

AN
 EPISTLE
 Of the Reverend Father
PAOLO ANTONIO FOSCARINI,
 A CARMELITE;
 Concerning
 The *PYTHAGORIAN* and *COPERNICAN* Opinion
 OF
 The Mobility of the *EARTH*,
 AND
 Stability of the *SVN*;
 AND
 Of the New Systeme or Constitution
 OF THE
 WORLD.

IN WHICH,
 The Authorities of *SACRED SCRIPTVRE*,
 and *ASSERTIONS* of *DIVINES*,
 commonly alledged against this Opinion,
 are Reconciled.

WRITTEN
 To the most Reverend FATHER,
 SEBASTIANO FANTONI,
 General of the Order of CARMELITES.

Englised from the Original,
 BY
THOMAS SALVSBVRIE.

*So quis indiget sapientia, postulet
 à Deo. Jacobi 1. versu. 5.*

*Optavi, & datus est mihi sensus.
 Sapientiæ 7. versu. 7.*

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To the Most
 Reverend Father
 SEBASTIANO FANTONI,
General of the Order of
 CARMELITES.

In obedience to the command of the Noble *Signore Vincenzo Carraffa*, a Neapolitan, and Knight of S. *John of Jerusalem*, (a person, to speak the truth, of so great Merit, that in him Nobility of Birth, Affability of Manners, Universal knowledge of Arts and things, Piety and Vertue do all contend for preheminance) I resolved with my self to undertake the Defence of the Writings of the New, or rather Renewed, and from the Dust of Oblivion (in which it hath long lain hid) lately Revived Opinion, *Of the Mobility of the Earth, and Stability of the Sun*, in times past found out first by *Pythagoras*, and at last reduced into Practice by *Copernicus* ; who likewise hath deduced the Position of the Systeme and Constitution of the World and its parts from that Hypothesis: on which Subject I have formerly writ to You, Most Reverend Sir: But in regard I am bound for *Rome* to preach there by your Command; and since this Speculation may seem more proper for another Treatise, to wit, a Volume of *Cosmography*, which I am in hand with, and which I am daily busie about, that it may come forth in company with my *Compendium of the Liberal Arts*, which I have already finished, rather than now to discuss it by it self, I thought to forbear, imparting what I have done for the present; Yet I was desirous to give, in the mean time, a brief account of this my Determination, and to shew You, Most Reverend Father, (to whom I owe all my indeavours, and my very self) the Foundations on which this Opinion may be grounded, least, whilst otherwise it is favoured with much probability, it be found in reality to be extremly repugnant (as at first sight it

seems) not onely to Physical Reasons, and Common Principles received on all hands (which cannot do so much harm) but also (which would be of far worse consequence) to many Authorities of sacred Scripture: Upon which account many at their first looking into it, explode it as the most fond Paradox and Monstrous *Capriccio* that ever was heard of. Which thing proceeds only from an antiquated and long confirmed Custome, which hath so hardened men in, and habituated them to Vulgar, Plausible, and for that cause by all men (aswell learned as unlearned) Approved Opinions, that they cannot be removed one step from them: So great is the force of Custome (which not unfitly is stiled a second Nature) prevailing over the whole World, that touching things men are rather pleased with, delighted in, and desirous of those, which, though evil and obnoxious, are by use made familiar to them, than such, wherewith, though better, they are not accustomed and acquainted. So in like manner, and that chiefly, in *Opinions*, which when once they are rooted in the Mind, men start at, and reject all others whatsoever; not only those that are contrary to, but even all that ever so little disagree with or vary from theirs, as harsh to the Ear, discoloured to the Eye, unpleasant to the Smell, nauseous to the Tast, rough to the Touch. And no wonder: For Physical Truths are ordinarily judged and considered by men, not according to their Essence, but according to the prescript of some one whose description or definition of them gains him Authority amongst the vulgar. Which authority nevertheless (since 'tis no more than humane) ought not to be so esteemed, as that that which doth manifestly appear to the contrary, whether from better Reasons lately found out, or from Sense it self, should for its sake be contemned and slighted; Nor is Posterity so to be confined, but that it may, and dares, not only proceed farther, but also bring to light better and truer Experiments than those which have been delivered to us by the Ancients. For the *Genius's* of the Antients, as in Inventions they did not much surpass the Wits of our times; so for the perfecting of Inventions this Age of ours seems not only to equal, but far to excell former Ages; Knowledge, whether in the Liberal or Mechanical Arts, daily growing to a greater height. Which Assertion might be easily proved, were it not that in so clear a case, there would be more danger of obscuring, than hopes of illustrating it with any

farther light.

But (that I may not wholly be silent in this point) have not the several Experiments of Moderns, in many things, stopped the mouth of Venerable Antiquity, and proved many of their greatest and weightiest Opinions, to be vain and false? The Doctrine

of the *Antipodes* by many of the Antients of approved Wisdom and Learning was held a Paradox no less absurd than this Our Opinion of the *Earths Motion* may seem to be; as likewise that of the *Habitableness of the Torrid Zone* : Of these Opinions, the first was accounted impossible by many, but the latter was absolutely denied by the unanimous consent of all: But later Authors (to the great felicity and perpetual Glory of their Age) have, not so much by Authority, as by accurate diligence and indefatigable study to finde out the truth, proved them both to be undoubtedly true. Thus I affirm that the Antients were deceived, and that in too lightly challenging Credit and Authority for their Inventions, they discovered too much folly. Here for brevities sake I pass by many Dreams lately detected, both of *Aristotle* and other of the antient Philosophers; who in all likelihood if they had dived into the Observations of Modern Writers, and understood their Reasons, would, by changing their Judgements, have given them the precedency, and would have subscribed to their manifest Truth. Hereby we see that we are not to have so high a respect for the Antients, that whatever they assert should be taken upon trust, and that Faith should be given to their sayings, as if they were Oracles and Truths sent down from Heaven. But yet (which indeed is chiefly to be regarded in these matters) if any thing be found out that is repugnant to Divine Authority, or to the Sacred Leaves, that were dictated by the Holy Ghost, and by His Inspiration

expounded by the Holy Doctors of the Church, in this case not onely Humane Reason, but even Sense it self is to submit: which, though by all manner of weighty Conditions and circumstances it should hold forth any thing contrary to Divine Authority, (which indeed is so plain, that there is no way left to evade the right understanding of it) yet is it to be rejected; and we must conclude our selves deceived by it, and believe that that is not true which Sense and Reason represents unto us: For, however we judge of things, we have, both in this and all other cases, a more certain knowledge, which proceeds from Divine Faith; as *S. Peter* hath most excellently express it: Who though with his Senses he saw, and perceived the Glory of our Lord in his Transfiguration, and heard his words manifesting his great Power, yet nevertheless all these things compared with the Light of

Faith, he adds: ^{*} *We have also a more sure word of Prophecy, &c.*

Wherefore since this Opinion of *Pythagoras* and *Copernicus* hath entred upon the Stage of the World in so strange a Dress, and at the first appearance (besides the rest) doth seem to oppose sundry Authorities of Sacred Scripture, it hath (this being granted) been justly rejected of all men as a meer absurdity.

Faith is more certain, than either Sense or Reason.

* 2 Pet. 1. 19.

But yet because the common System of the World devised by *Ptolemy* hath hitherto satisfied none of the Learned, hereupon a suspicion is risen up amongst all, even *Ptolemy's* followers themselves, that there must be some other System, which is more true than this of *Ptolemy*; For although the *Phænomena* of Celestial Bodies may seem to be generally resolved by this Hypothesis, yet they are found to be involved with many difficulties, and referred to many devices; as namely of Orbes of sundry Forms and Figures, Epicycles, Equations, Differences, Excentricks, and innumerable such like fancies and Chymæra's which savour of the *Ens Rationis* of Logicians, rather than of any *Realem Essentiam*. Of which kinde is that of the *Rapid Motion*, than which I finde not any thing that can be more weakly grounded, and more easily controverted and disproved: And such is that conceit of the ^{*} Heaven void of Stars, moving the inferior Heavens or Orbes:

All which are introduced upon occasion of the variety of the Motions of Celestial Bodies, which seemed impossible, by any other way, to be reduced to any certain and determinate Rule. So that the Assertors of that common Opinion, freely confess, that in describing the Worlds System, they cannot as yet discover, or teach the true Hypothesis thereof: But that their endeavours are onely to finde out, amongst many things, what is most agreeable with truth, and may, upon better and more accommodate Reasons, answer the Celestial *Phænomena*.

* Or *Primum Mobile*.

Since that, the Telescope (an Optick Invention) hath been found out, by help of which, many remarkable things in the Heavens, most worthy to be known, and till then unthought of, were discovered by manifest sensation; as for instance, That the Moon is

Mountainous; *Venus* and *Saturn* Tricorporeal; and *Jupiter* Quadricorporeal: Likewise that in the *Via Lactea*, in the *Pleiades*, and in the Stars called *Nebulos* there are many Stars, and those of the greatest Magnitude which are by turns adjacent to one another; and in the end it hath discovered to us, new fixed Stars, new planets, and new Worlds. And by this same Instrument it appears very probable, that *Venus* and *Mercury* do not move properly about the Earth, but rather about the Sun; and that the Moon alone moveth about the Earth. What therefore can be inferred from hence, but that the Sun doth stand immovable in the Centre, and that the Earth, with the other Celestial Orbes, is circumvolved about it? Wherefore by this and many other Reasons it appears, That the Opinion of *Pythagoras* and *Copernicus* doth not disagree with Astronomical and Cosmographical Principles; yea, that it carryeth with it a great likelihood and probability of Truth: Whereas amongst the so many several Opinions, that deviate from the common System, and devise

others, such as were those of *Plato*, *Calippus*, *Eudoxus* ; and since

them of *Averroë*, ^{*} *Cardanus*, *Fracastorius*, and others both Anti-ent and Modern, there is not one found that is more facile, more regularly and determinately, accommodated to the *Phænomena* and Motions of the Heavens, without *Epicycles*, *Excentrix*, *Homocentrick* Deferents, and the supputation of the Rapid Motion. And this Hypothesis hath been asserted for true, not onely by *Pythagoras*, and, after him, by *Copernicus*, but by many famous men, as namely, *Heraclitus*, and *Ecphantus*, *Pythagoreans*, all the Disciples of that Sect, *Miceta* of *Syracuse*, *Martianus Capella*, and many more. Amongst whom, those (as we have said) that have attempted the finding out of New Systemes (for they refused both this of *Pythagoras*, and that of *Ptolemy*) are numberless: who yet notwithstanding allowed this Opinion of *Pythagoras* to carry with it much probability, and indirectly confirmed it; inasmuch as that they rejected the common one as imperfect, defe-

ctive, and attended with many contradictions and difficulties.

