

AKASHA - THE SOURCE OF TIME, SPACE AND MATTER

Introduction

The foundation of this work consists of ancient Vedic knowledge, which is on the UNESCO World Heritage List as a cultural asset of exceptional significance for humanity.

Vedic scriptures are an immense heritage of civilization, the oldest spiritual records of India and the world, containing the highest knowledge about God and humanity. Specifically: *Ayur-Veda* → medical and pharmacological writings; *Dhanur-Veda* → advanced military knowledge; *Vyaanika-shastra* → detailed technical instructions for constructing flying vehicles (*vimanas*) with drawings and diagrams; *Samsara-sutradhara* → descriptions of possible ways of traveling through space, time and various densities; *Artha-shastra* → predominantly political economy...

For Hindus, the Vedas are spiritual truth that rishis received through meditation directly from God (*DEV VANI* – God's voice) and transmitted them orally, from generation to generation.

The immense Vedic heritage was first written down in India over 5000 years ago thanks to the ancient sage – saint *Shrila Vyasa*deva. Otherwise, the age of the Vedas is considered to be "from the very beginning of the universe," and they have been on Earth for more than 20 thousand years. Some estimates go up to 33,000 years. It is assumed that when the Aryans moved from their original homeland near the Arctic region to India, they brought with them most of these earlier records (Indus script, Brahmi script...). These were later transferred to Sanskrit – a language created by reorganizing and perfecting the original Vedic language of the Aryans. The word Sanskrit literally means purified or reorganized.

Our problem is that Vedic knowledge uses HOLISTIC images and definitions of compact, complex ideas and principles. Sanskrit has an incredible richness of words and synonyms. Namely, one phenomenon can most often be described with about twenty different words, and each of them has its own fine nuances of meaning. For example, there are more than 70 words for water, the word elephant has an incredible 100 synonyms, and each of them has a specific meaning. Accordingly, despite paying attention to these nuances and richness of expression, a good translation from Sanskrit requires knowledge of Vedic philosophy, the concept of spirituality and the concept of God, cosmos and humanity.

There are also "reverse" problems – when for some term from our or the English language, one needs to find the appropriate word in Sanskrit. For example, the word "*Ether*" – which is the key word of Tesla's scalar technologies, only emerged among the ancient Greeks, thousands of years after Sanskrit writings. In such cases, we used various cosmogonic and theosophical teachings with which we tried to "illuminate" these "newer" phenomena with Vedic terminology.

We begin the story about space-time-matter with the Western view of these phenomena – but – we must keep in mind that in Sankhya there are no particles – there are only more or less complex vibrational states. Likewise, according to the Vedas, our sense of the flow of time exists because we have memory where sequential events are stored in consciousness and mind (mind or *Citta*), which together creates the illusion of time. To good connoisseurs of Vedic teachings, the Western merging of time and space as the fourth dimension of unified space-time may not appeal because, in relation to Vedic knowledge, space and time are phenomena of "different levels" of manifestation.

Establishing correlations with the "latest" scientific theories such as the hypothetical "fifth force," dark matter and energy is even more demanding in the necessarily required "mental equilibristics" – but – precisely because of this, several different interpretations are an integral part of this work so that through their "approximation and synthesis" we can come as close as possible to agreement with Absolute Reality.

Space – Time

Space and time, as well as their interdependence, have always occupied human thoughts. What do these concepts entail?

The concept of time, and all our representations related to it, we create and mainly associate with the temporal sequence of our own experiences. As the moment "now" we experience the current sensory experience connected with the memory of earlier sensory experiences. Because of this, experiences flow in sequence, that is, in a temporal series, as "earlier" and "later." The same sequences of experiences correspond to the same subjective time intervals. As a consequence, our sense of elapsed time is very unreliable and subject to both external circumstances and inner feeling, which has been proven by numerous experiments, and we know it ourselves from our own experience.

Time measurement is performed using various objects that pass in sequence through (practically) the same series of events or periods. The number of elapsed periods serves as a measure for time. Thus, in principle, we measure time by the movement of matter in space (movement of clock hands), where periodic movements of some planets or atomic radiation serve as our standard and basis for periodicity. The cyclical sequence of material events corresponds to the temporal flow of events, e.g., setting clock

hands in a certain position. In this way, we shape the concept of time as a one-dimensional sequence that can be filled in various ways with experiential perceptions.

The concept of space is also quite abstract because in our personal experiences there is no property that can be designated as spatial.

This concept in pre-scientific thought implied some assumed "thing" independent of bodies, yet embodying their placement possibilities. Available space was interpreted as a property based on which solid bodies can occupy different positions, thus as volume, which enables accommodation for objects, like an infinitely large box into which we can arrange various objects at will. Such a possibility of placing an unlimited number of bodies next to each other indicated that space is practically infinite. Such space is absolute and unrecognized as a carrier of physical changes and processes. It is only the stage of material events, so that everything real can be understood as the movement of particles in space.

In modern science, according to Einstein's Theory of Relativity, space and time are inextricably connected, creating so-called space-time where space and time are united in a four-dimensional structure, where the speed of light is constant for all observers. This theory destroys the idea of universal time that flows at the same rate for everyone. Instead, time is relative – observers in different reference frames can experience different time intervals, and what is measured as space also depends on the observer's motion...

And while contemporary physics speaks of three dimensions of space and time as the fourth dimension - Vedic science speaks of infinite space and eternal time as our true Self and the core of our being, leading us beyond all dimensions known to us, because the entire universe that we "see" outside ourselves – exists within us as well.

Vedic Vision of Space and Time

Akasha in Sanskrit (Wikipedia) comes from the root word "kas" meaning "to be" with the generic meaning "open space, void." In classical Sanskrit, this word expresses the concept of "sky; atmosphere" and "ethereal fluid" that permeates the entire cosmos.

As we see in the above example, the word *Akasha* is very often translated as "space" or even as ether, which is completely incorrect¹ – however, *Akasha* is the first and most subtle of the 5 "great elements" (*Bhutas*). Although we cannot perceive/detect/measure it, the fact is that it is an essential component of our lives, supporting both our physical and spiritual sides. When we think about space, we often consider it empty – a "stage for material events" – but *Akasha* is actually the elementary "(proto)substrate," the fundamental "(pseudo)substance," which existed before anything else emerged and that into which everything will return. All the forms we see are the result of permutations/combinations of five basic elements, and the lower four evolved from *Akasha*. *Akasha* is what becomes *Vāyu*, *Agni*, *Apas* and *Prithvi* (air, fire, water and earth), and through their combination, everything else. It is the invisible element in the universe that governs all levels of manifestation, from the immaterial to the material, including mind and consciousness. It cannot be smelled, tasted, seen or felt, but it is the substrate (pre-element) of everything manifested and unmanifested. Without that "substrate," "elementary proto-substrate," nothing can exist. Thus, *Akasha* is only the "substrate" (texture) for space, time and matter and has a completely different connotation from the usual term space as it is often translated – because *Akasha* essentially implies something that is conceptually closer to a "field of illumination."

The usual concept of space implies a three-dimensional domain (continuum) in which objects and events occur and have relative position and direction. Modern physicists usually consider it, together with time, as part of an infinite four-dimensional continuum closed "in itself," known as the space-time structure described by Einstein's Theory of Relativity. In the Vedas, *Akasha* is not any "empty space," but an infinite, calm "ethereal field," un-manifested potentiality, "condition of the possibility of appearance" - not an active medium, "possibility of everything." It can be imagined as a perfectly calm lake; without edges, without waves, without directions. In that state, there is neither time nor space. Only the potential of time, space and matter exists. **In the terminology of the Energy Density Quantization Model², this phenomenon is closest to the concept of a Scalar field as pure, ethereal potential.**

The Sanskrit word "*Kala*" is a term with dual meaning. The first meaning translates as "black" or "dark colored," and the second as "fixed or exact point in time," "time space," "time" ... "destiny," ... "death" and has a feminine form.

In the context of our considerations, *Kala* - Time is an intangible concept that governs the very essence of existence; it cannot be touched or grasped; it has no physical presence. All creatures on earth are under the influence of Time or *Kala*. However, more fundamental investigations that will be presented in the section that follows show that the phenomenon "time" in the sense of modern science truly corresponds

¹ „Science and Spirituality“, <http://users.beotel.net/~gmarjanovic/Synthesis.pdf>

² Unity of Matter and Spirit, http://users.beotel.net/~gmarjanovic/Jed_Materija_Duh_e.pdf

to the Vedic word *Kala*, but in the "transition formula" (dissolution) of *Akasha* from which space and time (and everything else...) emanate, the phenomenon *Kala* - time is connected with *Vayu* - or the element of air-gas-energy of movement.

Vāyu is Cosmic Power or universal power of action - *Kriya Shakti*, from which all other powers arise. In the *Rigveda*, *Vayu* is associated with winds. *Vayu* is also connected with life or *Prana*, and *Vidjut* as electrical energy manifesting from space. Space is connected with mind, and at a higher level with pure consciousness.

The fact that *Akasha* in motion is called *Vayu* translates as: "**space in motion is time**" – which is fundamentally incorrect (except only associatively) because *Akasha* is NOT space but the precursor of space or "proto-space." Nor is *Vayu* time. They are very close in meaning because the sense of Sanskrit words is very rich, but structurally they are not. A more detailed interpretation with more precise meanings follows, but – in "free translation" it can be said that space and time are "inversely-opposite" phenomena - the same reality in states of rest and motion, which is pure Consciousness.

