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ORIGIN OF LIFE TRANSCENDS BIOLOGY

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ABSTRACT

Earth is regarded as the benchmark when looking for "Life" elsewhere in the universe, and in a similar vein, figuring out how human beings, endowed with intelligence, cognition, and consciousness, came to be serves as the benchmark where Biology transcends all computations. The subject of "Jyotish" (Vedic Astrology), one of the six Vedāngas that make up the four Vedas of Hinduism, which has been around since the beginning of time and is perfect theism and all science par excellence (atheistic), provides a plausible solution to the most difficult issue, where the most likely link between biological and extra-terrestrial occurrences is solar disturbances and their particle emissions.

Keywords: Origin of Life, Human Brain, Cognition, Consciousness, Cause and Effect, Freewill, Panspermia Origin

1. INTRODUCTION

Origin of life is a tenacious question that challenges many branches of science but is also extremely multifaceted. Whether life originated and developed only on planet Earth, whether it originated outside of Earth and came to Earth, whether these other intelligent life forms have developed other civilizations on other exoplanets millions of light years away, located in other planetary systems, are all questions that mankind has been trying to find an answer to for centuries. These questions have more options to be answered now than ever before. On the one hand,

cosmologists, astronomers, astrophysics researchers, cosmos biosphere researchers, etc. are attempting to estimate the number of exoplanets that are at a similar distance from their suns as the planet Earth, have an adequate abundance of different elements and chemical compounds, and have the potential for the emergence of at least simple forms of life. However, it has yet to be able to detect a sound from space that would indicate the existence of an extra-terrestrial civilization. Exoplanets millions of light years away have yet to be captured on camera in such a way with sufficient close-ups that additional life forms can be seen.

Despite the countless differences, all living organisms are composed of three basic components in their cells. DNA and its less complex sibling, RNA, are examples of molecules that can be duplicated and encode information. There are proteins, powerful molecules that carry out crucial functions. Going back far enough in time, before animals, plants, and even bacteria, one discovers that the "protocell," most likely contained RNA, proteins, and a membrane. A membrane comprised of fatty acids surrounds them all and encases them all. The membranes—the bags—were essential. The other molecules would merely float away if there was nothing to contain them; they would diffuse into the environment and accomplish nothing. Membranes concentrated them into a world teeming with people from an inert universe of chaotic chemicals. At its essence, life is about dividing things into categories. And despite appearances, that is both lot simpler and much tougher. The lipid bilayer is thought to be the foundation for all membrane structure. The eyes cannot see the minute components that make it up. By employing electron microscopy, it can be observed. However, sophisticated methods like freezefracture electron microscopy and x-ray diffraction are needed to disclose the specifics of its arrangement. Chemists have been captivated by this hazy line for decades.

We want to know what it looked like and how it came to be because sometime in Earth's history, a group of essentially inanimate molecules passed that threshold and became a living thing. The complexity of living things and inanimate objects differ significantly. The living and the dead are made of the same stuff. The origin of life is the most controversial topic in biology. The origins of all species are explained by evolution once life begins, however there is actually no conclusive hypothesis that explains the precise mechanisms that gave rise to life on Earth. The RNA world hypothesis proposes that before life was built on DNA and proteins, the planet only contained RNA, which served as an enzyme and a replicator. But no plausible idea adequately explains the change from a soup of amino acids and nucleotides to an RNA universe encased in a cell wall.

By claiming that utilising a cell that has just died, scientists are unable to put together the parts of a cell in a contemporary lab, much less outside, or even in a rock or pool, and that they cannot bring the cell back to life. Evolution is refuted by James Tour. The statements made by Robert Shapiro that he would adhere to recognised scientific explanations and that scientists might resort to religion for a solution (Robert Shapiro, 1986).

