

KINDLY SEND YOUR VIEWS

"Gayatri Mantra" - The Foundation of Hinduism

OM, BHUH, BHUVAH, SWAH, TAT SAVITUR VARENYAM,
BHARGO DEVASYA DHEEMAHI, DHIO YO NAH PRACHODAYAT

1. THE GREAT IMPORTANCE

Gayatri Mantra has been bestowed the greatest importance in Vedic Dharma. This mantra has also been termed as SAVITR! and VED-MATA, the mother of Vedas. Lord Krishna in Gita (Refer 10/35) has stated "Chhandasaamham Gayatri" (out of all the 'Chhandas', I am the Gayatri). Having imparted so great an importance to this mantra, let us therefore examine from scientific angle, what are the underlying facts declaring this mantra as the mother of Vedas.

2. PRESENT DAY MEANING OF GAYATRI MANTRA

O God! You are Omni-present, Omni-potent and Almighty. You are all Light. You are all knowledge and Bliss. You are destroyer of fear, you are Creator of this Universe, you are the Greatest of all. We bow and meditate upon your light. You guide our intellect in the right direction.

3. WHY A SCIENTIFIC INTERPRETATION

In Gita (7/17), Ramayan (Uttarkand) and Kathopnishad (S III/5-9), the scientist has been bestowed the topmost rank. Thus, having the Scriptural support, I venture to differ from the Conventional interpretation of the mantra.

4. BRIEF HISTORY FROM MAHABHARAT WAR UPTO BRITISH PERIOD

In fact Mahabharat war, being a nuclear war, destroyed not only our warriors alone, but also the intelligensia. Then came the era of invaders, Shaka, Huna Muslims and finally Britishers. During all this period the intelligensia was slain and scriptures were burnt. There are evidences to show, that there has been planned efforts to manipulate and pollute the original records. Thanks to Dara Shikoh, the elder brother of AURANGZEB, who did a great service to Hinduism. He got the Upnishads translated in Arabic. From Arab, these Upnishads reached to other European countries.

Obviously, therefore, the record available to us is a second hand literature re-written by later date pandits, through their memory, who survived after repeated on-slaught by invaders and muslim rulers. This explains why and how the meaning and great IMPORTANCE OF THE GREAT MANTRA HAS BEEN LOST.

5. SCIENTIFIC BACKGROUND OF THE MANTRA

Before I discuss the scientific meaning of Gayatri mantra, let me first tell you, what the modern astrophysics and astronomy tells us about the cosmos.

There is our galaxy called milky way or Akash-Ganga. It contains approximately 100,000 Million of stars. Each star is like our sun. Some stars are even bigger, than our sun say, upto 5000 times. Each star is supposed to have family like our sun. There are very roughly 10,000 Million galaxies like our galaxy. Many of them are much bigger than our galaxy. We may call our galaxy as our universe and total galaxies put together may be called as cosmos.

We know, that the moon moves round the earth and earth moves round our sun alongwith the moon. All planets move round the sun. Each of the above bodies revolve at their own axis as well. Our sun alongwith its family takes one round of the galactic centre in 22.5 crores of years. Ours and all other galaxies are moving away at a terrific velocity of 20,000 miles per second. (Refer figs attached)

6. SCIENTIFIC MEANING OF GAYATRI MANTRA

Let me now discuss the scientific meaning of the mantra step by step.

(A) "OM" BHUH BHUVAH SWAH :

Bhuh	-	The Earth
Bhuvah	-	The Planets (solar family)
Swah	-	The Galaxy (The Heaven)

Dear Readers! we daily observe, that, when an ordinary fan with a speed of 900 RPM moves, there is a noise, then what a great noise would be, when the great galaxies move with a speed of 20,000 miles per second. This is what this step of the mantra explains, that the sound produced due to fastly moving earths, planets and galaxies is 'OM'. The sound was heard in meditation seat by Rishi Vishwamitra, which he mentioned to other colleagues. All of them then unanimously decided to call this sound "OM" THE NAME OF GOD, because this sound is available in all the three periods of time, hence it is SAT (permanent feature) therefore, it was the first ever revolutionary idea to identify formless God with a specific title (form) called Upadhi. Until that time, every body recognized GOD as formless and no body was prepared to accept this new idea. In Gita also, it is said, 'Omiti Ekaksharam Brahm' meaning, that the name of the Supreme is 'OM', which contains only one Syllable (8/12).

