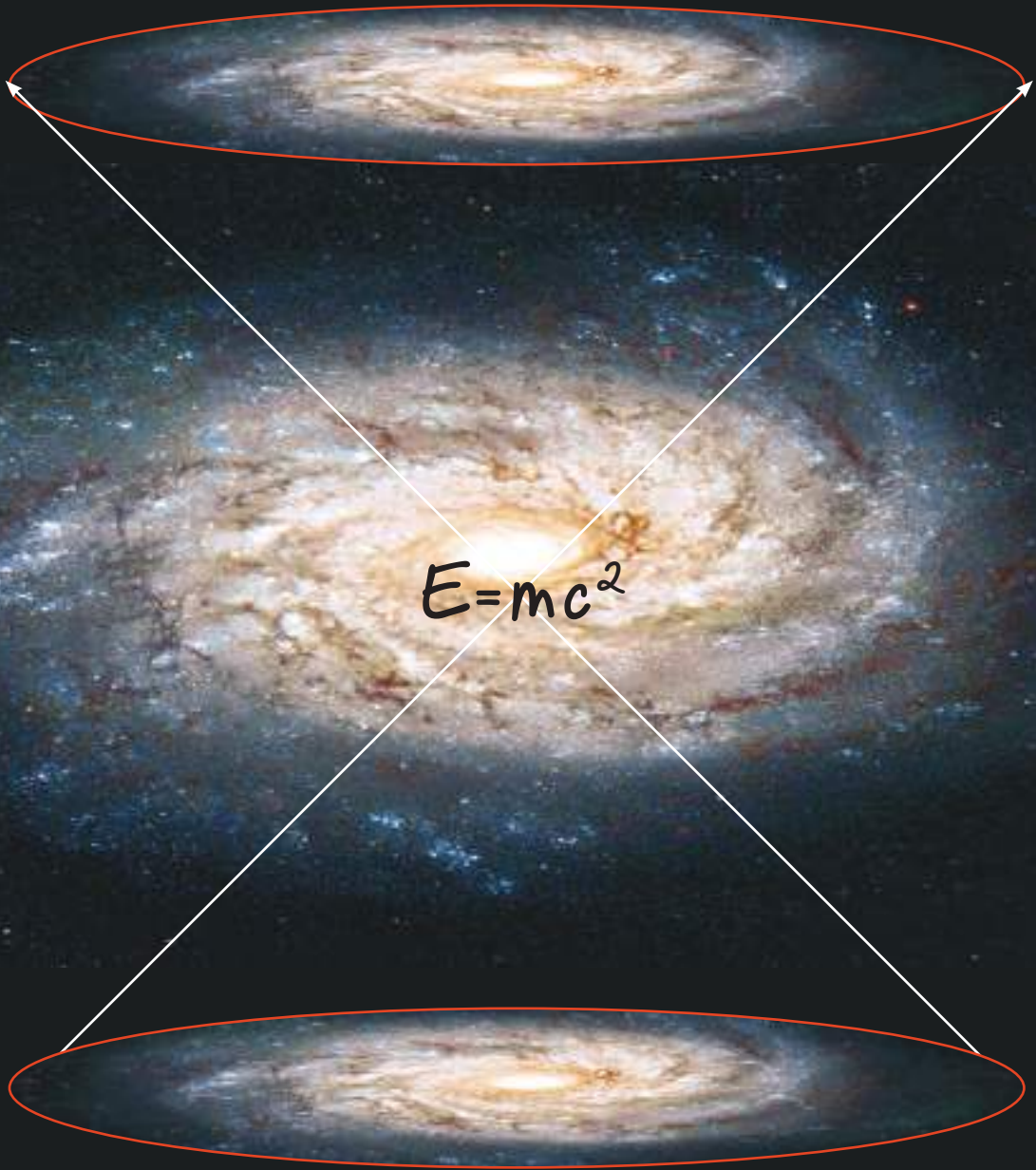


The Whole



The world that we are able to perceive outside us, beyond the earth, beyond the planetary and galactic system, that entire known Universe, which we detect at night with telescopes, constitutes a part, a substantiated part, of a 'Whole' that is perceptually unsubstantiated, since it is impossible for us to comprehend that 'Whole'.



