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A
SUPPLEMENT²

To a BOOK,

ENTITLED,

A
TREATISE

ON THE

DELUGE.

Illustrated by a COPPER-PLATE, representing the State of the
Earth during the height of the Deluge.

By *A. CATCOTT.*

B R I S T O L.

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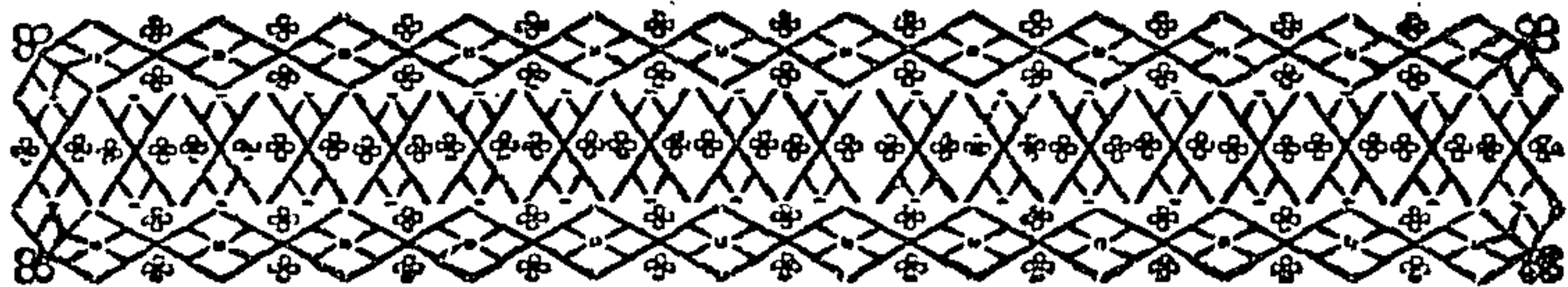


ADVERTISEMENT.

SOON after the publication of the first edition of my Treatise on the Deluge, I received several letters from gentlemen of character and note, in the learned world, for their knowledge of the subject therein treated. Some of these letters contained exceptions to particular positions in the tract, desiring a farther explication and a fuller confirmation of them. Now in order to give satisfaction in this particular, I have printed a Second Edition, inserting in their respective Places a Reply to the Objections, and have also added whatever else I thought might be of service to illustrate or confirm the Tenets advanced. Only one thing I must mention, that some of these Objections arose from inattention to the manner in which the subject is treated; especially where the proofs were not thought sufficient for the points advanced. It may be proper therefore to advertise the reader that the evidence on which the Tract is built, is threefold—Scripture—Heathen History—

and the Natural state of the Earth. So that where one of these may seem defective in proof, by the coalition of the other two, the Point may be clear and manifest; and in many places where the evidence was of a combined or mixed nature, it was proper to drop part of it, that each species of proof might be disposed under its proper head. So that I hope for the future, no one will judge of any particular tenet 'till the whole book be carefully perused, and the evidence produced under each general division for any point in question be accurately examined.

As the Additions to the second Edition are considerably large, I have printed them in this manner, separate from the work, by way of Supplement, that those who have the first Edition may purchase them without being under the necessity of procuring the whole for the sake of a part.



A
S U P P L E M E N T
T O A
T R E A T I S E
O N T H E
D E L U G E.



Page 1. line 1.  THE Knowledge of the *na-
tural State of the Earth* is
the *foundation* of all true
Philosophy.

If we are mistaken in our judgments of Causes and Effects, relative to things that are within our reach, and on which we can make immediate observations and experiments, we shall certainly be so, with respect to Those that are at a distance from us; and of which we can only reason by *Analogy*.

Now of all events that have happened to the Earth, there is none that has made a greater noise in the

world, or has left such evident marks of its Reality, as that of a *Flood of Waters*, in which the whole Globe was drowned.

AND if it can be proved, that the Earth has actually been thus covered by water, and totally dissolved therein, such an Event as this, I say, must have made many and great alterations in the before-state of the Earth, and be the *Cause of many remarkable phenomena in the present*. And yet, I am sorry to say it, philosophers in general, who have endeavoured to explain the whole System of Nature, and many who have wrote in particular on the Subject of the *Earth*, have taken no notice of this great Event; and thereby have been led themselves, and also have led others, into a variety of errors, by ascribing Effects to very different Causes than the true.

I HOPE, therefore, that an Attempt to lay before the publick the *Evidence* that may be brought in proof of an UNIVERSAL DELUGE, and to exhibit a *display* of all the *various Effects*, both *on* and *in* the Earth, that were owing to that *one Great Cause*, may not be uninstrueting, nor unentertaining.

Page 22. l. 30.—In order to shew that the Ark, as described by *Moses*, was suitably capacious for its intended Contents, I shall here annex Bishop *Wilkins's* Account of this affair in his *Essay towards a real character and a philosophical Language*, p. 162, &c.

“ HAVING now dispatched (says the Bishop) the enumeration and description of the several species of Animals, I shall here take leave for a short Digression, wherein I would recommend this, as a thing worthy to be observed, namely, *That great difference* which there is betwixt those opinions and apprehensions which are occasioned by *a more general and confused view* of things, and those which proceed from a

more distinct consideration of them as they are reduced into order.

HE that looks upon the Stars, as they are confusedly scattered up and down in the Firmament, will think them to be (as they are sometimes stiled) *innumerable*, of so vast a multitude, as not to be determined to any set number; but when all these Stars are distinctly reduced into particular Constellations, and described by their several places, magnitudes, and names, it appears, that of those that are visible to the *naked* eye, there are but few more than a *thousand* in the whole Firmament, and but a little more than half so many to be seen at once in any *Hemisphere*. It is so likewise in other things: he that should put the Question, how many sorts of beasts, or birds, &c. there are in the world, would be answered, even by such as are otherwise knowing and learned men, that there are so many hundreds of them, as could not be enumerated; whereas, upon a distinct inquiry into all such as are yet known, and have been described by credible Authors, it will appear, that they are much fewer than is commonly imagined, not a hundred sorts of Beasts, nor two hundred of Birds.

From this prejudice it is, that some hereticks of old, and some atheistical scoffers in these later times, having taken the advantage of raising objections (such as they think unanswerable) against the truth and authority of Scripture, particularly as to the description which is given by *Moses*, concerning *Noah's Ark*, *Gen. vi. 15.* where the Dimensions of it are set down to be three hundred Cubits in length, fifty in breadth, and thirty in height, which being compared with the things it was to contain, it seemed to them, upon a general view, (and they confidently

affirmed accordingly) that it was utterly impossible for this Ark to hold so vast a multitude of Animals, with a whole year's provision of food for each of them.

It is plain in the description which *Moses* gives of the Ark, that it was divided into three stories, each of them of ten cubits, or fifteen feet high, besides one cubit allowed for the declivity of the roof in the upper story. And it is agreed upon as most probable, that the lower story was assigned to contain all the species of Beasts, the middle story for their food, and the upper story, in one part of it, for the Birds and their food, and the other part for *Noah*, his family, and utensils.

Now it may clearly be made out, that each of these stories was of a sufficient capacity for the containing all those things to which they are assigned; even supposing the Cubit to be (at the lowest computation) but a foot and half in length.

For the more distinct clearing up of this, I shall first lay down several tables of the divers species of Beasts that were to be received into the Ark, with their different kinds of food, containing both the number appointed for each of them, namely, the clean by sevens, and the unclean by pairs, together with a conjecture (for the greater facility of the calculation) what proportion each of them may bear either to a beef, or a sheep, or a wolf; and then what kind of room may be allotted to the making of sufficient stalls for their reception.

BEASTS feeding on Hay.				BEASTS feeding on Fruits, &c.				BEASTS feeding on Flesh.			
Number.	Name.	Proportion to Beeves.	Breadth of Stalls. Feet.	Number.	Name.	Proportion to Sheep.	Breadth of Stalls. Feet.	Number.	Name.	Proportion to Wolves.	Breadth of Stalls. Feet.
2	Horse	—	3 20	2	Hog	—	4	2	Lion	—	4 10
2	Affe	—	2 12	2	Baboon	—	2	2	Bear	—	4 10
2	Camel	—	4 20	2	Ape	—	2	2	Tyger	—	3 8
2	Elephant	—	8 36	2	Monkey	}	7 20	2	Pard	—	3 8
7	Bull	—	7 40	2	Sloth			2	Ounce	—	2 6
7	Urus	—	7 40	2	Porcupine			2	Cat	—	2 6
7	Bifons	—	7 40	2	Hedge-hog			2	Civet-Cat	—	2 6
7	Bonafus	—	7 40	2	Squirrel	—	2	2	Ferret	—	3 9
7	Buffalo	—	7 40	2	Ginney-pig	—	2	2	Polecat	—	
7	Sheep	—	1	2	Ant-bear	—	2	2	Martin	—	
7	Sterpciferos	—	1	2	Armadillo	—	2	2	Stoat	—	
7	Broad-Tail	—	1	2	Tortoise	—	2	2	Weasle	—	2 6
7	Goat	—	1	BEASTS feeding on Hay.				2	Castor	—	
7	Stone-buck	—	1					2	Otter	—	
7	Shamois	—	1					2	Dog	—	
7	Antelope	—	1					2	Wolf	—	
7	Elke	—	7 30					2	Fox	—	2 6
7	Hart	—	4 30					2	Badger	—	
7	Buck	—	3 20					2	Jackall	—	
7	Rein-deer	—	3 20					2	Caragua	—	
7	Roe	—	2	2	Hare	}	2 2	—		—	—
2	Rhinoceros	—	8 36	2	Rabbet			40		27	75
2	Camelopard	—	6 30	2	Marmotto						
131			92 514	30			23 22				

IN this enumeration I do not mention the mule, because it is a mungrel production, and not to be reckoned as a distinct species. And tho' it be most probable, that the several varieties of beeves, namely, that which is stiled *Urus*, *Bifons*, *Bonafus*, and *Buffalo*, and those other varieties reckoned under *sheep* and *goats*, be not distinct species from *bull*, *sheep*, and *goat*; there being much less difference betwixt these, than there is betwixt several dogs: and it being known by experience, what various changes are frequently occasioned in the same species by several

countries, diets, and other accidents; yet I have, *ex abundanti*, to prevent all cavilling, allowed them to be distinct Species, and each of them to be clean beasts, and consequently such as were to be received in by sevens. As for the *morse*, *seale*, *turtle*, or *sea-tortoise*, *crocodile*, *senembi*; these are usually described to be such kind of *Animals* as can abide in the water, and therefore I have not taken them into the Ark, tho' if that were necessary, there would be room enough for them, as will shortly appear. The *serpentine-kind*, *snake*, *viper*, *slow-worm*, *lizard*, *frog*, *toad*, might have sufficient space for their reception, and for their nourishment, in the drain or sink of the *Ark*, which was probably three or four feet under the floor, for the standing of the beasts. As for those lesser beasts, *rat*, *mouse*, *mole*, as likewise for the several species of insects, there can be no reason to question, but that these may find sufficient room in several parts of the *Ark*, without having any particular stalls appointed for them.

It appears by the foregoing tables, that the beasts of the *rapacious carnivorous kinds*, to be brought into the *Ark* by pairs, were but forty in all, or twenty pairs; which, upon a fair calculation, are supposed equivalent, as to the bulk of their Bodies and their food, unto twenty-seven *wolves*; but for greater certainty, let them be supposed equal to thirty *wolves*: and let it be farther supposed, that six *wolves* will every day devour a whole *sheep*, which all men will readily grant to be more than sufficient for their necessary sustenance: according to this computation, five *sheep* must be allotted to be devoured for food each Day of the year, which amounts in the whole to 1825.

UPON these suppositions there must be convenient room in the *lower story* of the *Ark*, to contain

the fore-mentioned sorts of beasts, which were to be preserved for the propagation of their kinds, besides 1825 *sheep*, which were to be taken in as food for the *rapacious beasts*.

AND tho' there may seem no just ground of exception, if these beasts should be stowed close together, as is now usual in ships, when they are to be transported for any long voyage; yet I shall not take any such advantage, but afford them such fair stalls, or cabins, as may be abundantly sufficient for them in any kind of posture, either standing, or lying, or turning themselves, as likewise to receive all the dung that should proceed from them for a whole Year.

AND that the lower story of the Ark was of a sufficient capacity for these purposes, will appear from the following considerations.

^a FIRST, let a partition of fifteen feet wide be marked off, length-ways, at each end of the Ark. Now the breadth of the Ark being seventy-five feet, these partitions must contain in them five Areas of fifteen feet square, and an area of five feet square being sufficient to contain four sheep, therefore one of fifteen feet square must be capable of thirty-six sheep. Allowing one of these areas at each end for stairs, there will eight of them remain, (viz. four at each end) to be reckoned for the containing of sheep; which eight will be capable of receiving 288 *sheep*.

A 4

^a The Bishop has here annexed a *large folio Drawing* of the lower Story of the Ark, and of the disposition of the animals in it. But I have endeavoured to represent his meaning in such a manner, that the reader may apprehend it, without the Draught; tho' if he be very curious I would advise him to refer to that, or rather to a more compleat Drawing, represented in the *Gentleman's Magazine* for February 1749; wherein every Story of the Ark, and the disposition of every thing that was to be contained therein, are delineated in a most judicious manner, from a *Dutch Author*.

BESIDES these partitions at the end, let two other areas be marked off, passing along the middle of the floor length-ways of the Ark, each of them 25 feet wide, and about 200 feet long. Now supposing these middle areas to be designed also for *sheep*; an area of 25 feet square must be capable of holding 100, and there being sixteen of these, they must be capable of containing 1600 sheep, which being added to the former number of 288, will make 1888, somewhat more than 1825, the number assigned that were to be taken in for food.

