

"Human and artificial intelligence, Tesla technologies and quantum computers"

9th Swiss Symposium, Science and Spiritual Quest – Wissenschaft und Spirituelle Suche

A Tribute to Dr. T. D. Singh – In Anerkennung und Erinnerung an Dr. T.D. Singh

11. OCTOBER 2025

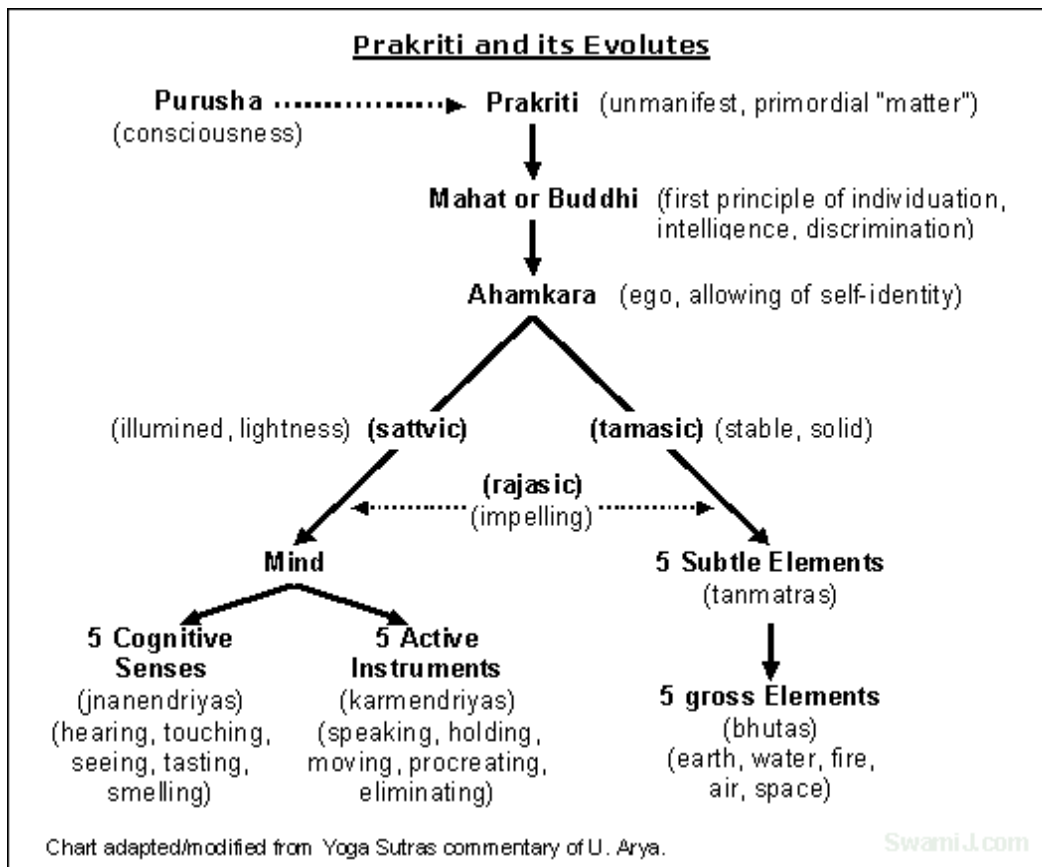
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<http://users.beotel.net/~gmarjanovic/>

1. Ancient Knowledge

At the very beginning, let us remember that Sāṃkhya philosophy is one of the oldest philosophical systems in India, estimated to be around 12,000 years old. Its founder is, intellectual colossus Maharishi Kapila. Sāṃkhya is a philosophy of dualism, in which there are two basic principles: First is **Prakṛti or material nature**. It is the passive principle of nature, the unconscious substance that forms the basis of all material existence. It is composed of three gunas - each with its own qualities: **Sattva, Rajas** and **Tamas**, that constantly interact and balance each other, change and evolve - which leads to various manifestations in the world. Second principle is **Purusha**, unchanging and timeless pure consciousness, a spiritual principle or eternal phenomenon that is separate from the material world - an observer and witness to the activities of Prakṛti, but not an active participant in them.

According to Sāṃkhya philosophy, the **world and beings** develop through a process of evolution, which is initiated by the interaction of Purusha and Prakṛti through manifestations that develop into eight basic principles: **Mahat - Cosmic Intelligence, Ahaṅkāra - Ego, Manas - Mind, Buddhi, Intellect**, and **five basic elements (Mahabhutas): Pṛthvī - Earth, Ap - Water, Tejas - Fire, Vāyu - Air and Akāśa ~ Akaśa**. This is the physical basis that is further elaborated by the ancient Greeks up to modern teachings.



The evolution of Prakṛti, begins only with the presence of Purusha which - by its proximity - makes Prakṛti come alive and begin creation. Although Purusha is a passive principle, its presence acts as a trigger and Prakṛti become disturbed and begins manifestation - from Mahat - Cosmic intellect through Ahamakara - Ego, all the way to the five elements of the senses and the mind.

2. Upanishadic Cosmogony

Regarding Upanishadic Cosmogony, external Universe, consists of several interpenetrating energy levels (levels of consciousness) called "lokas".

1.st is, **Bhurloka, Physical World** in which we gain knowledge about objects through the senses of sight, hearing, touch, smell and taste.

2nd is *Bhuvraloka*, **Astral World** which permeates the earthly plane. Vibrations in that world are faster than the vibrations of the physical plane and is made up of "**elementals**" (Mendelev's elements analogy in a subtler form).

3rd level is *Svargaloka*, **Mental World** - the world of thought, a realm of intense ideation. Everything a person desires is directly materialized through thought instantly, whereby each person builds his own heaven according to his possibilities, desires and fantasies.