Many eminent figures in science, including Carl Sagan (1934–1996) of Cosmology, Arthur Holmes (1895–1955) of Geology, JBS Haldane of Evolution, and Alan Watts of Indian philosophy, have heaped praise on the ancient Hindus and the Hindu religion for their extraordinary abilities. Astrophysicist and cosmologist Carl Sagan (1934–1996) asserts that Hindus believe the cosmos is cyclical and has a lifespan of billions of years. He also noted that Hinduism makes reference to the universe expanding and contracting, which is consistent with modern cosmology. Professor Arthur Holmes (1895-1965), Geologist, applauded the ancient Hindus

about the precision of the calculation of the age of the earth and the entire universe in their sacred book 'Manusmriti' (source: Hinduism and Scientific Quest - By T. R. R. Iyengār p. 20-21); and J.B.S. Haldane, a British evolutionary biologist, was astounded by the 'striking' parallels between Hinduism's Dasavatra (ten incarnations) and the evolution of vertebrates. According to Stuart J. Inglis Stuart (1962), a branch of nuclear physics based on the half-lives of uranium 238 and lead 206 supports the claim that the ancient Hindus devised a calendar that spans periods of time up to 4.32 billion years.

According to a common misconception, "Panspermia" is the philosophical theory that life can begin if its progenitors have reached an environment that is favourable for it (especially the Earth). which opinion has been held up to the discovery of amino acids and nucleobases in meteorites, which are the building blocks of DNA and RNA and proteins, respectively. However, sugars continue to be an essential part of the main substances that make up life (Yoshihiro Furukawa, 2020) Oba et al. (2020). The carbon-rich meteorites NWA 801 (type CR2) and Murchison (type CM2) have ribose and other bio-essential sugars like arabinose and xylose. offers the first concrete proof of ribose in outer space. The creation of RNA, which could have both stored information and catalysed events in early life, ribose is particularly important source helped to create useful biopolymers like RNA which may have contributed to the genesis of life, may have been aided by the extraterrestrial sugar when the word 'metaphysical' is eliminated from the debate of Panspermia Origin of Life. Thus, Panspermia of Origin of Life has come to stay. However, no definite theory describes the precise processes that led to the origin of life on Earth. The origin of life is the most divisive topic in biology. The sophisticated and intricate human brain of knowledge and consciousness is then raised. Do cells have consciousness, too?

The four Vedas of Hinduism's "Jyotish" (Vedic Astrology) branch, one of the six Vedngas, offer a natural remedy for the problem at hand. and multifaceted discipline whose rationale is Astronomy, Astrophysics, Astrochemistry, Astrobiology, Inorganic Chemistry, Biology, Geology, Mathematics, Indic Philosophy, etc., that fully comprehends the processes that give rise to life.

2. JYOTISH" (VEDIC ASTROLOGY)

To properly understand the processes that resulted in the genesis of life, there is currently a natural, non-theistic answer to the problem from perfect theism which is all of science. Hinduism believes in supreme energy which has no origin and no end and infinite. Who was the Supreme energy's creator? The response is that it is something that is limitless, eternal, and unending. Something must perish after it is born. This holds true for all things which have a beginning, including planets, stars, people, animals, and other living things. However, the Supreme energy permeates everything.

Hinduism is theistic in its most basic form. Its fundamental foundation is theism. Jyotish also known as Vedic Astrology which is all of science. It is the derivative of Astronomy; its life side is astrobiology, and the origins of its astrological divination principles and event timing follow the laws of light optics Rao (2015). The interplay of electromagnetic (sunlight) and matter (the inorganic chemistry that is readily available to us in the universe) defines "life" as an emergent attribute of matter, which is the basis for Vedic astrology.

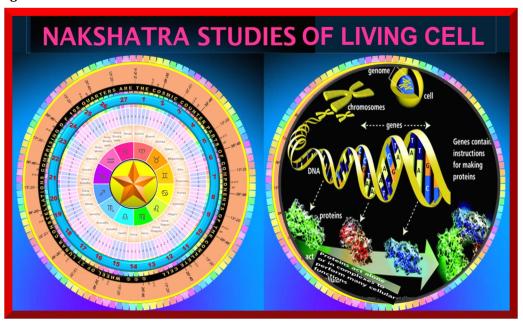
An astronomically accurate horoscope for astrological divination and accurate planetary periods for "timing of events" form the foundation of astrology as a whole.

Astrology is being practiced both in the West as well as in the East, the former using astronomically correct "Tropical Zodiac" with very poor predictive side while in the East it is practiced on astronomically incorrect "Sidereal Zodiac", with rich heritage on the predictive side. Vedic Astrology is thus brought to disrepute as 'pseudoscience' in the very land of its glory Rao & Rao (2004). From the standpoint of the philosophy of science, any number of hypotheses may be shown to be erroneous, but to come to the conclusion that no theory of astrology can be true is just bad science.

