

Light and Time

**Representations of the Universe,
Space-temporality and the substratum of beliefs
in human consciousness**



Hugo Novotny

2019

*"The heroes of this age fly towards the stars.
They fly through regions previously unknown.
They fly out from their world and, without knowing it,
They are impelled towards the internal and luminous center."*

Silo's Message¹

¹ Silo. *Silo's Message*. Chapter XX "Internal Reality" Latitude Press, 2007.

Foreword

This book is a flight of thought and the soul... it is a journey that makes evident the inexhaustible Purpose of the human being: "to dare to seek further and further".

So, here we go!

The captain of our ship is predestined to take us to new regions. The etymology of his name - Novotny - means "that which is new". Skillful helmsman, he makes us travel in a relentless spiral round-trip, outside and inside, in the immense depth of the Universe, in the immense profundity of our internal world... Following the spirals of this Moebius strip, he ends up taking us to the certainty of the experience of infinity.

Vertigo assaults us along the way... but we cling to the mast of human history because it is human intention that, throughout its entire process, engenders the audacity to launch itself into infinity. This being, until today in slow growth, is also experiencing an accelerated development. How could it be otherwise, if it is driven by an Evolutionary Intention that seems to apply to all that exists... and to that which does not exist?

The reflection proposed here takes us to the essential enigmas, and our mind strives to solve them. But it is precisely when we are about to renounce the certainties that everything suddenly takes on a meaning and is articulated in harmonious unity: does the dark energy within us have the same accelerating function as in the expansion of the Universe? Is the abundance of galaxies somehow related to the goodness that tries to sprout within us? Is the thirsty search of the scientist similar to the feverish search of the mystic? The antinomies disappear. Infinite possibilities open up before us.

Taken by a particular fervor we feed on the visionary quotes and digital records chosen by the conductor of this trip. The recent shots of the Deep Field amaze us, bringing from so far away in space and time an indescribable beauty... impacted by Beauty, one would like at that very moment to become a painter or a poet. We then find ourselves whispering "God of heaven!" But it is a paradoxical and insufficient expression in the face of the deep and powerful resonance that floods us from the inner world. Then we close our eyes for a moment to taste it better... dive suddenly... and fly!

Within the launch team of this mental rocket, we seem to see Silo delighted to hear: "Outside and inside are parts of a whole, of the same space of representation. This is how it was discovered that a mental journey into the Cosmos is, at the same time, an entrance into the depths of consciousness." (...) "Surely, the representations about the Universe and life that arise as a translation of each of these layers of register and the corresponding experiences will be very different."

When we finally land, we applaud the pilot. Dear Hugo, thank you! This three-dimensional journey to the Light lifts us up and tears us away from our basic beliefs. One becomes more humble and at the same time enlarged, for having surpassed all horizons; for having been able to hear the music of the spheres; for having perceived, in a brief instant, their unknown nuances.

Claudie Baudoin
Parks of Study and Reflection
La Belle Idée, France

Author's notes

More than six years passed between the story *The Flight of the Spirit*, written in 2011 to commemorate the 50th anniversary of the first manned space flight in human history, and the monograph *Light and Time* that gives meaning to this book.

In that story, included here as Annex 3, the time of the action is placed in 2061 and the virtual displacement of the main character in the arrow of time is made backwards. At the same time as this inverse displacement takes place, fiction progressively gives way to real events; until 1961, when Yuri Gagarin flew in his spacecraft "Vostok", of which the quotations included are strictly documentary.

Although it is not clear that this attempt to flexibilize the temporality of the imagination has really served to transfer the charge of reality from historical fact to the future outlined in the literary experiment, the striking thing turned out to be something else: how the intuitions that inspired that story became more elaborate formulations and to some extent have been confirmed, both by the advances produced in world Science in recent years, and by experience in my personal spiritual practice and of numerous companions along the way.

Thus, the most significant sentence at the end of the story: "the first voyage into the cosmos was for humanity, at the same time, an enormous step forward in the process of the liberation of the mind from natural conditioning", became, within the conclusions of the current monograph, the affirmation: "A new landscape of 'travelers of the profound,' of the cosmos and of the mind is being configured, who in their exploration of the origins of the Universe and the sources of life are gradually discovering the consciousness, the inner look and the creative intentionality that drives it. Travelers who begin to find in their interior the necessary references for the path, the inspiration and the light that illuminates them, while they look for new forms of communication, coexistence and social construction, that are more just and non-violent."

In *Light and Time*, we reach this point after succinctly going through the fundamental milestones in the history of the representations of the Universe from Ptolemy to NASA/WMAP Science Team, passing through Copernicus, Galileo and of course Giordano Bruno; the Neapolitan visionary monk and astronomer who anticipated in his dreams the fascinating perception that today astronauts, cosmonauts and taikonauts transmit to us as they take off from our planet-cradle towards the weightless infinity of cosmic space. This point is also reached after outlining the trajectory travelled by the human psychism in the progressive widening of its temporal horizon and in the deepening of the "observer" with respect to the phenomena of its internal mental space. One arrives, through reflection on some of the many inspiring definitions proposed by the thinker, writer and spiritual guide Silo, at different moments of the four decades that he travelled around the world sharing his wisdom; both with respect to the Universe, its origin, structure and evolution, as well as human consciousness in its intentional unfolding and the spiral, sinuous but always ascending, path of the human community towards a new birth, this time spiritual.

It is postulated, definitively, in the suggestive words of Silo's Message: "The heroes of this age fly towards the stars...", the central argument of the new universal myth that dawns in the horizon of the new times.

Here I would like to express my deep gratitude to all the friends and loved ones who enriched with their exchange the experience of this work, who provided encouragement and made it possible to turn it into a book. And I would also like to ask, with all my heart, that inspiration may enlighten the great human groups and that we may soon be able to leave the dark crossroads that we are going through, with the least possible suffering.

Hugo Novotny
Mendoza, January 2018

1- Introduction and Object of Study

In 1997, in an informal conversation transcribed by his interlocutor², Silo³ stated: "People change if they change their apparatus of basic beliefs. Remember geocentrism, the Earth was the center of the Universe and that was a time when everyone agreed that this was so. That's how they believed and that's how they lived (...)".

And he continued: "Today, after the investigations that speak of solar systems, galaxies, sets of galaxies, universes and various universes; today, despite the evidence of the immensity of the Universe, we hold onto three things: life on Earth is the only life in the Universe, life on Earth is the only form of intelligence in the Universe and homo sapiens is the only form of human life; we hold that we are the only form of life, of intelligent life and of human life. We believe we are unique, the whole Universe is for us, we are the center of the Universe, that is, we remain geocentric. It is a belief in the apparatus of basic beliefs that we have not yet modified."

But he also pointed out later, more encouragingly: "What we are observing today is that human beings want to break that basic belief. This is seen in the efforts of science and technology in their interstellar research and in their search for other forms of extraterrestrial existence. This is seen in people's desire for extraterrestrial life (...). Homo sapiens is straining to open its universe, to go beyond its basic belief apparatus. In this quest, the human being will discover consciousness (...)"

And specifying his vision of the future, he said: "Where all these things become evident, the apparatus of basic beliefs is going to destructure: that there is an intention in the Universe, that there are other forms of intelligent life, that individual consciousness is intentionally evolutionary, that the body is a primitive antiquity capable of being modified, that the convenient thing is to stop working and make machines work (...). With the dismantling of the basic belief apparatus of the human being, its image of the world will be broken and with it a whole new system of possibilities of development for the consciousness will be opened (...). After the last fifty years of paralysis, science and thought are trying to break through again. The human being is on the verge of transforming not only technically but also its consciousness. Everything moves in structure".

Inspiring, hopeful, but also disturbing. It immediately provokes the question: are these changes in human beings, in their beliefs, in their consciousness manifesting today, in the midst of the enormous crisis in which humanity finds itself? Are there indicators in this direction that we can already identify?

We will try to detect, in some representative historical examples -of the western world- and in the present moment, these phenomena that Silo describes to us.

Thus, even when we refer in this work to the Universe, its origin and evolution, the subject is not Astronomy, nor the most recent discoveries in Physics or Cosmology.

Our object of study is **the look** that makes possible the representations of the Universe, with the interest of detecting changes that could be taking place in these moments in this look and in the human consciousness in general. We will consider especially the phenomena that may denote changes in the substratum of basic beliefs of our time, in the temporal configurations and in the layers of register of the space of internal representation in human consciousness; taking Silo's teachings as a conceptual apparatus and, as a reference for validation, the registers of one's own experience with his Message.

² Silo. *Control and evolution of consciousness*. Notes of conversations between Enrique Nassar and Silo - 4/18/1997. See Annex 1.

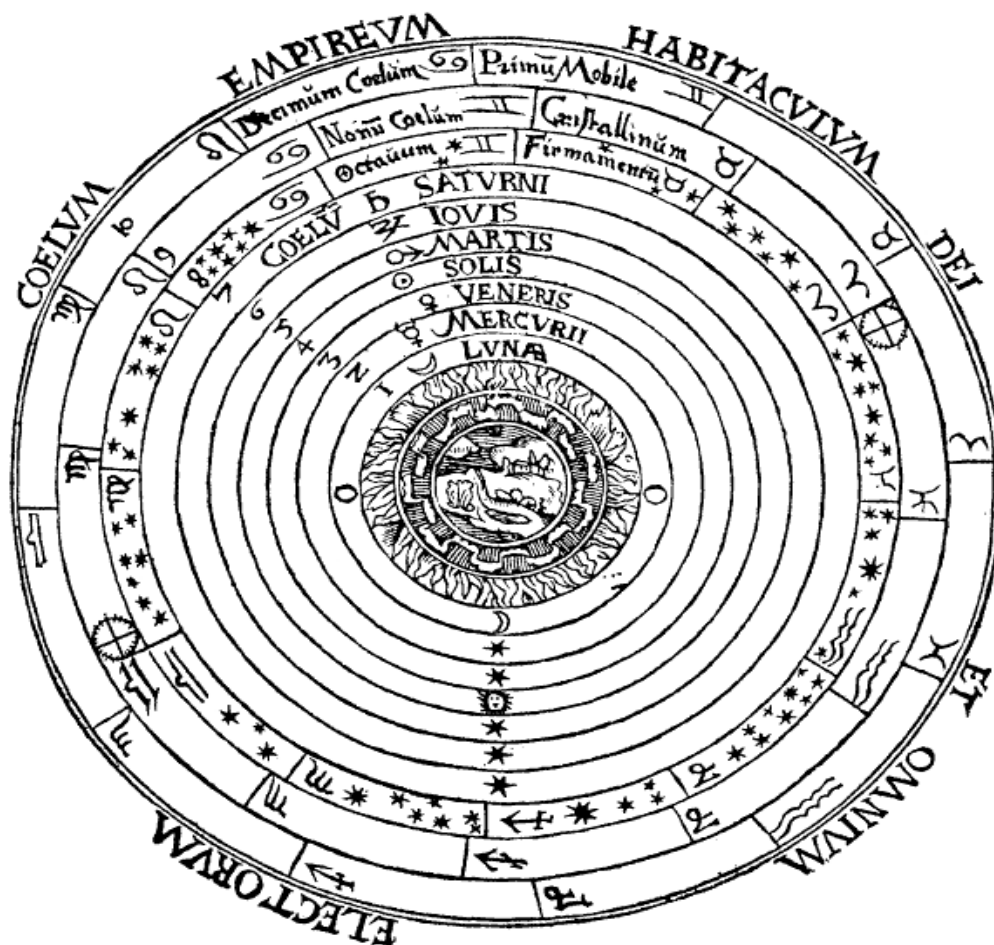
³ Silo is the pseudonym of Mario Luis Rodríguez Cobo. He was born in 1938 in the surroundings of Mendoza, a place located between Argentina and Chile. His writings have been translated into numerous languages and his Collected Works are published in two volumes. Official site: www.silo.net

2- The substratum of basic beliefs

A brilliant illustration of the close relationship between the representation of the Universe, the substratum of basic beliefs and the functioning of a society at a given historical moment is to be found in the work *Life of Galileo* by Bertolt Brecht; which, although it is the script for a play - more precisely an epic theater play - helps us, like good historical novels, to feel the atmosphere of that moment, the conflicts, debates and views that characterized it.⁴ But before we go into that story, let's look at a brief historical context.