Next 4 levels are *Bramaloka*, *Tapoloka*, *Janaloka*, *Maharoka* - **Supramental worlds** which are accessible only to self-realized human beings. These four highest worlds are of very fast vibrations, and are completely beyond the reach and power of comprehension of ordinary human beings.

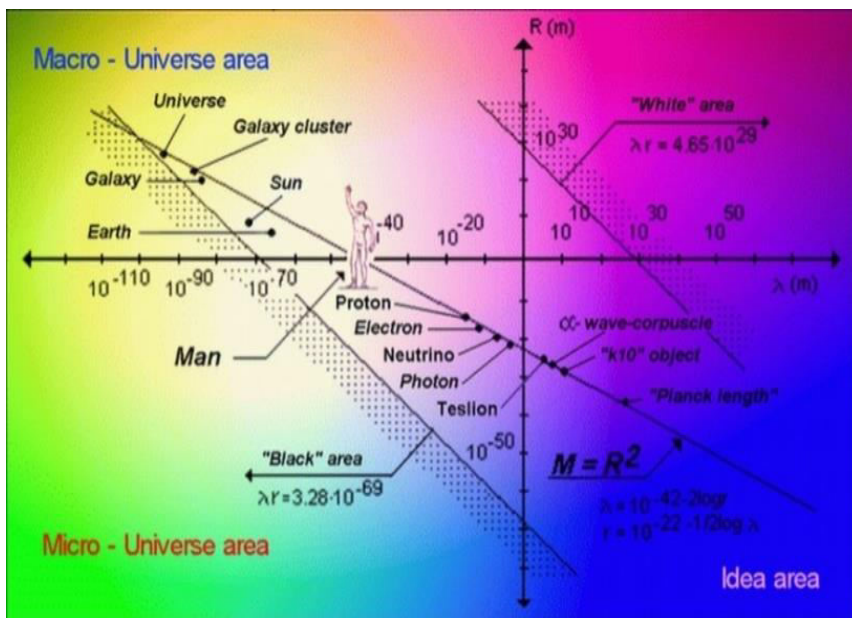
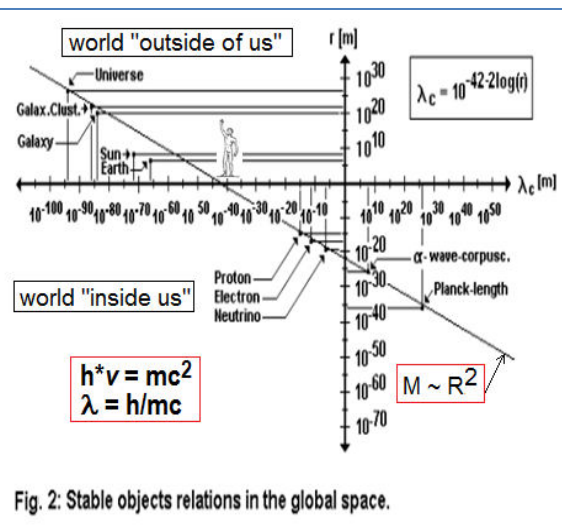
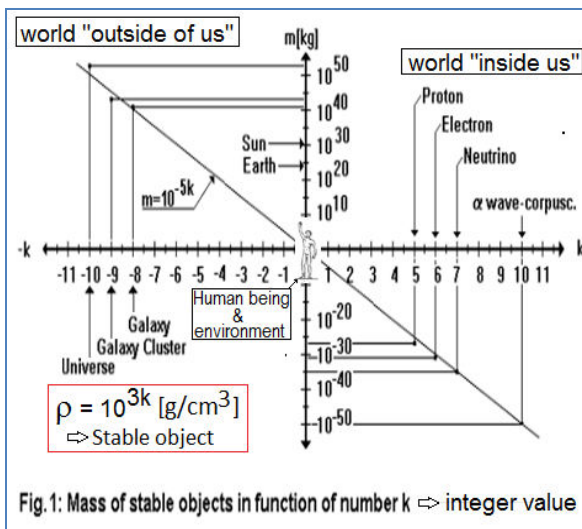
Finally, the highest level of conscious is *Brahman*, **Absolute Reality** - The Supreme God, in his unmanifested and undifferentiated unity, which contains all possibilities before divine creation.

Theosophy Plane / dimension	Upanishadic cosmogony Loka		Christian (Daskalos') cosmogony Heaven		Quantization level
7 - Auric / Atmic	7 - Brahmaloka / Satyaloka	Supramental worlds	7th, 6th and 5th Heaven	Worlds of Oneness. These higher heavens contain <u>purified Souls</u> and perfected Spirits, former human beings after self-realization.	K+26 Spirit (Atman)
6 - Alayic	6 - Tapaloka		Causal worlds		k+25
5 - Mahatic	5 - Janaloka		4th Heaven		k+24
4 - Fohatic	4 - Maharoka		The Higher Noetic world		K+23
3 - Jivic	3 - Svarloka	Mental world	3rd Heaven The Lower Noetic world	Worlds of Separateness are the poorest kind of worlds, even as they give us the greatest heaven and the greatest hell. They include the gross physical world, psychic and noetic worlds. These are the <u>worlds of forms, images, and impressions</u> . They are called Worlds of Separation because <u>in them a person sees himself as a separate entity</u> that receives impressions and interprets them. That self is something other than our true self.	K+16 - K+22 Soul=k+16 (Jiva)
2 - Astral	2 - Bhuvraloka	Astral world	2nd Heaven The Psychic world		K+9 - K+15 Astral
1 - Prakritic	1 - Bhurloka	Physical world	1st Heaven The gross Material world		K <=+ 8 Physical body

