

*Music...*  
*The Nectar Of Life*



# ***Music – The Nectar of Life***

*AUTHOR*

***Pt. SHRIRAM SHARMA ACHARYA***

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(U.P), India, 249411

Translated by:Dr. Rajani Joshi  
Indian Institute of Technology Bombay

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## PREFACE

The cosmic existence of sound, its expression in the rhythmic order of the origin and vivid manifestation of Nature, and its spiritual expansion in consciousness are dealt in the Vedas under the knowledge of *Sabda Brahm-Nada Brahm*.

The volume 19 of “Pt. Shriram Sharma Acharya Vangmaya” series presents an in-depth yet perspicuous study and analysis of the philosophy and science of *Sabda Brahm – Nada Brahm*. This book is compiled from two Chapters of the English translation of the above volume that focus on the genesis, evolution and applications of music.

The book provides truly rare knowledge of the emergence of natural musical notes (*swaras*) from the eternal impulse of *Nada* and emanation of the *sastriya sangita*. This Indian classical music was developed and propagated by the *rishis* of yore. They had recognized the linkage of music with the emotions and intrinsic nature of the living beings and thereby evolved the methods of its enchanting practices. They had also discovered special *ragas* for the chanting of *vedik mantras* and the spiritual *sadhanas* of music. The books tells us how we could endeavor reviving this glorious tradition today when the liking of people is mostly entrapped in artificial and fast-beat music and when commercialization and perversion of this universal mode of entertainment is at its peak?

Different effects of the *ragas* (classical tunes) of music and their applications are elucidated in this book. References from the *shastric* literature as well as from the modern scientific research findings are cited with relevant examples. The applications of music reviewed here range from those in agricultural production and music therapy to social improvement. Reports on some organizations and laboratories across the world that are contributing to enhance the constructive applications of music in future are also presented. The readers will find substantial information on the types of *swaras* and *ragas* and the effects of different compositions of the classical and the modern systems of music.

The negative effects of adulterated music are more pernicious than noise pollution as the domain of their damaging impact encompasses delicate layers of emotions too along with the body and the mind of the performers and the listeners. The same is true of the insidious nature of the substandard lyrics. The book provides detailed knowledge and guidance on these aspects with evidential support.

Refined music is not just a medium of entertainment or a mode of soothing effects on the mind-body ensemble. Rather, as author adeptly conveys, it is a source of spiritual enlightenment. The *sadhana* of *Nada Brahm* is a super level spiritual experiment that upon success enables ultimate realization of the eternal sound of *Oamkara* and sublimation of the individual consciousness up to the divine realms. The manifestation of *Nada Brahm* in the *swaras* of music and its creative expression the *sastriya sangita* has been an angelic boon for the human society. The book has brought us an opportunity to be blessed by this nectar of life.

–Dr. Pranav Pandya, MD



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## Music: A Swara Sadhana of Sabda Brahm

Advanced research on different components of the 'atom family' has shown that the orbital motion of the tiny particles in an atom is governed by an energy that is generated by the subtle vibrations of some kind of latent sound. This energy is omnipresent in the interior of Nature and is the fundamental cause of all movements. Eminent scholars of the subtle science describe it to have generated by the eternal sound of Omkara. Omkara is the self-educed expression of the Sabda Brahm. It is the eternal Nada – the root of all swaras (musical notes).

Once oscillated by a swing, the pendulum of a clock continues to move automatically until the clock is on. Similarly, the motion of the Nature, once triggered by the Nada of Omkara continues forever. The cycle of Nature continues like the circular motion of a child's toy top. Equivalent to the seven colors emitted from the sunrays, the seven basic swaras (musical notes) of Nature are originated from the Swara Brahm of Oam. These swaras are manifested in the musical notes of the octave as – Sa, Re, Ga, Ma, Pa, Dha, Ni.

Remarkably, the major sadhanas of yoga are also seven; namely, the Raja Yoga, Hatha Yoga, Prana Yoga, Sakti Yoga, Jnana Yoga, Karma Yoga and Bhakti Yoga. The seven (Sapta) manifestations of Sabda in the subtle body are counted as the powers indwelling in the six extrasensory energy-centers ( $\tilde{I}a\tilde{U}$  cakras) and in the seventh the (spiritual core of the individual consciousness) Sahastrara Cakra or the Brahmrandhras. The Brahm Vidya (the esoteric knowledge of the Brahm) is expanded in the form of Sapta Loka, Sapta Sarovara, Sapta Sagara, Sapta Meru, Sapta Deva, Sapta Tirtha and is realized by Sapta Sadhanas that were discovered by the Sapta —Rishis. Incidentally, the materialistic science is also divided into seven (Sapta) major branches.

The upward and downward flow of Prana in the Ida and Pingala Nadis<sup>1</sup> generates the vibrations of the seven swaras (of the Nada of Omkara) in the vina of the spinal cord. These are 'perceived' as the seven kinds of subtle sounds produced by the seven 'tongues' of the serpentine power– the Kundalini. The yogi who links his consciousness with these seven swaras (of cetan) attains the spiritual power that (if aroused) could control the activities of Nature.

The Swara Sastra therefore has an important place in the Yoga Sastras. The yoga sadhana of perfection over the Surya and Candra Swaras (flow of Nada through the solar and the lunar nerves in the Pingala and Ida Nadis respectively) of the prana vayu flowing through the right and the left nostrils is fundamental among the sadhanas of swara yoga.

Every activity in Nature takes place in some kind of cyclic order. The sounds made by animals, birds and even tiny insects bear certain rhythm. The early morning warbling of the birds or the crowing of cocks, etc clearly demonstrates this fact. The voices of nightingales, peacocks, partridges, sparrow hawks etc are also rhythmic with varied degrees of melody. Among the voices of the animals, we can easily find the rhythmic order in the barking of a dog, roaring of a lion or the bleating of a sheep. The overnight

singing of the beetles is quite familiar to us. This rhythm of swaras exists in the voice of every creature; even the plants and trees and the jada elements also produce rhythmic sounds, most of which are beyond the grasp of the audio sensors of our ears. The activities of the jada and cetan components of our bodies also generate different melodies of the swaras that could be sensed by dedicated sadhanas of the Nada Yoga.

A French zoologist, Dr. Vastive Andre, has thoroughly investigated the effects of music on the land animals, aquatic animals and birds. The results of his study indicate that music does affect, with a varied degree of impact, the brain and the nervous system of every creature. If the melody of the music is coherent with its soothing sensation, the animal (or bird) demonstrates a sense of pleasure and energetic activities. However, the sounds of the frequency range or rhythms beyond its natural liking create adverse effects on its health. It is observed that many types of yeast and bacteria are killed by the high pitch rhythmic sound of a bugle. The research of some German zoologists is focused on identifying the special kinds of music that are most suitable for a particular type of animal or bird. They hope that the natural tendencies of the animals could be changed temporarily by the impact of special music. This way, one would be able to control the violent animals and expel or eliminate the insects by special effects of music.

Some effects of music on humans are well known. Its melody offers instant relief from physical and mental fatigue. Eminent poet Homer has stated that – “The remedy for mental agony lies either in an open cry and weeping or in the melody of music”. Renowned poet, Thakur Ravindra Nath Tagore had discovered even higher level effects of music. According to him, “The origin of music is supernatural and is beyond the reach of human beings. Music can liberate the human consciousness, which otherwise remains bond in the routine chores of the worldly activities of life. It takes the singers and the listeners both into that ascetic state which is regarded by the experts of the subtle sciences as the foundation of the entire creation existing in the cosmos”.

The ancient Indian scholars include music among the basic experiences of humane life. They state –

Sahitya Samgita Kala Vihinah |  
Saksat Pasuh Puccha Visana Hinah | |

Meaning: A man without the knowledge of music, art and literature is an animal without a tale.

Khagah Bhrgam Patamgamsca Kurgamdyapi Jantavah |  
Sarva Eva Pragayante Gitavyapti Digantare | |

– Narada Samhita.

Meaning: The birds, humming bees, moths, deers and other creatures also sing. The eternal song (melody of music) is omnipresent.

Music provides the best way of expressing emotions. It is not necessary that the words of a song also be the linguistic translation of the emotions. Even without the involvement of any vocal expression or language, the sounds (melody) of music can convey their emotions. The flow of music expresses itself even in the absence of an audience.

The modern schools of music in India divide it into two major classes – classical music and light music. The structure of a song is defined to consist of swaras (musical notes), pada (paragraph of prose), laya (tune) and marga (direction for speed-variation). The songs without swaras are called abhidhana vana, used in abhivadan (conversation in a prose). The two types of songs are included in the Deya and the Vak parts of music.

It is said in the Sastras that thy prayers are most effective if they are sung with music...

Visnu Namani Punyani Suswarai Ranvitaniceta |  
Bhavanti Sama Tulyani Kirtitani Manisibhah | |  
– Samgita Parijata

Meaning: If one utters thou name (or prayer) in the rhythm of the musical notes then it would be effective like the Sama Gana (collective chanting of the vaidika mantras).

The ancient history of music in the human society shows it to have emerged from the sentiments of devotion, compassion and the feelings of pure love and affection for God. Its divine origin had made it a precious branch of art in the ancient times. Since the times of the —rishis of the vaidika era, music has been the medium of divine sadhanas of the saints in India. All the saintly poets of the Bhakti Kala had been either writing devotional songs or singing in the reverence of God. This tradition had continued from Maharsi Narad to the saintly poets like Surdas, Tulasidas, Meerabai, Raidas and Kabir.

The image of Goddess Saraswati (the deity of knowledge and talents) is depicted as having a book in one hand and a vina in the other. It explains that there are two branches of knowledge – the Sabda Sastra (knowledge expressed in words) and the Swara Sastra (ancient knowledge pertaining to music). It is via these two streams of knowledge that our thoughts and sentiments are illuminated. Acharya Ananta Vardhana has described, in detail, the implications of different representations of thy powers in the idols. The damaru shown in a hand of God Shiva and the flute of God Krishna also highlight the divine level of music.

Today it might have become only a medium of entertainment for many because of their ignorance but the fact remains that music is a faculty of divine serenity and power. The vedas are said to have been realized as the expressions of Sabda Brahm through a medium of swaras. All the veda mantras were therefore recited by the —Rishis as chandas (hymns). The Sama Veda describes all possible compositions of swaras for the chanting (Sama Gana) of these mantras. Earlier, each type of sama gana had thousands of compositions of swaras associated with it. The knowledge of these was contained in different branches of

the sama (veda). Today, only some of these compositions are known to a handful of experts. The sama gana of the veda mantras was an integral part of all sadhanas in the ancient era. The science of mantras implies that it is not the linguistic meaning, rather the eternal sonic effects of the mantras, which make them unique in all respects. The —Rishis used to accomplish supernatural powers by various experiments of sama gana.

## Music – An Expression of Nada Brahm

The mantras are manifestations of the powers of Sabda Brahm and music is an expression of the subtle power of the Nada Brahm. The natural swaras of music emanate from the eternal Nada of the cosmic sound. As soil and stone are the basic materials, required for making an idol, bricks for constructing a building and colors for painting a picture, so is Nada for the existence of music. In the field of spiritual knowledge, this Nada (of Sabda) is regarded as an expression of the Brahm and is referred as – Sabda Brahm - Nada Brahm. This is not simply a rhetoric representation, rather, a reality that could be experienced in many aspects of life.

The immense potential of Nada (and hence of music too) in eliminating the illusions and instability of mind and in the refinement of the thought process is well known. When a single stream of Nada alone is so effective then what about the impact of music that consists of collective compositions of a variety of expressions – reflected in the different swaras, of Nada.

The power of Nada works significantly in living beings. Darwin has explained this fact more clearly in his popular book ‘Descent of Man’. Based on a large number of live examples, the author has shown that – the voice of a bird is not produced by a single stream (swara) of sound, rather, a mixture of different expressions and variations of swaras are present in it. This is why the birds sound so musical. Certain pattern of pause and change of different notes is found in the warbling of the birds. This pattern or style is also adopted in the development of certain tunes of music. As per Darwin’s interpretations, pet dogs bark in five different swaras, the domestic cock crows in twelve apparent swaras.

Riverend Lockwood has described about a species of rat that can clearly produce a half-beat swara in its voice. This rat sometimes takes its swara gradually below the lowest note in the musical octave. Lockwood has even designed a script of swaras (scale of musical notes) of the ‘musical’ variation of the voice of this type of rats. Many singing birds also possess an inherent talent of maintaining the ups and downs of their swaras in a disciplined manner.

Some scientists opine that the birds use music to distinctly express their feelings of fear, despair, anger, victory or joy. Among the humans, the three times larger length of the vocal cord in the males as compared to that in the females is attributed to the frequent use of different swaras (patterns of pitch and amplitudes of the voice) by the former while expressing the feelings of love, anger, jealous etc in the initial period of the evolution of mankind. The physical expression of music has been clearly experienced by the mankind ever since the birds have expressed their different ‘moods’ through different combinations of swaras. The ability of inducing variations of swaras in the natural voice – is indeed a precious bequest of Nature to the animal kingdom.

In his book entitled ‘Science and Music’, Sir James Jeans has written that music has progressed continuously from the primitive level of ‘the warbling of birds’ to the music generated by the human beings. The music developed by the humans has been enriched

successively as human civilization has moved forward. In his views, in the initial phase of modern civilization, people used music only to express a handful of feelings and moods of love, jealous, struggle or triumph etc which was like what the birds do through the 'music' of their warbling or chirping.

Some anthropologists like Mr. Maxmuller argue that music appeared in the human society much before the language because, like any other creature, a human being in the beginning of his life first expresses only a limited number of distinct expressions (namely, sorrow, pain or cheer) in different swaras (tunes and pitches) of his voice. The history of human civilization as analyzed by some scholars shows that the early generation of human species used to make three different kinds of swaras (voices) to express love by the first, envy by the second and the triumph by the third. With the evolution of the human brain and associated progress in his ability to think, enormous varieties of sentiments and thoughts were emanated from his feelings that required more complex types of expressions. It is since then that the combination and upward or downward variations of different swaras (musical notes) were identified by way of different signs, which later on gave rise to the formation of syllables and vowels. Thus, different compositions of swaras were associated with different conjugations of these symbolic representations to 'convey' different feelings, thoughts or variations in moods.; this is how a language of expression had emerged.

Music is not only an expression of love, joy or related amorous sentiments, it indeed has the power to reflect all moods of a person. It has been doing so, long before the origin of languages. The natural cry of women is somewhat musical. Some African tribal, if excited, speak in a loud musical tone. Until the development of a language, music was the sole mode of communication in the human society. With the gradual expansion of languages, the 'conversational' use of music lost its popularity; still music remained a powerful medium for expression of collective pleasure and enjoyment. The powerful tool of music also induced collective awakening of the zeal of the soldiers during the war times. This is what gave rise to the development of folk music and dances and the special bands of army in general. Intimate relation of music with festivity, mourning or wartime stimulation remained predominant throughout the history of human civilization.

It has also been a common observation on the occasions of musical concerts that whenever the singer or musician has to convey a different 'message' to the audience, has to change their moods or has to create sudden excitation in their emotional fields, he does that by changing the pattern of the swaras, amplitude, speed, or tuning of his music. Monotonic performance cannot be as successful as it would become boring and ineffective, being deprived of the natural flow of music. Even in routine conversation, the ups and downs of our voices play a great deal to make it more meaningful and effective mode of verbal communication. Nobody can deliver a lecture or speech without variations in the pitch and tone of his voice. Thus we see that every kind of effective vocal expression also depends upon the swaras in one form or the other. This is so because the waves of different emotions or thoughts essentially progress by the variations in the patterns of swaras only.

A structured variation in swaras gives rise to music. No music could be composed without involving the ups and downs in the basic swaras of Nada. The origin of music is attributed to the variation of Nada, occurring continuously in the omnipresent vibrations of the Nature. The flow of this subliminal music is natural like the warbling of the birds. It is this music which is referred in the Sastras as an expression of Nada Brahm. Only this music has a power to maintain the natural flow of prana in all creatures and it can therefore be used as a therapy against the mental and physical abnormalities. It is so unfortunate to find that this original class of music – the Sastriya Samgita is hardly practiced in the human society of today. The artificial beats of pop and rock have adulterated the Indian music too. It appears impossible to protect the masses from this malice.

The awoken souls, who have had the opportunity to be graced by the nectar of pure classical music must come forward to explain its inherent relation with the jada and cetan components of Nature. The natural flow of swaras in specific laya and tala is inseparable from the subtle flow of prana. It (music) could be manifested through the medium of vina or the sound of (musical) instruments by maintaining a proper discipline over the compositions of swaras. Vocal and instrumental forms of music complement each other. The currents of music take along the emotions of the singers, the musicians and the audience in their own flow.

All kinds of emotions – be those erotic, inspiring, or devotional, could be stimulated among the audience by different kinds of music. While the pure, natural, devotional music may transmute an ordinary personality into a divinely refined one. The erotic, artificial and exciting ‘music’ could, on the contrary, decline one’s physical, mental and emotional heights upside down. The flow of music is powerful like a flood; the emotions of those absorbed in it are swept away in the direction of this flow. Realizing the subtle and gross effects of music one should be careful and select to practice or listen to the refined, sonorous, melodious and pure music that has emanated from the Sastriya Samgita.

The Sastriya Samgita is a natural manifestation of Nada Brahm. The Sastras describe God Shiva’s Tandava and the gigantic vibrations of the ultimate destruction of the universe to move in tune with each other. Narada’s devotion is said to intensify with the swaras of the divine vina. In the ancient era, music was a component of divine delight and was developed under the auspices of the swara yoga and nada yoga. The gradual decline in the ideals and character of life in the medieval society had, to a large extent, led to the confinement of the fields of literature, art and music in the peripheries of amorous and erotic expressions, cheap entertainment and sycophancy of the mighty rulers in general.

The singers, who could trigger the warriors towards the path of victory and the audience, who would aspire to listen to such educating music, all seemed to have disappeared from the larger section of the society in this dark phase of the Indian history. It was perhaps due to this maligned state of music that in the later years, king Aurangzeba had banned music and expelled all the singers and musicians along with their instruments. Even today, learning or practicing music is not regarded high by a large section of the Indian society. The handful of musical schools which have

maintained the glory of the Sastriya Samgita certainly have a place of respect in some parts of the society where one at least knows about the original status of music in the Indian culture and philosophy.

The development of scientific thinking in the modern era has added new dimension to the study of music. Experiments aimed at therapeutic and other applications of music have shown remarkable effects of music on human beings, animals and insects. These possibilities are not less in the botanical world too. Fast growth-rate of grass, production of tastier and bigger vegetables and fruits, and healthier growth of some trees and plants were observed in certain fields that were kept under the effect of sonorous music in some especially designed experiments. The woods of the trees which 'listened' to the melody continuously were found to be thicker and stronger as compared to that of the some other trees of the same type.

More surprising are the observations that even metals absorb music. In some experiments, it was found that the ornaments and instruments whose manufacturing was processed in the presence of soft music were more shining and stronger. The buildings where dedicated disciples of classical music have performed long-term practice also seem to imbibe the influence of music. People who had visited such places long after had found a soothing atmosphere of peace and happiness there; even those with reserved, depressive and quarrelsome temperament had experienced similar feelings which had also inspired a welcome change in their tendencies.

Enchanting melody coupled with calmness are the basic characteristics of music. High pitch or loud beat sound cannot be regarded as music even if it produces fantastic rhythms. That way, even the sounds of the machines in a factory or the speedy movement of the wheels of a train or of the wings of an aircraft etc are rhythmic but we all know that these are nothing more than noise. The songs played on a loudspeaker or the hard and haphazard striking of the bands that is commonly found in some wedding ceremonies in India, also makes noise instead of producing music. This type of loud 'music' adds to the noise pollution and it could be quite harmful.

Music is that –which is soft, melodious and escalating; which feels soothing to the ears and absorbs the mind and the heart in its euphonious tune; which does not kills one's sleep, instead, helps one sleep in a relaxed state of mind. Music should create an atmosphere for emotional enlightenment, introspection and in-depth peace. Those associated with music may note that it would attain its original glory only by eliminating evil instincts and inspiring divine sentiments and thoughts in all directions of life.

## Experience of Eternal Syllables by Swaras

A parable in the Puranas mentions about Devarshi Narad's long journey aimed at reviewing the status of spiritual developments on the earth. Narad had to encounter with people's common queries like – 'How to find God?' 'Why is it so difficult to realize Him?' Wherever he went, people asked him to suggest easy ways by which they could feel thy presence without hard practices of penance and of the testing sadhanas. Narada then promised the people that he would get proper guidance in this regard from the God Himself.

On his return, Narad asked God Viñnu – "Oh, Lord! it is so difficult for the people to feel thy presence. Kindly tell us about the method that can be easily followed and practiced by every aspirant of thou realization. God Vishnu then replied –

Naham Vasami Vaikunthe Yoginam Hradaye Na Va |  
Mada Bhaktah Yatra Gayanti Tatra Tisthami Narada | |  
- Narada Samhita

Meaning: Narad! I neither reside in the Vaikuntha (heaven), nor in the hearts of the Yogis. I live in the devotional music. (That is, one can easily feel the presence of God by practicing Bhajana, Kirtana – devotional prayers with music).

The above episode indeed highlights the paramount importance of music as a divine medium. It also reminds us of the ancient India, where inspiring music was an integral part of social and religious life. Classical dances were also a part of this branch of art. Music (and dance) was a medium not only of healthy entertainment, but also more importantly, was developed as a mode of performing devotional prayers Bhajan, Kiratana and creating social awareness (by the musical programs of Katha and Loka Gayana. The personal and social life of every individual was creative and ecstatically peaceful during those days of perfect use of music.

In today's noisy and trouble stricken world as well, the melody of music serves as a divine boon. Music offers soothing patience to a heart, which is suffering in agony. It generates a feeling of satisfaction and joy and inspires creativity. Every important occasion, be that the festivity of a birth, a wedding celebration or religious or social get together, etc, or, that of mourning after death, has a suitable place for music for expressing the mood of the atmosphere. This bequest of Nature is for each one of us.

The sadhana of inner enlightenment through music – the spiritually dulcet composition of swaras (notes) is described to be the best method for realizing the eternal syllable of the Para Brahm. This is why all the procedures of sadhana, upasana and even the rituals associated with them necessarily include some practice of swaras. Every mantra is some kind of chanda hymn in general. The types of chanda, such as – tryustupa, anustupa, gayatri, etc are often cited along with the names of the

rishis and devaa for each hymn of the Vedas. The chanda-type specifies the mode of pronunciation and the rhythm, amplitude and tunes of chanting of a mantra. Like a particular radio signal is received only at the corresponding frequency, a mantra-japa also is perfected only by practicing it according to its specific chanda-pattern.

The rishis state–

Abhi Swaranti Bahavo Manisiyo Raja Namasya Bhuvanasya Ninsate } |  
–Rig Veda 9 | 85 | 3

Meaning: Many eminent spiritual persons call the Almighty God, the Supreme ruler of the universe through the medium of musical swaras and find Him by this wonderful linkage.

Another mantra implies that the Jnana Yoga and the Karma Yoga are difficult for most people in general. The connection of the Bhakti Yoga developed through the heartiest feelings of compassion, sacred love and devotion offer rapid success in thy realization. Music gives significant support in arousal of the pious sentiments of devotion that are essential in the Bhakti Yoga.

Swaranti Twa Sute Naro Vaso Nireka Ukithana ; |  
—Rig Veda 8 | 33 | 2

Meaning: Oh, Disciple! You have come to me with an internal desire of spiritual development. I guide you the adept way to reach thou; if you call thee with (devotional) music, thy will be manifested in your heart – the innermost center of your emotions.

A quote in the Puranas states that the blissful heart of God Brahma inspired thou to sing. In this state (of singing) the Gayatri Mantra } was emanated from his manifestation –

Gayatri mukhadudapata Diti Ca Brahmanam |

Meaning: Because it was generated in a state of gana (singing) through the mouth of God Brahmas hence it was named Gayatri.

While investigating the visible and the latent effects of music, the ancient Indian Yogis had found such a vast treasure of siddhis (supernatural potentials) and spiritual attainments that they had to compile a separate Veda to describe it. This Veda, namely, the Sama Veda, contains the secrets of the immense power of music whose decipheration and practice can enable an ordinary human being to elevate his inner potentials up to the high realms of divinity.

The quest for understanding and analyzing the effects of music has not been diverted even in the modern world of materialistic developments. Research in the science of Music, like that in any other branch of science is being pursued systematically in many parts of the world. Series of experiments have confirmed that – if humane virtues and intrinsic happiness are to be preserved in this extrovert world, some association with soothing music in day-to-day life would be inevitable. Music is often compared with true love – both are creative powers; both have tremendous effects on the jada as well as the cetan components of life.

“Music is the best mode of activation of the inner self. Therefore, one should always sing with a musical instrument” – opined the noted philosopher and mathematician, Pythagoras. Dr. McFaden has found vocal music (singing) as more effective than the instrumental music. McFaden’s conclusions seem to be based on the analysis of the healthy effects on the physical body alone. The Pythagorean views sound more appealing in terms of mental bliss. Still higher is the level of the soul about which the great poet and musician Rabindra Nath Tagore writes – “If there is any description and live expression of heavenly beauty then it has to be music only”. Rustin has honored music as an extremely important means of elevation of the soul, strengthening of the character and development of art and creative hobbies.

Different opinions of the experts are based on their individual experiences. The collective conclusion implies that – music is endowed with all the elements, essential for the overall development of the body, mind and the soul. That is why the Samgita Sastra (deep knowledge of all aspects of music) was given significant importance by the ancient Indian Rishis. The Sama Veda stands as an evidence of their dedicated efforts. All the swaras (notes of Indian classical music), tala (rhythms), laya (amplitude), raga (tune), chanda (hymn or the chanting pattern), gati (frequency), mantra and swara cikitsa (sound and music therapies), nratyā (classical dances), mudra and bhava (modes of mental and emotional expressions in classical dances and music) have emerged from the decipheration of the knowledge contained in the Sama Veda.

The Indian Yogis of yore had shown that no power of the world could match with the limitless potentials of the swara-sadhana. The supernatural effects of perfection in this sadhana were also seen in the later periods of the Indian history. Noted among these are Tansen and Baiju Bavara – the great musicians and singers of the Mogal era.