Amongst these may be numbered Father ^{*} *Clavius*, a most learned Jesuite; who, although he refutes the Systeme of *Pythagoras*, yet acknowledgeth the Levity of the common Systeme, and he ingeniously confesseth, that for the removal of difficulties, in which the common Systeme will not serve the turn, Astronomers are forced to enquire after another Systeme, to the discovery of which, he doth very earnestly exhort them.

* *Cardan de rerum variet. Lib. 1. Cap. 1.*

* *P. Clavius in ultima suor. Operum editione.*

Now can there a better or more commodious Hypothesis be devised, than this of *Copernicus*, ? For this Cause many Modern Authors are induced to approve of, and follow it: but with much hæsitancy, and fear, in regard that it seemeth in their Opinion so to contradict the Holy Scriptures, as that it cannot

possibly be reconciled to them. Which is the Reason that this Opinion hath been long suppress, and is now entertained by men in a modest manner, ad as it were with a veiled Face; according to that advice of the Poet:

Judicium populi nunquam contempseris unus,

Ne nullis placeas, dum vis contemnere multos.

Upon consideration of which, (out of my very great love towards the Sciences, and my ardent desire to see the encrease and perfection of them, and the Light of Truth freed from all Errors and Obscurities) I began to argue with my self touching this Point after this manner: This Opinion of the *Pythagoreans* is either true, or false; If false, it ought not to be mentioned, and deserves not to be divulged: If true, it matters not, though it contradict all, as well Philosophers as Astronomers: And though for its establishment and reducement to use a new Philosophy

and Astronomy, (sounded upon new Principles and Hypothese) should be constituted: For the Authority of Sacred Scripture will not oppose it; neither doth one Truth contradict another. If therefore the Opinion of *Pythagoras* be true, without doubt God hath disposed and dictated the words of of Holy Writ in such a manner, that they may admit an apt sense and reconciliation with that Hypothesis. Being moved by these Reasons, and the probability of the said Opinion, I thought good to try whether Texts of Sacred Scripture might be expounded according to Theological and Physical Principles, and might be reconciled to it, so that (in regard that hitherto it hath been held probable) it may in after times, coming without scruple to be acknowledged for true, advance it self, and appear in publick with an uncovered Face, without any mans prohibition, and may lawfully and freely hold a Sacred intelligence with Holy Truth, so earnestly coveted and commended by good Men. Which designe, having hi-

therto been undertaken by none that I know, wil, I am perswaded, be very acceptable to the Studious of these Learnings, especially to the most Learned *GalilSo GalilSi*, chief Mathematician to the most Serene Grand Duke of *Tuscany*, and *John Kepler*, chief Mathematician to his Sacred and invincible Majesty, the Emperour, and to all that Illustrious, and much to be commended Academy of the *Lynceans* ; whom, if I mistake not, are all of this Opinion. Although I doubt not but they, and many other Learned Men might easily have found out these or the like Reconciliations of Scriptural expressions; to whom nevertheless I have thought fit (in respect of that profession which I have undertaken, upon the faith of my soul, and the propensity that I have towards Truth) to offer that of the Poet,

The Author
first Theologically
defendeth the
Earths Mobili-
ty, approved by
many of the Mo-
derns.

Nullius addictus jur are in verba Magistri.

And in testimony of my esteem to them and all the Learned, to communicate these my thoughts; confidently assuring my self that they will accept them, with a Candor equal to that where- with I have written them.

Therefore to come to the business: All Authorities of Di- vine Writ which seem to oppose this Opinion, are reducible to six Classes: The first is of those that affirm the Earth to stand still, and not to move: as *Psal. 92. He framed the round World so sure, that it cannot be moved* : Also *Psal. 104. Who laid the Foundations of the Earth, that it should not be removed for ever* : And *Ecclesiastes 1. But the Earth abideth for ever* : And others of the like sense.

The second is of those which attest the Sun to move, and

Revolve about the Earth; as *Psal. 19. (b) In them hath be set a*

Tabernacle for the Sun, which cometh forth as a Bridegroom out of his chamber, and rejoiceth as a Gyant to run his Course. It cometh forth from the uttermost part of the Heaven, and runneth about unto the end of it again; and there is nothing hid from the heat thereof. And Ecclesiast. 1. The Sun riseth, and the Sun goeth down, and hasteth to the place where be arose: it goeth towards the South, and turneth about unto the North. Whereupon the Suns Retrogradation is mentioned as a Miracle, Isaiah 38. The Sun returned ten degrees. And Ecclesiasticus 48. In his time the Sun went backward, and lengthened the life of the King. And for this reason it is related for a Miracle, in the Book of Josuah, that at the Prayers of that great Captain the Sun stood still, its motion being forbidden it, by him : Josh. 10. Sun stand thou still upon Gibeon. Now if the Sun should stand still, and the Earth move about it, its station at that time was no Miracle; and if Josuah had intended, that the light of the day should have been prolonged by the Suns splendour, he would not have said, Sun stand thou still, but rather Earth stand thou still.

(b) Or In Sole

*posuit tabernacu-
lum suum, accor-
ding to the Tran-
slation our Au-
thor followeth.*

The third Classis is of those Authorities which say, that Heaven is *above*, and the Earth *beneath* ; of which sort is that place of *Joel, chap. 2.* cited by *S. Peter, in Acts. 2. I will shew wonders in Heaven above, and signes in the Earth beneath*, with others of the like purport. Hereupon Christ at his Incarnation is said to *come down from Heaven* ; and after his Resurrection to have *ascended up into heaven*. But if the Earth should move about the Sun, it would be, as one may say, in Heaven, and consequently would rather be *above* Heaven than *beneath* it. And this is confirmed; For that the Opinion which placeth the Sun in the Centre, doth likewise place *Mercury* above the Sun, and *Venus* above *Mercury* ; and the Earth above *Venus*, together

with the Moon, which revolves about the Earth, and therefore the Earth, together with the Moon, is placed in the third Heaven. If therefore in Spherical Bodies, as in the World, *beneath* signi-

fies no more than to be neer to the centre, and *above*, than to approach the Circumference, it must needs follow, that for making good of Theological Positions concerning the Ascension and Descension of Christ, the Earth is to be placed in the centre, and the Sun, with the other Heavens in the Circumference; and not according to *Copernicus*, whose Hypothesis inverts this Order: with which one cannot see how the true Ascension and Descension can be consistent.

*In Spherieall
Bodies, Deorsum
is the Centre, and
Sursum the Cir-
cumference.*

The fourth Classis is of those Authorities which make Hell to be in the Centre of the World, which is the Common Opinion of Divines, and confirmed by this Reason, That since Hell (ta-

ken in its strict denomination) ought to be in the lowest part of the World, and since that in a Sphere there is no part lower than the Centre, Hell shall be, as it were, in the Centre of the World, which being of a Spherical Figure, it must follow, that

Hell is either in the Sun (forasmuch as it is supposed by this Hypothesis to be in the Centre of the World) or else supposing that Hell is in the Centre of the Earth, if the Earth should move about the Sun, it would necessarily ensue, that Hell, together with the Earth, is in Heaven, and with it revolveth about the third Heaven; than which nothing more absurd can be said or imagined.

*Hell is in the
centre of the
Earth, not of the
World.*

The fifth Classis, is of those Authorities which alwayes oppose Heaven to the Earth, and so again the Earth to Heaven; as if there were the same relation betwixt them, with that of the Centre to the Circumference, and of the Circumference to the Centre. But if the Earth were in Heaven, it should be on one side thereof, and would not stand in the Middle, and consequently there would be no such relation betwixt them; which nevertheless do, not only in Sacred Writ, but even in Common Speech, ever and every where answer to each other with a mutual Opposition. Whence that of *Genes. 1. In the beginning God created the Heaven and the Earth* : and *Psal. 115. The Heaven, even the Heavens are the Lords; but the Earth hath he given to the Children of men*: and our Saviour in that Prayer which he prescribeth to us, *Matth. 6. Thy will be done in Earth, as it is in Heaven*: and *S. Paul, 1 Corinth. 15. The first man is of the Earth, earthy; the second man is of Heaven, heavenly*: and *Coloss. 1. By him were all things created that are in Heaven, and that are in Earth* : and again, *Having made peace through the Blood of his Crosse for all things, whether they be things in Earth or things in Heaven*: and *Chap. 3. Set your affections on things above, not on things on the Earth* ; with innumerable other such

like places. Since therefore these two Bodies are always mutually opposed to each other, and Heaven, without all doubt, referreth to the Circumference, it must of necessity follow, that the Earth is to be adjudged the place of the Centre.

*Heaven and
Earth are always
mutually opposed
to each other.*

The sixth and last Classis is of those Authorities, which (being rather of Fathers and Divines, than of the Sacred Scripture) say, That the Sun, after the day of Judgment shall stand immoveable

in the East, and the Moon in the West. Which Station, if the *Pythagorick* Opinion hold true, ought rather to be ascribed to the Earth, than to the Sun; for if it be true, that the Earth doth now move about the Sun, it is necessary that after the day of Judgment it should stand immoveable. And truth is, if it must subsist without motion in one constant place, there is no reason

why it should rather stand in one site of that Place than in another, or why it should rather turn one part of it than another to the Sun, if so be that every of its parts without distinction, which is destitute of the Suns light, cannot choose but be dismal, and much worse affected than that part which is illuminated. Hence also would arise many other absurdities besides these.