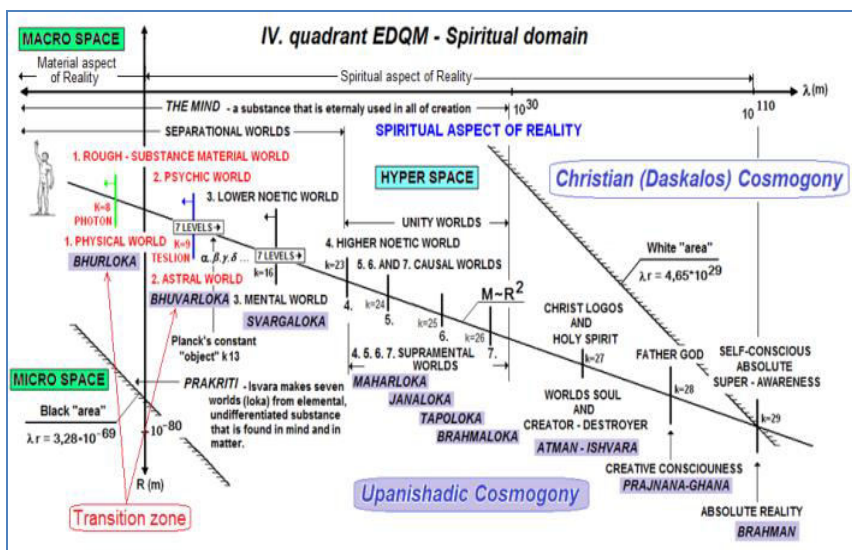
In this table we can see a comparative view of the levels of existence according to Upanishadic Cosmogony, Christian Cosmogony, Helena Blavatsky's Theosophy and the corresponding quantum levels according to the Energy Density Quantization Model.

3. Energy Density Quantization Model (<http://users.beotel.net/~gmarjanovic/>)

Energy Density Quantization Model of which I am the author, connects the phenomena of the world outside us, our nearest surroundings, the world inside us, but also the spiritual aspect of our reality. Namely, all of these are just segments of our Absolute Reality and I concluded that there must be something they have in common. I got an idea that it might be energy density. The first calculations showed that the phenomena of the macro and micro worlds respect the same law because they are all positioned on the same line (diagram below on the left) and that their positions are not-random, but very regular and quantized. Further analysis (diagram below on the right) showed that stable objects can exist permanently in space and time in some kind of resonant state, only if their energy is in a precisely defined relationship with the part of the space it fill, where the stable objects mass is approximately equal to the square of its radius.



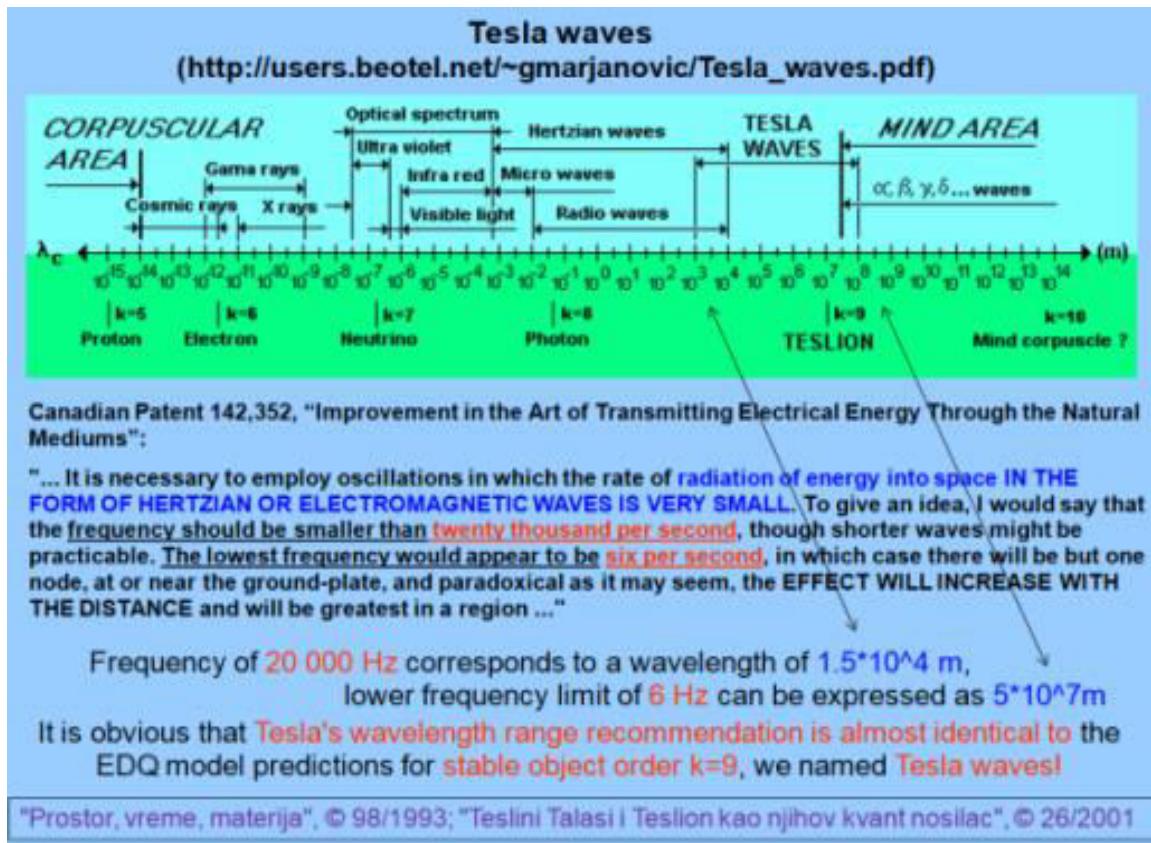
Here, on the energy space diagram, it is clearly seen that all macro objects are located in the second quadrant, micro objects in the third, and that the area of the fourth quadrant, the area of small dimensions and very low frequencies, belongs to the spiritual aspect of reality. Since science only explains material phenomena up to the level of the photon as the last material object that is measurable and detectable, I had to look for answers in ancient knowledge. I found them in the text of Mr. Petar Vujučin and Gopala Srinivansans – Secret of Sankhya.¹