2.1. RATIONALE OF VEDIC ASTROLOGY

The 27 lunar constellations (Groups of Stars) and some of the solar system's component parts have been deliberately adopted by Vedic Astrology for its studies. The components of the solar system create the cause and effect of sunshine (an electromagnetic wave of light and radiation) on the planet Earth and all life that exists there, much like how photosynthesis is a miracle of sunlight. Under abiotic conditions, the inorganic matter that the stars emitted changed into organic molecules, and life as an emergent characteristic of matter. "Jyotish" is defined as the interaction of electromagnetic with matter, connecting the dots between the periodic table, the atoms that are easily accessible to us in the cosmos, and life as an emergent property of matter. Rao & Rao (2022). Furthermore, a whole living cell's cosmic components are represented by the 27 lunar constellations, which are divided into four quarters each, for a total of 108 quarters. (Figure 1), Rao & Rao (2022).

Figure 1



 $\textbf{Figure 1} \ \text{The 27 Lunar Constellations (Total of 108 Quarters) are Cosmic Components of a Complete Living Cell} \\$

Figure 2

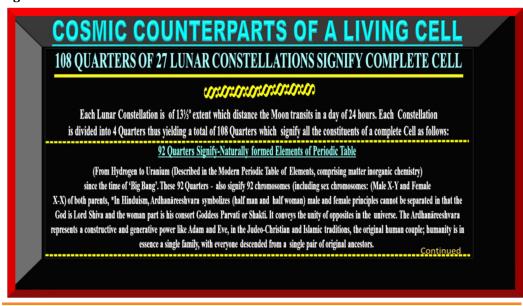


Figure 2 The 27 Lunar Constellations (Total of 108 Quarters) are Cosmic Components of a Complete Living Cell

Figure 3

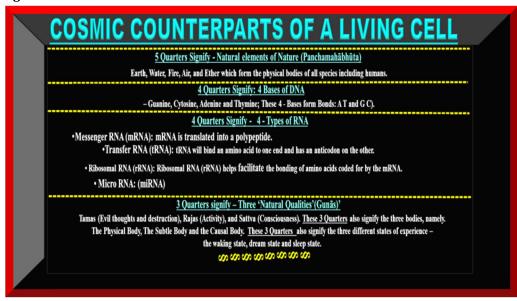


Figure 3 27 Lunar Constellations Divided into 108 Parts are Cosmic Components of a Complete Living Cell

In Hinduism, this creative power is known as the 'Ātma' (Soul). According to the Vedas, none of the senses or sense organs can detect Ātma. The soul, also known as 'minuscule Ātma,' (Anu) is a manifestation of the soul. In the Vedas, the soul is referred to as 'Jivātma,' while the 'Jiva' is referred to as Spirit. The spirit is the life force, and it grows more or less effective in the physical body as a result of numerous activities, not so much with age as with the pursuit of perfection or otherwise. Vedic knowledge (Brahmajnānn) was revealed when the Soul (Ātma) was given to human beings, according to the Atharva Veda. As a result, the human spirit possesses all

Vedic knowledge. Soul gives form to matter. The molecules would merely float away if there was nothing to contain them; they would diffuse into the environment and accomplish nothing. Membranes concentrated them into a world teeming with people from an inert universe of chaotic chemicals. At its essence, life is about dividing things into categories. And despite appearances, that is both lot simpler and much tougher. The lipid bilayer is thought to be the foundation for all membrane structure. The eyes cannot see the minute components that make it up. A person's soul transforms them into "divine creatures," their "spirit" transforms them into "social animals," and their senses and sense organs transform them into "material and economic beings."

A person is referred to as a "Jiva" in Vednta and has three bodies: the physical body, the subtle body, and the causal body. Earth, air, water, fire, and ether are the gross elements (sometimes known as "natural elements") that make up the physical body. The subtle parts that make up the subtle body, intelligence, cognition, consciousness which is invisible to the naked eye. Soul gives form to cells packing the molecules in tiny bags of membrane. It is visible in an electron microscope. The causal body contains information about one's past deeds as well as information about inherited factors. Imprinting of the neural antennae requires genetic inheritance, which establishes our underlying innate nature. The genomic DNA forms morphological DNA, which contains information about the "cause and effect" of one's previous acts. This is where the hereditary information is imprinted. The causal body, one of the subtlest bodies, merges the astral and corporeal bodies. The subtle body directs the physical body to act (YVS, YVRR, 2023), Figure 4.