This sound OM heard in samadhi was called by all the Rishis as NAAD-BRAHM (a very great noise), but not a noise like the pop-music, which is normally beyond a specific amplitude and limits of decibels prescribed for human hearing. Hence the Rishis called this sound as UDGITH (A MUSICAL SOUND ON THE ABOVE i.e. heavens). They also noticed, that the infinite mass of galaxies moving with a velocity of 20,000 miles/second was generating a Kinetic Energy = $\frac{1}{2} Mv^2$ and this was BALANCING THE TOTAL ENERGY consumption of the cosmos. Hence they named this as "Pranavah", which means the body (vapu) or store house of energy (prana).

To locate any person, we require at least two things - 1. Name and 2. Form. After the identification of the Name, the other identification mark was located by the Rishi, as the Light, as it is abundantly available in innumerable stars. This is indicated hereunder :-

(B) TAT SAVITUR VARENYAM :

Tat	-	That (GOD)
Savitur	-	The Sun (STAR)
Varenyam	-	Worthy of Bowing or Respect

Once the form of a person alongwith the name is known to us, we may locate the specific person. Hence the two titles (upadhi) provide the solid ground to identify the formless God, Vishwamitra suggested. He told us, that we can know (realize) unknowable formless God through the known factors viz. sound OM and light of the suns (stars).

A mathematician can solve an equation $x^2 + y^2 = 4$; if $x = 2$; then y can be known and so an Engineer can measure the width of a river even by standing at the river bank just by drawing a triangle. So was the scientific method suggested by Rishi Vishwamitra in the mantra in the next step as under :-

(C) BHARGO DEVASYA DHEEMAHI :

Bhargo	-	The Light
Devasya	-	of the Deity
Dheemahi	-	we should Meditate

The Rishi instructs us to meditate upon the available form (light of suns) to discover the formless creator (God). Also he wants us to do Japa of the word OM (This is understood in the mantra). This is how Rishi wants us to proceed, but there is a great problem to reach to the state of realization, as the human mind is so shaky and restless, that without the grace of the Supreme (Brahm) the mind can not come to rest. Hence Rishi suggests us to pray to Him as under :-

(D) DHIYO YO NAH PRACHODAYAT :

Dhiyo	-	Intellect
Yo	-	who
Nah	-	we all
Prachodayat	-	guide to right direction

O GOD ! Deploy our intellect on the right path.

7. FULL SCIENTIFIC INTERPRETATION OF THE MANTRA :-

- (A) The earth (*Bhuh*), the planets (*Bhuvah*), the galaxies (*Swah*) are since moving at a very great velocity, hence the sound produced is OM, (the name of formless God.)
- (B) Tat (*That God*), who manifesting Himself in the form of light of the suns (*Savitur*) is worthy of bowing/ respecting (*varenyam*).
- (C) We all therefore, should meditate (*Dheemahi*) upon the light (*Bhargo*) of that deity (*Devasya*) and also do Japa/ chanting of OM).
- (D) May he (*YO*) guide in right direction (*Prachodayat*) our (*Nah*) intellect (*Dhiyo*).

So we notice, that the important points researched by Vishwamitra and hinted in the mantra are :-

- (1) The total Kinetic energy generated by the movement of galaxies acts as umbrella and balances the total energy consumption of the cosmos. Hence it was named as the Pranavah (Body of Energy). This is equal to $\frac{1}{2} mv^2$ (Mass of galaxies \times velocity²)

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Realizing the great importance of the Syllable 'OM', other later date religions adopted this word with slight change in accent viz. "AMEN" & "AMEEN".

- (2) The God could be realized through the Saguna (gross) method (upasana) i.e.
 - (a) by chanting the name of the Supreme as "OM" and
 - (b) By meditating upon the light emitted by the stars (suns).