On each side of the middle areas for the sheep, let us suppose a passage of seven feet wide, for the more convenient access to the sheep, and the stalls that are to serve for the other beasts.

On this division of the *lower floor* of the Ark, there will remain four other areas (two on each side of the middle areas for the sheep) each of them 18 feet wide, and 200 feet long, which will be more than sufficient to contain the several beasts which were to be preserved for the propagating of their kind; for which, in the foregoing tables, there is allotted to the length of the stalls only 611 feet, besides the largeness of the stalls allowed to each of them. So that upon this fair computation, there will be very near *two hundred feet overplus* in this lower story, for the reception of any other beast not yet enumerated, or discovered.

The next thing to be cleared up, is the *capacity* of the *second Story* for containing *a year's provision of food*. In order to which 'tis to be observed, that the several beasts feeding on hay were before, upon a fair calculation, supposed equal to ninety-two *beeves*: but to prevent all kind of cavils which may be made at the proportioning of them, let them be as a 100, besides the 1825 *sheep* taken in for food. But now,

because these are to be devoured by five *per diem*, therefore the year's provision to be made for them is to be reckoned but as for half that number, *viz.* 912. These being divided by seven, to bring them into proportion with the *beeves*, will amount to 180, which added to the former 100 make 280, suppose 300. So then, according to this supposition, there must be sufficient provision of hay in the second story to sustain 300 beeves for a whole year.

Now 'tis observed (saith *Buteo*) by *Columella*, who was very well versed in the experiments of husbandry, that thirty or forty pound of hay is ordinarily sufficient for an *ox* for one day, reckoning twelve ounces in the pound. But we will suppose forty of our pounds. And 'tis asserted by *Buteo*, upon his own trial and experience, that a solid cubit of dry'd hay, compressed, as it uses to be when it hath lain any considerable time in mows or ricks, doth weigh about forty pound; so that for 300 *beeves* for a whole year, there must be 109,500 such cubits of hay, (i. e.) 365 multiplied by 300. Now the second story, being ten cubits high, 300 long, and fifty broad, must contain 150,000 solid cubits, which is more by 40,500 than what is necessary for so much compressed hay; and will allow space enough both for any kind of beams and pillars necessary for the fabric, or likewise for other repositories, for such fruits, roots, grain, or feeds, as may be proper for the nourishment of any of the other *animals*; and likewise for such convenient passages and apertures in the floor, as might be necessary for the putting down of the hay to the stalls in the lower story. From which it is manifest, that the second story was sufficiently capacious of all those things designed for it.

AND then as for the *third story*; there can be no colour of doubt, but that one half of it will be abun-

dantly sufficient for all the species of birds, together with food sufficient for their sustenance, because they are generally but of small bulk, and may easily be kept in several partitions, or cages, over one another. Nor is there any reason to question, but that the other half would afford space enough both for *Noah's* family and Utenfils.

UPON the whole matter, it doth, of the two, appear more difficult to assign a sufficient number and bulk of necessary things, to answer the capacity of the *ark*, rather than to find sufficient room for those several species of *animals* already known. But because it may be reasonably presumed, that there are several other species of beasts and birds, especially in the undiscovered parts of the world, besides those here enumerated, therefore it is but reasonable to suppose the *ark* to be of a bigger capacity, than what may be sufficient for the things already known; and upon this account it may be asserted, that if such persons, who are most expert in philosophy and mathematicks, were now to assign the proportions of a vessel that might be suitable to the ends here proposed, they could not (all things considered) find out any more accommodate to these purposes, than those here mentioned."

To the above observations, I may add, what is recorded by *Parker* in his *Bibliotheca Biblica*, vol. I. *Occas. Annot.* 13. that *Peter Jansen*, a *Dutch* merchant, about the beginning of the last century, caused a ship to be built for him, answering, in its respective Proportions, to those of *Noah's* ark, the length of it being 120 feet, the breadth of it 20, and the depth of it 12. At first, this was looked upon no better than a fanatical Vision of this *Jansen* (who was by profession a *Menonist*) and whilst it was building, he and his ship were made the sport of the seamen, as

much as *Noah* and his ark could be. But afterwards, it was found, that ships, built in this fashion, were, in the time of peace, beyond all others most commodious for commerce; because they would hold a third part more, without requiring any more hands, and were found far better *runners* than any made before.

Page 26. l. 21.—As the opinion of the earth's containing within itself *an abyss of water* is maintained by some of the *most antient Heathen* writers, and it does not seem probable that they procured the knowledge of it by any discovery of their own, and therefore that they obtained it at first *from Revelation* by Tradition, I shall here annex their evidence as being, in this respect, *properly divine*.

PLATO in his *Phædon* (near the end) writeth thus,
 ‘ *Και ολην μεν δὴ την γην, &c.* And such is the form
 ‘ and constitution of the whole earth, and the things
 ‘ that are about it. There are several *circular Hollows*
 ‘ in its inside, some deeper, some wider, some nar-
 ‘ rower, &c. But all the Cavities every where per-
 ‘ forate one another, and are open at both ends, by
 ‘ means of which a great quantity of water flows from
 ‘ one into another, as into cisterns. There are also
 ‘ under-ground incredible large rivers, and perpetual
 ‘ springs of waters both hot and cold. But *One* of
 ‘ these concavities in the inside of the earth is *greater*
 ‘ than the rest, piercing from side to side through
 ‘ the whole Earth; which *Homer* mentions in this
 ‘ verse. *Iliad. ©. v. 14.*

Τηλε μάλ', ηχι βαθισον υπο χθονος εσι βερεθρον.

Far hence, in th' Earth there gapes a Gulph immense.

‘ Which both he elsewhere, and many other Poets,
 ‘ call *Tartarus*, into which all rivers have their con-

‘fluence, and flow out of it again by turns. Each
 ‘river comes out tinged with the nature of the
 ‘earth thro’ which it flows. And the reason why
 ‘the rivers flow thither, and come back again, is,
 ‘because *the Abyss* has neither bottom nor base; and
 ‘therefore tho’ they are lifted up, they naturally flow
 ‘down again: as also does the *Air* or *Spirit* that
 ‘attends them. And as in the respiration of animals,
 ‘there is an incessant ingress and egress of the air,
 ‘so the air, that is mingled with the waters, accom-
 ‘panies them in their ingress and egress, and raises
 ‘raging winds. When these waters fall into this
 ‘*lower Abyss*, they diffuse themselves into all channels
 ‘of the springs and rivers, and fill them up; just
 ‘as if one were drawing water up with two pails, one
 ‘of which fills as the other empties: for these rivers
 ‘flowing from thence fill up all our channels; from
 ‘whence diffusing themselves about, they constitute
 ‘*our Seas, Rivers, Lakes, and Fountains.*’

So *Hesiod, Theog.* l. 119.

Τάρταρος τ'ηροενία μυχω χθονος ευρυοδειης.

And dark Tartarus in the Earth's recess.

And again; *Homer, Iliad.* Φ. 195.

Ουδε βαθυρρεϊταο μεγα θενος Ωκεανοιο,

Εξ υπερ πλυντες ποταμοι κ' πασα θαλασσα,

Και πασαι κρηναι κ' φρεϊατα μακρα ναισιν.

Nor great Oceanus, from whose fountains flow
 All Seas, all Rivers, and all Springs below.

It is remarkable, that the most antient Heathen Authors often speak of *Oceanus* [under which term

they comprehended the immense body of water within the Earth, as well as that without] as *the Parent* of their Gods; as indeed He was; for the subsidence or retirement of the great Abyfs (at the end of the Deluge) to its original bed, the Bosom of the Earth, restored to them *the Lights of Heaven* (which they worshipped as *Gods*) and the use of the *Earth*, see *Gen. viii. 22.*

So *Homer* (*Iliad. E. 200.*) makes *Juno* speak thus :

Εἰμι γὰρ οὔροισιν πολυφορβὰ πειρατὰ γαίης,
Ὠκεανὸν τε, θεῶν γενεσίν, καὶ μητέρα Τηθύων, &c.

*Then she—I haste to those remote abodes,
Where the Great Parents of the deathless Gods,
The rev'rend Ocean and grey Tethys reign,
On the last limits of the land and main:
I visit these, to whose indulgent cares
I owe the nursing of my tender years.*

But more particularly *Orpheus* in his hymns writes thus, p. 178.

Ὠκεανὸν καλέω πατέρ' ἀφθιτὸν αἰὲν εὐντα,
Ἀθανάτων τε θεῶν γενεσὶν θνητῶν τ' ἀνθρώπων,
Ὃς περικυμαίνει γαίης περιτερμονὰ κυκλόν.
Ἐξ ἧ περ πάντες ποταμοὶ καὶ πᾶσα θάλασσα,
Καὶ χθονιοὶ γαίης πεγορρυτοὶ ἱμαδες ἀγναι.

*O Father Ocean! 'tis to thee I call,
Of Gods and Men the GREAT ORIGINAL;
Thee I invoke! who with thy close embrace
Surround'st the earth, the seat of human race;
From thee all Seas and Rivers take their rise,
And Waters subterrene receive supplies.*

AND again, p. 114.

Κλυθε Ποσειδαν γαινοχε ———

Ος ναιεις ποντοιο Βαθυγεργοιο θεμεθλα,

Ποντομεδων, αλιδεπε, βαρυκλυπε, εννοσιγαιε, &c.

I CANNOT better illustrate the meaning of some of these epithets given to *Oceanus* or *Neptune*, or shew how applicable they are to the point in hand, than in the words of Dr. *Woodward* (vid. *Nat. Hist. of the Earth*, p. 138.) ‘ These Phœnomena are not new, ‘ or peculiar to the Earthquakes, which have happen- ‘ ed in our times, but have been observed in *all ages*, ‘ and particularly these *exorbitant commotions* of the ‘ *Water* of the Globe. This we may learn abundantly ‘ from the histories of former times; and it was for ‘ this reason that many of the antients concluded, ‘ rightly enough, that *they* were caused by the im- ‘ pulses and fluctuation of water in the bowels of ‘ the Earth. And therefore they very frequently ‘ called *Neptune* Σεισιχθων, as also Ενοσιχθων, Ενοσιγαιος, ‘ and Τινακτορογαιης; by all which Epithets they de- ‘ noted his Power of *Shaking the Earth*. They sup- ‘ posed that he presided over all water whatever, as ‘ well that within the Earth, as the Sea, and the rest ‘ upon it; and that the Earth was supported by water, ‘ its foundations being laid thereon; upon which ‘ account it was that they bestowed upon him the ‘ cognomen Γαινοχος, or *Supporter of the Earth*, and ‘ that of Θεμελιεχος, or *the Sustainer of its foundations*. ‘ They likewise believed that he, having a full sway ‘ and command over the Water, had power to still ‘ and compose it, as well as to move and disturb it, ‘ and the Earth by means of it: and therefore they ‘ also gave him the name of Ασφαλιος, or the *Establisher*; ‘ under which name several temples were consecrated ‘ to him, and Sacrifices offered, whenever an Earth-

quake happened, to pacify, and appease him ; requesting that he would allay the commotions of the water, secure the foundations of the earth, and put an end to the Earthquake.’

BESIDES all this, *Lucretius* (*Lib. v. 261.*) argues thus :

*Quod superest, humore novo mare, flumina, fontes
Semper abundare, et latices manare perennes,
Nil opus est verbis, magnus decursus aquarum
Undique declarat : sed primum quicquid aquarum
Tollitur, in summaque fit, ut nihil humor abundet.
Partim quod validi verrentes æquora venti
Diminuunt, radiisque retexens ætherius Sol :
Partim quod subter per terras diditur omnes.
Percolatur enim virus, retroque remanat
Materies humoris, et ad caput amnibus omnis
Convenit ; inde super terras fluit agmine dulci,
Qua via seeta semel liquido pede detulit undas.*

Besides ; that Seas, that rivers waste and die,
And still *increase* by constant *new* supply,
What need of proofs ? this streams themselves do
As all run murm’ring to the *Sea below*. [show,
But lest the mass of waters prove too great,
The Sun drinks some, to quench his natural heat ;
And some the winds brush off, with wanton play
They dip their wings, and bear some parts away :
Some passes *thro’ the earth*, diffus’d all o’er,
And leaves its salt behind at every pore ;
For all *return thro’ secret channels* spread,
And join, where *first they issu’d* from their bed ;
Hence on the earth in fair mæanders play,
And thro’ the vallies cut their liquid way.

CREECH.

OF *Christian* writers that have mentioned the *Abyss*, I shall only insert the opinion of *John de la Hay*, as his description is very just, and contains a comment on the words under consideration, viz. *And the fountains of the great Deep were broken up. Facilior erit horum verborum intelligentia, &c. i. e.* ‘ We shall
 ‘ more readily understand these Words, if we inquire
 ‘ into the meaning of the word *Abyss* or *Deep*, which
 ‘ is nothing else than an hidden place in the Bowels
 ‘ of the Earth, where the Waters lie hid, and from
 ‘ whence Fountains and Lakes have their rise; and
 ‘ it is called the *Great Deep*, by way of distinction
 ‘ from some lesser Hollows in the Earth; for this is,
 ‘ as it were, the Mother of them all, to whom they
 ‘ are all joined by Veins and Passages: the Fountains
 ‘ therefore of that *Great Abyss* were broken up, is,
 ‘ as if he had said, such a Quantity of Water burst
 ‘ from that *Great Deep*, that its common Outlets
 ‘ were broke or burst open, like a Land-flood, when
 ‘ it meets with Resistance; the too great quantity of
 ‘ water breaks down the Channels and Banks, which
 ‘ as it were, imprisoned it: but not only the Foun-
 ‘ tains of that *Deep* were broken open, but the Sea
 ‘ came out of its bounds, pouring over the Earth,
 ‘ and the Rivers burst forth with the greatest violence.’