*After the day
of Judgment the
Earth shall stand
immoveable.*

These are the Classes, &c. from which great assaults are made against the structure of the Pythagorick System; yet by that time I shall have first laid down six Maximes or Principles, as impregnable Bulwarks erected against them, it will be easie to batter them, and to defend the Hypothesis of *Pythagoras* from being attacked by them. Which before I propound, I do profess (with that Humility and Modesty which becometh a Christian, and a person in Religious Orders) that I do with reverence submit what I am about to speak to the Judgment of Holy Church. Nor have I undertaken to write these things out of any inducements of Temerity, or Ambition, but out of Charity and a Desire to be auxiliary to my neighbour in his inquisition after Truth. And there is nothing in all this Controversie maintained by me (that expect to be better instructed by those who profess these Studies) which I shall not retract, if any persons shall by solid Reasons & reiterated Experiments, prove some other Hypothesis to be more probable; but yet, until such time as they shall decide the Point, I shall labour all I can for its support.

My first and chiefest Maxime is this; When any thing is attributed in Holy Writ, to God, or to a Creature, thats not be- seeming to, or incommensurate with them, it must of necessity be received and expounded one, or more of the four following wayes; First, it may be said to agree with them *Metaphorically, and Proportionally, or by Similitude*. Secondly, *According to our manner of Considering, Apprehending, Conceiving, Vnderstanding, Knowing, &c.* Thirdly, *according to the Opinion of the Vulgar, and the Common way of Speaking:* to which Vulgar

Speech the Holy Ghost doth very often with much study accommodate it self. Fourthly, *In respect of our selves, and for that he makes himself like unto us.* Of each of these wayes there are these examples: God doth not walk, since he is Infinite and Immoveable; He hath no Bodily Members, since he is a Pure Act; and consequently is void of all Passion of Minde; and yet in Sacred Scripture, *Gen. 3. vers. 8.* it is said, *He walked in the cool of the day* : and *Job 22. vers. 14.* it is said, *He walketh in the* ^{^*} *Cir-*

cuit of Heaven: and in many other places coming, departing, making hast is ascribed to God; and likewise Bodily parts, as Eyes, Ears, Lips, Face, Voice, Countenance, Hands, Feet, Bowels, Garments, Arms; as also many Passions, such as Anger,

Sorrow, Repentance, and the like. What shall we say therefore? Without doubt such like Attributes agree with God (to use the Schoolmens words *Metaphorically, Proportionally, and by Similitude* : And touching Passions, it may be said, that God condescendeth to represent himself after that manner: as for instance, *The Lord is angry* ; i.e. *He revealeth himself as one that is angry: He grieved* ; i. e. *He revealeth himself, as one that is sorrowful: It repented him that he had made man* ; i.e. *He seemed as one that repented*. And indeed all these things are *Comparativè ad nos*, and in respect of us. So God is said to be in Heaven, to move in time, to shew himself, to hide himself, to observe and mark our steps; to seek us, to stand at the door, to knock at the door; not that he can be contained in a bodily place, nor that he is really moved, nor in time; nor that humane manners or customes can agree with him, save only according to our manner of Apprehension: This Conception of ours orderly distinguisheth these Attributes in him one from another, when, notwithstanding, they are one and the same with him: This Apprehension of ours divideth also his actions into several times, which, neverthesse, for the most part, are produced in one and the same instant: And this, to conclude, alwayes apprehendeth those things with some defect, which, notwithstanding are in God most perfect. For this reason doth the Sacred Scripture express it self *according to the Vulgar Opinion*, whilst it ascribes to the Earth Ends and Foundations, which yet it hath not; to the Sea a Depth not to be fathomed; to Death (which is a Privation, and consequently a Non entity) it appropriates Actions, Motion, Passions, and other such like Accidents, of all which it is deprived, as also Epithites and Adjuncts, which really cannot suit with it: *Is not the bitterness of Death past* ? 1 Sam. 15. 32. *Let death come upon them*, Psal 6. *He hath prepared the Instruments of Death*, Psal. 7. 14. *Thou raisest me from the gates of Death*, Psal. 84. *In the midst of the shadow of Death*, Psal. 23. *Love is strong as Death*, Cant. 8. 9. *The First-Born of Death*, Job 18. 13. *Destruction and Death say, &c.* Job 28. 22. And who knows not that the whole History of the rich Glutton doth consist of

the like phrases of *Vulgar Speech* ? So *Ecclesiasticus*, Chap. 27. vers. 11. *The godly man abideth in wisdom, as the Sun; but a fool changeth as the Moon* ; and yet the Moon according to the

real truth of the matter no wayes changeth, but abides the same for ever, as *Astronomers* demonstrate, one half thereof remaining alwayes lucid, and the other alwayes opacous. Nor at any time doth this state vary in it, unlesse *in respect of us*, and according to the opinion of the *Vulgar*. Hence it is cleer, that the holy Scripture speaks according to the common form of speech u-

sed amongst the unlearned, and according to the appearance of things, and not according to their true Existence. In like manner *Genes.* 1. in the description of the Creation of all things, the Light is said to be made first of all, and yet it followeth in the Text, *And the Evening and the Morning made the first day* : and a little after the several Acts of the Creation are distinguished and assigned to several days, and concerning each of them it is said in the Text, *And the Evening and the Morning made the second day* ; and then *the third day, the fourth day, &c.* Hence many doubts arise, all which I shall propound according to the common Systeme, that it may appear even from the *H* ypothesis of that Systeme, that the sacred Scripture sometimes, for the avoyding of emergent difficulties, is to be understood in a vulgar sense and meaning, and in respect of us, and not according to the nature of things. Which distinction even *Aristotle* himself

seemeth to have hinted, when he saith, ^{*} *Some things are more intelligible to us; others by nature, or secundum se.*

* Circa Cardines CSli.

Luke 16.

Alia sunt notiora nobis, alia, notiora natura, vel secundum se, *Ar st. lib. 1. Phys.*

First therefore; If the light were made before heaven, then it rolled about without heaven to the making of the distinction of Day and Night. Now this is contrary to the very doctrine of these men, who affirm that no CSlestial Body can be moved unlesse *per accidens*, and by the motion of *H* eaven, *and as a knot in a board at the motion of the board.* Again, if it be said, that the Light was created at the same time with *H* eaven, and began to be moved with *H* eaven, another doubt ariseth, that likewise opposeth the foresaid common *Hypothesis*: For it being said, that Day and Night, Morning and Evening were made, that same

is either in respect of the Universe, or onely in respect of the Earth and us. If so be that the Sun turning round (according to the *Hypothesis* of the Common Systeme) doth not cause the Night and Day, but only to opacous Bodies which are destitute of all other light, but that of the Sun, whilst in their half part (which is their *HemisphSre*) and no more, (for that the Suns light passeth over but one half of an opacous Body, unless a very small matter more in those of lesser bulk) they are illuminated by the Suns aspect, the other half remaining dark and tenebrose, by reason of a shadow proceeding from its own Body. Therefore the distinction of dayes by the light of heaven, according to the description of them in the sacred Scriptures, must not be understood *absolutely*, and *secundum se*, and *Nature herself*; but in respect of the Earth, and of us its inhabitants, and consequently *secundum nos*. 'Tis not therefore new, nor unusual in sacred Scripture to speak of things *secundum nos*, and onely *in respect of us*, and *secundum apparentiam*; but not *secundum se*, and *reinataram*, or *Absolutely* and *Simply*.

And if any one would understand these Days of sacred Scripture, not only *secundum nos*, but also *secundum naturam*, as circulations of CSlestial Light returning to the self same point from whence it did at first proceed; so as that there needs no respect to be had to Night or to ^{*} Darknesse, for which sole rea-

son we are fain to imbrace the Interpretation of sacred Scripture *secundum nos* ; In opposition to this we may thus argue: If the sacred Scripture be understood to speak *absolutely*, of iterated and successive circulations of light, and not *respectu nostri*, as if these words *Evening and Morning* had never been inserted, which in their natural acceptation denote the Suns habitude to us and to the Earth: For that the *Morning* is that time when the Sun begins to wax light, and to rise above the *Horizon* in the East, and become visible in our *HemisphSre*, and *Evening* is the time in which the Sun declines in the West, and approacheth with its light neerer to the other opposite *Horizon* and *HemisphSre*, which is contiguous to this of ours. But the word *Day* is a Co-relative to the word *Night*. From hence therefore it evidently appeareth, that these three words *Evening, Morning, and Day*, cannot be understood of a Circulation of Light *secundum se*, and *absolutè*, but only *secundum nos*, and *respectu nostri* ; and in that sense indeed the *Morning* and *Evening* do make the *Night* and *Day*,

* Aut ad Umbram

In like manner, *Gen. 1. 16.* it is said, *God made two great Lights; the greater Light to rule the Day, and the lesser Light to rule the Night, and the Stars.* Where both in the Proposition and in the specification of it, things are spoken which are very disagreeing with CSlestial Bodies. Therefore those words are in that place to be interpreted according to the foresaid Rules; namely, according to the third and fourth; so that they may be said to be understood *according to the sense of the vulgar, and the common way of speaking*, which is all one, as if we should say, *secundum apparentiam*, and *secundum nos, vel respectu nostri*. For first, it is said in the Proposition, *And God made two great Lights* ; meaning by them the Sun and Moon, whereas according to the truth of the matter these are not the Greater Lights; For al-

though the Sun may be reckoned amongst the Greater, the Moon may not be so, unless *in respect of us*. Because amongst those that are absolutely the Greater, and a little lesser than the

Sun (nay in a manner equal to it) and far bigger than the Moon, we may with great reason enumerate *Saturn*, or some of the Fixed Stars of the first Magnitude, such as *Canopus*, (otherwise called *Arcanar*) in the end of a River; or the *Little Dog* in the mouth of the *Great Dog* ; or the Foot of *Orion*, called *Rigel* ; or his *Right shoulder*, or any other of that Magnitude.

