premere nec elidere nec
liquid can by-weight its-own to-press-down nor to-force-out nor
dissipare. Centenario sublato si ibi auri
to-scatter the-hundred-pound-weight having-been-taken-away if there of-gold
scripulum inponatur, non natabit, sed ad imum per
a-scruple be-placed not it-will-float but to the-bottom by
se deprimetur. Ita non amplitudine ponderis sed genere
itself it-will-sink so not by-the-bulk of-weight but by-the-kind
singularum rerum gravitatem esse non est negandum.
of-individual things the-heaviness to-be not it-is to-be-denied
Id autem multis rebus est ad usum expeditum. Neque 4
it moreover for-many uses is for employment ready neither
enim argentum neque aes sine eo potest recte inaurari.
for silver nor bronze without it can properly to-be-gilded
Cumque in veste intextum est aurum eaque vestis
and-when in a-garment woven-in has-been gold and-that garment
contrita propter vetustatem usum non habeat honestum,
worn-out because-of age use not has honorable

panni in fictilibus vasis inpositi supra ignem comburuntur.
the-cloths in earthen vessels placed over a-fire are-burned-up
Is cinis coicitur in aquam, et additur eo argentum
that ash is-thrown into water and is-added to-it silver
vivum. Id autem omnes micas auri corripit in se et
quick it moreover all grains of-gold it-seizes into itself and
cogit secum coire. Aqua defusa cum id in
forces with-itself to-come-together the-water having-been-poured-off when it into
pannum infunditur et ibi manibus premitur, argentum per
a-cloth is-poured and there with-hands is-pressed the-silver through
panni raritates propter liquorem extra labitur compressione
of-the-cloth the-openings because-of its-fluidity outside slips by-the-pressing
coactum, aurum intra purum invenitur.
forced the-gold within pure is-found

VII.9 · TEMPERING THE RED-LEAD

The lumps are pounded with iron pestles, washed, and heated until the color comes, and what is left is weak. Under a roof red-lead keeps its color; in a peristyle the sun and moon blacken it, as Faberius the clerk found in thirty days. A coat of Pontic wax melted with oil, heated until it sweats, and rubbed down — the Greek ganosis — saves it. Lime adulteration shows when a heated sample stays black, and chrysocolla comes from Macedonia.

1 Revertar nunc ad minii temperaturam. Ipsae enim glaebae,
I-shall-return now to of-red-lead the-tempering the-very for lumps
cum sunt aridae, contunduntur pilis ferreis, et lotionibus
when they-are dry are-crushed with-pestles iron and by-washings
et cocturis crebris relictis stercoribus efficiuntur, ut
and heatings repeated having-been-left the-dregs it-is-brought-about that
adveniant, colores. Cum ergo emissae sint ex minio
may-come the-colors when therefore sent-out have-been from the-red-lead

per argenti vivi relictionem quas in se naturales habuerat
through of-silver quick the-leaving which in itself natural it-had-had
virtutes, efficitur tenera natura et viribus inbecillis.
powers it-is-made of-a-tender nature and in-strength weak
Itaque cum est in expolitionibus conclavium tectis inductum, 2
and-so when it-has in the-finishings of-rooms roofed been-laid-over
permanet sine vitiis suo colore; apertis vero, id est
it-remains without faults in-its-own color in-open but that is
peristyliis aut exhedris aut ceteris eiusdem modi locis, quo
peristyles or exedras or other of-the-same sort places whither
sol et luna possit splendores et radios inmittere, cum
the-sun and the-moon can brightness and rays to-send-in when
ab his locus tangitur, vitiatur et amissa virtute coloris
by these the-place is-touched it-is-spoiled and having-been-lost the-power of-its-color
denigratur. Itaque cum et alii multi tum etiam Faberius
it-is-blackened and-so when both others many then also Faberius
scriba, cum in Aventino voluisset habere domum eleganter
the-clerk when on the-Aventine he-had-wished to-have a-house elegantly
expolitam, peristyliis parietes omnes induxit minio, qui
finished in-the-peristyles the-walls all he-coated with-red-lead which
post dies XXX facti sunt invenusto varioque colore. Itaque
after days XXX made were of-an-unlovely and-blotched color and-so
primo locavit inducendos alios colores.
at-first he-contracted-for to-be-laid-over other colors
At si qui subtilior fuerit et voluerit expolitionem 3
but if anyone more-particular shall-be and shall-wish the-finish
miniaceam suum colorem retinere, cum paries expolitus et
of-red-lead its-own color to-keep when the-wall finished and
aridus fuerit, ceram ponticam igni liquefactam paulo
dry shall-have-been wax Pontic by-fire melted with-a-little
oleo temperatam saeta inducat; deinde postea carbonibus
oil tempered with-a-brush let-him-lay-over then afterward coals