Prana is a Sanskrit word for "vital air" or "vital energy," "life force." In Vedic and Vedantic writings, it is the essence of life and consciousness. In China it is known as *qi*, in Japan as *ki*, in Polynesia as *mana*. It is present everywhere in the universe, both in the macrocosm (universe) and in the microcosm (bodies of living beings). Its proper flow in our bodies ensures our healthy state.

Prana is subtle energy that acts as an interface between the gross and subtle body, enabling all psycho-physical functions, but its understanding as force or energy in the usual sense will be slightly corrected in the section that follows.

Beyond Physical Dimensions

Time can in no way, neither mentally nor physically, be separated from space because we can only experience time and space together. Therefore, **if there are three dimensions of space, then time – in the sense of established relationships - must also have an analogous structure in higher dimensions**³. In Absolute Reality, there are also dimensions that transcend our Rationality. In fact, there is only one reality - *Brahman*. Dimensions are just aspects of the way we look at it.

Time as: past, present and future, and space as: distance or location - are coordinates of the mind that serve to measure the visible (sensory-measurable) world. But they limit and distort that true reality - if we are not aware of infinity and eternity behind them. The mind uses time and location to deal with the practical, physical world, but such divisions occur within a larger ("multi-dimensional") unity of Being.

Beyond manifested space-time, there exists "timeless space" which is larger than the largest and smaller than the smallest, as the Upanishads say, which means beyond all (our) measurable dimensions. Beyond the dimensions of space is "dimensionless space." This is the Self of the Vedas which contains the entire universe in a small space or *dahara akasha* – "space within the heart," which contains all time and the entire universe. By applying relaxation meditation exercises (*Yoga*), it is possible to achieve unification of "inner and outer space" which leads to transcendence of limited or pinda consciousness and realization of cosmic consciousness. This pure space has no dimensions and nothing comparable to it. We can experience it simultaneously as a point and as infinity. ☺

The Expanding Universe or Timeless Universe

If the universe is expanding, as physicists often state, the question arises, from what is the universe expanding and into what? According to the principles of the prevailing Big Bang theory, space arises simultaneously with the emergence and expansion of matter...???

However, our logic tells us that something can only expand into existing space. You cannot just (from what, how?) create space while expanding. This means that expansion is only possible into some "previous" universe or reality. If the universe has a beginning or end in time or space, there must be some (greater) existence "beyond" it. Such a universe would be only one type of manifested but not the totality of reality.

If time is a manifestation of proto-space (*Akasha*), then it can in no way be simply-linear (straight, before-after), but is "wave-like" in motion. Thus, **time periods (cycles) are "waves" on the ocean of eternal (proto)space**. This means that the beginning and end of time or birth and death are illusions of waves that do not apply to the sea. The body is, for example, a wave of biological forces or a conglomerate of energy vortices rooted in deeper *Prana*. Personality or the mind that creates the biological wave dissolves back into the ocean of Consciousness. In this sense, the Vedas speak of space as waters, *Apas*,

³ "Vreme" kao inverzno-opozitna struktura "prostora", <http://users.beotel.net/~gmarjanovic/VrInvOpozStr.pdf>
"Trodimenzionalno vreme", <http://users.beotel.net/~gmarjanovic/3dimVreme.pdf>

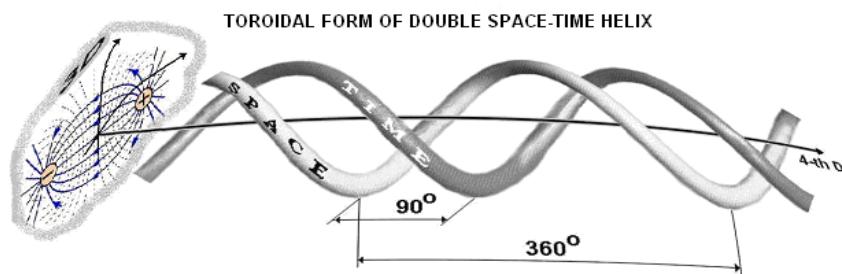
which literally means waves, and of the Sun and Moon as flowers or lotuses, meaning matrices in the waters of space (*Apam pushpam*⁴).

Life is not a straight line or a river flow from past to future that always goes forward, but a wave of birth, growth, aging and death. We can also describe it as creation, preservation and dissolution, which is the movement of the wave, also a cycle - from and back to the source and end, which are ultimately the same.

Since evolution is intertwined with higher forms of existence or consciousness - in the end there is no death (except "death of the body" – First *loka*, physical world). According to Upanishadic as well as Christian (Daskalos's) cosmogony⁵, there are also Hyper-Universes (*Lokas*, Heavens) with a network of alternative space-time lines branching from "our" 4D universe. That supreme infinite "super-space" and eternal "super-time" are One with our Self, unlimited and immortal Self! Anyone who accepts these ancient insights will no longer have reason for fear or sorrow. This is just a "hint" of the cosmology of consciousness, which is the true structure of Absolute Reality, macro and micro universe and our own inner being.

Reality as Fractal Recursion of Opposite Semi-realities (Prophet's Manual by Daniel Srsa)

According to the insights of Daniel Srsa⁶, space and time are completely equivalent structures, phase-shifted by 90 degrees, but manifesting in our quasi-reality as opposite entities (as two "hemi-hyperspheric" domains). Even matter is nothing but a "netwoek of fields" and EVERYTHING existing - regardless of "phenomenal form" can be described as an element of a fractal series based on the unity of opposites of two inverse entities as the initial element whose generator of change and emanation in the form of a fractal series is its tendency to "return" to the "undifferentiated" ONE...!



A dimensionally complex structure (4D), according to Daniel Srsa, can emanate into its lower-dimensional forms - as its "projection" and express itself through two (3D) "objects"... Accordingly, he gives a qualitative description of two "semi-realities that we "see" as micro and macro universe.

Micro world (atom, "within", simultaneous, Energy = $h\nu$):

- **one time and much space** (certain time and indefinite space); The electron, for example, is at all spatial points /much space/ "at once," at any moment (fraction of its time) /one time/; => $v = ds/dt = \text{const}/0 = \infty$
- **space quantized in time**; (parallel synchronicity of spatial quanta at any time interval or moment) /quantize = limit the number of possible values (magnitudes) or states (of a system) so that certain variables can only assume certain discrete magnitudes./
- **time continuous and space sequential**:
- **Perfect symmetry (order) in time and total asymmetry (chaos) in space**.

Macro world (universe, "outside", sequential, Energy = $mv^2 / 2$):

- **one space and much time** (certain space and indefinite time); Earth, for example, is at all moments /many moments/ "everywhere," at any point (fraction of its space) /one space/; => $v = ds/dt = 0/\text{const} = 0$
- **time quantized in space**; (serial synchronicity of time quanta in arbitrary spatial magnitude or point).

⁴ UNCOVERING THE SECRETS OF TIME AND SPACE, <https://www.vedanet.com/uncovering-the-secrets-of-time-and-space-beyond-all-dimensions/>

⁵ Petar Vujićin, States of consciousness in esoteric practice,

https://www.dejanrakovicfund.org/preporuceni_naslovi/States_of_consciousness_in_esoteric_practice.pdf

⁶ Prophet's Manual by Daniel Srsa, <https://www.amazon.com/Prophets-Manual-Daniel-Srsa/dp/0595291252>

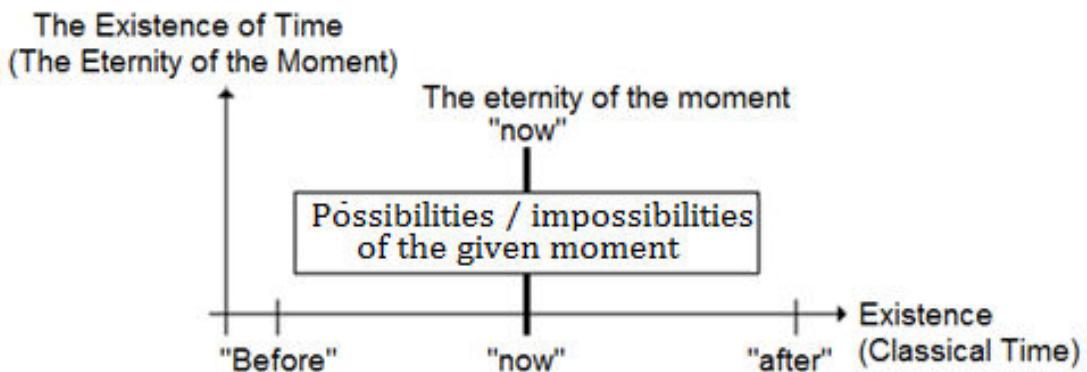
- **space continuous and time sequential.**
- **Perfect symmetry (order) in space and total asymmetry (chaos) in time.**

Essentially - reality is holographic. What we consider the physical aspect here and now, constitutes simultaneity (from the perspective of the time frame) and overlap (from the perspective of the spatial frame) of two diametrically opposite views of one truth but - with coherence (resonance) of that space-time duality with its unified (immaterial) source.