Therefore the *two great Lights* are to be understood in respect of us, and according to vulgar estimation, and not according to the true and real existence of such Bodies. Secondly, in the specification of the Proposition it is said, *The greater Light to rule the Day*; hereby denoting the Sun; in which the verbal sense of Scripture agreeth with the Truth of the Thing; For that the Sun is the Greatest of all Luminaries, and Globes. But that which followeth immediately after, *And the lesser Light to rule the Night*, meaning the Moon, cannot be taken in the true and real sense of the words: For the Moon is not the lesser Light, but *Mercury*; which is not only much lesser than the Moon, but also than any other Star. And if, again, it be said, That the Holy Text doth not speak of the Stars, but onely of the Luminaries, for that presently after they are mentioned apart, *And the Stars*; and that what we say is true touching the comparison of the Stars amongst themselves, but not in respect of the Luminaries, namely, the Sun and Moon: This reply doth discover a man to be utterly ignorant in these Studies, and such who having not the least smattering in them, doth conceive an absurd and erroneous Opinion of the Celestial Bodies. For the Moon and Sun, considered in themselves, and as they appear to us, if they should be a far greater distance from us, than indeed they are, would be no other, nor would appear to us otherwise than Stars, as the rest do in the Firmament. But Great Luminaries they neither

are, nor seem to be, save only *in respect of us*: And so, on the other side, the Stars, as to themselves, are no other than so many Suns and so many Moons; yet are so far remote from us, that by reason of their distance they appear thus small, and dim of light, as we behold them. For the greater and lesser distance of heavenly Bodies (*cæteris paribus*) doth augment and diminish their appearance both as to Magnitude and Light. And therefore the words which follow in that place of *Genesis*, *And the Stars* (as distinguishing the Stars from the Sun and Moon) are to be taken in no other acceptation than that which we have spoken of, namely, *according to the sense of the Vulgar, and the common manner of speech*. For indeed, according to the truth of the matter, all Celestial Bodies, being shining Globes, are of a vast bigness, to which if we should be so neer as we are to the Moon, they would seem to us of as great, yea a greater magni-

tude than the Moon: As likewise on the contrary, if we were as far distant from the Sun and Moon, as we are from them, both Moon and Sun would shew but as stars to us. And yet the splendor of the Sun would doubtless be greater *intensivè* than that of any other star. For, although it should be granted that some stars (as those of the Fixed that twinkle) do shine of them—

selves, and by their own nature, as the Sun, that derives not its light from others (which yet remains undecided and doubtful) and borrow not their light from the Sun; Nevertheless since the brightness of none of the stars may be compared with the Sun's splendour, which was created by God first, and before all other Luminaries, in the highest kind of Light, it would therefore notwithstanding follow, that none of those stars, although placed in the same proximity to us with the Sun, and therefore appearing to us of the same Magnitude as the Sun, can bestow upon us so much Light as we receive from the Sun: As on the contrary, the Sun, at the same remoteness from us as they are, would indeed, as to its Magnitude, appear to us as one of those stars, but of a splendour much more *intense* than that of theirs.

So that, now, the Earth is nothing else but another Moon or star, and so would it appear to us, if we should behold it from a convenient distance *on high*. And in it might be observed (in that variety of Light and Darkness which the Sun produceth in it by making Day and Night) the same difference of Aspects that are seen in the Moon, and such as are observed in tricorporate *Venus*; in like manner also 'tis very probable that the same might be discerned in other Planets, which shine by no light of their own, but by one borrowed from the Sun. What ever therefore may touching these matters be delivered in the sacred Leaves or the common speech of men, dissenting from the real truth, it ought (as we have said before) absolutely to be received and understood *secundum vulgi sententiam, & communem loquendi & concipiendi stylum*.

*Which are really
the great Lights
in Heaven.*

*The Sun, Moon,
and Stars are one
& the same thing.*

*The Earth is a-
nother Moon or
Star.*

And so, to return to our purpose, if, all this considered, the *Pythagorian* opinion be true, it will be easie, according to the same Rule, to reconcile the authority of sacred Scriptures with it, however they seem to oppose it, and in particular those of the first and second Classis, *scilicet* by my first *Maxime*: For that in those places the holy Records speak according to our manner of understanding, and according to that which appeareth in respect of us; *For thus it is with those Bodies, in comparison of us, and as they are described by the vulgar and commune way of humane Discourse; So that the Earth appears as if it were standing still and immoveable, and the Sun, as if it were circumambient about her.* And so the Holy Scripture is used in the Commune and Vulgar way of speaking; because in respect of our sight, the Earth seems rather to stand fixed in the Centre, and the Sun to circumsolve about it, than otherwise: as it happens to those that are putting off from the Banks of a River to whom the shose seems to move backwards, and go from them: but they do not perceive (which yet is the truth) that they themselves go forwards.

Which fallacy of our sight is noted, and the Reason thereof assigned by the Opticks; upon wich, as being strange to, and besides my purpose, I will not stay) and on this account is *Aeneas* brought in by *Virgil*, saying;

*Why the Sunne
seemeth to us to
move, & not the
Earth.*

Aeneid. 3.

Provehimur portu, terræque urbesque recedunt.

But it will not be amiss to consider why the sacred Scripture doth so studiously comply with the opinions of the Vulgar, and why it doth not rather accurately instruct men in the truth of the matters, and the secrets of Nature. The Reason is, first, the benignity of Divine Wisdome, whereby it sweetly accomodates it self to all things, in proportion to their Capacity and Nature. Whence in Natural Sciences, it useth natural and necessary causes, but in Liberal Arts it worketh liberally, upon Generous Persons after a sublime and lofty manner; upon the Common People, familiarly and humbly; upon the Skilful, learnedly; upon the Simple, vulgarly; and so on every one, according to his condition and quality. Secondly, because it is not its Intention to fill our mindes in this life with vain and various curiosities, which might occasion our doubt and suspense. For the

truth is, *(a) He that increaseth knowledge, increaseth sorrow.*

Moreover it did not only permit, but even decree, thatth e World should be very much busied in Controversies and Disputations, and that it should be employed about the uncertainty of

things; according to that saying of *Ecclesiastes (b) He hath set the World in their heart; so that no man can find out the work that God maketh from the beginning unto the end.* And touching those doubts, God will not permit that they shall be discovered

to us before the end of the World: *(c) At which time he will*

bring to light the hidden things of darknesse: But Gods onely scope in the sacred Scripture is to teach men those things which conduce to the attainment of Eternal Life; which having ob-

tained, *(d) We shall see him face to face: (e) and shall be*

like him, for we shall see him as he is. Then shall he clearly *à Priori* make known unto us all those Curiosities, and Dogmatical Questions, which in this life, *(f) in which we see through a*

Glasse darkly, could be known by us but imperfectly and *à poste-riori*, and that not without much pains and study. For this cause the Wisdome of God, revealed to us in the sacred Leaves, is not stiled Wisdome absolutely, but *(g) Saving Wisdome ;*

Its onely end being to lead us to salvation. And S. *Paul* preaching to the *Corinthians*, saith; *(h) I determined to know nothing*

among you, save Jesus Christ, and him crucified: whereas notwithstanding he was thorowly instructed, and profoundly learned

in all humane Sciences; but making no account of these things he professeth that it was his desire to teach them no more but the way to Heaven. Hence is that which God speaketh to us by

Isaiah, (i) Ego Dominus Deus, docens te utilia [I am the Lord thy God which teacheth thee profitable things:] Where the *Glossary* addeth, *non subtilia* [not subtilities.] For God neither taught us, Whether the *Materia Prima* of Heaven, and the Elements be the same; nor Whether *Cominual* be composed of Indivisibles, or whether it be divisible *in infinitum* ; nor, whether the Elements are formally *mixt* ; nor how many the Celestial Spheres, and their Orbs are; Whether there be Epicycles or Eccentrics; nor the Vertues of Plants and Stones; nor the Nature of Animals; nor the Motion and Influence of the Planets; nor the Order of the Universe; nor the Wonders of Minerals, and universal Nature: but only [*utilia*:] things profitable, to wit, his Holy Law ordained to the end, that we being put into possession of Blessedness, might at length be made capable of all perfect knowledge, and the vision of the whole Order and admirable Harmony, as also the Sympathy and Antipathy of the Universe and its parts, *in his Word*, wherein all those things shall most clearly and distinctly, then, appear to us, which mean while, in this life, he hath remitted (as far as its ability reacheth) to humane search and enquiry: But it was not his purpose to determine any thing, directly or indirectly, touching the truth of them. Because as the knowledge thereof would little or nothing profit Us, but might in some cases prove prejudicial; so the ignorance thereof can doubtless be no detriment, but may in some cases be very beneficial to us. And therefore by his most admirable Wisdome it comes to pass, that though all things in this World are dubious, uncertain, wavering, and perplexed; yet his Holy Faith alone is most certain; and although the opinions about Philosophical and Doctrinal points be divers, there is in the Church but one Truth of Faith and Salvation. Which Faith, as necessary to Salvation, is so ordered by Divine Providence, that it might not only be indubitable, but also unshaken, sure, immutable, and manifest to all men: the infallible Rule of which he hath appointed the Holy Church, that is washed with his precious Blood, and governed by his Holy Spirit, to whom belongs our Sanctification, as being his work. This there-

fore is the Reason why God would have Speculative Questions, which nothing conduce to our Salvation and Edification, and why the Holy Ghost hath very often condescended to Vulgar Opinions and Capacities, and hath discovered nothing that is singular or hidden to us, besides those things that pertain to Salvation. So that consequently it is clear by what hath been said, how and

why nothing of certainty can be evinced from the foresaid Authorities to the determining of Controversies of this Nature; as also with what Reason from this first *Axiome* the Objections of the first and second Classe are easily answered, as also any other Authority of sacred Scripture produced against the *Pythagorian* and *Copernican* Systeme so long as by other proofs it is true.

(a) Eccles. c. 1. v.
ult.

(b) Chap. 3. v. 11.

(c) 1 Cor. c. 4. v. 5

(d) 1 Cor. c. 13. v.
12.

(e) 1 John c. 3. v.
2.

(f) 1 Cor. c. 13. v.
12.

(g) Ecclesiast. 15. 3

(h) 1 Cor. c. 2. v. 2

(i) Isa. c. 48. v. 17.