SUCH then, according to Scripture and Heathen Testimony, is the Constitution of the Earth, that it contains within itself an immense reservoir of water, denominated by the name of the GREAT DEEP; the *fountains of which were broken up*, in order to effect the *Deluge* in the time of *Noah*.

BUT before I can shew *particularly* how this great Event was brought to pass—what alterations were made in the terraqueous Globe at that time—the Agents that were employed—and the manner of their acting—it will be proper to say something of

the *original formation* of the *Earth* ; which is thus described by *Moses*.

GEN. i. 1. *In the beginning* [BeRASIT, in the first place^b] *God created* [gave existence to] A T, [the Atoms, the Substance of] *the Heavens* [VAT] and [the Substance of] *the Earth*.

And the Earth was without form [a formless mass ; the parts for Solids and Fluids being confusedly mixt together] *and void*, [empty, hollow within.]

And Darkness [dark, torpid Air] *was upon the face of the Deep*.

And the Spirit of God [RUE ALEIM] *moved upon the face of the Waters*. This is the *first Agent* or *Mover* mentioned to have been employed towards reducing

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^b Which easy and natural interpretation of the word BeRASIT frees the Scripture from an impertinent question that some have put here, viz. *In the beginning of what ?* As if *Moses* had represented God as having created the *World* in the beginning of the *World*, or in the beginning of *Time* (which is the same thing, for *Time* began with the *World*) which would have been an idle tautology. But to tell us, that the *first act* that was done in the *History* that he was going to give of the *Generations of the Heavens, and of the Earth, and of Mankind*, (Gen. ii. 4—8.) was the *production of the world de novo*, or that the *Aleim*, his God, created it, is not only sense, but highly proper, as it struck at the very root of the *Idolatry* then prevailing in the world, which was the *worshipping of the creature instead of the Creator*, or the works of God, instead of God himself. So that as *J. Neirenberg* says. “ *In uno duntaxat capite, primo Geneseos, puto plus docuisse Moysem quam cæteros omnes philosophos, et naturæ interpretes ;*” i. e., *I think that Moses has taught us more philosophy in one single chapter—viz, the first of Genesis, than all the philosophers and explainers of nature put together*. So I may say, that *Moses* has taught us more *theology* in one single verse of that chapter, than all the heathen world could have discovered by any means of their own.

the *formless* mass of the Earth into *shape*. What *this Spirit* is, may be judged of from similar passages in Scripture, &c. &c.

Page 30. l. 30.—Thus would the *inward* Expanse [denoted by A. 2. in plate I.] or expanding air act *upwards* every way from the center to the circumference of the chaotic mixture; while the *outward* Expanse [A. 1.] or the light and spirit on the *outside* of this globe would act *downwards*, on, and through every part of it. And by these two equal and counter-acting agents, the *earthy*, or *solid parts* of the chaotic mass, would be driven together into a *spherical shell* [C,] at a considerable distance from the center of the earth, and there be sustained; and as the earthy or solid parts would be driven together into a close hard shell or crust, so by the same action would the *fluids* be permitted to slip between on *each* side of this crust. Thus would the *shell* of stone, or *the Earth*, be formed between *two orbs* of water; one orb [B. 1.] would cover the *outward* surface; the other [B. 2.] would cover, or by the force of the expanding air from the center be pressed close to, the *inward* surface of the earth. Such being the situation of things, it will now be apparent to every one, how the earth was *founded upon* and formed *between* the waters.—And as the shell, or crust of the earth, was driven together by the *expansive* power of the air, and formed between two orbs of water, so the *Firmament* acted the part it was commanded of *dividing the waters from the waters*.

Page 42. l. 3. of the *Note*.—So in *Isaiab's* description of the final destruction of the Earth, ch. xxiv. 18. *For the Windows from on high are open, and the foundations of the earth do shake. The earth is utterly broken down, the earth is clean dissolved, the earth is moved ex-*

ceedingly. *The earth shall reel to and fro like a drunkard, and shall be removed like a cottage, and the transgression thereof shall be heavy upon it, and it shall fall, and not rise again.* From this last particular it is evident, that the final dissolution of the earth is here intended, which we are told by *St. Peter*, Ep. ii. chap. iii. 10. will be effected by *Fire*, and in the manner following; *The Heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also, and the works that are therein, shall be burnt up.* From whence it is plain, that this conflagration will begin in the heavens above, when the heavens themselves will, in a manner, be opened, cleft, and divided, and streams of fire be poured down upon the earth, as was the case in the destruction of *Sodom* and *Gomorrab*; or else the *Lightnings* of *God's* wrath will be darted from the clouds that are on high, as from concealed lurking-boles, till the whole be consumed.

Page 44. l. 23.—I MAY here add (as I have done already with respect to the notion of an *Abyss of Water* within the earth, and for the same reason,) the testimonies of some Heathen writers, and others, who, in their accounts of the deluge, have expressly mentioned the dissolution of the solid body of the Earth at that time.

Manilius (who, according to *Scaliger*, lived in the time of *Augustus*) describes the dissolution of the Earth in the following terms; (*Astronom. Lib. 4. v. 828.*)

*Concutitur Tellus validis compagibus hærens,
Subducitque solum pedibus; natat Orbis in ipso;
Et vomit Oceanus Pontum, sitiensque resorbet,
Nec sese ipse capit. Sic quondam merserat Urbes,
Humani Generis quum solus constitit Hæres
Deucalion.*

The Earth now shakes, before tho' firmly bound,
 And from their feet withdraws the treacherous ground.
 The *melted Globe swims in itself*: the main
 Spews up a Sea, and sucks it in again;
 Nor can the *great Abyss* itself contain. }
 All nature thus was in confusion hurl'd,
 And *the Deep gorg'd itself with all the World*.
Deucalion only then remain'd behind
 The Solitary Heir of all mankind.

Thus also *Virgil*, *Æneid*. Lib. xii. v. 204.

———— *Non si tellurem effundat in undas*
Diluvio miscens: —————

Not tho' great *Jove* should once again *dissolve*
The Earth to Water, by a *Deluge* torn.

THE Phrase *tellurem effundere in undas*, may be thought by some to have been used by the Poet for the sake of the verse, under the figure *Hypallage*; but as this effect was *really* produced at the time of the deluge, I see no reason for this supposition. Certain it is, that *Seneca*, in the account that he gives of his Deluge, supposes the *Earth* or the *Land* capable of such a dissolution. *Quest. Nat. lib. iii. c. 27.*

‘ *Solutis quippe radicibus, arbusa procumbunt & vitis,*
 ‘ *atque omne virgultum non tenetur solo, quod molle*
 ‘ *fluidumque est:—Labant ac madent tecta, & in imum*
 ‘ *usque receptis aquis fundamenta desidunt, ac tota humus*
 ‘ *stagnat, frustra titubantium fulcra tentantur. Omne*
 ‘ *enim fundamentum in lubrico figitur, & lutoso humo*
 ‘ *nihil stabile est.*’ *i. e.* ‘ Their Roots being loosened the Trees and the Vine fall, and no Shrub what-

' ever maintains its situation in the Soil, which is
 ' *now soft and fluid.*—The buildings fall, and are
 ' overflowed, and the waters making their way to
 ' the deepest recesses, the foundations sink, and the
 ' whole ground becomes a Bog. In vain are props
 ' applied to things in such a tottering situation. For
 ' every foundation is in a sliding state; and there can
 ' be no firmness in ground so quaggy.' And then he
 goes on to describe the effects of the deluge through-
 out the whole earth, and concludes the Chapter thus:
Scies quid deceat, si cogitaveris orbem terrarum natare.
i. e. ' If you would have a right Opinion of these
 ' things, you must suppose the *whole Earth* to swim.'
 And speaking of the same deluge in Chap. 29.
 ' *Maximam tamen causam, ad se inundandam, terra ipsa*
 ' *præstabit: quam diximus esse mutabilem, & solvi in*
 ' *humorem.*' *i. e.* ' The Earth itself will afford
 ' the greatest cause for its own inundation: which
 ' we said before was *changeable* and *reducible into a*
 ' *fluid.*—*Undare ergo terra debet—Incipiet ergo putres-*
 ' *cere, dehinc laxata ire in humorem, & assidua tabe*
 ' *defluere.*' *i. e.* ' It is necessary that the Earth
 ' should be as capable of *undulation* as *Water.*—It
 ' will therefore begin to *putrify*, and then pass into a
 ' *fluid* itself; and by a *continual solution* be *absolutely*
 ' *liquated.*' And again, Chap. 30. ' *Adjice nunc;*
 ' *quod immanes sunt in abdito lacus, & multum maris*
 ' *conditi, multum fluminum per operta labentium. Un-*
 ' *dique ergo erunt causæ diluvio, cum aliæ aquæ subin-*
 ' *fluunt terras, aliæ circumfluunt, quæ diu coercitæ vin-*
 ' *cent, & amnes omnibus jungent, paludibus stagna.*
 ' *Omnium tunc mare ora fontium implebit, & majore*
 ' *hiatu solvet. Quemadmodum corpora nostra ad egestum*
 ' *venter exhaurit, quemadmodum eunt in sudorem*
 ' *vires; ita tellus liquefiet, & aliis causis quiescentibus,*
 ' *intra se, quo mergatur, inveniet.*' *i. e.* ' Add to

‘ this, that there are immense Lakes hidden from our
 ‘ eyes ; great part of the Sea also lies concealed, and
 ‘ there are many Rivers which flow in secret. There
 ‘ will therefore be causes sufficient for a Deluge on all
 ‘ sides, since some Waters enter in under the earth,
 ‘ others surround it, which having been long re-
 ‘ strained shall break out and overcome it, Rivers
 ‘ shall join with Rivers, and Lakes with Marshes.
 ‘ Then the Sea shall fill the mouths of all Springs
 ‘ and Fountains, and loosen them to a great extent.
 ‘ As the belly in emptying itself *exhausts our Bodies*,
 ‘ as our vital strength *turns into Sweat*, so the *Earth*
 ‘ shall *dissolve*, and without the assistance of other
 ‘ causes, shall *find within itself* what shall *drown it*.’

AGREEABLY to this Description of the matter,
Lucian, or the *Author of the Book de Dea Syria*, in the
 account he gives of the *deluge*, says, Πάντα ὕδωρ ἐγένοντο,
i. e. All things are become Water.

So the *Pseudo-Sibyll*,

Ὑδὼρ εἶναι ἀπαντα, καὶ ὑδάσι πάντ’ ἀπολείται.

Water is all, and all Things are destroyed by Water.

Lycophron writes thus :

Οτ’ ημαρτυνε πασαν ομβρησας χθονα,
 Ζηνᾷ καχλαζων νασμᾷ.————

*When Jove, in Tempests raging, storm’d the Earth,
 He dash’d the Whole into minutest Parts.*————

‘ WHERE the Scholiast, *Is. Tzetzes*, expounds
 ‘ ημαρτυνε by ἀμμον ἐποίησε, κατεκλυσε: and that very
 ‘ properly, since all *Stone* was reduced into *Sand*, and
 ‘ the *hardest Bodies* in the *Earth* into *soft and tender*.

So that at the deluge, in such State of Things, as *Nonnus*, in his *Dionysiaca* (*Lib. vi.*) well observes,

———— Κοσμοῦ ἀκοσμοῦ ἐγένετο. ————

The World was unmade, or taken to pieces.

Philo-Judæus, speaking of the Deluge (*Liber de Abrahamo*, p. 279.) says, Τα μέρη τὰ πάντ' εἰς μίαν φύσιν τῆς ὑδατὸς ἀνασείχεται. That the *Particles of every thing were changed into the Nature of Water.*

Page 45. l. ult. — ANOTHER objection to the *total dissolution of the earth* during the *Deluge*, has been drawn from the *Mosaic* description of the situation of *Eden*, and the *names* of the *lands* and *rivers* adjacent thereto (*Gen. ii. 10, &c.*) as existing under *those appellations* in the time of *Moses*. Now it has been argued, that if such *Countries* and *Rivers*, and so called, existed in *Moses's* time; as did soon after the *Creation of the World*, then this part of the *World* was *not destroyed* during the deluge. But why there might not have been *Lands* and *Rivers* similarly situated, and called after the same *Names after* the *Deluge*, as they were before, I see no reason, or rather great reason, why all such things should be alike. For, certain it is (as I have amply shewn above) that the *same Agents* were employed in the *Reformation of the earth after* the deluge, as were concerned in the *first formation of it*, and also that they acted in *the same manner*, and under *the same direction*, and therefore may reasonably be supposed to have produced *the same Effect*. So that the *Earth*, with regard to the *disposition of Land and Water*, would be formed after the deluge, much as it was before, and of consequence the situation of *Countries, Rivers, &c.* would be a-

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Vid. *WOODWARD's Nat. Hist. of the Earth illustrated, &c.* p. 64.

like ; and by the descendants of *Noah* (who were acquainted with their former situations) would be *called after the same Names*.