It appears, that here-after the icons of various deities were designed with radiance (Aura) around their heads. The Puranas were written in the language of symbols and stories to communicate knowledge of Upanishadic wisdom beautifully and palatably to the common masses. It is similar to that, Einstein gave the formulae, $E = mc^2$, and the technology to evolve nuclear energy followed.

Any new idea is normally met with opposition and so the followers of formless God did not agree, but after a great struggle. Ultimately, Rishi Vishwamitra won the war and Rishi Vashishtha agreed to award the title of Brahm-Rishi to Rishi Vishwamitra as a valued recognition of his great research. This meant, that ultimately, the method of realizing formless God through gross titles (Upadhi) and symbols was recognized and approved. Thus, the law formed the firm basis for Vedas and saguna upasana and *this is why the Gayatri mantra has been termed as the mother of Vedas (Ved-mata)*. Perhaps inspired from this recognition, the Rishi of Kathopnishad also advised to meditate upon thumb size light having no smoke as a symbol of ATMAN. It states, "ANGUSTH MATRA PURUSHO JYOTIRIVA DHUMKA" (section IV/13) It appears, that there-after twelve "JYOTIRLINGAS" were constructed at the selected sites of the country as the solid base for saguna upasana. That is why, Lord Krishna in Gita (chapter 12, shloka no. 2) told Arjuna to worship the Lord preferably in the gross (saguna) form instead of formless (nirguna), because it is simpler to practice.

8. THE TRADITIONAL MEANING ANALYSED

In the traditional meaning the qualitative words e.g. that O God ! you are the Creator, giver of knowledge, all light & bliss, remover of fear and so on, have been used. The ultimate result of this is also the same, that is, the practitioner reaches to Godhood by perpetual meditating upon the meanings of these qualitative words. Thus, this Gayatri Mantra even though derives its greatness from the scientific meaning was turned a 'Prayer Mantra', as not many students could understand the Scientific interpretation as discussed in previous paragraphs. Hence, the traditional meaning now available to us became popular and generally the public not knowing the Sanskrit and having no knowledge of Astrophysics accepted this meaning out of SHRADHA.

The intelligent readers are requested to send their valued comments to the writer on the address given below.

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EVOLUTION OF "OM" - A SCIENTIFIC VIEW

The era of myths and legends is now over and we are now living in the age of Science, where the new generation wants everything to be said and understood in terms of solid proof. Hence let us examine, how the sound "OM" happened to be the greatest treasure of Hindu philosophy and how it actually evolved.

Since time immemorial, the word "OM" has been recognised as the most pious name of God in Hindu Dharma. All sects of Hindus unanimously worship it. Gita says "OM ITI EKAKSHARAM BRAHMA" (8/13), which means "OM" containing single syllable is the name of God. This symbol is so important, that all mantras in Sanskrit must be preceded by this syllable. Now let us discuss the evolution of "OM" and why it is pronounced to be of the paramount importance.

To understand the evolution of "OM", we have to understand the structure of our Cosmos. We know that our earth is the part of our solar family, where there are eight more planets as well, which revolve round the sun. Our sun also moves round the centre of our galaxy and completes one revolution in 22.5 crores of years. There are more than 1000 Million stars in our galaxy (see fig. below). Many of them are much bigger than our sun. Star is a self illumined body i.e. the 'Sun'. There are at least 100 Million galaxies like our galaxy (see fig.). According to the latest report of American Astronomical society, the estimated number of galaxies might go up to 1,25,000 millions. The galaxies are constantly being created and destroyed. This is a regular feature. **The most strange aspect of this phenomena is, that all these galaxies are running away at the terrific average speed of 20,000 miles per second.** This is happening right from the day of Big Bang, when these galaxies were born.

It is the scenerio at the advent of the first 'Satyuga', when Indian scientists plunged into deep "Samadhi" to search for the mighty Creator. During the Samadhi (state of trance), they heard a very smooth and continuous sound "OM". They to-gether then discussed the fact amongst themselves and unanimously decided to name this sound as the name of God, as there was no other way to understand about God at that time.

As we know that our earth is moving as well as spinning. We also know that there is air column around the earth upto 400 kms. Naturally, it is supposed to produce sound due to friction, but such a sound is not audible in the normal course. During Samadhi, only such sound was heard and unlike the 'Pop music', it was very soothing and of humming nature. This is why, the then scholars named it, as 'UD GEETH' meaning a musical sound from the above.