1 Thess. 4.

And the Authorities of the second Classe in particular by this same Maxime, *Of the ordinary manner of apprehending things as they appear to us, and after the common way of speaking*, may be thus reconciled and expounded; namely, Oftentimes an Agent is commonly, and not improperly said to move, (though it have no motion) not because it doth indeed move, but *by extrinsick denomination*, because receiving its influence and action at the motion of the Subject; the Form and Quality infused to the Subject by the said Agent doth likewise move. As for ex-

ample, a Fire burning in a Chimney is an immoveable Agent, before which a man oppressed with cold sits to warm himself who being warmed on one side, turns the other to the Fire, that he may be warmed on that side also, and so in like manner he holds every part to the Fire successively, till his whole body be warmed. 'Tis clear, that although the Fire do not move, yet at the Motion of the Subject, to wit the Man, who receiveth the heat and action of the Fire, the Form and Quality of its Heat doth move *singulatim, & per partes*, round about the mans body, and alwayes seeketh out a new place: and so, though the Fire do not move, yet by reason of its effect, it is said to go round all the parts of the Mans body, and to warm it, not indeed by a true and real motion of the Fire it self, since it is supposed (and that not untruly) not to move, but by the motion to which the Body is excited, out of a desire of receiving the heat of the Fire in each of its parts. The same may be applied to the Illumination impressed successively on the parts of any Globe, which moves Orbicularly at the aspect of a shining immoveable Light. And in the same manner may the Sun be said to rise and set, and to move above the Earth, although in reality he doth not move, nor suffer any mutation; that is to say, Inasmuch as his Light (which effect is the Form and Quality proceeding from him, as the Agent, to the Earth as the Subject) doth sensibly glide forwards, by reason of the Orbicular motion of the Earth; and doth alwayes be take it self to some new place of her surface; upon which ground he is truly said (*secundum vulgarem sermonem*) to move above, and revolve about the Earth: Not that the Sun doth move, (for by this Opinion we affirm the Earth to move, that it may receive the Sun one while in one, another while in another part of it) but that at the motion of the Earth

her self a contrary way, the Quality diffused into her, and impressed upon her by the Sun, namely the Light of the Day is moved, which riseth in one part of her, and sets in another contrary to that, according to the nature and condition of her motion; And for this reason the Sun it self by consequence is said to rise and set, (which notwithstanding *ex Hypothesi* stands immovable) and that no otherwise then *per denominationem extrinsecam*, as hath been said.

After this manner the command of *Joshuah*, *Sun stand thou*

still, and the Miracle of the Suns cessation of Motion wrought by him, may be so understood, as that not the Solar Body properly, but the Suns splendour upon the Earth stood still; so that not the Sun it self, (being of it self before that time immovable) but the Earth that receiveth its splendour, stayed her Motion; which, as she incessantly pursuing her ordinary Motion to-

wards the East, ^{*} called up the Light of the Sun in the West, so standing still, the Suns light imprest upon it likewise stood still.

After the same maner pioportionally is that Text of *Isaiah* explained, touching the Suns going ten degrees back ward upon the Dial of *Ahaz*. So (which may serve for another Example) the Hand being moved about the flame of a burning Candle that stands still, the Light moveth on the Hand, that is to say, the said Hand is illustrated now in one part, anon in another, when as the Candle it self all the while removes not out of its place: whereupon *per denominationem extrinsecam*, the said Light may be affirmed to rise and set upon the Hand, namely, by the sole motion of the said Hand, the Candle it self never moving all the while. And let this suffice for the explanation of my first Principle or *Maxime*, which by reason of its difficulty and extraordinary weight required some prolixity in the handling of it.

Joshua c. 10.

ver. 12.

* *expected.*

Isa. c. 38. v. 8.

My second Maxime is this, Things both Spiritual and Corporeal, Durable and Corruptible, Moveable and Immoveable, have received from God a perpetual, unchangeable, and inviolable Law, constituting the Essence and Nature of every one of them: according to which Law all of them in their own Nature persisting in a certain Order and Constancy, and observing the same perpetual Course, may deservedly be stiled most Stable and Determinate. Thus Fortune (than which there is nothing in the World more inconstant or fickle) is said to be constant and unalterable in her continual volubility, vicissitude, and inconstancy, which was the occasion of that Verse,

Et semper constans in levitate sua est.

And thus the motion of Heaven (which by the constan Law

of Nature ought to be perpetual) may be said to be immutable and immoveable, and the Heavens themselves to be immoveably moved, and Terrene things to be immutably changed, because those never cease moving, nor these changing. By this Principle or Maxime all difficulties belonging to the first Classis are cleared, by which the Earth is said to be stable and immoveable, that is, by understanding this one thing, That the Earth, as to its own Nature, though it include in it self a local Motion, and that threefold, according to the opinion of *Copernicus* (*scilicet* Diur-

nal, with which it revolveth about its own Centre; Annual, by which it moveth through the twelve Signes of the Zodiack, and the motion of Inclination, by which its Axis is always opposed to the same part of the World) as also other Species of Mutation, such as Generation and Corruption, Accretion and Diminution, and Alteration of divers kinds; yet in all these she is stable & constant, never deviating from that Order which God hath appointed her, but moveth continually, constantly and immutably, according to the six before named Species of Motion.

*Several Motions
of the Earth according to Copernicus.*

My third Maxime shall be this; When a thing is moved according to some part of it, and not according to its whole, it cannot be said to be *simply & absolutely* moved, but only *per accidens*, for that stability taken simply & absolutly do rather accord with the same. As for example, if a Barrel or other measure of Water be taken out of the Sea, and transferred to another place, the Sea may not therefore *absolutely & simply* be said to be removed from place to place; but only *per accidens*, and *secundum quid*, that is, according to a part of it, but rather (to speak simply) we should say that the Sea cannot be carried or moved out of its proper place,, though as to its parts it be moved, and transferred to & again. This Maxime is manifest of it self, and by it may the Authorities be explained which seem to make for the immobility of the Earth in this manner; namely, The Earth *per se & absolutè* considered as to its *Whole*, is not mutable, seeing it is

neither generated nor corrupted neither increased nor diminished;
neither is it altered *secundum totum*, but only *secundum partes*.

Now it plainly appears, that this is the genuine and true Sense of what is ascribed to it out of *Ecclesiastes, cap. 1. v. 4. One Generation passeth away, and another Generation cometh, but the Earth abideth for ever* : as if he should say; although the Earth, according to its parts, doth generate and corrupt, and is liable to the vicissitudes of Generation and corruption, yet in reference to its Whole it never generateth nor Corrupteth, but abideth immutable for ever:
Like as a Ship, which though it be mended one while in the Sail-yard, another while in the Stern, and afterwards in other parts it yet remains the same Ship as it was at first. But tis to be ad-

vertized, that that Scripture doth not speak of a Local Motion, but of Mutations of another nature; as in the very substance, quantity or quality of the Earth it self. But if it be said, that it is to be understood of a Local Motion, then it may be explained by the insuing Maxime, that is to say, a respect being had to the natural Place assigned it in the Universe, as shall be shewed by and by.

The Earth Secundum Totum is Immutable, though not Immoveable.

The fourth Axiome is this; That every Corporeal thing, moveable or immoveable from its very first Creation, is allotted its proper and natural place; and being drawn or removed from thence, its motion is violent, and it hath a natural tendency to move back thither again: also that nothing can be moved from its natural place, *secundum Totum* ; For most great and dreadful mischiefs would follow from that perturbation of things in the Universe. Therefore neither the whole Earth, nor the whole

Water, nor the whole Air can *secundum totum* be driven or forced out of their proper place, site, or Systeme in the Universe, in respect of the order and disposition of other mundane Bodies. And thus there is no Star (though Erratick) Orb or Sphere that can desert its natural place, although it may otherwise have some kind of motion. Therefore all things, how moveable soever, are notwithstanding said to be stable and immoveable in their proper place, according to the foresaid sense, *i.e. secundum totum* ; For nothing hinders, but that *secundum partes* they may some way move; which motion shall not be natural, but violent. Therefore the Earth, although it should be moveable, yet it might be said to be immoveable, according to the precedent Maxime, for that its neither moved in a right Motion nor out of the Course assigned it in its Creation for the standing Rule of its motion; but keep within its own site, being placed in that which is called the Grand Orb, above *Venus*, and beneath *Mars*,

and being in the middle betwixt these (which according to the common opinion is the Suns place) it equally and continually moveth about the Sun, and the two other intermediate Planets, namely *Venus* and *Mercury*, and hath the Moon (which is another Earth, but Ætherial, as *Macrobius* after some of the ancient Phi-

losophers, will have it) about it self. From whence, inasmuch as she persisteth uniformly in her Course, and never at any time departeth from it, she may be said to be stable and immoveable: and in the same sense Heaven likewise, with all the Elements, may be said to be immoveable.

The Earth cannot Secundum Totum, remove out of its Natural Place.

The Natural Place of the Earth.

The Moon is an Ætherial Body.

The fifth Maxime followeth, being little different from the former. Amongst the things created by God, some are of such a nature, that their parts may be *ab invicem*, or by turns, separated from themselves, and dis-joyned from their Whole;

others may not, at least, taken *collectively* : now those are perishable, but these perpetual. The Earth therefore since it is reckoned amongst those things that are permanent, as hath

been said already, hath its parts, not dissipable, nor *ab invicem*, separable from its Centre (whereby its true and proper place is assigned it) and from its whole, taken collectively: because according to its whole it is always preserved, compact, united, and cohærent in it self, nor can its parts be separated from the Centre, or from one another, unless it may so fall out *per accidens*, and violently in some of its parts; which afterwards, the obstacle being removed, return to their Natural Station spontaneously, and without any impulse. In this Sense therefore the Earth is said to be Immoveable, and Immutable: yea even the Sea, Aire, Heaven, and any other thing (although otherwise moveable) so long as its parts are not dissipable and seperable, may be said to be Immoveable, at least taken *collectively*. This Principle or Maxim differeth from the precedent only in that this refers to the parts in order to *Place*, and this, in order to the Whole.