Page 46. l. 24.—*AND all flesh died that moved upon the earth, both of fowl, and of cattle, and of beast, and of every creeping thing that creepeth upon the earth, and every man. All in whose nostrils was the breath of life, of all that was in the dry land, died. And every living substance was destroyed, which was upon the face of the ground, both man, and cattle, and the creeping things, and the fowl of the heaven; and they were destroyed from the earth: and Noah only remained alive, and they that were with him in the ark.*

THIS destruction of the land animals for the sin of man, may, at first sight, seem to carry some reflection upon the wisdom and goodness of God, as a transaction unnecessary and unjust. But certain it is, that the Creator has full power to dispose of his creatures as he sees best; and however unaccountable the dispensation may appear to us, yet it will always be consonant to the rules of Justice and Mercy. And in this case it is manifestly so. For as these creatures were made for the use and service of man, so when man was, in a manner, to be destroyed, it was necessary that they should perish together with him, as being of no farther Service : And not only this ; but had they been preserved alive (which must have been by a most extraordinary miracle) they would have been so very numerous after the flood, in comparison of the few human creatures, that they would have defeated the very end for which they were made, by overpowering and destroying the small remnant of the human race. So that it was *necessary* and *proper* that they should be destroyed, and begin again with man's re-beginning.

THE particular manner, in which the destruction of the brute creatures is notified, sufficiently points out the *Species* that were to be destroyed, viz. the *land animals only*, as verse 21. *All Flesh died that MOVED UPON THE EARTH—ALL that WAS IN THE DRY LAND, died—every living substance was destroyed which WAS UPON THE FACE OF THE GROUND, both man, and cattle, and the creeping things, and the fowl of the heaven.* So that we may hence fairly conclude (especially as *Noah* was ordered only, *Gen. vii. 2, 3*, to take pairs of the above species into the ark, *to keep seed alive upon the face of all the earth*) that the *fish*, or *the inhabitants of the waters* were preserved alive, without a miracle, in their own proper element. For though the first shock, *when the fountains of the great abyss were broken up*, was very terrible, and probably destroyed great numbers of them, yet as many might have been preserved as destroyed, as is commonly the case in the most tempestuous motions of the sea. And after this first shock, we are told, the whole process was *gradual*, both the increase and the decrease of the waters, so that with regard to any danger arising from the agitations of the waters, they may well be supposed to have been preserved. But it has been further urged, that if they could survive these, yet the great mixture of terrestrial particles, when the whole body of the earth was dissolved in the waters, must have produced such noxious qualities, that it was impossible they should have out-lived this injury, even in their own element. In answer to this, it must be observed, that the earth was not totally dissolved, or the mountains reduced to atoms, 'till the waters had risen to a vast height above them (see p. 85.) So that there is no reason for supposing that the dissolved parts of the earth reached to the surface of the waters; and even supposing that some

part of them did, yet it is a well known observation, that in the most turbid mixture of earth and water, the earthy particles will soon begin to descend, and the surface become clear and limpid; and also, that in such turbid waters, the fish naturally rise to the top, which, in the case of the Deluge, would be the most advantageous situation possible for them, as the surface of the waters would abound with every thing suitable to their nourishment, as the carcasses of dead men and animals, and all sorts of flying insects; and the trunks of trees that swam upon the top would serve for the shelter of the Spawn and the Fry.

Page 51. l. 1.—*The waters returned from off the earth* CONTINUALLY, or as translated in the margin, *in going and returning*, in flowing backwards and forwards, in fluctuating here and there; for as the Airs began to ascend before the Waters began to descend, they would of course impede, and in part drive back the waters, and so cause a fluctuating or reverberating motion in them; and by this means also, the waters would be prevented from rushing down too fast, and from tearing the shell of the earth too much. For had the apertures into the Abyss been very large, and no impeding body to withstand the descent of the waters, the surface of this earth would have been of a very different form than what it is now. For instead of the present *gentle risings and fallings* of hill and dale (all which were made by the *gradual* retreat of the waters at the end of the Flood, as will appear in the process of this Tract) the whole surface of the land would have exhibited the most frightful and tremendous aspect of *inaccessible Precipices, broken Rocks, and unfathomable Gulphs*: and the water that at present breaks out from Spring-heads on the tops and sides of Mountains, instead of

softly gliding through the declining Vallies, would have broken in direct falls and cataracts over our heads: so much depended upon the *gradual* descent and *retreat* of the Waters. And an Author, who was well acquainted with the Subject I am writing on, says, 'The waters in their going down acted in the same manner as they did at the *first Formation*; they formed the Surface of the Earth (if one might use such an expression without offence) for *their own use*, and in doing that formed it *for our use*.' *Hutchinson's Moses's Principia*, p. 106. And by this mutual and contrary action of the Air and Water, the body of the earth would not only be preserved from being broken too much, but the *safety of the Ark* upon the face of the Waters easily accounted for, without having recourse to a *Miracle*, as some have done. For how impetuous soever the descent of the Waters might otherwise have been, yet the counter-action of the ascending air would certainly weaken its force; and however violent the effects of these two agents might have been upon the body of the earth, yet it must be remembered, that the *Ark went upon the face of the Waters*, and was at a vast distance from the Place *where* this action was: and at the surface of the Waters there might have been, in a manner, a calm, or but a gentle fluctuation; in the same manner as when Water is let out of a funnel, or the orifice of a large and deep Vessel, there is but little motion or undulation at the Surface, however violent and turbulent the effects of the descending water, and ascending air, might be at the bottom. And notwithstanding, according to the present Translation of the Bible, we are told, *God made a Wind to pass over the Earth*; yet this Wind could not be a common Wind, or an horizontal motion of the Air, for that would have agitated the Waters more than before; and we are further told, the consequence

of this wind was, that the *Waters* were *asswaged*, or prevented from being risen higher; a just and natural consequence of the interpretation of the Words, as before given. Besides, *Moses*, in his description of the Deluge, is very particular in his Account of the *gradual increase* and *decrease* of the Waters, which gradual operation would greatly tend to the preservation of the Ark. So that (notwithstanding all imaginary Storms and Tempests, and an improper introduction of the Deity) we may justly credit what follows,

VERSE 4. *And the Ark rested (in the seventh Month, on the seventeenth Day of the Month) upon the Mountains of Ararat.*

[AND being settled there was safe from all *subsequent* perturbations and agitations of the Waters.]

THE truth of this memorable event is testified by *Christian, Jewish, and Heathen Antiquity*, and by a Tradition at present remaining among the Inhabitants of the Country, as the reader may see at large, by consulting the *Universal History*, Vol. I. p. 239, &c.

Page 52. l. 3.—VERSE 13. *And it came to pass in the six hundredth and first year, in the first month, the first day of the month, the waters were dried up from off the earth: and Noah removed the covering of the ark, and looked, and beheld the Face of the ground was dry.*

VERSE 14. *And in the second month, on the seven and twentieth day of the month, was the earth dried.*

THIS verse may seem a contradiction to the former: but it is not. The *drying up of the Waters* from off the Face of the Ground is one thing, and the *drying, or draining the body of the Earth* from the effects of the Deluge, till all the superfluous waters had returned into the Abyss, is another. The first would naturally precede the latter; and this latter might have been (as is here related) near *two Months* after the former.

Which by the by (especially if we include the time from the *first appearance* of the *Mountains*, which was two Months before this) shews, that there was time sufficient, in a natural way, allowed for the production of *grass* and *herbage* over the *face of the Earth*, for the nourishment of the animals that should come out of the Ark.

Page 78. l. 30. (as a *Note*.)—There is mention indeed made, *Joshua* x. 13. of the *Book of JASHER*, and of the miracle of the *Sun's standing still upon Gibeon*, and the *Moon in the Valley of Ajalon*, being recorded in it;—Is not this written in the *Book of Jasher*? And as this event happened soon after the death of *Moses*, some have imagined that the author of it must have been at least coeval with *Moses*, and that the *Book of Jasher* must have been of great authority, as the Scripture itself refers to it for evidence. But, in short, if we consult the *original*, or even our *marginal version*, there will be no doubt of the author of the *Book*; for what is translated, *Is not this written in the Book of JASHER?* is justly rendered in the *margin* of our Bibles, *Is not this written in the book of the UPRIGHT?* i. e. *in the word of God*, in the *true authentic Copy*, preserved in the *Tbernacle*, and acknowledged by all the nation.

AND had the Translators rendered the words for *Sun* and *Moon* in the above passage, according to the sense of the original, and according to common sense, the *light of the Sun*, and the *light of the Moon* (as the words really mean) the charge of false philosophy could not have been brought against Scripture. But we first of all make mistakes ourselves, and then wonder how they came to be in the word of God. Mr. *Pike* in his *Philosophia Sacra*, p. 44, &c. has undeniably shewn, that the words שמש and ירח translated *Sun* and *Moon*,

really mean, in *every place* of Scripture where they occur, the *solar light* and the *lunar light*, and not the *bodies* of the Sun and Moon. And with regard to the passage under consideration, he observes thus; “ I conceive that the chief of this mistake arises from quoting the place *imperfectly*. ’Tis usually said thus,—Does not *Joshua* say, *Sun stand thou still?* and the next words are generally dropp’d or forgotten: whereas it runs thus,—*Sun stand thou still in GIBEON, and thou Moon in the Valley of AJALON*. Now I ask, was the *body* of the Sun in *Gibeon*, or the *body* of the Moon in the Valley of *Ajalon*? Surely no: but the *light* proceeding from the Sun, and the *light* reflected from the Moon, were both *there*. *Joshua* therefore plainly means not the *bodies*, but the *lights* of the Sun and Moon here.” In the same sense understand the word for *Sun* in *Psalms* xix. and the whole will be *true philosophy*.

Page 80. ult. (as a Note)—SOME have asked, *Why did not NOAH convey down to posterity a true account of the Deluge; as he was present at the beginning and ending of it, and saw the whole transaction; he was certainly a more proper Person than MOSES, who did not live ’till some hundred of years after the event?*

BUT such objectors seem not to reflect on the situation of *Noah* during the flood, namely, that *he and all his family* were shut up in the *Ark*, and if they had been seated on the top of it, they could not have seen to any very great distance, at least could never have known that the *whole globe* was covered and environed with water: neither could they have judged of the amazing quantity of water sent at that time from the *abyss beneath*; for though the water, in its passage upwards, would naturally elevate the ark to whatever height itself rose, yet the persons in it could not tell

from whence it came, or to what height it ascended: far less then cou'd they judge of transactions that passed at a *still greater Depth* below them, namely, the *destruction, dissolution, and re-consolidation of the whole body* of the earth; all which were effected *beneath* the waters, inscrutable to human eye, thought, or conclusion, unless enlightened by revelation: so that *Noah*, though present during the event of the Flood, was as ignorant (considering his then situation in a natural light) of these great transactions, as any of us at present can be, nay more so, for our Opportunities of searching and examining the Earth, and making deductions therefrom, are greater than his could be, and therefore he could not convey to us that knowledge which himself had not, unless he was informed of it *by Revelation*, which indeed he was, as I have proved already. And if it were proper to give *Noah* by supernatural means, any information of these things for his own and his family's sake, certainly it was far more requisite that *Moses* should be acquainted with them, who was to convey the *knowledge of these things*, and also some *far more useful truths, to all Posterity*. DEUT. xxix. 29.

Page 114. l. 13.—THE observations of the ingenious Dr. *Derham*, in his *Physico-Theology* (Book II. chap. v.) on this Head, are well worth reciting; “That springs have their origin from the sea [or *subterranean waters*, in the sense Dr. *Plot* understands it, in his *Tentamen Philos. de origine Fontium*, § 51. as Dr. *Derham* refers to that book for a farther discussion of the subject] and not from rain and vapours, among many other strong reasons, I conclude from the *perennity* of divers springs, which always afford the same quantity of water. Of this sort there are many to be found every where, [as may be seen in the above men-

tioned Treatise of Dr. Plot.] But I shall, for an instance, single out one in the parish of *Upminster*, where I live, as being very proper for my purpose, and one that I have had better opportunities of making remarks upon *above twenty years*. This in the greatest droughts is little, if at all diminished, that I could perceive by my eye, although the ponds all over the country, and an adjoining brook, have been dry for *many months* together; as particularly in the dry summer months of the year 1705. And in the wettest seasons, such as the summer and other months were preceding the violent storm in *November. 1703.* (vid. *Philos. Trans.* No. 289.) I say, in such wet seasons I have not observed any increment of its stream, excepting only for violent rains falling therein, or running down from the higher lands into it, which discoloureth the waters oftentimes, and makes an increase of only a day's, or sometimes but a few an hour's continuance. But now, if this spring had its origin from rain and vapours, there would be an increase and decrease of the one, as there should happen to be of the other: as actually it is in *such temporary* ^a springs, as have undoubtedly their source from rain and vapours."

"But besides this, another considerable thing in this *Upminster* spring (and thousands of others) is, that it breaks out of so inconsiderable an hillock or eminence of ground, that can have no more influence in the condensation of the vapours or stopping the clouds

^a Of this kind was the *Spring or Water* that supplied the Brook *Cherith*, mentioned 1 *Kings* xvii. 7. which at the beginning of a great drought (consequent of a prophecy of *Elijah*, that *there should be neither dew nor rain for some years*) was dried up; And it came to pass after a while, that the Brook dried up, because there had been no rain on the land. But all this time there were other Springs and Fountains, as appears from what is said, 1 *Kings* xviii. 5.

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Page 275. l. ult. AND this consideration, that *the gravity of bodies* was *less* during the flood than before or since, will serve to remove another difficulty which hath been thought to attend the Affair of the Deluge, viz. *How it came to pass that shells, and corals, especially such as are called pelagiæ, or those that live and grow only at the bottoms of the deepest seas, should be now found upon the tops and in the bodies of the highest mountains, even such as are at the greatest distance from any sea; whereas if the ocean itself were to be emptied out upon the earth, it would never carry these heavy bodies with it to so great a distance.*

IN answer to which objection I would first observe, as proved above, that the *gravities of bodies* were certainly *less* during the flood than since; which is moreover evident from the manner in which these bodies lye in the strata; it being not uncommon to find one particular species of shells or corals, or even a row of single shells, running parallel, or keeping the same depth with the stratum in which they are found throughout the extent of a whole country, or as far as the stratum itself continues; which is a plain proof that these shells settled together with the dissolved parts of the stratum; and of consequence were before so light as to be buoyed together with that in the same medium.