In the 2nd century of our era, the Alexandrian Claudius Ptolemy published his *Almagest*, in which, in addition to a rich stellar catalogue, he presents the geocentric system⁵.

Schema huius præmissæ diuisionis Sphærarum .

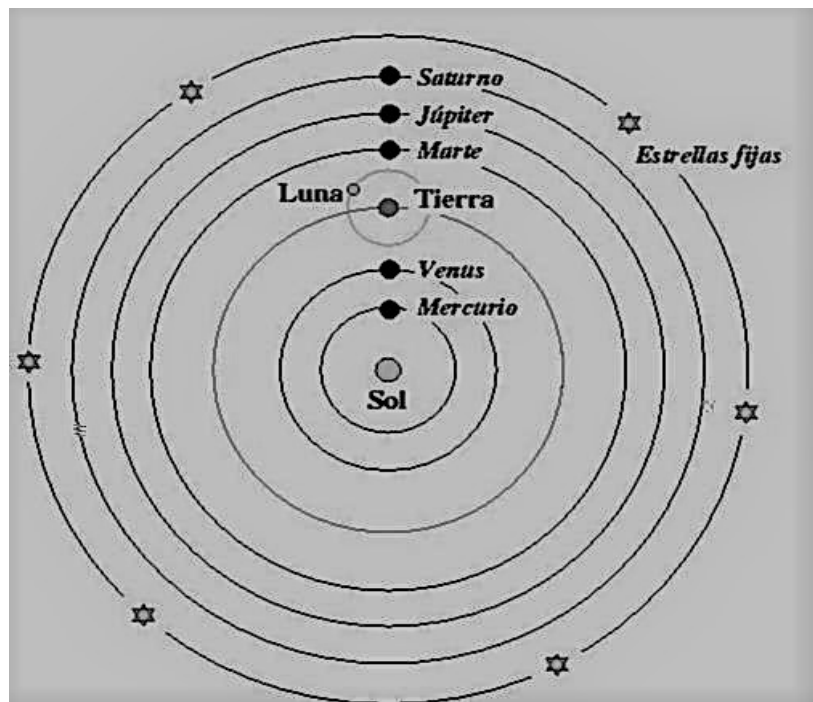


1. Geocentric representation of the Universe in Ptolemy.

This idea that the Earth was motionless and was the center of the Universe was adopted and held until the end of the European Middle Ages, when in the sixteenth century the Polish astronomer Nicholas Copernicus, inspired by the Pythagoreans, presents his heliocentric theory with the Sun set in the center of the Universe and the Earth rotating around it, as well as the planets of the Solar System known at that time (as far as Saturn). In both theories, as can be seen in illustrations 1 and 2, the Universe closed with the sphere of fixed stars located beyond Saturn.

4 Brecht, Bertolt. *Life of Galileo*. Translators: Wolfgang Sauerlander and Ralph Manheirn. 2007.

5 Ptolemy. *Ptolemy's Almagest*. Translated by G. J. Toomer. Princeton University Press, 1998.



2.Heliocentric representation of the Universe in Copernicus.

The new Copernican theory is published in 1543 in the book *On the Revolutions of the Heavenly Spheres*⁶. The Church, even though heliocentrism contradicted the Holy Scriptures, did not initially prohibit the book because up to that point there was no proven evidence. The only valid evidence for them was that the Earth was fixed and everything revolved around it. So until some years later Galileo Galilei, with the help of a homemade telescope, discovers the phases of Venus and the satellites of Jupiter, providing the necessary evidence to prove the validity of the heliocentric theory (see illustration 4). Faced with this, the Church does react violently and the Inquisition, through a cardinal decree, declares heresies to Galileo's ideas, forcing him to retract. Before all this Giordano Bruno had already been condemned to the stake for the same issue, but we will return to him a little later.



3.Galileo with his telescope.

Then, in the work *Life of Galileo*, more precisely in chapter 8⁷, the following dialogue appears between Galileo and the so-called Little Monk:

⁶ Copernicus, Nicolaus. *On The Revolutions Of Heavenly Spheres* (Great Minds Series). 1995.

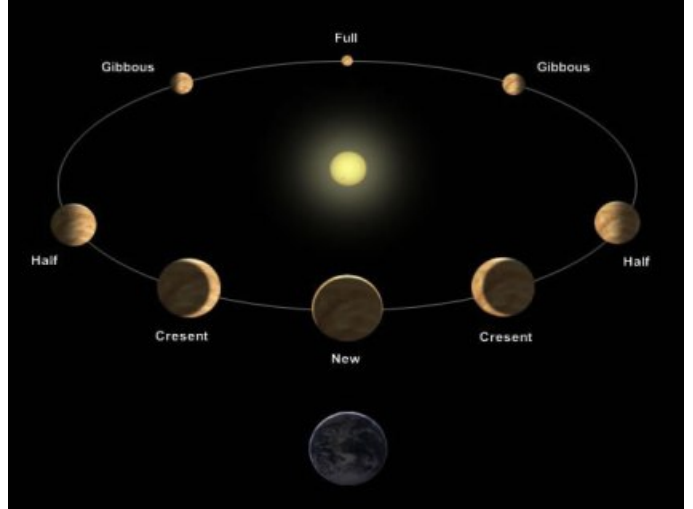
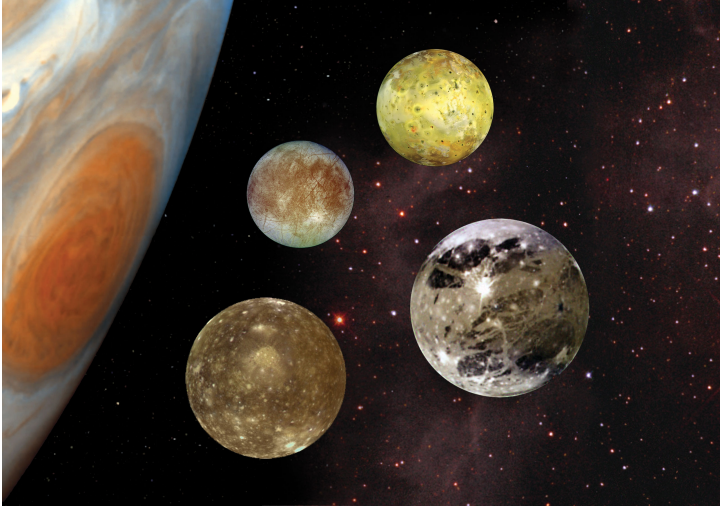
⁷ Brecht, Bertolt. *Life of Galileo*. Translators: Wolfgang Sauerlander and Ralph Manheirn. 2007.

The Little Monk: For three nights I haven't been able to sleep, Mr. Galilei. I can't figure out how to reconcile the decree which I've read with the satellites of Jupiter which I've seen. So I decided to read mass this morning and come and see you.

Galileo: To tell me that Jupiter has no satellites?

The Little Monk: No. I recognized the wisdom of the decree. It showed me how dangerous unrestricted inquiry can be to mankind, and I've decided to give up astronomy. Still, I felt I had to acquaint you with the motives which compel me, even though I'm an astronomer, to desist from pursuing a certain doctrine.

Galileo: I can assure you that such motives are well known to me.



4. Satellites of Jupiter and phases of Venus, according to Galileo.

The Little Monk: I understand your bitterness. You're thinking of certain exceptional means of pressure exerted by the church.

Galileo: Don't beat about the bush: instruments of torture.

The Little Monk: Yes, but I'd like to speak of other motives. Forgive me if I talk about myself. I grew up in the Campagna. My parents are peasants, simple folk. They know all about olive trees, but very little else. As I observe the phases of Venus, I can see my parents sitting by the stove with my sister, eating lasagna. I see the beams over their heads, blackened by the smoke of centuries, I see distinctly their work-worn old hands and the little spoons they hold in them. They're very poor, but even in their misery there is a certain order. There are cyclic rhythms, scrubbing the floor, tending the olive trees in their seasons, paying taxes. There's a regularity in the calamities that descend on them. My father's back wasn't bowed all at once, no, a little more with every spring in the olive grove, just as the child-bearing that has made my mother more and more sexless occurred at regular intervals. What gives them the strength to sweat their way up stony paths with heavy baskets, to bear children, even to eat, is the feeling of stability and necessity they get from the sight of the soil, of the trees turning green every year, of their little church standing there, and from hearing Bible verses read every Sunday. They have been assured that the eye of God is upon them, searching and almost anxious, that the whole world-wide stage is built around them in order that they, the players, may prove themselves in their great or small roles. What would my people say if I were to tell them they were living on a small chunk of stone that moves around another star, turning incessantly in empty space, one among many and more or less significant? What would be the good or necessity of their patience, of their acquiescence in their misery? What would be the good of the Holy Scripture which explains everything and demonstrates the necessity of all their sweat, patience, hunger and submission, if it turns out to be full of errors? No, I can see their eyes waver, I can see them rest their spoons on the table, I can see how cheated and betrayed they feel. In that case, they will say, no one is watching over us. Must we, untaught, old and exhausted as we are, look out for ourselves? No one has given us a part to play, only this wretched role on a tiny star which is wholly dependent, around which nothing turns? There is no sense in our misery, hunger means no more than going without

food, it is no longer a test of strength; effort means no more than bending and carrying, there is no virtue in it. Can you understand now that in the decree of the Holy Congregation I discern a noble motherly compassion, a great goodness of soul?

Galileo: Goodness of soul! Don't you simply mean that there's nothing left, the wine's been drunk, their lips are parched, so let them kiss the cassock. But why is nothing left? Why is there no order in this country but the order in an empty drawer, and no necessity but the necessity of working oneself to death? Amid overflowing vineyards and wheat fields? Your peasants in the Campagna are paying for the wars which the vicar of gentle Jesus is waging Spain and Germany. Why does he put the Earth at the center of the Universe? Because he wants the See of St. Peter to be in the center of the world! That's the crux of the matter..."

And so the discussion continues... At the end of this work, we add as Annex 2 the complete chapter 8 of this book. Let us now look at how the phenomenon presents itself today.

In that same conversation in 1997 Silo said: "The systems create the substratum of basic beliefs to which the average citizen adheres; from this substratum of basic beliefs the average citizen thinks and makes science, politics, culture, economy. A primitive system (such as the one that exists) can only generate a field of primitive beliefs for the citizen to adhere to. For example, neoliberalism is a production from that primitive substratum."⁸

Well, to illustrate this. According to a Gallup survey, until a few years ago (2012) the portion of U.S. citizens who believed that God had created man as he is today in the interim of the last 10,000 years (the so-called pure Creationists) was 46% of the total population. Another 32% believed that man had evolved but under the tutelage of God (the supporters of so-called Intelligent Design and other forms of neo-creationism). Only 15% of those surveyed thought that man had evolved without God's guidance.⁹

Therefore, according to Gallup, three-quarters of the United States' population represent the Universe on the basis of images proposed by the Bible; not unlike the time when Giordano Bruno and Galileo were condemned by the Inquisition. Moreover, even today, 17 U.S. states teach creationism or some form of neo-creationism in schools¹⁰. Perhaps it is no mere coincidence that in practically all these states the Trump-Pence duo won the last presidential election, with the massive support of evangelists and the Christian right in general. This is the situation today at the head of the neoliberal empire which, with the excuse of democracy, peace and human rights, has in these first years of the 21st century invaded and devastated Afghanistan, Iraq, Libya, Syria, Yemen... causing hundreds of thousands of mortal victims and forcing millions of families into exile who have seen their cities and homes reduced to rubble. All of this, beyond the public explanations, has ultimately been to leave in the hands of their multinational corporations the resources of these countries, especially oil and gas.