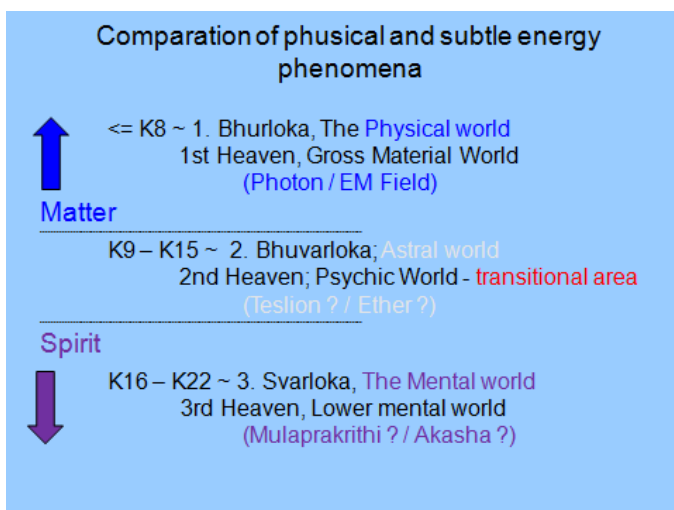
The synthesized information from these sources I have import into the energy space diagram so that now all phenomena of the spiritual aspect of reality can be described by the same physical parameters: mass, radius, frequency, etc. as the phenomena of the material world, although they are virtual or imaginary here - but still can serve us for comparisons and association links. It is very interesting that the Christian and Upanishadic cosmogonies describe the structure of Absolute Reality in a completely analogous way, regarding levels of consciousness and theirs basical structure - differing only in terminology.

¹ P.Vujičin, "States of consciousness in esoteric practice", D.Raković and Dj.Koruga, eds., Consciousness: Scientific Challenge of 21st Century (ECPD, Belgrade, 1995), pp. 89-136.

What turned out to be most interesting is the spirit-matter transitional area (down left) which corresponds to the zone between quantum levels 8 and 9. If we zoom into that area:



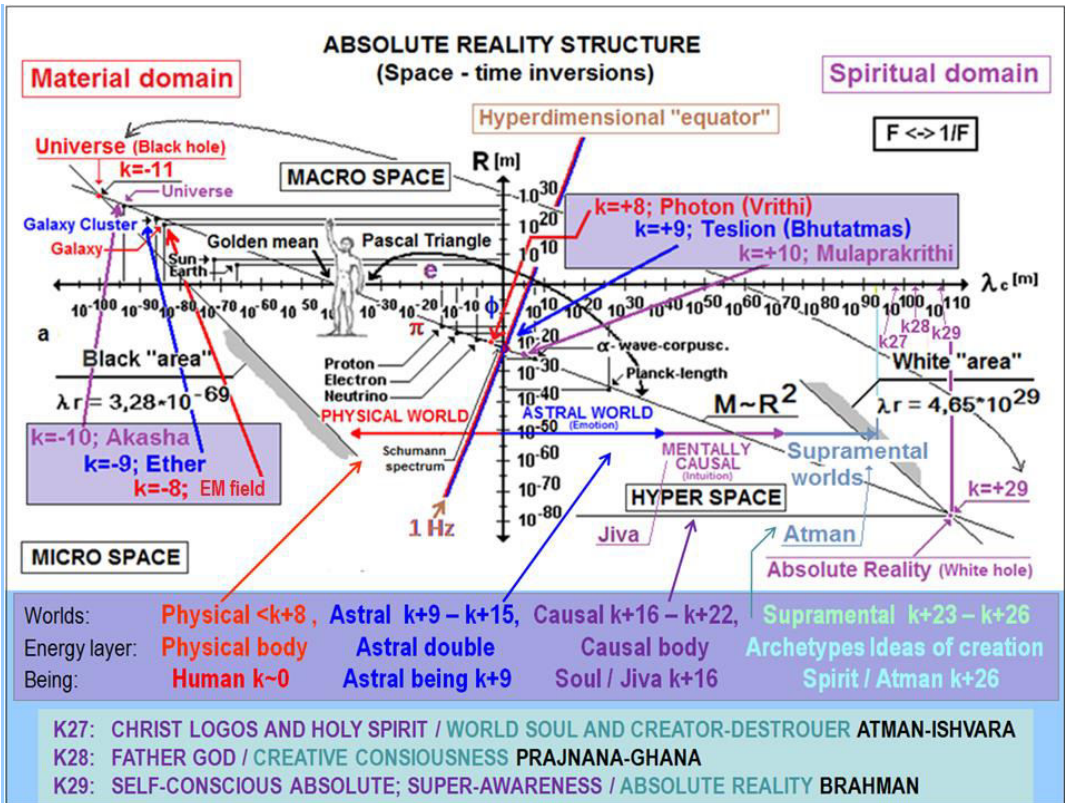
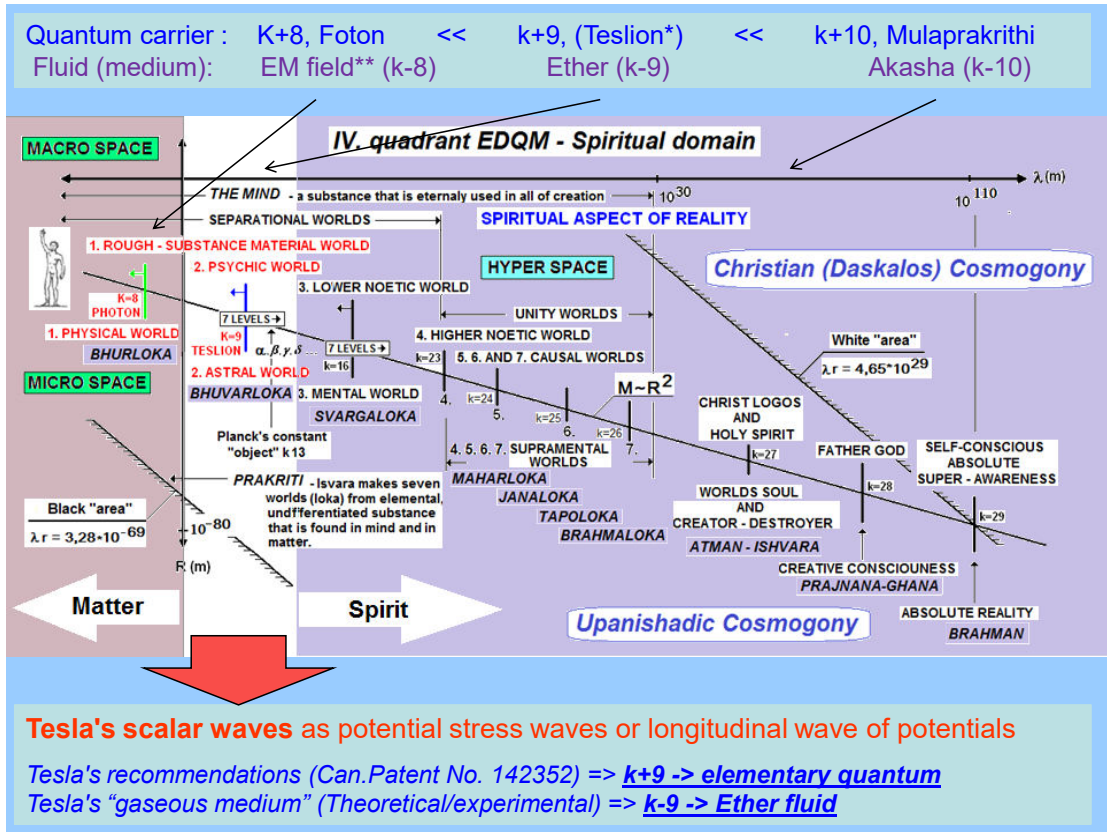
we can see that it belongs to the domain of electromagnetic waves from quantum level 8, photon, quantum carrier of EM waves, up to the area of brain waves alpha, beta gamma etc. at quantum level 10, but for a long time I couldn't find adequate scientific data for that area - until the moment when I came across Nikola Tesla's patent in which he clearly states that he does not work with Hertz waves, quantum level 8 and lower, and recommends frequencies from 6 Hz to 20,000 Hz, which expressed in wavelengths exactly corresponds to the area of wavelengths of quantum level 9 which I - in honor of Tesla - named Tesla waves and their elementary quantum - phenomenon k9 - Teslion.



So, the Tesla Wave Region belongs to the 2nd Loka, the Astral level, which is a transitional area, a bridge, a connection between the 1st Loka, the Physical World, and the 3rd Loka - the Lower mental world, that is - between matter and spirit.

And finally – now we clearly see why Nikola Tesla and his ether technologies are important. Namely, here we see that the basic fluid of the material world is the electromagnetic field, whose quantum carrier is the photon, of the spiritual world is Akasha whose elementary quantum is Mulaprakrithi, and that the basic fluid of

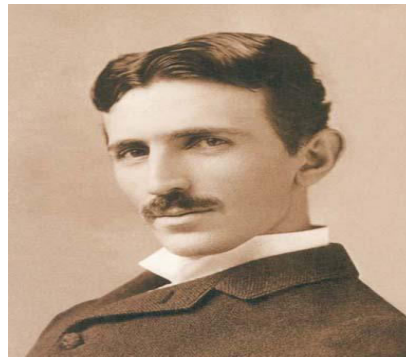
the Astral World is ether whose elementary quantum is the phenomenon k9. Therefore, Tesla's scalar waves as longitudinal waves of potentials gain their full scientific and logical meaning as a connection between the material and spiritual segments of Reality.



This picture shows the structure of the entire Absolute Reality, which contains the space-time-energy relations of all phenomena of Reality, regardless of whether they are of a material - particle-wave or spiritual nature - from the Universe in the final stage of evolution to its original source - Superconsciousness, Absolute Reality – that is Brahman.

As more than interesting, I highlight the fact that Man is placed in the position of the golden ratio and the fact that the border area of matter-spirit, I called it the hyper-dimensional equator - is at a position corresponding to the frequency of 1 Hz - which is the rhythm of the human heart, what sounds very inspiring.

4. The Connection Between Vedic Teachings and Nikola Tesla's Thoughts



The depth of Tesla's insights into the structure of Absolute Reality is best demonstrated by his words:

"The day science begins to study non-physical phenomena, it will make more progress in one decade than in all the previous centuries of its existence"

Connection Between Vedic Teachings and Nikola Tesla's Thoughts is very obvious:

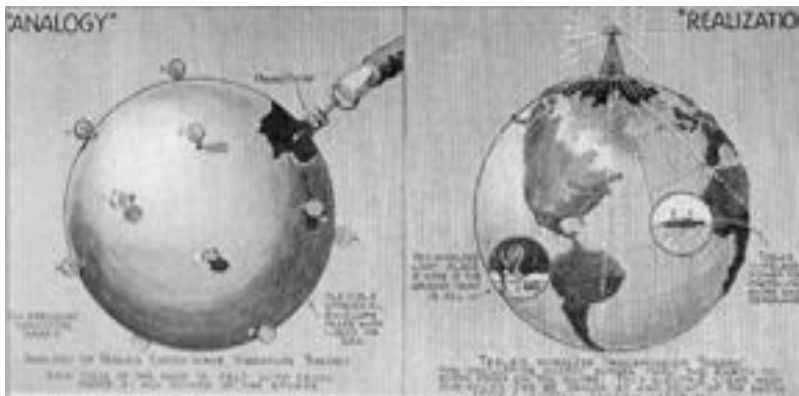
The **Vedas speak** of the universal laws of nature, energy, vibrations, and the interconnectedness of everything in the universe;

Tesla believed that the universe functions on the principles of energy, frequencies, and vibrations.

According to the **concepts of Sankhya philosophy**, ALL processes, at all levels of existence, are the result of volumetric (3D) vibrations of the primordial substrate in the breathing mode.

Structural identity of energy processes described in ancient knowledge and in Tesla's technologies is clearly seen from Tesla's writings in his diary where Tesla describes his greatest discovery on July 4, 1899:

"The earth, like everything else, is in a constant state of vibration. It is constantly contracting and expanding and could be made to respond with vibration to the lowest whisper of a human voice".



In the gif on the left we see Tesla's explanation of his principle of wirelessly sending energy by his "World Radio Station" - the Wardenclyffe Tower, which is completely analogous to the Vedic 3-D volumetric vibrations in the breathing mode.

Furthermore, in the Book of Man's Greatest Achievements², Tesla says:

"All perceptible matter comes from a primary substance, or tenuity beyond conception, filling all space, the Akasha or luminiferous ether, which is acted upon by the life giving Prana or creative force, calling into existence, in never ending cycles all things and phenomena"

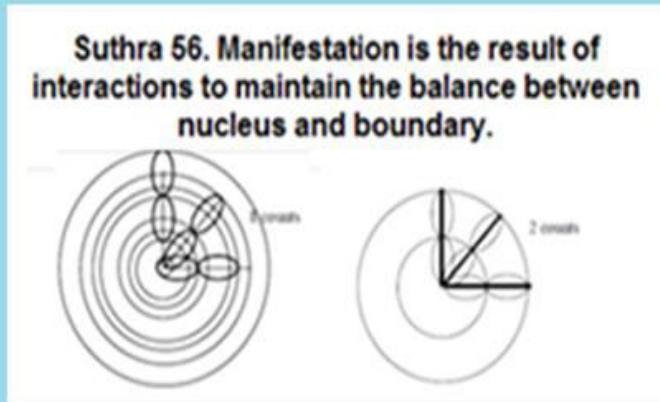
... and in New York Times article³:

"Light cannot be anything else but a longitudinal disturbance in the ether, involving alternate compressions and rarefactions. In other words, light can be nothing else than a sound wave in the ether."

² Nikola Tesla, „Man's Greatest Achievement“, New York American, Jul, 6. 1930

³ Tesla Sees Evidence Radio and Light Are Sound, New York Times, Sec. X, P. 9, c. 1, April 8, 1934

Analogy of Holistic, 3-dimensional or "volumetric standing waves" of Sankhya and Tesla's "Ball Lightning"



Here is illustrated the full analogy of the 3-dimensional, volumetric stationary waves of Sankhya and Tesla's ball lightning.

"Secret Of Sankhya: Acme Of Scientific Unification"., G. Srinivasan, Suthra 1 & 13:

(Suthra 1) *"... It is similar to a linear harmonic standing wave but in a 3 dimensional substratum. It is a cubical or spherical 3 dimensional harmonic wave functioning in an internal breathing mode where only the logarithmic index of the potential, changes or flips one up or one down to maintain a null difference between any adjacent state, periodically. ..."*

(Suthra 13) *"... The concentration of forces at a colliding point forming the crest of a holistic 3 dimensional or volumetric wave in the nuclear region with the qualities of inertia or mass being displayed in each cycle along with the associated quality of thaama or strong force. At the trough of such a wave the equalising quality of sathwa or the orbital balancing electromagnetic force exists in each cycle. Both Thaama (compression) and Sathwa (expansion) have the quality of time permanence in each cycle as these form the turning points or nodes of the cycle ..."*

Nikola Tesla, Colorado Springs Notes, 1899-1900, Nolit, Beograd, 978, p.368-372.

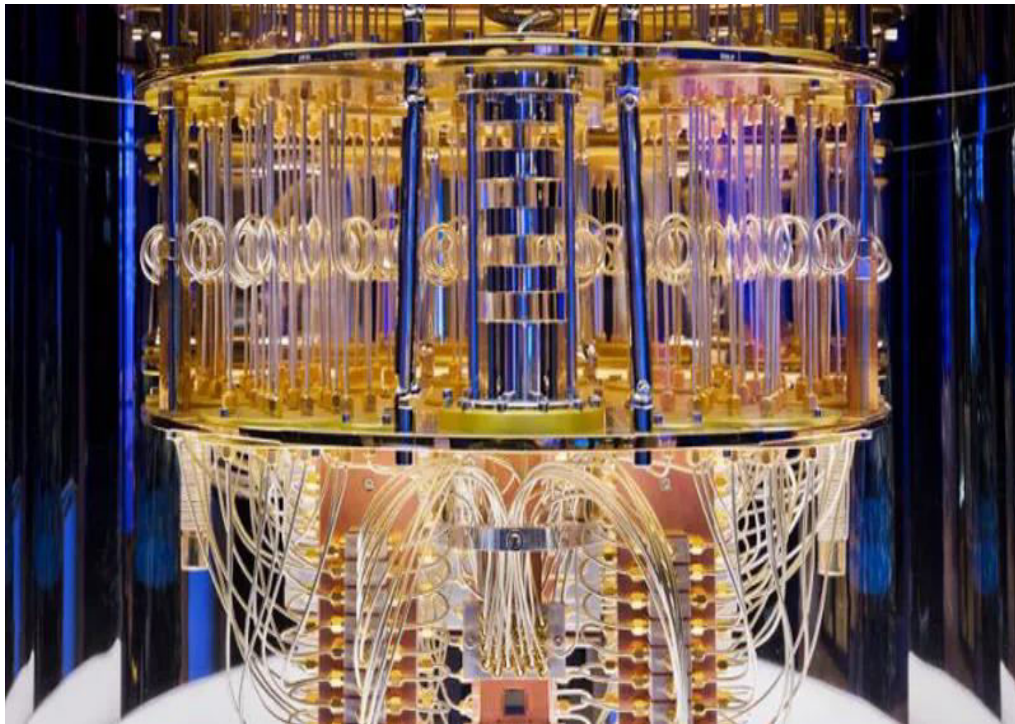
"... When sudden and very powerful discharges pass through the air, the tremendous expansion of some portions of the latter and subsequent rapid cooling and condensation gives rise to the creation of partial vacua in the places of greatest development of heat. These vacuous spaces, owing to the properties of the gas, are most likely to assume the shape of hollow spheres when, upon cooling, the air from all around rushes in to fill the "cavity" created by the explosive dilatation and subsequent contraction. ..."

"... It is therefore reasonable to expect that, despite the high incandescence of the rarefied air, the space filled with the same will continue to contract ... On the contrary, despite the high temperature, it is compelled to confinement in a limited space which is continuously shrinking instead of expanding. ... it is that the phenomenon of the "ball"

The first and thirteenth Sutras of Sankhya are listed in the upper part and the text from Tesla's diary in which he explains the mechanism of his ball lightning is in the lower part.

Although the terminology is not identical, it is clearly seen that the structural matrix of the described processes is completely analogous because they are based on an identical structural matrix of volumetric oscillations, or expansion-compression processes.

5. NEW TECHNOLOGIES - Quantum computers



The highest achievement of human thought today is quantum computers. Isaac Chuang was a key member of the teams that built the **world's first functioning quantum computers, including a 2-qubit system in 1998 at Berkeley and later a 7-qubit system at IBM in 2001.**

These were unstable, experimental devices, they maintained a state of quantum superposition for a short time, but they proved that quantum data processing is possible. In 2019, the American technology giant Google developed a 53-qubit superconducting processor, called "Sycamore".

In May 2021, the Chinese created a quantum computer called Jiuzhang, a 62-qubit quantum processor that they claim **can process information 10 billion times faster than Google's Sycamore or 100 trillion times faster than the most advanced supercomputers today.** So "Jiuzhang" can complete tasks in minutes, while supercomputers would take thousands of years to do so.

Today, Atom Computing Corporation has a quantum computer with 1,180 qubits - a Guinness World Record for the largest number of usable qubits.

In June 2025, a Chinese company activated a 1,000-qubit system, placing China among the few nations with such capabilities.

A quantum computer is a type of computer that uses the principles of quantum mechanics to process data. Quantum computers use qubits (short for quantum bit) instead of traditional binary bits, allowing them to process huge amounts of data **simultaneously** and solve problems much faster than classical computers.

Basic concepts of quantum computing are:

Qubits – While classical computers use bits (0 or 1), quantum computers use qubits, which can be in both 0 and 1 states at the same time thanks to the phenomenon of superposition.

Superposition is a concept by which a qubit can be in multiple different states at the same time, allowing for parallel processing of a large number of possibilities.

3rd concept of quantum computing is Quantum Entanglement – Qubits can be interconnected so that changing one instantly affects the other, regardless of distance which allows much faster computing.

Advantages of quantum computers is faster solving of complex problems – factorization of numbers, optimization, etc.

... and their **Limitations** and challenges are instability of qubits – Quantum systems are very sensitive to external influences, which leads to errors. They require extremely low temperatures - close to absolute zero ... So these systems are very expensive and available only to those who have extremely developed technologies.

6. Standard interpretations of the basic characteristics of the human mind

Now we go back to human being. Basic characteristics of the human mind are

Inventiveness - the ability to create new, original ideas, solutions or products using knowledge, combining "the already seen" but in a new, different, and more efficient way.

Creativity - the ability to produce new and valuable ideas, concepts, or solutions in which a person uses his mind, imagination and intuition to create something that is unique and unexpected.

Consciousness is ability of an individual to be aware of his thoughts, feelings and the external world. It includes several different aspects:

Self-awareness - the ability to be aware of ourselves;

Perception - the ability to perceive the world around us, and

Cognition - the ability to think, make decisions, solve problems, etc.

Thought is a phenomenon of consciousness, which represents the basic function of the mind and includes conscious and unconscious cognitive activities. Thought is the result of the work of the brain and cognitive processes, so that **it simultaneously exists on the physical level as a physical process** associated with neuronal activity in the brain. Thought **as a subjective, immaterial experience of consciousness** cannot be fully explained through physical-biological processes based on the work of the brain and neural networks. The key question is - **how can any physical processes in the brain create a subjective experience ...**

Science has no adequate answer, but ancient teachings offer us their insights.

7. The structure of human beings

According to Sāṃkhya philosophy the structure of the human being is absolutely consistent with the structure of Absolute Reality at all its levels of existence - so our being is also an energetic multi-layered being.

The roughest level is "**physical body**" - *Annamaya kosha* - most primitive form, at the same time the most "visible" and most material of all layers.

The next level is the *Pranamaya kosha* or "**energy body**", which refers to our energetic, vital component, which is responsible for moving the physical body and sustaining life.

The third layer of the human being is *Manomaya kosha* - "**mental body**" that is more subtle than the previous two - this "layer" is still part of our everyday reality, because it is directly connected to our everyday experience, from decision-making to emotional reactions.

The fourth layer of the human being is *Vijnanamaya kosha* - "**intellectual layer**" or "layer of wisdom". This layer is more subtle than the previous three and refers to the mind which is responsible for rational thinking, intellect, intuition and deeper mental abilities.

The most subtle aspect of our being is the *Anandamaya kosha* - the "**layer of bliss**" or "layer of joy". This layer is also the highest level of consciousness, and refers to our spiritual aspect closest to the Atman - the real self, our essential identity.

Worlds of Existence	Quantization level (k)	Energy layers of being that surround the soul		Elementary quantum	Medium	Vital principle (energy)
		Three body concept	Five "Koshas" (Sheaths)			
Supramental worlds 4,5,6, and 7th Lokas	k+23 - k+26		Non-dual states of pure Love, Cause, Principle, Law, and Idea of Creation in their archetypal state.			
The Mental /Causal/ world 3. Loka	k+16 - k+22	Karana Sharira	Anandamaya Kosha (The causal body, the body of bliss made of the latent impressions of love and other forms of happiness.)	Mulaprakrithi (k+10)	Akasha	Fohat Jiva
Astral world 2. Loka	k+9 - k+15	Sukshma Sharira	Linga Sharira /Astral (Etheric) Double/ (Pranamaya Kosha - energy body made of prana Manomaya Kosha - mental body made of thoughts Vijnanamaya Kosha - body of wisdom made of knowledge and intelligence)	Teslion (k+9) /Etheron, Microlepton/	Ether (Astral light)	Prana El.-Mag. phenomena, sound, adhesion ...
Physical world 1. Loka	k <= +8	Sthula Sharira	Annamaya Kosha (physical body made of food)	Photon (k+8)	Vacuum	

Here we see a parallel representation of the described system of energetic layers of beings that surround the soul known as the five koshas, with corresponding worlds of existence, quantization levels, mediums and dominant vital principles at appropriate levels of existence.

8. The harmony of ancient knowledge, Tesla's insights and modern science

The fact that there is a great harmony of ancient knowledge, Tesla's insights and modern science is confirmed by the following facts:

Regarding **Ancient knowledge** - *Secret of Sankhya, G.Srinivansan*:

“There is **no limit to the speed** of propagation of stress in a medium”

Regarding Nikola Tesla:

“... in such a medium **longitudinal waves would be propagated with infinite velocity**”

And regarding Modern Science:

“Quantum entanglement is a connection between two distant particles that become inseparably linked so that a change in one causes an instantaneous change in the other, no matter how far apart they are” .

And finally, we can point to **the harmony of science and art**. For modern **Science**: “**Light behaves like a quantum fluid**” but science has found similar insight in **Art**.



In Van Gogh's painting “The Swirling Sky” also known as "The Starry Night", modern science has recognized something analogous to turbulent fluids and patterns of energy movement in nature which reminds to the motion of quantum fluids such as Bose-Einstein condensates. So - the spirals and vortices in "The Swirling Sky" can be seen as a visualization of energy circulating through space.

If we remember Tesla's words :

"Light can be nothing more than a sound wave in the ether"

we can see that the modern physics description of light as a turbulent quantum fluid - is a concept that is intertwined with Tesla's ideas about longitudinal volumetric vibrations of his "ether superfluid"...

So - I asked Artificial Intelligence to modify Van Gogh's painting in accordance with Tesla's ideas and here is a result:



In the modified painting "Swirling Sky" - generated by artificial intelligence (ChatGpt) - in Van Gogh's vibratory shadows of blue, purple and gold, stars and clouds swirl in energetic vortices ... while on the ground Nikola **Tesla stands upright, illuminated by ball lightnings** that emanate from his hands and twist towards the sky, merging with the cosmic vortices – **thus symbolizing the solid and direct connection between art, science and the energy of the universe.**

8. Conclusion:

Tesla's ideas about the aether, the latest insights of modern science about quantum fluid as well as ancient Vedic knowledge can be linked through the common ideas of energy, vibration and motion.

All these are the achievements of the human spirit in the exploration of the deep universal truth that Van Gogh reached through intuition and art, and Tesla through his research work. Their contributions show that art and science are not separate worlds, but different expressions of the same universal search for understanding the world where man will have the possibility of evolution and development towards higher aspects of his own being - his vital, mental and intellectual components - up to complete self-knowledge and unification with the eternal universal self - Atman, while the creativity of artificial intelligence - limited by the qualities and parameters of the physical world - will likely exceed man's capabilities on a physical level many times over, but will still remain at level of inventiveness and combinatorics - which in any case can be of great benefit to us in the scientific and technical progress of civilization.

In any case - the unification of science and spirituality enables us to gain a deeper understanding of the principles by which "Divine Thought" manifests itself through the Architects of the visible world and imprints it into the cosmic substance in the form of "laws of nature" - from where the great Tesla "mirrored" them in his devices.

The power of modern technology, quantum computers and artificial intelligence combined with ancient knowledge and the ether physics of Nikola Tesla with the evolution of consciousness as a key component of the human being - are the best path to the further development of civilization.

Thank you for your attention.