Once upon a time, an extraordinary musical contest was organized in the state council of the Mogal king Aqabara. The competition between Tansen and Baiju was the star-attention. The concert was arranged in a forest near the city of Agra. It is said that when Tansen sang the raga Todi, a group of deer came running, attracted towards him. In the state of emotional absorption in the raga, Tansen had put one of his necklaces in the neck of one of those deer. But this broke the continuity of the musical flow, which had hypnotized the deer and so the latter ran away. By his

performance of raga Todi, Tansen had demonstrated that animals also have a pulling affinity towards music. During his turn, Baiju Bavara sang the raga Mraga<sup>2</sup> Ranjani Todi. Surprisingly, this time only the particular deer that was wearing Tansen's necklace came running near the stage. In this experiment, Baiju had proved that the subtle vibrations of Sabda – triggered by specific music could be used as powerful signals to reach any distance, in any direction and can influence the target there.

Baiju Bavara, bestowed with the angelic inspirations of his Guru Haridasa, had relieved the King Raja Singh of Chandri (in Guna, M.P.) from insomnia by singing the raga Puriya. Pt. Paluskar and Dagar Bandhus were also known to be blessed by such expertise in vocal music. The use of raga Dipaka for kindling the lamps, raga Sri for the treatment of tuberculosis, raga Bhairavi for generating soothing peace among the masses and raga Samkara for stimulating courage and enthusiasm in the soldiers proceeding for a war – is also described as a common practice in the history of music in India since the pre-historical times. Raga Malhara was sung in the season of autumn in every part of India; such was the influence of this raga that even the stubborn, cruel and hard hearts used to be driven along its cheerful flow.

During those times of history, life in India was amiable because of the incorporation of the swaras and tunes of music in every aspect. We can find many examples of the significant role of music even in the relatively recent times in the Indian history. For instance, only a few years ago, an amazing effect was observed when respected Pt. Gujjarama Vasudeva 'Ragi' of Hoshiyarpur, Punjab was presenting a musical concert on a hill near the temple of Goddess Cintapurni. When Pt. Ragi sang the raga Malhara in a state of emotional absorption in the devotion of the Goddess, the otherwise sunny atmosphere of the day was transformed into a cloudy one. And soon it began to shower heavily at that place. People were overwhelmed to see the live demonstration of how an expert yogi of classical music could control the physical elements of Nature.

In yet another recent incident, number of people had witnessed how the vina mastero Suraj Khan had completely cured the Nawaba of the state of Ramapur in just few days by regularly playing raga Jaijivanti on his vina near the Nawaba, who was suffering from a paralytic stroke.

Unfortunately, the present era has hardly preserved that treasure of the ancient classical music. The great achievements of our own history have now become imaginary, myths or hear-says for us. The growing popularity of cheap filmy music has further deteriorated the situation. If instead of 'market oriented' immature and incomplete music, the classical music was given due importance, perhaps some influential and resourceful persons would have come forward to arrange for proper training schools dedicated to inspire and enable the younger generation towards the sadhanas of classical music.

The classical art of dancing was also given high recognition in ancient India. God Samkara (Siva) is named as Nataraja in the scriptures because He is believed to be the originator and the Omniscient expert of this spiritual art. The classical dances and tableaux like Nataraya Rasa, Mainpuri, Kathkali and Bharat Natyam were quite popular until the past few decades. Pt. Jawaharlal Nehru used to feel thrilled by watching such classical dances. He used to say – “classical and folk dances offer cheer and activity and thereby teach us that the pleasure of life is not limited to materialistic successes only”.

Renowned writer, Munshi Premchand has expressed his views on music as – “when the agony of the mind crosses all limits and finds no solace even in crying and weeping then it comes under the shelter of music”. In spite of their effective roles in giving enchanting effects, creative enthusiasm, cheer and peace, these streams – music and dance – of the classical arts have not got the right place in our lives today. It is a matter of shame that India, which was earlier known to be the founder expert of the shastrik arts of music and dancing, is loosing its own talents and knowledge whereas, some other countries are giving respect to these branches of Indian heritage. Their endeavors have also begun to fructify in several ways.

Each one of us who knows the importance of music (and dance), should make an attempt to revive the status of these foundational elements of the Indian classic art and culture and strive to learn some kind of classical vocal or instrumental music or dancing.

It should be noted that practising of classical music is a yoga sadhana. In the vocal form of this sadhana, the vibrations of the inner sound are lifted from the naval region up to the Brahrandhras<sup>3</sup> where these vibrations are tuned with the tala of the music and are electrified by the energy of the mind before the flow of the vani takes place from the mouth. This type of latent swara generates circular flows (of the energy of Sabda inside the body similar to the eddy currents in water. This flow, containing a creative power of Nada, could be channelized in specific direction with the help of suitable ragas that operate upon the mind like the mantras.

The tantra mechanism of the mantra vijnana works on the principle of instantaneous generation and use of concentrated power (of sabda) and is therefore found to be risky as the sahaka often finds it difficult to bear the ‘jerks’ of the powerful reactions of such experiments. The practice of chanting the mantras in classical ragas or any endeavor of the sadhana of the satriya samgita (the Indian classical music) is, on the contrary is free from such risks. It is absolutely beneficial like – the milk of cow, the study of Gita, the upasana and meditation of the supreme divine power of Gayatri or the japa of the Gayatri Mantra.

Music (Nada) resides in our souls. If we let our lives firmly linked with it, we would never be deprived of spiritual enlightenment and heavenly bliss. The sadhana of

swaras (musical notes) is indeed the sadhana of Sabda and Nada which carries the soul up to the highest realms of experiencing the eternal impluse of the Brahm.

## Vaidika Hymns and Music

The Indian classical music is found to have intense effects on inner sentiments. Although the Vaidika Mantras could be well be expressed vocally as prose (e.g. in Yajura Veda) or verse, the method of singing them as hymns was given principal importance by the —Rishis. Hence the unique spectrum of vaidika swaras and the gamut of chanting patterns for mantras were evolved.

The three streams of expression of the esoteric knowledge encoded in the Vedas are termed as Veda Trayi. The contents are divided into four Vedas that are classified according to the type of mantras. The Riga Veda consists of the mantras of the hidden knowledge and prayers of — the eternal powers of thee and the genesis and expansion of divine virtues. The Yajura Veda contains the mantras of the philosophy, science and the methods of performing Yagnas. The Sama Veda is a collection of the mantras containing the secrets of swaras, music and the chanting patterns for all the vaidika hymns. The Atharva Veda consists of the mantras of the ultimate spiritual knowledge of the Supreme – the Brahm Jnana. The Veda Trayi classification according to the possible modes of expressions of mantras is found to be more suitable for describing the associated sadhana practices in the vaidika science of spirituality. Of these, the stream of knowledge pertaining to the rhythmic enunciation and chanting of the specific collections of mantras and the Sama Veda is of predominant significance for the human society, as it directly deals with the science of emotions, which hold the essence of human life.

Music is indeed a divine boon for the human society. The Almighty has bestowed it upon us as a natural means for awakening the inner sentiments, improving the creative powers and concentration of the mind and as a powerful remedy against emotional sufferings and sorrows. The Sastras quote —‘Swarena Samlliyate Yogi’; meaning: The yogis get immersed (into divine sentiments) by practicing the swaras – the musical notes.

The rishis have also expressed their inspirations in the Vedas as – ‘Abhiswaranti Bahavo Manisino Rajanamasya Bhuvanasya Nimsate |’ (Riga Veda 9.58.13). Meaning: Many spiritually elevated personalities focus their swaras (during emotional communication via practicing the satrika compositions of music) towards the Almighty “King of the Universe” and find thou through such musical linkage. Yet another mantra implies the important contribution of music in awakening the devotional feelings – ‘Swaranti Twa Sute Naro Vaso Nireka Uktina;’ (Riga Veda 8.33.2). Meaning – ‘Oh! Disciple, you have come to me with the sacred desire of the enlightening the inner self. Let me tell you the ways of reaching thy-light. If you call thou through your sentiments accompanied by pure music, thy shall illuminate your inner heart with divine love’.

The rishis, while investigating the visible and the latent effects of natural swaras had discovered astonishing powers of music. Their spiritual experiences and realizations of the unlimited sublime reflections of the eternal music (Nada) are expressed in mantras of the Sama Veda. The Sama Veda contains divine knowledge about the miraculous spiritual power of music that can effectuate a vivid connection of the individual 'self' with thy-self.

The noted poet and musician of our times, Nobel Laureate Ravindra Nath Tagore states – “If there is a visible and alive form of heavenly beauty then it must be Music and Music alone”. Several experts in the western world have also realized, in the present era, the magnificent power of classical music. They describe the creative power of music as similar to that of love and recommend that music is essential for happiness in life. Noted philosopher and mathematician Pythagoras had asserted that – “as music is the best source for the upliftment of the soul, one should often practice singing with a company of appropriate musical instrument”. Dr. MacFeden adds to it that the effects of vocal singing alone could also be equally fruitful.

Realizing the importance of music, the spiritual experts and vaidika scholars of today must try to study the deeper aspects of music as encoded in the S<sup>3</sup>ma Veda. The rishis had 'devised' specific mantras for the creation and composition of music. These mantras, cited in the S<sup>3</sup>ma Veda are regarded as the core for the generation and expression of all the swaras (musical notes), t<sup>3</sup>la (rhythms), laya (amplitudes), raga (tunes, the compositions of accents), gati (tones) and the Nradya Mudras and Bhava (moods and steps of classical dancing)....

About twenty-two distinct expressions (called sruti<sup>4</sup>) of the power of eternal music have been cited in Sangita Ratnakar as unique source of specific creative effects (of music) on human body and mind. These Sruties are named as -- Tivra, Kumudwati, Manda, Chandowati, Dayavati, Ranjani, Ratika, Raudri, Krodha, Vajrika, Prasarini, Priti, Marjani, Ksiti, Rakta, Sandipini, Alapini, Madanti, Rohini, Ramya, Ugra and Ksobhini. The sapt swaras<sup>5</sup> and hence the perceivable expressions of music have indeed originated from these srutis as listed below.

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Swara (identity) : The Srutis associated with this swara

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Sadja (sa) : Tivra, Kumudwati, Manda, Chandowati  
Rasabha (re) : Dayavati, Ranjani, Ratika  
Gandhara (ga) : Raudri, Krodha  
Madhayama (ma) : Vajrika, Prasarini, Priti, Marjani  
Pamcama (pa) : Ksiti, Rakta, Sandipini, Alapini  
Dhaivata (dha) : Madanti, Rohini, Ramya  
Nisada (ni) : Ugra, Kiobhini

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Different combinations and compounding of some basic chemicals are used in the synthesis of different medicinal drugs. Similarly, different compositions of the sruties – via different combinations of the sapt swaras, can be used for creating desired effects on the body and the conscious and subconscious minds. The rishis being the erudite scholars of the Sama Veda knew this subtle science of Nada. They had attained the spiritual power of eliminating the ailments and sufferings of all living beings and controlling all forms of matter and life indwelling in Nature by adept chanting of mantras.

What is the science of swaras? Why music has an impact on the material and conscious forms of Nature? Detailed guidance on such queries can be sought from the spiritual experts of the Nada Yoga who, in the deep state of trance, have experienced the omnipresent music of Nature and have realized the evolutionary impulse of Nada Brahm that created the ever expanding universe.

The sublime Anahata Nada of Omkara is described to be the source of this eternal music that is analyzed in the Sama Veda. The quotes – ‘Pranavah Sarvavedesu’ (Gita - 7.8) and ‘Omkarah Sarvavedanama’ (Mahabharata, Aswamedha Parva 4.4.6) – also state the importance of the Sama Veda. The chanting of Omkara and Udgitha are synonymous. Udgitha is supposed to be an integral part of the Sama Veda. The Chandogya Upanishad (1.1.2) states -- ‘Vacah–igrasaj, Samarasah Samnaj, Udgitho Rasah |’; Meaning – The essence of vani (power of ‘speech’/vocal expression) lies in the –ica (a vaidika hymn). Rica’s essence lies in Sama and Sama’s essence lies in the Udgitha. It further affirms (Chand. Up. 3.3.1) -- ‘Sama Veda Eva Puspam’; meaning: Sama Veda is the only flower (of the beauty of music) in the beatified bouquet of the Vedas. A flower, though small, is a symbol (and source) of the growth and blossoming of a mighty tree.

The sages of the Vaidika Age had devised Sama Gana – the chanting patterns of vaidika hymns – as a mechanism for the sublimating the inner sentiments up to the deepest depth of divinity. Sama, the musical expression of Sabda, represents of the ultimate creative powers of the omnipresent Brahm.

## Music is the Core of Vivacity

Music is essential in every walk of life, in every corner of the world. Life would become dull, uninteresting, dry and rude without its melody. The knowledge of music, literature and art is the most important among all faculties, bestowed upon the humans that offer a source of immense sentimental delight and content and thus contribute to making the human life different from that of the other creatures.

Thermal effects excite activities in the jada elements and music acts as a motivating force in boosting the cetan component of Nature. The scientific investigations into the root cause of activities at the sub-atomic and subtler levels have also shown that an omnipresent rhythmic sound triggers the motion of the particles like the electrons that subsequently give rise to different activities in the physical world. This observation brings the scientific theory closed to the deliberations of the ancient Indian scholars on the eternal Nada (musical sound) of Omkara.

The script form of the syllable of Oam was designed by the —Rishis a swastika to indicate its omnipresent rhythm that is uniformly pervading in all directions. This shape was later on adopted in the Sanskrit script in its present form.

The entire game of the Nature and the manifestation of consciousness in the animate world is based on the eternal waves of the sublime music – the rhythmic flow of the power of Nada Brahm. Our brain constantly emits impulses at the rate of 30 to 31 (thought) waves per second. When we watch a movie, about 16 visual images pass in front of our eyes in a matter of just a second, but we do not recognize them distinctly. What we watch as a single movement of a picture actually corresponds to the process of hundreds of visual signals there but our eyes do not grasp them separately. The same is true of the brain signals. The collection of the uncountable impulses emitted every millisecond or so makes a single thought or a signal that is perceptible by the nervous system.

The neural excitation and hence the release of brainwaves is also regulated by certain kind of subtle music of prana. The current of prana continuously strikes the sahastrara cakra and produces a harmonious latent sound (or subtle music). This is described by the —Rishis as the 'sauham' sound. The realization of this sound is the Ajapa Japa (silent recitation) of the Gayatri Mantra. The neuronal excitation and the activities of the brain would cease to exist if this continuous background sound of 'sauham' is stopped even for a fraction of a second. This would correspond to an instantaneous disruption in the bioelectrical currents in the brain and would result in immediate death.

The yogis have 'visualized' the internal functional structure of a human body as a sitara. The sitara depicted in the hands of Goddess Saraswati symbolizes its spiritual importance. It implies that Goddess Saraswati – the divine power of discerning and righteous intelligence appears in the subtle body, which has the structure similar to

that of a sitara. The sitara in the subtle body of a human being consists of the 'wires' of the Ida, Pingala and Susumna Nadis that conjugate on one end in the coil of Kundalini<sup>6</sup>, which is lying dormant in the Muladhara Cakra. The Sat Cakras are different points where this sitara is stricken by the prana to produce specific swaras of the eternal music of Omkara.

The experts of Prana Vidya have found that a sound of Lam is generated from the Muladhara Cakra (the extrasensory energy-center (ESEC) in the Pelvic Plexus). The sound of Bam emanates from the Swadhisthana Cakra (ESEC Hypogastric Plexus); Ram from the Manipura Cakra (ESEC in the Epigastrium Plexus); Sam from the Anahata Cakra (ESEC in the Cardiac Plexus); Ham from the Visuddha Cakra (ESEC in the Carotid Plexus) and Oam from the ajna Cakra (the 'third eye'). These six swaras are continuously produced in the subtle body throughout the life of a human being. The musical notes of " Sa, Re, Ga, Ma, Pa, Dha, Ni" are used to constitute different compositions of music in the physical instruments, similarly, the above combinations of swaras and the subtle Nada of Omkara are 'played' on the sublime sit<sup>3</sup>ra existing inside the human body. The sound waves produced by the associated vibrations in the subtle body constitute a source of immense power.

Different compositions of the above mentioned latent swaras dominate all the natural activities of the brain and the mind. One's inherent talents, inclinations, interests, emotions, convictions, internal desires, intelligence, imaginations, faith etc are governed by these compositions of the subtle music and are reflected accordingly in his character, mental tendencies, virtues and deeds. This 'spiritual music' is our eternal guide. It takes the life upward, downward, backward or ahead as per its tuning in the individual self. The spiritual sadhana's are aimed at suitable adjustment of this music for gradual evolution of the Self.

The physical manifestation of the music of the subtle body is found in the internal sounds of different rhythmic activities of the gross body. A little perturbation in the rhythms of the body sounds (like that of heart beating or pulsation) corresponds to a disorder in the specific bio-activities. Experienced physiologists attempt recognizing its pattern. Its identification helps them diagnose the malfunctioning of the associated organ(s).

The subtle as well as the gross body of the cosmos also vibrates continuously by the omnipresent flow of the music of Nada Brahm. The entire world is 'musical'. It is up to us – how to make use of this divine boon? Like nectar – by creative applications? Or, like poison – by perverting its immense power in awakening the downward, animal instincts?

Every human being is basically fond of rasas (emotional secretions). Harmony of different kinds of rasas helps healthy progress of his life in general. The melody of music is supposed to be the most natural kind of rasas associated with the evolution

of life. Be that vocal or instrumental, melodious music does induce a soothing flow in the body and mind. The absorption in this rasa almost hypnotizes the singers (musicians) and the audience. The lyrics, composition of swaras, tuning and voice (or the sound of the instrument), all contribute to the quality of this rasa. Music, in one form or the other, is liked in every part of the human society ranging from the uncivilized tribal to the elite levels of the civilized and the educated ones. In the tribal areas, where the light of science and education has not reached even at the edge of 20th century, music has been existing since ages, because music is developed by the internal inspirations. One may learn or create it on his own. Nature has been graciously intelligent in offering this enchanting talent to the human race.

Scientific research has shown that the bliss of music is a latent food for all living beings. This element 'electrifies' the activity of consciousness. Ongoing experiments have shown encouraging results in increasing the physical power and abilities of many animals by the impact of certain kinds of music. This has led the scientist think of music as a potential source of 'energy'. In the initial days of its discovery, electricity was used for the purpose of holding (attracting) or throwing (repelling) different objects with force. Advancement of research in the related fields of science has now made this energy the sole source for conducting infinitely many activities in the physical world. This might happen with the power of music too. So that, the immense power of music will not only be employed as a source of ecstatic enchantment or for uplifting the physical, mental and spiritual health, but it will also become an indispensable source of energy like electricity.

The special composition of swaras specified for the sama gana of veda mantras are so perfect in activating different streams of energy from Sabda that sometimes a little mistake in the rhythmic chanting patterns of some special mantras (in some tantrika experiments) might result in giving rise to altogether opposite effect, if the erroneous pattern corresponds to an energy current (waveform) that is different from that aimed for.

This possibility is rhetorically illustrated in a story in the Puranas. It cites – “Once rishi Twasttha conducted an experiment on mantra sadhana in order to receive a son who would kill Lord Indra. However, due to a mistake of only one swara (in the chanting), he got a son named V—attasura, who was later on killed by Lord Indra because of his devil activities”.

The Indian —rishis had carried out intense research in the science of swaras and had also devised some chanting patterns that would always be useful for every one even if practiced by the people, who are ignorant about the sensitivities of the swaras.

In the interior of India, one might still find in practice some 'unbelievable' uses of musical effects such as – removal of poison after snake's bite by a specific rhythmic sound produced by striking a bronze plate; the cure of septic abscess and mumps etc

by music. A variety of mental diseases, including the psychic fear of a ghost etc, are also treated by the soothing effects of music.

Dr. Mesmer, the founder father of the therapies based on hypnotism, used to play a very soft and tinkling music to bring the patient's mind in a calm state and to harmonize the neuronal activities so that hypnosis could operate smoothly. Some of the modern medical doctors also opine that listening to melodious music is very useful for the people suffering from neurological disorders or mental diseases. The sound waves oscillating in specific rhythms of swaras (notes of the musical octave) are found to activate the growth of WBCs and RBCs during sickness. Due to an associated improvement in the defense mechanism of the body, several severe diseases can also be cured without inducing any side effects by such applications of music.

Collective singing is more effective than individual ones. When many people sing together at a coherent frequency, the superimposition of their swaras creates a unique current of joy that generates internal peace and bliss in the hearts of all singers as well as the listeners around. During the festival of Holi, all the residents of a colony individually bring small numbers of dry woods and collect them to burn a huge holi and benefit from its intense thermal energy and disinfecting the surroundings. If each family had burnt its own small holi then none would have gained anything from its short-lived flames. Collective efforts always bring multiple compounded effects. The same is true of the effects of music.

Collective singing during the processions, rallies or military-marches trigger manifold effects of the motivating message imbibed in the lyrics. Collective singing of prayers and chanting of hymns during the religious ceremonies similarly offer multitudes of the benefits associated with the individual swara pattern. Deep mental absorption during the musical programmes of bhajan and kirtana clearly demonstrate such effects. Enthused repetition of few lines of a simple devotional verse in a musical tune in an emotionally stimulating style is called (Sam)kirtana. The singers and the audience all get immersed in the melody of such songs and are often seen swinging their bodies along with the rhythm of the songs. The samkirtanas are found to be very useful in activating natural vibrations in the nervous system and thereby offering intense peace and happiness. The tradition of collective singing observed in many Hindu families during the religious festivals or social occasions of wedding etc is indeed a healthy practice in this regard.

When we talk of music, we must note that it should be designed according to the basic principles of the science of swaras. Undisciplined uttering of some songs in haphazard patterns of swaras cannot be regarded as proper singing; it would be no better than crying or screaming. Performing vocal or instrumental music is an art. One has to practice perfection over the swaras, consistency of the amplitude and tune etc before learning this art. People who regularly practice good music are protected

from the psychosomatic disorders that could give rise to epilepsy, nervous break down, hysteria, headache, or, impotency etc.

One must also be cautious about the quality of music along with its sincere practice under proper disciplines. For instance, the singing of vulgar, erotic or demoralizing songs would create corresponding excitations or depressions in the delicate functional centers of the brain and inscribe the related adverse tendencies in the mind. Dedicated practice of sacred classical music of inspiring quality is certainly fruitful like a Yoga Sadhana. Such music is the key to creating liveliness and peaceful progress.

## Immense Power of Music

Collective singing plays important role in up keeping the mental and physical health of people in general. Old time Indians traditionally used to sing devotional songs collectively en route to the temples or during pilgrimages. Even now, many devotees sing while performing a parikrama. The people of Bundelkhanda sing the touchy songs of viraha (separation from the beloved) while returning from a pilgrimage of places like Mathura; some devotees of Lord Siva sing 'Bhola Bama Bama' etc. They believe that they carry the religious virtues from the holy places through the medium of music. Singing, dancing and other musical performances used to be an integral part of all festivals and religious and social functions in the old times. On special occasions, almost the entire nation used to 'flow' in the 'currents' of musical melodies. It was due to the effects of these collective waves of swaras that the evil elements were eliminated from the subtle environment and the atmosphere was purified. As a result, the propensity of various diseases used to diminish, agricultural growth was healthier and the trees used to blossom with tastier fruits.

Today's society has experienced an increasing trend in the occurrence of diseases and adoption of untoward habits by people from all walks of life partly because of losing interest in music and practices of collective singing.

The medical doctors of the present times opine that – when several people sing together, the collective flow of the superimposed swaras, along with their joyous sentiments, generates a 'current' of alacrity and cheer in the atmosphere. This amplifies the happiness and internal peace in the hearts of all the people around. Occurrence of such positive effects can still be seen in the villages of India during the month of Phaguna when all the villagers collectively sing the folk songs of phaga and even the children and old fellows swing with joy and enthusiasm like the youths.

Whenever we listen to music with mental concentration, our limbs begin to oscillate with its melody. This shows that our inner sense has got an intimate natural relationship with music. It is said that the lively glow of the soul might wane in the absence of serene music. Every aspirant of self- development should benefit from the creative effects of (vocal or instrumental) classical music. The paramount importances given to the Nada Sadhana in the sastras of yoga also reflect the eternal place of swaras in human life. A swara yogi (a sadhaka of music) is supposed to attain the state of self-realization more easily as compared to the sadhaks of the other kinds of yoga.

The faculty of music is bestowed on human life as a special boon of thee. Material gains may be difficult to be acquired by everyone but the joy of music is freely available to all humans like the natural gifts of sunlight, water and air. Everyone can try to protect his physical body, mind and the soul from the evil elements by taking support of the great power of music.

An internationally recognized singer, Enrico Caruso writes – “whenever my ears would be echoed by the melody of music, I used to feel that my soul has been linked with the latent source of life. In this state, I used to forget all pains of the body and the mind; even thirst, hunger and sleep had no chance to disturb my engrossment... This rare experience bestowed intense rest and unique delight. Ever since I experienced this immense potential of music, I had realized that there is no boon of Nature for the human society which can be regarded greater than music in any respect”.

Caruso remained a dedicated sadhaka of music throughout his life. In the initial stages of his practice, one of his teachers had even told him that his voice is not suitable for singing and that the amplitude of his swaras is not stable. But, Caruso continued his strives with unperturbed confidence and overcame all hurdles by a long-term dedicated practice (sadhana) of swaras. He attained eminent expertise in vocal music and proved that music is not related with the audible quality of voice or the crude sound of a musical instrument, rather, it has an inherent relationship with the heart – the sentiments and emotions. Anybody could be blessed by this divine gift by awakening the inner emotions.

Music initiates spiritual enlightenment by triggering the realization of the subliminal world of emotions. As the real effects of music deal with the inner center of the mind and heart, the extrovert approach of the occidental world has not yet been able to make deep investigations in this field. Nevertheless the analysis of the gross effects on the human body and mind and on animals and plants itself has shown such significant results to the western scholars that they are also convinced about the immense power of music.

Once, when a patient was being taken to the Operation Theater in a hospital in England, he heard a melodious tune of music, which was being played in a nearby building. The influence of this music on the patient’s mind was so immediate that he got up from the stretcher and went straight up to a window to look for the source from where that musical flow was emanated. His doctors were surprised to note that the impact of music had suppressed his ailments.

Many dental surgeons in the USA arrange to play certain kind of music with the help of an automatic electrical instrument during the teeth removing operations. They have found that their patients do not feel the pains because of the ‘magical’ effects of the background music. Several experiments have also shown that labor pains of pregnant women are also reduced by the effect of inducing music. The ‘torentala’ dance of Italy is popular because the combined impact of the music of several instruments played simultaneously along with this dance is found to cure mental disabilities and insanity.