The universe is one possibility of time in space and the atom is one spatial possibility of time - they are inversely proportional space/time coherence here and now. They are affirmation and negation of the same thing (gravity!) inversely proportional, intertwined, wrapped in each other in time and space. But the essence is their coherence (gravity) now and here. Their connection is expressed by their envelope - the inertial frame that encompasses both space and time which are real in here and now and that is gravity. The gravitational constant exists as long as the space/time ratio is less than 90°... [More details⁷]

Three-Dimensional Time

Let us now try, using Gurdjieff's terminology and P.D. Ouspensky's⁸ interpretation, to describe some general, three-dimensional time, keeping in mind that man has not developed a sense for time, which is why it does not exist in our experience, so that all time categories are comprehensible to us only indirectly through some other, more or less close concepts. A line determined by points - moments or moments of existence: before – now – after, is the line of existence of a geometric body (substantial object) in time. That line describes the movement of some three-dimensional body, taken as a point, along a line composed of a series of moments of existence. That line represents the first dimension of "time" and in a way, the fourth dimension of "space" within the same (unified) space-time structure.



The second dimension of time would be movement, in the moment now (at any moment of existence), perpendicular to the line of existence. This is the line of existence of time, eternity or the eternal now of that moment. This is the 5th dimension of "space" (i.e., "mirror" image of the second "spatial" dimension) or the 2nd dimension of time. Eternity (eternal now of some moment) thus is not infinite duration of time (eternal existence) as we usually consider it, but the eternity of that moment, that is, the existence of time which constitutes movement in the present of some moment in the direction of a new dimension, along a line that is perpendicular to the line of existence of the body in (classical) time.

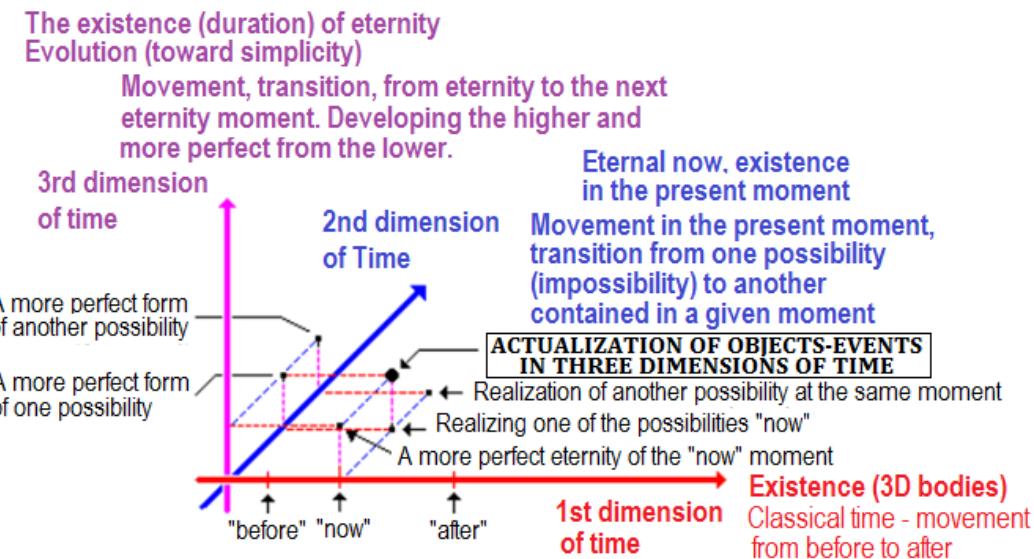
The eternal now of some moment or existence of time, thus, the 2nd dimension of time, should be understood as a completely new temporal dimension in relation to the existence of the body, i.e., the 1st temporal dimension, analogous to the concept of understanding incommensurability, that is, the concept of infinity of surface in relation to line or lines in relation to point.

A line is incommensurable with a point, just as a surface is incommensurable with a line, so they, in this sense, represent infinity (infinite difference), that is, a new dimension of one in relation to the other. Thus, infinity for a line is not necessarily a line without end as is usually thought, but that - as a completely incommensurable magnitude - can be, and is, a surface, i.e., an infinite number of finite lines. The eternity of existence can therefore be understood as an infinite number of finite (parallel!) times (existences!). In this sense, it can be said, conditionally of course, that there are smaller and larger "eternities" (of the moment), quite analogously to the fact that there are smaller and larger lengths, each of which contains infinitely many points.

⁷ "Vreme" kao inverzno-opozitna struktura "prostora", <http://users.beotel.net/~gmarjanovic/VrInvOpozStr.pdf>

⁸ P.D. Ouspensky, "U potrazi za čudesnim", Poglavlje x, str. 254; "Trodimenzionalno vreme", <http://users.beotel.net/~gmarjanovic/3dimVreme.pdf>

Speed of Evolution and Duration of Existence of Realized Possibility (2nd and 3rd dimensions of time or 5th and 6th dimensions of space)



Movement within the eternal now of some moment, in the direction of the second temporal dimension, represents the line of realization (possibilities) and is reflected through the realization of one of the existing possibilities contained in the eternity of that moment.

The transition from the eternity of some moment of existence to the next eternity of that same moment constitutes the Existence of eternity. This is the 3rd dimension of time or the 6th dimension of "space" (i.e., mirror image of the 3rd "spatial" dimension). Movement in this dimension is movement through eternity along the line of realization of other possibilities that were contained in the previous moment but were not realized in "time" on some other (previous) "line" (path) of existence. The hierarchical ordering of available possibilities from the most unfavorable to increasingly perfect ones enables the attainment of increasingly perfect forms of existence and, actually, the evolution of every form within Existence (in Eternity). [More details⁹]

Why Spiral Structures Appear at All Scales

If time, according to Vedic teachings, is a "manifestation of space" - why do all manifestations from DNA through water vortices draining in a bathtub to galaxies have a spiral structure?

This question truly stands at the intersection of physics, cosmology and Vedantic metaphysics. In the next section, we will separate what modern science says and what the Vedas say and show where these two views surprisingly touch, especially through the spiral.

Fact: the spiral is a universal pattern because it is empirically quite accurate that spiral structures appear at all scales: DNA; proteins (α -helix); vortices of water, air, tornadoes; shells, plants (phyllotaxis, Fibonacci); storms, cyclones; galaxies (spiral)... This is not a coincidence and both science and traditional teachings agree on this.

In contemporary physics and hydrodynamics, the spiral is the optimal form of energy movement. A spiral arises when there is: 1. flow (movement); 2. central force or gradient; 3. conservation of momentum/angular momentum.

When energy moves but cannot "discharge" linearly, it rotates because the spiral is the energetically most stable way of transferring movement through space. But - science does not explain why rotation is universal, only how it behaves when it already exists. Here we come to the Vedas and the spiral as a manifestation of time.

In the introductory section, the key statement was made: ***Akasha in motion is Vayu***. This is an extremely deep idea.

Let us recall: in the Vedas: *Akasha* is a field of potentials, consciousness, vibration; it is calm, dimensionless; inherently – without time. *Vayu* is *Akasha* in motion. When *Akasha* "becomes excited," "movement" appears¹⁰; but the key is that **this "movement" is not linear**. Why?

In the Vedas, linear movement is an illusion of the mind; real manifestation is cyclical and vortical. The spiral is: movement + return; change + continuity and evolution without loss of source. Therefore time

⁹ "Trodimenzionalno vreme", <http://users.beotel.net/~gmarjanovic/3dimVreme.pdf>

¹⁰ In fact, at this stage (*Akasha*-> *Vayu*), there is still neither time nor space, so the terms used here are only associative.

in the Vedas is cyclical (yugas); the cosmos pulsates (creation–preservation–dissolution) so that energy always returns to the source. In short - **The spiral is the geometry of time.**

Modern physics speaks of fields; vacuum fluctuations; wave nature of time; rotation of space (frame-dragging) – which is very close to the Vedic understanding: **Time is a wave in the space of consciousness.** Given this, we can "build":

"Bridge between science and Vedas":

Science	Vedas
Energy flows	<i>Prana</i> moves
Conservation of momentum	<i>Rta</i> (cosmic order)
Self-organization	<i>Shakti</i>
Spiral flow	<i>Vayu</i>
Vacuum field	<i>Akasha</i>
Wave time	<i>Kala</i> as <i>Shakti</i>

Synthesizing what has been said, we get the answer - why are all manifestations spiral?

Because: manifestation begins when "space" "moves"; movement in free space cannot remain linear; the most stable form of that movement is rotation; rotation that progresses → spiral. The spiral is the "trace of time in space." From DNA to galaxies, the same logic is visible: space + movement + information = spiral structure.

Summary:

- Science says: Spiral is the optimal structure of energy flow in space.
- Vedas say: Spiral is the way eternal space appears as time.

In the next section, we will connect the spiral with the golden ratio and the rhythm of time - the most beautiful point where mathematics, physics and Vedantic metaphysics overlap.

The Golden Ratio and the Rhythm of Time

At the very beginning, we must emphasize that the golden ratio (ϕ) – is not just a "beautiful proportion," but a cosmic law of growth. By definition:

$$\text{Golden ratio} = (1 + \sqrt{5}) / 2$$

But more important than the numerical value is its property: "The whole relates to the larger part as the larger part relates to the smaller." This is a self-repeating relationship where **ϕ is the proportion that remains the same during growth. This is crucial.**

When the golden ratio repeats through growth, a logarithmic (golden) spiral is obtained whose main properties are: the form does not change; only the scale changes; each subsequent "circle" is the same pattern, only larger. This is a perfect metaphor for time that flows but does not lose identity. Thus, **Golden spiral = geometry of time.**

The scientific argument why nature "loves" the golden ratio is the fact that the ratio ϕ provides minimum energy with maximum stability. Therefore, in nature, all systems choose the path of least energy cost, and the golden spiral minimizes overlap, optimizes resource distribution and enables continuous growth!