In my television program, Apocryphal Harmony, in a broadcast dedicated to the **“whole”** of the cosmos, I discussed with my guests whether it was possible for man to comprehend the totality of the world. The world that we are able to perceive outside us, beyond the earth, beyond the planetary and galactic system, that entire known Universe, which we detect at night with telescopes, constitutes a part, a substantiated part, of a **“Whole”** that is perceptually unsubstantiated, since it is impossible for us to comprehend that **“Whole”**.

Whatever man knows, and whatever he will know in the future about the Universe, will always be scant, given conventional human development.

Whatever we cannot see, whatever we cannot measure, we must consider as non-existent in the sense that it is **“non-Being”** as to our apprehension of it. And whatever is **“non-Being”**, in that definitive sense, does not move, since it does not exist in our minds.

Motion is a property whose limits are within human calculation.

Whatever we perceive as existent, we can say with certainty about it that it moves and is real.

The water that flows from the cliff and fills the lake is a reality. But the systems of the galaxies beyond the borders of human perception and measurement are not real – hence they do not have movement, since we only suppose that they probably are found in distant worlds.

The **“whole”** of the universe is not calculable with precision, nor measurable, nor demonstrable; it is beyond reason, for it has unknown limits, and, finally, it is beyond all human computation or speculation.

Therefore, the **“Whole”** is immobile and conceptually belongs to the realm of ideas concerning God.

Every scientific theory that tries to prove that the existing knowledge of the **“part”** constitutes the scale of interpretation of the **“Whole”** brings to my mind my fisherman who desperately tries to illuminate the ocean with the lamp on his boat.

The **“Whole”**, even as a word, is conventional.



The SOAR
Telescope

Nothing bars us from saying that the “**whole**” can reproduce itself in a framework of infinite arithmetical mirror-images of “**wholes.**” Have you ever entered an elevator that has mirrors all around? If not, imagine yourself as a conventional “**whole**”, go into an elevator with mirrors and count, or try to count, how many times you see yourself all round. Many times? Very many? Or an infinite number?

Our attempt to understand the universe in its wholeness indicates that our minds try to create a unified theory in which the totality of laws of the universe will be known, even if only conventionally, and we will be able to interpret it.

Hawking himself discusses the “**theory of everything**”:

Prof. HAWKING:

“Στις 29/4/1980 έδωσα την εναρκτήρια διάλεξή μου, σαν καθηγητής Μαθηματικών, στο Πανεπιστήμιο του Καίμπριτζ, με τίτλο «Έφτασε το τέλος της θεωρητικής Φυσικής». Περιέγραψα την πρόοδο στην κατανόηση του Σύμπαντος, που είχαμε, ήδη κάνει, τα τελευταία 10 χρόνια και αναρωτήθηκα, τι πιθανότητες υπήρχαν, να βρεθεί η πλήρης

ενοποιημένη θεωρία των πάντων, πριν το τέλος του αιώνα. Λοιπόν, το τέλος του αιώνα έφτασε. Αν και, έχει επιτευχθεί μεγάλη πρόοδος, ειδικά τα τελευταία χρόνια, δεν φαίνεται ότι θα καταφέρουμε τελικά. Ας κάνουμε όμως μια ανασκόπηση της περιόδου που πέρασε και ας εξετάσουμε τις προοπτικές επίτευξης του στόχου της Θεωρητικής φυσικής στο κοντινό μέλλον. Ή μήπως, ο στόχος, θα είναι πάντα, πέραν του ορίζοντα;”

My faith in the total interpretation of the cosmos as it is posited by the ancient Greek philosophers leads me to the conclusion that science, in its effort to interpret the totality of the universe, will always find itself **“beyond the horizon”** as Professor Hawking calls it. For reality is found in the esoteric interpretation of laws, numbers, and equations. It is the reality of insight... wisdom... intuition that acts beyond scientific knowledge.