The Indian history is full of such examples that demonstrate the immense power of classical music. Even the vibrations of the light music generated by bhajans, kirtans

and some musical instruments are found to have soothing effects on the human body and mind. People, not having an expertise in classical music, could also benefit from such effects.

The process of singing sastriya ragas is regarded as a physical exercise of yoga. Not only the tongue, mouth, lips and palate, but also the portions of the nerves from the naval up to the brain are stretched and compressed regularly in this exercise. This way, the entire body above the waist is subjected to a rhythmic exercise in this practice. This movement also stimulates the neurons. The practice of singing in the druta, vilambita and madhyama laya causes specific pressures on the tongue, chest, heart, breathing pipe, vocal cord and the nervous system. Each of these body parts becomes healthy and strong by a regular exercise of singing. The lungs are cleaned, so the possibility of the diseases like tuberculosis is eliminated. The gums and the stomach also benefit from the exercise of singing.

When singing or dancing is practiced along with certain musical instruments, it involves rhythmic movements of the head, neck, shoulders, chest, stomach and the limbs; the blood flow is harmonized thereby that keeps the body energetic. The instruments like flute (bansuri), lyre (bina), clarinet (sahanai) etc are played by controlling the wind flow from the mouth and therefore help strengthen the tongue, wind pipe and the lungs. Because of a rhythmic stimulation of the neuronal circuit and of the nervous system as a whole, singing (or playing on an instrument) of the classical ragas is found to create positive effects on the psychology too.

Listening to the vocal or instrumental music is not less beneficial than practicing it. Its soothing effects generate activity, enthusiasm and liveliness in the listeners. The impact of music on the listeners help them get rid of a large number of physical and mental ailments or disorders including – excessive thirst, burning sensation in the body, weakness, drowsiness due to some toxic effects or due to intoxication, yellow fever, frequent urination, loose motions, high blood pressure, ear pains, asthma, cough, irregular heart beating, feverishness, insomnia, dullness, mental instability....etc. The process of recovery is slow but consistent. How much time one would take for complete cure depends upon the type and the extent of the disease. Nonetheless, it is sure that regular touch with melodious music offers significant support in fast recovery.

In general, the singing of devotional songs, auspicious hymns, prayers, the songs of maternal affection, singing in front of a child, collective singing at the places of natural beauty, near a pond or on a bank of a river or in temples etc – are found to have greater impact on the physical and mental potentials.

The effects of music have been found to be positive on the animals too. It is seen that by the hypnotizing impact of the nada (music) of a venu, the snakes become humble and dance in the tune of its melody. In several forests the hunters trace the deer by playing the lyre to attract them. Sonorous music is played near the cows at

the time of milking them. The milkmen keep their radio sets on near the cows so that the effect of music would stimulate the neurons of the cows resulting in higher amounts – nearly 15 to 20 % extra, of milk released by them. It is believed that by further investigations, suitable musical patterns would be designed to influence the more violent animals like the bears, tigers and lions.

The effects of music are also noticed in the botanical world. Dr. T. N. Singh, head of the department of Botany in the Annamalai University has, with the assistance of Ms Stella Punaiya, successfully conducted several experiments of stimulating the different species of plants and increasing their growth rate by special effects of rhythmic sound (of music). Some other experiments of the agricultural sciences have shown that the production of the crops of rice and bananas increase along with a rise in the weight of individual pieces by the effect of musical 'currents'.

The humane sentiments of generosity, compassion, selfless service, mutual harmony and serene love are awakened by the practice of listening, singing or playing classical music. Music is also being used as a hypnotizing tool in some psychological treatments and also in some surgical operations. American scientists are actively engaged in research on the plausible effects of music-therapy.

It is said in the Indian Sastras that the knowledge of music described in the S<sup>3</sup>ma Veda is adeptly implemented, it may draw the entire animate and inanimate world into a state of trance. Let us hope that the modern world would make serious attempts in deciphering this latent knowledge and thereby evolve constructive applications of the immense power of music.

## Music – A Source of Life

Music in the modern era is largely regarded as an important art for entertainment and mental peace. This attitude has now gained newer dimensions as the scientists have realized music as a source of immense power. If thorough research is pursued in the direction of deciphering and analyzing the different latent effects of music, this stream of knowledge could also be employed for the development of a healthy and happy society.

Music as it is practiced and ‘enjoyed’ by the masses in India today is not based on the deep science of swaras. Rather, it is often like ‘fashionable’ charm or ‘craze’ of some hard beat western musical patterns that has hypnotized the masses by way of the films and audio cassettes and CDs. The mixed culture music aimed at momentary sensual excitation and pleasures has, to a significant extent, weakened the social character of its fans and has led them towards a downward path. Emotionally soft youth have been the major targets of this adulteration of music.

Illusions about classical music must be eliminated from the young minds. The ancient —Rishis had foreseen that the tremendous power of music, if misused, would lead to disastrous effects on human psychology. They had therefore developed this faculty under the auspices of religion and spiritual philosophy and had recommended certain disciplines of sadhana for its practice and propagation. This by no means should be misinterpreted as though classical music is not useful or cannot be learnt by the common people.

The 42nd and 45th hymns in the Nada Bindu Upanisada mention that – “as the humming bee, while collecting the honey from the flowers, does not desire for the latter’s fragrance, similarly, the mind absorbed in Nada (eternal swaras of music) does not desire for any sensual pleasure. A snake engrossed in the melody of the music of a bina forgets its fragility; similarly, mental concentration of a sadhaka of Nada increases and his tendencies of sensual and worldly desires are weakened successively. If the agility of mind is compared with a deer or a water current then Nada (source of music) would correspond respectively to – a net, used for capturing the deer; or, a strong shore which hinders the forceful flow of the water currents”

This Upanishad describes the power of Nada immanent in music as a manifestation of the eternal power of the (Para)Brahm. It is mentioned here that by the sadhana of this nada, the sadhaka is absorbed in such a wonderful music of the divine swaras that he begins to realize the entire cosmos as an activity of a single Prana, a reflection of the Para Brahm.

The omnipresence of the Nada (vibration of the eternal swara of Omkara is also affirmed by the scientists, who have discovered the sublime vibrations of an eternal sound even in an absolute empty horizons of existence. The continuous flow of this

hidden sound gives rise to the orbital motion of electrons and originates all activities in the cosmos.

Our thought waves and the impulses of the brain, are also basically motivated by the vibrations of Nada although we do not experience them because of their supernatural frequencies. That these subtle vibrations continuously activate the human brain – becomes clear from the fact that every human being is always thinking (in the conscious or subconscious mind) about something or the other throughout his life.

As the realization of the thoughts is a reflection of the vibrations of the Nada Brahm in one's own mind, the quality and strength of one's natural thoughts depends upon how well his brain has received those vibrations and how well his mind has reacted to the corresponding impulses. Shallow, inert or dull state of minds would only generate some gross (related with the physical state of the body) thoughts. But the pure, enlightened and awakened minds, trained to concentrate upon the subtle Nada would receive the divine signals more rigorously and therefore generate righteous thoughts – reflecting intense intelligence, matured prudence and foresightedness. Further refinement of the mind sets its receiver in tune with the frequency of the latent swaras of Nada and the sadhaka gets linked with thy inspirations indwelling in Nature and within his own consciousness and thereby enjoys eternal bliss. This is indeed the greatest spiritual bequest of the sadhana of music. The spiritual masters describe that when the mind captures the subtlest kind of thought waves, it perceives the anahata nada of Omkara and his soul unites with the Para Brahm.

Of late, the scientific aspects of the Sastriya Samgita (Indian classical music) have also attracted occidental countries. Many enthusiasts – especially the youngsters in the developed countries like the USA, Britain, France and Russia etc are now learning this music largely because of its positive effects in the physical (physiological) and psychological domains. As a consequence of this trend, quite a few of such youths are also learning some Indian languages. They feel that practicing the Indian classical music bestows immense peace.

Dr. George Stevenson and Dr. Vincent Peale, two distinguished psychologists of the USA have suggested a four-point remedy against mental stress. In their words, “The three solutions – namely, (i) engage yourself in some physical activity whenever you are angry; (ii) in the instances of failure or upsetting situations, occupy your mind with the reading of inspiring literature; (iii) exercise regularly – become complete only if they are complemented by the fourth one, viz, listening or practicing melodious music”. The creative effects of good music not only offer mental peace but also shower the nectar of internal bliss.

Although the ancient knowledge and expertise of the Indian classical music that used to create supernatural effects (like kindling the lamps by the dipaka raga... etc,

as discussed earlier) is not available today in toto, some of its amazing applications are still alive in some parts of India. For instance, in the eastern parts of Uttar Pradesh, playing a special musical instrument is often found to neutralize the toxicity of snake's poison. Different kinds of sicknesses are cured by striking thin metal plates in different musical tunes and in the interior of some other states. The harmonious balance of the five basic constituents (the Panca Tatva) in the body and the tridosa (defined in Ayurveda) of vata, pitta and kafa are controlled by the ups and downs of the swaras that also help maintenance of some rasas (secretary vital elements). This is found to result in excellent improvement in health.

Despite the nonavailability of complete knowledge about the ancient ragas, singing of the raga Basant in the season of spring still exalts new enthusiasm and cheer in the singers and the audience. The practice of raga Bharati and raga Bhairavi in the early morning indeed awakens devotional sentiments and thus helps purify the mind and upkeep its health. Today, we may not be able to watch any Tansen, being so much excited while singing the raga Dipaka that his skin would turn dark due to the heat generated by this raga. (It is said that Tansen's complexion was brought back to normal only after special musical effects of 'cooling' generated by the songs in some soft female voices.) However, the deep mental absorption and emotional stimulation is commonly observed in the expert singers of the classical ragas even today.

Because of its high impact on human psychology, music could be effectively used as a powerful medium for inculcation of moral character of the youths. The band of military not only inspires the marching soldiers with almost the same kinds of thought waves, it also alerts the listeners around and awakens the feelings of patriotism. Such is the impact of especially composed music! The Greek philosopher, a great thinker of this era, Aristotle, used to say that – "Any kind of sentiments or emotions could be awoken by appropriate combination of musical notes and tones." A former governor of Maharashtra, Mr. Prakashji had once stated that music should be made a compulsory subject in the schools. The effect of music would naturally develop stability in the mental concentration of the students and increase their alertness. These two qualities would substantially help cultivation of other virtues in the young minds.

Almost every God in the Hindu mythology is associated with some kind of music. The pancajanya (divine bugle) of Hrasikesa, damaru of Siva, flute of Krishna and vina of Saraswati..., etc are well known in this list. This indicates the divine place of music as recognized in the ancient Indian philosophy that regards Nada to be the fundamental source of creation of life and of everything that exists in the universe.

The vibrations of music are omnipresent in this world; music is the vital energy required for the existence of life in this world and it is the inspiring power of every activity of Nature. The sublime element of music is so powerful that its adept use could motivate our ordinary mortal lives towards the noble path of immortality. It

could transform our despair into optimism and content and educe our depressed and vexed minds towards the high realms of divine bliss and peace.

## Self Development and Emotional Transmission by Music

The ancient —Rishis had experienced music as Raso Vai Sah – that which is the source of eternal rasas. The scientific investigations of the modern era have shown that music stimulates the secretion of specific hormones (also called rasas, in Sanskrit language) which affect the mental and emotional status. Classical music, if practiced with devotion can also vibrate the subtle body and transform the inherent tendencies. The swara yoga–sadhana of music can also elevate the individual self like any higher level spiritual practice would do. The sadhana of music awakens the latent sound of the Nada existing in the Self. Refined music can help the soul enjoy the state of ultimate bliss.

It is because of the eternal relation between Sabda and Nada that the Veda Mantras are expressed as chandas; each mantra has specific patterns of permissible tala, laya and gati that describe the valid and effective compositions for its chanting (samagana). Like a particular radio station can be ‘heard’ (received) at a particular frequency, a mantra can also be activated and its sadhana can lead to the attainment of siddhi only if its japa is performed in its originally prescribed shastric musical pattern(s).

Creation of music is based on eternal principles of science. Therefore its practice can never be futile. The materialistic man of today has lost the sight of natural peace and happiness in life. Vexed by the consumerized attitude and worldly possessions, people in the developed countries are now searching for internal peace and have seen the silver line in the treasure of music.

Since the recent past, music has gained significant attention in the industrial developed countries. The Yamaha Company of Japan has played major role in popularizing the Piano there. This company had initially arranged a series of piano concerts to train the children in the age group of 4 to 5 years. This program has by now also attracted a large number of young and old people from the occidental nations like America, England, France and Germany. There are over 10000 schools of Yamaha spread all over the world where the little ones are taught some music before they start going to the schools.

The increasing interest in music of these countries is clearly reflected in the following data. A piano vendor in Italy had imported 2,300 pieces of this musical instrument from Japan in the year 1977; in 1980 this number was 5500. In a single year 1981, the number of pianos sold in the USA was equal to the total number of this instrument sold there during the past 128 years; this was a record sale for the Sinewy and Sons Company (the sales of the other companies were not included in the remarkable record!).

Until the past four decades, the programs of music were usually organized in Europe in the marry- making season of spring only. But, now such events keep taking place throughout the year. In 1982, about 250 popular concerts were

organized in France alone; where each of these programs was a successful hit for several consecutive weeks. Similar trend was observed in Switzerland, where, during the same year, over 6500 people had gathered in the international jazz festival to listen to the orchestra of one thousand jazz- musicians. Till date, organizing musical concerts in Western Europe is considered to be an extremely profitable business. The Milan Company had published serial course material (lessons) on the art of playing guitar. Its first edition (published in 1982) itself was sold in huge number – 250000 copies! Beyond its expectations, the company had to bring out higher number of prints for the second edition.

Rising trend for music is also seen in Britain since past few decades. Thousands of recognized music centers of different levels are running there at present. In 1981, about 350000 students had appeared for a board exam for these schools. There are about 5000 such schools in France at present. The 675 music schools in West Germany had housed about 2400 teachers and 65000 students in early 1980s; over 50000 aspirants could not learn music there owing to the non availability of sufficient number of schools. In an annual selection program for ‘young talents of music’ in Germany, about 10000 students had participated in the inter-state competitions of which about 100 were selected for the national team which presented its concerts within and outside that country.

In view of the craze for music in the younger generation of the occidental countries, Japan has developed a computerized technique by which even the beginners would be able to create musical compositions with ease and learn the initial lessons (of the synchronized variations in notes) on their own. About four million products of the first design of this instrument, named VL-Tone, were sold in 1981 alone. Inspired by the effects of music the Russian scientists had, around the same time, carried out path breaking research on applications music in agriculture. Their experiments had shown increased productions of wheat crop in the fields where melodious music was played throughout the period of its growth; this crop had also shown higher resistance against hoarfrost.

A British chief surgeon, Don McKenzie had once remarked that a larger proportion of persons died during the wars of this century are of those who died because of noise than those who were killed by the direct attacks of the bombs. The destructive effects of Noise pollution and high or low frequency sounds are just opposite to the creative effects of sound present in the harmony of swaras and the sonorous music.

The melody of the swaras of music is of paramount importance in the awakening of devotional feelings. The Sastras state that – Swarena Sallayeta Yogi (The yogis attain trance by the swara sadhana). Saint Karlail used to say – “The Khuda (God) follows music” — that is, thy power can be attracted by the call of music. In the words of a noble laureate, poet Ravindra Nath Tagore — “The world talks to me by means of the pictures. My soul gives response through the medium of music”.

According to Prof. A. Hunt, music is the best medicine for a broken heart. The great scientists of the present era – Albert Einstein, felt broken from within when he saw the disastrous misuse of his discovery of atomic energy. He had taken the moral support of playing violin to gain mental peace in this state of gloom and despair during the last few years of his life.

The ancient Indian scholars of music had designed a variety of musical compositions (ragas) for each of the navarasas<sup>7</sup>. A perfect combination of the raga, rasa and time generate remarkable effects on human psychology. Singing of raga Bhairavi in the early hours (Brahm Muhurta) before dawn awakens the Bhakti rasa that effectuates mental purification and refinement of mental health. This combination of raga Bhairavi, Bhakti rasa and the Brahm Muhurta inspires asceticity. The special ragas, for the Vira rasa when played during the war times, on the contrary, trigger exciting enthusiasm and hilarious courage among the soldiers.

In tune with the development in all faculties of science and arts, the field of music has also been explored for the positive as well as the negative effects in the modern world. Using specific scientific principles, such musical instruments are devised that will produce special rhythmic flow of sound to hypnotize the enemy's soldiers during the war times. Development and propagation of noisy and erotic music has also extended the list of obnoxious effects of music in this century. Scientific research on the positive effects has, on the contrary, offered promising applications for the humans as well as the plants and animals.

It has been observed that even the extremely fragile animals like the rats become quiet by the melody of some musical instruments. Dr. George Kerawitz had done many such experiments where the music of piano had almost 'forced' the rats to remain quiet and still. The syl fish is well known as a music lover too. Until recently, the Portuguese fishermen often used to capture these fishes by attracting them through the music of piano. Dr. George Hatz, a specialist in forestry, has found several chimpanzees and gorillas of the Kangyo Forest of Africa to have a natural tendency of being attracted towards music. He has trained many of these wild animals like obedient students with the help of music. The dry and cruel hearts could also be inspired by soft humane sentiments with the help of intensive music. The experience (cited below) of Shri Vadivellu, a famous violinist of Travencore is a live example of this fact.

It happened in Travencore during the regime of the king Swatinirunalu. Shri Vadivellu was the royal musician in his kingdom. The glory of Vadivellu's music had spread around the entire nation. Once he was so much engrossed in the rasa of music during his daily practice that he forgot to attend the royal meeting. The king felt insulted by this behavior and banished the dedicated musician from his country. Many of the king's advisors and royal officers requested him to excuse the musician. They advised – "Practicing of pure music is like worshipping the God. Therefore, if Vadivellu had forgotten to attend the office due to his absorption in this devotion, he

should not only be pardoned but also be recognized respectfully for his unperturbed love for music. This land would become lifeless without the shower of music....”

The excitement of ego makes one merciless and unreasonable. So was the case with the king Swatinirunalu. He ignored the justified arguments and advices and expelled Vadivellu from his state.

Poor Vadivellu crossed the borders on foot with his vela (violin) and a small bag containing a handful of essentials. During this painful journey whenever he felt tired, he played his violin and removed all the fatigue by the delight of its music. (Natural and pure music indeed gives fresh energy and liveliness. If we had realized this and had not flown in the erogenous music and songs of the films and the artificial pop (jazz, disco) music, we would have saved ourselves from the tiresome life style of the modern days).

When Vadivellu was passing through a forest, several robbers attacked and snatched away all his belongings – including the violin. Vadivellu requested – “Oh! Brethren you may take everything but please return my vela (violin). You do not know that music is my life. Why only mine, it is the vital energy for every human soul. Haven’t you seen how laborers in the villages gather in the evening at one place after the day’s hard work and relax in the joy of their folk music? This music takes away all their pains and gives them invaluable joy in return. Kindly give back my musical instrument so that when there will be no other support to survive, I’ll eliminate the thrust and fatigue of my soul by its music”.

The hoodlums pitied and returned the violin to him. As a little child cheers after meeting his mother and sticks to her, similar was the condition of Vadivellu. He was overwhelmed! He sat there, tightened the wires of his instrument and started playing it that very moment. Soon the sonorous tune of violin was flowing in the air of the forest. The dacoits liked this music. Circumstances may make a man cruel and hostile but the humane sentiments of compassion and love remain alive in the interior of his heart. The vibrations of the swaras of violin also touched the emotional centers of these gangsters and opened up the blow of their otherwise ‘buried’ feelings of love and mercy. They sat quietly around the musician. Vadivellu was playing his violin with deep concentration. The bandits’ hearts had flown in the lively currents of his music. They had even forgotten about themselves; they realized this only after the music stopped. Their eyes were wet by the tears of remorse and by the thrill of unprecedented delight. This expressed their repentance on their sins and their love with the music and with their own souls. These sentiments were so far dormant and away from them but were now roused by the call of music.

The transformed bandits returned Vadivellu’s belongings and safely reached him out of the forest. They also touched his feet and pledged for not robbing anybody in future. When the news of this incident reached the king Swatinirunalu through the villagers, he also realized the power of music, his ego was suppressed and he

ordered to bring back Vadivellu with due honor. The life in Travencore was once again cheered by the lively presence of pure music.

Music is not only a field of knowledge and art, it is a stream of power too. The brain and the mind might get satisfaction by many other external means as well. But, the only medium to contend the emotional core is – the soothing effect of music or spiritual illumination. In the ancient era when music was developed and practiced as a part of the sadhana of Nada Brahm, its power was indeed supernatural. It could control many activities of Nature – the jada and cetan components. In spite of losing its original dignity and true identity, music is still effective in our lives in many respects. Music is more powerful in awakening the internal emotions than speech, literature or any kind of art is.

Many examples showing the influence of music on all living beings are available in the modern history too. One such incident is quite popular in this context: Once king Aqabara became so furious against the celebrity poet Magh that he ordered for crushing the poet's body beneath the feet of a mad elephant. All the members of the royal council saw injustice in this order because Magh had not committed any crime. But they were helpless; nobody had the courage to raise his voice against the royal order. They organized a secret meeting to find out a solution to save the life of the poet. Ultimately, it was decided to take the help of the royal musician – Tansen. The plan was kept secret.

Next day, as per the order, Magh was laid down in a tight position in an open ground surrounded by hundreds of people – the officers and the general public. A mad elephant was brought there at the scheduled time. As the giant animal started moving towards Magh, a rhythmic blow of raga drupada played on tabla, also began to flow in the atmosphere. The effect of this music was so intense that the elephant got totally hypnotized and started swinging and dancing like a drunken man at the same spot instead of moving ahead. All the viewers were also amazed watching this unprecedented scene under the influence of music. Until the music was on, the elephant remained 'stuck' to that particular spot only. Fortunately the king Aqabara had also come to know about the 'unbelievable but true' incident by this time and had realized that his hasty decision was wrong. Thus, the life of a great poet was saved by the great power of music.

Whenever we talk about the immense creative power of music, we must recall that this pertains only to the pure, classical and naturally evolved music. The kind of music now practiced and 'enjoyed' by the larger part of our society is just the opposite. The harmony of life, immersed in the rhythm and swara of divine music, might have been a reality in the Indian society several thousands years ago. Now it is mostly the filmy music with vulgar or erotic lyrics or the loud and exciting pop and disco beats that has become the medium of 'cheap' entertainment for the masses.

The popularity of the pop music in the younger generation of the western countries has cultivated arrogance, erotomania and indiscipline among the young minds in general. Mr. Winlelu, an American musician had invented this music about four decades ago. Because of the 'pop – pop' sound of its rapid beats, it was given a name Winolelu-pop which later became known as pop music. The series of obscenity in music was further expanded by the development and use of the 'rock and roll' and the 'disco' in this class of music. Alvin Pressley was quite successful in popularizing these creations of his talents of music. This type of music triggers the youths to 'dance' by making ugly poses and oscillating different parts of the body in excitation.

The inventors of this so called modern music must have studied the effects of rhythmic sound in detail to select the combinations which would rapidly stimulate the subconscious mind.....The experts of deeper knowledge of music opine that the repeated high- pitched, 'u..u..u..' like sound produced in the rock music significantly stimulates sexual feelings in the singers and the audience. The use of loud drums and actions like – 'coquetting the hips and buttocks in the rhythm of the sound of the drums' – accelerates the sensuality and further adds to the insidious effects of the pop and disco type music.

Soft, melodious and precise (with respect to the completeness of the basic swaras) music supports the physical, mental and even the spiritual health. Loud, fast and exciting music, on the contrary, often proves to be pernicious. An incident that occurred in the Olympia music hall of Paris a few decades ago sets an evidential example of this fact. When a music concert commenced here – amid applause from all direction of this hall, packed with audience – with a soft and sonorous music, people were soon immersed in its melody. Suddenly, as the tune of the music changed a new composition was being played, people felt somewhat uneasy....

The new exciting tune (of pop music) was being played there for the first time to test its effects. Its impact was so intense that most of the audience got up and started shouting in excitation; some of them broke the glasses of the surrounding windows, some women had even torn their cloths in that abnormal mood of 'musical' aggravation; some people attacked each other in that maddening excitation. The situation fell out of control and the organizers had to call up the police and arrange for the hospitalization of those injured. The conclusion of the experiment was that the new composition, which was a mixture of rock and pop music, creates terrible obnoxious effects on people's mind by invigorating animal instincts. As a consequence, the government banned that particular composition and musical tune.

It is amazing how a little deviation in the frequency, pitch, eats and the sequence of swaras sometimes makes so much difference in the quality and effects of music. There is enough scope in investigating creative compositions, suitable for the treatment of the ailing humane tendencies in today's world. Because of the intimate

relationship of music with the consciousness, the emotional state of the singer (or the musician) also makes fine difference in the impact of his or her music.

Many of the incidents associated with king Aqabara and the great musician Tansen illustrate the above fact. Once, when Aqabara was extremely pleased by Tansen's song, he asked in admiration – "where did you learn such a wonderful music?" Tansen replied – "From my revered Guru Haridas, Sir". "Then why don't you take me to him sometime so that I could also have an opportunity of listening to his great music!" – was Aqabara's subsequent query.

Then Aqabara, Tansen and some of their friends went to visit the guru. Swami Harid<sup>3</sup>s was a saint, whose life and music was fully devoted to the God. He used to sing devotional songs only. He sang an inspiring bhajan on Aqabara's request. The king enjoyed a unique inner bliss in that song. After paying due respect to the swami, he returned back with his group.

On another occasion, Aqabara asked Tansen to sing the same bhajan in a royal conference. Tansen did sing it with the same perfection of music but Aqabara could not feel the same depth as he had upon listening to swami Haridas. He expressed his curiosity – "why I could not find the same bliss in this song today?" Tansen humbly explained – His Highness, I sing for your pleasure but my guru sings in the devotion of the Almighty king of all the kings in the universe. That is what makes the great difference between his music and mine.

All streams of art are like double-edged swords. In one form they may be used for developing creative talents while the other form could encourage animal instincts and nurture evil tendencies. The effects of music are also of dual types. We must understand the dangers of the so called popular and upbeat, enchanting music on the psychology and the overall cultural development of the society and come forward to replace it by refined, constructive and soft, sonorous music of the light and classical category. Sacred, naturally melodious music is the desire of the soul. Its perfect practice could inspire divinity in all human beings.

Creative effects of high quality music are often realized by its practice through the medium of *vani* and the instruments. In spiritual experiments, the *sama gana* of mantras and the energy of *yajna* fulfill this task. Research on these aspects would provide brighter opportunities for divine illumination of human life through music and spirituality.