Well then, completing that reflection on the present historical moment, Silo said: "The thought of this epoch, from the perspective of the human beings of the future, will be of a primitive thought encolumned in a very narrow mental line from where certain phenomena were not visible, it was not possible to make certain relations, certain consequences could not be predicted. It will be said that this absurd improvisation in decisions, analysis and forecasts corresponded to a nihilistic mental behavior from which it was impossible to build something and its basic resource of action was the brutal imposition of physical, economic type... It will be explained that these were the remains of the Cro-Magnon that were still unresolved."¹¹

⁸ Silo. *Control and evolution of consciousness*. See Annex 1.

⁹ <http://news.gallup.com/poll/210956/belief-creationist-view-humans-new-low.aspx>

¹⁰ <http://bigthink.com/strange-maps/97-nil-where-and-how-evolution-is-taught-in-the-us>

¹¹ Silo. *Control and evolution of consciousness*. See Annex 1.

3-Representations of the Universe in Cosmology

2011 was a very special year for world Science. There were two Nobel prizes that were revolutionary for the image of the existing world: in Chemistry, for the discovery of a new form of matter, the quasicrystals; and in Physics, for the discovery of the accelerated expansion of the Universe¹². In this case, we are interested in the second. Not only because, until the discovery of this phenomenon in 1998, the current paradigm held that the Universe was slowing down in its expansion due to the force of gravity, advancing towards the inevitable final entropic death; but because the awarded scientists -and now the scientific community in general- went on to consider that it was the mysterious dark energy, recently discovered by astrophysicists, that drove this unexpected acceleration.

Later, it was determined when this accelerated expansion apparently began: 9 billion years ago; about 5 billion years after the explosion that gave rise to the Universe, the Big Bang, according to the theory accepted today. Until then, the expansion was decreasing in speed, as stars, galaxies, galaxy clusters, etc. materialized. Other versions say acceleration started 4 billion years ago. In any case, it is one more example where scientists begin to see spiral cycles in universal evolution.

Some time earlier dark energy and dark matter had been discovered. Suddenly, the total mass-energy of the Universe became composed of only 5% visible matter, while another 25% is dark matter and the remaining 70% is dark energy¹³.

Before, where we only saw emptiness, nothing, now we begin to "see" dark matter and dark energy, with functions as decisive as driving the accelerated expansion of the Universe, contradicting the law of gravity for visible matter. Why? What has changed? It may not only be due to technological advances in ground and space telescopes, radio telescopes or infrared cameras.



5. Hubble Space Telescope orbiting Earth at 593 km above sea level.

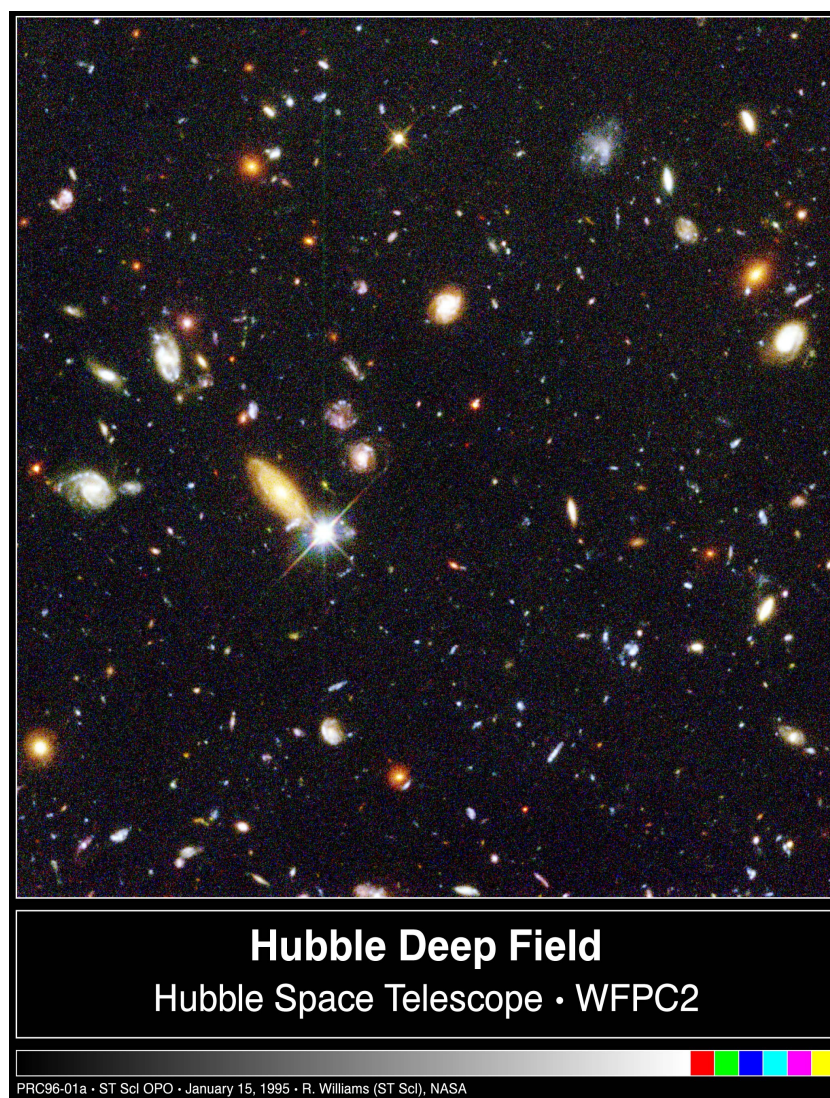
What such technological development undoubtedly made possible, especially thanks to the Hubble space telescope and other similar ones, was to advance in space and time to the depths of the Cosmos to study the earliest and furthest galaxies. Because, due to the limited speed of light (300,000 km/s), the further we see, the more we go into the past of the Universe. For example, when we look today at our neighbor the Andromeda galaxy, we actually see the light that came out of it 2.5 million years ago, when hominids just appeared here in Africa.

In the event that this light comes from galaxies located billions of light-years away, even though it has

¹² https://www.nobelprize.org/nobel_prizes/physics/laureates/2011/

¹³ <https://science.nasa.gov/astrophysics/focus-areas/what-is-dark-energy>

been emitted by young and powerful blue-white light stars, it comes to us with "red shift". Thus, with the 1995 Hubble Deep Field photo, "red-shift" galaxies up to 12 billion light-years distant-age were observed (see illustration 6).



6. Innumerable galaxies in the Hubble Deep Field photo - NASA.¹⁴

With the snapshot of the Ultra Deep Field, in 2004, galaxies 13 billion years old¹⁵; galaxies formed only 800 million years after the Big Bang were made visible. This is, so far, the most profound and ancient image of the Universe taken with visible light, almost at the limit of the space-time of our Universe. This has made it possible, among other things, to verify the fecund generation of stars and the rapid evolution of galaxies in the early stages of universal expansion.

Here another question strikes us: How and when did the human being go from representing the stars up high to placing them in the profound?¹⁶ Perhaps from Giordano's dream, when crossing the limits of the closed sky of his time he opened up to the infinite worlds? (see illustration 7)

¹⁴ <http://hubblesite.org/image/385/category/12-cosmology>

¹⁵ http://hubblesite.org/image/1457/news_release/2004-07

¹⁶ Leon, Daniel. *A Method for Thinking and Discovering Analogies*. Hypatia, Buenos Aires, 2017.



7. Giordano Bruno's dream. Illustration first published by Camille Flammarion in *Atmosphère météorologique populaire*, 1888, Paris.

In the middle of the 16th century, the Neapolitan monk, philosopher and astronomer Giordano Bruno not only supported the Copernican thesis that the Earth was not the center of the Universe, but surpassed it; changing the idea of a closed and finite universe for that of an open and infinite universe; affirming that our Sun was one more of an infinite number of stars, with planets and intelligent beings in an infinite God-like space¹⁷... This, together with some other revolutionary ideas, earned him not only death at the stake condemned by the Inquisition, but also the repudiation of the most renowned scientists of the time.

Or perhaps man understood that stars and galaxies move deep in the Universe when he first saw his blue planet from the outside, in 1961, with Gagarin and his spacecraft Vostok 1?

Or in December 1968, with the spacecraft Apollo 8, when humans saw the dawn of the Earth from the Moon? (see illustration 8).



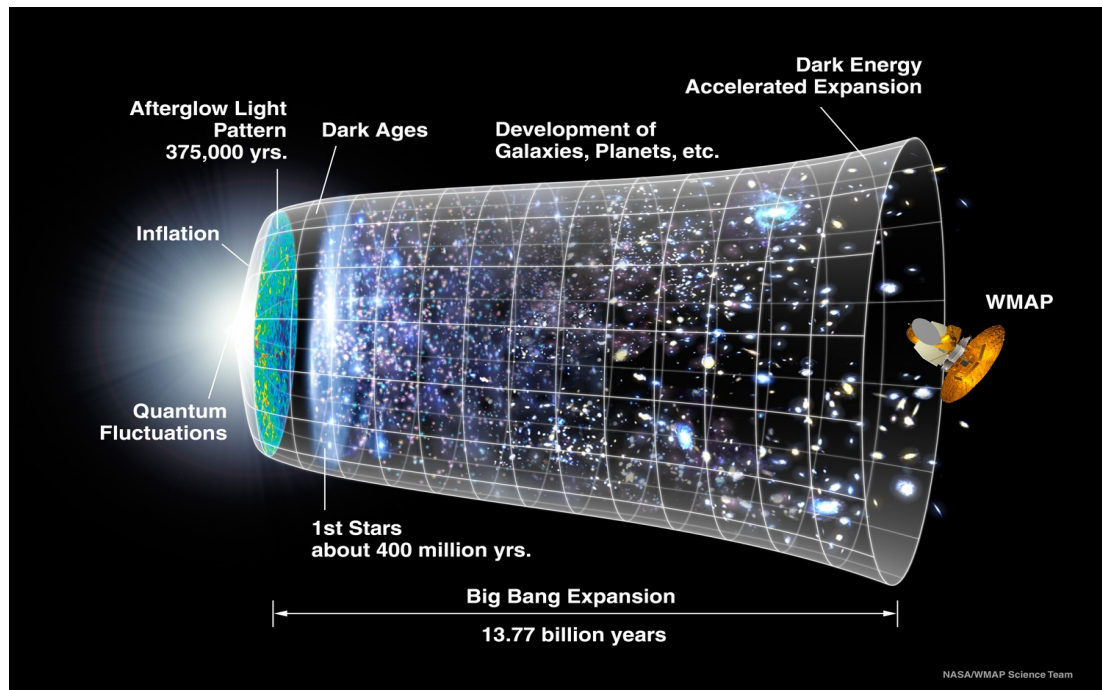
8. Photo of the Earth from the Apollo 8 spacecraft orbiting the Moon. NASA.

¹⁷ Bruno, Giordano. *On the Infinite, the Universe and the Worlds*. CreateSpace Independent Publishing Platform, 2014.

In any case, in this crucial decade of the 60's in the XX century and making Bruno's dream come true, the human being proved for himself that in space there is neither above nor below with respect to a stable horizon, but rather with respect to each determined observer; moreover, in a state of weightlessness. And there in space it was experienced for the first time that the dimension of the depth is valid for everyone.

But let's keep going back a little further in the cosmic past, to the initial explosion itself.

The representation of universal evolution that cosmologists have today states: the explosion did not take place in a certain space, but created space; and visible light appeared 150 million years later, at the beginning of the Reionization of cosmic plasma and the formation of stars and galaxies, ending the so-called "Dark Age" of the Universe. This is the time limit for surveying the early universe thanks to visible light¹⁸ (see illustration 9).