Prof. HAWKING:

Γιατί η πραγματικότητα, βρίσκεται μέσα στην εσωτερική ερμηνεία των νόμων, των αριθμών και των εξισώσεων...

Είναι η πραγματικότητα της ενόρασης... της σοφίας... της αίσθησης που δρα πέρα από τη επιστημονική γνώση.

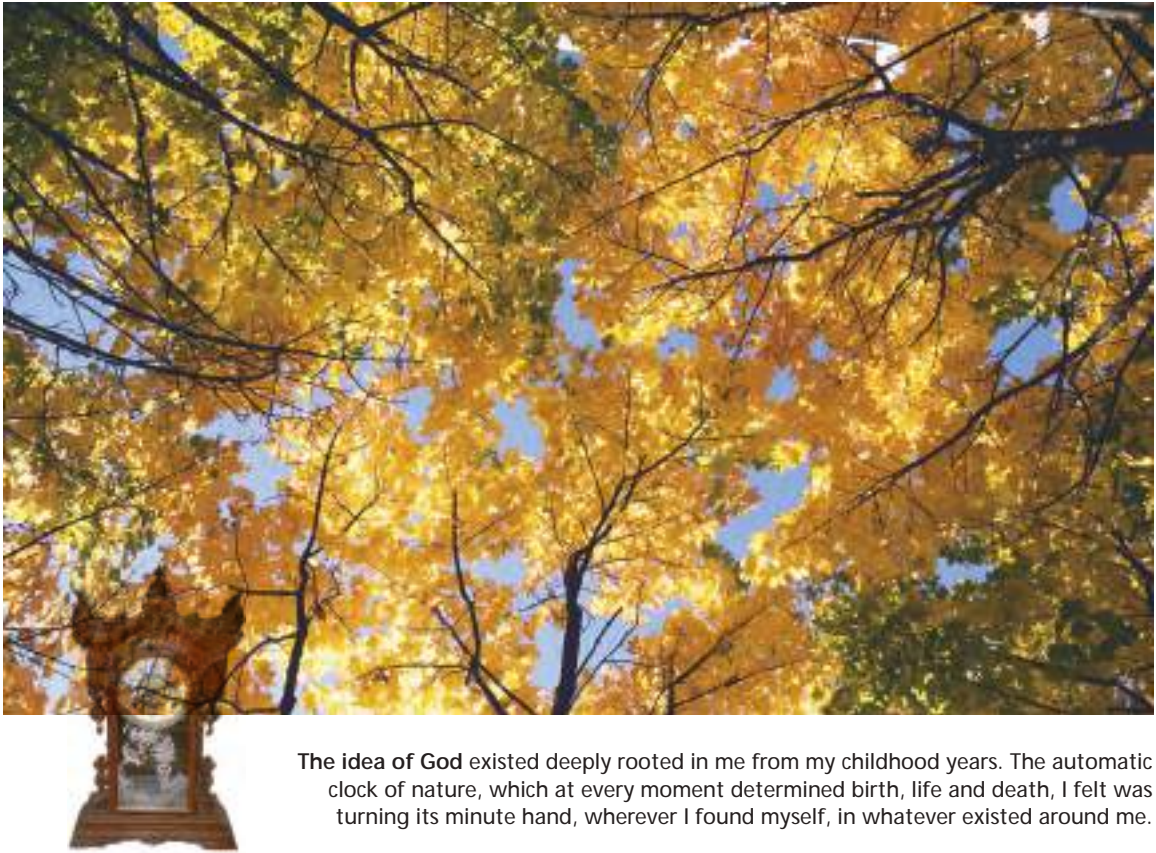
It is the horizon of the soul of the world that only the human soul, which is a part of it, can perceive. When we discussed the **“real”** and the **“unreal”** on Apocryphal Harmony, the telephones lines were literally jammed with viewers thirsting to be informed




$$\nu = \nu + \nu$$

whether the world we live in is a reality or an illusion. The conclusions were many. If we take the position of Pythagoras, we will say that the unique reality in the world is number and mathematical relations. Xenophanes believed that the “**greatest reality**” is the beginning of the world from God. Parmenides proclaimed that the unitary principle of “**being**” was “**ungenerated**”, “**immobile**”, and “**incorruptible**”.