## Music and Spirituality

Dr. Rajendra Prasad, the first president of the republic of India was of the opinion that music and spirituality have strong relationship with each other. In this context, it was stated that – “Classical music is a precious gift of the prehistoric era to the Indian culture. The specialty of this musical heritage which is not found in the music originated elsewhere could be attributed to the high regards our ancestors had for music.” The Indian classical music had not emerged as a medium for momentary entertainment or as a consequence of unfulfilled desires. It had, on the contrary, originated from the intrinsic feelings of unification of the individual self with the cosmic vibrations – as a spiritual sadhana that provides divine bliss and enables illumination of the soul and conjugation of the enlightened individual consciousness with the Para Brahm.

Our forefathers had realized the implicit spiritual impact of natural music in the early phase of the advent of human civilization and culture. They had developed this branch of knowledge in accordance with its divine character. The classical music designed and practiced by them was aimed at inducing higher levels of spirituality in every entity existing in the Nature. By way of their teachings in the Sastras, they had also made arrangements so that this music would become an integral part of people’s life. There is possibly no culture other than the Indian culture that still remains enriched by the classical music after the laps of thousands of centuries.

Magasthaneze had found the Indian race to be more fond of good music as compared to the other people. The following quote of Magasthaneze has been cited by Aryan in his book entitled ‘Indica’ that was written about 150 B. C. – “Indian social and religious system is so structured that music continues to occupy an important place in the public and personal life here”. No ritual of the sodasa samskaras<sup>8</sup> is performed without some devotional and traditional music. The farmers working in the fields, the women grinding or cleaning the grains or the people performing a religious worship in a community, always collectively sing special songs suitable for the occasion. Music is an integral part of all festivals. Music seems to be a means for offering internal peace and mental and physical energy and also maintaining the dynamism of life in the Indian society.

The Indian classical music had made peerless contribution in the areas of spirituality and culture. A common man in India, although illiterate, would not be totally blank about the importance of asceticity and spirituality. Mr. Cousins has expressed similar thoughts in one of his recent articles published in ‘The Harijan’ magazine.

Mr. Cousins has mentioned that once during his visit to a village in India, he had had a long and thorough discussion on philosophy with a villager there. The depth of knowledge of this villager impressed him. While leaving the village he asked this

fellow to write his address on a piece of paper.... What a surprise, that man did not know how to write! The author (Mr. Cousins) found it remarkable and wrote – “In spite of being illiterate, a common man in our country can possess such a scholarly knowledge! It must be the effect of our tradition of teaching religious and philosophical points by means of songs and musically recited stories extracted from the ancient scriptures.” This way of teaching directly inscribes the essence of knowledge in the hearts (emotional centers) of the pure, simple and faithful people”.

The poems of Tulsidas, Kabira and Meerabai are known by heart to billions of illiterate people in India even today. How is that possible? It is also notable that these great poets had never gone to any school or acquired the knowledge of reading and writing in any language. Their poems had emerged as songs, expressing the devotion of their souls. Since the past few centuries, common people have also been learning the poems of these saints by way of musical recitations only. These observations illustrate that music indeed lies at the core of the Indian culture and the mental development of the masses.

In the ancient times, the experts of music were also regarded as Munis (scholars and sages). Knowledge of shastrik music was necessary for learning the Vedas. The original Indian music was basically derived as an effective mode of collective teaching and sadhanas of spiritual elevation. Mr. Cousins further writes that – “I do not think we have given music as much importance in our modern lives as we should have. The Indian music, as practiced today, has by and large, shifted far away from its original serenity. Classical music has become a sort of fashionable hobby for the elite societies in the big cities. It has distanced itself from the common people. The folk music is kept away from the main stream music in general.”

“Music by definition is the power that can illuminate the dark corners of our lives. If the music of Tulsi, Kabir, Meera and Raidas could enlighten the downtrodden, illiterate and dull minds then why shouldn't today's musicians also be able to do that? In this era of freedom and democracy, our great musicians must come forward to link themselves with the common people as their founder teachers had been doing centuries ago. They must revive the healthy traditions that were lost in the attraction of the artificial urban life – cultivated by the British influence. The government and the public should also offer the same honor and facilities to these masters which they used to receive during the golden days of Indian history. The flow of music indwelling in the Ganges of the natural life style will purify it (music) and bring it closer to its original form”.

The author also warns that – “Linkage of music with the public life should not be mistook by diluting its perfection or maligning it by the dirty tastes of those who had never had an opportunity to enjoy the pure, good music. It should be noted that our (shastrik) music was originally developed in natural accordance with the serene sentiments of humanity. The rāgas have been given principal importance in our classical music. Performing this music would not be possible without perfecting the

practice of different ragas. The major objective behind structuring the ragas was to create a 'specific' flow of sonic energy in the atmosphere and induce specific thought waves and emotional enlightenment in the human mind and heart by a specific raga. This is how our music was so effectively used as a medium of psychological training and cure of a number of physical and mental ailments. We can never achieve similar effects by deforming or diverting it by making arbitrary alterations the original nature of our classical music."

All of those who realize the creative power of music must come forward to preserve its dignity as a branch of sadhana and not just a medium of entertainment. At the gross level, we should try introducing music as an integral part of our education system. This does not mean that it should be made a subject in the school and university curricula that the students have to pass. Rather, it should be taught and practiced to awaken the social or collective consciousness of our children and the youths.

Even the images of their manifestations were depicted by the rishis as holding some musical components. The representation of Siva without damaru or Krishna without murali (flute) would appear as incomplete. When thy identity is 'missing' without its presence, how can the human life be thought of as being accomplished without an intimate relationship with music? The idol of Goddess Saraswati holding a book in one hand and a vina in the other symbolizes that knowledge is dry or imperfect without the nectar of the deeper emotions roused by divine music. Our present education system has not bothered to nurture this balance. That is the reason why we do not see any co-operation or harmony between the heart (emotions) and the mind (thoughts) of the majority of people today. The Greek philosopher Plato had also emphasized the need of linking education with music. Our savants in the field of classical music and the trend-setting academicians must discuss this issue seriously in order to evolve its effective implementation.

The Sastras describe the ancient Indian classical music to have originated from the power of God Īiva. Millions of eras have passed through the road of time since then; many civilizations, many emperors, many ups and downs, many calamities and attacks have been witnessed by the Indian history. But the basis of the Indian culture and its classical music could not be uprooted in the limitless flow of events. The secret of this eternal existence lies in the strong foundation of spirituality that expands far beyond the domains of lifeless philosophy or doctrines. It encompasses – the Gita of lord Krishna, the bhajans and the ever lively emotions of the true devotees and every impulse pertaining to the divine source of humanity. The spiritual basis of our classical music is so strong that if we strive dedicated efforts to resurrect its originality, this music would indeed become a boon of God Siva. It would then enable making our lives so sacred and useful for the survival of humanity, as the holy water of the Ganges is.

A story in the Puranas states – Once upon a time, a fierce battle took place between the suras (divine powers) and the asuras (devil’s forces). This time, the suras were on the defeating side. They tried in defence to hide inside the ocean, the earth, the limitless sky....., but were caught by the asuras every where. The troubled suras then went to Prajapati Brahm<sup>3</sup> and requested him to suggest some protected shelter. Lord Brahma replied – “Oh, divine powers! Go and get immersed into the consciousness of the swaras which are omnipresent and universal”. The suras then discussed with each other and went to the Goddess Saraswati who could guide them such a shelter. She endowed them deep in the swaras of her eternal music. Since that time, music also became a divine power that could be worshiped by everybody. The Puranas further teach that – the devotees, who ‘dissolve’ themselves with sraddha<sup>9</sup> in the nectar of music, would be blessed by divine protection. The sadhakas of pure music – an expression of Nada Brahm and the disciples of the swara-sadhana also attain the highest realm of spiritual elevation.

## Music – Ecstasy and Compassion

Possession of property, might, beauty, intelligence and virtuous talents are most commonly regarded as the signs of dignity, success and destiny in the personal and social life at present. The lesser is the presence of these natural or acquired 'fortunes' in one's life, the lower is the status of his 'development' on the scale of common considerations. Most of these 'abilities' appear to be natural bequest that could not be acquired despite earnest desire and efforts in the gross domains of life.

Only few people realize that what stands superior to the above measures is the extent of unalloyed happiness in one's life. A blissful mind is indeed the key to the real success and internal peace that is the ultimate goal of life. The possibility of attaining these virtues lies entirely in one's own hand. This can be achieved by cultivating proper attitude and maintaining emotional balance – no external means or 'inherited fortunes' are required here. Emotional activities, educed by the afflatus of the soul constitute blissful nature. One should learn to strive for the best in accordance with the circumstances and achievements of his personal life and to compare own status with those who are less fortunate or less successful. This perspective helps one realize that he has got much more of fortunes, talents and potentials that many others have been deprived of. If we choose to confine our comparison to that with the richer, mightier, brighter people, we are bound to develop inferiority complex and lose our mental peace and happiness. Nobody could ever attain absolute success in the materialistic world. It is quite likely that what one particular person has acquired in life is what many others would aspire for, still he is found to be dissatisfied with his achievements. This remains an unending cycle unless one learns to accept that it is one's own attitude that counts the most in this respect.

Much deeper in the root of the attitudes or thoughts lie the sentiments and emotions. One's emotional character is a latent quality that cannot be seen or quantified like the so-called measures of success in life. If one's emotions are dignified and well set in-tune with the natural purity of the soul, they will be able to extract happiness from wherever it lies in the world; every circumstance, every condition of life would then be ecstatic. The juice or the essence of a fruit lies in its interior and not in its external beauty. The saliva of a bee makes this juice so sweet – like the honey. Flowers are not sweet on their own. Whatever sweetness they gain is mostly because of the bees which taste their juice.

The beauty of Nature pervaded everywhere is a wonderful source of zest and cheerfulness. If we observe it through our heart (emotions) then we would certainly find an ocean of joy around us. The wild life, the flowers, the trees and the tiny birds in the nests on these trees, the streams of water flowing from the tops of the green mountains – everything gives immense joy to the sages, who live in the forests. The children too, because of their heartiest closeness with the Nature, found it extremely attractive. They are literally pulled by the natural beauty around them.

Music is recognized as the most effective source of delight for the people of all age groups and from all walks of life. Music is usually generated externally by means of some instrument or one's voice. However, one can also generate it internally by the vibrations of the cheerful swinging of the emotions. It is the blow of the currents of the 'electrified' sentiments of the singer or the musician that vibrates the emotions of the audience too. That is why it is said that a complete music consists of singing, playing of a musical instrument and the abhinaya<sup>10</sup>. One's mood could be soothed by music if one practices it or attends its melodious performances.... Creation of internal music and attainment of immense joy therefore does not require any external means. Each one of us could try it, all the time, in all conditions.

Music programs (live or recorded) are especially arranged on the occasions of festivity and joy because it is most cost-effective in terms of its contribution in up-keeping the very purpose of the celebration. Awakening of internal music of emotions depends on one's motivation, sentimental depth, piety of character and inner strength. Listening or practicing melodious music offers instant happiness and helps gradual cultivation of the above qualities too.

As milk may be spoiled by mixing sour substances, nectar could be made harmful by blending it with poison, a tasty juice could be converted into a bitter one by putting some rotten substance, music could also be maligned by erotic perversion. Effect of such adulterated music is intense like intoxication and it awakens animal instincts in a very short time. After the momentary 'delight' triggered by this music is over, one finds oneself in a shameful state resembling what a drunken man would face when his excitation and influence of intoxication is over and he finds himself fallen down in a dirty drain.

Naturally melodious and refined music is a source of vigor and vivacity. Special compositions of music under different ragas are useful in the therapies against many psychosomatic and neurological disorders. Many insane, hysteric, impatient and cranky persons have been cured by music even in the present (twentieth) century that hardly contributed to uplifting the status of music vis-à-vis its ancient glory.

Music in its original form is a reflection of divine swaras. It indwells in the jada and the cetan component of Nature as a manifestation of the Nada Brahm. Pure music is therefore a source for generating compassion, beatitude and inner bliss. It can also be a means for controlling the mind and enlightening the hidden emotions. Every aspirant of realizing the eternal delight of the soul should endeavor integrating the activities and aims of his life with the divine beauty and perfection of music.

## The Universal Joy of Music

Music consists of a variety of ups and downs and tuning and fusing of the different streams of sound waves that trigger specific flow of swaras. The rhythm of the t<sup>3</sup>la in music regulates its currents to generate specific effects on the jada and cetan forms of the world.

Likewise the Doppler effect of the superimposition of coherent sound waves, the physical impact of certain compositions of the seven notes (the sapta swaras) of music could be so powerful that it might even quiver a concrete building or stir the waters in a pond or sea. The effects of music on the cetan are more wonderful. Be that a tree, plant, animal or a human being, can never remain aloof from the flow of swaras present in the Nature. No living entity could be indifferent to the marvelous impulse of music.

Music is an expression of the joy of Nature and has an intimate relationship with every vibration of Nature. The functions of the human body and mind, being most prominent among the ever-active centers of the expression of cetan, are naturally the most sensitive targets of the charge of music.

Music gives relief from insomnia – this seems to be well known and existing in practice since the time of yore in the form of the tradition of ‘singing of a lullaby by a mother to make her child sleep well’. With the advancement of technology, recorded lullaby and audiocassettes of especially composed music are also found in common use. Adults too listen to music to relax their body and mind by ‘bathing’ these conscious faculties in the soothing shower of the sonorous swaras.

One Dr. Macmullar of Chicago has become popular because of his music-based cure of mental disorders. Dr. Atkinson’s popular method, in which he used to advise the patients of insomnia to repeat the counting and reverse counting of numbers – has become less attractive before the music-based treatments because the latter also offers joy along with sleep. In the spiritual healing methods, the mental japa of O<sup>3</sup>k<sup>3</sup>ra is advised for total relaxation of the nerves – leading to deep sleep. The continuous japa of Omkara itself generates a unique flow of Nada (music, in its eternal form). Therefore, this practice also falls under the music-based therapies.

Change of weather or excess of chill or heat often cause varieties of ‘seasonal’ diseases. Cough and common cold, body pain, pneumonia etc are common complaints of the winter session whereas sunstroke, headache, burning sensation, insomnia, loss of appetite etc are frequent in summer. Some scientists have successfully used special preventive effects of the sound waves against such complaints and have found the results to be more encouraging as compared to those of the relevant medicines in general. Specific kinds of musical compositions are now in use as a background support for the initial training of meditation and some yoga exercises as well.

If we pay little attention we will find that every species of birds and animals around us have 'musical' voice; be that the tinkling of the beetles, singling of a nightingale or the grumbling of a frog or roaring of a lion – each has its own natural rhythm...

Experiments on many animals have shown that they can be trained within a period of 30 to 35 days in listening to music so that they would even forget about their food in want of their favorite musical tune. Gorillas, chimpanzees and other apes are used to some habits that are also common among human beings; for instance, they can be cheered up by good music. It has been observed that the melody of flute and violin are the most favorite music of these animals. The animals like hippopotamus and rhinoceros are known for their deadly sleep. Only the sharp pinch of hunger can break their lethargy and sleep. Interestingly, music has also been successful in doing so. It is observed that when certain type of music is played near them they get up and instead of moving elsewhere, they sit quietly and listen to the music until it is over. They find the music of saroda so amusing that they start swinging their heads in the rhythm and some unusual expressions are noticed on their faces at such instances.

Many a times the elephants, horses, bears, monkeys, dogs and foxes are seen dancing in tune of the instrumental music without any prior training of this sort. The wild cats seem to like the music of pipe bands more to that of other instruments. Surprisingly, even crocodiles are found to be wavering in the flow of the music of their liking. In view of the similarities of the rabbits and monkeys with that of a gross human body in some respects, Dr. George Fur Wilson had initiated systematic experiments to investigate the effects of music on these animals.

When even the poisonous creatures like the snakes and scorpions and the tiniest varieties of the birds could be sensitive to music then what about the potential and influence of music on the emotionally evolved species like the human beings?

The effects of music on human body and mind are universal. As light and heat affect all the animate and the inanimate forms so does music because, music is a rhythmic flow of the energy of sound generated by specific compositions of vibrations. As the sound-energy latently contains the energy of heat and light, so does music. Considering this physical property of music, its effects on the human body can also be analyzed in terms of the effects of constituent physical energies.

The effects of music do not vary with respect to the cast, creed, religion, nationality or social status. There would hardly be any one in this world, who does not like at least some kind of music or dance. There may be different opinions about the existence of Gods and the philosophies of life. But, there could be no place for controversies or counter thoughts when it comes to accepting the terrific, almost hypnotizing influence of music. Eternal love of humans with music indicates that it is a natural phenomenon.

The Upanishads state –

Brahm Pranava Samdhanm Nado Jyotirbhayah Sivah |  
Swayamavirbha Vedatma Medhapyeasumaniva | |  
Sidhdasane Sthito Yogi Mudram Saamdharma Vaisnavim |  
Sranuyaddaksine Karne Nadabhannargatam Sada | |  
Abhyasyamano Nadoayam Vahyamab—anute Dhwanim |  
Paksadwiparksakhalam Jitwa Turyapadam Vrajeta | |

– Nadabindupnisada 30 31 | 32

Meaning: When we meditate upon the unity of the soul and the Brahm, the glow of the Paramatma (the supreme thy soul) is realized as the eternal divine music – Nada. The yogi should sit in sidhdasan with a vaisnavi mudra and attempt listening to the anahata nada internally. After substantial practice, the external sound disappears and the sadhaka attains the state of turya (ultimate inner peace and stability).

The above statement signifies the linkage between eternal music and the Brahm. A thorough sadhana of pure music can certainly help awaken divine virtues and potentials in the individual self.

Several examples in support of the existence of life after biological death are cited by Mr. Norman Vincent Peale in his book 'Stay Alive All Your Life'. One of his statements reads – “A nurse, who had witnessed the death of many patients, had told me that one experiences the vision of supernatural light or scenes and perception of divine music during the last moments. Many people, just before their death had described that they are watching an amazing spark and listening to an exceptionally melodious music”.

A natural question arises here that – ‘If music has such an intimate relationship with the eternal source of human life and with its ultimate end then why every musician, singer, dancer or a music lover does not always experience at least a glimpse of the divine bliss of uniting his or her consciousness with the thy Consciousness? In fact, this is a subject matter of the depth and spiritual level of the inner self. One cannot have such experiences without being immersed in the ocean of music through the inner core of the heart – such absorption is possible only if one’s mind and the inner self is pure and if the music is natural and a true manifestation of Nada. Nevertheless, a good classical music, if played, sung or heard with sentimental concentration, does offer divinely soothing effects on the body and the mind. It also increases the attraction of the individual self towards the origin of his consciousness.

It is often observed that cruel, dry hearted, selfish and egotist persons do not have great liking for music. Strong affection with natural arts like music indicates higher

levels of one's compassion and emotional sensitivity and is regarded as the first step towards developing spiritual fitness.

In the routines of daily life, we usually find that our body gets tired in the evening; although it is not tired in the morning – just after leaving bed, but it feels somewhat drowsy. This is because at both these times the harmonious level of protoplasm – the building material of the living bodies is perturbed. If one does a heavy physical work during these time periods, one often feels the pressure of weakness that further increases his mental fatigue and vexation – the latter are often reflected in his anger or irritation without any real cause. If one eats or drinks something warm during these time periods, the molecules of protoplasm are excited momentarily. But this 'energy wave' of stimulation is like a sudden stormy breeze that shakes the trees upside down for a short while and leaves behind a scary solitude. The illusions and instabilities of the mind and the tendency of making blunders during the daytime and frequent experience of nightmares – found in the people who consume intoxicating and stimulating substances, are results of such an stormy excitation in the activity and level of protoplasm. For this reason, intoxication during the evening and the morning hours is said to be extremely dangerous for health.

The consistent flow of sonic waves emanated from a soft and slow music generate a massaging of the particles of the protoplasm and energize them in a manner similar to what the joy of meeting a beloved one does to our heart and mind. Therefore, a melodious music, practiced or heard during early morning gives energy and strength in the body, boosts fresh activities in the neurons and induces soothing sensation in the mind, heart and emotions. This, during the evening time, similarly offers pleasant relaxation and peace. The practice of singing prayers and devotional songs and inspiring music or listening to such musical performances every morning and evening is indeed an exercise for up-keeping physical alacrity and mental creativity.

The botanical experiments of Dr. Singh and Ms. Stella of the Anna University have shown remarkable effects of music on a variety of plants. In these experiments, Dr. Singh had divided a ground into two equal parts such that the availability of water and sunlight and the type of soil etc were exactly the same in both the parts. For about ten successive years, they had conducted an experiment during which Ms. Stella used to play violin for the plants and trees only in one particular part during the season of growth of their crop. The remaining half part of the ground was kept deprived of any musical effect.

It was found that the plants and trees in the music-exposed portion were straight, much taller, healthier and more productive as compared to their counterparts in the other portion. The difference in the quality of their flowers and fruits also showed such trends. The flowers of the musically treated trees and plants also lived longer and gave better seeds at higher rates. Dr. Singh stated in his concluding remarks that protoplasm in the trees rests in an unstable state like a liquid filled in a pit. The waves

of music vibrate and activate it like a snake swinging in the tune of a bina. The protoplasm in a human body also flows smoothly with the currents of music.

Many farmers in Canada fix several loudspeakers around the boundary of their fields and connect them with a radio set. They do so to increase the resistance (against the germs and insects) of the plants by the effect of music relayed on the radio. If the thick grains and crops like rice, sugarcane and sweet potatoes can be affected by the impact of music then what about the sensitive tissues of human skin? Dr. Arthur Locker of Wisconsin, who is known for his detailed research on the power of music opines that – as the plants are protected from germs by special musical treatments, so could be the human body.

Music generates gross as well as sublime effects on humans. The increase in the physical energy and mental creativity and cheer after performing or attending a program of musical concert or classical dance are some of the well known gross effects apart from the biological effects discussed above. In some countries, the rhythmic sound waves of music are being used in medical applications and even in surgical operations. The swara sadhana of music is like a pranayama that strengthens the lungs and enriches the reservoir of vital energy in the body. Healthy digestive system, broad and stout chest, strong bones, deep sleep are some of the other common gross effects of this sadhana.

The tremendous potential of music in engrossing the conscious and subconscious mind has also attracted research in some developed countries. This research is focused at finding the methods of using music as an effective means for hypnotizing and giving psychological treatment. Its subtle effects are manifested at the emotional level in the form of – expansion in the sentiments of pure love, compassion, generosity, cooperation, tolerance, and altruist service. A person, blessed by these inspirations of music is never deprived of friendly support, healthy cooperation, serene love and joy in the external world too.

## Physiological Effects of Music

It is only the activity of the tongue, lips, palate and the tiny components of the vocal cord that produces voice as we all experience in our routine conversation. However, the same voice needs to be stretched and varied rhythmically when used for singing. The force applied for the stretching and rising of voice also strengthens some organs including the intestines, liver, stomach, heart, lungs, throat and palate by inducing an extra flow of vital energy through them.

The above exercise, especially in the practice of the classical ragas also activates the flow of some kind of bio (neuronal) electricity from the naval center in the upward direction. This current oscillates between the naval and the Brahmrandhras and not only makes possible the generation of different swaras but, also quivers the extra sensory energy centers like the sat cakras, uptyikas and the three granthis on its way. Thus, singing serves the dual purpose of inspiring inner emotions and of massaging the internal and subtle components of the body, which if activated, could be used for awakening latent spiritual powers. The practice of classical vocal music is therefore also referred as a yoga exercise.

There are three gatis (speeds) which are fundamental in classical singing; these are classified as – Druta, Vilambita} and Madhayama. The druta corresponds to singing at a rhythmic but a fast pace. The tongue, throat, chest and heart are subjected to good exercise in its practice. The vilambita type involves stretching of the swaras. Singing in this mode opens the windpipe and strengthens the vocal cord. The madhyama gati implies singing at one's natural frequency. This generates soft and slow vibrations in the neurons, nerves, arteries and the heart.

Playing musical instruments also involves rhythmic and cooperative movements of different components of the body. The head, neck, shoulders, chest, lungs and stomach are most benefited by the practice of soft music on instruments. Practicing instruments like the flute and sahanai is equivalent to classical singing with respect to the positive effects of harmonized breathing and pranayama on the physical and mental health.

The human body is described as made up of five basic elements. The theories of Âyurveda indicate that the tendencies of these elements vary according to the level of vata, pitta and kafa. The principles of Yunani (Greek) medicine rely on controlling the diseased state of the body by balancing the variation of the natural tendencies of avi, vadi and ravadi. The biochemical theories define twelve different salts (ionic compounds) as fundamental in conducting the healthy functions of the basic components of the body. Homeopathy describes the level of some poisonous substances inside the body to be of basic importance. The Greek and Tibbitts therapies, like the Ayurvedic methods of treatment, are based on the systematic use of fresh herbs minerals and plants that sprout from the ground. The methods of Chromopathy (surya cikitsa) are based on the consideration that the haphazard

variation and imbalance in the presence of the seven colors (of the sunlight) is responsible for the occurrence of diseases and disorders.

According to the swara sastra, the seven subtle nadas immanent in the human body and mind govern all physical, biological and mental activities. The use of music as a therapy is based on the principles of this sastra. This method involves identification of the appropriate compositions of the basic swaras whose practice (through vocal or instrumental support) would be most suitable for controlling a particular physiological or psychosomatic disorder. If the vocal and instrumental music, being practiced or listened regularly, is perfect in terms of the classical (shastric) principles then it can certainly be used as an effective mode of treatment and maintenance of total health. Systematic research in this regard has made some path breaking progress since past few decades.

Dr. Harls Ashley, an American expert of the music-based therapy, has worked hard to systematize the modes of its applications. He has successfully used this therapy for about 20 years to treat the patients of different diseases. He has found that the number of patients fully cured by this therapy is larger than that by the Allopathy. The music-based mode of treatment is supposed to be the best support against the problems concerning the nervous system. Dr. Johan Schumilyn has also conducted many experiments in the Gottingtun City of Germany using music as a therapy. His conclusions imply that – not only the humans, the animals could also be relieved from many painful diseases by making proper use of musical treatments.

Ample examples of the use of music as a therapy exist in the history of India and other countries. The holy Bible also mentions of the therapeutic applications of music; it describes of a musician named David Harp who had cured the incurable disease of the king Saal with the help of his excellent art of playing musical instruments. According to Homer, a dreaded disease of Ulysses was also eradicated by the effect of music. The ancient doctors of Egypt used to chant some hymns while treating their patients with medicines. Many tribal communities in Africa are well known for their expertise in curing some diseases by making special musical sounds through mouth.