AND with respect to the conveyance of these bodies from their original beds to the places where they are now found, it must be remembered, that not only the ocean, but the Abyfs itself was emptied out upon the surface of the earth: and as the Abyfs lies *beneath* the ocean, and came out through the apertures in the bottom of That, in order to cover the earth, it would necessarily bring along with it all such bodies as lay loose near those apertures, and were buoyable in water, and carry them to the greatest distance it self was carried.

AND what would farther tend to the more easy conveyance of these bodies would be, that as there was a *central nucleus* or a globe of loose terrestrial matter at the center of the primitive earth (as is evident from the *Mosaic* description of the formation of that earth, p. 64, &c.^e) and as this globe consisted of nothing but lax incoherent matter, so, as the waters came out of the Abyss, and the air occupied it's place, this globe would naturally be broken to pieces; and the Parts thereof being diffeminated through the water, and coming up along with it through the apertures of the seas, would drive away before it all loose bodies, such as shells, corals, bones, &c. that lay near those apertures, and also whatever land-productions that were of a light nature it might accidentally meet with in its passage, and scatter them over the whole face of the earth.

^e Besides, we are expressly told, *Gen. i. 10.* That there were Seas in the ante-diluvian earth; there were also Rivers (*Gen. ii. 10.*) and Mountains (*Gen. vii. 20.*) and of consequence Vallies, which are only the intervals between mountains, and without which mountains cannot be. The Truth of which representation is also sufficiently evidenced by the *remains* of the *products* of the *ante-diluvian earth* now found buried in this. There are *fossil shells*, the fish of which live and grow only in the *sea*; there are other shells that could be found only in *river-water*; and there are *fossil plants* now found that naturally grow only upon *mountains*; and others that germinate only in *vallies*. From whence it is very evident, that the *external form* of the ante-diluvian earth was much the same as the present, diversified into seas, rivers, mountains, vallies, &c. and from what is said page 23, &c. the seas, rivers, &c. were in the same situation, with regard to themselves, in the one earth as in the other. Now if the *external form* of the two earths were alike, there is no reason to imagine that the *internal* was not; at least with respect to the point in question, the existence of the *central nucleus*, which I have already shewn was no more than the Consequence of the surface of the earth being torn and broken into hollows and channels for seas, rivers, vallies, &c. and the matter that before filled up these hollows being placed at the center.

So that it is no wonder that we find such a strange confusion of things as sea and land animals, corals, and corallines, of far distant places, lying in one and the same bed; and in particular that the *pelagiæ shells* should be now found in the most inland parts; for as these shells lay at the bottom of the sea, they would be subject and exposed to the first and most violent irruption of the subterranean waters, and be carried by them over the face of the whole earth. And as it is well known (which has surprized many fossilists) that we find a far greater number of shells of the *pelagiæ* kind than any other now buried in the earth, so it is hence evident that all recourse to partial floods, or accidental inundations of particular seas (supposing such to have been) can never solve these phænomena; and nothing but an irruption of the *subterranean waters*, and thorough washing and cleansing of the *immense basin* of the *ocean*, and the *bottoms* of *all the seas* by these waters, can account for these *extraordinary and extensive effects*.

I MAY here just add that, notwithstanding the sea and all its various productions were thrown out upon the land, yet the land and its products were not thrown into the sea: the earth was not dissolved, till the waters had risen to the highest and all was calm and quiet; so that the mineral and metallic parts of the globe, though reduced to their primordial atoms, and vegetables and their seeds, though floating in the waters, did not move far sideways, but principally ascended upwards and settled down again, in or near the same places from which they were before assumed. So that the waters, in their retreat into the Abyss, would have much the same kind of earth to act upon at the end of the Deluge as they had at the beginning of the creation, and as they acted in both cases in the same manner and under the same direction, the two earths would be alike.

BUT it has been farther asked, *How came it to pass, that the hardest rocks and the solid strata of the earth should be dissolved, and yet such tender substances, as shells, bones, teeth, and even plants, should preserve their texture and remain uninjured during the Deluge?*

IN answer to which I would first observe, that the matter of fact is indisputable, the former were dissolved, and the latter were not; as the whole body of the earth proves to a demonstration. The impression of the most curiously engraved seal in wax cannot evidence the once liquid state of the wax more than the exact delineation of the fibres of the most tender plant in stone proves the dissolution of the stone: it is impossible that stone, unless it were soft and fluid, could receive the impression of a plant, and impossible that the plant, unless it preserved its form and texture entire, could give such an impression. And as these impressions are found in the hardest rocks and firmest strata throughout the whole body of the earth, so the matter of fact is undeniable, and on this alone my arguments are founded. And therefore their force would not be invalidated if no other solution to this difficulty could be given. But I shall endeavour to proceed farther in the disquisition of this subject.

WHEN indeed we view the immense strata of the earth, or consider the size and hardness of a single rock, it appears scarce credible that that rock should have been dissolved and a tender plant preserved entire in the inside of it. And yet of this we have many similar instances in the world. Certain it is that immense masses of ice frequently contain within them a vast variety of bodies, such as shells, corals, bones, vegetables, &c. and the impression of these bodies are as exquisitely delineated in the ice, as the forms of the same bodies are frequently found to be in the hardest stone. Both substances, therefore, that include these bodies, were once in an *equal state of fluidity*, and yet

the *bodies included* in neither case *destroyed* nor *injured*. Now let us suppose the ice to be exposed to the influence of the Sun's rays ; in which case the action of the cold air, which had hardened and congealed the water, would be taken off, and the frozen mass, by the penetration of the particles of light, be soon reduced to it's original element ; and yet the bodies included would remain whole and entire.

To enlarge the reader's idea, let him cast his eye over a map of the earth and view the frigid Zones, or those immense tracts in the ocean which are frozen at times or throughout the whole year ; and let him suppose the action of *light* to *prevail* there, how soon would the whole be reduced to *atoms* or *fluidity* ? and yet the finest shell or most tender vegetable substance, even a leaf, would not be injured by *such a dissolution*. Now as ice is *harder* than plants, this is a plain instance that, according to the present course of nature, one and the same agent may dissolve a hard and firm body, even of great extent and magnitude, without injuring those that are smaller, of a finer and more delicate construction. Nay, what may be thought more to the purpose, it is well known that, in case of lightning, the action of light will penetrate, tear asunder, and dissolve the parts of the hardest and most solid bodies, without injuring those of a more soft and pliable texture, though it has had a free passage through them.

AND such also is the case of the *action* of the *air* upon different bodies. Such substances as naturally admit a free and easy passage to the air, will not be injured by the penetration of that Agent ; whereas those that resist it's force, and the more they resist, *i. e.* the stronger, firmer, and finer their constituent particles are, the more extensive will the dissolution be upon the separation of their particles by the permeation of that Agent. And such was the case at the time of the Deluge. In order that a way might be opened for

the ascent of the subterranean *water* over the surface of the earth, we are told, *Gen. vii. 11.* That *the fountains of the great Abyss were broken up*, i. e. the sides of those *passages* or *cavities*, through which *springs* and *fountains* received their supplies in the ante-diluvian earth, were widen'd and thrown open upwards, and by this means the shell of the earth, *destroyed*, or broken and shattered in a vast number of places. But in order that the earth might be *dissolved* (and the evidence both of the *destruction* and *dissolution* remain to all future generations) we are told, *ver. 11.* (see p. 40. of the treatise) that *the passages of the airs were also opened*; i. e. the smaller cracks and crevices in the strata of stone, &c. through which *air only* can pass, were *opened* and distended, and the air passed freely through every pore and between every atom of stone, &c. and so the whole earth was really *dissolved* or reduced to it's original, *fluid*, chaotic state. That the air has a free passage through the cracks and pores of most sorts of stone, no one will deny, and that it can pass through all, and even the hardest of metals, is well known to those who are acquainted with the nature of these bodies.— If for instance (to mention but one experiment, which may illustrate the subject I am upon in other respects) iron or copper be dissolved by aqua fortis, a prodigious quantity of air-bubbles arise from the decomposition of the metals, and if this experiment be performed under an exhausted receiver, the appearance of the air-bubbles is greatly increased: and that this air was included in the pores of the metal, and set at liberty by the dissolution of the metallic bodies, is evident from hence, because aqua fortis by it's self will yield no such appearance under the air-pump. Now if we suppose the pores of all mineral and metallic bodies to be opened wider than they are naturally, and even so far, or extensively, as that the air should pass freely between every atom of stone, &c. how would this in-

jure or hurt the parts of a *plant* or *animal*? The air had a free and easy passage through them before, much freer than it had through any sort of stone or metal; and therefore such an execution as this against the *solid body* of the earth would not affect them; not to mention *they were not intended* to be in the *execution*.

BESIDES; the *texture* of plants and animals would greatly tend to their preservation. It is well known that they consist of *fibres* or *stringy parts*, which are complicated, twisted and tied together; and these fibres constitute the sides of vessels or tubes, through which not only air but a much grosser fluid [the sap in vegetables, blood, &c. in animals] together with that pass most freely. But the parts of stone have no such tie or connection, or any such easy, regular channels for the admission and permission of air: their constituent principles seem to be joined together only by a juxtaposition or application of plane or spherical surfaces one to another: whereas the primogenial parts of plants and animals, by the strict union and complicated toughness of these bodies, are in all probability linked together in a great variety of directions.

To all which considerations we may add that plants and animals are so small and light in themselves, and so easily susceptible of motion any way, especially when swimming in a fluid that could buoy them up (as was the case at the time of the deluge) that they would make no resistance to the force of the agents (the *wind* and the *water*) that dissolved the *solid* and *resisting* body of the earth, but would be readily driven, this way or that, as the currents of each conveyed them. So that though plants and animals, with regard to what we call the *Life* of them, would be *destroyed*, at least those that remained immersed in the earth during the deluge, yet their parts would not be *dissolved*, or their texture reduced to atoms; for the *smallness*, *porosity*, *pliability*, and *toughness* of their parts would all conspire

towards preserving them during the most violent effects of that catastrophe.

Page 279. l. 8.—CERTAIN then it is that this whole earth has been destroyed, all the solid structure of it unhinged, broken to pieces, and reduced to it's original loose chaotic state, and afterwards formed anew into it's present solid, beautiful, and convenient shape. Effects these so great! that they could never have happened of themselves, never have been the performance of blind inanimate matter. Matter cannot even destroy itself, much less, when destroyed, form itself anew. These transactions therefore must have been effected by a Being superior to all the Powers of Nature: and they carry in themselves such evident marks of *Wisdom, Power, Goodness and Justice*, that they not only prove that there is a GOD, but that HE GOVERNS the World,—that *sin* is his greatest detestation, and a *life of faith and righteousness* the only recommendation to his favour, *Heb. xi. 7. By faith Noah being warned of God of things not seen as yet, moved with fear, prepared an ark to the saving of his house; by the which he condemned the world, and became heir of the righteousness which is by faith.*

THUS does the Book of Nature lead to the Book of God, and the one bears witness to the truth of the other, not only with respect to it's *philosophy* but even it's *divinity*.

I COULD wish therefore that all searchers into nature, especially those who examine the subterranean kingdom, and are so anxious, and at so much pains, expence, and difficulty, to procure the productions thereof, would consider *these two particulars*, and make a right use of their labours and studies.

It is at present too fashionable a custom with fossilists to admire the external beauties of their curiosities, and to place them with great care and art in their ca-

binets, with no other view, than to exhibit them to the ignorant as a raree-show. Poor amusement to a rational mind! an employment quite unworthy the dignity of a philosopher, who may draw so many and such advantageous truths from his subterranean researches.

If the medalist can creep but half way to the time of the Deluge, and can prove from his collection the existence of a *Cæsar* or *Alexander*, he thinks he rises high in antiquity, and has made some noble discovery. But how vastly superior to him is the fossilist? I have fully shewn, that all the works of the artificers in *brass, iron, stone, &c.* were *dissolved* at the time of the Deluge, and that the knowledge of their arts were not recovered, or at least in general applied, 'till long after the flood. So that the medalist must be content to make his observations upon things and impressions, that had not an existence when the imprimatures of the ante-diluvian animal and vegetable bodies were formed in the solid rock all over the earth.

NEITHER do the *fossil reliquæ* of plants and animals by any means yield in elegance and exactness to the medalic inscriptions; nay they far exceed them, for they exhibit not only the precise figure and due size, but the very bodies themselves are most exquisitely preserved: whereas in medalic impressions the form is contracted and the likeness imagined.—“These fossil bodies then (says the author of *Speſtacle de la Nature*, Vol. III. p. 415.) so seemingly useless, do speak demonstration to our senses, and are a language which is understood by the most common capacities, having been appointed by Providence as so many standing monuments of the most remarkable of all transactions, and are with regard to the *history* of *Moses* the same as *medals* to the *Roman history*.” *Voilà* (says another French writer, *Hist. de l'Acad. Roy.* 1710. p. 28.) *des nouvelles especes des medailles, dont les dates sont & sans*

comparaison plus anciennes, & plus importantes, & plus sures, que celles des toutes les medailles Grecques & Romaines.