Heraclitus held the doctrine of “**general flux**.” He believed that reality consisted in the unceasing transformation of things in the world. We do not have the right to say that a thing, for example, this garden, is precisely what we see. But we do have the right to say that this garden is what it is now, at this moment, but in the next moment it will have undergone all the consequences of the change that derives from



The idea of God existed deeply rooted in me from my childhood years. The automatic clock of nature, which at every moment determined birth, life and death, I felt was turning its minute hand, wherever I found myself, in whatever existed around me.

the continuous flow of **“becoming”**. Thus, this garden is never the same. The neo-platonic philosopher, Plotinus, believed that the visible universe is an imitation. **“The real universe is mental, that which represents Being. Being is not found anywhere, cannot be defined, measured, or comprehended, for it itself is everything, and all souls are enclosed within it. For this reason the highest reality a human being can experience is consciousness of Being.”** I liked Plotinus’ ideas and I wrote down the Greek word for Being: **“On”**. The letter **“omicron”** is the circle, the design representation of the **“all”**. The letter **“ni”** as a mathematical term defines the infinite, that which cannot be counted or conceived. Hence, **“On”** = O+n. This idea filled me with enthusiasm. I considered that because in the Greek language each letter is also a number with a unique



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value, and each word is a sum of letters, which interpret, with arithmetical and semantic completeness, what the word itself means. I concluded that the single word **“On”** can constitute for each person the point of departure to conceive of the **“One”**, the **“Monad”**, the beginning of numbers within which the **“all”**, in infinite arithmetical sums, evolves and exists producing the eternal life universe. The idea of God existed deeply rooted in me from my childhood years. The automatic clock of nature, which at every moment determined birth, life and death, I felt was turning its minute hand, wherever I found myself, in whatever existed around me. God, the universe, our earth, and I, were four different things, which I had made it my purpose to unite in an essence of the one. Only then could I claim to have entered into the realm of wisdom and the uniqueness of the Creator.

“God expresses himself through religious perception...”

“The universe through scientific views...”

“Our Earth through the study of nature...”

“Our self through self-knowledge...”

The idea of God existed deeply rooted in me from my childhood years. The automatic clock of nature, which at every moment determined birth, life and death, I felt was turning its minute hand, wherever I found myself, in whatever existed around me. In short, this flower is a regular, complete mind.

The soil? Does it have a soul? That, too, has a soul. It collaborates with light, water, and wind for the sake of nature.

Like a gigantic factory, it continuously transforms the elements which compose it, reconstitutes them with light and water and, in a new quality and kind of nourishment, it feeds the trees, plants, flowers, man, everything.

I looked with admiration at the dark green climbing ivy, which I had planted a few months ago. It climbed high up the trunk of the tree like a mountaineer.

I noticed the small hairy feet which it spread to its left and its right and which stuck like a spike on the surface of the rock, so as to base its long body securely.

What marvelous mind was functioning in that plant which speechlessly, mutely, had adopted the incline of the tree, observing the physical laws, the mathematical equations and the geometric designs, which it had inherited from the university of nature?

I looked with awe around me: the trees, the plants, the lake, the water which gurgled as it flowed; I heard the cries of the birds which flew from branch to branch; I let the murmur of the wind, which passed through the foliage, flow to the depths of my soul... and suddenly, it seemed to me that this whole marvelous world which was covered by the dome of the sky, was a boundless temple and within that temple, the liturgy of nature, the eternal becoming, in mystical notes and voices, had been transformed into a heavenly psalm, a universal hymn glorifying the Supreme One, the Divine Mind, the Great Overseer, who within that All, lives... moves... and exists.