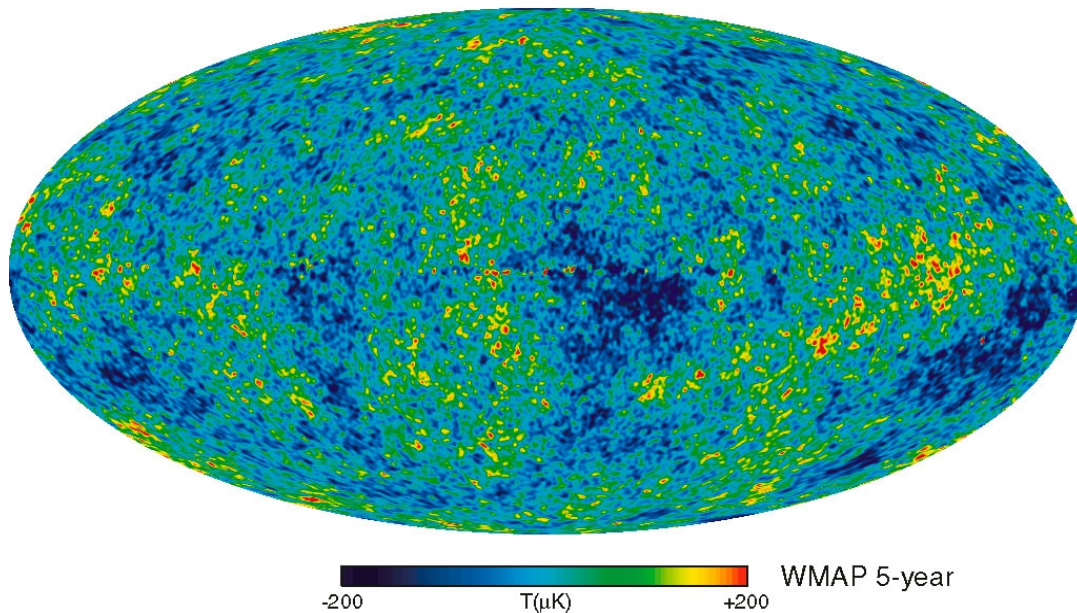
9. Current representation of Universal Evolution - NASA/WMAP Science Team
<http://hubblesite.org/image/3380/category/91-astronomical>.

But much further back from that limit, much earlier... only 300,000 years after the beginning of the Universe, in the "Recombination" stage, when the first hydrogen and helium atoms began to form, and the photons began to be released, the so-called "microwave background radiation" or cosmic background radiation was emitted, which today became one of the most important objects of study in Cosmology. A photo obtained by NASA's WMAP satellite in 2001 is considered not only the oldest photo of the early universe¹⁹, but also, in the opinion of cosmologists, the complete plane of the current Universe is inscribed on it²⁰ (see illustration 10).

¹⁸ <https://map.gsfc.nasa.gov/media/060915/index.html>

¹⁹ <https://map.gsfc.nasa.gov/media/080997/index.html>

²⁰ <https://www.nasa.gov/topics/universe/features/wmap-complete.html>



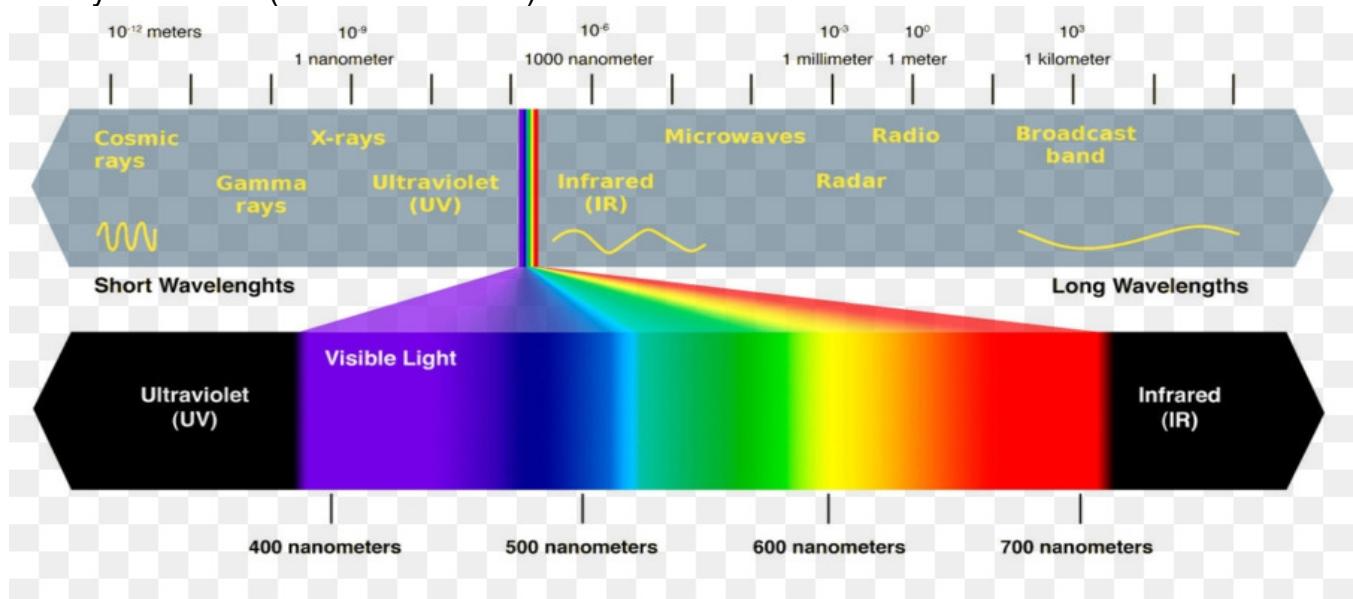
10. Cosmic microwave background radiation - NASA/WMAP Science Team.

According to astrophysicists, the large number of small irregularities shown in this photo are slight differences in temperature and density that, over time, the evolutionary process of the expanding Universe and by the action of gravity would become the stars, galaxies, galactic clusters and other objects that populate the cosmos today. It seems that we are beginning to perceive simultaneity in processes within the same environment.

A new and even more significant question is inevitable: What made it possible to "see" in this remnant radiation as old as the Universe, the evolutionary plan, at least of the material, physical evolution of the Cosmos?

The relevance that Cosmology is placing on cosmic background radiation with its "integral plane of the Universe" and to dark energy with its driving function of accelerated expansion, all of them different forms of light manifestation, seems to bring us significantly closer towards the recognition of an intention in universal evolution, somehow related to that light.

The representation of the Universe of the current scientific community considers that all forms of recordable radiation of the electromagnetic spectrum are light. This spectrum is described as consisting of all possible levels of energy and, therefore, wavelengths that light can have, from thousands of kilometers to femtometers (10^{-15} m). In such a range, the portion of visible light is absolutely minuscule (see illustration 11).



11. Electromagnetic spectrum and visible light.

That is to say, for today's Science, light is not only what can be seen with our eyes or with optical prostheses that enhance them; practically everything that can be registered by any of the senses or technological prostheses is light, although with different densities or wavelengths. Besides that, this is dynamic, the wavelength of light changes as it passes through the expanding Cosmos. It is precisely the changes in the characteristics of light such as wavelength, color, density that allow cosmologists to unveil the history and structure of the Universe. The same light that gives us life, they say...

We ask ourselves then, what makes the human look today begin to represent the Universe in evolution as a marvelous **interweaving of light and time**, modeled by the force of gravity, a force not visible but cenesthetically recordable, and driven in its accelerated expansion by another force not yet sufficiently revealed?

4- Space-temporality in human consciousness: time horizon and layers of register in internal space

In the story "The Day of the Winged Lion", from the book of the same name, Silo writes: "Everything that chance brought was respected, until finally there arose a creature of medium size, capable of being highly discerning²¹, and able to transfer information and store memory outside of its own immediate circuitry. This new monster had followed one of the evolutionary patterns suited to the blue planet: a pair of arms, a pair of eyes, and a brain divided into two hemispheres. Almost everything in this creature was symmetrical in a fundamental way, including its thoughts, feelings, and actions—which were, after all, encoded in its neurochemical system. Still, the expansion of its temporal horizon and the formation of layers of register in its internal space would require some time"²²

Let us first try to distinguish a possible evolutionary sequence in the temporal configurations of consciousness, initially hominid and later human:

- 1- The hominids stands on their legs, thus widening the horizon of vision and facilitating the movement of food for the tribe (*Australopithecus afarensis*, Lucy, 3.5 million years ago).
- 2- The hominids hunter and gatherer discover fire and learn to use it (*Homo erectus*, 1 million years ago); now they can cook, thus improving their nutrition and the conservation of food; they can warm themselves, protect themselves and have light for nocturnal activity. So, the first rudiments of deferred responses to stimuli appear. Human species is the first that instead of fleeing from fire like all other animals, overcomes its natural instincts approaches it, takes it and puts it, intentionally, at the service of the improvement of his own life. In short, the human species emerges from the encounter and interaction between the hominid and the fire.²³
- 3- The human being begins to domesticate animals and practice agriculture (*Homo sapiens*, 10,000 years ago). This is a great leap in the broadening of the temporal horizon of consciousness in humans. They learn that if they plant seeds and wait, instead of eating them straight away, in a short time their food will multiply; if they tame animals and let them reproduce, instead of killing them and eating them immediately, they will have almost permanent meat for his tribe. The configuration of past, present and future in human consciousness is formed here. The possibility of differing and choosing the response to a given stimulus is already fully manifested.²⁴
- 4- Humans, already in the twentieth century, leave the Earth, out of the influence of gravity of their planet-cradle and experience in a new way space and time, discovering the space-temporality of their consciousness.

After reading Silo's book *Contributions to Thought*²⁵ Russian physician and psychologist for cosmonauts Vladimir Ponomarenko, expressed his surprise and admiration for the fact that the author had managed to formulate with such clarity and precision the characteristics of spatiality and temporality in human consciousness. The same characteristics that they had discovered experimentally from space flights, the design of manned space capsules and the physiological and psychological study of cosmonauts returning from space with the experience of weightlessness. Other particularities that appeared repeatedly in these trips were experiences of ecstasy because of the unusual beauty of the Earth from the cosmos and infinite space, as well as ineffable feelings of love for life, for humanity, for everything that exists; experiences similar to those of spiritual conversion. The so-called Overview Effect.²⁶

Already at the beginning of the same century and with the rigor that characterized his reflections, the Moravian philosopher Edmund Husserl had theoretically described the temporal configurations of consciousness; especially in his *Phenomenology of the Consciousness of Internal Time*²⁷. The same Husserl who, following his mentor Brentano, developed the concept of intentionality in consciousness

21 With unlimited capacity to learn.

22 Silo. *The Day of the Winged Lion*. Available on silo.net

23 Iacovella, Alessandro. *Fire and the human species: The first meeting*. Attigliano Park, Italy, 2011.

24 An interesting comparison is that if we equate the total age of the universe (13.8 billion years) with a calendar year of 12 months, this evolutionary leap happened in the last 20 seconds.

25 Silo. *Contributions to Thought*. Available on silo.net

26 The Overview Institute. See: <https://overviewinstitute.org/>

27 Husserl, Edmund. *On the Phenomenology of the Consciousness of Internal Time*. Springer, 1991.

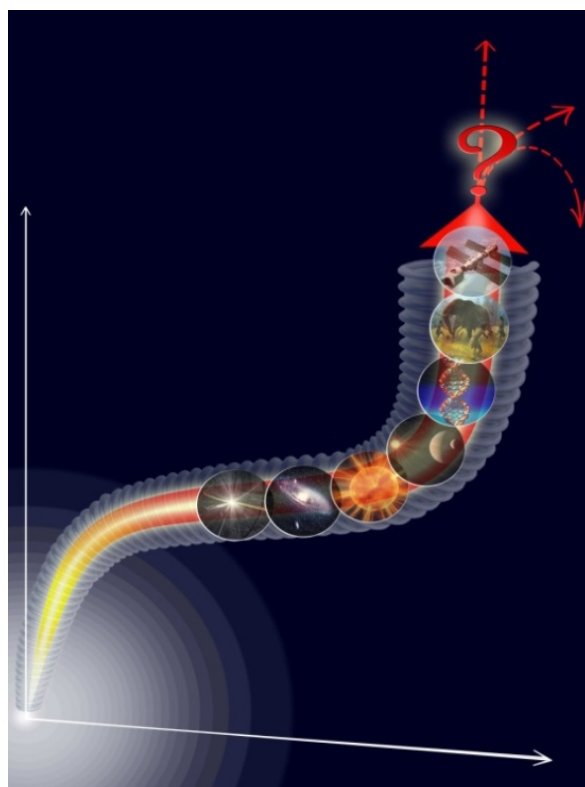
as a central element of his phenomenology.