In short → **ϕ is the rhythm of optimal growth through time.** The golden ratio is not a "measure," but a relationship of phases and the most important thing - ϕ does not divide space – it divides process. In other words, ϕ does not say how long something is but how one cycle connects to the previous one. Therefore, the golden ratio naturally appears in oscillations, periods and cycles, not in "static" structures.

The experimental reality supports this, in which the Cosmos can be described as a system of oscillators because modern astronomy shows that the Universe is rotational, pulsating, hierarchical - cycles within cycles. For example: Earth's rotation, Earth's revolution, solar cycle (≈ 11 years), precession of Earth's axis ($\approx 25,772$ years), orbital resonance of planets; spiral structure of galaxies. Accordingly - the Cosmos does not have one clock — it has an orchestra of rhythms where **spiral galaxy arms are not material "bands" but density waves** whose angular growth is mathematically very close to a logarithmic spiral, often approximated by a golden spiral, meaning **the galaxy "remembers" its history through the ϕ -rhythm of rotation.**

Similarly, solar activity is not strictly periodic but quasi-periodic because in analyses, relationships close to Fibonacci sequences and ϕ appear as the relationship of strength and duration of maxima and minima. This means that → **The Sun does not "tick" but "breathes."**

In the Vedas, time = *Kala*, cycle = *Chakra*, but *Chakra* is not a circle, it is a spiral of consciousness. Each *Yuga* is not the same length of experience, not the same density of events, i.e., not the same "tempo of reality." This means that Time has a rhythm of growth and decline — just like the φ -spiral.

Why does φ naturally correspond to Vedic time?

Because φ is not a closed circle (like a clock), not a straight line (like modern history) but self-repeating growth through cycles. In the Vedas, *Brahma-day* (*day of Brahma*), *manvantaras*, *yugas* - these are all "cycles within cycles," but each new cycle carries the trace of the previous one and never returns identically. This is exactly the behavior of the "golden spiral."

Finally – it becomes clear why spiral structures appear at all scales. While Western insights offers us "Linear time," archaic intuition "Circular time" – the cosmic reality is "Spiral time (φ) !

Why? Because Spiral enables return but also evolution, memory but also novelty.

For the end of this section, we present the key sentence:

Science says: φ is the most stable relationship among unsynchronized cycles
Vedas say: φ is the rhythm by which eternity appears as time.

Why Linear Movement "By Default" Transitions to Circular/Spiral

In his masterful work "Secrets of Sankhya," Gopala Srinivasan¹¹ shows, using very simple, elementary mathematics, how after just a few iterations, by triangulation from $\varphi/2$ (small phi), one arrives at the value π (ratio of circumference to diameter of a circle), i.e., the change of linear to circular movement when the φ -relationship is introduced into the system. This is the final answer to the question of what is the fundamental reason why spiral structures appear at all scales.

To define the elementary structural cause, let's start from the basic idea that "linear movement" is only an idealization, while in reality there is no infinitely flat space, no perfectly isolated direction, nor an infinitely rigid system.

On the other hand, as soon as there is feedback, delay, limitation or memory of the previous step → the line begins to curve. At the same time, **φ is the smallest possible asymmetry that does not destroy stability but introduces curvature.**

This can be illustrated by a mechanical analogy. Imagine a skater on ice moving in a straight line to which a band is attached, and the other end of the band is fixed to a piston system. If the band is "rigid" - the force of "pushing/pulling" acts instantly and we have oscillations back and forth. If the band is elastic - the force acts "delayed" (with delay) and the result is chaotic movement. But - if the force acts in a φ -ratio of delay → the skater begins to describe a circular or spiral path. Thus, **φ is the critical boundary between oscillation and rotation.**

Another very simple and powerful analogy is, for example, the analogy of walking with a constant "step error." Imagine we are stepping forward but so that each next step is slightly rotated relative to the previous one. We never return exactly to the same direction but we don't deviate (turn) chaotically either.

If the angle of our deviation were chaotic → our movement would be "scattered." However, if the angle of each of our next deviations were in φ relation, the result of our movement will be a logarithmic spiral.

This is the same as what Srinivasan shows: iterative triangulation of $\varphi/2$ converges to π because π is the "measure of closure," φ is the "measure of growth without closure," and their iteration leads to limiting circular behavior.

Why does triangulation of $\varphi/2$ lead to π ?

Because $\varphi/2$ is the "smallest irrational curvature," each iteration "remembers" the previous one so that π appears not as a goal but as an "attractor." In other words, **Linear steps with φ -asymmetry have no choice but to "start to circle."**

The deep physical message that emerges and is crucial: In real systems, a perfect line is unstable; a perfect circle = closed (no growth); spiral = the only form that combines movement and memory.

In short: φ is the minimum information needed for a line to become a spiral, π is the maximum compression of that movement into closedness.

Thus: φ is the smallest possible deviation from a straight line that does not produce chaos, and π is the ultimate consequence of that deviation when repeated enough times.

The Core of Synthesis – Development of the Spiral Image of Time

Given that in the initial section we hinted at the "transition formula" *Akasha* -> movement -> *Vayu*, where these Sanskrit terms are translated as: "space in motion is time" – which is, as we said, fundamentally incorrect because *Akasha* is NOT space in the classical sense nor is *Vayu* time. Also, in the

¹¹ Of Sankhya: Acme Of Scientific Unification, <https://share.google/B6q9fc2Q15nZWdy4J>

"chain of transitions," space appears only after time, but now we have enough insight for the final clarification of that initial, beginning, process of "creation" which eludes modern science but also many interpreters of Vedic messages related to space-time. But – let's not forget that Sanskrit terms have holistic expressive power, so they should be understood that way – giving a wide range of meanings to Vedic definitions of compact, complex ideas and principles...

For start, we set the main contour of the "transition formula - creation." If we imagine that:

1. *Akasha* - infinitely calm field
2. *Vayu* – tendency to change, first symmetry breaking, without rhythm
3. *Kala* – rhythm of change in that field
4. φ - law of those changes – proto-movement

→ **we get the rhythm of creation.**

To understand why translating *Akasha* as space (in the classical sense) and *Vayu* as time is wrong, we will try to clarify this process as precisely as possible.

1. *Akasha* - infinitely calm field

In the context of our considerations, *Akasha* is not "empty space," but potential possibility of everything. In that state, there is neither time nor space. Only potentials of space, time, matter exist... so one of the possible translations of the word *Akasha* as "field of illumination" is perhaps the most acceptable.

2. *Vayu* — first symmetry breaking (without time)

The first "crack" in the structure of *Akasha* which is no longer perfectly calm, but still has no rhythm, no period, no memory, no cycle - is *Vayu*. This is pure non-symmetry, but still "without time." It can be described as: "*Akasha* that has a "tendency" toward change, but still has no "way of change." That's why in the Vedas, *Vayu* is linked to "*Spandana*" - hint of movement but not for measured time. Therefore, ***Vayu* = condition of possibility of time, but not time itself.**

When in *Akasha* the "smallest difference" appears, the "smallest tremor" (trembling, shaking) which is not a vibration in space but a difference in symmetry – or - in other words, when nothing moves but "something "emerges" - *Vayu* arises.

The question that arises by itself is – why doesn't this difference "spread," that is - if *Akasha* is "possibility of everything," why doesn't this "smallest difference, "smallest tremor," immediately disperse into "everything"?

Because "spreading" requires already existing space and time, but at that moment there is no space (it arises somewhat later), no time (*Kala* is just emerging), no relations that would enable "transfer." If we were to imagine *Akasha* as water, then any tremor would create waves everywhere. But the Vedas do not treat *Akasha* as a substance but as un-manifested potentiality, as "*avyakta śūnya*" - which is not emptiness. *Akasha* does not transmit waves, does not respond to disturbance and does not "remember" the impulse. **It is the condition of possibility of appearance, not an active medium.**

Therefore, the tremor is local by identity, not by space. Locality here means a separate line of manifestation, not a place in space. The tremor does not spread because there is no spreading mechanism until rhythm (*Kala*), repetition and relation appear. Only when tremor becomes rhythm, rhythm becomes cycle, cycle becomes relation — then dynamics (*Prana*) arise. Before that: there is only difference without movement.

In short: the tremor remains "localized" because *Akasha* is not space, and without space and time there is no spreading. The difference (in this phase-state) does not move — it "emerges."

Now comes the crucial point. If a "wave" stands → there is no experience, it only oscillates (tremors) → there is no evolution. And now we come to the key moment. Based on the Vedic statement: ***Akasha* in motion is *Vayu***, *Vayu* is interpreted as dynamic movement, as a "wave" (of disturbance), which moves through *Akasha* and carries its oscillation with it. **But here there is a key difference between "movement as ontological difference" and movement in space. *Vayu* is not movement in space. *Vayu* is "tendency to change" before space exists.**

This is the right moment to point out possible causes of incorrect interpretations and translations of this Vedic term, due to which many texts appear contradictory. Namely - there are two levels of *Vayu*:

The "first" *Vayu* is not the same as the "later" *Vayu*.

The "later" *Vayu* returns as an element - air (*mahābhūta*). Thus:

(A) Ontological *Vayu* (before space); symmetry breaking of *Akasha*; no direction; no location; no velocity
(B) Elemental *Vayu* (in space); movement in space; transfer of impulse; force, pressure, current.