in ferreo vase compositis eam ceram una cum pariete
in an-iron vessel having-been-set that wax together with the-wall
calfaciundo sudare cogat lietque, ut peraequetur;
by-heating to-sweat let-him-force and-let-him-smooth-it so-that it-be-made-even
deinde tunc candela centunculisque puris subigat, uti signa
next then with-a-candle and-with-rags clean let-him-work-it as statues
marmorea nuda curantur (haec autem γάνωσις graece dicitur):
marble bare are-treated this moreover a-glossing in-Greek is-called
4 ita obstans cerae ponticae lorica non patitur nec
so standing-in-the-way of-wax Pontic the-coat not allows neither
lunae splendorem nec solis radios lambendo eripere
of-the-moon the-brightness nor of-the-sun the-rays by-licking to-snatch-away
ex his politionibus colorem. Quae autem in Ephesiorum
from these polished-surfaces the-color which moreover in of-the-Ephesians
metallis fuerunt officinae, nunc traiectae sunt ideo
mines there-were workshops now transferred have-been for-this-reason
Romam, quod id genus venae postea est inventum Hispaniae
to-Rome because that kind of-vein afterward was found of-Spain
regionibus, e quibus metallis glaebae portantur et per
in-the-regions from which mines the-lumps are-carried and through
publicanos Romae curantur. Eae autem officinae sunt inter
the-tax-farmers at-Rome they-are-treated those moreover workshops are between
aedem Florae et Quirini.
the-temple of-Flora and of-Quirinus
5 Vitiatur minium admixta calce. Itaque si qui velit experiri
is-spoiled red-lead by-mixed-in lime and-so if anyone should-wish to-test
id sine vitio esse, sic erit faciendum. Ferrea lamna sumatur,
it without fault to-be thus it-will-be to-be-done an-iron plate let-be-taken
eo minium inponatur, ad ignem conlocetur, donec lamna
on-it red-lead let-be-placed to the-fire let-it-be-set until the-plate
candescat. Cum e candore color mutatus fuerit eritque
glows-white when from the-whiteness the-color changed shall-have-been and-shall-be

ater, tollatur lamna ab igni, et sic refrigeratum si restituatur
black let-be-lifted the-plate from the-fire and so cooled if it-is-restored
in pristinum colorem, sine vitio esse probabitur; sin autem
to its-former color without fault to-be it-will-be-proved but-if moreover
permanserit nigro colore, significabit se esse vitiatum.
it-shall-have-stayed in-a-black color it-will-show itself to-be spoiled
Quae succurrere potuerunt mihi de minio, dixi. 6
what to-come-to-mind have-been-able to-me about red-lead I-have-said
Chrysocolla adportatur a Macedonia; foditur autem ex
chrysocolla is-brought from Macedonia it-is-dug moreover from
is locis, qui sunt proximi aerariis metallis. Armenium et
those places which are nearest to-copper mines armenium and
indicum nominibus ipsis indicatur, quibus in locis procreatur.
indigo by-the-names themselves it-is-shown what in places it-is-produced

VII.10 · BLACK

Black is made in a chamber built like a sweating room and finished with marble, with a little furnace outside whose vents open into it. Resin is burned, and the soot that gathers on the walls and the curve of the vault is scraped off: part is kneaded with gum for the scribe's ink, and the rest the plasterers mix with glue. Burnt brushwood or burnt wine lees will serve instead.