But it was Silo who finally incorporated this concept of intentionality into a new integral paradigm, by defining the human being as a social-historical being who in his intentional action humanizes the world, while transforming his own nature, both physical and mental. And his developments on the function of the image, the space of internal representation and temporality in the configurations of consciousness were included within a new psychological conception at the service of the personal, social and spiritual liberation of the human being.²⁸

Returning to the particular point of the temporal horizon in the representation of the Universe and its evolution, the Russian scientist Akop Nazaretyan explains that "it was only in the second half of the 20th century that the relativistic models of evolutionary cosmology received wide recognition among scientists. The idea of historicism penetrated deeply into Physics and Chemistry: all objects of the material world, from nucleons to galaxies, began to be seen as products of a certain evolutionary stage that had its history, prehistory and final perspective. In addition, a number of mechanisms were described by which open physical systems are able to spontaneously move away from equilibrium with the outer environment and, using their resources, stabilize a state of non-equilibrium. Models of self-organization became an object of interest in practically all scientific disciplines."

"In short," Nazaretyan continues, "it was found that social history (including spiritual history), biological history, geological history and cosmophysics are stages of a unique evolutionary process, crossed by "transverse" vectors or mega tendencies. Towards the 1980s, the conditions were presented for the formation of an interdisciplinary field of study, which was constituted simultaneously by scientists from different countries and continents - Russia, Western Europe, Australia, North and South America - and different specialties, from physicists to psychologists."²⁹ This new field of study was called Big History.

In synthesis, in addition to the accelerated technological advances and the increasing experience in space flights, manned or not, Science now has an integral image of the history of the Universe, life in general and human life on our planet, responding to vectors and general laws of process: in their structural advance, matter, energy and life evolve from the simplest to the most complex with cyclic rhythms (see illustration 12).



12. Cycles of universal evolution according to Big History. Illustration: A.A.Pinkin

²⁸ Silo. *Psychology Notes*. Available on silo.net

²⁹ Nazaretyan, Akop. *Non-Linear Future*. Suma Qamaña, Buenos Aires, 2016.

In the quotation that was cited earlier from *The Day of the Winged Lion*, Silo said in reference to human evolution: "It would still take some time for the amplification of its temporal horizon and the formation of the layers of register of its internal space."³⁰

Let's try to unravel the second part of this statement.

As we know today, following Silo's psychological conception, in its daily life the human being perceives the external world through five external senses; as well as, somewhat more confusingly, he perceives his internal world through cenesthesia and kinesthesia; all this from an "observer" who is placed on the cenesthetic-touch limit of his skin: the vigilic "I". This could be considered as a layer of register in the space of representation of the consciousness that is already fully formed and active at the present time.

A significant advance, from the field of Physics, seems to us to have been the awareness of the importance of the "observer" and his influence on the observed phenomenon. Especially from Albert Einstein's theory of general relativity. In Silo's words: "In Science, Einstein made truth flexible: No longer were there absolute truths, but only truths relative to a given system."³¹ This happened at the same time that, in Philosophy, Husserl developed his phenomenology. According to Silo: "It is with Husserl that the study of intentionality is developed more thoroughly, particularly in his *Ideas Relating to a Pure Phenomenology and a Phenomenological Philosophy*. In the best tradition of strict reflection, Husserl calls into question not only the data of the external world but also those of the inner world, opening the way for the independence of thought vis-à-vis the materiality of phenomena. Up until that time, thought had been squeezed in a vise—on one side, the absolute idealism of Hegel and, on the other, the natural physical sciences, which were just then undergoing such rapid development."³²

In those same years, the first decades of the 20th century, Quantum Mechanics was also born from the hands of physicists such as Bohr, Schrodinger and others, introducing the principles of probability and uncertainty and even postulating that, not only the observer affects what is observed, but also that he "creates" reality in the very instant of observation, because of the wave-particle duality of light.³³

Evidently, the point of observation has begun to internalise. We finally enter the realm of the look, of the changes in the look that observes phenomena, external and internal, and therefore in the representations that the consciousness makes of them.

In principle, following the siloist conception, we could distinguish at least three more layers of register as we go deeper into the z-axis of the internal space of the consciousness. Layers corresponding to:

1. The inner look; "There are other things that are seen with other eyes, and there is an observer that can be positioned in a way that is different from the habitual."³⁴;
2. The intentionality of the consciousness; that which "drives the look"³⁵;
3. The Mind; the profound 'Self' that "is not the look or even the consciousness. That 'Self' is what gives meaning to the look and the operations of the consciousness. It is previous and transcendent to the consciousness itself".³⁶

We consider then, in this hypothesis, the "layers of register" as different depths in the location of the observer, of the inner look; enabling, according to the depth in which it is emplaced, to discern, to experience, to become aware of:

1. Dreams, reveries, ideas, emotions and sensations, the different objects that dynamically populate the internal space of consciousness.
2. The intentionality that drives the look, the acts that are mobilized in search of objects that

³⁰ Silo. *The Day of the Winged Lion*. Available on silo.net

³¹ Silo. *Silo Speaks*. Conference "Religiosity in Today's World". Available on silo.net

³² Silo. *Silo Speaks*. Presentation of the book *Contributions to Thought*. Available on silo.net

³³ <http://science.sciencemag.org/content/315/5814/966>

³⁴ Silo. *Commentaries on Silo's Message*. Available on silo.net

³⁵ Ibidem.

³⁶ Ibidem.

complete them, the observation of one's own mental mechanisms from awakened consciousness; the freedom of choice and the thousand "ways of feeling and thinking"³⁷; the Vocation that propels; the register of the intersubjective Us.

3. The profound meanings; the profound guides; the sacred myths; the Force; the inspired consciousness in its states of ecstasy, rapture and recognition; the ineffable feelings of love and compassion for all that exists, of fusion with the Whole; "the meaning that the Mind gives to all phenomena, even one's own consciousness and one's own life"³⁸.

Surely, the representations about the Universe and life that arise as a translation of each of these layers of register and the corresponding experiences will be very different. We can take as a reference the representations shared by Silo in his different writings, clearly translations of the two deepest layers of register mentioned here.

³⁷ "The human being of the future will not want to earn and possess things; she will want to feel, create, build, learn without limit. She will not want to possess, have, control; that human will understand that there are millions of ways to develop emotion and thought, that there is an unimaginable diversity of ways of feeling and thinking." Silo, 1997. See Annex 1.

³⁸ Silo. *Commentaries on Silo's Message*. Available on silo.net

5- The representation of the Universe in Silo

In the book *Siloism-Doctrine, Practice and Vocabulary* (1972), in relation to light, it is stated: "Light in reality is the only thing that exists. The material differences are differences in the concentration and vibration of light (electromagnetic energy). Light is eternal, it is the origin and end of everything that exists. The evolution of light begins with its energetic "fall" and the formation of the first material concentrations. This evolution of light (or of the Universe) is verified according to the four laws of: structure, concomitance, cycle and overcoming of the old by the new".

More precisely, the origin and evolution of the Universe is described as follows: "Light converged upon itself and this gave rise to dense energetic and material expressions. That was the stage of the fall of light. That provoked the original explosion³⁹, and from that center, projecting from that center, radiation and mass of igneous matter expanded at increasing velocities. Thus, what was configured as nebulae; galaxies; suns; planets and moons of different systems, continues to accelerate as it moves away from its original center describing spiral cycles. As they move away, these bodies return to their origin through their curved trajectory, while they accelerate approaching the speed of light. Finally, all bodies will end up converting their matter into radiant energy and this energy will be transformed into light that will converge on a center from all directions of curved space, to produce a new creative explosion. In short: light is eternal, it is the origin and end of the Universe".

As we can see, the representation of today's Cosmology, thanks to its latest discoveries, is getting closer and closer to the image of the Universe outlined by Silo in 1972. For example, in the curvature of space, in the accelerated and not decreasing expansion as it was believed until a few years ago, in the cycles and concomitances experienced by cosmic structures in their evolutionary process and they are very close to the conception that everything in the Universe is light, in different concentrations and wavelengths. It also approaches the idea that the original explosion is not the absolute first, like a biblical Genesis, but only the beginning of this universal cycle in which we happen to live; which has been hinted at several times, albeit timidly, in the theories of the oscillating universe, the cyclical universe, the multiverse, and so on.

But the most important thing is still ahead.

In an annex to his Message⁴⁰, Silo says: "An Evolutionary Intention gives rise to the birth of time and the direction of this Universe. Energy, matter and life, evolve towards forms each time more complex."

In Silo's opinion, as we mentioned at the beginning, when it becomes evident that there is an intention in the Universe, the current basic belief system will break; enough to allow significant changes in human consciousness. As well as with the reliable discovery of other forms of intelligent life that may have unfolded simultaneously with the terrestrial human.

In the same annex, Silo states: "When matter begins to move, nourish and reproduce, life arises. And living matter generates an energy field that has traditionally been called "soul". The soul, or energetic double, acts in and around the vital centers of animate beings. (...) The constant evolution of our world has produced the human being, also in transition and change, in which is incorporated (unlike other species) the social experience capable of modifying it rapidly". In other words, it speaks of simultaneity in universal processes, where matter and life evolve from the simplest to the most complex; within which a particular case is the emergence of the human being in "our world".

And with respect to human evolution in particular, present and future, Silo describes: "The human being becomes able to get out of the rigorous dictates of Nature, inventing itself, making itself physically and mentally". In other words, he speaks to us about the full deployment of the intentionality of human consciousness, radically transforming both the world around it and its own psychism.

In this second sense, Silo states: "The human being has not finished its evolution. It is an incomplete and developing being that has the possibility of forming an internal center of energy... such a thing will happen according to the type of life it leads. If the acts carried out are coherent, a system of

³⁹ *Explosion*: An evolutionary moment of accumulation and sudden discharge in which a structure tests its evolutionary aptitude by expanding. Dictionary of *Siloism-Doctrine, Practice and Vocabulary*. Van Doren H. 1972.

⁴⁰ Silo. *Silo's Message inspires a deep religiosity*. Unpublished, 2002.

centripetal forces will be structured, which we call 'spirit'. If the acts are contradictory, the system will be centrifugal and therefore the spirit will not have been born or will have an elemental conformation without development. A human being can be born, carry out her life, die and dissolve forever and another can be born, carry out her life, leave his body and continue evolving without limit. Humans in their kindness, in the elimination of internal contradictions, in their conscious acts and in their sincere need for evolution, gives birth to their spirit. Love and compassion are necessary for evolution. Thanks to them is possible the internal cohesion and the cohesion between the beings that allow the transmission of the spirit from one to the other. The entire human species evolves towards love and compassion. Those who works for themselves in love and compassion also do so for other beings."⁴¹

41 Silo. *Silo's Message inspires a deep religiosity*. Unpublished, 2002.

6- Conclusions

In the first half of this twenty-first century, we are going through an extremely paradoxical moment in human history in which a still important part of planetary society subsists clinging, by conviction or because they've been deceived, to geocentrism and its blinding arrogance, to the "unresolved remains of the Cro-Magnon" and its viscerally aggressive behaviour, to violent imposition in all its forms. In a desperate attempt to perpetuate itself in the face of its inevitable disintegration, this system of primitive beliefs and behaviours still occupies the center of the social scene, contaminating it with contradictions, violence, injustice and destruction.