The Earths Centre keepeth it in its Natural Place.

From this Speculation another Secret is discovered. For hence

it is manifest wherein the proper and genuine formality of the Gravity and Levity of Bodies consisteth; a point which is not so clearly held forth, nor so undeniably explained by the Peripatetic Philosophy. *Gravity* therefore is nothing else according to the Principles of this new Opinion, than a certain power and appetite of the Parts to rejoyne with their Whole, and there to rest as in their proper place. Which Faculty or Disposition is by Divine Providence bestowed not only on the Earth, and Terrene Bodies, but, as is believed, on Celestial Bodies also, name-

ly the Sun, Moon, and Stars; all whose parts are by this Impulsion connected, and conserved together, cleaving closely to each other, and on all sides pressing towards their Centre, until they come to rest there. From which Concourse and Compression a

Sphærical and Orbicular Figure of the Cælestial Orbes is produced, wherein by this occult Quality naturally incident to each of them they of themselves subsist, and are alwayes preserved. But *Levity* is the Extrusion and Exclusion of a more tenuose and thin Body from the Commerce of one more Solid and

dense, that is Heterogeneal to it, by vertue of Heat. Whereupon, as the Motion of Grave Bodies is *Compressive*, so the Motion of Light Bodies is *Extensive*: For its the propperty of Heat to dilate and rarify those things to which it doth apply, conjoine and communicate it self. And for this reason we find Levity and Gravity not only in respect of this our Terrestrial Globe, and the Bodies adjacent to it, but also in respect of those Bodies which are said to be in the Heavens, in which those parts which

by reason of their proclivity make towards their Centre are
Grave, and those that incline to the Circumference Light. And
so in the Sun, Moon, and Starrs, there are parts as well Grave as

Light. And consequently Heaven it self that so Noble Body,
and of a fifth Essence, shall not be constituted of a Matter diffe-
rent from that of the Elements, being free from all Mutation in
it' s Substance, Quantity, and Quality: Nor so admirable and

excellent as *Aristotle* would make us to believe; nor yet a solid
Body, and impermeable; and much lesse (as the generality of
men verily believe) of an impenetrable and most obdurate Den-
sity: but in it (as this Opinion will have it) Comets may be ge-
nerated; and the Sun it self, as tis probable, exhaling or attract-
ing sundry vapours to the surface of its Body, may perhaps pro-
duce those Spots which were observed to be so various, and irre-

gular in its *Discus* : of which *Galilæus* in a perticular ^{*} Treatise
hath most excellently and most accurately spoken; insomuch,
that though it were not besides my present purpose, yet it is con-
venient that I forbear to speak any thing touching those matters,
least I should seem to do that which he hath done before me: But
now if there be found in the Sacred Scriptures any Authority
contrary to these things, it may be salved by the foresaid Argu-
ments Analogically applied. And further more it may be said,
that that Solidity is to be so understood, *as that it admits of no
vacuum, cleft, or penetration from whence the least vacuity might
proceed* For the truth is, as that cannot be admitted in bodily
Creatures, so it is likewise repugnant to Heaven it self, being
indeed a Body of its own Nature the most Rare of all o-

thers, and tenuose beyond all Humane Conception, and happily
hath the same proportion to the Aire, as the Aire to the
Water.

*Gravity and Le-
vity of Bodies,
what it is.*

All CSlestial Bo-

*dies have Gravity
and Levety.*

*Compressive Ma-
tion, proper to
Gravity; the Ex-
tensive, to Levity.*

*Heaven is not
composed of a fift
Essence differing
from the matter of
inferior Bodies.*

*Nor yet a Solid
or dense Body but
Rare.*

* Delle Macchie
solarj.

* *Vnius Corporis
fimplicis, unus est
motus simplex, et
huic duæ species,
Rectus & Circu-
laris: Rectus du-
plex à medio, &
ad medium; pri-
mus levium, ut A-
eris & Ignis: se-
cundus gravium,
ut Aquæ & Ter-
ræ: Circularis,
quiest circa medi-
um competit CSlo,
quod neque est
grave, neque leve.
Arist. de CSlo.
Lib. 1.*

It is clear also from these Principles how false these words of Aristotle are, that: *Of one simple Body, there is one simple Motion ; and this is of two kindes, Right and Circular: the Right is twofold, from the medium, and to the medium; the first of Light Bodies, as the Aire and Fire: the second of Grave Bodies, as the Water and Earth: the Circular, which is about the medium, belongeth to Heaven, which is neither Grave nor Light* : For all this Philosophy is now forsaken, and of it self grown into dis-esteem; for though it be received for an unquestionable truth in this new Opinion, that to a simple body appertains one only simple Moti-

on, yet it granteth no Motion but what is Circular, by which alone a simple body is conserved in its naturall Place, and subsists in its Unity, and is properly said to move *in loco* [*in a place* :] whereby

it comes to pass that a Body for this reason doth continue to move in it self, [*or about its own axis* ;] and although it have a Motion,

yet it abideth still in the same place, as if it were perpetually immoveable. But right Motion, which is properly *ad locum*, [*to a place*] can be ascribed only to those things which are out of their naturall place, being far from union with one another, and from unity with their whole, yea that are seperated and divided from it: Which being that it is contrary to the Nature and forme of the Universe, it necessarily followeth, that right Motion doth in

short sute with those things which are destitute of that perfection, that according to their proper Nature belongeth to them, and which by this same right Motion they labour to obtaine, untill they are redintegrated with their Whole, and with one another, and restored to their Naturall place; in which at the length, having obtained their perfection, they settle and remaine immoveable. Therefore in right Motions there can be no Uniformity,

nor simplicity; for that they vary by reason of the uncertaine Levity or Gravity of their respective Bodyes: for which cause they do not persevere in the same Velocity or Tardity to the end which they had in the beginning. Hence we see that those things whose weight maketh them tend downwards, do descend at first with a slow Motion; but afterwards, as they approach neerer and neerer to the Centre, they precipitate more and more swiftly. And on the otherside, those things which by reason of their lightness are carried upwards (as this our Terrestriall fire, which is nothing else but a smoak that burneth, and is inkindled into a flame) are no sooner ascended on high, but, in almost the self-same moment, they fly and vanish out of sight; by reason of the rarefaction and extension, that they as soon as they acquire, are freed from those bonds which violently and against their own Nature

kept them under, and deteined them here below. For which reason, it is very apparent, that no Right Motion can be called Simple, not only in regard that (as hath been said) it is not ^{*} even and uniforme, but also because it is mixt with the Circu-

lar, which lurketh in the Right by an occult consent, *scilicet* by reason of the Natural affection of the Parts to conforme unto their Whole. For when the Whole moveth Circularly, it is requisite likewise that the Parts, to the end that they may be uni-

ted to their Whole, (howbeit *per accidens* they are sometimes moved with a Right Motion) do move (though not so apparently) with a Circular Motion, as doth their Whole. And thus at length we have evinced that Circular Motion only is Simple,

Uniform and ^{*}Æquable, and of the same tenor [*or rate*] for that

it is never destitute of its interne Cause: whereas on the contrary, Right Motion, (which pertains to things both Heavy and Light) hath a Cause that is imperfect and deficient, yea that ariseth from Defect it self, and that tendeth to, and seeketh after

nothing else but the end and termination of it self: in regard that Grave and Light Bodies, when once they have attained their proper and Natural Place, do desist from that Motion to which they were incited by Levity and Gravity. Therefore: since Cir-

cular Motion is proper *to the Whole*, and Right Motion *to the Parts*, these differences are not rightly referred to Motion, so as to call one Motion Right, another Circular, as if they were not consistent with one another: For they may be both together, and

that Naturally, in the same Body; no lesse than it is equally Natural for a Man to participate of Sense and Reason, seeing that these differences are not directly opposite to one another. Hereupon Rest and Immobility only are opposed to Motion; and not one Species of Motion to another. And for the other differences *à medio*, *ad medium*, and *circa medium*, they are distinguished not *really*, but only *formally*, as the Point, Line and Superficies, none of which can be without the other two, or without a Body. Hence it appears, that in as much as this Philosophy differs from that of *Aristotle*, so in like manner doth this New Cosmographical System vary from the Common one, that hath been hitherto received. But this by the way, upon occasion of explaining the Fifth Maxim: For as to the truth or falshood of these foregoing Positions (although I conceive them very probable) I am resolved to determine nothing at present, neither shall I make any farther enquiry into them.

* *Vide Copernicū de Revolutionibus CSlest.*

*Simple Motion
peculiar to only
Simple Bodies.*

*Right Motion
belongeth to Im-
perfect Bodies, and
that are out of
their natural Pla-*

ces.