The ancient Egyptian treatise entitled ‘Medicale Pepiri’ cites the use of music for increasing the reproductive capabilities of women and of some domestic animals. In one of his books, a musician called Timthias has mentioned a historical incident – “One day when Alexander the Great became unconscious and no remedy was working on him then a lyre was played near him to successfully bring him back in the normal state”. The history of the German music is also quite old. The inscription on one of its old musical instruments states – “When all medicines and other remedies are found to be ineffective in removing the pains and agonies, music alone provides good support and solution”.

There is a separate wing for the teaching of music based therapies in the Karl M. Bon Waiver Music College of (East) Germany. Music has been used here in curing a variety of diseases ranging from high fever to several cardiac ailments. Music is also found useful by the doctors here in giving painless treatments in dentistry. Some expert gynecologists in Germany have conducted successful experiments in offering musical effects for relief from the labor pains to the mothers at the time of childbirth. Many maternity homes in this country now have the arrangements to play the records of special musical tunes composed by Mozart. In all ages, all over the world, music has been affirmed to be an excellent remedy for the damaging feelings of fear, tension and mental weakness.

The modern times have witnessed a new trend in psychological problems and their treatments. The sonic flow of music is now given significant importance in the treatment of psychological and psychiatric disorders. Most of the mental hospitals in the western countries are well equipped with the facilities to play special musical tunes. The cranky or insane patients easily get emotionally absorbed in the flow of music. This helps reduce their mental excitation and offers soothing effects on their nervous system.

The mudras (poses) of classical dances, performed along with suitable ragas of music multiply the positive effects the latter when the feet of the dancer(s) vibrate in tune with the tinkling of the ghunghrh<sup>11</sup>. The dancer(s) as well as the viewers feel as though they are floating in a heavenly stream of joy. All the tensions and worries of the mind are removed in this process and the state of the mind gets clear, stable and calm. The movements of the limbs and other parts of the gross body due to the actions of dancing and the vibrations of its subtle components caused by the sound of music create mutually complementary effect.

As such the art of dancing has its own independent schools but it cannot remain aloof from music. Singing and instrumental music are although two different branches of the knowledge of music, they are mutually complementary like the grammar and literature of any language. Dancing is the third component in this series. The combination of these three generates very specific pranayama– an exercise of the vital elements by which the mental and physical health, beauty and charm could be maintained at an elevated level.

The psychological impact of music has always been more prominent as compared to the physical or physiological. The use of special-effect music to stimulate the valor of the soldiers during the wartime has been in existence since the time of yore. The war of Mahabharat had begun with the sound of the Pancajanya Samkha of Lord Krishna. Historical descriptions show that the instruments like bugles, drums, lyres, timbrels, cymbals etc used to be essential components of the army bands until the early centuries. The present century has gone several steps ahead in this direction. The bands of the armies now consist of high-tech instruments for a variety of sonic effects. These include – the special musical effects that would trigger even the

cowards and the scared ones with an adventurous zeal of 'do or die'...; or, they could do just the opposite by creating hypnotizing effects of depression and dullness in the minds of those targeted. It is up to us how we, the intelligent beings would like to activate and use the hidden supernormal powers of music.

## The Paramount Effects of Nada Brahm

As discussed earlier, the sadhanas of Nada Brahm and Sabda Brahm are crucial in the domain of spirituality. These sadhanas are given maximum importance in the experiments of illumination of the inner self. The power of Sabda is regarded as the source of sublime energy for the activation of consciousness. A little disorder in the currents of this vial source shakes the entire personality. Mental disturbance, unusual excitation, lethargy or depression is the immediate signs of any perturbation in the level of this energy.

The seven basic swaras (notes of music) viz. Sa, Re, Ga, Ma, Pa, Dha, Ni are the manifestations of the seven subtle Nadas of Sabda existing in a human being. The sadhana of swara yoga therefore helps maintenance of the energy of Sabda in the body and control of the disorders of the mental and physical health that were caused by the suppression of this subtle energy. The scholars of swara Sastra believe that by the sadhana of swara yoga one can attain not only the sundaram (eternal element of joy) but also the satyam (absolute truth) and Sivam (universal divinity) forms of the Brahm.

A Japanese musician named, Shinichi Suzuki opines that music generates humane sentiments, discipline, tolerance and emotional softness. According to a French zoologist, Dr. Vastive Andre, music deeply touches the brain and titillates the nervous system of every living being. Every creature gets enormous peace and joy from the music suitable to its natural instinct and mental state. Large numbers of examples are available in the human history, which illustrate the amazing power of music. For instance, when Mr. Ralf Lawrence Hoy of USA and his wife used to play music with deep emotions, one patient of sever rheumatism and stiff body used to get instant relief from her pain. This had inspired the Hoys to establish the now renowned organization called R-for-R for the noble cause of offering remedy by means of music. Dr. S.J. Laden of the same country has found, after a rigorous examination of those who regularly sing, play or listen to melodious music, that the propensity of sickness among such people is much lesser than that in the others.

Dr. Edward Podolsky, of USA is a doctor and musician of distinct qualities. He has found that the rate of blood infusion increases and new energy is induced in the veins and arteries by the effect of music. He argues that music is an excellent exercise for physical and mental fitness. The children, the youth and the old – all men and women can benefit from music in a manner most suitable to their nature. Dr. Derrickson of the same country and Dr. Johns of Germany have also expressed similar views on the effects of music on total health.

Podolsky's experiments on the kidney stones of some patients in New York had shown interesting results on the effects of music. It was found that when the music of certain kind was played near a patient for a fixed duration of time, some particles of the stone used to break and come out along with his urine. The pathological

testing every day showed almost the same amount of these particles present per c.c. in the urine samples except on a particular day when music was played for a shorter duration for time; it was noted that the amount of stone present in the urine was also proportionately less in that day's sample. Moreover, one day when no music was played, no presence of stone was found in the urine-test that particular day. Entire stone was finally removed after regular treatment by playing the same music every day for several consecutive days.

The investigations of Dr. Meed of England have shown that the rhythmic flow of sound in music creates specific stimulation in the nervous system. The vibrations generated by certain musical tunes are especially effective in up-keeping the digestive system too. Dr. d'Alene Jones of the Science and Technology Institute, University of Wales had received a governmental grant of 31 thousands pounds for conducting thorough research on the therapeutic applications of music. Under this project, Dr. Jones has investigated the different effects of sound waves on the human body. He opines that even humming a sonorous tune has good effects on the body and the mind. He recommends singing in soft voice or humming in a musical tune during the early hours of morning and evening as a preventive measure against the attack of a number of diseases. This expert-advice also explains why the japa of soaham and the singing of bhajans during early morning and evening are given so much importance in the Indian Sastras.

Dr. P. V. Mathur of the Central Electro Chemical Research Institute, Karai-Kudi, India has expressed the view that the 'construction' of the seven fundamental notes (sapta swaras) of the Indian system of music is not arbitrary, rather, it is based on rigorous mathematical formulae. He has deciphered the role of the twenty-two Srutis in this context. He has found that the presence of at least fourteen Srutis is desirable for a perfect composition of a raga. The sequence of the sapta swaras – known as saragama, is itself rhythmic and based on definite principles of the flow of sound. The Srutis mainly contribute in generating 'emotional waves' in different combinations of swaras. Most of the Indian classical ragas that are popularly practiced these days are found to make use of only the swara patterns based on the thirteen Srutis. If the corresponding fourteenth pattern is also included then the effect of these ragas in arousing of the latent sentiments and deep emotions and their life saving potentials would enhance substantially.

Associated with every thing, every branch of knowledge, every kind of art, there exists two major categories of contrary applications – constructive and untoward or destructive. So it is with the field of music. The deleterious effects of music include – – excitation of erotic sensation in the name of entertainment and rapid beat and high pitch play of certain compositions that induce intoxicating effects. Unfortunately, the so-called modern music that is popular among the masses – especially the youths these days falls under this negative category. Nevertheless, the realization of the positive effects (of the softer class) of music by the intellectual and scientific

community and its accelerating use as a therapy in some advanced countries promises a revival of the ancient glory of music.

Going by the prophecies of the trenchant visionaries, the future era will witness an elevation in humane sentiments and moral ideals. Music as a manifestation of the Nada Brahm is going to play a significant role in excelling the emotional level of mankind. It would indeed reflect the satyam, Sivam, sundaram forms of the Nada Brahm if its origin and implementation as a means for swara yoga is understood thoroughly and its creative effects are naturally incorporated in the daily life.

## Scientific Applications of Music

It is well known that the impact of one element on another produces sound. The atoms and subatomic particles of the element that is knocked vibrate and generate corresponding quiver in the molecules of the surrounding medium (air or ether) too. The waves propagated by these vibrations in the medium are consequently spread circularly in all directions.

It is also known that the human body consists of so dense a network of a large number of interconnected nerves that practically every component of the body gets connected with every other via this network. If a small needle or a tiny piece of wood touches or pinches one ear (or any other body part), the body feels an instantaneous shiver as though an electrical charge is induced in it. By the same mechanism, the vibrations in the surrounding air when reach the ears also titillate every component, every atom of the body, although we do not always experience them because of their subtle intensity. Different kinds of sound cause different kinds of effects on various components of the body because of the corresponding variations in the type and intensity of the resultant currents in the body. If these vibrations happen to be generated by music then the associated quiver in the body current would also be rhythmic and of a 'tuned' (harmonized) intensity.

The sensitivity of the body depends upon the extent and the manner in which its softest and tiniest components oscillate upon receiving the external or internal vibrations. Our ears cannot generally hear the sounds generated at a frequency higher than 450000 or less than 14 vibrations per second although the sound waves of ultra or higher as well as the infra or lower frequencies do affect our nervous system and the entire body. The perception of sonic signals by the nervous system generates consequent vibrations in the cellular and molecular components of the body. If the amplitude of the sound waves in the audible frequency range is synchronized with that of corresponding compressions and expansions of the soft tentacles inside the body, the external (invader) particles, molecules or the germs etc on the cellular membranes would be smoothly thrown off.

The sound waves generated by music are indeed synchronized because of their rhythm and consistency of tune and amplitude. Like the audible frequency range, the range of such sound waves suitable to the natural frequency of a human body is also fine. The waves generated by soft and melodious music fall under this category. The effects of cleaning (i.e. of removing the heavy or foreign molecules and germs etc from) the body components is optimum if such music is heard or practiced in a calm and relaxed state of the nervous system. Because, in this state, no other pressure or excitement would perturb the synchronized compressions and expansions of the cell membrane. This is how the regular practice of listening or performing of soft and melodious music in the early hours of morning or evening helps prevention from diseases and offers maintenance of the healthy functioning of the body.

The rhythmic compression and stretching of the nerves and the muscles in response to the impact of the sonic vibrations of music has also made it possible to use it as a regulator for neuromuscular dynamics and for the treatment of some neurological and neuromuscular disorders and diseases. A Bangalore based research organization, named Pawani, has conducted several experiments on the positive effects of music on Metabolism, Biorhythms and Neurological secretions.

Dr. Ronald Doha of Germany opines that the impact of the musical vibrations regulates the secretion of Adrenaline hormone, which by stimulating the blood circulation helps reduce the pain in the body. Thus, apart from its therapeutic uses like that of the ultrasound or the lasers, the sound of music could also be approved to be an effective pain-killer if one experiments to calibrate its appropriate doses for different types of body aches. The team of Drs. Backer, Birdman and Bucking has recorded some positive effects of music during several surgical operations in Chicago.

The specific hormonal secretions induced by music also seem to affect the animals in a variety of ways. Many examples of increasing in the release of milk by cows in Europe support this hypothesis. Similar experiments are carried out in the Venkateshwar temple at Tirupati in India. Melodious records of classical music are played here in the open air every day in the early morning. The daily exercises of vocal and instrumental music of the inmates of the temple premises also go on during this hour. The managers have observed that the cows on this campus give more milk than usual when they are exposed to this music. Once there was a shortage of green fodder, so all the cows were given dry fodder here; despite this ill nourishment, the cows, which were kept under the musical environment continued to give larger quantities of milk. Moreover their calves, colts and fillies, who regularly listened to music, were also healthy and grew up fast into stout oxen and cows.

Some research scientists have found that loud singing of some soft tunes (komal ragas) relieves one from acidic and dull moods. The effects would be more intense in boosting the energy and morale, if these ragas are played or sung systematically at a particular time every day.

Music therapy has, since past few decades, gained recognition in France, Germany, Japan and U.S.A. It is commonly being used for the maintenance of health and cure of different kinds of physical and mental weaknesses and psychosomatic disorders. The effect of music works slowly but with a gradually increasing momentum on the mentally underdeveloped and insane patients.

Prof. Ludwig of Munich has developed a separate music therapy hospital for psychological treatments, especially for the teenagers. Here, the patients are given suitable 'doses' of music along with other medicines. Distinguished psychiatrics, Drs. Peter Neumann and Michael Sandors have started similar hospitals where only

music therapy is used to cure the mental patients. Dr. Doha has also successfully used music in treating the mental illness of some children in Germany. Prof. S. B. Kodatff of Russia is using music for controlling some neurological problems.

In 1962, two twin sisters, suffering from a complicated physical and mental disease were cured only by music therapy. Many doctors had tried several advanced treatments on these two girls but in the vain. At last, Dr. Kurt tried out an entirely new experiment. He had put up one of the girls with a group of some other psychiatric patients, whose mental sickness were also diagnosed as incurable and who, because of their insanity, used to make a lot of noise. On the very first day of his experiment, Dr. Kurt observed that the girl felt extremely uncomfortable in this noise and she quietly moved to a corner of the hospital and started striking a drum kept there. This became a routine that whenever the other patients would make noise, this girl would start 'playing' the drum. The doctor gave her two handy wooden pieces; soon the girl started striking them in a regular fashion as though she is playing a musical instrument.

Observing the girl's behavior, Dr. Kurt got an idea of trying out music therapy on her. He gave her different musical instruments to play with. To his surprise, the girl slowly started playing most of them in a rhythmic manner. Gradually she gained confidence and after a few days, she even began to understand the doctor's instructions and started responding to his queries via her music. Inspired by these observations, Dr. Kurt gave regular treatment by music therapy to both the sisters in a special hospital to bring them back in the group of normal people. This was the first major experiment, conducted in Berlin (Germany) on the treatment of a rare psychiatric disease by music. This was also the first successful demonstration, in the modern world, of the unique potential of music in curing the complicated and otherwise incurable diseases.

Ms. Amelia G. Kursey had suffered a paralytic stroke in the childhood. Due to this attack, her limbs were disabled. In spite of the long-term treatments given by several medical experts, her condition could not improve. During this period of trauma, she once listened to a record of an excellent musical performance and got interested in music. She began the regular practice of singing on her bed; as she was unable to play any instrument, her teacher or friends used to play it besides her during the practice sessions. Soon she perfected controlling her voice as per the musical notes. She used to sing with deep emotional support for hours together. The melody of music massaged her nervous system. As a result, her physical disability also recovered gradually. After some time she was able to play her musical instrument and became perfectly normal in couple of years. Now she was able to walk or run like any other healthy person.

Because of her dedication for music, Amelia became a popular singer of the western classical music in the later years. She had mentioned in her memories that – "Not even for a single day have I fallen ill since past 18 years. I practice singing every day

for half an hour at least.” She used to give the credit of her beauty, charm and health to music only. In those days, many of the young women in Europe and America were inspired by her comments and they used to learn music for maintaining their beauty.

In a peculiar case recorded in a hospital of California, a patient had suddenly become mute. The doctors analyzed his inability to speak and found that it was not a ‘loss of voice’ instead, a speech disability caused by some mental or neurological disorder. No established medical techniques could improve his condition. Then a social organization, called R-for-R, of America came forward to help this patient. The special musical records developed by this company for therapeutic use in complicated mental problems were played in his room for a fixed duration of time every day. After thorough experimentation for about two years, there arrived a bright day when this person was so excited in cheer after listening to a record of his liking that he started humming happily. Soon his ‘choked’ voice was opened up at full stream and he began to talk normally.

The Kremlin Medical Center of Russia is known for its experiments on music therapy. The cases of insomnia, depression and a number of whimsical manias and psychological problems have been successfully treated here by this new method. Music is used here as an essential support along with regular medicines in the treatment of other diseases too. Prof. S. V. Paicaff, a reputed expert of this hospital has shown that soft music has soothing effects on the mental and neurological functioning. As per Dr. Walter H. Wallace, music is also useful in the treatment of common cold, jaundice, hepatitis and high or low blood pressure. Dr. Walter Kuga, a psychiatrist of (West) Germany argues that music provides an excellent support in the cure of absent-mindedness, melancholia, hysteria and insanity. Some doctors of the Jodhpur medical college in India have also reported success in the use of music as a therapy against several diseases. They conclude that music is an excellent painkiller and healer. The patients forget all their worries and feel mental peace by listening to the melody of music.

The ‘Hospital and Health Management’ journal of London had sometime back published the results on the effects of music based on the studies carried out by six hospitals in England. The reports of the maternity units of these hospitals show that background music helps maintaining health and happiness of the mother and the infant both. The studies of other departments had also indicated a positive support of music in offering instant relief to the patients from their physical and mental pains.

It has been found in general that the women who regularly listen to melodious music during their pregnancy feel significantly less or no pains at the time of delivering the baby. Moreover, this prior dose of selected music also helps healthier development of her child at the physical, mental and spiritual levels. The

psychological consultants always advice a pregnant woman to keep in touch with soft, inspiring and devotional music.

Some medical experts in London are engaged in deeper aspects of the effects of music. They are experimenting on the pregnant women to test how the baby in the mother's womb responds to different musical tunes. Their research is aimed at analyzing the process of the development of hearing sensation in the growing fetus and testing the effects of rhythmic sound on the development of its neuronal system.

Dr. Arnold Ihara's article, published in a medical magazine of London has highlighted the possibilities of healthy survival and longevity by proper practice of music. The author has listed a number of musicians of international repute who are enjoying excellent health in old age. All these experts have acknowledged music as the basis and the secret of their good health. This list includes the names of 88 year old Mr. Pierre Monte of Switzerland, 78 years old Mr. Otto Klemperer of Germany and an Italian musician, Mr. S. Vardy, who was 80 years old at that time. These people have not pursued any research on the therapy and related principles of music in order to get expertise in its science. Rather, they have made the best practical use of the effects of music in their own lives. They regard their liking and dedication for good music as the key to all round success in human life.

#### The Advent of R-for-R Organization:

Dr. Ralf Lawrence Hoy is a film director and a great music lover. He is also popular as a violin player since the time he was working at the Alcoa aluminum company at Pittsburgh (USA) few decades ago. His wife Gretchen is also a good musician – she plays the piano.

It happened few years ago, when the couple went to visit a lady in their acquaintance whom they had not met since long. They were shocked to see that she was suffering from a severe disease of the arteries and was bed ridden due to stiffness. Prolonged illness and ineffectiveness of various medicines had put her into a state of despair and gloom. Ralf and Gretchen were more worried when they found that her doctors had lost all hopes! They started visiting this friend more frequently and thought that some day they should perform their music to offer her some peace of mind. When the musical currents of their violin and piano were flowing at peak in her room, the patient felt as though this melodious sound was causing some soft massage on her body. She felt relaxed and went into sleep while the music was still going on. She had not slept so well ever since she became ill.

The Hoy couple was extremely happy to find that they were able to offer some relief to the patient by the melody of music. This strengthened their belief in the constructive power of music and they decided to give her intensive cure by music in a more systematic manner. They recorded a number of sonorous classical

compositions and sent the tapes to this patient so that she could listen to the specific music of her liking every day. The patient used to enjoy playing those records and used to feel as if the titillating flow of music was removing the tensions and stiffness from her veins and arteries. It was a pleasant surprise for people around her to see that she recovered completely after few months' intensive treatment by music. This case was a clear demonstration of the superiority of music over the modern medical science in regulating the nerve muscle dynamics and the neuronal activity.

This incident inspired Dr. Ralf to open up a company named R-for-R (Recording for Relaxation, Reflection, Response and Recovery) dedicated to social service. This effort promised new hopes for many patients of rare and declared incurable diseases who were living under the miserable conditions of depression and anxiety. This has now become an organization of high repute in the USA and Europe. Many volunteers have offered their services for the noble cause of R-for-R. Initially R-for-R had sent its records to the army hospitals where severely injured soldiers were benefited by the magic of music. Thousands of otherwise 'incurable' patients have been successfully treated by the music therapy given by this center.

The establishment of R-for-R has introduced a glorious chapter in the modern history of music and has also set a learning example for the Indian society that despite having a rich heritage of original classical music, has chosen to ignore it. If we the Indians, had honestly pursued the practice of our original Sastriya music, its inspiring effects would have helped clearing the minds of our masses and awaken collective intelligence. As a result, we would not only have got rid of the social ailments like dowry, castism, untouchability, superstitions and religious fundamentalism, but, would have also made substantial progress in reviving the glory of our art, literature, ancient sciences and culture.

Dr. Hoy's efforts deserve commendable appreciation because he took initiative in giving the benefits of music as a selfless social service instead of commercializing his therapies or pursuing research on –"why and how, or which power of sound makes music so specific...., etc?"

With the beginning of this mission, Dr. Hoy had resigned from the Alcoa Company so that he could devote time for this social organization. He started living near Shetuge Lake in the Brenards village of New York and developed a well-equipped sound recording theater there for his own orchestra company. He believes that some day, music will enlighten humane sentiments and govern the development of ideal society because of its unique power of inspiring the emotions.

Dr. Hoy's courage, his liberal attitude and compassion for the depressed and the disabled gave new dimension to the experiments on music therapy. It indeed did a great service to the field of music too by attracting people towards the dedicated practice of soft, devotional and classical music. How many of us, in India, who

know music or who boast about our great cultural heritage have made use of our expertise beyond the barriers of our narrow minded, selfish and arrogant attitude?

The noble pursuits of the Hoy family received due recognition and support from the people of America and Europe. The New York Philharmonic Orchestra, the celebrity actor Danny and the Mormon Tabernacle Company, which is internationally renowned for its production of religious and devotional songs and music records – have donated several equipment and records to R-for-R. The late President Kennedy had also donated many copies of the recordings of the musical concerts held in the White House. The musicians like Janis Herschante have offered their talents and time to this organization free of cost. Some companies of Norway and the Chalets Gulbekiyan foundation of Lisbon (Portugal) have also donated large number of music records to R-for-R. This organization has over 700 classic records of international repute and about two thousand music institutions associated with it. This organization stands as a mile stone to guide all those who care to elevate the status of music in the modern life.

The Indian classical music possesses the treasure of ragas like Todi, Dipaka, Megha Malhara, Pachada etc and the instruments like Samkha, Bheri, Vamsi, Mradamga, Patana, Kahaha, Panava, Kona, Vina, Sitara, Kilkila, Sweda, Krakachas etc. These can readily offer the most advanced applications that perhaps would not be achievable despite long-term research in the modern science. Those who honor the Sastriya samgita and have had the opportunity to be in touch with its symphony may follow the example of Dr. Hoy and come forward to revive its prestige and disciplined practice. Support of the public and the leading institutions of art and culture can certainly create a revolution in the modern trends and thereby elevate the status of music to its original glorious heights.

## Examples from History and Directions for Future

The use of music for removing the toxic effects and for reducing the pains of childbirth are commonly cited in the ancient history of Egypt. Hippocrates, the Greek philosopher and ancient expert of medicine and music, had incorporated music as an integral part of his medicinal practices. The Greek doctors Goleman, Marianne and Asculopious were also renowned for their expertise in music-therapy. They were known to possess efficiency in adjusting the tunes of vocal and instrumental music according to the disease conditions and the natural frequency of the patients.

The European history contains the examples of three mighty kings whose insanity was cured by music when all other medicines and therapies had failed. These examples mention about England's George II, who was suffering from melancholia and Spain's king Philip V, who was 'captured' by insanity. Israel's king Saal had become almost mad. The eminent musicians of the respective states of these kings had helped their recovery with the help of specific musical performances. Dr. Hegel had strongly recommended music as a substitute for medicine and as a good measure of preventive care.

It is believed that Tansen, the celebrity singer of the Indian history, was dumb since birth. He was unable to speak until the age of seven years. His father Makarand and mother Kalindibai had tried their level best for the treatment of their child. As a last trial, they took him to the classical singer Mr. Mohammada Gosa, who was highly recognized at that time for his knowledge and expertise in the Indian Sastriya Samgita. He was known to have treated many deaf and dumb patients by the magical effect of his singing. During the period of treatment of Tansen, Gosa used to sing in front of this boy and constantly encourage and inspire him to sing along...; gradually the melody of music triggered movements in young Tansen's vocal cord and he began to speak and sing in an exceptionally sweet voice.

The ancient history of India stands witness to the golden era of the genesis and divine evolution of music. Out of the four Vedas, the Rigveda is said to contain the absolute knowledge of the essence of the existence of the world, life, Nature, the eternal creation and the ultimate end. The Yajurveda consists of the practical implementation of this knowledge in terms of the methodology and rites of Yajna and related activities. The Atharvaveda is an abstract compilation of all the sciences and the Samaveda is the masterpiece of the knowledge of music. This veda also describes the principles and directions for specific chanting patterns for the mantras of the other vedas. It is the sonic configuration and the flow of Nada in the chanting patterns of the mantras that make the latter so powerful. The stanzas of the holy Quran are also supposed to be 'read' under a specific discipline of musical tunes... All the devotional prayers become lively with the support of music because of its potential of rousing the inner most sentiments.

Music is not only a creation for recitation of poems or hymns with a melody, nor is it only a subject for the study and practice of an art according to a plausible set of principles. It is indeed an ocean of knowledge, which has got multiple branches associated with the physical, mental and spiritual domains of human life. It is a treasure of the eternal energy of Sabda and Nada that could vibrate the jada and the cetan activities of Nature. The Indian culture had given due recognition to music in every aspect of life. The musical chanting (samagana) of the veda mantras are supposed to be the key elements of success of the yajnas.

Music therapy was of paramount importance in the ancient Indian society. Today, nobody has the complete knowledge of the specificity of the ragas like the dipaka raga that could kindle the lamps without fire or electricity, or the sarpa raga that could compel a snake to extract its poison from the body of the victim of its bite, etc. Only a partial knowledge of the ragas like the sarpa raga is now available with some snake charmers who play it on the bina to attract and capture these reptiles.