There is yet another term used by the scientists of yore, as PRANAVAH, which is composed of PRANA+VAPU. The meaning is the store house of PRANA = Energy. The students of mathematics will easily understand, that due to movement of infinite mass of the galaxies, the Kinetic energy produced = $\frac{1}{2} Mv^2$ where M = mass of galaxies and V = velocity of the moving body. This tremendous energy is being produced constantly since the day of "Big Bang" (the Naad Brahma), i.e. the day when the Creation started.

As we know, that each kind of energy is Convertible to the other kind as well and this is how, the energy is used constantly for creation and upkeep of all the living beings existing within the cosmos, hence the name "PRANAVAH".

The scientists also called the "OM" as "ANAHAD NAAD", meaning that a sound being produced without any friction or hurt.

In fact, there is no air around all the galaxies, yet there is the sound "OM" produced, hence this term 'ANAHAD NAAD' used by Rishis, is a statement of fact. Science admits, that under absolute conditions miracles can happen.

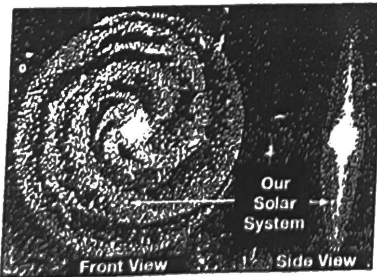
Since this sound "OM" is a natural sound produced ever since, hence this name of God has been given the top importance. It is recognised not by the Hindus alone, but also by the other religions of the world. In Christianity and Muslim religions, the terms Omeen & Ameen are used, which are the changed form of "OM" only.

There are many other names of God, which are literary names fixed subsequently for the purpose of 'Upasana', but "OM" heads the list. This is why, it has been prescribed to be pronounced before every Sanskrit mantra.

This sound "OM" has such a power and force of attraction that by practising this during meditation, one will get trance easily and God's vision too.

Om Shanti ! Om Shanti ! Om Shanti !

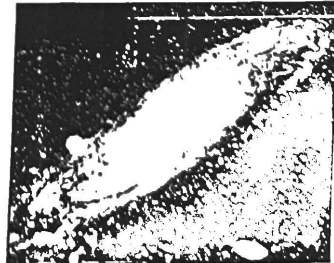
OUR GALAXY



Length of Milky Way = 1 Lakh Light Years
Distance of our Sun from Centre = 32,000 Light Years
One Light Year = 94×10^{11} Km.

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ANOTHER GALAXY



Note :- 1. Pl see the Fig carefully. The arrangement of Stars is such that the Fig of 'OM' is self made. In the Centre 'Shiva Linga' is there. 2. Research of Evolution of 'Om' is inherent in the first step of Gayatri Mantra.
LIST OF OTHER RESEARCH ARTICLES: 1. Scientific Analysis of Gayatri Mantra 2. What is Self Realisation and various ways to attain Godhood. 3. Scientific Analysis of Nishkaam Karma. 4. The PRAN - A Modern look. 5. Scientific Analysis of Prayer 6. Evolution of "OM" (E&H) 7. Gayatri Mantra Ki Vaigyanik Vyakhya 8. Questionaire 9. Prana - Vigyan Ke Shabdon Mein 10. Maya Se Moksha Tak - Ek Vaigyanik Vyakhya 11. Srajan Se Vilaya Tak - Ek Vihangam Drishti 12. Pratik Vigyan 13. Satyam Shivam Sundaram - Ek Vaigyanik Drishti 14. Devi Shaktiyon Ka Moortikaran 15. Yajna (Nishkam Karma) 16. Upasaya Devon Ki Vaigyanik Vyakhya 17. Charitra Nirman Ke Vedik Sutra 18. Rameharit Manas Mein Rashtra Prem 19. Hindutava Banam Secularism 20. Samaaj Sewa - Ek Vaigyanik Smiksha. 21. Sampradaywad Ke Mool Karan Aur Samadhan 22. "Reiki-Chikitsa" Vigyan 23. "Murti Pooja" Ka Pelhasaya.