*Right Motion
cannot be Simple.*

*Right Motion is
ever mixt with
the Circular.*

* *æquabilis.*

* *Even.*

*Circular Mo-
tion is truly Sim-
ple and Perpetual.*

*Circular Mo-
tion belongeth to
the Whole Body,
and the Right to
its parts.*

*Circular and
Right Motion co-
incedent, and may
consist together in
the same Body.*

The Sixth and Last Maxim is this. Every thing is Simply denominated such as it is in comparison of all things, or of many things which make the greater number of that kinde, but not in respect of a few which make but the lesser part of them. As, for instance, a Vessel shall not be called absolutely Great because it is so whilst it is compared with two or three others: but it shall be said to be great absolutely, and will be so, if it exceed in magnitude all individuals, or the greater part of them. Nor again shall a Man be said to be absolutely Big, because he is bigger than a Pigmey; nor yet absolutely Little, because lesse than a Gyant: but he shall be termed absolutely Big or Little in com-

parison of the ordinary Stature of the greater part of Men. Thus the Earth cannot absolutely be said to be High or Low for that it is found to be so in respect of some small part of the Universe; nor again shall it be absolutely affirmed to be High, being compared to the Centre of the World, or some few parts of the Universe, more near to the said Centre, as is the *Sun, Mercury* or *Venus* :

but it shall receive its absolute denomination according as it shall be found to be in comparison of the greater number of the Spheres and Bodies of the Universe. The Earth therefore, in comparison of the whole Circuit of the Eighth Sphære which in—

cludeth all Corporeal Creatures, and in comparison of *Jupiter*, *Mars*, and *Saturn* together with the *Moon*, and much more in comparison of other Bodies, (if any such there be) above the Eighth Sphere and especially the Empyrial Heaven, may be truly said to be in the lowest place of the World, and almost in the Centre of it; nor can it be said to be above any of them, except the *Sun*, *Mercury* and *Venus* : So that one may apply unto it the name of an Infime and Low, but not a Supreme or Middle Body. And so to come down from Heaven, especially the Empyrian, to it (as it is accepted in the Descent of Christ from Heaven to his Holy Incarnation) and from it to go up to Heaven (as in Christs return

to Heaven in his Glorious Ascention) is truly and properly to *Descend* from the Circumference to the Centre, and to *ascend* from the parts which are nearest to the Centre of the World to its utmost Circumference. This Maxim therefore may easily and according to truth explain Theologicall Propositions: and this is so much the more confirmed, in that (as I have observed) almost all Texts of Sacred Scripture which oppose the Earth to Heaven, are most conveniently and aptly understood of the Empyrial Heaven (being the Highest of all the Heavens, and Spiritual in respect of its end) but not of the inferiour or intermediate Heavens, which are a Corporeal, and were framed for the benefit of Corporeal Creatures: and thus when in the Plural Number Heavens are mentioned, then all the Heavens promiscuously and without distinction are to be understood, as well the Empyrian it self as the Inferiour Heavens. And this Exposition indeed any man (that doth but take notice of it) may find to be most true. And so for this Reason the Third Heaveu into which St. *Paul*

was wrapt up, by this Maxim may be taken for the Emphyrean: if for the the First Heaven we understand that immense Space of Erratick and Moveable Bodies illuminated by the Sun, in which are comprehended the Planets, as also the Earth moveable, and the Sun immoveable, Who like a King upon his August Tribunal, sits with venerable Majesty immoveable and constant in Centre of all the Sphæres, and, with his Divine Beames, doth bountifully exhilarate all CSlestial Bodies that stand in need of his vital Light, for which they cravingly wander about him; and doth liberally and on every side comfort and illustrate the Thea-

tre of the whole World, and all its parts, even the very least, like an immortal and perpetual Lamp of high and unspeakable value. The Second Heaven shall be the Starry Heaven, commonly called the Eighth Sphære, or the Firmament, wherein are all the Fixed Starrs, which according to this Opinion of *Pythagoras*, is (like as the Sun and Centre) void of all Motion, the Centre and utmost Circumference mutually agreeing with each other in

Immobility. And the Third shall be the Empyrean Heaven, that is the Seat of the Blessed. And in this manner we may come to explain and understand that admirable Secret, and profound My-

stery ænigmatically revealed by *Plato* to *Dionysius* of *Syracuse* :

(a) All things are about the King of all things, Second things about the second, and Third things about the Third : For that God being the Centre of Spiritual things, the Sun, of Corporeal, Christ, of those that are Mixt, or made up of both, things do doubtlesse depend of that of these three Centres that is most correspondent and proportionable to them, and the Centre is ever adjudged to be the nobler and worthier place: and therefore in Animals the Heart, in Vegetables the Pith or Kernell wherein the Seed lyeth that conserveth their perpetuity, and virtually includes the whole Plant, are in the Midst, and in the Centre: and thus much shall suffice to have hinted at, since there may another occasion offer it self for a larger Explication of these things. By this Maxim the Authorities and Arguments of the Third Fourth and Fifth Classes are resolved.

*The Earth in
what sense it may
absolutely be said
to be in the lowest
part of the World.*

*Christ in his
Incarnation truly
descended from
Heaven, and in
his Ascension truly
ascended into
Heaven.*

2 Cor. c. 12. v.

*3. Whether in the
body or out of the
body, I cannot tell,
The Sun is King,*

*Heart and Lamp
of the World him–
self being autarkhs
absolutely indepen–
dent.)*

*The Ænignsa of
Plato.*

*(a) Circa omni–
um Regem sunt
omnia. & Secun–
da circa Secun–
dum, et Tertia
circa Tertium:
Vide Theodo. de
Græc. affect. curat.
lib. 2. Steuch. lib.
de Parennj. Phi–
loso.*

It may be added withall, that even the *Sun, Mercury* and *Venus* (that is to say in respect of the Earth) are to be thought *aboue*, and not *beneath* the Earth it self, although in respect of the Universe, yea and also absolutely, they are *below*. The reason is, because in respect of the Earth they always appear above its Surface: and although they do not environ it, yet by the Motion of the said Earth they behold one while one part, another while another part of its Circumference. Since therefore those things which in a Sphærical Body are nearer to the Circumference and more remote from the Centre are said to be *above*, but those that are next adjoining to the Centre are said to be *below*; it clearly followeth that whilst the *Sun, Mercury* and *Venus* are not only turned towards the Surface and Circumference of the said Earth, but are at a very great distance without it, successively turned about it, and every way have a view of it, and are very far remote from its Centre, they may, in respect of the said Earth, be said to be *above* it; as also on the other side, the Earth in respect of them may be said to be *beneath*: howbeit on the contrary, in respect of the Universe, the Earth in reality is much

higher than they. And thus is salved the Authority of *Ecclesi-*

astes in many places, expressing those things that are, or are done on the Earth in these words, *Which are done, or which are under*

the Sun, And in the same manner those words are reduced to their true Sense wherein it is said, That we are *under the Sun*, and *under the Moon*, whereupon Terrene things are expressed by the name of *Sublunary*.

Eccles. c. 1. 2. 3.

and almost thout.

* *Quod fiunt, vel sunt sub sole.*

The Sixth Classis threatneth a difficulty which is common as

well to this of *Copernicus*, as to the Vulgar Opinion; so that they are both alike concerned in the solution of it: But so far as it opposeth that of *Copernicus*, its answer is easy from the First Maxim.

But that which is added in the Fourth Classe, That it followeth from this Opinion, that Hell (for that it is included by the Earth, as is commonly held) doth move circularly about the Sun, and in Heaven, and that so Hell it self will be found to be in Heaven; discovers, in my judgment, nothing but Ignorance and Calumny, that insinuate the belief of their Arguments rather by a corrupt sense of the Words, than by solid Reasons taken from the bosome of the Nature of things. For in this place Heaven is no wise to be taken for Paradiſe, nor according to the Sense of Common Opinion, but (as hath been said above)

according to the *Copernican* Hypothesis, for the subtilest and Purest Aire, far more tenuous and rare than this of ours; whereupon the Solid Bodies of the Stars, Moon, and Earth, in their Circular and Ordinary Motions, do passe thorow it, (the Sphære of Fire being by this Opinion taken away.) And as according to the Common Opinion it was no absurdity to say, That Hell being demerged in the Centre of the Earth and of the World it self, hath Heaven and Paradiſe above and below it, yea and on all sides of it, and that it is in the middle of all the Celestial Bodies (as if it were posited in a more unworthy place) so, neither in this will it be deemed an Error, if from the other System, which differeth not much from the Vulgar one, those or the like things follow as do in that. For both in that of *Copernicus*, and the Vulgar Hypothesis, Hell is supposed to be placed amongst the very dreggs of the Elements, and in the Centre of the Earth it self, for the confinement and punishment of the damned. Therefore we ought not for want of Reasons to trifle away time in vain and impertinent strife about words, since their true Sense is clouded then with no obscurity, and in regard that it is very clear to any man indued with a refined Intellect, and that hath but an indifferent judgment in the Liberal Arts, and especially in the Mathematicks, that the same, or not very different Consequences do flow from both these Opinions.

*Heaven accord–
ing to Copernicus
is the same with
the most tenuous
Æther; but dif–
ferent from Para–
dice, which sar–
passeth all the
Heavens.*

By these Maxims and their Interpretations it appears, that the *Pythagorick* and *Copernican* Opinion is so probable, that its possible it may exceed even the *Ptolemaick* in probability; and since there may be deduced from it a most ordinate Systeme, and a more admirable and mysterious Hypothesis of the World than from that of *Ptolomy*: the Authorities of Sacred Scripture and Theological Tenents in the mean while not opposing it, being opportunely and appositely (as I have shown how they may

be) reconciled with it: And since that by it not only the Phenomena of all the Celestial Bodies are most readily salved, but also many Natural Reasons are discovered, which could not otherwise, (but with extream difficulty) have been found out: And since it, last of all, doth open a more easy way into Astronomy and Phylosophy, and rejecteth all those superfluous and imaginary inventions produced by Astronomers to the end only, that they might be able by them to render a reason of the so many and so various Motions of the Celestial Orbs.