The spiritually enchanting power of music has been realized by a number of great personalities in the modern era too. For instance, Mr. Kangova used to say – “Music is the stream of the flow of the innermost sentiments. It can soften even the rocky hearts”. In the words of Mahatma Gandhi – “Music gives me peace. I have taken its support in the moments of great difficulties. When I was suffering after a violent attack on me in South Africa, Mr. Oliver sang a devotional song “Lead the kindly light.” for me. The flow of his music was so intense and emotionally soothing that it eliminated all my agony”. Noted scholar Mr. V. Fiji has expressed his views as – “Music induces enthusiasm in every living being”. The rhythmic flow of sound in its melody enhances the sensitivity and activity of the neurons. Music is not only a medium of entertainment. Rather, it is a power that may even vibrate and transform one’s intrinsic feelings.

The scientific investigations on music in the modern times have reaffirmed the fact that – music plays wonders on the psychology of the humans. More significant are its positive effects on the psychology of the patients of some dreaded, incurable diseases who have been either discarded by their families and societies or who themselves feel isolated because of their prolonged sickness.

In a recent international congress on music therapy organized in Berlin, it was discussed that most of the insane patients, who are deserted by the society as mad, are not totally hopeless with respect to the possibility of treatment. Their brains do not become totally out of control. It is mostly the loss of the mental balance – due to emotional disappointment or shock that gives rise to insanity in such cases. In the state of social and emotional isolation, the mental abilities of such persons get buried in the shell of terror and despair; this further complicates the situation. The delicate symphony of music massages the nerves and muscles in these patients too and gradually activates their sense of mental control by giving them emotional content that induces a feeling of hope and courage in them.

The hypnotizing power of music works at the level of the conscious and subconscious mind. An art magazine of USA, entitled 'The Other East Village' had recently published a special article on the peerless, intensive power of the Indian classical music on the human body, mind and consciousness. The Indian classical music is given highest recognition for its majestic power of arousing and enlightening the hidden emotions and illuminating the inner folds of consciousness.

Music is also equipped with the thermal and light energies inherent in sound. It is because of these physical energies that music even affects the body and brains of those who might are not fond of listening or practicing it. Music therapy in its initial phase in the modern times was derived from the potential of instrumental music alone. It is only since past one decade that vocal music and the role of one's voice in stretching the impact of singing has attracted attention of sincere researchers in this area. Apart from the experiments on music therapy, most of the research on other applications of music – e.g. in increasing the agricultural and animal products has been conducted in the developed countries alone. This is the reason why, despite its tremendous potential in uplifting the internal level of spirituality of the human beings, the scientific use of music remains confined to physical aspects and the worldly needs of the materialistic society in general.

Nevertheless, some scientific experiments have raised the possibility that music will regain its original glory because of its intimate relationship with the sublime layers of the human consciousness. Some scientists and psychologists have observed that by the smooth effect of soft, slow and sweet music – played in some classical ragas takes the listeners' brain into the alpha state where his mind becomes calm and still as though it is in a state of deep meditation (trance). Recovery from the destructive effects of noise pollution, inimical, perverted or depressive psychology and neurological disorders begins in this state by inducing a fine churning of the latent ocean of consciousness.

The human heart is regarded as the functional center for manifestation of emotions. Music is found to cause a direct and paramount impact at this delicate core. The research work of Dr. Barbara Brown has shown that the rhythm of heart beating rapidly adjusts itself to the tune of music.... The soft vibrations of music even harmonize the frequency of heartbeat so that the heart begins to beat according to the symphony of the swaras.

A Swedish scientist Dr. Hill has recorded the 'musically educed' movements of heart with the help of ECG, Echocardiogram and Polygraph techniques. After a thorough analysis he concludes that — if the subject listens to a melodious music consistently for about thirty minutes at a stretch, his heart-beating would slow down gradually and eventually he would reach an almost 'still' state like that of the yogis in the deep state of trance, attained during the sadhanas of Nada. This may be likened with the ultimate state of beatitude and absolute bliss. Dr. J. D. Taylor of the Middlesex Hospital, London has conducted successful experiments on the treatment of the

subjects when the latter are conditioned into the above mentioned state of absolute unconsciousness by the special effects of music. He feels that this method will be useful in deciphering some yet unknown functions of the human brain and heart.

The Indian rishis had, since the time of yore, visualized the tremendous potential of music – as the most powerful source of realizing the eternal currents of Sabda and Nada indwelling in Nature. The mantras of the three vedas – Rig, Yajur and Atharva were the compilations of the streams of knowledge about the Sabda Brahm and those of the Sama Veda were associated with the Nada Brahm. The veda mantras become effective only if they are chanted perfectly by a sincere sadhaka. The discipline of the Gurumukha Sadhana of a mantra as described in the Sastras, essentially implies that the laya and gati (musical compositions) associated with the chanting patterns of a specific mantra must be learnt from an authentic spiritual Guru.

The mantra vijñana is incomplete without the incorporation of the shastric music – as developed by the rishis. The ensemble of different compositions of the eternal swaras constitutes the knowledge of the science of Nada. This branch of knowledge and the classical music emanated from it was used by the rishis for the purpose of elevating the emotions and thoughts of all human beings up to the highest realms of divinity. Classical shastric music is indeed an ideal nutrition for the soul. The open minded research in music and the sincere endeavors of bringing it closer to the people should also focus on understanding the intrinsic features of the Sama Veda and the connection of the satriya samgita with the spiritual sadhanas. Let us hope that these efforts would flourish and help revive the noble culture of the Vedic Age.

## Body, Mind and Music

In the earlier sections, we had discussed about the immense power of music and its role in human life. Here we shall cite some more examples and research findings that have strengthened the foundations of our faith in the impact of music and given rise to dedicated efforts aimed at resurrecting its ancient glory in the 21st century.

The Sastras on music describe a large number of raga raginis, which offer umpteen positive effects, specific to their musical compositions and modes of practice. Devarshi Narada has stated in the slokas 80-83 of the fourth pada of the sagadhyaya in sangita makaranda that – “singing of the classical ragas bestows longevity, glory, intellect, prosperity and a religious way of life. Even the children of such a dedicated disciple of classical musical become virtuous...”

This Sastra further describes that the practice of the raga Sadava alleviates fatigue, worries and mental depressions and helps enhance one’s beauty and charm; ragapurna is suitable for extending the healthy survival of the body and sharpening of wisdom; raga audava controls physiological and psychological disorders; raga malkonsa awakens compassion and the raga jaijivanti uplifts the level of vital energy. Some ragas generate physical changes in the body systems and the surrounding atmosphere too; for example, raga dipaka generates heat in the atmosphere; the raga Kalingada induces rapid increase in the heartbeats of the audience as in those of the singer(s) and musician(s). The effect of raga pilu is so peculiar that often the singer(s), musician(s) and the audience start weeping when this raga is performed. There are many other ragas that also affect the status of the body, mind and the sentiments.

Experts of the science of music argue that the sonic patterns generated by the ragas are subtle like the infra and ultra sonic waves and they induce creative effects as per their inherent characteristics and the intensity and tuning of the musical instrument or the voice of the singer. The high-speed loud music causes destructive or detrimental effects because of the corresponding intensive effect of sound associated with it.

The duo of scientists Charles Keel and Ogolsky had conducted series of experiments on some psychiatric patients. These patients were divided into two groups; one group was exposed to melodious music – especially some Indian ragas, which are known to generate happiness and enthusiasm. The other group was subjected to listening to the modern pop music. The results of several such experiments confirmed that over 80 % patients in the first group were completely cured by the soothing effects of the classical music while the condition of the patients in the other group had mostly worsened because of just the opposite effects of the pop music. These scientists had recorded similar ‘patterns’ of difference in the effects of the two opposite forms of music in many different kinds of experiments, the details of which are presented in their book entitled “The Musical Meaning”.

Dr. Juliet Elvin's book on "Music Therapy" also cites many scientifically investigated cases concerning the effects of music. The author concludes that melodious music has remarkable healthy influence on our body, mind and emotions. In his book entitled "What is Therapy in Music Therapy?", Dr. Austin M. Delleriers of the USA has analyzed – why music has an effect on the human beings. He argues that the specific sonic power and the subtle structure of musical waves induces the production of certain elements that are important for the proper functioning of the brain and that are supposed to be essential for the treatment of the neurological and psychological disorders. Some medical experts have studied the changes in blood pressure, pulse rate, respiratory cycle, muscular energy and other parameters of physiological activities on different subjects kept under the effects of different types of musical flows.

In a series of experiments of the above kinds, Dr. Keeth and colleagues have found that the net effect depends on the type of music and the physical and mental condition of the subject. It has been observed that the impact of music is intense and works fast on those who have liking for music. Those insensitive to music take longer time to receive its "charge". The doctors of the Shanghai conservatory of music in China have developed an instrument-based technique of 'Electro Music Therapy' in which the type and duration of the musical dose are controlled as per the type and extent of the disease and the mental makeup of the patient. Recently, the scientists of China have also developed a music-therapy machine, which produces melodious tunes, especially useful for the treatment of some diseases of the digestive system and of the cardiac and neurological functions.

Some laboratories across the world are engaged in analyzing the sonic effects of music on human body and mind with the help of Oscilloscopes, Harmonic analyzers, Decibel Meters, EEGs along with Biofeedback and Multi-channel Polygraph recorders. Advanced scientific researchers in this area have developed a sonic instrument called Orotone, which produces the spectrum of seven colors (of light) along with the seven musical swaras (of sound). When switched on, the 'C' reed of this instrument emits red color, the 'E' reed yellow and the 'G' reed produces blue color...., etc. With the help of this instrument, a patient is exposed to the music associated with the color(s) most suitable for his rapid recovery.

The sonic waves of around 1 to 5 megahertz are found to be extremely useful in many surgical operations. The use of ultrasonic and laser based noninvasive techniques for the operation of cataract and for the diagnosis of other diseases of the eyes and of the internal body parts etc is now a common practice. A device called Lithotripter, developed by some scientists of the Dernier Medical Technology Center; Munich (Germany) can powder the stones in the kidneys or bladder in a matter of 30 to 40 minutes in an average case. The powdered stones are easily removed from the body along with the urine. Such instruments are in heavy use in the advanced surgical units in the other countries too.

The music therapy society of Britain has claimed that the functioning of the lungs and the regularization of the breathing pattern by the controlled effects of music can easily treat the patients of asthma. Some German scientists have shown that stomach ulcers can be cured more effectively and at a faster pace by music than by surgery and medicines. Dr. Herbert Spencer had also conducted some experiments on music therapy. He had reported that slow and soft music gives recovery while the same melodious musical composition played at slightly higher intensity and little faster speed elevates the low blood pressure up to a normal level.

The high pitch, ultra-fast beating music like the pop and disco on the contrary is harmful like noise pollution. Scientists have identified noise pollution as more dangerous to health as compared to the air pollution because it disturbs the nervous system to a great extent. The increasing number of deaf and psychiatric cases in the pop-loving countries like America and in the noise-polluted metropolitan cities around the world has already rang the alarming bell...

Fast and loud music is found to increase the pulse rate by 22% at least and the speed of respiration up to 50%. Dr. Lawrence Smith has shown that loudness of the order of 60 decibels or more upsets the digestive system. Dr. Foster Kennedy, a neurologist in New York has found that even when a small balloon or an air-tight paper bag bursts, its loud sound can increase the pressure on one's brain by 4 times for a duration of 1 second or so. This increase in the brain-pressure is more than that caused by the drugs containing caffeine and nitroglycerine. He opines that if this noise is made rhythmically for substantial amount of time, it might lead to the failure of the brain and even to sudden death as a consequence.

Background music of specific kind is found to lessen the fatigue of the laborers. It has been proved in several experiments that such effects of the melodious music do increase the concentration and creativity of the students. A musical company named Mabuchi has design special background music for the typists. It has been found that playing this music in the office environment reduces the typographical mistakes by 38.8 % on an average. As a common practice in many countries, the passengers waiting at the airports are often offered peace of mind by the special effects of background music. The production of a variety of electronic repellents for the insects – including the mosquitoes and the tiny animals like the rats is also gaining market these days. These instruments work on the principle of generating, by means of electromagnetic waves, certain (musical) vibrations of sound that agitate the targets and induce abnormal restlessness in them.

The sonic instruments work along the principle of recognition of variations in the sound waves like the radar do in order to trace the submarines in deep waters or to identify the position of an object in the space. Dr. John Ruzdo, director of the Harry Diamond Lab, USA has visualized that by appropriate superimposition of the ultrasound waves one could generate about  $10^{10}$  Watts of power from a single instrument. There are many wonders of ultra and infra sound which are now within

the reach of the science of acoustics. Likewise semiotics, another branch of acoustic sciences is now a center of attraction of many researchers. This branch named Sound Chemistry deals with the chemical effects of sound.

It was observed in some experiments that when ultrasonic waves were emitted on a solution of potassium iodide, its color became light yellow; similarly, the color of mercuric chloride was changed into dirty brown. The effects of sound on chemical processing are also seen in agricultural experiments. It is found that the rate of sprouting of the seeds increases by the effect of some subtle waves of sound. The agricultural scientists of Moscow have found about 50 to 90% increase in the production of wheat and barley by such induced effects of sound.

In view of the chemical effects of sound and considering the intensive effects of music on human psychology, some scientists thought that the specific sound waves generated by music do affect the secretion of hormones in the human body. Music induces observable changes in the (bio) chemical processing inside the body. According to a distinguished Russian scientist, Dr. Kudrayavatsev, the currents of melodious music massage the hormone secreting glands in a specific manner while the harsh and fast 'music' (sound) excites them differently. This is how different kinds of music induce the secretion of different types of hormones and show the corresponding effects on the functioning of the body and the mind.

Dr. Edwina Meed of England and Dr. Edward Podolsky of California, USA have also given supporting conclusions after thorough research on the effects of music on human body and mind. Dr. Donald Doha of (West) Germany and Dr. Tamhane of the University of Poona, India have observed that melodious music helps controlling the secretion of adrenal and thus checks the disorder caused by the irregular secretion of this hormone. They have successfully used this effect of music on many children. Doctors Charles Keel and Agoliki had also reported somewhat similar results in 1966 in their article entitled "Musical Meaning –A Preliminary Report" published in the Journal of Intonomusicology.

Dr. Luis Wermer's book entitled "The Gland Regulating Personality" presents details on the science of swaras, with respect to the relationship of music with hormonal secretion. Dr. Luis has particularly analyzed the thyroid gland because it is located inside the throat and hence has direct connection with the effects of the vibrations in the vocal cord. He states that normally the hormones secreted by this gland not only control the blood pressure but also generate the feelings of love and sympathy. The disorderly function of this gland on the contrary induces the tempers of animosity and jealousy along with obvious deleterious effects on the physiological functions such as the blood-temperature variations etc, that are controlled by thyroxin.

The practice of vocal music regulates the functions of the thyroid and hence helps upkeep one's mood, free from stress and enlightened with healthy emotions. A

Russian scientist and musician Dr. Gortziel has expressed similar views. It is believed that the effect of practicing or listening to specific musical tunes also controls the secretion of the hormones like, endorphin and encephalin, which are associated with the emotional system. Some researchers attribute the significant effects of music on the functioning of the body and brain to the fact that the rhythmic flow of sound generated by music affects the biological clocks. The extent and quality of such effects are directly proportional to the intensity, pitch and melody of the music.

The ancient experts of Indian classical music had classified three major characteristics of the kamth nada (musical voice) associated with the basic prakratis (tendencies) of vata, pitta and kafa described in Ayurveda. According to this theory, the nada (music) generated by the voice of a person whose inherent tendency is kafa would normally be stable, intense and very pleasant; the musical sound of this type of voice is termed as kahula or kafaja. The voice of an individual of the pitta prakd—ati produces sharp nada, which generally sounds harsh and is not pleasant in its natural form; this type of voice is called narata. The people with excess of vata usually find it difficult to maintain a consistent pitch and amplitude of their voice and cannot be good singers in general. The nada of such a voice is high pitched; it is called bombara. Similarly, there are classifications of the kamtha nadas corresponding to different combinations of vata, pitta, and kafa tendencies.

The basic tendencies of vata, pitta and kafa are affirmed in Ayurveda to be responsible for the activity level, consciousness, or dullness of various functions of the body and mind. The quality of one's kamth nada is described in the Sastras of Music to be correlated with these elements. The pitch (of the voice) is supposed to be governed by vata, loudness by pitta and the tonal characteristic by kafa. According to Ayurveda, different combinations of these three basic tendencies maintain all the animate and inanimate forms in the universe. Any imbalance in the naturally suitable proportions of these elements in an individual affects his nervous system and the biochemical and physiological functions of various components of the body and the brain. The quality of the musical swaras of one's voice is also associated with these elements. Thus, which type of music will have what type of effect on a person would largely depend on the prakrati of that person – identified in terms of the coherent combination of the three basic tendencies.

Dr. V. V. Gore had presented interesting features of the interrelationship between musical effects and the prakratis of the audience in his Hindi article entitled 'Music and Ayurveda' (published in Sangeeta Patrika – 1962). Few years ago, a hand written compilation was included in the government library of Bikaner (in India). This report contains specific knowledge about the therapeutic uses of the different satriya ragas of the Indian classical music.

If the mind and the body of a person feels dull and drowsy or lethargic in general or his voice gets 'lifeless' then the level of his kafa prakrati needs to be reduced. Similar

treatment is required if his voice slows down by the excess of the tendencies of the pancam swara of the srutis – papini, mamdati, rohini and ramya. The level of kafa in a person can be reduced by making him listen to the ragas composed with the excess of the srutis like raudra, krodha, vajrika and the swaras of the rasabha category. Similarly, the higher proportions of vata or pitta prakratis could be regulated by the kafaja swaras contained in the amorous ragas like Samaja, Tilnga and Desa etc.

The Brahm Varchas research center, Hardwar, India has been working, since past two decades, on investigating the ancient branches of knowledge in the light of modern science. One of their projects deals with studying the changes in the (bio) chemistry of the human body after listening to different kinds of musical sounds and ragas. On psychological front, the scientists here have found that pure music does have the potential to awaken devotional sentiments and let one feel the presence of the Supreme Consciousness. The positive role of music – in offering fast recovery from mental fatigue and certain physiological disorders to the patients in has been studied in the medical wing of this center. Sequential experiments are also conducted in this institute, on different sadhakas and trainees – who come to attend the spiritual refinement and personality development programmes organized by its sister organization – Shantikunj, Hardwar. On the average, the results have recorded significant increase in the sentiments of serene love, compassion, inner courage and faith in humane ideals by special effects of music

## Place of Music in Daily Life

It is said that the routine chores of daily life also become interesting and enjoyable if music is incorporated with them in some respect. Until recently, when life was not so mechanized, most of the household works, including the grinding of wheat flour, fetching water from the wells etc, used to be carried in the average Indian homes by the housewives themselves. Mostly, the ladies used to do such heavy works collectively with friends or the other woman relatives in the (joint) family. They all used to sing together while rolling a stone grinder or fetching water; grinding about 5 to 6 kilograms of wheat per day was nothing unusual of the women in a joint family. There were even different classes of songs that they used to sing while performing such different tasks. The melody of collective singing used to absorb their fatigue instantaneously. The male members of these families also used to take the support of music while working in their fields or carrying out some laborious activity. Such scenarios are still common in the countryside lifestyle in India.

The laborers, while carrying heavy weights or doing similar hard works are often heard making the musical sound of 'Hoishaaa...', etc. The humming of the maid servants, or the rhythmic sound of 'chai... chai' produced when the wet cloths are beaten up on a stone and the enjoyment of the washer-men in its tune – illustrate the essential role of music in eliminating the feelings of fear and fatigue and avoiding the monotony of the sundry chores.

It is not the body, rather the mind, which gets tired, vexed or bored by some work; the corresponding experiences of the body are mere offshoots of the mental conditions. As music constantly keeps the mind upbeat, it naturally induces energy and enthusiasm in the body too. People, whose jobs at home and at the workplace are monotonous and do not involve any interaction with new persons or new environment, should make music as their companion. By humming good musical tunes or listening to melodious music in the background, one can always feel fresh and do the same job with more interest. People who give substantial place to soothing music in their day-to-day life often find it easy to create a happy atmosphere in their homes too.

Even the japa of mantras could become a dry, mechanical activity if the ups and downs of specific chanting patterns were not associated with it. The rishis, the visionaries of the mantras, were also the experts of music. They had therefore devised musically perfect patterns of chanting (samagana) of the mantras so that the sadhanas of the mantras will always remain linked with the internal emotions too. Humming of such hymns or the devotional songs and playing their classical ragas on the instruments would be the best way of incorporating pure music in the daily life. Because, it would offer the multiple benefits of absorbing fatigue, inducing creativity and pleasure while also inspiring the divine sentiments.

How and to what extent music can engross one's attention can easily be seen in the lives of great musicians. They literally forget everything while performing their daily practice (riyaze) of music. The following incident of the life of one and only one, ustada Ali Akabar Khan, the great master of saroda – is an interesting and illustrative example in this context.

Ustada Ali Akabar was the royal musician in the estate of Jodhapur those days. It happened when he was about to join his wife and a disciple for dinner in his own house one evening. The table was laid around 9 p.m. The ustada, while walking towards the dinning table, saw a saroda fixed in a brand new leather covering. He could not resist trying out his instrument, which had a new look now. He planned to play it for 5 minutes only. His wife and the disciple also set with him in that room. Once Ali Akabar Khan started playing the saroda, he was so enthralled in it that he totally forgot the barriers of time and reached in a different world – full of the nectar of divine 'passion' and bliss. The duo listening to his music was also enjoying the spontaneous flow of his music... This way, his initial plan of trying the instrument just for 5 minutes was stretched up to 4 hours! It was only around 1 O'clock in the night that the ust<sup>3</sup>da came out of his 'trance' and looked at the watch. He suddenly could not believe that he played the saroda so long without any prior planning! But, the pendulum of the clock confirmed it loudly that it was indeed 1 a.m. It is this level of mental engrossment and dedication for music that makes one such a great musician whose expertise remains unparalleled for centuries. We all may not become expert musicians, however, by giving pure music a respectful place in our daily life and sincerely adopting its practice, we can certainly improve our hold over the swaras and also support uplifting our inherent qualities day by day.

## Place of Music in Nature

Long ago, Mr. Pelison, a French writer, was once sent to jail because of breaking some law. He had written a memoir on his jail-life. There he has described an incident as a thrilling experience, stating that – “when I was engrossed playing my flute, I saw a spider, which had come out of its web and was almost dancing at the tune of my music. At that moment I realized that music is a power, which can get linked with the consciousness existing in every living being. That is why the impulse of music can stimulate every a tiny creation of Nature”.

Sensitivity for music can also be observed in many other tiny creatures. The recently developed instruments for repelling or ‘gulping’ the mosquitoes are illustrative examples of this tendency. If the musical sound generated by the vibrations of such electrical instruments happens to be of their liking, the insects get almost pulled towards it and end their lives by striking on its walls in excitation. If the musical waves do not produce agreeable sensation, the insects run away from the domain of the musical vibrations and are thus expelled automatically.

Dr. J. D. Richardson, a scientist at Miami, USA, has observed the music loving tendencies in the fishes. He has also composed a special music, which could be played during fishing to capture large number of fishes that get mesmerized by this music. A sea animal named schero is said to be so fond of music that whenever it perceives a musical tune, it even risks its life and struggles hard to reach at the source from where the music of its choice is generated.

Huge Frazer has published an episode about a frightening incident of the Jululand farmhouse. It describes that – once, a woman, staying in one of the cottages in the farm house was not getting sleep so she started playing her violin around midnight. After sometime she saw two shadows, swinging with the up and down streams of the musical flow of the violin; she turned her face and looked back out of sheer curiosity. She was shocked to see that these were the shadows of a pair of the deadly snakes – cobras, which had entered her cottage by the attraction of the impulsive music! For few seconds, the lady’s body was almost frozen. but, soon she controlled herself and moved in the opposite direction while playing her violin more loudly; she entered the other room where her husband was sleeping.

The snakes followed her due to the hypnotizing force of music. Her husband got up because of the loud sound of the violin; she explained the situation to him in gestures. He had a gun and as there was no way out to send the cobras back without any problem, he shot the snakes on the spot. This incident demonstrates the influence of music in the wild life and had also taught the residents of the farmhouse that music could even invite dreadful guests in their homes unless they take necessary precautions.

In another incident, illustrating the power of music on snakes, a resident of a village in Salempur, Rajasthan (India) had switched on the transistor hung on his shoulder while he was on his way back from the town one evening. As soon as he realized that a snake was following him, he just threw his tiny radio set on the road and ran away; he was surprised to watch after a few minutes that the snake had stopped chasing him and instead, was sitting near the transistor. He observed that the snake sat quietly at the same spot till the music was on and entered the shrubs near by as soon as the program was over on the transistor. The marks on the road indicated that the snake had followed him for a distance longer than a mile!

In several scientific experiments on a variety of animals, different kinds of musical records were played near their cages in some zoos. Significant effects of the music of their liking or disliking were noticed in the behavior of all the animals including the most agile and the most violent ones. The music of their choice made them cheerful and active while that of the opposite kind induced gloom or aggressive excitation.

How and why the fine tuned vibrations of music affect the animals may be a question, which is yet to be answered completely. But, that they do so – has been effectively observed almost uncountable number of times in Natural History. More surprising are the findings that the swaras of some creatures do possess extraordinary powers, which are normally beyond the imagination of humans.

It is said that when Tanasen was undergoing a training of classical music under the illustrious guidance of Swami Haridas, he used to go for evening walks in a nearby forest. During one such stroll, he observed flashes of fire sparking on a dense tree at some distance. He was surprised to note that this fire was not spreading around and that the sparking was periodic. He narrated this incident to his master. Haridas informed him that a rare species of birds lives on that tree during that particular season. The vibrations of the swaras of this bird resemble those of the dipaka raga. The natural voice of a nightingale produces a sweet song and the call of a sparrow hawk generates a heart throbbing sensation. The rhythmic voice of this bird generates more amazing effects – sparks of fire. This incident had inspired Tanasen to learn the raga dipaka through a long-term dedicated practice with devotional sincerity and faith in the eternal power of pure music.

The above descriptions may appear to some people as exaggerations or imaginations. But those who know the science of sound and the relationship of the sonic energy with heat, electricity and subatomic vibrations would hardly be surprised. Because, they know well that – the vibrations of the specific rhythmic patterns of this natural energy do have the power to influence the matter and energy in infinitely many ways.