Ingrediar nunc ad ea, quae ex aliis generibus tractationum 1
I-shall-proceed now to those which from other kinds of-treatments
temperaturis commutata recipiunt colorum proprietates. Et
by-the-temperings altered take-on of-colors the-properties and
primum exponam de atramento, cuius usus in operibus
first I-shall-set-forth about black whose use in works

magnas habet necessitates, ut sint notae, quemadmodum
great has necessities so-that may-be known how
praeparentur certis rationibus artificiorum, ad id temperaturae.
they-are-prepared by-fixed methods of-the-crafts for that the-temperings
2 Namque aedificatur locus uti laconicum et expolitur marmore
for is-built a-place like a-Laconicum and is-finished with-marble
subtiliter et levigatur. Ante id fit fornacula habens
finely and is-smoothed before it is-made a-little-furnace having
in laconicum nares, et eius praefurnium magna diligentia
into the-Laconicum vents and its stoke-hole with-great care
comprimitur, ne flamma extra dissipetur. In fornace resina
is-closed lest the-flame outside be-scattered in the-furnace resin
conlocatur. Hanc autem ignis potestas urendo cogit emittere
is-set this moreover of-fire the-power by-burning forces to-send-out
per nares intra laconicum fuliginem, quae circa parietem
through the-vents into the-Laconicum soot which about the-wall
et camerae curvaturam adhaerescit. Inde collecta partim
and of-the-vault the-curve sticks thence gathered in-part
componitur ex gummi subacta ad usum atramenti librarii,
it-is-compounded with gum kneaded for the-use of-ink of-the-scribe
reliquum tectores glutinum admiscentes in parietibus utuntur.
the-rest the-plasterers glue mixing-in on walls use
3 Si autem hae copiae non fuerint paratae, ita necessitatibus
if moreover these supplies not shall-have-been ready so for-the-needs
erit administrandum, ne expectatione morae res retineatur.
it-will-be to-be-managed lest by-the-waiting of-delay the-work be-held-back
Sarmenta aut taedae schidiae comburantur; cum erunt
brushwood or of-pine chips let-be-burned-up when they-shall-be
carbones, extinguantur, deinde in mortario cum glutino
coals let-them-be-quenched then in a-mortar with glue
terantur: ita erit atramentum tectoribus non invenustum.
let-them-be-ground so will-be a-black for-plasterers not ungraceful

Non minus si faex vini arefacta et cocta in fornace 4
not less if lees of-wine dried and burned in a-furnace
fuerit et ea contrita cum glutino in opere inducetur,
shall-have-been and it ground with glue on the-work shall-be-laid-over
atramenti suavitatis superque efficiet colorem; et quo
of-black of-sweetness and-beyond it-will-make a-color and by-how-much
magis ex meliore vino parabitur, non modo atramenti,
more from better wine it-shall-be-made not only of-black
sed etiam indici colorem dabit imitari.
but also of-indigo the-color it-will-give to-imitate

VII.11 · CAERULEUM AND BURNT OCHER

The tempering of caeruleum was first found at Alexandria, and Vestorius afterward set up the making of it at Puteoli. Sand is ground with the flower of natron until it is like flour, mixed with copper filed to sawdust, damped, rolled into balls, dried, packed in earthen jugs, and baked; the heat drives the properties out of both and leaves the blue. Burnt ocher is good sil fired and quenched in vinegar.

Caeruli temperationes Alexandriae primum sunt inventae, 1
of-caeruleum the-temperings at-Alexandria first have been-discovered
postea item Vestorius Puteolis instituit faciundum. Ratio
afterward likewise Vestorius at-Puteoli undertook the-making the-method
autem eius, e quibus est inventa, satis habet admirationis.
moreover of-it from from-what it-has been-discovered enough has of-wonder
Harena enim cum nitri flore conteritur adeo subtiliter, ut
sand for with of-natron the-flower is-ground so finely that
efficiatur quemadmodum farina; ea aes cyprum limis crassis
it-is-made like flour that copper Cyprian with-files coarse
uti scobis facta mixta conspargitur, ut conglomeretur; deinde
like sawdust made mixed is-sprinkled so-that it-may-ball-together then

pilae manibus versando efficiuntur et ita conligantur, ut
balls with-the-hands by-rolling are-made and so they-are-bound so-that
inarescant; aridae componuntur in urceo fictili, urcei in fornace:
they-dry-out dry they-are-packed in a-jug earthen the-jugs in a-furnace
ita aes et ea harena ab ignis vehementia confervescendo
so the-copper and that sand by of-fire the-violence by-boiling-together
cum coaluerint, inter se dando et accipiendo
when they-shall-have-grown-together among themselves by-giving and by-taking
sudores a proprietatibus discedunt suisque viribus per
sweats from their-properties they-depart and-their-own powers through
ignis vehementiam confectis caeruleo rediguntur colore.
of-the-fire the-violence spent to-a-caeruleum they-are-reduced color