The name of the phenomenon is the same, but the status is not. The same name is used because the "later" *Vayu* reflects the same function but now in a different context. In both cases, *Vayu* is the principle of differentiation and dynamics. The difference is only whether space already exists ("later" *Vayu*) or not ("first" *Vayu*).

3. *Kala* – rhythmic change in the field of *Akasha* = Time

Given the definition of *Akasha* (1.), understanding the word *Kala* as "wave in the field of *Akasha*" becomes somewhat more complex. As we have seen - when the smallest difference appears in *Akasha*, the smallest tremor, *Vayu* arises, and only when rhythm appears — *Kala* arises. Or more precisely: only when the same "blink" repeats and is recognized as the same, a "sequence," series, sequence arises.

And here is the crucial point: *Vāyu* = difference without memory and *Kala* = difference that repeats. In other words: *Kala* = *Vāyu* + self-reference. Thus, **time is not movement but "order of repetition."** **Essentially, it is the "transformation" of simultaneous into sequential "processes."**

Accordingly - a more precise understanding of the term *Kala* is "rhythm of change." This is an ideal image because this "tremor" has a period, has repetition and has memory of the previous state. This is already "cyclical" of "time in its inception."

Thus, at the moment rhythm appears - *Kala* arises = rhythm of change, rhythmic waving, local breathing! This is crucial. *Kala* in its first form is discrete, without duration, without direction. This is "before" and "after," but "without flow." Therefore, there is no velocity, no spreading, no causal-consequential chain. There is still no dynamics. *Kala* is actually "Eternal now"!¹²

Final image: Infinitely calm field (*Akasha*); first asymmetry appears, without rhythm (*Vayu*); rhythmic waving or "local breathing" occurs (*Kala*).

Where Exactly Does the First Spreading Mechanism Appear (moment of transition *Kala* -> *Prana*)

In the previous section, we saw that during the transition: 2. *Vayu* – 3. *Kala*, tremor becomes rhythm, rhythm becomes cycle, cycle becomes relation - "Eternal now." According to Vedic teachings, in the continuation of the creation process, dynamics arise first - and only then "true space."

In the section that follows, we will clarify where exactly "difference" ceases to be "just difference" and becomes something that spreads and the crucial thing - when and how true space and time are born.

We have seen so far that: *Akasha* – pure possibility, without difference; smallest difference – tremor (not movement), while *Kala* – appearance of sequence (still not time as we know it).

Thus, *Kala* by itself does NOT spread anything. *Kala* in its first form is: discrete, without duration, without direction (as we said: "before" and "after," but "without flow"). Therefore: no velocity, no spreading, no causal-consequential chain. There is still no "dynamics."

The critical transition occurs when *Kala* "sees itself." Spreading begins only when the same blink repeats and is recognized as the same. This is the first act of "self-reference." In the Vedas (and later in *Sāṃkhya*) this is the embryo of *Prana*, which should not be understood as "energy" in the physical sense but more as "the ability of difference to maintain itself through repetition."

Thus, The first, initial, true, spreading mechanism looks like this: spreading does not arise because "something pushes," but because the pattern becomes transferable, whereby "difference" is no longer tied to one "place of identity" but can replicate. This is a huge leap from local difference to a series of differences. At this stage, there is still no space, no distance, so the word "spreading" used here does not imply movement through space but "multiplication of instances." This is "proto-spreading," transfer of rhythm guided by an internal law of harmony (ϕ), where the result is not a straight line. Nor is it a circle.

The result is a spiral of time.

Conclusion: Time in the Vedas is not flow through space but spiral dynamics of proto-space that remembers its own change. The same thing said differently: **Time is not something that flows through space — > but "proto-space" that has begun to change.**

When Does True Space Appear?

At the moment rhythm appears, when rhythm becomes cyclical, the cycle gets "phase difference," phases relate to each other - then direction/space arises.

Thus, space is a consequence of "spreading" (actually multiplication of instances), not its condition.

Shortest transition formula: *Akasha* -> *Time* -> *Space* shown in more detail **looks like this:**

***Akasha* -> *Vayu* (first asymmetry, without rhythm) -> Difference -> Sequence (*Kala*) -> Repetition -> Self-sustaining pattern (*Prāṇa*) -> Spreading (multiplication of instances) -> Space**

¹² Dr Velimir Abramović, https://sr.wikipedia.org/wiki/Velimir_Abramovi%C4%87

Difference between *Vayu* and *Prāṇa* (this is crucial):

<i>Vāyu</i>	<i>Prāṇa</i>
no cycle	has cycle
no memory	has memory
not transferable	is transferable
does not "last"	self-sustains
condition of change	pattern of change

Prāṇa is the first "entity" that can spread. *Vayu* cannot — because there is still no "what" to spread.

Let us recall: The critical transition occurs when *Kala* "sees itself." Spreading begins only when the same "blink" repeats and is recognized as the same. This is the first act of self-reference. The pattern becomes transferable - the difference is no longer tied to one "place of identity" but can replicate.

At this stage, there is still no space. Spreading means multiplication of instances. Space arises only when there is a cycle, when phase differences appear between cycles which can be simultaneous but different.

This is the first time that appears: "here" and "there" without physical distance but with relational difference.

Space is the relationship of phases of stable rhythm

How then to read the statements: "Akasha in motion is *Vayu*; Space in motion is *Kala*"?

This is definitely not accurate but is interpreted that way because the concept of "Akasha" is translated as "space" (e.g., "Akasha or Space" or "Space/Akasha in motion is said to be air/*Vayu*")

Now we can precisely translate: "Akasha in motion" = "Akasha with appearance of difference" -> *Vāyu*; *Vāyu* - first symmetry breaking -> *Kala* - rhythm that remembers itself -> *Prāṇa* - rhythm that self-sustains and can replicate -> Space - network of phase relationships between *prānic* patterns.

Time does not arise in space. Space arises from time.

So far we have: *Kala* = sequence of repetition but the sequence still has no direction. In other words: there is "before and after" but there is still no "direction" "from A to B." Thus, (proto)time initially has no arrow. Early rhythm can repeat, can be recognized but is "reversible." Like a pure pendulum - the same applies forward and backward. Modern quantum physics says the same: in the particle world, at the microscopic level, time is reversible.

The critical moment occurs with the appearance of "imperfect repetition."

The direction of time appears when the cycle is no longer identical to itself and when that small difference "remains remembered." This is the moment when rhythm begins to "accumulate history," when repetition is no longer "the same," but "similar."

Thus – "Arrow of time" = "memory of difference." This is the point where *Prāṇa* is no longer just stability but becomes a process that can "create" elements.

When stable rhythms (*Prāṇa*) enter mutual interference, zones of stronger/weaker pulse appear. Then rhythm acquires "local character," so "here" and "there" become permanent. This is the moment when space is no longer abstract but "structured." Thus, conditions have been created for the emergence of *mahābhūta* whose sequence now makes sense because it is no longer symbolic but strictly logical:

1. *Akasha* — possibility of relations
2. *Vāyu* (air) — change in relations
3. *Agni* (fire) — transformation of rhythm
4. *Āpas* (water) — cohesion of cycles
5. *Prithvī* (earth) — stabilization of relations

To avoid confusion about the phenomenon 2. *Vāyu* ("later" *Vayu*) - this series occurs within already formed space-time, while the "first" *Vāyu* was "before everything." The bridge between these two levels is the only thing that does not change, and that is "difference that wants to express itself": before the emergence of space as *Vāyu*-tendency or in space as *Vāyu*-movement.

And finally, for this section, the sentence that connects everything:

***Vāyu* is the possibility of change, *Kala* is the memory of change, *Prāṇa* is the stability of memory, Space is the relationship of stability, and matter is the habit¹³ of established relationships.**

¹³ ...or routine – a tendency towards an activity acquired through repetition.

Transformation of the Space-Time Spiral into Matter (*Prakriti* → elements)

The position in the matrix of structural transitions when the spiral ceases to be a metaphor and becomes the "mechanism of world creation" is the "first breaking" from invisible rhythm to "density." The process we have defined so far: 1. *Akasha* - infinitely calm field; 2. *Vayu* – tendency to change, first symmetry breaking, without rhythm; 3. *Kala* – rhythm of change in that field; 4. Spiral – rhythm + movement + φ - law of that movement.

While the spiral is perfectly smooth, self-similar and "without friction" → there is no matter. Only dynamic structure exists.

Matter arises only when the spiral "locally tightens." Here a strong association appears with the mechanism of winding and unwinding Walter Russell's¹⁴ "cosmic clock."

The word "breaking" of the spiral here implies "loss of perfect symmetry." In the Vedic sense "*Rta*" → "*vikriti*" (deviation), i.e., the position when one rhythm becomes multiple rhythms.

Physical analogy: a perfect wave encounters a boundary, resistance or reflection and begins to curl, condense, dilute, refract..., causing the spiral flow to acquire "nodes" -> first "particles."

When spiral flow interferes with itself with a phase delay of its partial reflection - a stable vortex arises. This is the decisive point.

Vedic language: *granthi* — knot; *bindu* — point; *anu* — smallest unit.

Physical analogy is a small vortex in a river where water flows, but the vortex remains.

In short - matter = stabilized spiral.