Like the electromagnetic waves or the radio waves, the sound waves of music are pervaded everywhere and are perceived at appropriate frequencies in suitable receiving regions. The subtle vibrations of Sabda carried through these waves affect

all kinds of jada and cetan manifestations. Therefore, it is natural to consider that the effect of music would be as intense on the botanical species as it is on the zoological ones.

Many examples of scientific illustrations of the effects of music on vegetation were presented in the earlier discussion. Some more may be added to this series. For instance, the experiments conducted in the agricultural laboratory at West Will, USA have shown a record increase in the productivity, expansion and quality of the crops of different seasons under the effect of music. Dr. George Milestone, a British scientist, has demonstrated that music can cheer up even the tiny plants. Dr. Dorovo Ratledge of New York has used music therapy to cure a good number of trees; he has also saved the lives of many delicate plants that were infected and sick.

The scientists of Ontario, Canada had observed similar positive effects of music on the production of wheat; even the size and taste of the grain were found to be better under such effects. Dr. Yoshito Oshai, an agricultural scientist of Osaka, Japan had successfully improved the growth and quality of tomato, watermelon and beet root in his garden with the help of music. Many Indian agricultural scientists and botanists have also demonstrated significant positive effects of music on plants and vegetation. The experiments conducted at the Annamalai University, Banaras Hindu University and the Govt. Agricultural Institute, Coimbtore are worth citing in this connection.

In the northern parts of India, the sowing of paddy seeds is traditionally accompanied by the songs of the ladies, who are especially trained in this sort of music. Now, even the scientific experiments have shown that if the records of these special musical tunes or such songs in melodious voices are played during and after the sowing of paddy, the crop becomes healthier. Similar positive effects of different ragas are observed on the cultivation of rice, sugarcanes, coconuts, beet roots and many other grains and vegetables. The experiments of Dr. Arthur Luca of Wisconsin have become popular because he has successfully used musical treatment to produce heavier flowers at faster rate. This has increased the scope and market value of music in the western world, where flower farming is a hot business.

Dr. James Smith of London University has added a new direction in the area of research on the effects of music in the botanical world. He, in agreement with the renowned scientists like Dr. Jagadish Basu of the earlier decades, opines that plants do have some kind of sentiments and are also equipped with the sensors to receive others' sentiments. He had carried out detailed study of the flora of different places. He has surveyed many gardens and the groups of plants growing elsewhere and scrupulously analyzed their conditions using large samples from different spots.

His results indicate that despite proper care the plants grow at a slower pace if they are planted in the places like cemeteries, butchery and hospitals. Even the already existing trees at such spots are found to be in unsatisfactory health as compared to

their normal standards. The trees and plants, growing at the places – including the ill maintained ‘gardens’ near some houses, where the general atmosphere is happy and energetic, were found to be normal and healthy. His survey also shows that if the plants are cared with love, even ordinary soil and water work like most suitable fertilizers for them. On the contrary, even if an expert gardener is maintaining them in a depressed or bitter mood, their delicate leaves will get shrunk and eventually the whole plants will become lifeless if this negative environment surrounds them for long.

As music has an intimate relationship with humane emotions, it must also be associated with the sentiments of the plants and trees. This line of thinking has opened up further areas of research and enhanced the scope of music.

Interestingly, a large number of species in the Nature are also found to produce their own music. The New York metropolitan’s museum had some time back purchased a book from Dr. M. Faridi of Afghanistan in about 18000 pounds. This ancient book entitled ‘Santa Kuber’ is written by an Indian Sufi saint Khwaza Fariruddin. This book contains rare information about the music generated by hundreds of creatures. The 362 pages of the book also have the compilations of some ‘songs’ (musical compositions) which are sung (produced) by these species. It is said that only two more copies of this book now exist in this world – one copy is available in Kashmir and the other in Varanasi, India.

The affluent in Japan like to possess the recordings of the musical sounds of a variety of birds and wild animals. The spectrum of this natural music is so enchanting that its records are often played there during some public ceremonies or in welcoming foreign dignitaries. It is said that a female frog sings in a peculiar voice at the time of delivery to reduce her pains and also to give extra strength to her newborn. It may not be possible to verify the truth of this statement on frogs, nevertheless, in case of human beings, music has indeed been found to be effective in reducing the labor pains and offering better health management of the child and the mother. The mothers who listen to good music during their pregnancy are found to deliver healthier babies. The overall development of the infants at the physical, mental and even the spiritual levels can also be supported by the power of music.

The tremendous effects of music on the entire animal kingdom the other forms of life in nature indicate that it has an intimate relationship with the cetan component of Nature. The folk tradition of singing sohar songs at the time of childbirth can still be found alive in many parts of India. The philosophy behind this practice is that – even if the child is born with evil samskaras (intrinsic tendencies), the lively currents of the swaras in these songs will wane out the same. These implications are an outcome of the Indian philosophy and culture in which the classical music – Sastriya Saagita was developed as a spiritual power for the realization and evolution of the vital source of cetan expressed in Nature.

Scientific experiments of today seem to have reaffirmed, with the help of the instruments like the supersonic radiometers etc, that the sublime power of sound and music emanated from Sabda and Nada is indeed limitless. The experiments in modern laboratories have shown that music also generates certain kinds of electromagnetic waves, which affect the neuronal circuit in the brain. Music has already become an integral part of psychological treatments in the modern age. The spiritual front of music however, is largely left unattended by us. Understanding, practicing and propagating the Sastriya Samgita with renaissance of its original glory would be essential to elucidate its infinite scope in the spiritual domains.

## New Experiments in Mantra-Gana and Music Therapy

It is a common observation that bed ridden or hospitalized patients have to spend a lot of time without any company. Friends and relatives may stay back during emergency but otherwise they can spend only few hours a day with the patient because of their other commitments and the constraints of hospital rules. The nurses and other staff also visit only at fixed time intervals for specific tasks, one cannot expect them to be with the patient all the time. In view of the loss of energy in chit-chatting and the possibility of disturbing other more serious patients, it is generally advisable for every patient to keep quite as far as possible. Thus, most often the indoor patients face a genuine problem of time-pass.

Sitting or lying down alone on the bed often induces adverse feelings and depression in the patients as they keep thinking about their disease and the problems caused thereafter. In such situations, reading books or listening the recorded cassettes of good music seem to be the best solutions as they offer an entertaining and inspiring company of one's choice as and when required. While reading books may not always be possible for all the patients because of the problems of – illiteracy, neck or shoulder pain, straining of eyes, non-availability of proper light etc, listening to prerecorded music is free from such constraints. It can be enjoyed in the most relaxed posture. It offers instant diversion of mind to the ailing person in a manner similar to what a new toy does to a crying child.

Interestingly the entertaining company of music also serves therapeutic purposes in the background. While the other therapies have a problem of mutual compatibility, music therapy does not cause any suppressive effect on any other mode of treatment. For instance, Allopathy and Homeopathy often annul the effects of different medicines and therefore, cannot be tried out simultaneously on the same patient. But music therapy can very well be used along with each of these prominent modes of treatment and also with any other therapy.

As stated earlier, musical currents vibrate the neuronal circuits and enhance the flow of vital energy in general. It does not have side effects like the antibiotics. It offers positive support on the psychological front too provided its tuning and pitch remain within the limits of melody and do not become noisy or disturbing instead. The filmy music or the commercially produced, so-called popular cassettes often consist of exciting lyrics that dominate over the musical compositions. Because of the TV and cheep cinemas, a large section of the society – including the lower economic classes and the illiterate ones, can afford to watch movies and learn such songs. Even children remember them easily and their subconscious minds also assimilate the visual images of the associated scenes of the film.

When one listens to such a music, he may get a diversion of mind and delight but the lyrics would induce the concurrent emotional currents in him and give a short term blow and excitement or amorous and erotic feelings or a sense of heart

breaking gloom or a sorrow of missing some one, etc, as per the motif and the tempo of the song. Such kind of music does not really give any therapeutic application and might at times turn out to be insidious in terms of psychological aberrations.

Assimilation of the maligned effects (of erogenous songs) in the memory also has corresponding effect on the subconscious mind and therefore influences one's intrinsic character too. Occurrence of crimes and erotic mentality is expanding like an epidemic these days via the medium of ribald songs and exciting amorous music. The tools like loudspeakers, gramophones, cassette players, radio and TVs etc have accelerated the rapid spreading of these infections. The maligning of mental domain by such effects is also frequently reflected in the occurrence of psychological disorders that give rise to epilepsy, hysteria, tension, insomnia, continuous headache and impotency etc. On the physical side, the associated disorders often become the causes of urinal problems, diabetes, hypertension and arrhythmia etc.

It should be remembered that specific sonic effects of the different combinations of swaras are the key factors in music therapy. The type and dosages of medicines are prescribed in any therapeutic system according to the condition of the patient. For this purpose, a clinical checkup, the pathological tests of the blood, urea, stools etc and the analysis of the internal organs by X-rays, Sonography etc and that of the neuro-physiological functions with the help of EMG, ECG, EEG etc are often carried out in Allopathic system. Other kinds of established therapies also have different principles and techniques of examining a patient before he is given any treatment. No therapy could be effective rather, it might risk pernicious consequences without this basis.

For a scientifically perfect and effective use of music therapy, it would be necessary to carry out research into the different types of sound waves generated by specific compositions of music and the effect of their vibrations on the nervous system and physiological functioning of the human and animal subjects. Decipheration of the ancient science of music, analysis of its different domains and sub-domains and classification according to the swara and nada patterns etc – as cited in the Indian scriptures, would alone be so vast that its compilation would expand across several volumes of books and journals. Here, we can only hint about the potential and scope of music therapy and lay out a framework under which this unique science could be studied constructively in the years to come.

As the roots of music had originated in India and its full-grown tree had blossomed on the soil of the Indian culture, it is natural to expect that the ancient Indian scriptures would be the richest source of knowledge on this classical subject. The Vedas, especially the Samaveda is regarded as the first and the most complete treatise on music, in its purest form. The Atharvaveda is often referred as the foundational scripture of the science of Ayurveda. Its mantras are said to contain

coded formulae about the control of the functioning of the human body and mind by natural methods and elements.

Most significant, in the present context, is the fact that the hymns (mantras) of the Atharvaveda were designed according to the principles of music therapy. Precise chanting of the original hymns according to the specific patterns of s<sup>3</sup> mag<sup>3</sup> na – as implied in the Samaveda, would offer significant positive effects as though the remedy or the medicines recommended in the associated mantra were applied. The chanting of these mantras in special yajnas is supposed to generate therapeutic, environmental and other applications of music at the subtle as well as cosmic levels.

Collection of all the vaidika mantras in original form and decipheration of their specific chanting (gana) patterns from the now available scriptures would be rather difficult because none of the ancient scriptures are now accessible in the original and complete form. Decoding of the original script wherever available – appears to be an impossible task, given that nobody would really recognize those symbols and accurately interpret their implications today. In this context, it would be logical for a meaningful and systematic research to concentrate on those mantras, which have been consistently studied by the scholars of different ages, as we might expect greater availability of perspicuous literature in this case. The Gayatri Mantra – defined as the root of all the veda mantras, happens to be one such mantra. The immense potential of this mantra has been experienced by almost everyone who is spiritually awakened and has practised the sadhana of this mantra.

The Brahm Varchas research center in Hardwar, India has taken up a great deal of research on this mantra under its missions of Pragy<sup>3</sup> Abhiy<sup>3</sup>na and Yug Nirman Yojna. Along with several other projects on the study and practice of the Gayatri Mantra, this center, under the auspices of its parent institute Shantikunj, Hardwar has been conducting scientific experiments on the effects of chanting this mantra in different classical ragas. Dedicated efforts – since the past two decades, of the researchers (including scientists, doctors, engineers and the scholars of vaidika literature and classical music) here have now fructified. Quite a few systematic ragas according to the sama principles have been designed and scientifically tested sequential experiments have evinced their positive effects in music therapy and spiritual enlightenment.

Initial set of experimental studies at Brahm Varchas were based on testing the effects of yajnas and making agnihotra<sup>12</sup> as feasible means for purifying the environment in day to day life. Later on, musical performances – chanting of mantras and devotional songs during agnihotra were also incorporated in such studies. Sometimes the people of other religions might not accept the use of vaidika mantras as part of yajnopathy and music therapy. Further, such confusions might create wrong impressions about these scientific experiments as being mere rituals of the Hindu religion. In view of such possibilities, some research work is also taken up here that focuses mainly on the analysis of the medicinal and spiritual effects of diverse ragas.

Studies at Brahm Varchas and Shantikunj are aimed at identifying – which type of music could be useful as a remedy for what kind of psychological problems... etc. It is being attempted that, a suitable class of musical records could be designed and produced that would be appropriate for daily uses by the masses as part of the refinement of environment and development of a happy and healthy personality.

The sonic patterns of musical currents are recorded with the help of oscilloscopes and the pitch, amplitude and wavelengths of the constituent sound waves are analyzed in the laboratories of Brahm Varchas. The difference between the effects of sound -- (i) when the same set of words is uttered in a rhythmic but loud, noisy or hasty manner or uttered in a haphazard way, and (ii) when the same words are sung under proper tunes of melodious music -- are recorded and analyzed systematically with the help of instruments like dual beam storage oscilloscopes and decibelmeters. Similar experiments are also conducted on the sound of different musical instruments. The sound therapy and psychometry labs of this institute are engaged in studying the effects of music in stress-management, with the help of integrated experiments on multi channel polygraphs and biofeedback techniques.

The audio-visual studio of Shantikunj has developed different kinds of cassettes of three major categories of music based on the results of various experiments at Brahm Varchas. Namely, those suitable for – (i) maintaining physical health in general; (ii) increasing mental concentration and sharpness of mind and clarity of thoughts; (iii) educating pious sentiments and moral elevation. Production of special musical records for therapeutic use in different diseases and those useful for healthy vegetation and agricultural applications are under progress here. The recently commenced projects include detailed study of the spectrum of classical music Sastriya Samgita and samagana patterns that might be suitable for the spiritual development of personality.

Experiments on the Gayatri Mantra and Yajna are the unique features of the research work at Brahm Varchas. This is a pioneering effort to set novel directions of research on sonic effects. Sound, heat and light are the basic energies immanent in nature. An excellent combination of these energy waves is used in a yajna. The cyclic renunciation and chanting of Gayatri Mantra has majestic impact because of the unique emission and superimposition of the sound waves of this mantra. The sound waves generated by the japa (or samagana) of this mantra move towards its cosmic center – Savita<sup>13</sup>, in a spiral fashion after colliding with the flames of the sacrificial fire of yajna and being energized by the electrons of the substances fumigated in this fire.

In the experiments on music during a yajna it has been found that collision of the swaras with the thinnest screen (of the flames of yajna) vigorously enhances the speed of propagation of the sonic vibrations of the swaras. The presence of early morning sunlight multiplies these effects by triggering specific photochemical effects

on the fumigating substances and also supplements the thermal effects of the yajna in the surrounding atmosphere. These coherent effects of sound, heat and light also result in excellent conditioning of the body and mind of the persons performing yajna. The enhanced impact of music induces most suitable effects after such a conditioning.

In the experiments on music therapy carried out in the yajnopathy and sound therapy (mantra ciktsa) labs of Brahm Varchas, the subjects are asked either to perform the yajna or sit quietly in the yajnasala<sup>14</sup>. Detailed analysis of their physical, pathological, physiological (including cardiovascular and neurological) and psychological conditions are carried out before and after participation in such experiments. Significant results have been obtained in increasing the vitality and immunity of the subjects and controlling their psychosomatic disorders (if any) by this special therapy of music with agnihotra.

Brahm Varchas and Shantikunj have also brought out some musical records of the Gayatri Mantra in several ragas of the Indian classical music. Effects of collective singing – especially of the devotional songs are also studied here on a large population of different psychological and social backgrounds. Suitable compositions of instrumental music are identified for specific applications. The Sastras on music specify that all the swaras have emanated from the eternal sound of Omkara. In view of the prevalent importance of the sound of Omkara, further research would be focused in these centers at the gamut of musical power currents that could be generated by singing Omkara in different ragas.

## Social Elevation by Sadhana of Music

“Tom Dir, Nadir Dir Dir Tom, Ta Dir Na....” – the currents of her perfect swaras had educed the atmosphere by the ecstatic effect of music. Her melodious voice was flowing in the air. Some times her voice would appear to be rising like the high tide of an ocean and would soften the next moment like a petal of flower swinging with a cool breeze. The audience was fully engrossed. This divinely soothing music seemed to have purified their minds and even if there would have been a place for any dissenting thought or doubt, that was also being instantly cleared by the inspiring comments of the singer which she was making in between her successive musical performances.

“Life is like a musical instrument which needs to be tuned harmonically and adjusted according to the rhythms of the internal voice. Life has no pleasure without sharing the responsibilities and co-operating with the fellow beings. If a shattered and misguided life could be shaped up and activated gracefully and the body, mind and soul could be conjugated coherently like the manda tala and madhyama saptaka of music, then its existence would become creative and pleasant like the melodious composition of the natural swaras of music” – she was explaining just after completing her performance, while keeping her musical instrument aside.

The atmosphere was still! Her blessed voice had delighted the audience from within. Quite a few among those were the people who had listened to many expert musicians in the royal concerts arranged for entertaining the kings and their families. But there was a great difference between that music and the music they had enjoyed today. The other kind of music used to be pleasant and exciting but today’s music was blissful and had generated immense peace of mind and heart. There was a flavor of luxury, lust and erotic sensation in the other music while today’s music had purified the mind and inspired auspicious thoughts and emotions. What a contradiction! Can music be so different in its two forms? Many of those who used to regard music as a mere means of luxurious entertainment had now come out of such illusive impressions. The young, serene lady in saffron standing in front of them was appearing like an idol because of her graceful beauty and the glow of asceticism on her face. She surely was a great sadhaka of music.

Somebody questioned here– “Madam, I wanted to ask..., why did you choose this devotional music instead of the music of the royal traditions?” She replied spontaneously – “Oh! I see your point. Listen! It is not the music which is to be blamed in that tradition rather, it is the way in which it has been misused as a medium of sheer entertainment that needs to be rectified there. Music is a conscious carrier of emotions. With the help of the powerful medium of music, one can tie the life of the masses by the bonds of erotic desires and obnoxious luxuries or use it for social awareness and uplifting depending upon what has been the quality of the emotions behind its composition and performance.”

That music could be a medium of social awareness – was quite a new information for some of the audience although they had experienced such a power of music just a few minutes ago, during her performance of the devotional music. Responding to their curiosity, she continued – “It is not just the movement of the vocal cord or the dancing of the fingers on the wires of the instrument which generates music. Music becomes lively only by the prana of the singer or musician. The status of music today has become like that of a slave; it has to serve the dull, erotic and lusty minds... The Goddess Sarada – the deity of swaras, is at pains by observing this downfall... The great —rishis are shocked to see how the knowledge of swaras founded by them is being distorted and misused by the animal instincts of humans today” – she was in tears. People could feel her agony.

In her emotionally charged but stable voice, she declared – “But, such a great power of Nature cannot remain underutilized for long. Awakened souls will again come forward to channelize this orgulous power and revive its glorious status. This power would awaken the humane sentiments and ideals in the masses. I have devoted my life for this cause and I am confident that God Himself will now appear in many different forms to fulfill this task of elevating the status of music up to its original heights. Much before the beginning of the third millennium, this world will witness the great change. Come on, you all! Realize the creative potential of music and use it for inspiring the sentiments of love and compassion and piety of thoughts and deeds on this earth...”

Her words, emanated from the depths of her inner self, had indeed awakened the entire society in that age. All the towns and villages, every house was virtually vibrated by the melody of her devotional music. This great soul, the immortal singer was – saint Meera Bai, a queen, who had left all the comforts of the palace for the noble cause of social elevation through her sadhana of music.

Renowned scholar of music, Mr. Pablo Kassarjian used to say – “Music could be the principal savior for the dying world”. In the words of Martin Luther King, “Music is among the greatest boons bestowed by the Almighty on the human society”. Inspired by such observations on the power of music, Mr. Shinichi Suzuki of Japan had decided to dedicate his life for the grace of divine music since he was a young student. He indeed devoted himself to see his dreams materialize in a righteous manner.

Suzuki tried hard to find out the ways by which the practice and propagation of music will not be confined to a few professionals and commercial entertainers; rather, it could also become an art of living a happy and successful life. He always used to think how music could be linked with the human life so that people’s interaction with it need not be limited to the radios or gramophones. Rather, they could experience its live power in their emotions and feel the vibrations of the natural flow of swaras in themselves. He was of the opinion that music should be an

integral part of every one's life. Like bathing, sleeping, eating etc, one must practice music every day even if one has a harsh or unstable voice.

Suzuki had developed a systematic and simple teaching method by which music could be taught in every home. He had devised techniques by which a mother and her children could teach and learn singing by collective efforts. He had also designed practically doable syllabus for adept teaching of music in schools. He inspired affluent people to sponsor grants for opening of many schools of music and factories for manufacturing of musical instruments at reasonable prices, affordable by the common men. The opening of the world's largest violin factory in the Noyoga City and persistence of its highly successful profile – is attributed to the efforts of Shinichi Suzuki.

In order to strengthen his noble mission, Suzuki had chosen a life partner who would be a compatible companion in his service of music. His wife Baltraude was an ideal match for him. She was an expert in playing piano. Their “Talent Education Institute” was established soon after their marriage. Baltraude had fully devoted herself to the service of this institute. This institute has by now produced about 1500 musicians of high repute. According to Suzuki – “Pure music awakens the compassion, sense of discipline, tolerance and soft sentiments. Music plays a great role in refining the benevolence of heart (emotional center)”. His wife used to describe the motto of their life as – “We want to see that every child of Japan has a heart full of love and ideal sentiments of humane dignity”.

The dedication of the Hoy couple in America and the establishment of their social organization R-for-R (described in earlier sections) have also set similar shining example in the modern history of music.

In the rhetoric presentations used in the Puranas, heaven is described to be extremely beautiful, cozy and exotic place – an absolute dreamland, where the apsaras (fairies) sing and dance to offer immense joy and entertainment beyond the limits of imagination of the mortal beings. Such descriptions imply the paramount role of music and associated arts in generating heavenly pleasure. The mention of its eternal presence in the divine land (heaven) indicates that Nada and Sabda are eternally present with every manifestation of the Brahm. The ancient Indian scriptures also describe that the apsaras and the deities vibrate the heaven with the lively currents of the nada of their music. Some scriptures mention in the context of the divine vedik era that the gandharvas and kinnaras used to perform elegant music on the earth during that time. All the Gods in the Hindu religion and mythology are described as having eternal association with music. The idols of these divine powers are also depicted as holding some musical instruments.

In view of the scriptural implications and noting the importance of nada yoga among the spiritual sadhanas devised by the —rishis, there remains no doubt in accepting the divine origin of music as a creative manifestation of the Nada Brahm. Music was

practiced in its original form in the prehistoric times of yore. Its pious practices continued, though at a smaller scale, even in the latter eras until several centuries ago.

The adulteration of cultural values and the untoward developments of the medieval era combined by the influence of the mighty rulers on its use as a means of tender entertainment almost ruined the divine and spiritual basis of the ancient musical schools. It was since then that music became an art for sheer entertainment. It is said that the influence of the over luxurious lifestyle of the Moghals had even infected the British in India so much that it resulted in the latter's downfall in the later years.

In this dark period of Indian history, the emperors and the rich and mighty officers of the war-trodden states used to seek 'solace and mental peace' in the company of wine and woman. All the wealth plunged from the defeated countries was also spent lavishly by the conquerors on such substandard means. Their lust for sensual pleasure had given rise to the murky culture in which music was largely practiced and performed to accompany sensuous dances and erotic songs of the prostitutes. Even many talented musicians were 'captured' by such kings to increase the royal possession of 'art and culture' those days. The service of music by these talents had become a synonym of the service of the king, the ruler. This is how the rich knowledge of ancient classical music got shrouded in the mist of perversion. Most of those, who knew it and could have handed over its treasure to the future generations, had to either hide it in the shields of protection sacrificing their own identity and diverting their expertise towards creating and practicing music for the entertainment and sycophancy of their rulers.

However, as the black spots of an eclipse cannot hide the light of the sun and the moon forever, cyclones cannot maintain their stormy speed and blowing wind for too long, similarly, no adversity, no period of misery can continue to stay far too long. The maligning of the glory of music during the dark phase of cultural decline could not uproot its divine linkage with the human consciousness. Devotional music, sincere practice of music as a sadhana, though at a very limited scale, continued to exist because of the dedicated endeavors of some great souls during this epoch of history.

Towards the end of the medieval era, the history of India witnessed the incarnation of many saintly souls for emancipating the oppressed Indian society. The great saintly poets and social reformers like Chaitanya Mahaprabhu, Meera, Raidas, Dadu, Tulasi, Kabir, Tukaram and Namadeva, etc had used devotional music as the sole medium for generating social awareness and enlightening the hearts and minds of the masses. Music, because of its ability to penetrate the inner core of emotions, became the source of social and cultural revolutions at that time. The 'army' of such saints had successfully used the powerful 'weapon' of music to conquer the maligned trends of the perverted social and psychological system. The founder fathers of the Sikh cult had also used devotional music as the paramount source for

awakening the sentiments of sacrifice and responsibility for the noble goals of human welfare.

The music of the vani of Narada had successfully transmuted the dimensions of the lives of Paravati, Valmiki, Dhruva and Prahl<sup>3</sup>da from that of an ordinary mortal being to that of a revered character of all ages. The music of the saints like Meera and Kabir had changed the trends of the society towards the end of the medieval times and had sowed the seed of an ideal value system in the cultural developments. The recitation of inspiring poems by Chand Bardai had provided instant courage and direction to the blind king Prathviraj Chauhan; this triggered the king to perfectly target and kill the enemy during the last moments of his own life in the captivity of the enemy — Mohammad Gauri. Siva Vani had similarly inspired the great Maratha king Shivaji to fight against death.... These and many such glorious chapters in the modern history of India have set some immortal examples of how the constructive effects of music (including the devotional and inspiring songs) can rouse the masses and uplift their lives.

Realizing this potential of music, Shantikunj has given it an important place in its Yuga Nirmana<sup>15</sup> mission and man-making odyssey. Daily practice of good music is an integral part of its Self-Reliant Training and Education program. Music is also taught under the special training programs organized here for the social workers. The volunteers desirous of working in the rural areas and for educating the illiterate masses are taught to convey the messages of social awareness by means of songs with little explanation in prose. They are also taught devotional and inspiring songs and given practice to sing such songs in chorus – as kirtans, with the company of the musical instruments like dholak, daphali, majira and harmonium etc. So that they could make their tutorials more interesting for the villagers for whom learning of formal subjects often becomes a bit boring. Participation in kirtans before and after a short lecture would help energize and enthuse such students (especially the adults). The methods of teaching with audio-visual aids are also covered in the training programmes of Shantikunj.