And who knows, but that in that admirable composure of the Candlestick which was to be placed in the Tabernacle of God, he might out of his extraordinary love to us have been pleased to shaddow forth unto us the Systeme of the Universe, and more

especially of the Planets? *(a) Thou shalt make a Candlestick of*

pure Gold, (saith the Text;) of beaten work shall it be made: his Shaft, and his Branches, his Bowls, his Knops, and his Flowers (b) shall be of the same. Here are five things described, the Shaft of the Candlestick in the midle, the Branches on the sides, the Bowls, the Knops and the Flowers. And since there can be no more Shafts but one, the Branches are immediatly described in these *(c)* words: *Six Branches shall come out of the sides of it: three Branches out of the one side, and three Branches out of the other side:* Happly these fix Branches may point out to us six *(d)* Heavens, which are moved about the Sun in this order; *Saturn*, the slowest and most remote of all, finisheth his course about the

Sun thorrow all the twelve Signes of the Zodiack in thirty Years:

Jupiter, being nearer than he, in twelve Years: *Mars*, being yet

nearer than him, in two Years: The *Earth*, which is still nearer than he, doth perform the same Revolution, together with the Orbe of the *Moon*, in the space of a Year, that is in Twelve Months: *Venus*, which is yet nearer than all these, in *(e)* 9 Months: And last of all *Mercury*, whose vicinity to the Sun is the greatest of all, accomplisheth its whole conversion about the Sun in eighty Dayes. After the description of the six Branches, the sacred

Text proceeds to the description of the Bowls, the Knops, and the Flowers, saying, *(f) Three Bowls made like unto Almonds, with a Knop and a Flower in one Branch; and three Bowls made like Almonds in the other Branch, with a Knop and a Flower: this shall be the work of the six Branches that come out of the Shaft. And in the Candlestick shall be four Bowls made like unto Almonds, with their Knops and their Flowers: there shall be a knop under two branches of the same, and a Knop under two Branches of the same, and a Knop under two Branches of the same; which together are six Branches, proceeding from one Shaft.* The truth

is, the shallownesse of my understanding cannot fathome the

depth of all the Mysteries that are couched in this most wise disposure of things: neverthelesse being amazed, and transported with admiration, I will say; Who knows but that those three Bowls like unto Almonds to be represented on each of the Branches of the Candlestick may signifie those Globes which are apter (as is this our Earth) for the receiving than emitting of Influences? Perhaps also they denote those Globes of late discovered by the help of the Optick Telescope, which participate with *Saturn, Jupiter, Venus*, and possibly also with the other Planets? Who knows likewise, but that there may be some occult proportion between these Globes and those Mysterious Knops and Lilies insinuated unto us in the sacred Scriptures? But this shall here suffice to bound humane Presumption, and to teach us to exspect with an Harpocratick silence from Time, the Indice of Truth, a discovery of these Mysteries: (*g*) *Solomon* made ten

Candlesticks by the same Patern of *Moses*, which he placed, five on one hand and five on another, in the Temple erected by him in honour of the most High God; which very thing doth also, without all question, contain most abstruse significations. Moreover, that Apple of the Knowledg of Good and Evil prohibited our first Parents by God is not without a Mystery; which some say was an Indian Figg. In which these things are to be observed: First, That it is replete with many Kernels, every one of which hath a particular Centre. Secondly, Though of it self it be hard and solid, yet about its Circumference it is of a more rare and tenuouse substance; herein resembling the Earth, which though in its Centre, and those parts which are nearest to it, it be stony, Metallick, and compact, yet the nearer one approacheth to the Circumference, its parts are seen to be the more rare and tenuouse: and withall it hath another body, more rare than its own, namely the Water, above which there is yet another, more subtil than all the rest of inferiour Bodyes, that is to say, the Aire,

(a) Exod. 25. 31.

(b) *My Authour following the vulgar Translation,*

*which hath an E-
ligance in some
things beyond ours,
cites the words
thus, Facies Can-
delabrum ducti-
le de auro mun-
dissimo, Hastile
ejus, & Calamos,
& Sphæru-
las, ac
Lilia, ex ipso pro-
cedentia.*

(c) *verse 12.*

(d) *or Spheres.*

(e) *Though our
Authour speaketh
here positively of
nine Months, &c.
Fathers are not a-
greed about the pe-
riod of this planet,
nor that of Mercu-
ry, as you may see
at large in Riccio-
lus, Almagest. nov.
Tom. 1. part 1. l.
7. sect. 3. cha. 11.
num. 11. page 627.
where he maketh
Venus to consum-
mate her Revolu-
tion in neer 225
dayes, or 7 1/2 Mon.
and Mecury in a-
bout 88 dayes, or 3
Months: in which
he followeth Kepl.*

*in Epitome Astro–
nom. p. 760.*

(f) *vers.* 33, 34.

(g) 1 Kings *c.* 7.
v. 49. 2 Chron. *c.*
4. *vers.* 7.

The same Representation with that of the Indian Figg is held forth to us by the *Malum Punicum*, or Pomegranate, with its innumerable poly centrick Stones or Kernels, all which in the parts more remote from their Centre, and nearer approaching towards the Circumference, are of a substance so subtil and rare, that being but lightly compressed, they in a manner wholly convert into a most tenuose Liquor or juice: Of which fruit it pleased Divine Wisdom to make mention, and ordained that its Figure should be imbroidered and wrought with a needle in the *sacerdotal* Garment of Aaron: (*h*) *Beneath* (saith God) *upon the hem of it thou*

shalt make Pomegranates of blew, and of purple, and of scarlet, round about the border thereof; and Bells of gold between them

round about: a golden bell and a pomegranate, a golden bell and a pomegranate, upon the hem of the Robe round about. And that this was a Mystical Representation of the Worlds Effigies, is averred

by Solomon, saying; (i) For in the long (k) Garment that he had on was the (l) whole World; and in the foure rows of the stones

was the Glory of the Fathers graven, and thy Majesty in the Di-

adem of his Head.

(h) Exod. 28. 33,
34, & 39. v. 24,
25, 26.

(i) Sap. c. 18. v.
24.

(k) Exod. c. 28.
v. 6, 9. 17, 36.

(l) Or, *totus Orbis Terrarum*, as the vulgar Translation hath it.

The same likewise is signified to us by the Grape, and in like manner by all other Fruits; but especially the Figg, Grape, and Pomegranate: whence these three are almost alwayes placed together in the Sacred Scriptures. So *Numb.* 20. the People of Israel complain against *Moses* and *Aaron*: (m) *Wherefore have you*

made us to come up out of Egypt, to bring us into this evil place, where there can grow no Seed, neither is there either Figgs, or Vines, or Pomegranates ? Intimating that these kinds of Fruits were preferred by them for their excellency before all others.

And in *Joel* (n) *The Vine is dried up, and the Figg-tree languish-*

eth, the Pomegranate-tree, the Palm-tree also, and the Apple-tree, even all the Trees of the field are withered; because joy is wither-

ed away from the Sons of Men. Likewise in Haggai: (o) Is the

seed yet in the Bud? and hath as yet the Vine and the Fig-tree, and the Pomegranate, and the Olive-tree brought forth ? In like manner in Deuteronomie the Land of Promise is commended to be (p) A Land of Wheat, and Barly, and Vines in which grow,

Figg-trees, and Pomegranates, and Olive-trees, &c. And in the Structure of the Temple undertaken by Solomon upon Divine In-

spiration the (q) Chapters of the Pillars were adorned with several rowes of Pomegranates: which particular is mentioned, not in one but many places of Holy Writ. Yea and sometimes accidentally and occasionally the Holy hath Ghost ænigmatically represented this most admirable and Most Wise Structure of the World, the Order of the Heavens, and the disposeure of Creatures Spiritual and Corporeal by Emblems, Parables, and Figures, least they should be as it were dazled and blinded, by the refulgent splendor of so excellent an Object. Hence we see, that in these Doctrinal & Dubious Points we may discourse in such manner by help of the Holy Scripture as is meet for the understanding of the Prophets; which seeing they are very obscure, they shall be fully understood, and may be aptly applied only then when they shall be fulfilled, and not before: So also when once the true Systeme of the Universe is found out, then, and not till then, the meaning of these Figures, and Ænigma's shall be made known unto us: Thus before the coming of the Son of God had discovered unto us the Mystery of the Holy Trinity, none were able to comprehend or imagine what was concealed under those

words; (r) *In Principio creavit Elohim CSlum & Terram*: for

that they did not see how the Noun Plural *Elohim* (which is as much as to say *Dij*, [Gods] should be joyned with the Verb Singular, *Creavit* : But the Mystery of the Unity of Essence and Trinity of Persons in God being revealed, it was presently known, that the Singular Number, *Creavit*, had reference to the Unity of Essence, (in regard that the Works of the Trinity *ad extra* are indivisible) and the Plural, *Elohim*, to the Persons. Who, I pray, in elder times could have found out this Mystery? And thus the Name of God is thrice repeated in *Psal. 67. (s) God, even our*

God shall blesse us, God shall blesse us, &c. Which at first might seem a Pleonasm, and superfluous repetition; but afterwards it was evident that *David* did there set out the Benedictions of several Persons implied, to wit, the Father, Son, and Holy Ghost. Innumerable Examples of the like kind may be found in the Sacred Leaves. Therefore, to conclude, I will say with ^{*} *David*,

Psal. 92. Oh Lord how glorious are thy Works! thy thoughts are very deep: an unwise man knoweth not, and a fool doth not understand these things.

(m) Numb. c. >20.

v. 5.

(n) Joel c. 1. v. 12.

(o) Hagg. c. 2.

v. 19.

(p) Deut. c. 8. v. 8.

(q) 1 Kings c 7.

v. 20. & 2 Kings

c. 25. v. 17. &

2 Chro. c. 3. v. 15,

16. & c. 4. v. 12.

13. & Jerem. c.

52. v. 21, 22.

(r) Gen. c. 1. v. 1

(s) P sal. 67. v. 6

7.

* Psal. 92 v. 536.

These are the particulars that I have thought fit to offer, as a Divine, concerning the not-improbable Opinion of the Mobility of the Earth and Stability of the Sun: which I hope will be acceptable to you, Reverend Sir, out of the love and diligence wherewith you persue Virtue and Learning. But (to the end that you may also receive an account of my other Studies) I hope very shortly to publish in Print my Second Tome ^{*} *Of the In-*

stitutions of all Learnings, which shall containe all the Liberall Arts, as I have already signified in that *Syntax*, and *Spicimen* by me heretofore put forth, and published under your Name. The other five following Tomes by me promised (which shall treat of Phylosophy and Theology) are not altogether so forward, nevertheless they will be speedily finished. In the mean time there will come forth my Book *Concerning* ^{*} *Oracles*, now finished, to-

gether with a Treatise ^{*} *Of Artificial Divination*. And for a

pledge thereof, I send you at this time annexed to this Epistle a Tract ^{*} *Concerning Natural Cosmological Divination*, or of Natu-

ral Prognosticks, and Presages of the Changes os Weather, and other things which fall within the compasse of Natue. God grant you all Happinesse.

* *Institutionum omnium Doctrinarum.*

* *De Oraculis.*

* *De Divinatione artificiosa.*

* *De Divinatio–
ne Naturali Cos–
mologica.*

Most Reverend Sir

NAPLES, from the Covent
of the *Carmelites*, Jan.
6. 1615.

Your Most Humble Servant

PAOLO ANTONIO FOSCARINI.

FINIS.

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