Figure 4



Figure 4 'Jiva' (An Individual) and three Bodies

The traditional biological paradigm, which involves chemistry, code, and cognition, misinterprets the law of cause and effect. However, there is no evidence to suggest that codes can be created by following the laws of physics and chemistry or that codes can create cognition. Only chemicals make up the physical layer of any information system Marshall (2021). The causal body, which records our previous thoughts, habits, and actions in all their states as magnetic memories with various frequencies in accordance with Newton's Third Law of Motion, carries the soul from one life to the next. The soul is eternal because it is distinct from these three bodies

and does not need a means of support. Death is the separation of the soul from the body. At the moment of death, the transmigrating soul departs the physical body along with the causal body and the astral body. Upon death, the energy from the living body, according to the First Law of Thermodynamics, goes to the cosmos.

The three human "Gunas" (qualities) according to Hinduism are Sattva Guna, Rajas Guna, and Tamas Guna. 'Tamas' (misperception, mistaken comprehension, dullness, evil thinking, and destruction), 'Rajas' (extreme highs and lows in activity), and 'Sattva' (righteousness and consciousness), each with its own unique traits. All living organisms and objects in our environment always include all three qualities (gunas), albeit their relative quantities may vary. Only humans have the ability to consciously alter the levels of the "gunas" in our bodies and brains. These three Gunas take place in subsequent cycles.

Death is the soul's severance from the body. The transmigrating soul, along with the causal body and the astral body, leaves the physical body dead at the time of death. The five fundamental elements that make up the physical body—earth (Prithvi), air (Vayu), water (apas), fire (Agni), and ether (aksha)—dies along with it at the moment of death. The impregnation of the transmigrating soul, along with the subtle body and the causal body, brings about the birth of the physical body.

One of the most subtle bodies, the Causal body, also known as Krana Sarira, is made up of both the physical and astral bodies. In the event of reincarnation, it transports the person's spirit from one life to the next and keeps a record of all of our previous thoughts, behaviours, and acts. Generated from genomic DNA, morphological DNA is used to construct magnetic memories that contain information about the causes and effects of past activities. When one attains "Knowledge of the Self," the causal body dies. This cannot be the unchanging, unadulterated, undivided, infinite Atman. (Soul).

It is, thus, reasonable to hold that Vedic Astrology whose rationale unravels the Origin of Life and Evolution, is qualified for Astrological Divination of a horoscope of a native for his/her Date (Julian Calendar Date), Time (Local Time) and Place of Birth (Longitude and Latitude of the Place of Birth) and Progression the Chart for timing of events of Promising 'Good' and Periods of Definite 'Evil' together constituting Destiny, and Neutral Periods constituting 'Freewill'. The efforts of man's past karma make him appear to be practically a slave, but he is a free man in terms of new and independent activities. He appears to be condemned to failure if these new and independent actions brought about by his free will are in any way intended to counteract the effects of his past karma. The discrepancy between fate's powers and resolute willpower appears to be inversely correlated with how severe his failure was. On the other hand, if new and independent actions are put into neutral situations and times, success seems to be correlated with the strength of the will and the effort made. Man's ability to choose his actions and thoughts in response to fate is what stores good or bad karma for the next life, or elevates or degrades himself from one life to the next. Future fate is determined by today's freewill. This perspective of a harmonious interplay between fate and free will provides a resolution to the age-old debate between fate and free will and seems to explain life's perplexing injustices.

3. DEFINITION OF LIFE AND PANSPERMIA ORIGIN OF LIFE

According to a common misconception, "Panspermia" is the philosophical theory that life can begin if its progenitors have reached an environment that is favourable for it (especially the Earth). The basis of "Jyotish" (Vednga), "Panspermia

Origin of Life" is a scientific reality of Astrophysics and Astrobiology. The "Panspermia" theory is supported by the discovery of all the necessary organic molecules in meteorites, including ribose and other carbon-rich bio-essential sugars like arabinose and xylose, as well as other significant building blocks like HMT, amino acids (components of proteins), and nucleobases (components of DNA and RNA).