In the sense of everything said, the "Five elements" can be understood as phases of "hardening" of the spiral, so the classical *Vedic* scheme (*Pancha Mahabhuta*) instead of as "substances" read "dynamically" would now look like this:

1. *Akasha* — spiral without resistance; *only space for movement; * information without mass,
2. *Vāyu* (air) — spiral with direction; impulse appears; movement, energy,
3. *Agni* (fire) — spiral with friction; collision of rhythms; heat, radiation; local condensation,
4. *Apas* (water) — spiral with coherence; rhythms "stick"; wave memory appears; fluidity, form,
5. *Prithvi* (earth) — spiral with locking; rhythm freezes; form becomes lasting; mass, structure.

Thus, the manifestation of universal laws of nature expressed through the "Five elements," basic components responsible for the creation and existence of the entire universe is not five "things," but "five degrees of loss of freedom of spiral movement."

Why does mass appear?

Science gives the answer by introducing the Higgs boson, while in Vedic teachings mass is not "something additional." Mass is "resistance to rhythm change." Namely, when spiral flow cannot freely change phase - it must constantly "carry" its "past," it becomes "heavy."

To make these Vedic thoughts and metaphorical words more understandable to us, let us recall wave mechanics and light where Energy = $h \cdot \nu$ (h-Planck constant, ν - frequency); Velocity $v = \lambda \cdot \nu$ (λ - wavelength, ν - frequency). Wave frequency ν is always the same – both in vacuum and in material, but in material both velocity and wavelength of the wave change. (The connection with what was said before is direct because we can imagine light as

- **rhythm (frequency)** which is "given" by the source and
- **step (wavelength)** which adapts to the medium.

In vacuum, light propagates with "long, fast steps" and in material with shorter, slower steps. But the rhythm always remains the same !

Thus, Vedic interpretations are very close to the modern idea that mass is energy bound in structure, and in the *Vedas* it is "*tamas*" — inertia of the spiral. In this spirit, "Matter" can also be interpreted as "frozen time" or time that has stopped moving freely.

Thus, if Spiral *Kala* is free → we experience it as time, and if it is bound → we experience it as matter.

Because of this, crystals have geometry (frozen harmony); atoms have discrete levels and particles have spin (remnants of spiral movement)

To make these very abstract considerations more acceptable to us, we can imagine a spiral vortex of smoke rising upward as an analogy of time - when it hits cold air → smoke condenses and a ring forms which stabilizes.

In this mental image, flowing smoke is "time" (Nikolai A. Kozyrev: Flow of time) and that (stabilized) ring is the analogy of "particle."

¹⁴ "Matter itself is motion, and its geometry is curved and spiral in nature." — Walter Russell; <https://www.amazon.com/Universal-One-Walter-Russell/dp/1879605082>

In short, matter arises when the spiral movement of time loses freedom and locks into stable vortices.

How Forces Arise from Spiral Vortices

Now we enter the point where the geometry of the spiral transforms into the dynamics of forces. First, we must separate "what is at rest" and "what flows." We have:

vortex → stabilized spiral (particle) field around it → *Akasha + Vayu* in motion

The basic idea is that "Force" is not in the particle, but in its relationship with the field. The vortex is: "locally closed" but never completely isolated. The spiral flow around it "must adapt." That adaptation is the beginning of force.

Actually, **that asymmetry of flow = force**.

If the vortex is perfectly symmetrical → there is no force, but a real vortex always has:

- **gradient**
- **phase shift**
- **difference in flow density**

Then the field around it flows faster on one side and slower on the other. The result is: "net thrust." This is the most primitive form of force. Physical analogy: a vortex in a river pulls leaves even though the vortex itself does not "move."

Thus, it is not particles that attract or repel, but the field reacts to the way the vortex is formed. In *Vedic* language: *Shakti* = ability of the field to react; force = response of *Akasha* to limitation.

It is more than interesting to extend these thoughts to the four fundamental interactions, four fundamental forces, but as four regimes of spiral interaction.

1. Gravity — joint "sinking" of spirals.

When vortices slow down the flow of *Kala*, they condense *Akasha* and the field around them becomes "slower." Other vortices "slide" toward that slower region, there is no attraction but a "time gradient" appears.

That's why gravity is always attractive and acts on everything. Vedic quality is *tamas* (inertia).

2. Electromagnetism — phase mismatch of spirals.

If a vortex has a certain direction of twisting and orientation, it introduces a "phase signature" into the field. If two vortices are of the same phase → the field strengthens between them (attraction), and if they are opposite phases → the field is "expelled" (repulsion). Force is a consequence of spiral interference. Vedic quality: *rajas* (activity)

3. Strong force — locking of spirals.

At very small scales, spirals interweave and the field between them loses freedom. This is strong coherence (harmony), extremely short range because force is not any "exchange," but "joint movement." Vedic quality: compressed *rajas*

4. Weak force — symmetry breaking of spiral.

Here the spiral cannot maintain form; it must "unpack." The field reacts, changes regime, changes the type of vortex, which manifests as transformation. Vedic quality: transition *rajas* → *tamas*.

From such thinking follows the reason why there are exactly four forces -> because spiral movement can lose freedom in four fundamental ways: 1. globally (gravity); 2. phase-wise (EM); 3. topologically (strong) and 4. structurally (weak).

Furthermore, "Spin" can be understood as the "signature of force." Every vortex has a direction of twisting; velocity and axis, and that is what modern physics calls spin. Spin determines how the field reacts, i.e., which forces are "allowed." In the *Vedic* sense, these would be the "gunas" of the vortex.

In short, the entire mechanism can be expressed in one sentence: Forces arise as a field reaction to asymmetric spiral movement of stabilized vortices.

It is truly more than interesting to recall the insights of the genius Nikola Tesla:¹⁵

- **"If you want to understand the universe, think in terms of energy, frequency and vibration."**
- **Explaining his theory of environmental energy, he believed "that there is no other energy in matter except that which it receives from the environment."**

The agreement with what was said before is striking.

¹⁵ Aleksandar Milinkovic - Tesla, Carobnjak I Genije, <https://www.scribd.com/doc/114169501/>

Kala–Prana Transition from the Aspect of Modern Physics

Given that the previous considerations are quite "free-minded" but of exceptional importance for further advancement of modern theories and existing technologies, we will try to clarify a bit more what is the exact equivalent of "repetition that begins to spread."

The closest contemporary scientific concept is "spontaneous symmetry breaking." In physics, before the appearance of any "entities," we have a symmetrical state of the system without a distinguished direction and without a privileged pattern. This could be the physical analog of *Akasha* because "Symmetry does not react, just like *Akasha*."

The "smallest tremor" could be "choice of one minimum." When fluctuation appears (imbalance, oscillation, variations, change), no wave arises, no movement occurs, but the system chooses one of the possible states. This is the "Higgs field," phase transition, vacuum condensation. This is *Kala* – Eternal now - where, in the physical sense, there is sequence but still no dynamics.

Our next step in the transition formula is the appearance of *Prana*. In physics, this would correspond to the moment when the chosen state can repeat in neighboring degrees of freedom. In other words, when the pattern becomes coherent, the phase becomes aligned. This is phase coherence. Examples are laser light, superconductivity and Bose–Einstein condensate.

Prana in Sanskrit (Wikipedia) means breath, inhalation and exhalation. In a figurative sense, it denotes vital breath, spirit, and in Hindu philosophy denotes cosmic vital energy.

However, in these considerations, we have seen that *Prana* is actually the ability of a pattern to maintain and replicate itself, from which it follows that *Prana* is not energy in the classical sense - nor is it a particle - but is "stable coherence."

From this aspect – of alignment and misalignment of rhythms – another variant of explaining the origin of forces emerges.

Connecting Rhythm Coherence of "Substrate Disturbances" with the Origin of Force

First of all - force is NOT primary. In the *Vedic* and modern sense, force is a secondary effect of rhythm misalignment. In other words - where there is perfect coherence → there is no force, and where there is a coherence gradient → force appears.

The first beginnings or "draft" of force arise due to phase difference. If we imagine two coherent rhythms that are in phase, the result is → "peace," and if they are out of phase we have → tension. That tension is proto-force.

In physics, we know that phase gradient is field and field change is force. Thus, field is "rhythm map" and force is "attempt at alignment."

The general mechanism of force origin is a series of rhythm decoherence: 1. stable rhythm (*Prana*); 2. difference of rhythms; 3. need for alignment; 4. phenomenal effect → force.

This applies to electromagnetism, gravity, strong and weak forces. The difference is only in what the phase is and at what level of structure.

Summary: *Kala* gives sequence, *Prana* gives coherence, and force arises where rhythms attempt to align.

Mapping Fundamental Forces to Specific Types of Coherence

Given the basic idea that field is "organized coherence" and force is "response to its gradient," the general pattern of "deep structure" that would apply to all forces would look like this:

1. there is rhythm / oscillation (*Prana*)
2. that rhythm has phase
3. phase can be uniform or different
4. phase difference in space = field
5. tendency toward phase equalization = force

For specific interactions, only "what" oscillates changes.

Electromagnetic force (clearest example): here coherent is → phase of electromagnetic field. Electric and magnetic fields are not separate entities, they are different aspects of the same phase structure. With adopted logic - charge is → locally "locked" phase, meaning here phase cannot freely equalize. But → due to the field's attempt to level the phase gradient, force appears.

That's why with like charges there is → repulsion (phase incompatibility) and with opposite ones → attraction (phase alignment).

EM force = most direct manifestation of Prana at lower level.

Strong nuclear force (identity coherence): here coherent are → phase relationships of "color" (quantum chromodynamics). Here "color" is not color, but the internal phase symmetry of quarks. "Strong" is because phase coherence must be absolute - partial misalignment is not allowed. That's why quarks never exist freely, force grows with distance.

Strong force = "forced coherence"

Weak nuclear force (coherence through identity change): here coherent is → phase of particle type.

Weak force: does not try to preserve identity but to maintain process continuity. That's why a particle can change type but the flow (*Kala*) is not interrupted.

Weak force = coherence through transformation – which is a deeply Vedantic principle.

Gravity (deepest and most misunderstood case): here coherent is → rhythm of time, *Kala* in full sense. Here it is crucial that gravity does not act on phase in space but on the tempo of time. Mass implies local "slowing" of rhythm. The force of gravity is → tendency for different time rhythms to align. Because of this, all masses "fall" the same because gravity is not force in the classical sense but is a geometrical consequence of misaligned time.

Gravity = coherence of Kala

Finally, we can say that forces do not act the same everywhere because different coherences act at different levels.

Force	What is aligned
EM	Field phase
Strong	Identity ("color")
Weak	Process continuity
Gravity	Rhythm of time

Thus - all forces are of the same nature, but different "depths." And here is our answer why all forces (complete reality) "quantize(s)" - **because coherence can only exist in stable regimes**. This applies to photons, gluons, W/Z bosons – but as the Quantized Energy Density Model¹⁶ shows - also to the complete spiritual aspect of Absolute Reality.

Resume: We see forces as the cause of motion — but they are the universe's attempt to harmonize its rhythms.

This is especially important because now we see: how *Akasha* "does not interfere," how *Kala* introduces order, how *Prana* introduces coherence and how forces are nothing but consequences of that process. ☺

Where Would the "Fifth Force" Be

In the previous section, we mapped the fundamental forces according to a precisely defined type of coherence and defined "what" is aligned in which interaction because they are of the same nature but different "depths."

Given that science, with its new cosmological theory¹⁷ "Quintessence," introduces the concept of the fifth fundamental force related to dark energy and dark matter, we will try to find a version - what and how would oscillate, i.e., the type of coherence for that hypothetical "fifth force" which - by all accounts - has to do with ether.

"Quintessence" is not a confirmed fifth force, it is only a theoretical framework, a hypothetical phenomenon, by which science tries to reconcile existing theories with experimental reality. Thus, we are neither proving nor disproving its existence but considering the possibility of its existence at the structural level in the sense - if a new interaction exists, what could possibly be aligned?

Keeping in mind the already presented map – the first question is where would the "fifth force" even fit in that map. If there is another "deeper" interaction, it cannot be a new phase in space nor a new particle nor a new type of charge because that would already be covered by existing theories. Thus, it must be below the time metric as we have established so far.

Since in the previous section we said that gravity aligns "speed of time," then the "fifth force" could align "orientation of time flow" because gravity says "how fast time flows but does not say in what "sense" that flow flows.

¹⁶ <http://users.beotel.net/~gmarjanovic/>

¹⁷ "Quintessence" – the latest cosmological theory. The name comes from quinta essentia (the fifth element – ether). In physics, quintessence is a hypothetical form of dark energy, more precisely a scalar field, postulated as an explanation for the observed accelerated expansion rate of the universe, the existence of the X17 particle (protophobic x-boson), etc. ...

In standard physics, the direction of time is given (entropy) but is not a dynamic quantity. By introducing quintessence, a dynamic cosmic "background field" is obtained that changes with time. This is something that is neither energy nor metric, but global coherence of the direction of becoming.

From this follows the proposal for the type of coherence for the "fifth force." If we stick to the same logic as before, the most consistent formulation would be "Quintessential interaction" = coherence of cosmic state of becoming. In other words, what oscillates is not field in space, but "cosmic" preference of evolution."

This rather abstract formulation becomes closer to us if we translate it in the language of physics and describe it as a slowly varying scalar field with negative pressure that is not locally detectable. This is not very close to our experience either, so we will add Sanskrit terms.

In the line "*Akasha-Kala-Prana*," where *Akasha* → possibility of everything, *Kala* → sequence, *Prana* → coherence, Gravity → rhythm of *Kala* - Quintessence would be "coherence of *Akasha* itself in manifestation." Not movement, not vibration, but "inclination of possibility" or "preferential direction of realization." This is extremely close to the classical concept of ether, but not as substance, but as structure of the series of possibilities.

How would "quintessence" "oscillate"?

Not sinusoidally. Not locally. The best description would be: ultra-slow, global relaxation of universe state. Oscillation would be change of "cosmic mood." In formal terms, it would be oscillation of potential, not field, oscillation of conditions not states. Thus, it would not be visible locally because it acts on the scale of the cosmological horizon, has no gradients that particles would "feel," so it does not produce forces in the classical sense. Because of this, it does not bend paths, does not change frequencies but changes "expansion history." Just as *Akasha* "exists everywhere," but nothing "pushes" or "pulls."

Final map (now complete)

Interaction	Coherence
EM	field phase
Strong	identity
Weak	process continuity
Gravity	rhythm of time
Quintessence	coherence of becoming (condition of manifestation)

Thus, if gravity is time gradient, then quintessence would be possibility gradient. This would be the closest that can be said today without violating known physics and without sliding into speculation without structure.

What's more - In the section "Three-Dimensional Time" According to Gurdjieff/Ouspensky doctrine, besides our classical time - movement from moment "before" to "after," there is also a second dimension of time - movement from one to another available possibility (impossibility) contained in a given moment. Such an understanding of time structure - offers the possibility that besides coherence of *Kala* rhythm in its 1st dimension (gravity), there is also the possibility of coherence in the domain of its 2nd dimension "Eternal now," which would be a kind of "subtler version" of gravity.

Here our considerations become truly interesting, encouraging and promising because the measure of agreement between ancient and modern knowledge is obvious. Therefore, we continue in the same direction but in agreement with valid theories.

Return of Ether to Science

Classical ether was "expelled" from science because it had three assumptions: 1. it was "substance"; 2. it had a state of rest and 3. it was a medium through which something moves. This necessarily led to a privileged reference frame, anisotropy of light velocity and experimental contradictions. Such ether - from the aspect of science - is wrong because it is "too material."

What nevertheless proved inevitable and why modern physics had to accept the following facts is that: vacuum is not empty, laws of physics depend on vacuum structure because **vacuum has: energy, fluctuations, phase states and topology**. In other words, "**something**" nevertheless exists before particles, before forces, even before space in the classical sense. But that something must not have movement (through classical space), must not have velocity and must not have (ponderable) substance.

This is the point of return of the "new-ancient" ether. That "new" ether is "structure of possibility" not a medium.

What is returning in modern theory under other names is: quantum vacuum, Higgs field, inflation field, quintessence, zero-point field and cosmic background state. The common feature of all these phenomena is that they do not transmit movement — they (only) determine what is even possible. This is the crucial difference and agreement with *Akasha* structure which in the Vedas was never substance nor energy nor field in space. It is "condition of appearance of space, time and field." In modern language, it is "configuration space of laws" or "topology of possibilities." That's why the (new) ether cannot be detected directly but only indirectly.

Thus, the essential paradigm shift regarding ether is that "old ether" represents something "through which something moves" and "new ether" "why movement is even possible" — and whose beginnings of "scientific acceptance" we already see in considering phenomena like "background-independent structures," "vacuum state," "cosmological field," "pre-geometric order." Thus, science also speaks of pre-geometry — which is exactly where we have arrived.

It is more than interesting that this is compatible with relativity because (new) ether has no velocity, has no state of rest and has no local reference frame. It is a "Lorentz-invariant structure of possibilities," and therefore the speed of light remains the same, local experiments "see" nothing but cosmology "feels" the consequences.

Conclusion: Ether could return to science not as something that exists in space but as that thanks to which space can exist at all.

This is the end of the old dispute and the beginning of new understanding.

Ether – Coarsest Form of Akasha – in the Map of Interactions

In previous considerations of the hypothetical fifth force and its possible connection with ether, *Vedic* positions were presented that *Akasha* is not a "medium that reacts," but a field of possibilities. According to the theosophical teachings of Helena Blavatsky, *Ether* is the coarsest form of *Akasha*, that is, *Akasha* is the pre-element or precursor of *Ether*¹⁸, so from that aspect we will consider the possible connection of the fifth force and such ether - as a coarser form of *Akasha* - and place it in the "map of interactions" and - using the already established "structural language of coherence" - explore what could be aligned here.

Thus, we are not adding a new force arbitrarily but looking for where it would "have to" appear if *Akasha* is a field of possibilities, and *Ether* is its coarser manifestation.

H.P. Blavatsky's thesis that *Ether* is the coarsest condensation of *Akasha* does not conflict with what was said before but only specifies structural relationships:

Akasha → does not oscillate, does not react, does not carry waves while
Ether → first level at which possibility becomes dynamic.

Thus: if the "fifth force" exists, it does NOT act in *Akasha*, but in *Ether* as its dynamic projection. This is the crucial difference, due to which the question now arises what else exists but - "below time" and "above pure identity"?

Within the framework of previous considerations, we saw that ether is coarser *Akasha* but finer than space-time and still "pre-energetic." On the other hand, ether is NOT a particle¹⁹, not a force field in the classical sense, nor an energy carrier. Most simply put, ether is "structure of allowed correlations." Accordingly, the "fifth force" would not align energy, phase, or time but something "before" that.

Most precise formulation: The fifth force would align "possibility of mutual relationship," so in considerations of possible type of coherence for etheric (fifth) force, i.e., "what oscillates / what is aligned?" we can say:

Does not oscillate: energy, field, particle
Oscillates: "allowability of connection"

This is very far from the possibility of understanding by our rationality based on everyday experience, so perhaps a better neutral and non-mythological name would be: "topological coherence of possibilities." In other words - which forms of interaction are even allowed, which are "easy," and which are "difficult," which appear spontaneously. This is deeper than gravity. Gravity aligns "when" something happens and etheric force would align "whether something can happen" (second dimension of Time according to Gurdjieff/Ouspensky).

In modern terminology, in physical language (without esotericism) this would manifest as dependence of space structure on "state of void," meaning **"fifth force" is not a new force in the sense of "yet another boson" but "meta-force"** — condition of all forces. That's why it's invisible in the

¹⁸ „Science and Spirituality“, <http://users.beotel.net/~gmarijanovic/Synthesis.pdf>

¹⁹ Due to the phenomenon of the quantization level $k>8$, i.e. "above" the photon (QEDM, <http://users.beotel.net/~gmarijanovic/>)

laboratory but visible in cosmology (dark energy, quintessence), and that's why this "meta-force" naturally connects to dark energy because it does not make structures; does not exchange energy and does not localize – but - changes "how" structures can even form on a large scale (macro-universe). This is a typical "signature" of the etheric level.

Conclusion: If *Akasha* is a field of possibilities, and *Ether* is its coarser form -> first condensation - then the "fifth force" is not a force of movement but a force of allowedness — coherence of the very potential of relationship. **This is the deepest point of our considerations at which theosophy does not contradict physics and physics does not yet have the language.**

According to the QED Model, in scientific terminology, Ether is "superfluid quantum vacuum,"²⁰ whose elementary quantum is "Stable object K=9 -> "Teslion" whose "position (on the line of evolution of spirit into matter) is "below" Photon (K=8) but "above" *Mulaprakriti* (K=9) - elementary quantum of *Akasha*. Thus, everything fits – both quantitatively and qualitatively and logically.

Implications on the Theme of (New) Ether

Nikola Tesla, proven intuitive genius, scientific Prometheus of the New Age, left behind 308 patents²¹ registered in 27 countries worldwide. It is more than interesting that almost all patents were registered from his arrival in America in 1884 until his stay in Colorado Springs in 1899/1900 - thus for only 16 years of his life and work, and only 12 patents were registered after his return to New York until his death - thus for a full 43 years of work as an already proven inventor, researcher and scientist.

One of the possible answers to this illogic is the fact that his work after experiments conducted in Colorado Springs was mainly based on etheric technologies. As is well known, ether was, based on the Michelson-Morley experiment, expelled from science – which also, unfortunately, characterized Tesla as a pseudo-scientist, dreamer or even eccentric, and his etheric technologies interpreted as unrealizable.

However, the synthesis of ancient knowledge, theosophical teachings and insights of modern physics – considerations presented in this work indicate the real possibility of ether existence which is the elementary substrate of Tesla's scalar phenomena and technologies (e.g., Teleforce & Telegeodynamics Proposals²² or Scalar Interferometry²³, Utilization of radiant energy²⁴). The fact that Tesla's ideas about ether are in agreement with both ancient knowledge but to a certain extent also with the latest findings of modern science about quantum fluids²⁵, indicate to us that these are achievements of the human spirit manifested on various continents, in various epochs, but are the result of research into deep universal Truth which some, like Van Gogh, reached through intuition and art²⁶, and some like Tesla - through their research work. Their contributions show that art and science are not separate worlds, but only different expressions of the same universal search for understanding the world.

In the section "Core of Synthesis – Development of Spiral Image of Time" - we established that *Kala* is actually "Eternal now" – which is the crucial premise of Dr. Velimir Abramović, which can best be illustrated by his words:²⁷

"This is my understanding of the spiritual nature of Tesla's mathematics, because as is known, he did not leave us a theory of his powerful experimental technique. The hypothesis of time as eternal present is my discovery of the foundation of Tesla's technology. Time is the key to both Tesla's mathematics and physics."

Thus, Nikola Tesla is truly the Prometheus of the New Age where man will have the opportunity for evolution and development toward higher aspects of his own being - his vital, mental and intellectual components - to complete self-knowledge and unification with the eternal universal "I" – *Atman*. In that New Age, man will, in addition to sudden, exponential, technological progress, also learn the secrets of his soul, its structure and possibilities of contact with higher cosmic intelligence.

The latest discoveries on the Giza plateau by the research team of F. Biondi, C. Malanga and A. Mei applying Doppler tomography and synthetic aperture radar can be the basis for various speculations

²⁰ Akasha - forerunner of Ether - "Superfluid quantum vacuum", http://users.beotel.net/~gmarjanovic/SpecFluid_e.pdf

²¹ Patenti Nikole Tesle - činjenice i zablude, dr Snežana Šarboh, https://youtu.be/T7-r0ldhJ4?si=-Ix0zHj_tLhfqnx1

²² Nikola Tesla's Teleforce & Telegeodynamics Proposals by Leland Anderson, <https://teslaresearch.jimdofree.com/books-1/nikola-tesla-s-teleforce-telegeodynamics-proposals-by-leland-anderson/>

²³ The Bohm-Aharonov Effect, Scalar Interferometry and Soviet Weaponization, <https://www.cia.gov/readingroom/docs/CIA-RDP96-00788R001900680014-4.pdf>

²⁴ US685957A - Apparatus for the utilization of radiant energy; US685958A - Method of utilizing radiant energy.

²⁵ "Human and artificial intelligence, Tesla technologies and quantum computers",

<http://users.beotel.net/~gmarjanovic/KonfCirih2025.pdf>

²⁶ In Van Gogh's painting "The Starry Night" modern science has recognized the motion of quantum fluids.

²⁷ <http://kpv.rs/?p=3899>

but also very serious reflections²⁸ about the knowledge of ancient civilizations, about the depth of their insights into the structure of Absolute Reality and the possibilities of their – ancient but extremely advanced technologies - which are no longer just fiction but really achievable projects. What's more - the synthesis of ancient and most recent civilizational insights, including this work, knowledge arrived at by studying not only quantum phenomena but also pyramidal and sacred structures, like the ideas of Dr. Semir Osmanagić about pyramids as objects that "enable the concept of cosmic internet existence and almost instantaneous intergalactic communication in the Universe."²⁹

The results of the experiment³⁰ we recently conducted in cooperation with the Foundation "Archaeological Park: Bosnian Pyramid of the Sun" unequivocally indicate the existence of a connection between the material and spiritual aspects of man. Analysis of EEG recordings and data on weight changes of subjects during meditation, with monitoring of bio-field with PiP technology by Dr H. Oldfield³¹ - suggest a measurable connection between consciousness and physical body, which at the same time strengthens the methods of traditional/complementary/alternative medicine.

In the same sense, we continue research in our "Laboratory for Psychophysical Measurements" with the latest research and development of methods for targeted interaction of human consciousness in Kozyrev mirrors with the invisible information world, helping us approach the decoding of human consciousness potential and paranormal phenomena. We conduct research in cooperation with Sfera company³², which offers the most advanced technologies for natural restoration of vital resources, rejuvenation and consciousness development at a fundamentally more advanced level than classical methods.

In short - "Kozyrev mirrors," metal (Al) cylinders of circular or spiral shape forming an enclosed space (Faraday cage) in which there are no (classical) electromagnetic fields (EM smog) and thus favor and stimulate subtle-energy flows of scalar-etheric type (torsion fields e.g.), which – similar to pyramids - enables harmonization of the mirror's ambient field and our bio-field, whereby – by reaching deeper meditative states, introspection of one's own being is enabled, contact with our true Self (*Jiva*) and correction of attitudes and prejudices of our false Self (Ego), easier access to "solar and galactic information" using subtler but also more advanced "soul vehicles" for communication with Absolute Reality such as emotions (2nd *Loka/Heaven* – Astral world) or Intuition (3rd *Loka/Heaven* – Mental causal world). For beings of the highest level of consciousness (degree of harmonization), the mirror offers the possibility of easier access to the Morphogenetic field, Field of *Akasha*, that "Cosmic library" which has records of everything that ever happened or will happen.

All these are arguments or at least affirmative explanations of the conclusion that the synthesis of all general-civilizational knowledge – from Vedic to those of modern physics can be of great help to us in understanding Natural mechanisms, the Matrix of the Creator – Supreme Creator and further progress of humanity.

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Goran Marjanović, BSc

²⁸ "Nikola Tesla: A Follower of Ancient Knowledge and a Visionary of the Future", http://users.beotel.net/~gmarjanovic/Giza-Tesla_e.pdf

²⁹ DISCOVERY OF TESLA'S TORSION FIELDS IN THE BOSNIAN PYRAMIDS, <https://piramidasunca.ba/en/discovery-of-the-teslas-torsion-fields-above-the-bosnian-pyramids/>

³⁰ Can the Mind Lighten the Body?, <https://oaskpublishers.com/assets/article-pdf/can-the-mind-lighten-the-body-experimental-evidence-of-weight--changes-brainwave-transformation-and-energy-shifting-during-deep--meditation.pdf>

³¹ Oldfield Systems Ltd, <http://www.electrocystal.com/>

³² ООО ЦИОТ "СФЕРА", Научно-исследовательская Лаборатория интегральных биоинформационных технологий, <http://heavenly-lotus.com/>