At the same time that a new landscape of "travelers to the profound," of the cosmos and of the mind emerges and configures itself; travelers who, in their exploration of the origins of the Universe and the sources of life, are gradually discovering the consciousness, the inner look and the creative intentionality that drives it. Travelers who begin to find within themselves the necessary references for the path, the inspiration and the light that illuminates them, while searching for new forms of communication, coexistence and social construction, that would be more just and non-violent.

Evidently, as the look internalizes and gains consciousness of itself, the human being begins to understand space and time as configurations of consciousness and advances in the activation of the deepest layers of his inner space, towards the full unfolding of his intentionality and direct contact with the meaning that the Mind gives to all phenomena, even one's own consciousness and one's own life. Humans begin to cultivate with faith their highest aspiration: spiritual immortality. Intuiting it possible not only for some individuals with "supra-human" characteristics or fervently applied to a mystical-spiritual path, as has already happened in history, but for all who attempt it with inner truth. Thus, advancing with resolution, this bold and curious stellar traveler will reach the internal and luminous Center, and will be able to begin to radiate the light of the spirit to the four corners of the Universe.

This is, I believe, the theme of the new sacred universal myth that is being born. The Myth of Silo's Message with its inner look, its guide to the inner road and its internal moral; with the experience of the Force that emanates from the Profound, from the Luminous Center; with its transcendent Path towards the infinite worlds.

And this, in turn, is the central nucleus of this Myth: *"When they spoke of a city of the gods, which the heroes of many peoples strove to reach; when they spoke of a paradise where gods and humankind lived together in transfigured original nature; when they spoke of falls and floods, great internal truth was told.*

Later, the redeemers brought their messages and came to us in double nature to re-establish that lost unity for which we yearned. Then, too, great inner truth was told.

But when all this was spoken of but set outside the mind it was an error or a lie.

However, the fusing of the inner look with the external world forces this look to travel new paths.

*The heroes of this age fly toward the stars. They fly through regions previously unknown. They fly out from their world and, without knowing it, they are impelled toward the internal and luminous center."*⁴²

⁴² Silo. *Silo's Message*. Chapter XX "Inner Reality". Available on silo.net

7- Epilogue

Finally, as a testimony, I would like to share the deep emotion experienced at this point of the work, when I repeat in my interior, feeling in a new profundity each word, this wonderful Prayer composed by the Master:

*You, who are the Light of Gnosis
teach me to see your presence in One and All.
Teach me to see with understanding
beyond the Earth
and beyond human eyes.*

*You who are the permanent
show yourself through my memories,
through my passions,
through my force which is not mine.*

*You who are the One and the All
always still and always moving
show me the mystery
of that which is not in you.
To understand through Gnosis
that is above the light
and also above darkness
in eternal unity.⁴³*

Thank you, Silo!

oooooooo

⁴³ Silo. *Gnostic prayer*. Unpublished.

Control and evolution of consciousness

Notes of conversations between Enrique Nassar and Silo (1997)

Silo - Image technology and the global data network are developing; all this makes the planet more connected, which will facilitate the transmission and circulation of information but will not improve communication between people, at best it will facilitate the connection of their solitudes. One thing is the circulation of data and another is communication; one thing is the connection by means of technology and another thing is to get out of isolation. The system sees the world as a business, that is to say, in people it sees work and consumption; all this technology serves them to take resources from the population; for that reason, the fallacy that they pursue with virtual reality is that of manipulating the image of the population in order to robotize them, make them work more and take resources from them.

Manipulating the image to the population is an unrealistic pretension. An example of this fallacy is Romania, where its president Ceausescu naively believed that it was possible to control the consciousness of the population and in his exercise of power he controlled the means of production, the media, the social organization, the formative institutions (education). In Romania, children called him Papa C., adolescents and young people held events where they expressed their praise to C. Populations that expressed small disagreements with the regime were deconstructed, transferred, uprooted and re-educated; that is to say, C. apparently had control over the objectivity and subjectivity (of the consciousness) of the population. One day everything changed and, in a very short period of time, C. is dismissed, taken prisoner, judged and shot. The latest photos of C. and his wife show them with expressions of astonishment at what is happening to them: the two died without understanding what was happening.

The exercise of power in the manner of C. is based on the naïve theory that if the means of production are monopolized and the means of communication are managed (monopoly of the image) people who supposedly have a passive consciousness will respond in a mechanical, predetermined and reactive way to the stimuli sent to them, therefore it will always be possible to foresee what they are going to do in the future. But no, human consciousness is not passive, human consciousness is active; this means that if a stimulus is thrown at the consciousness waiting for a predetermined response, it could result in that consciousness does something totally unexpected, precisely because the consciousness is intentionally active. The System, as it has a limited and flat view of the human being, learns nothing from cases like that of Romania; the System does not understand how human consciousness works.

E.Nassar - *Can human consciousness be controlled?*

Silo - From the time of the Assyrians, who murdered thousands of people and made pyramids of corpses so as to frighten and subdue the population, since that time it is known that through brutal methods it is possible to control the collective behavior of a population. It is true that, by means of brutal methods, the collective behavior of a population can be subdued; but it is also true that, in terms of process, there is no way to control human consciousness.

The formula of bloody demonstrations to a population and then subjugation, has been used several times in history: Franco in Spain produced a bloodletting of more than a million people and then was able to subjugate without major problems the social behaviors of the Spanish people; Stalin produced enormous bloodshed to the Russian people and then was able to subjugate them without much difficulty. In these cases there is subjugation of the collective behaviour of the population, because out of fear no one dares to do what is forbidden; but there is no control of the consciousness because people do not agree with that. What was not clear with these regimes was that they would have ended even if the dictators who imposed them had not died; the Franquist regime would have been dismantled by the new Spanish generations, regardless of the cost in lives that that would have meant. The Stalinist regime could not have been eternal, as demonstrated by the fall and dismantling of the USSR. The Nazis, even if they had won the Second World War, would not have remained in power in Germany indefinitely; the most probable thing is that they would have ended up killing each other and the population would have rebelled.

An example that violent regimes are not able to sustain themselves for a long time can be seen during the Spanish conquest with Hernán Cortés. When Cortés arrives in Mexico, he finds that the emperor is

subjugating the collective behaviors of the population by means of brutal methods, that the indigenous populations are subjugated and very close to rebellion, and that they are just a short time away from rising up against this imposition. Cortés arrived with few soldiers, finds this situation of popular pre-rebellion and takes advantage of it; relying on the subjugated peoples he manages to dominate the Aztec empire (which was very close to its destructuring). Cortés went down in history as a military genius and truly his talent was political, but those are the ways historians see things. If the Spaniards would not have arrived in Mexico, the subjugated peoples would have arisen and that culture would have followed its process; at that time, Peru was in civil war.

EN - *Why in historical development do these detours occur in the process of peoples?*

S - The human species is a recent species, it hasn't been around for much time, and its evolution is not in a straight line; it advances in its development by experiencing paths, according to improvements and errors. In spite of everything that has happened historically, Homo Sapiens has not disappeared from the face of the planet, it is standing; and let's be honest, since its beginnings something has improved. The human being is not finished, but transforming itself and transforming its nature. Imagine the future... the experiments she can do.

EN - *This clarifies how consciousness evolves at the collective level, but what about the evolution of consciousness at the individual level?*

S - The same thing happens in the individual: she advances in her development by experiencing paths and according to improvements and errors. The individual can advance as long as she does not get stuck in the error; if the individual consciousness is blocked in a bend where it cannot get out of a system of contradiction, it does not advance. In people it happens like this: they continually transform their difficulties and mistakes, and move forward or are blocked. Since, moreover, human life is short, they must not permit themselves the luxury of staying too long standing in their problems, the human being should die advancing; and with regard to what is believed that individual consciousness is a certain way, that it could die and end everything, it seems there's no need to believe such a thing. Today the Human Being is coming. The Human Being is already appearing.

EN - *What do you mean, "Today the Human Being is coming"?*

S - In the last centuries the positivist vision has reduced the Human Being to an organism, to a rational animal, to something that is born, grows, is trained, works, reproduces, gets sick and dies. You go to your office and sit next to a co-worker, how do you feel about each other? You feel that he was born, grew up, was trained, is working with you, has children (reproduced), is ill or may become ill and may die or will necessarily die. That which you feel is the vision of the system of the Human Being: it is an organism that is born, grows, is trained, reproduces, works, gets sick and dies.

The real Human Being, the one who goes towards infinity, the one who discovers and manipulates the atom, the one who transforms the universe into bits, the one who decodes and can manipulate the genetic code at will and with that will further transform her nature; the one who, when told that technology generates unemployment, is willing to restructure the social organization in order to free the human being from work and allow technology to continue its development; the one who rebels against only being considered a rational animal that is born, grows, reproduces, is trained, works, gets sick and dies; the one who looks at her body and considers it a primitive antiquity for the development of her consciousness; the one who rebels against death; the human being who is not yet defined by philosophy, psychology or social sciences... that human being, that real human being, that one, is already appearing. Is that human being going to make mistakes? Of course she's going to make mistakes, but it couldn't be otherwise. This process is not going to stop in any way. So the anti-humanist forces try to stop these processes... those processes are going to break through! Human consciousness is going to get rid of many of the bonds that limit it day: work, the limitations of the body...

EN - *What can happen in the next few years?*

S - The systems create the substratum of basic beliefs to which the average citizen adheres; from this substratum of basic beliefs the average citizen thinks and does science, politics, culture, economy. A primitive system (such as the one that exists) can only generate a field of primitive beliefs for the citizen to adhere to. For example, neoliberalism is a production from that primitive substratum. The analysis of current phenomena is based on a methodology specific to that substratum, that is: everything very reduced, very primitive, very limiting.

Neoliberalism is going to fall (it is difficult to see with the tools of analysis of the substratum of basic beliefs) and for us the problem is not that it falls, but all the social upheaval that can be generated by the collapse of the financial system; imagine the system of production and distribution of food stopped, the public services blocked, millions of people in the cities trying to get out, the psychosocial outbursts of different kinds that there would be. A collapse of the system without something to replace it would be useless. We are not only interested in the collapse of the system but also in its replacement.

EN - *To avoid a hopeless collapse do we need to take power?*

S - That's an option that's not very interesting for us. For us, the interesting option is for people to change.

EN - *What do you mean that people change?*

S - Do you remember "The Winged Lion"?

" — That's right, Mr. Ho. You're absolutely right. No one on Earth is going to support an effort of that kind until there's an end to the monstrous situation where even a single human being lives below the standard of living that the rest of us enjoy.

— But tell me, exactly when did everything begin to change? When did we first realize that we exist and, therefore, that the others exist as well? Right now, I know that I exist. It sounds pretty silly, doesn't it, Mrs. Walker?

— It's not silly at all. I exist because you exist, and vice versa. That's the reality, and it's everything else that's silly. I think the guys from the—what's it called?—'The Deficient Intelligence' or something like that?

— The Committee for the Defense of the Weak Nervous System. No one remembers them. Which is why I've dedicated a poem to them.

— Good. Very good. Well, they certainly managed to straighten things out. I don't really know how they did it, but they did. If it wasn't for them, we'd all have become ants... (...)

— That's it—you're right, of course. The entire social organization, if you can call it that, is collapsing. It's come undone in such a short time.... (...)

— Of course, Mrs. Walker. We're living in a new world, and it can still be hard for us to find ways to communicate openly with each other.

— Would you read me your poems? I imagine they are inefficient, arbitrary and, above all, comforting.

— That's right, Mrs. Walker. They're inefficient and comforting. I'd be glad to read them to you any time. Have a marvelous day."

People change if their apparatus of basic beliefs changes. Remember geocentrism, the Earth was the center of the universe and that was a time when everyone agreed that this was so. That's how they believed and that's how they lived.