There is no difference in matter between the living and the dead except from "life with information for movement and energy." According to Davies (2019), information separates life from non-life. One of the challenges in defining death is distinguishing between life and death. It would seem that the term "death" refers to the moment when life ends. The complete termination of all biological processes supporting an organism is defined as death. The full cessation of brain function in creatures that have them is another way to define death. Death is an inevitable process that affects almost every species. In biology, the central query is: What is "Life"? Where does the physical body get its life? For humans to fully comprehend the phenomenon of life, they must understand the concept of death. The transmigrating soul, or "Jiva," along with the astral body and causal body for evolution, is what is abstract and invisible that left the physical body leaving it dead. This "very thing" is what provides life to the foetus upon its arrival.

The emergence of life is a characteristic of all existent matter (inorganic chemistry) in the cosmos. Stars that are susceptible to one or more processes release inorganic chemical elements throughout their lifetimes. When abiogenic elements are exposed to an external energy source, such as the solar system's electromagnetic field, organic molecules can form. These molecules aid in the construction of the physical body, which serves as a framework for the subtle body which is sculpted by the causal body. The physical body is given form and is given life by the manifestation of the transmigrating soul or spirit (Jiva), along with the astral body, causal body, and information in the form of magnetic memories. Along with information on heredity, genomic DNA is preserved in the causal body. Our core congenital personality is inscribed on the neural antennae by genetic inheritance. Morphological DNA is created from genomic DNA and has a liquid crystalline form that acts as a kind of antenna. Information that is stored in the causal body based on cause and effect of one's earlier behaviours is imprinted in the morphological DNA in the form of magnetic memories. The causal body controls how our physical bodies change as we grow. It is common knowledge that all living things on Earth employ a type of molecule known as a nucleic acid to store and reproduce their genetic information, which refers to the traits we acquire from our parents, their parents, and so on.

"All organisms on Earth translate nucleic acid language into protein language using the same code book." The two major beliefs of Hinduism—the "Theory of Rebirth" and "Souls Do Evolve through evolution of consciousness"—are firmly established through this. Despite the countless differences, all living organisms are composed of three basic components in their cells. DNA and its less complex sibling, RNA, are examples of molecules that can be duplicated and encode information. The 'Causal Body' is where the information is located. There are proteins, powerful molecules that carry out crucial functions. And encasing them all is a membrane formed of fatty acids that the 'soul provides. Freeman Dyson, a scientist, once remarked that "Life began with little bags of garbage." The physical body awakens upon the manifestation of the transmigrating soul along with the subtle body and the causal body. The soul enlivens the physical body. For the first time, a plan is put forth that would allow for the assembly of nearly all necessary components for life

at a single extra-terrestrial setting. According to the straightforward tenet that "life gives life," evolution and proliferation begin as soon as life appears in a suitable setting, such as the Earth, and continue until the entire planet is inhabited (Figure 5).

Figure 5

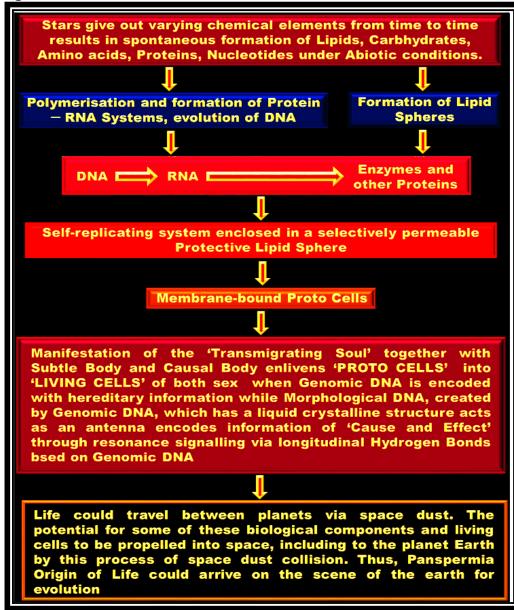


Figure 5 Advanced Panspermia Origin of Life: Possible Sequence

4. TRANSPORTATION OF LIFE

According to a recent study Berera (2017), life might travel from planet to planet via space dust. Extreme momentum fluxes in the atmosphere are brought on by the continuous bombardment of Earth by hypervelocity space dust, which interacts with it and transmits energy. The process of space dust collisions has the potential to send some of these biological components and living cells (male and female) into space, including to the planet Earth (a unique world where flora and fauna could flourish due to its magnetosphere among other features). As everything

we've been told about evolution is false, Panspermia Origin of Life may show up on the scene of the earth for evolution contradicting Darwin Rao and Rao (2022).