2 Usta vero, quae satis habet utilitatis in operibus tectoriis,
burnt-ocher but which enough has of-usefulness in works plaster
sic temperatur. Glaeba silis boni coquitur, ut sit in
thus is-tempered a-lump of-sil good is-burned so-that it-may-be in
igni candens; ea autem aceto extinguitur et efficitur
the-fire glowing it moreover with-vinegar is-quenched and it-is-made
purpureo colore.
of-a-purple color

At Rhodes brushwood is laid in jars with vinegar poured under it, lumps of lead are set above, and the jars are stopped so that nothing escapes; after a fixed time the lead has become white-lead. Copper plates set the same way give verdigris, which the Romans call aeruca. White-lead baked in a furnace changes color and becomes sandarach, which men learned from a fire, and it serves better than the mined kind.

De cerussa aerugineque, quam nostri aerucam vocitant, 1
about white-lead and-verdigris which our-people aeruca call
non est alienum, quemadmodum comparetur, dicere. Rhodo
not it-is out-of-place how it-is-made to-say at-Rhodes
enim doliis sarmenta conlocantes aceto suffuso
for in-jars brushwood placing with-vinegar having-been-poured-under
supra sarmenta conlocant plumbeas massas, deinde ea
above the-brushwood they-place lead masses then them
operculis obturant, ne spiramento obturatum emittatur. Post
with-lids they-stop-up lest through-a-vent what-is-shut-in be-let-out after
certum tempus aperientes inveniunt e massis plumbeis
a-fixed time opening-them they-find from masses lead
cerussam. Eadem ratione lamellas aereas conlocantes efficiunt
white-lead by-the-same reckoning plates copper placing they-make
aeruginem, quae aeruca appellatur.
verdigris which aeruca is-called
Cerussa vero, cum in fornace coquitur, mutato colore 2
white-lead but when in a-furnace is-baked having-been-changed the-color
ad ignem efficitur sandaraca — id autem incendio facto
by the-fire it-becomes sandarach that moreover a-fire having-happened
ex casu didicerunt homines — et ea multo meliorem usum
from chance learned men and it by-much better use
praestat, quam quae de metallis per se nata foditur.
furnishes than that-which from mines by itself born is-dug

Purple is the costliest and the finest of the colors, and Vitruvius says its nature is as much a wonder as anything else. It is taken from the sea shellfish, and its color is tempered by the course of the sun: black in Pontus and Gaul, leaden-blue toward the northwest, violet at the equinoctial east and west, and red in the south. The shells are cut round about and the gore is ground in mortars.

1 Incipiam nunc de ostro dicere, quod et carissimam
I-shall-begin now about purple to-speak which both most-costly
et excellentissimam habet praeter hos colores aspectus
and most-excellent has beyond these colors of-appearance
suavitatem. Id autem excipitur e conchylio marino, e quo
sweetness it moreover is-taken from a-shellfish sea from which
purpura efficitur, cuius non minores sunt quam ceterarum
purple-dye is-made whose not less are than of-the-other
rerum naturae considerantibus admirationes, quod habet non
things of-nature to-those-considering the-wonders because it-has not
in omnibus locis, quibus nascitur, unius generis colorem,
in all places in-which it-is-found of-one kind a-color
sed solis cursu naturaliter temperatur.
but of-the-sun by-the-course naturally it-is-tempered

2 Itaque quod legitur Ponto et Gallia, quod hae regiones
and-so what is-gathered in-Pontus and Gaul because these regions
sunt proximae ad septentrionem, est atrum; progredientibus
are nearest to the-north is black as-one-goes-on
inter septentrionem et occidentem invenitur lividum; quod
between north and west is-found leaden-blue what
autem legitur ad aequinoctialem orientem et occidentem,
moreover is-gathered at the-equinoctial east and west
invenitur violaceo colore; quod vero meridianis regionibus
is-found of-a-violet color what but in-southern regions