AGAIN ; certain it is that the works of God are contrived and executed by the utmost wisdom, and for the most noble and useful purposes. And yet if we look into the earth, we shall see a strange distribution of things, an appearance quite contrary to all order and regularity, propriety or utility. If we visit the tops of the highest mountains, and examine the state of things just under the turf, at least in such as are boggy and morassy, we shall find a vast variety of perished vegetables, of such kinds or species as at present are not known (in their natural state) to the inhabitants of the countries where they are discovered. If we examine the inside of the earth, instead of finding things peculiar to the land or it's internal constitution, we shall there discover, even at the lowest depths, *the spoils of the ocean* in great abundance, together with a vast variety of *animal and vegetable bodies* that can live and grow only upon the surface of the earth. And what is farther remarkable, in many places, only *parts* of these bodies, trunks of trees and leaves of plants without roots or branches, teeth of fishes without jaws, and bones without any bodies to support them ; and all these so closely fixed to and completely circumscribed by the solid rock, as to shew that they could never have been of any use to any creature where they are found, neither could they ever have increased to complete forms. Then as for those that are complete in their shapes, and carry evident marks of having been *once living creatures*, it is equally surprizing for what end or purpose they could be laid there, or why a set of beings, that invariably pursue the will of their Creator, or could not possibly offend him, should be destroyed in such amazing multitudes, that several whole species seem to have been buried alive in the earth.—

These strange, striking phænomena certainly deserve the notice and call for the examination, not only of the *philosopher*, but even of the *divine*.

Now it is an allowed case that *nature*, i. e. the *Author of nature*, *does nothing in vain*. It therefore behoves the philosopher to shew this, and to solve all appearances to the contrary. And, in the article under consideration, it appears, I hope, from the foregoing treatise, that nothing but the supposition of the *universal Deluge* can answer these phænomena, and that That in every respect is equivalent to them; and therefore we may fairly conclude the reality of such an event.

AND with regard to *divinity*; it is a certain truth, that the *natural* world never suffered, unless the *spiritual* or *moral* had first offended. It cannot be supposed that God would fall out with senseless inanimate matter, that operates mechanically, or punish the brute creation on their own account, that unvariably pursue the rules and instincts he has prescribed them. If therefore either of these suffer, or the state and condition of either be altered, at least from better to worse, it must be on account of that Being, for whose sake they were at first made, and for whose welfare they are still continued in existence. And when they can be no longer of any service to man (for whose use they were originally formed) it would be needless to preserve them alive. If therefore man, or the whole species of the human race, except a few righteous, should in such a manner offend their Maker as to deserve a total extirpation; it would be but requisite that the brute creation should perish together with them, or at least the far greater part of them, lest at the renewal of the world the small remnant of the human race should be overcome by those very creatures that were made for their benefit. And the *manner* in which they were destroyed, and the *distribution* of their bodies or bones after, indicate the

wisdom and goodness of that God, who *in judgment always remembers mercy*; for by burying of them in the earth, especially in the *most solid* parts (which are of the greatest service to man, and therefore are daily dug and brought up to light) they are, and will remain, to each succeeding race of men as an evident proof of the truth of the destruction and of the wrath of God against a world of sinners; so that *though dead* they still *speak* in the lively oracles of God and in the book of nature.

THE certainty that *this globe* has been destroyed by a *flood of water* may serve, not only as an argument against the *eternity and immutability of nature*, but also to convince us of another *scriptural* truth, that it will be destroyed by fire, 2 Pet. iii. 10. To an undiscerning eye there are as few marks of *fire* in the earth, as there were of a *subterranean Abyss of waters* to the ante-diluvian scoffers. And the general conflagration seems at present as incredible, and is as much ridiculed, as the Deluge was before it happened. And though God could consume the whole world, if he pleased, by the blast of his mouth, yet he hath so constructed the earth, and stored it with such combustible materials, as coal, sulphur, bitumen, &c. as to afford us some kind of pre-signification of its final destruction by fire. And this event seemed so probable in the opinion of an heathen philosopher, who had carefully examined the internal structure of the earth, that *he wondered it had not come to pass ages ago*; for Pliny in his second book of *Nat. History*, chap. cvi. cvii. after having given an account of some fiery mountains and other parts of the earth that are the seats and sources of fire, makes this reflection: "Seeing, then, this element is so fruitful that it brings forth itself, and multiplies and increases from the least sparks, what are we to expect from so many fires already kindled on the earth? How does nature feed and satisfy so devouring an element, and such a great voracity throughout all the world, with-

out loss or diminution of herself? Add to these fires we have mentioned the stars and the great sun; then all the fires made for human uses; fire in stones, in wood, in clouds, and in thunder. *So that it exceeds all miracles, that one day should pass without setting the whole world on fire; excedit profecto omnia miracula, nullum diem fuisse quo non cuncta conflagrarent."*

BUT why need I mention *one* or *two* scripture philosophical truths only, as verified by *the natural state* of the earth? I have already shewn, that the *Mosaic account* of *the manner in which the whole earth was at first formed, together with the powers of the heavens or airs, and the manner in which it was destroyed and re-formed at the time of the Deluge*, are philosophically just and literally true: and therefore that the biblical philosophy is strictly consistent with nature. And several reasons may be given why it ought to be so.

First, Because when *Moses* wrote, the *world* was *wholly given to idolatry*, and this idolatry consisted in the worship of the heavens, earth, &c.—*the sun, the moon, and the stars, and all the host of them*, and of no other god or gods (except the true) do we ever read throughout the Old Testament. Now the most likely and effectual way to destroy this idolatry would be, to *reveal a true system of nature*—to declare that the heavens were *created* (and so not God)—to shew how, step by step they were *formed into a machine for the service of man*; and therefore that man ought not to be subservient or pay adoration to them; and to omit declaring this, would be to leave and encourage men in their idolatries: especially, if any account of nature was given in the Bible; and as such is undeniably laid down, principally, in the first chapter of *Genesis*, that must undoubtedly be true.

Secondly, Besides, was not the Bible written for *this* age, as well as those in which the writers of it lived? Nay, was it not written *for*, and therefore is to con-

tinue *to, all ages*?—Did not the Spirit of truth (in whose sight *a thousand years are but as one day*) very well know, that certain self-sufficient mortals would rise up (after his revelation was *delivered* and *sealed*) contradict his word, dispute his philosophy, and presume to give a system of nature out of their own brains; when it was as much, or rather more impracticable for them to give the true one, than it would be for a man—who had never seen a watch, or any machine like it, and was utterly ignorant of the movements within—to account for the motion of the hand, in it's regular circuit, round the dial-plate? Did not the Spirit of truth, I say, know all this? And would not his goodness prompt him, and his veracity induce him, to reveal a true system of nature; that those who had humility to own that God alone could give an account of his works, and were willing to search his word for that instruction, should there find the inestimable treasure? And as God has vouchsafed to give an account, who will presume to affirm that that account is untrue, or accommodated to the current, though false, opinions of the times?

Thirdly, “To suppose the Divine Being (says Mr. Pike in his *Philosophia Sacra*, p. 12.) to conform himself in his word to bare outward appearances, or to the false apprehensions of the vulgar, is such a supposition as we will not admit in any other case. The allusions and references of scripture to *history* or *geography* and the like we maintain to be just and exactly true, and look upon ourselves as bound to believe and maintain the *history* as well as the *theology* of revelation; and why then should we not for the same reason account ourselves obliged to maintain, that there is no mistake or misrepresentation in it's descriptions of and references to *natural things*?”

Fourthly, “There are many philosophical passages, that cannot be regularly explained as conformed to

outward appearance, or the opinions of men. Witness the *Mosaic* account of the creation and formation of all things. Can any one affirm that the first chapter of the Bible is built upon a false hypothesis, or accommodated to vulgar apprehensions? And if it be not true either in appearance, or in reality, I see not how it can be true in any respect."

Fifthly, "We must not suppose the word of God to speak false in any case whatsoever. *It's history, it's chronology, and it's philosophy* must be in fact as true as *it's theology*. If we suppose any part of the divine word to be erroneous, this so far shakes the authority of all the rest. And as God knows all things perfectly, we must believe him the fittest to give us an account of his *works* as well as of his *nature*."

Sixthly, "There is a *necessary connection* between the knowledge of *natural* and *spiritual* things; since scripture constantly, or at least very frequently, refers our thoughts to natural ideas, in order to illustrate spiritual truths. And for this reason it appears to be of some considerable importance, that the natural ideas referred to be strictly just and true, in order to be a proper foundation for a right conception and representation of divine matters."

OR, as Mr. *Spearman* (in his *Enquiry after Philosophy and Theology*, p. 254.) has most judiciously stated this case: "When the senses have acted upon any material natural object, what they take in and retain by that action is the *inward sense* or *idea* of the thing; and the knowledge we gain by such repeated acts of the senses upon nature and her operations is *natural knowledge* or *physics*. When we make use of these natural and acquired ideas to help us to ideas of spiritual things, the knowledge we, by these means, gain of God and his operations is *super-natural knowledge* or *metaphysics*: and so by *things* that are *visible* within the reach of our senses, and *which we can understand*, we

are led to the knowledge of *things which are invisible*, without the reach of our senses, and which we could not otherwise understand.^f It is agreed, that we have no innate ideas ; and that nothing can be in the understanding but what comes in by the senses. We therefore either can have no ideas of God and spiritual things, or we must take them in by our senses. But our senses cannot act immediately upon spiritual objects, because they are not the objects of our senses ; therefore we must have our ideas of spiritual and invisible things from natural and visible things. But natural and visible things can give us no ideas of spiritual and invisible things, unless they bear *some analogy* to them, are the *simulacra* or *images* of them. And if they be the images of them, they must have been *so created* and framed by God the Creator, and *to this very end*, and with *this very design* : for nothing could be created by infinite wisdom but with foreknowledge and design. And since we find in the scriptures God and spiritual things represented to us under the ideas and names of visible and sensible things, it is a demonstration in itself that God framed them to represent himself, and what he pretended to reveal of himself and his ways to mankind.”

So that we may well say with Tully from Plato, *Neceſſe eſt hunc mundum, quem cernimus, ſimulacrum eſſe æternum alicujus æterni.* It cannot be but that this world, which is visible to us, ſhould be a ſtanding type or representation of ſomething eternal.

^f As Rom. i. 19. *That which may be known of God is manifeſt among men ; for God himſelf εφανερωσε hath ſhewed it unto them. [hath manifeſted it ; for otherwiſe it could never have been known.]* Tæq, For [Inaſmuch as] the invisible things of him from the creation of the world are clearly ſeen, being underſtood by the things that are made, [visibles being made ſubſtitutes for invisibles] even his eternal power and Godhead.

Page 275. l. ult. AND this consideration, that *the gravity of bodies* was *less* during the flood than before or since, will serve to remove another difficulty which hath been thought to attend the Affair of the Deluge, viz. *How it came to pass that shells, and corals, especially such as are called pelagiæ, or those that live and grow only at the bottoms of the deepest seas, should be now found upon the tops and in the bodies of the highest mountains, even such as are at the greatest distance from any sea; whereas if the ocean itself were to be emptied out upon the earth, it would never carry these heavy bodies with it to so great a distance.*

IN answer to which objection I would first observe, as proved above, that the *gravities of bodies* were certainly *less* during the flood than since; which is moreover evident from the manner in which these bodies lye in the strata; it being not uncommon to find one particular species of shells or corals, or even a row of single shells, running parallel, or keeping the same depth with the stratum in which they are found throughout the extent of a whole country, or as far as the stratum itself continues; which is a plain proof that these shells settled together with the dissolved parts of the stratum; and of consequence were before so light as to be buoyed together with that in the same medium.

AND with respect to the conveyance of these bodies from their original beds to the places where they are now found, it must be remembered, that not only the ocean, but the Abyfs itself was emptied out upon the surface of the earth: and as the Abyfs lies *beneath* the ocean, and came out through the apertures in the bottom of That, in order to cover the earth, it would necessarily bring along with it all such bodies as lay loose near those apertures, and were buoyable in water, and carry them to the greatest distance it-
self was carried.

AND what would farther tend to the more easy conveyance of these bodies would be, that as there was a *central nucleus* or a globe of loose terrestrial matter at the center of the primitive earth (as is evident from the *Mosaic* description of the formation of that earth, p. 64, &c.^e) and as this globe consisted of nothing but lax incoherent matter, so, as the waters came out of the Abyss, and the air occupied it's place, this globe would naturally be broken to pieces; and the Parts thereof being disseminated through the water, and coming up along with it through the apertures of the seas, would drive away before it all loose bodies, such as shells, corals, bones, &c. that lay near those apertures, and also whatever land-productions that were of a light nature it might accidentally meet with in its passage, and scatter them over the whole face of the earth.

^e Besides, we are expressly told, *Gen. i. 10.* That there were *Seas* in the ante-diluvian earth; there were also *Rivers* (*Gen. ii. 10.*) and *Mountains* (*Gen. vii. 20.*) and of consequence *Vallies*, which are only the intervals between mountains, and without which mountains cannot be. The Truth of which representation is also sufficiently evidenced by the *remains* of the *products* of the *ante-diluvian earth* now found buried in this. There are *fossil shells*, the fish of which live and grow only in the *sea*; there are other shells that could be found only in *river-water*; and there are *fossil plants* now found that naturally grow only upon *mountains*; and others that germinate only in *vallies*. From whence it is very evident, that the *external form* of the ante-diluvian earth was much the same as the present, diversified into seas, rivers, mountains, vallies, &c. and from what is said page 23, &c. the seas, rivers, &c. were in the same situation, with regard to themselves, in the one earth as in the other. Now if the *external form* of the two earths were alike, there is no reason to imagine that the *internal* was not; at least with respect to the point in question, the existence of the *central nucleus*, which I have already shewn was no more than the Consequence of the surface of the earth being torn and broken into hollows and channels for seas, rivers, vallies, &c. and the matter that before filled up these hollows being placed at the center.

So that it is no wonder that we find such a strange confusion of things as sea and land animals, corals, and corallines, of far distant places, lying in one and the same bed; and in particular that the *pelagiæ shells* should be now found in the most inland parts; for as these shells lay at the bottom of the sea, they would be subject and exposed to the first and most violent irruption of the subterranean waters, and be carried by them over the face of the whole earth. And as it is well known (which has surprized many fossilists) that we find a far greater number of shells of the *pelagiæ* kind than any other now buried in the earth, so it is hence evident that all recourse to partial floods, or accidental inundations of particular seas (supposing such to have been) can never solve these phænomena; and nothing but an irruption of the *subterranean waters*, and thorough washing and cleansing of the *immense basin* of the *ocean*, and the *bottoms* of *all the seas* by these waters, can account for these *extraordinary and extensive effects*.

I MAY here just add that, notwithstanding the sea and all its various productions were thrown out upon the land, yet the land and its products were not thrown into the sea: the earth was not dissolved, till the waters had risen to the highest and all was calm and quiet; so that the mineral and metallic parts of the globe, though reduced to their primogenial atoms, and vegetables and their feeds though floating in the waters, did not move far sideways, but principally ascended upwards and settled down again, in or near the same places from which they were before assumed. So that the waters, in their retreat into the Abyss, would have much the same kind of earth to act upon at the end of the Deluge as they had at the beginning of the creation, and as they acted in both cases in the same manner and under the same direction, the two earths would be alike.

BUT it has been farther asked, *How came it to pass, that the hardest rocks and the solid strata of the earth should be dissolved, and yet such tender substances, as shells, bones, teeth, and even plants, should preserve their texture and remain uninjured during the Deluge?*

IN answer to which I would first observe, that the matter of fact is indisputable, the former were dissolved, and the latter were not; as the whole body of the earth proves to a demonstration. The impression of the most curiously engraved seal in wax cannot evidence the once liquid state of the wax more than the exact delineation of the fibres of the most tender plant in stone proves the dissolution of the stone: it is impossible that stone, unless it were soft and fluid, could receive the impression of a plant, and impossible that the plant, unless it preserved its form and texture entire, could give such an impression. And as these impressions are found in the hardest rocks and firmest strata throughout the whole body of the earth, so the matter of fact is undeniable, and on this alone my arguments are founded. And therefore their force would not be invalidated if no other solution to this difficulty could be given. But I shall endeavour to proceed farther in the disquisition of this subject.

WHEN indeed we view the immense strata of the earth, or consider the size and hardness of a single rock, it appears scarce credible that that rock should have been dissolved and a tender plant preserved entire in the inside of it. And yet of this we have many similar instances in the world. Certain it is that immense masses of ice frequently contain within them a vast variety of bodies, such as shells, corals, bones, vegetables, &c. and the impression of these bodies are as exquisitely delineated in the ice, as the forms of the same bodies are frequently found to be in the hardest stone. Both substances, therefore, that include these bodies, were once in an *equal state of fluidity*, and yet

the *bodies included* in neither case *destroyed* nor *injured*. Now let us suppose the ice to be exposed to the influence of the Sun's rays; in which case the action of the cold air, which had hardened and congealed the water, would be taken off, and the frozen mass, by the penetration of the particles of light, be soon reduced to it's original element; and yet the bodies included would remain whole and entire.

To enlarge the reader's idea, let him cast his eye over a map of the earth and view the frigid Zones, or those immense tracts in the ocean which are frozen at times or throughout the whole year; and let him suppose the action of *light* to *prevail* there, how soon would the whole be reduced to *atoms* or *fluidity*? and yet the finest shell or most tender vegetable substance, even a leaf, would not be injured by *such a dissolution*. Now as ice is *harder* than plants, this is a plain instance that, according to the present course of nature, one and the same agent may dissolve a hard and firm body, even of great extent and magnitude, without injuring those that are smaller, of a finer and more delicate construction. Nay, what may be thought more to the purpose, it is well known that, in case of lightning, the action of light will penetrate, tear asunder, and dissolve the parts of the hardest and most solid bodies, without injuring those of a more soft and pliable texture, though it has had a free passage through them.

AND such also is the case of the *action* of the *air* upon different bodies. Such substances as naturally admit a free and easy passage to the air, will not be injured by the penetration of that Agent; whereas those that resist it's force, and the more they resist, *i. e.* the stronger, firmer, and finer their constituent particles are, the more extensive will the dissolution be upon the separation of their particles by the permeation of that Agent. And such was the case at the time of the Deluge. In order that a way might be opened for

the ascent of the subterranean *water* over the surface of the earth, we are told, *Gen. vii. 11.* That *the fountains of the great Abyss were broken up*, i. e. the sides of those *passages* or *cavities*, through which *springs* and *fountains* received their supplies in the ante-diluvian earth, were widen'd and thrown open upwards, and by this means the shell of the earth, *destroyed*, or broken and shattered in a vast number of places. But in order that the earth might be *dissolved* (and the evidence both of the *destruction* and *dissolution* remain to all future generations) we are told, *ver. 11.* (see p. 40. of the treatise) that *the passages of the airs were also opened*; i. e. the smaller cracks and crevices in the strata of stone, &c. through which *air only* can pass, were *opened* and distended, and the air passed freely through every pore and between every atom of stone, &c. and so the whole earth was really *dissolved* or reduced to it's original, *fluid*, chaotic state. That the air has a free passage through the cracks and pores of most sorts of stone, no one will deny, and that it can pass through all, and even the hardest of metals, is well known to those who are acquainted with the nature of these bodies.— If for instance (to mention but one experiment, which may illustrate the subject I am upon in other respects) iron or copper be dissolved by aqua fortis, a prodigious quantity of air-bubbles arise from the decomposition of the metals, and if this experiment be performed under an exhausted receiver, the appearance of the air-bubbles is greatly increased: and that this air was included in the pores of the metal, and set at liberty by the dissolution of the metallic bodies, is evident from hence, because aqua fortis by it's self will yield no such appearance under the air-pump. Now if we suppose the pores of all mineral and metallic bodies to be opened wider than they are naturally, and even so far, or extensively, as that the air should pass freely between every atom of stone, &c. how would this in-

jure or hurt the parts of a *plant* or *animal*? The air had a free and easy passage through them before, much freer than it had through any sort of stone or metal; and therefore such an execution as this against the *solid body* of the earth would not affect them; not to mention *they were not intended* to be in the *execution*.

BESIDES; the *texture* of plants and animals would greatly tend to their preservation. It is well known that they consist of *fibres* or *stringy parts*, which are complicated, twisted and tied together; and these fibres constitute the sides of vessels or tubes, through which not only air but a much grosser fluid [the sap in vegetables, blood, &c. in animals] together with that pass most freely. But the parts of stone have no such tie or connection, or any such easy, regular channels for the admission and permission of air: their constituent principles seem to be joined together only by a juxta-position or application of plane or spherical surfaces one to another: whereas the primogenial parts of plants and animals, by the strict union and complicated toughness of these bodies, are in all probability linked together in a great variety of directions.

To all which considerations we may add that plants and animals are so small and light in themselves, and so easily susceptible of motion any way, especially when swimming in a fluid that could buoy them up (as was the case at the time of the deluge) that they would make no resistance to the force of the agents (the *wind* and the *water*) that dissolved the *solid* and *resisting* body of the earth, but would be readily driven, this way or that, as the currents of each conveyed them. So that though plants and animals, with regard to what we call the *Life* of them, would be *destroyed*, at least those that remained immersed in the earth during the deluge, yet their parts would not be *dissolved*, or their texture reduced to atoms; for the *smallness*, *porosity*, *pliability*, and *toughness* of their parts would all conspire

towards preserving them during the most violent effects of that catastrophe.

Page 279. l. 8.—CERTAIN then it is that this whole earth has been destroyed, all the solid structure of it unhinged, broken to pieces, and reduced to it's original loose chaotic state, and afterwards formed anew into it's present solid, beautiful, and convenient shape. Effects these so great! that they could never have happened of themselves, never have been the performance of blind inanimate matter. Matter cannot even destroy itself, much less, when destroyed, form itself anew. These transactions therefore must have been effected by a Being superior to all the Powers of Nature : and they carry in themselves such evident marks of *Wisdom, Power, Goodness and Justice*, that they not only prove that there is a GOD, but that HE GOVERNS the World,—that *sin* is his greatest detestation, and a *life of faith and righteousness* the only recommendation to his favour, *Heb. xi. 7. By faith Noah being warned of God of things not seen as yet, moved with fear, prepared an ark to the saving of his house; by the which he condemned the world, and became heir of the righteousness which is by faith.*

THUS does the Book of Nature lead to the Book of God, and the one bears witness to the truth of the other, not only with respect to it's *philosophy* but even it's *divinity*.

I COULD wish therefore that all searchers into nature, especially those who examine the subterranean kingdom, and are so anxious, and at so much pains, expence, and difficulty, to procure the productions thereof, would consider *these two particulars*, and make a right use of their labours and studies.

It is at present too fashionable a custom with fossilists to admire the external beauties of their curiosities, and to place them with great care and art in their ca-

binets, with no other view, than to exhibit them to the ignorant as a raree-show. Poor amusement to a rational mind! an employment quite unworthy the dignity of a philosopher, who may draw so many and such advantageous truths from his subterranean researches.

If the medalist can creep but half way to the time of the Deluge, and can prove from his collection the existence of a *Cæsar* or *Alexander*, he thinks he rises high in antiquity, and has made some noble discovery. But how vastly superior to him is the fossilist? I have fully shewn, that all the works of the artificers in *brass, iron, stone, &c.* were *dissolved* at the time of the Deluge, and that the knowledge of their arts were not recovered, or at least in general applied, 'till long after the flood. So that the medalist must be content to make his observations upon things and impressions, that had not an existence when the imprimatures of the ante-diluvian animal and vegetable bodies were formed in the solid rock all over the earth.

NEITHER do the *fossil reliquæ* of plants and animals by any means yield in elegance and exactness to the medalic insignatures; nay they far exceed them, for they exhibit not only the precise figure and due size, but the very bodies themselves are most exquisitely preserved: whereas in medalic impressions the form is contracted and the likeness imagined.—“These fossil bodies then (says the author of *Speſtacle de la Nature*, Vol. III. p. 415.) so seemingly useless, do speak demonstration to our senses, and are a language which is understood by the most common capacities, having been appointed by Providence as so many standing monuments of the most remarkable of all transactions, and are with regard to the *history* of *Moses* the same as *medals* to the *Roman history*.” *Voilà* (says another French writer, *Hist. de l'Acad. Roy.* 1710. p. 28.) *des nouvelles especes des medailles, dont les dates sont & sans*

comparaison plus anciennes, & plus importantes, & plus sures, que celles des toutes les medailles Grecques & Romaines.

AGAIN ; certain it is that the works of God are contrived and executed by the utmost wisdom, and for the most noble and useful purposes. And yet if we look into the earth, we shall see a strange distribution of things, an appearance quite contrary to all order and regularity, propriety or utility. If we visit the tops of the highest mountains, and examine the state of things just under the turf, at least in such as are boggy and morassy, we shall find a vast variety of perished vegetables, of such kinds or species as at present are not known (in their natural state) to the inhabitants of the countries where they are discovered. If we examine the inside of the earth, instead of finding things peculiar to the land or it's internal constitution, we shall there discover, even at the lowest depths, *the spoils of the ocean* in great abundance, together with a vast variety of *animal and vegetable bodies* that can live and grow only upon the surface of the earth. And what is farther remarkable, in many places, only *parts* of these bodies, trunks of trees and leaves of plants without roots or branches, teeth of fishes without jaws, and bones without any bodies to support them ; and all these so closely fixed to and completely circumscribed by the solid rock, as to shew that they could never have been of any use to any creature where they are found, neither could they ever have increased to complete forms. Then as for those that are complete in their shapes, and carry evident marks of having been once *living creatures*, it is equally surprizing for what end or purpose they could be laid there, or why a set of beings, that invariably pursue the will of their Creator, or could not possibly offend him, should be destroyed in such amazing multitudes, that several whole species seem to have been buried alive in the earth.—

These strange, striking phænomena certainly deserve the notice and call for the examination, not only of the *philosopher*, but even of the *divine*.

Now it is an allowed case that *nature*, i. e. the *Author of nature*, *does nothing in vain*. It therefore behoves the philosopher to shew this, and to solve all appearances to the contrary. And, in the article under consideration, it appears, I hope, from the foregoing treatise, that nothing but the supposition of the *universal Deluge* can answer these phænomena, and that That in every respect is equivalent to them; and therefore we may fairly conclude the reality of such an event.

AND with regard to *divinity*; it is a certain truth, that the *natural* world never suffered, unless the *spiritual* or *moral* had first offended. It cannot be supposed that God would fall out with senseless inanimate matter, that operates mechanically, or punish the brute creation on their own account, that unvariably pursue the rules and instincts he has prescribed them. If therefore either of these suffer, or the state and condition of either be altered, at least from better to worse, it must be on account of that Being, for whose sake they were at first made, and for whose welfare they are still continued in existence. And when they can be no longer of any service to man (for whose use they were originally formed) it would be needless to preserve them alive. If therefore man, or the whole species of the human race, except a few righteous, should in such a manner offend their Maker as to deserve a total extirpation; it would be but requisite that the brute creation should perish together with them, or at least the far greater part of them, lest at the renewal of the world the small remnant of the human race should be overcome by those very creatures that were made for their benefit. And the *manner* in which they were destroyed, and the *distribution* of their bodies or bones after, indicate the

wisdom and goodness of that God, who *in judgment always remembers mercy*; for by burying of them in the earth, especially in the *most solid* parts (which are of the greatest service to man, and therefore are daily dug and brought up to light) they are, and will remain, to each succeeding race of men as an evident proof of the truth of the destruction and of the wrath of God against a world of sinners; so that *though dead* they still *speak* in the lively oracles of God and in the book of nature.

THE certainty that *this globe* has been destroyed by a *flood of water* may serve, not only as an argument against the *eternity and immutability of nature*, but also to convince us of another *scriptural* truth, that it will be destroyed by fire, 2 Pet. iii. 10. To an undiscerning eye there are as few marks of fire in the earth, as there were of a *subterranean Abyss of waters* to the ante-diluvian scoffers. And the general conflagration seems at present as incredible, and is as much ridiculed, as the Deluge was before it happened. And though God could consume the whole world, if he pleased, by the blast of his mouth, yet he hath so constructed the earth, and stored it with such combustible materials, as coal, sulphur, bitumen, &c. as to afford us some kind of pre-signification of its final destruction by fire. And this event seemed so probable in the opinion of an heathen philosopher, who had carefully examined the internal structure of the earth, that *he wondered it had not come to pass ages ago*; for Pliny in his second book of *Nat. History*, chap. cvi. cvii. after having given an account of some fiery mountains and other parts of the earth that are the seats and sources of fire, makes this reflection: "Seeing, then, this element is so fruitful that it brings forth itself, and multiplies and increases from the least sparks, what are we to expect from so many fires already kindled on the earth? How does nature feed and satisfy so devouring an element, and such a great voracity throughout all the world, with-

out loss or diminution of herself? Add to these fires we have mentioned the stars and the great sun; then all the fires made for human uses; fire in stones, in wood, in clouds, and in thunder. *So that it exceeds all miracles, that one day should pass without setting the whole world on fire; excedit profecto omnia miracula, ullum diem fuisse quo non cuncta conflagrarent."*

BUT why need I mention *one* or *two* scripture philosophical truths only, as verified by *the natural state* of the earth? I have already shewn, that the *Mosaic account* of the manner in which the whole earth was at first formed, together with the powers of the heavens or airs, and the manner in which it was destroyed and reformed at the time of the Deluge, are philosophically just and literally true: and therefore that the biblical philosophy is strictly consistent with nature. And several reasons may be given why it ought to be so.

First, Because when *Moses* wrote, the world was wholly given to idolatry, and this idolatry consisted in the worship of the heavens, earth, &c.—the sun, the moon, and the stars, and all the host of them, and of no other god or gods (except the true) do we ever read throughout the Old Testament. Now the most likely and effectual way to destroy this idolatry would be, to reveal a true system of nature—to declare that the heavens were created (and so not God)—to shew how, step by step they were formed into a machine for the service of man; and therefore that man ought not to be subservient or pay adoration to them; and to omit declaring this, would be to leave and encourage men in their idolatries: especially, if any account of nature was given in the Bible; and as such is undeniably laid down, principally, in the first chapter of *Genesis*, that must undoubtedly be true.

Secondly, Besides, was not the Bible written for *this* age, as well as those in which the writers of it lived? Nay, was it not written *for*, and therefore is to con-

tinue *to, all ages?*—Did not the Spirit of truth (in whose sight *a thousand years are but as one day*) very well know, that certain self-sufficient mortals would rise up (after his revelation was *delivered and sealed*) contradict his word, dispute his philosophy, and presume to give a system of nature out of their own brains; when it was as much, or rather more impracticable for them to give the true one, than it would be for a man—who had never seen a watch, or any machine like it, and was utterly ignorant of the movements within—to account for the motion of the hand, in it's regular circuit, round the dial-plate? Did not the Spirit of truth, I say, know all this? And would not his goodness prompt him, and his veracity induce him, to reveal a true system of nature; that those who had humility to own that God alone could give an account of his works, and were willing to search his word for that instruction, should there find the ineffimable treasure? And as God has vouchsafed to give an account, who will presume to affirm that that account is untrue, or accommodated to the current, though false, opinions of the times?

Thirdly, “To suppose the Divine Being (says Mr. Pike in his *Philosophia Sacra*, p. 12.) to conform himself in his word to bare outward appearances, or to the false apprehensions of the vulgar, is such a supposition as we will not admit in any other case. The allusions and references of scripture to *history* or *geography* and the like we maintain to be just and exactly true, and look upon ourselves as bound to believe and maintain the *history* as well as the *theology* of revelation; and why then should we not for the same reason account ourselves obliged to maintain, that there is no mistake or misrepresentation in it's descriptions of and references to *natural things?*”

Fourthly, “There are many philosophical passages, that cannot be regularly explained as conformed to

outward appearance, or the opinions of men. Witness the *Mosaic* account of the creation and formation of all things. Can any one affirm that the first chapter of the Bible is built upon a false hypothesis, or accommodated to vulgar apprehensions? And if it be not true either in appearance, or in reality, I see not how it can be true in any respect."

Fifthly, "We must not suppose the word of God to speak false in any case whatsoever. *It's history, it's chronology, and it's philosophy* must be in fact as true as *it's theology*. If we suppose any part of the divine word to be erroneous, this so far shakes the authority of all the rest. And as God knows all things perfectly, we must believe him the fittest to give us an account of his *works* as well as of his *nature*."

Sixthly, "There is a *necessary connection* between the knowledge of *natural* and *spiritual* things; since scripture constantly, or at least very frequently, refers our thoughts to natural ideas, in order to illustrate spiritual truths. And for this reason it appears to be of some considerable importance, that the natural ideas referred to be strictly just and true, in order to be a proper foundation for a right conception and representation of divine matters."

OR, as Mr. *Spearman* (in his *Enquiry after Philosophy and Theology*, p. 254.) has most judiciously stated this case: "When the senses have acted upon any material natural object, what they take in and retain by that action is the *inward sense* or *idea* of the thing; and the knowledge we gain by such repeated acts of the senses upon nature and her operations is *natural knowledge* or *physics*. When we make use of these natural and acquired ideas to help us to ideas of spiritual things, the knowledge we, by these means, gain of God and his operations is *super-natural knowledge* or *metaphysics*: and so by *things* that are *visible* within the reach of our senses, and *which we can understand*, we

are led to the knowledge of *things which are invisible*, without the reach of our senses, and which we could not otherwise understand.^f It is agreed, that we have no innate ideas ; and that nothing can be in the understanding but what comes in by the senses. We therefore either can have no ideas of God and spiritual things, or we must take them in by our senses. But our senses cannot act immediately upon spiritual objects, because they are not the objects of our senses ; therefore we must have our ideas of spiritual and invisible things from natural and visible things. But natural and visible things can give us no ideas of spiritual and invisible things, unless they bear *some analogy* to them, are the *simulacra* or *images* of them. And if they be the images of them, they must have been *so created* and framed by God the Creator, and *to this very end*, and with *this very design* : for nothing could be created by infinite wisdom but with foreknowledge and design. And since we find in the scriptures God and spiritual things represented to us under the ideas and names of visible and sensible things, it is a demonstration in itself that God framed them to represent himself, and what he pretended to reveal of himself and his ways to mankind.”

So that we may well say with Tully from Plato, *Necesse est hunc mundum, quem cernimus, simulacrum esse æternum alicujus æterni.* It cannot be but that this world, which is visible to us, should be a standing type or representation of something eternal.

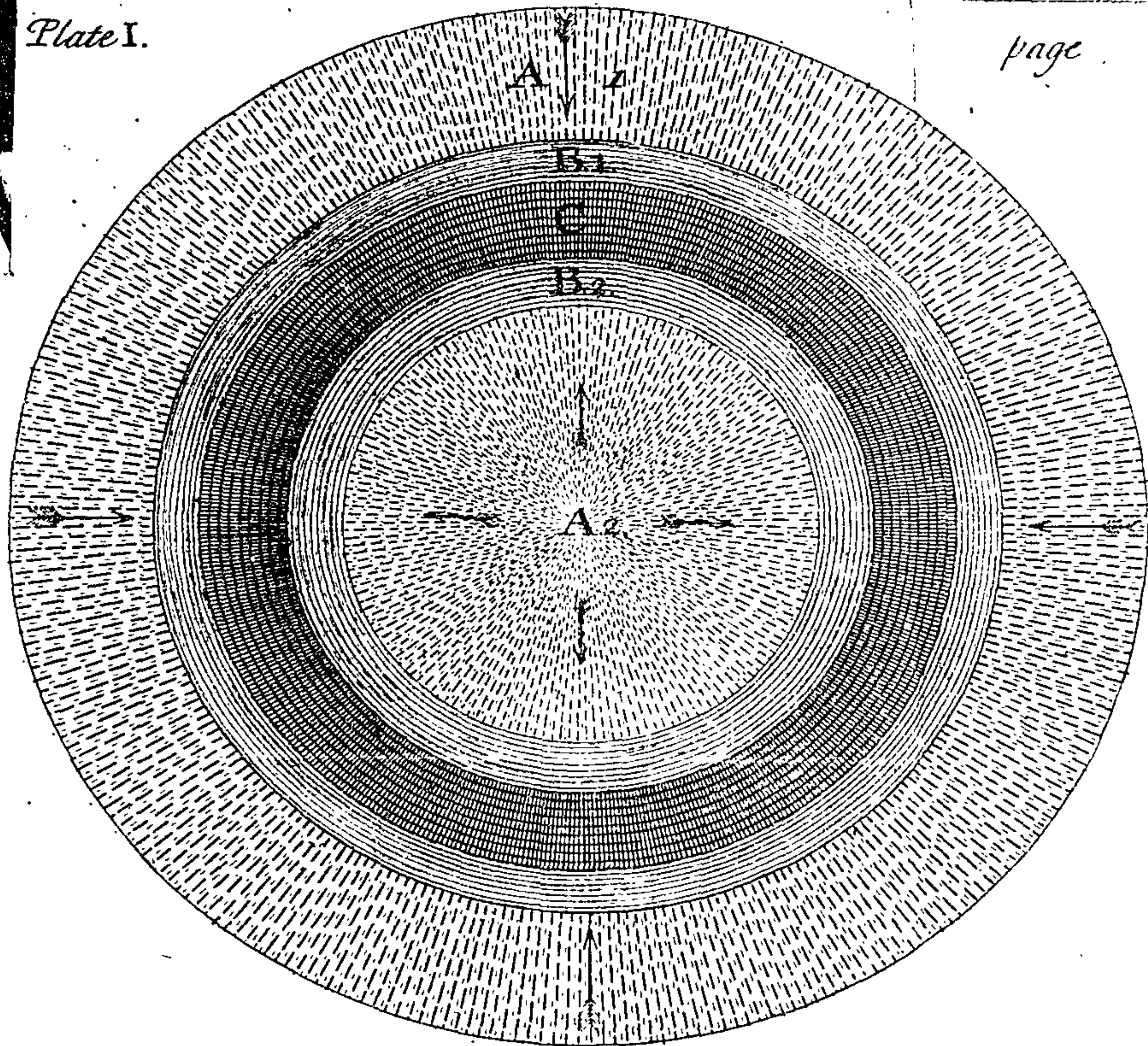
^f As Rom. i. 19. *That which may be known of God is manifest among men ; for God himself εφανερωσε hath shewed it unto them. [hath manifested it ; for otherwise it could never have been known.] Ταυτα, For [Inasmuch as] the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, [visibles being made substitutes for invisibles] even his eternal power and Godhead.*

So also Milton,

*Earth is the shadow of heav'n, the things therein
Each other like, more than on earth is thought.*

I SHALL leave the pious reader to pursue *this thought* (as I want words to express the *height, length, breadth, and depth* of it)—to the consideration of *the new heavens, and new earth* (spoken of by St. Peter 2 Ep. chap. iii.) *wherein dwelleth righteousness*;—to the great city (Revel. xxi.) *the holy Jerusalem that is to descend out of heaven from God, having the glory of God; whose light is like unto a stone most precious, even like a jasper stone, clear as crystal; which hath a wall great and high, and twelve gates, and the wall of the city hath twelve foundations. And the city lieth four-square; the length, and the breadth, and the height of it are equal. And the foundations of the wall of the city are garnished with all manner of precious stones. The first foundation was jasper; the second, saphire; the third, a chalcedony; the fourth, an emerald; the fifth, sardonix; the sixth, sardius; the seventh, chrysolite; the eighth, beryl; the ninth, a topaz; the tenth, a chrysoloprasus; the eleventh, a jacinth; the twelfth, an amethyst. And the twelve gates were twelve pearls; every several gate was of one pearl; and the street of the city was pure gold, as it were transparent glass. And I saw no temple therein: for the Lord God Almighty and the Lamb are the Temple of it. And the city had no need of the sun, neither of the moon to shine in it: for the glory of God did lighten it, and the Lamb is the light thereof.*

F I N I S.



- A.1. *The outward Expanse.* } *(At first, dark Air only outside,*
 A.2. *The inward Expanse.* } *and in the inside of y^e Earth.*
 B.1. *An orb of water, separated by the action of the outward Ex-*
pense from the Earthy mass: called the waters under the firmament.
 B.2. *An orb of water, separated by the action of the inward Ex-*
pense from the Earthy mass: called the waters above the firmament.
 C. *The solid shell of the Earth formed, between two orbs of water,*
into various concentric strata of stone, coal, &c. by the action of
the two Expanses.

The Three several orbs B.1. B.2. and C. were at first confusedly mixed together, and then called the Earth without form.

NB. This Plate represents also the Earth during the height of the Deluge.