5. CONCLUSION

The origin of life is a set of paradoxes. Despite the countless differences, all living organisms are composed of three basic components in their cells. DNA and its less complex sibling, RNA, are examples of molecules that can be duplicated and encode information. There are proteins, powerful molecules that carry out crucial functions. A membrane comprised of fatty acids surrounds them all and encases them all.

The discovery and detection of the presence of all life building blocks including DNA and RNA molecules in meteorites affords a clear clue to Panspermia Origin of Life. But, some important questions remain to be answered consistent with extraterrestrial origin of life such as where did the data originate? How does DNA store information? How is information stored in DNA? According to Davies, information separates life from non-life. (2019).

What is Life? "Life began with little bags of garbage." Without fatty lipids, which provide cells the membranes they need to contain their contents, none of these molecules could function. A solution could be as important as the transistor or the discovery of DNA. How can evolving cells "know" how to change? What skills do cells have that we don't have? Where did consciousness come from? Are there sentient cells? How was the first cell created?

All of these concerns have been addressed in this study by all of science, but nothing forbids responses from a religion (Jyotish), a Vedānga of Hinduism, which is founded on all of science. i.e., interaction of electromagnetism with matter. The subtle body provides the Cell Membrane. Hereditary information and information of cause and effect is provided by the causal body and imprinted in the Genomic DNA and the Morphological DNA respectively when the transmigrating soul manifests, the physical body awakens. The subtle body enables us with the characteristics of cognition and consciousness. Life is full of freewill except with a little of fate or destiny; Humans have the ability to consciously change the levels of the three qualities in their bodies and brains in order to become divine and, ultimately, become "liberated" from an infinite cycle of births and deaths. It is unfathomable to suppose that this design could be implemented in people using any method other than the one outlined to encode the hereditary information which refers to the features we inherit from our parents and their parents, and so on and to reproduce it in the next generation.

AUTHOR CONTRIBUTIONS

The Corresponding Author and the Co-Author have equal contribution in the preparation of the manuscript.

CONFLICT OF INTERESTS

None.

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Author's Biography (First Author)

My name is Y. V. Subba Rao. I am Ph.D., FIE., C. Eng. (I) qualified. I am an octogenarian born in Gudur Town (Internationally famous place for spotless Muscovite Mica Mineral), Nellore District, Andhra Pradesh, India in 1938 in an orthodox and philanthropic Hindu Brahmin family with hoary traditions of cultural beliefs. I am a Chartered Mining Engineer, Govt. of India Certified Mines Manager, Certified Mines Surveyor, an Author, and an Astrologer. I was a faculty member of Mining Engineering Department of Osmania University, Hyderabad and later, in Geology Department of S. V. University, Tirupati, India. I visited Leitz Electron Microscopy Application Labs, West Germany for 4-weeks on deputation from my university. I had the hereditary training in Jyotish, from my father at my very early age of 9 years which remained with me as an intellectual hobby till my retirement, as Executive Engineer of University Science and Instrumentation Department in 1996 on superannuation. I have done serious study and research of the subject of Jyotish thereafter. I served as Visiting Professor of Jyotish (Astronomy and Astrology) in Central Sanskrit University, Tirupati.

I authored several books on Veda-Sciences, published by LAP Academic Publications, West Germany and by Sri Venkateswara Vedic University, Tirupati. I have several research publications to my credit published in India and International Journals of UK and USA under ORCID Number: 0000-0003-2536-2027. I am a Fellow of Institution of Engineers (India) of Mining and Metallurgy Division and Member of Electron Microscopy Society of India besides being a Member of National Manuscripts Mission ('namami'), Ministry of Culture, Government of India. In all humility, I owe my intuitive knowledge and the inherent science content of 'Jyotish' displayed herein which was revealed to me in my dreams by my family deity Lord Venkateswara Swāmy vāru of Tirumala.