excipitur, rubra procreatur potestate, et ideo hoc
is-taken with-a-red is-produced quality and for-this-reason this
Rhodo etiam insula creatur ceterisque eiusmodi regionibus,
at-Rhodes also the-island is-made and-in-the-other of-that-sort regions
quae proximae sunt solis cursui.
which nearest are of-the-sun to-the-course
Ea conchylia, cum sunt lecta, ferramentis circa 3
those shellfish when have-been gathered with-iron-tools round-about
scinduntur, e quibus plagis purpurea sanies, uti lacrima
they-are-cut from which cuts purple gore like a-tear
profluens, excussa in mortariis terendo comparatur. Et quod
flowing-out shaken-out in mortars by-grinding is-got-ready and because
ex concharum marinarum testis eximitur, ideo ostrum
from of-shellfish sea shells it-is-taken-out for-this-reason purple
est vocitatum. Id autem propter salsuginem cito fit
it-has been-called it moreover because-of the-saltiness quickly becomes
siticulosum, nisi mel habeat circa fusum.
thirsty unless honey it-has around poured

VII.14 · THE SUBSTITUTE COLORS

Purple colors are also made by dyeing chalk with madder root and with hysginum. Plasterers imitate Attic sil by boiling dried violets, squeezing them through linen, and pouring the colored water over chalk, and bilberry with milk gives a fine purple. Those who cannot afford chrysocolla dye caeruleum with the plant called weld for a green, and chalk dyed with woad stands in for indigo. Vitruvius then turns to water.

Fiunt etiam purpurei colores infecta creta rubiae 1
are-made also purple colors having-been-dyed chalk of-madder
radice et hysgino, non minus et ex floribus alii
with-the-root and with-hysginum not less and from flowers other

colores. Itaque tectores, cum volunt sil atticum imitari,
colors and-so plasterers when they-wish sil Attic to-imitate
violam aridam coicientes in vas cum aqua, confervefaciunt
a-violet dried throwing into a-vessel with water they-boil-it
ad ignem, deinde, cum est temperatum, coiciunt
at the-fire then when it-has-been tempered they-throw-it
in linteum, et inde manibus exprimentes recipiunt in
into a-linen-cloth and thence with-hands squeezing they-receive into
mortarium aquam ex violis coloratam, et eo cretam
a-mortar the-water from violets colored and into-it chalk
infundentes et eam terentes efficiunt silis attici colorem.
pouring and it rubbing they-make of-sil Attic the-color

2 Eadem ratione vaccinium temperantes et lacte miscentes
by-the-same reckoning bilberry tempering and with-milk mixing
purpuram faciunt elegantem. Item qui non possunt
a-purple they-make elegant likewise those-who not can
chrysocolla propter caritatem uti, herba, quae luteum
chrysocolla because-of its-dearness to-use with-the-plant which weld
appellatur, caeruleum inficiunt, et utuntur viridissimum
is-called caeruleum they-dye and they-use-it a-very-green
colorem; haec autem infectiva appellatur. Item propter
color this moreover dyed is-called likewise because-of
inopiam coloris indici cretam selinusiam aut anulariam
the-scarcity of-the-color indigo chalk Selinusian or ring-maker's
vitro, quod Graeci ἰσάτιν appellant, inficientes imitationem
with-woad which the-Greeks woad call dyeing an-imitation
faciunt indici coloris.
they-make of-indigo the-color

3 Quibus rationibus et rebus ad dispositionem firmitates
by-what methods and materials for arrangement strengths
quibusque decoras oporteat fieri picturas, item quas
and-by-what comely it-behooves to-be-made paintings likewise what

habeant omnes colores in se potestates, ut mihi
have all colors in themselves powers as to-me
succurrere potuit, in hoc libro perscripsi. Itaque
to-come-to-mind it-has-been-able in this book I-have-written-out and-so
omnes aedificationum perfectiones, quam habere debeant
all of-buildings the-completions what to-have they-ought
opportunitatem ratiocinationis, septem voluminibus sunt
fitness of-reasoning in-seven volumes have
finitae; insequenti autem de aqua, si quibus locis
been-bounded in-the-following moreover about water if in-what places
non fuerit, quemadmodum inveniatur et qua ratione
not there-shall-be how it-may-be-found and by-what method
ducatur quibusque rebus, si erit salubris et idonea,
it-may-be-led and-by-what means whether it-shall-be wholesome and suitable
probetur, explicabo.
it-may-be-proved I-shall-set-forth