With the passing of time all this is modified: first it is said that the sun is the center of the universe, then it is clarified and it is said that the solar system is one of many in a larger system called a galaxy, later it is explained and it is said that this galaxy is part of a system of galaxies and that in turn this system of galaxies is one more in the universe, lately it is explained that there are several universes. All this means that ideas change, today no one can think of saying that we are the center of the universe, but let's pay attention to how we talk, we say: "the sun rises..", "the sun sets.." ... as if we were the center of the universe.

But that's not all. Today, after the investigations that speak of solar systems, galaxies, sets of galaxies, universes and several universes; today, despite the evidence of the immensity of the universe, we sustain three things: life on Earth is the only life in the universe, life on Earth is the only form of intelligence in the universe and homo sapiens is the only form of human life; we maintain that we are the only form of life, of intelligent life and of human life. We believe we are unique, the whole universe is for us, we are the center of the universe, that is, we remain geo-centric. It's a belief of the basic belief apparatus that we haven't modified yet.

What we are observing today is that the human being wants to break that basic belief. This is seen in the efforts of science and technology in their interstellar research and in their search for other forms of extraterrestrial existence. This is seen in people's desire for extraterrestrial life; so much is people's desire that there are collective illusions of UFO sightings and it is a widespread theme. People are doing so much to make extraterrestrial intelligence happen that we're on the verge of that happening. Homo sapiens is straining to open his universe, to go beyond his basic belief apparatus. In that quest the human being will discover consciousness.

EN - *What do you mean when you say: "The human being is going to discover consciousness"?*

S - From Descartes the consciousness was defined as something, as something with extension. Since then, consciousness has been considered as one more case of matter in evolution, as a viscera that can be manipulated by means of drugs and electrical stimuli. Consciousness is not a reactive passive organism, it is much more than that, it is an intentional evolutionary structure. The real dynamic of consciousness is to transform oneself, to transform the body and to transform the world.

The fact that through astronomical research it is discovered that the world does not move mechanically as they

wanted to explain through the Big Bang theory, through the random mechanical shock that later results from the effect of chance in the evolutionary process we know, but that there are universes that agglutinate and move not according to a mechanical but instead according to an intentional direction; that is to say that the universe in its development has a meaning. The evidence that there are other forms of intelligent life in the universe; that's to say, that we are not unique. To understand that consciousness is not something mechanical and reactive but an intentional evolutionary structure. To be on the verge of accepting that the human body is a primitive antiquity that does not correspond in its development to the speed of evolution of the consciousness and to have the knowledge and technology to modify it. To be close to freeing man from the slavery of labor... all of these are clear signs that the human being is seeking to free herself from her apparatus of basic beliefs.

Where all these things become evident, the basic belief apparatus is going to destructure: that there is an intention in the universe, that there are other forms of intelligent life, that individual consciousness is intentionally evolutionary, that the body is a primitive antiquity capable of being modified, that the convenient thing to do is to stop working and make machines work. The human being does not feel according to her ideas, she feels herself according to her beliefs. With the destructuring of the basic apparatus of beliefs of the human being, her image of the world will be broken and with it a whole new system of possibilities of development for the consciousness will be opened.

After the last fifty years of paralysis, science and thought are trying to break through again. The human being is on the verge of transforming not only technically but also its consciousness. Everything moves in structure. Imagine yourself in the future: a human super-civilization, a world where all human beings agree on the basic premises and each one is a diversity; we are not talking about diversity of cultures, we are talking about diversity of people: that is, each person is a world. What is normal in evolution is multiplicity, diversity. While the evolution of consciousness follows one direction, there may be thousands of paths in that direction.

The human beings of the future, in order to understand the behavior of today humans, will have to study in depth the basic belief apparatus of this epoch; and then they will not say that these humans made a mistake in their reasoning but that they perceived, analyzed, reasoned, predicted, projected and decided from a very primitive system of reasoning generated by a very poor field of beliefs.

The thought of this epoch from the perspective of the humans of the future will be that of a primitive thought encolumned in a very narrow mental line, from where certain phenomena were not visible, it was not possible to make certain relations, certain consequences could not be predicted. It will be said that this absurd improvisation in decisions, analysis and forecasts corresponded to a nihilistic mental behavior from which it was impossible to build something and its basic resource of action was the brutal imposition of physical, economic... it will be explained that these were the remains of the Cro-Magnon that were still unresolved.

Today power is in the hands of a gang of primitives, ignorant and irresponsible people who are very brutal. The stupid actions of these primitives are creating very serious errors in the social construction of the world which are generating a field of catastrophe. This catastrophe could happen and that would delay the process of human development. As human consciousness is intentional, apocalyptic visions of entropy, collapse, catastrophes (nihilistic vision) are not inexorable.

The human being of the future will not want to acquire and possess things; she will want to feel, create, build, learn without limit. She will not want to possess, have, control; she will understand that there are millions of ways of developing emotion and thought, that there is an unimaginable diversity of ways of feeling and thinking. Now the vision of the human being is very behavioral and reduced, but in the future all will go well, all will go to where it has to go.

April 18, 1997.

Excerpt from the book *Life of Galileo* by Bertolt Brecht⁴⁴

CHAPTER 8
A CONVERSATION

Galileo, feeling grim
A young monk came to visit him.
The monk was born of common folk.
It was of science that they spoke.

*In the palace of the Florentine ambassador to Rome, Galileo listens to the little monk,
who after the session of the Collegium Romanum repeated Father damns' remark to
him in a whisper.*

GALILEO: Speak up, speak up! The cloth you wear entitles you to say what you please.

THE LITTLE MONK: I've studied mathematics, Mr. Galilei.

GALILEO: That might be a good thing if it led you to admit that two times two is sometimes four.

THE LITTLE MONK: For three nights I haven't been able to sleep, Mr. Galilei. I can't figure out how to reconcile the decree which I've read with the satellites of Jupiter which I've seen. So I decided to read mass this morning and come and see you.

GALILEO: To tell me that Jupiter has no satellites?

THE LITTLE MONK: No. I recognized the wisdom of the decree. It showed me how dangerous unrestricted inquiry can be to mankind, and I've decided to give up astronomy. Still, I felt I had to acquaint you with the motives which compel me, even though I'm an astronomer, to desist from pursuing a certain doctrine.

GALILEO: I can assure you that such motives are well known to me.

THE LITTLE MONK: I understand your bitterness. You're thinking of certain exceptional means of pressure exerted by the church.

GALILEO: Don't beat about the bush: instruments of torture.

THE LITTLE MONK: Yes, but I'd like to speak of other motives. Forgive me if I talk about myself. I grew up in the Campagna. My parents are peasants, simple folk. They know all about olive trees, but very little else. As I observe the phases of Venus, I can see my parents sitting by the stove with my sister, eating lasagna. I see the beams over their heads, blackened by the smoke of centuries, I see distinctly their work-worn old hands and the little spoons they hold in them. They're very poor, but even in their misery there is a certain order. There are cyclic rhythms, scrubbing the floor, tending the olive trees in their seasons, paying taxes. There's a regularity in the calamities that descend on them. My father's back wasn't bowed all at once, no, a little more with every spring in the olive grove, just as the child-bearing that has made my mother more and more sexless occurred at regular intervals. What gives them the strength to sweat their way up stony paths with heavy baskets, to bear children, even to eat, is the feeling of stability and necessity they get from the sight of the soil, of the trees turning green every year, of their little church standing there, and from hearing Bible verses read every Sunday. They have been assured that the eye of God is upon them, searching and almost anxious, that the whole world-wide stage is built around them in order that they, the players, may prove themselves in their great or small roles. What would my people say if I were to tell them they were living on a small chunk of stone that moves around another star, turning incessantly in empty space, one among many and more or less

44 Brecht, Bertolt. *Life of Galileo*. Translators: Wolfgang Sauerlander and Ralph Manheim. 2007.

significant? What would be the good or necessity of their patience, of their acquiescence in their misery? What would be the good of the Holy Scripture which explains everything and demonstrates the necessity of all their sweat, patience, hunger and submission, if it turns out to be full of errors? No, I can see their eyes waver, I can see them rest their spoons on the table, I can see how cheated and betrayed they feel. In that case, they will say, no one is watching over us. Must we, untaught, old and exhausted as we are, look out for ourselves? No one has given us a part to play, only this wretched role on a tiny star which is wholly dependent, around which nothing turns? There is no sense in our misery, hunger means no more than going without food, it is no longer a test of strength; effort means no more than bending and carrying, there is no virtue in it. Can you understand now that in the decree of the Holy Congregation I discern a noble motherly compassion, a great goodness of soul?

GALILEO: Goodness of soul! Don't you simply mean that there's nothing left, the wine's been drunk, their lips are parched, so let them kiss the cassock. But why is nothing left? Why is there no order in this country but the order in an empty drawer, and no necessity but the necessity of working oneself to death? Amid overflowing vineyards and wheat fields? Your peasants in the Campagna are paying for the wars which the vicar of gentle Jesus is waging Spain and Germany. Why does he put the earth at the center of the universe? Because he wants the See of St. Peter to be in the center of the world! That's the crux of the matter. You're right; the question is not the planets, but the peasants of the Campagna. And don't talk to me about the beauty of phenomena in the golden glow of old age. Do you know how the Margaritifera oyster produces pearls? By contracting a near-fatal disease, by enveloping an unassimilable foreign body, a grain of sand, for instance, in a ball of mucus. It almost dies in the process. To hell with the pearl, give me the healthy oyster. Virtue is not bound up with misery, my friend. If your people were prosperous and happy, they could develop the virtues of prosperity and happiness. But today the virtues of exhausted people derive from exhausted fields, and I reject those virtues. Yes, sir, my new water pumps can work more miracles than your preposterous superhuman toil. —"Be fruitful and multiply," because your fields are barren and you are decimated by wars. You want me to lie to your people?

THE LITTLE MONK: (*in great agitation*) The very highest motives bid us keep silent: the peace of mind of the wretched and lowly!

GALILEO: Would you care to see a Cellini clock that Cardinal Bellarmine's coachman left here this morning? You see, my friend, as a reward for my letting your good parents have their peace of mind, the government offers me the wine which they press in the sweat of their countenance, which as you know was fashioned in the image of God. If I agreed to keep silent, my motives would undoubtedly be rather sordid: an easy life, no persecution, and so on.

THE LITTLE MONK: Mr. Galilei, I'm a priest.

GALILEO: You're also a physicist. And you can see that Venus has phases. Look out there. (*He points out the window*) Can you see the little Priapus by the laurel tree at the well? The god of gardens, birds, and thieves, rustic, obscene, two thousand years old. He wasn't so much of a liar. All right, we'll skip that, I too am a son of the church. But do you know the Eighth Satire of Horace? I've been rereading him lately, he gives me a certain balance. (*He reaches for a small book*) He puts words in the mouth of this same Priapus, a little statue that used to stand in the Esquiline Gardens. Here's how it starts:

"I was a figtree stump, wood of little use
When once a carpenter, pondering whether
To fashion a Priapus or a footstool
Decided on the god . . .

Do you think Horace would have let anyone forbid him the footstool and put a table in the poem instead? Sir, a cosmology in which Venus has no phases violates my esthetic sense! We can't invent machines for pumping river water if we're forbidden to study the greatest machine before our eyes, the mechanism of the heavenly bodies. The sum total of the angles in a triangle can't be changed to suit the requirements of the curia. Nor can I calculate the courses of flying bodies in such a way as to account for witches riding on broomsticks.

THE LITTLE MONK: Don't you think the truth will prevail, even without us, if it is the truth?

GALILEO: No, no, no. Truth prevails only when we make it prevail. The triumph of reason can only be the triumph of reasoning men. You describe your peasants in the Campagna as if they were moss on their huts. How can anyone imagine that the sum of the angles of a triangle runs counter to their needs! But if they don't rouse themselves and learn how to think, the best irrigation systems in the world won't do them any good. Damn it, I see the divine patience of your people, but where is their divine wrath?

THE LITTLE MONK: They're tired.