The monthly magazine entitled 'Yuga Nirmana Yojnana' published by the mission's branch at Mathura covers all the topics which are relevant for educating the masses in India – especially those living in the countryside or in the rural and tribal areas. Inspiring storybooks for children and biographies of great personalities are also published for this purpose of creative education. Special records and cassettes of music are produced here so that the trainees could go back to their centers with proper kits and start educating the people free of cost. The philosophy of this education program and structuring of the courses are focused at giving fast and timely solution to the socio-economic backwardness of the Indian people at large. Emphasis is laid here on uplifting the status of women and bringing them into the main stream, where they could participate, on equal footing, with the men in the development of an alert and progressive society.

The training of music is so systematically designed in these educative programmes that even the beginners could be trained in vocal or instrumental music on a limited metric scale (of musical notes) in just two to three months' period. This enables the latter sing or play at least one or two tunes (ragas and talas) with ease. This type of short-term intensive training is effective like the construction of bridges by the engineers of the army in very short duration in wake of a war.

Mass education and social awareness programs need to be implemented in India on a war-footing today considering the large number of the illiterates and the scarcity of time and dedicated voluntary organization for this purpose. A good number of volunteers from the rural and backward areas of India have also been trained at Shantikunj since past one decade. It is interesting to note that the special structure and methodology of the training program and the inspiring environment of this institute together with the sincerity of the students yield excellent results in short time. Most of these students learn to perform kirtana and narrate the preaching episodes of the Ramcarita Manasa and other educating scriptures (written in verse) just in about a month's time. They effectively convey the message of the story and the devotional songs (bhajans) with good support of music. The trainees who have time and who are found to have above-average talents in a particular faculty of music or oration are given higher level training in the corresponding discipline.

Anybody desirous of working on part time or full time basis for the noble cause of social uplifting and welfare is welcome to attend these training programs after taking permission from the In-charge, Yug Shilpi Sadhana Satra, Shantikunj, Hardwar: 249411, India. The courses usually go on throughout the year – a new batch commencing on the 1st of every month. About 200 trainees are accommodated in each batch for 1 to 3 months training. No fee is charged for the courses; free lodging and boarding is available in the premises of Shantikunj. There is no barrier of cast, creed, sex, religion or nationality...etc. Maturity of thoughts, integrating of character and sincerity towards the motive are the major qualifying criteria.

It should be noted that the training in music is not given here for the purpose of entertainment or fulfilling one's hobby. People are not supposed to go there for mere time-pass or touring. One has to follow the disciplines of the training programs and remember that learning music here is a sadhana, like an ascetic endeavor. A trainee of such a program should have respect for the serenity of music and dedication towards selfless service of the human society. This would enable him make use of his talents in most creative and fruitful manner.

In order to propagate the mission of social welfare, teams of experts are also sent from Shantikunj to its different local centers<sup>16</sup> situated in different parts of India and abroad on special occasions of large scale yajna as or the auspicious nine days of Navar<sup>3</sup>tra... etc. Different Samskaras– including ideal marriages, without any dowry or barriers of cast etc; thread ceremonies; commencement of education....., etc, are performed at these centers too as part of rousing cultural awareness, removing

superstitions and highlighting the scientific and logical basis of the Indian philosophy. Here again, music plays a key role in generating interest and inspiring the emotions of the participants to advance their inner strength towards struggle against the social and personal evils and come forward to participate in the constructive programs of development of the self and the society.

The centers located in the cities are especially advised to inspire the people in contact to not to celebrate the birthdays or the wedding days with extravagant parties accompanied by filmy or pop music. Such important occasions of one's life are like milestones in the journey of the soul and should therefore be regarded as divine ceremonies and celebrated with corresponding grace. Arranging a small program of devotional songs along with a havan or dipa yajna as a simple ceremony would prove to be enjoyable, inexpensive and meaningful in terms of the healthy effects on the body and enlightening impressions on the mind and the hidden core of sentiments.

## Superior Applications of Music

The study of ancient scriptures reveals that the Sastriya Samgita was developed not only as a branch of knowledge and cultural art, rather, it was devised as a medium for expressing and applying the eternal power of the Nada Brahm. The treatises on the history of music in India indicate that the great tradition of ancient music had survived for many-many years in more or less its original form. The supernatural power of music used in -- kindling the lamps by the dipaka raga or enforce rainfall at will by the raga megha malahar; causing the flowers to blossom without season or making the stones melt by other special ragas -- was demonstrated by the great musicians like T<sup>3</sup>nasen and Baiju Bavara only a few hundred years ago. Because of the non-availability of sufficient means and support for propagating its knowledge in the common public, the teaching and practice of pure classical music got confined to a limited domain of a handful of devoted musicians in the later years.

In earlier days, because of the difficulties in commuting and communicating from a long distance, only limited groups of people who could reach a musician or attend his concerts were able to gain from his talent of music. Even the trends of the folk music of certain types used to be 'retained' in one or two local villages only. This way the good or bad music used to have narrow impact only.

In view of the umpteen tools provided by the modern scientific developments, the potential of music could now be employed for enormous applications provided its original quality and tradition of dedicated practice is resurrected with firm determination. Scientific and technological developments have gifted the radio sets, transistors, tape-recorders, gramophones, stereos and sophisticated music systems by which one can listen to the music of his choice at will. The performance of a single expert can reach almost every corner of the globe instantaneously and can be preserved forever with the help of modern technology. Despite such facilities, a large section of the society is using them only for the purpose of entertainment via filmy or pop type music in general. Light or semi-classical music is mostly 'enjoyed' as a fashionable hobby.

The realization of the power of sound by the scientists in the recent times and its use in a wide variety of applications has raised hopes for the constructive applications of music too. The linkage of pure music with the emotions has survived all storms of cultural devaluation. Even the success of a commercial film largely depends on the melody of its music. A touching song or tune can make the audience cry. Devotional music can drive the heart and mind into higher horizons of peace and ecstasy. Use of music therapy is also becoming popular in the fields of healthcare since past few decades. This is the right time to integrate the modern science with the swara vijnana (the ancient science of music) to evolve higher level applications of music.

It should be re-emphasized here that apart from its significant effects on the body and the mind, music also has substantial impact on the inner self – the sublime core

of sentiments, beliefs, convictions, faith and the spiritual foundations. Swami Ramakrishna Paramhansa had highlighted this characteristic of music as – “The soul is awakened by the sincere call of pious music. The man who has the talent of eternal music would surely possess the glow of divinity in his inner self”. The experts of the science of spirituality know that the realization of anahatnada is similar to experiencing the supreme quality of the divine music.

The higher level applications of music would be reflected in the spiritual elevation of the individuals and overall elevation of the society thereby. The first step in this direction would be to stop the large scale (mis)use of music in commercial advertisements and substandard filmy songs. Even the songs conventionally sung in the Indian society on the occasions of a wedding or a childbirth etc often consist of cheap and vulgar lyrics; such practices should be avoided. Third grade and erotic literature and art do induce a perversion of mind and hence of the personality too. Their insidious effects expand more rapidly and inscribe deeper impressions on the mental and emotional character if the literature is presented in verse with musical support and the expression of the art is accompanied by music in the background.

The lyrics of a song, because of the inherent emotions which motivate its creation, leave their mark even on the subconscious mind of a child, who does not understand the meaning of those words..... The power of instrumental music is no less in any respect. For instance, the instrument Sahanai, when played on the occasion of a marriage celebration, creates a cheering atmosphere; but the same instrument, because of the different tuning of its swaras, generates the emotional waves of gloom and makes the people weep when played during a condolence meeting. Untoward effects of the high beat, loud music like pop or disco are so obvious that they can be recognized at the physical level itself. Even the ears refuse to listen to such music at a continuous stretch.

The standard of music, because of its intimate relationship with the human sentiments, also affects the general trends of arts and cultural development. Therefore, one may hope that an improvement in the level and quality of the music commonly practiced and listened in the society today would also bring-in a corresponding change the cultural system in due course of time.

The efforts of the social organizations like R-for-R in the USA, Mr. Shinichi Suzuki's mission in Japan and Shantikunj in India have set glorious examples of how the masses could be engaged in the noble cause of social welfare through quality based music. In fact, the simple projects of popularizing devotional music and semi-classical or light music or folk music etc, accompanied by inspiring lyrics and decent dances could also prove to be fruitful in arousing the virtuous tendencies of the masses. This would be more effective in the societies like the Indian because, music has deep roots in the religious and social makeup of the people here. The writers, poets and musicians in India may also attempt to excel their art and talents by

following, to some extent at least, the traditions of Meera, Tulasi, Chaitanya, etc and the great artists and poets of the modern times like Ravindranath Tagore. The social activists and all those who care for the humane culture must proceed to generate public awareness about the scientifically proven mal effects of obscene, erotic, noisy, fast-beat and substandard music. The artists, who adulterate the 'nectar' of the pure Ganges of musical currents by mixing the 'toxins' of cultural perversion, must be discouraged by public boycotts and counter propaganda.

On the personal front, everybody should give proper place to good music in daily life. If one cares for the maintenance of emotional stability and happy state of mind, it would not be difficult to identify and implement appropriate methods of doing so. The physical body needs oxygen, water and food for survival. The subtle body gets boost from creative thinking and enthusing achievements. The causal body likes to float in the ocean of pious, compassionate and blissful emotions and spiritual inspirations. It is only in the happy state of the subtle and causal body that one gives and gets back love, sympathy, kind co-operation and support from the friends, relatives and everybody else in the domain of substantial interactions. The devotional practices and realization of divine grace becomes possible through the sanctity and intensity of such emotions.

The field of mental aspirations is highly dynamic in nature. The same is true of the emotional domain. A child, who, because of the emotional attachment, does not want to leave his mother even for a moment, starts finding immense pleasure in the company of his friends after few years. Later on, this focus is shifted towards the life partner and his emotional charge is directed towards this beloved one. Still later, this love is shared by the children and successively by the grand children. At last, these ups and downs and the nimble flow of emotions in one's life stop under the shelter of death.

It is remarkable to note that the unique linkage between music and emotions does not fluctuate in spite of other inevitable changes throughout one's life. The warmth of this relationship never turns stale. Its intimacy increases more and more as one is engrossed and gets mentally 'dissolved' in the melodious currents of the natural swaras of music. Thus, the support of music along with other chores of day-to-day life is a promising means for regular boost in the vital energy and emotional food for the subtle and causal body.

Man's unlimited desires for materialistic comforts and sensual pleasure and his inconsumable passions for gaining more and more fame and success have suppressed the natural inspirations of his causal body at present. He has no time for paying attention to his internal development. This in turn has further encouraged his animal instincts. The vicious cycle has put humane ideals on the verge of extinction today. It is high time that the awakened souls do something to ameliorate the sentimental levels of people around. Music seems to be one of the

most easily accessible, uniformly applicable and naturally effective remedies for the present ailing state of human society.

For long-term maintenance of the human-dignity it would be necessary that the children of today be given emotional strength and guidance for developing a happy and healthy society in future. This can be achieved if their subtle and causal bodies are kept enlightened. Integrating good music with childcare and making it an essential component of education may serve this purpose to a great extent. The ever-freshening joy of music is so natural that it will continue to occupy important place in their lives in future too. Regular exposure to devotional and inspiring music would be more fruitful in sustaining the activation of the divine sentiments that are subtly indwelling in the latent layers of the inner self of every human being. Practice and popularization of the refined music of this kind will also be useful in stimulating the rather rigid and dull minds of the adults today.

Iron can be molded into any desired form in a melted state, the same is true with the human mentality. The preaching and guidance turn out to be most effective if given under proper emotional conditioning. As devotional music can educe the associated emotions, teaching and inspiring the masses with its support would work could have better and deeper impact as compared to the philosophical discourses or intellectual discussions. The programmes of samkirtana – collective singing of devotional songs with a support of melodious music in the background is quite powerful as it helps awaken the collective consciousness that can also induce divine vibrations in the sublime environment of life. The apparently simple methods of adopting the practice of devotional and inspiring music in daily life are most practical and promising towards setting up the basis for majestic applications of music in future.

## Some Notable Quotes on Music

The sadhana of swara yoga is indeed a sadhana of Sabda Brahm and Nada Brahm. With its support a person can awaken the satyam (eternal truth), Sivam (divine welfare) and sundarm (absolute beauty) qualities of the Brahm in his soul. This is how the sadhana of music offers ultimate content and exalts the self up to the divine realms. The scriptures on the yoga sutra of music describe these effects of the nada-sadhana in a great deal.

God Himself states in the holy Gita that – ‘Vedanam Samavedoasmi’ (I am Samaveda among the vedas).

The samaveda is the veda of music. The patterns of swaras described here constitute the supreme form of classical music. That is why the Indian classical music in its original form (sastriya samgita) is described to be divine:

Samavedah Smratah Pritrya Stasyat Tasyasucirdhwanih |  
– Manu Smriti 4 | 124

Rudrah Sammayoanteca Tasyattasyasucirdhwanih |  
–Markand. Pu. 102 | 109

The music developed by the rishis had originated from the samaveda. It was designed to vibrate the vina of the swaras subtly vibrating in the human body. Practice of music was a sadhana of devotion and spiritual elevation in the ancient era. The sacred flow of divine music emanated from the samaveda had manifested itself in the swaras of Narada. The Samagana of mantras by the rishis had continued showering its nectar of bliss on the human life for thousands of years through the music of these great sadhakas. This flow of divine music continued to show its presence on the earth till the saintly musicians like Swami Haridasa and their ardent disciples like Baiju Bavara and Tanasena maintained the disciplines essential for its acquisition and practice. Even today, the world would not have been deprived of the sacred influence of music, had the expert sadhaks of the sastriya sangita been given substantial support and honor by the society in the modern times too.

It is unfortunate to see that now music is mostly a subject matter of entertaining art alone and its performance has largely become professional. Teaching music has by and large become a source of earning and the ‘disciples’ learn it mainly as a hobby or as part of making a career in this profession. The decline of music began since the time it became a source of entertainment, luxurious pleasure and got influenced by the erogenous desires of a few. This was indeed bathotic like a decline of a revered master into a servant or devaluation of the humane instincts into the animal ones.

Because of the hypnotizing power of music on one's emotions, the rishis had imposed certain disciplines on its practice and had cautioned against its misuse. Lower level of music and associated arts is strongly criticized in the *ī*<sup>3</sup>stras.

Kamam Krodhe Ca Lobham Ca Nartanam Gita Vadanam |

– Manu. Sm. 2 | 178

Na Nratyedathava Gayetra Vadi-Tranli Vadayet |

– Manu. Sm. 4 | 64

The above quotes imply that — (erotic) songs and art are disdainful like the evils of kama (carnal lust), krodha (anger) and lobha (avarice) and should be avoided by the people of good conduct.

The following lines abuse those who make use of music for selfish means and describe them as having the Rudra-character even if they have the other qualities of a Brahmana.

Kusila Voavakirni Ca Vrasali Pati Raveca |  
Etan Vigarhitaca ra na Pamtiyan Dwijadhaman |  
Dwijati Pravaro Vidwanubhayatra Vivarjayet ||

– Manu. Sm. 3 | 157, 167

Stena Gayan Yoscannam Taksno Vardhusikasya Ca |

– Manu. Sm. 4 | 210

Presyan Vadhusikanscaiva Vipran Sudra Vadscaret |

– Manu. Sm. 8 | 102

Brahmarno Naiva Gayetra Nratyet |

– Gopath. 2 | 21

The Manu Smrati further defines in the following Slokas – dancing, singing and playing a lower level music as 'Tauryatrika' and describes them as addictions which generate erotic desires:

Tauryatrikam Vratthyaca Kamajo Dasako Ganah |

– Manu. Sm. 7 | 47

Vyasanani Durantani Prayatnena Vivarjayet |

– Manu. Sm. 7 | 45

Moreover, the following sloka describes the commercial musicians as those whose statements as witness in the king's council cannot be relied upon:

Na Saksi Nrapatih Ka ryo Na Ka ruka Susilavau |  
–Manu. Sm. 8 | 65

The reason for such disbelief is described in another sloka as – such (commercial) musicians can, because of their greed for money and luxuries, sell their integrity and are therefore not authentic. Similar views are expressed in the Yagyawalka smrati (3 | 170), Narada Smrati (1 | 158), Padma Purana (Patalakhmda – 9 | 58) and Bhavisyapurana (1 | 4 | 146) etc.

In a sloka of Padma Purana (Bhumikhmda – 75 | 30) Yay<sup>3</sup>ti is described as a virtuous king whose intense interest in entertainment and erotic music (and dances) had led to a severe decline in his moral values.

Kamasya Gita La syena, Hasyena, Lalitena Ca |

Mohito Ra ja Rajendrah Kama Samsakta Manasa ; |

– Pad. Pu. Bhu. Kh. 77 | 1

Meaning: King Yayati's mind was hypnotized by his involvement in sensual music, dances and songs and related jokes as part of his lavish entertainment. The dignity of his character was lowered thereby and so he lost all his glory.

Srimad Bhagawad advises that a saint must keep away from the vicious circle of learning or listening to erogenous, substandard music and songs to avoid the tragic end (of his own moral values) like that of a trapped deer:

Gramyagitam Na Srunuyad Yatirvancarah Kwatic Sikset |

Harinad Vadhdan Sragayo Gita Mohitam |

– Bhagawad 11 - 8 | 17

The successive slokas of this scripture cite the example of Sringi rishi as evidence in this regard. Banabhatta has also stated one example of an opposite kind in Kadambari. He describes of Chandrapida as an ideal state because – 'Ankanam Gita

Vyasanm' – except the 'animals', no body is addicted here to (indecent) musical entertainment.

The following quotes from the Valmikiya Ramayan a mention of 'the addiction to music and dances as luxurious entertainment' as one of the many misdeeds of the queens of Ravana.

Nratya Vadinna Kusala Raksendra Bhujankgah |  
– Val. Rama. (Sund. Kand) 10 | 32

Kacid Vi nam Parisvajya Prasupta Samprakasite |  
– Val. Rama. (Sund. Kand) 10 | 37

Anya Kaksa Gate Naiva Bamgu Ke Nasite Ksana |

Viprmci m Parigahyanyam Niyata Nratya Salini ||  
–Val. Rama. (Sund. Kand) 10 | 38

The above sentences describe the giant women of Ravana's palace as always busy in erotic singing and dancing. They used to roam around and even sleep with their musical instruments.

The same scripture describes just the opposite atmosphere in the ideal kingdom of Ayodhya. In the sloka number 100-168 (Va. Ra. Ayodh. Kanda) Lord Rama is cited as preaching Bharata to keep away from substandard songs and music.

Many other scriptures also warn about the harms of maligned music and at the same time highlight the virtues of ethical value-based music. Some such excerpts and sayings of the great personalities are given below:

Gayaka Radakaiscanathyaih Samgita Kayah  
– Kautilya Arthsastra 8 | 4

(Implying that – erotic songs and music are the source of decline and devastation.)

Nata Nartaki Vita Vesyakunrapesva Nratadambaram Vaktavya ;  
– Varhspatya Arthsastra 1 | 54

In the above sloka Acharya Vrahaspati has criticized commercial and perverted musicians and singers by equating them to prostitutes and traitors.

The Bharat Nataya sastra describes total music as – ‘Gitam Vadyam Nartanam Ca Traym Samgita Mucyate’ – a combination of singing, dancing and playing (musical) instruments.

This scripture also cites (in the sloka no. 36 | 34) that the rishis had cursed erotic music as a maligned form that would be discarded as disdainful –

Nirbrahmarno Nirabhutah sudra Ca ro Bhavisyati |

The Kala Vilasagranth written by Ksemendra states –

Arho Nama Jananam Jivitamakhila Kriya Kalapasya |  
Tam Samharanti Dhurta Chagala Gala Gayaka Loke || 1 ||

Nihem Kamala Kara Kosam Agdhwapi Kumudamasvadya |  
Ksina Gayana Brmga Matmga Pranyatam Yanti || 2 ||

Meaning: Wealth is a necessity of life but the commercial singers, musicians and dancers snatch it away easily as if it was hanging like a bell in the neck of a goat. These people (by the hypnotic power of their ‘entertaining music’) can even empty the treasure of Laksmi – the Goddess of prosperity. Such ‘artists’ of music always remain dissatisfied like a humming bee does despite sucking the juice of flowers; they always search for innocent or crazy people and make friendship with them so that they could be easily made addicted to the dirty music.

The Charucharya Grantha also criticizes the addiction to luxuries and the music, which stimulates animal instincts. Such a hobby is described here as pernicious and adverse like an enemy’s company –

Na Gita Vadyami Ritirvilasa Vyasani Bhaveti |  
Vina Vinoda Vyasani Vatsesah satruna Hatah ||

Many intellectuals of the later years had gone by the literal word-meanings and had misinterpreted many such quotes (excerpts) from the ancient scriptures without bothering to go into detailed context dependent analysis. Such misinterpretations had led to the wrong impressions that practicing or listening to any kind of music should be discarded. As a result, the popularity of good, classical and pure music also suffered a set back for many generations.

This fact should be recalled again and again by every thoughtful mind that the ancient scriptures have only criticized the misuse of the power of swaras. They have guided the human society to avoid luxurious and commercial use of music and warned against the enormous harms of dirty songs, sensual dances and associated music.

The pure, divine and creative music has always been referred by the saints and dedicated scholars of all ages as – the support of the soul and the source of ecstatic enlightenment of the emotions in all circumstances. For instance, note the following quotes:

“Music cleans up the smut of the mind “  
– Oveir Wech.

“Look deeper into the inner centers of every element. You will find an ecstatic latent music emerging from there” – Karlaila.

“Music eliminates the anguish of the soul”  
– Mahatma Gandhi.

“Music contains the magical power of converting even a hard (cruel) heart into a soft (compassionate) one...”  
– James Watson.

“Music is the universal language of mankind”  
– Longe Fellow.

“God follows music”  
– Shaikh S<sup>3</sup> d<sup>o</sup>

“Music is a medicine of a broken heart”  
– A. Hunt

“The world talks to me through pictures, my soul replies to it in music”  
– Ravindra Nath Tagore.

Arts associated with human psychology are like double-sided swords, which from one side could kill the evils but might destroy the virtues from the other. Considering the above viewpoints, we must be very careful in selecting the right kind of music and practise or listen to it only for morally refined purposes.

Some memories of Mahatma Gandhi are highlighted in a diary of Manu Bain. On one page it cites Bapu as saying – “I respect the art of dancing. I like music. But, I would certainly like to ban those songs, dances and musical instruments and tunes which malign the mind and character of the people”

From the same knife one can cut vegetables or use it to wound somebody. Like any other stream of power, the power of nada contained in music could be oriented in different ways for different purposes. Drinking milk is good for our health but when a bee falls in a cup of milk, the same milk no longer remains drinkable. Music is excellent for maintaining our spiritual, psychological and physical health but only till it is pure and linked with noble aims. If it stimulates evil tendencies and adversely attacks the intelligence, reasoning and moral values, it should be discarded as being 'poisonous'. Music has immense power and great potential to govern the human psychology. Today, the world needs to replace the noisy, superficial, (substandard) filmy and obscene music by refined, melodious and pure classical music in order to revive the glorious past of humane dignity through the implicit impact of nada in devotional music.

## The Future Sight

The science of mantras is based on awakening the power of Sabda and the science of music deals with the potential of Nada. Ideal use of these streams of immense powers demands refinement of vani, perfection of swaras and the sanctity and sincerity of emotions.

Musical compositions subliminally contain, like the mantras, specific energy of sound. This energy of sound, at the physical level, is natural like the energy of light, heat and electricity. Vibrations in the medium of air or ether manifest the presence of this sublime energy. Right from its use in conversation, communication, thought expression, the energy of sound plays wonders in its subtle (non-audible) forms at the ultra and infra levels. The thought waves are also generated and propagated through this energy in still subtler form.

It is said that the faculties of a human body, which are associated with sound, are of paramount importance. Several of the renowned talents in the modern history were blind; these include – the eminent scholar like Swami Virajanand, distinguished poet like Suradasa, celebrity singer like K.C. Dey... etc, to name a few. Ample examples of these types show that despite being deprived of one or more of the normal faculties, people have achieved great heights in different fields of artistic and intellectual excellence through their vani (voice) – the expressive power of Sabda. But for the exceptions like Helen Keller, the examples of deaf and dumb persons doing remarkable tasks are very rare in recent history.

The most important association of the power of Sabda with the human body and mind is reflected in terms of the effects of the former on the physiological and psychological functions. These effects become deeper and penetrate even the latent emotional layers when the power of Sabda is expressed in a composition of the eternal swaras of Nada. Music, being a manifestation of the power of Nada, plays a vital role in maintaining one's physical, mental and spiritual health.

The perfection of one's expertise in original classical music (sastriya smgita) is indeed the reflection of the gracious evolution of the consciousness. With this perfection, the cetan power of the life-force can also affect the jada component of the Nature. Whence the supernatural effects of the Sastriya ragas comes into existence.

The modern world has seen the worst possible misuse of the power of music – through its commercialization and propagation with noisy, exciting and high beats in the background and erotic songs. Its offshoots are frequently seen in terms of disharmony of body- functions, mental degeneration, emotional instability and moral degradation. The only saviors have been the sincere efforts of some dedicated musicians and scientists because of which music therapy has become a widely utilized technique for the treatment of psychological and psychiatric disorders.

Excellent results have enhanced its scope in the area of agricultural and animal products too.

It is the right time when more and more people should come forward to establish and support the organizations like R-for-R. An organized and firm opposition to substandard music and total rejection of its obscene varieties would be strengthened by bringing more and more people – especially the youngsters in touch with melodious music of enchanting, inspiring and devotional quality. In view of the general mentality and living style of the masses in a country like India, the efforts of the institutions like Shantikunj are worth being pursued with a greater zeal. Anyone who is interested in learning vocal or instrumental music for some noble purpose is most welcome to attend the training programmes of this mission.

The human body is described in the ancient scriptures as a musical instrument – the Gatra Vani. The seven basic swaras (of the musical octave) – Sa, Re, Ga, Ma, Pa, Dha, Ni have direct connection with the extrasensory energy centers (cakras) inside the body. The Muladhara Cakra is associated with ‘Sa’, Swadhisthan with ‘Re’, Manipura with ‘Ga’, the Anahata cakra with ