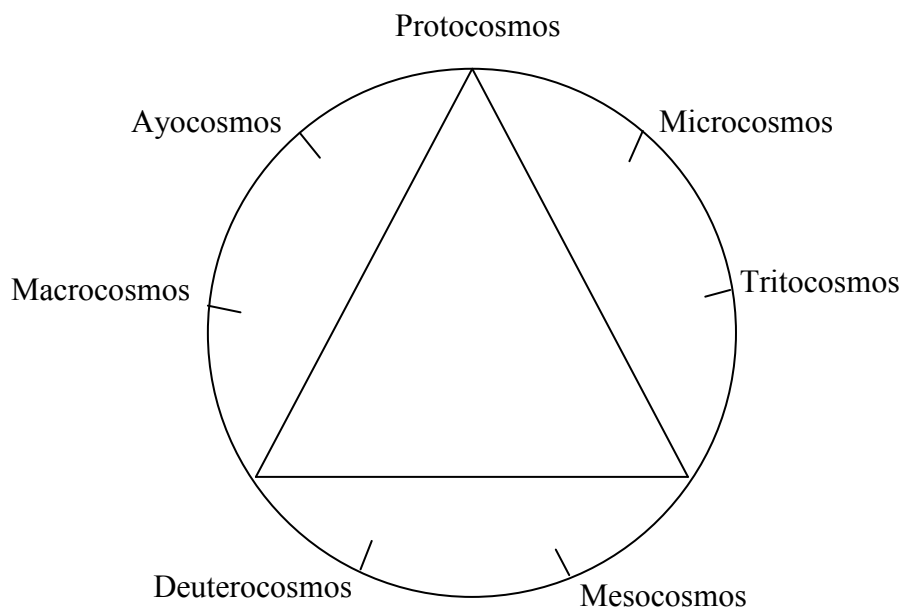


COSMOSES 3

The moment of the rose and the moment of the yew-tree
Are of equal duration.

TS Eliot. *Four Quartets*

The scheme originally given for the Greek cosmoses can be put in the form of an Enneagram:



The reason for the odd order of names perhaps becomes clearer, as Protocosmos, Deuterocosmos and Tritocosmos lie at or close to the apexes of the triangle.

Ouspensky's interpretation of 'zero to infinity' (the relation between one cosmoses and its bigger neighbour) was that the cosmoses corresponded to his 'period of dimensions': point (0), line (1), plane (2), solid (3), first time dimension (4), second time dimension (5), third time dimension (6). It would be possible to attach these numbers to the cosmoses in ascending order (Microcosmos with 0 dimension, Tritocosmos with 1 dimension, etc) In this case, if the whole universe is Protocosmos and Man is Microcosmos, Man is of zero dimension relative to the whole universe – somewhat worse than a worm in relation to us!

However G. said that every cosmos is three dimensional for itself. So starting with Man at Microcosmos with three dimensions makes the Deuterocosmos, the sun, 6-dimensional. According to Ouspensky's scheme it is in the sixth dimension that all possibilities can be realised, implying that there is nothing higher for Man.

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G. gave a little more information about Cosmoes after hearing Ouspensky's views on dimensions:

“Take note that time is different in different cosmoes. And it can be calculated exactly, that is, it is possible to establish how time in one cosmos is related to the time in another cosmos.

I will add only one thing more:

Time is breath – try to understand this.”

He said nothing further.

Later on one of G.'s Moscow pupils added to this that, speaking with them once of cosmoes and of different time in different cosmoes, G. had said that the sleep and waking of living beings and plants, that is, twenty-four hours or a day and night, constitute the 'breath of organic life'.

Ouspensky went on to develop an approach to time in different cosmoes, using four measures: 'breath', 'day and night', 'life-time'. For Man, 'breath' is 3 seconds, 'day and night' is 24 hours and 'life-time' is 80 years. The ratio between 24 hours and 30 seconds is 30,000 and so is the ratio between 80 years and 24 hours.

Further, the ratio between the breath of man, 3 seconds, and (according to G) the 'breath' of the next bigger cosmos, organic life, 24 hours, is again 30,000. 'Day and night' for organic life would then be predicted to be 80 years and its life-time 2.4 million years.

Ouspensky also added to the measures, the shortest 'impression', for man 1/10,000 second and drew up a table of all the cosmoes from the electron to the whole universe. Here is the bit of it on either side of Man:

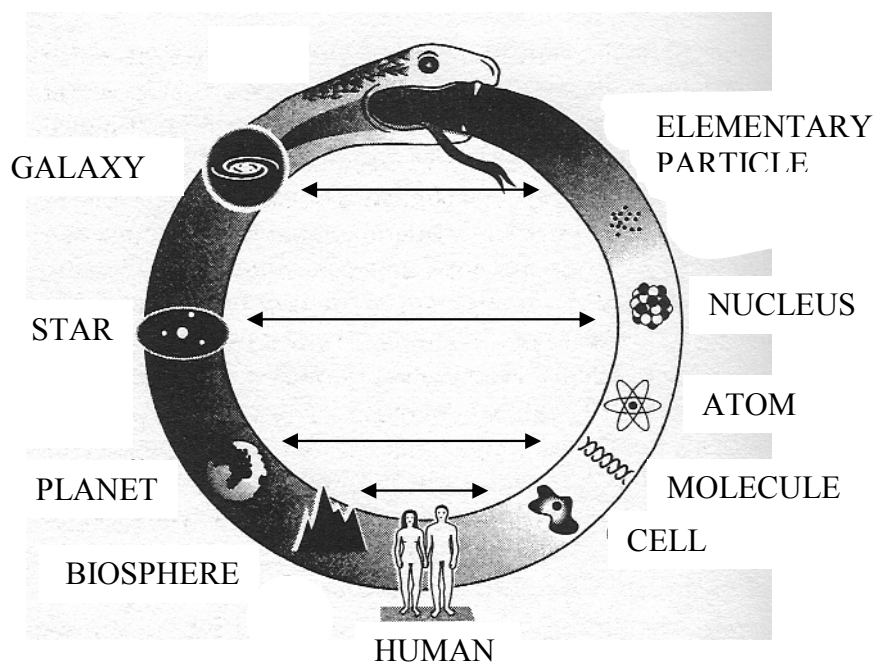
	Cell	Man	Organic Life
Impression	–	1/10000 s	3 s
Breath	1/10000 s	3 s	24 hr
Day+Night	3 s	24 hr	80 yr
Life	24 hr	80 yr	2.4 M yr

Some of these predicted values fit very well, others do not or are mysterious. What for example does the 'day and night' of Organic Life mean or correspond to? The life-time of Organic Life,

predicted to be 2.4 M yr, is much less than the span of life on earth (nearer 1000 M yr), though it is close to the smallest geological period.

Ouspensky might have speculated that the ratio of *sizes* of cosmoses is also 30,000. Roughly speaking this is true: the size of a small cell is about 1 micrometre across and a man is about 2 metres, so the ratio is 20,000 – though there are much bigger cells. Similarly, the thickness of the atmosphere is about 20 km, giving a ratio of 10,000. In general the ratio of sizes of neighbouring cosmoses is between 10,000 and 100,000.

It is probably a mistake to try to obtain exact relations of this sort from a human-centred point



of view, but there are some general truths: the bigger the cosmos, the longer its times.

Some of this is recognised now in scientific circles. In Martin Rees' book *Just Six Numbers* he draws the constituents of the universe as the mythological 'ouraborus': the serpent biting its tail, symbolising rebirth. Here it symbolises the conjunction of the very big and the very small. The following diagram is slightly redrawn from the original:

The horizontal arrows indicate the relationships found in science between the big and the small: for example, the sun works by nuclear fission so its 'element' is the nucleus. Where the ouraborus bites its tail, there is the creation of the universe from elementary particles, expanding and condensing to form the universe we now see.

Humans are almost exactly midway in size between the very big and the very small. Pascal was right when he wrote:

--For, in fact, what is man in nature? A Nothing in comparison with the Infinite, an All in comparison with the Nothing, a mean between nothing and everything. Since he is infinitely removed from comprehending the extremes, the end of things and their beginning are hopelessly hidden from him in an impenetrable secret; he is equally incapable of seeing the Nothing from which he was made, and the Infinite in which he is swallowed up.

Quite probably we will never know the ultimate truth about the universe but we no longer despair. There is also a negative tendency in the System, in this case to stress the unimportance of humans in the universe and to point that we live in a pretty poor neighbourhood. In fact we seem to live in a very special place, and maybe it's only organisms of about our size that can have our special kind of consciousness, 'able to comprehend with all the saints what is the breadth and length and height and depth' (*Ephesians* 3:14-21) – to be able to contemplate the large and the small and themselves.

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That's as far as we need to go with Cosmoses on the bigger scale. Next week we will turn to the representation of cosmoses within, and look at the corresponding timescale of our physiology and psychology.