GALILEO: (*throws a bundle of manuscripts in front of him*) Are you a physicist, my son? Here you'll find the reasons for the ocean's tides. But don't read it, do you hear. Ah, reading already? I see you're a physicist. (*The little monk has immersed himself in the papers*).

GALILEO: An apple from the tree of knowledge. He gobbles it up. He'll be damned for all eternity, but he's got to bolt it down, the hapless glutton. Sometimes I think I'd gladly be locked up in a dungeon ten fathoms below ground, if in return I could find out one thing: What is light? And the worst of it is: What I know I must tell others. Like a lover, a drunkard, a traitor. It's a vice, I know, and leads to ruin. But how long can I go on shouting into empty air—that is the question.

THE LITTLE MONK: (*points at a passage in the papers*) I don't understand this sentence.

GALILEO: I'll explain it to you, I'll explain it to you.

Flight of the Spirit

A STORY

A blue laser beam passes vertically through the shadowy room. The soft light slowly expands in all directions and soon fills the room completely.

Suddenly, the sound of a violin erupts and spreads to every corner of the space of representation. In the center is an athletic young man. The melody of Tchaikovsky's ballet captures everything, even Dima's heart.

A flash of light. The dancer dressed in black in the waiting position opens his eyes as a young woman in white enters the scene. Dancing to the rhythm of the music, she gradually gets closer to her partner.

With precise movement of the eyelids Dima increases the volume of the quadraphonic sound. It's the ideal time to totally immerse himself in this celestial melody, and the new generation of nano-earphones fully demonstrates its virtues.

Two holographs: the young Nuréyev and Plisetskaya, meet at the very center of the scene and, intertwining with each other, begin to spin faster and faster... Until the two merge into one.

"Two that become one..." reflects Dima.

"Two principles in one. All in One!" he understood with all his being.

Then the scene transforms. A tunnel appears... a long tunnel... In the background, a bright light. Dima feels as if he is flying towards it with increasing speed. Or is it that the luminous center is getting closer? It is not clear, nor does it matter. The next moment his consciousness bursts into light.

Silence.

Illumination, inspiration. Instantly, everything becomes clear: the answer to yesterday's question about "curvilinear integrals" and his brother's mysterious words about the meaning of life; even the very structure of the Universe... Everything is so evidently clear!

A moment later he feels with certainty the presence of his parents, very close; although at this moment, physically, they should be approaching the galaxy NGC 3621.

Before long a wave of joy comes over him.

Dima, in silence, thanks in his heart for that light, for that happiness, for that understanding. With gentle movements of his right hand he stops the holographic player and turns on the room's light.

He feels his consciousness fully awake. A new question arises in his head: How and when did all this begin? How and when did the human being open the door that leads to deep inspiration, to unexplored, unlimited possibilities of the mind?

With his left hand he connects the bio-computer. The screen, suspended in the air, reminds him of the place and time of his terrestrial existence: St. Petersburg, April 12, 2061. In a corner of the screen the news of the day: "Today: The Day of the Cosmonaut. The 100th anniversary of Yuri Gagarin's first space flight is celebrated." For some reason, Dima intuitively senses that this event has a certain relationship with his new concerns. In any case, he wants to fully understand, to know the path travelled by man until this discovery. Surely, it is necessary to travel back in the past to unveil the key moments of this process.

Dima inserts the neuro-earphones, wirelessly connected to the bio-computer. In a few seconds he is already in another space, similar to the cabin of a seventh generation ship. In front of his eyes floats a flat, transparent screen, where it is necessary to complete some data...

"But what exactly to put? How to ask the question? -Thinks Dima, and then decides- Well, I'll try".

Direction of travel: Past.

Interval: 100 years.

Field: Science.

Area of interest: Fundamental discoveries.

Question: When and how did new horizons open up in the exploration of the depths of the human mind?

"Let's go!", he says to himself.

In a couple of seconds more the bio-computer stops at: 2011 - Russia - Project 'Mars-500'. Russian cosmonauts "land" on Mars...

"Hey, no! It's just a trial module," Dima-observes, "but nevertheless..."

While images, maps, figures, appear and disappear in the three-dimensional space, the voice of a narrator explains: "The experience of prolonged survival in a closed space -in some aspects similar to a chamber of silence- made it possible to reveal a certain phenomenon, unknown until that moment by Science".

"Russian cosmonauts, along with Chinese and other nationalities, met in the experimental module built in a scientific center near Moscow, where all the conditions they would experience in a real flight to Mars were reproduced. The duration of the experiment: 520 days".

"Everything developed according to plan, until the cosmonauts began to experience completely unusual mental states, extraordinary sensations of inspiration, which led doctors and researchers participating in the team to create a new category of study: the mental displacement of the human being towards other spaces and times. A dossier was compiled with the title: "Entrance to the Profound". The return of cosmonauts to the usual space-time coordinates was always accompanied by unusual lucid states of consciousness."

The phenomenon was studied in detail. The experiments continued beyond the completion of the "Mars-500" project. In the monograph, published by the Russian Academy of Sciences in a specialized journal, it is written: "The entrance into the depths of consciousness and the consequent states of inspiration are verified in the test subjects under certain conditions of decreased sensory stimulation and by the realization of mental exercises such as "imaginary journeys" to a certain point in the Universe, similar to a luminous center. In this "space of representation" the image of a long tunnel, with a bright light at the end, is common to all the test subjects; just a moment before passing towards another mental dimension, called "the Profound" and losing all space-time references. In any case, the return to the habitual state of wakefulness invariably occurs after a very short interval of time, usually between 1 and 5 terrestrial minutes, and is accompanied by extraordinary sensations of calm, joy and total understanding".

"I see," thought Dima- "outside and inside are parts of a whole, of the same space of representation; look how it was discovered that a mental journey towards the Cosmos is, at the same time, an entrance into the depths of consciousness." "It's clear. Let's keep moving!" he said, and with another gentle movement of the hand he restarted the search on the bio-computer.

After some unsatisfactory stops, Dima reached the point at which his intuition hinted at the very beginning of the search: April 12, 1961 - Russia, USSR. First departure of a human being to the Cosmos: flight of Yuri Gagarin aboard the ship "Vostok-1".

Gagarin in the Baikonur Cosmodrome, encased in his space suit, speaks to the planet:

"Dear friends, close friends and strangers, compatriots, people from all countries and continents! In a few minutes a powerful space rocket will take me to the far and vast spaces of the Universe. What can be said in these last minutes before the launch?"

"All my life now seems like a wonderful moment to me. Everything I've lived, what was done before, was lived and done in order for this moment to happen. Surely it is not necessary to talk about the feelings I experienced when I was asked to make the first flight in history. It is a great happiness to be the first in the cosmos, face to face, in an unprecedented struggle with nature."

The launch team, which prepared the rocket and capsule for this flight, is assembled in front of the ramp. Yuri Gagarin and German Titov get off the bus and kiss each other farewell. Yuri also kisses other comrades-cosmonauts who accompanied him here; finally, he informs the head of the state commission that he is ready for the flight. Everyone is nervous, it is the first flight into the unknown...

On board the spaceship. Radio contact with the flight control center.

Cosmonaut Gagarin: Counts: 1... 2... 3... 4... 5... 6... 7... 8... 9... 10. Do you hear me? Over.

Principal constructor Korolev: "Cedar," "Cedar," this is "Aurora-1". We are receiving your signal well. Keep up the good work.

.....

Korolev: "Cedar," this is "Aurora-1." During takeoff you can stop answering. Answer when the opportunity arises, in the meantime I will convey all the details.

Gagarin: "Aurora-1," this is "Cedar." Roger that.

Korolev: Ignition switch.

Gagarin: Roger that.

Korolev: On our end everything is normal, the outlet valves are closed.

Gagarin: Por mi parte todo normal. Me siento bien. De buen ánimo. Listo para el despegue. Cambio.

Gagarin's breathing can be heard.

Korolev: "Cedar," I'm "Aurora-1." The mast structure has detached. Everything's normal.

Gagarin: Roger that, I felt it. Over. I hear the valves working.

Korolev: Roger that. All that is good.

Pause of approximately 20 seconds.

Korolev: Ignition activated, "Cedar", this is "Aurora-1".

Gagarin: Roger, ignition activated.

Korolev: Preliminary stage.

Gagarin: Roger.

Korolev: Intermediate.

Gagarin: Roger.

Korolev: Total thrust.

Gagarin: Here we go!

.....

Korolev: "Cedar," this is "Aurora." How do you feel? This is "Aurora". Over.

Gagarin: "Aurora," this is "Cedar." I feel excellent. The flight continues. The pressure increases a little. Vibrations. I can tolerate it well. I feel excellent. The mood is good. In the "Vzor" hatch I can see the Earth. I can distinguish the ridges of the ground, the forests. I feel excellent. How are things there? Over.

Korolev: "Cedar", "Cedar", this is "Aurora". Bravo! Everything's going very well. This is "Aurora". Over.

Gagarin: "Aurora," this is "Cedar." I can see the clouds above the Earth, small, and curled. And their shadows. Beautiful, a beauty. How do you hear me? Over.

Korolev: "Cedar," this is "Aurora." We hear you very well. You can continue the flight.

.....

Gagarin: "Spring," this is "Cedar." The main rocket separated at 9 hours 18 minutes 7 seconds, as planned. I feel good. Spusk-1 is connected. Magnetic index BKRF moved to second position. All BKRF ignitions on. I feel good, the mood is high. Cabin parameters: pressure 1, humidity 65%, temperature 20°, the compartment pressure is 1. In the manual system: 155, in the first automatic: 155, in the second automatic: 157. The sensation of weightlessness is well tolerated, it is pleasant. I continue the flight in orbit. Do you copy? Over.

.....

Gagarin: "Spring," "Spring," this is "Cedar." Can you hear me? Over. "Spring," this is "Cedar." I can't hear you. Can you hear me? Over.

Noise. 5-second pause.

Gagarin: The feeling of weightlessness is interesting. Everything is floating. (Pleased) Everything is floating! A beauty. Very interesting...

.....

Gagarin: Attention, I see the skyline of Earth. A very beautiful halo. First a rainbow from the surface of the Earth itself, and then the rainbow passes below. Very beautiful, it has already passed across the right hatch.

You see the stars through the "Vzor"... how the stars pass. A wonderful spectacle. The flight continues in the shadow of the Earth. In the right hatch I now see a little star, which passes from the left to the right. The little star is gone, it's gone, it's gone...

.....

After a 108-minute flight, and again back on Earth, Yuri Gagarin shares his impressions:

"The first unexpected thing that I came across - and I had flown up to that moment in high altitude planes - is that from the Cosmos, from such a distance, you can see everything on the Earth in detail. I have seen the rivers, the lakes, the coastline of the oceans, the islands, the great forests very well. The most extraordinary thing, of course, was the black sky with the stars and the very bright sun. The brightness was such that it was necessary to close the curtains of the porthole, because the sunlight in my eyes was literally blinding. I was surprised by the halo of the Earth, a very thin and delicate celestial fringe that covered our Earth like a veil on the horizon. The enormous sphere of the Earth occupies all space, if you look through the porthole, from edge to edge. Literally the eyes are not enough to see the whole terrestrial sphere."

"Of course! - understood Dima definitively- the journey into the Cosmos allowed man to gain a completely new perspective on his world, a new look, an unprecedented leap into another dimension of his existence. Not only because, seeing the Earth at a distance, he understood that his home is unique and one, without frontiers that separate people. Rather, he saw a fragile sphere, floating, navigating the cosmic space, where the terrestrial categories of "up and down", "roof and floor," acquire a completely different meaning. An unlimited freedom of movement, in all possible directions, became a reality for the human being.

Thus, the first journey to the cosmos was for humanity, at the same time, an enormous step forward in the process of liberation of the mind from natural conditioning. A true flight of the spirit towards freedom".

The vision of the process was complete for Dima. The answer to the question was given. Once again in his only 15 years of life he felt, very deep in his heart, the inexplicable joy of being, of being Human.

Hugo Novotny
February 2011

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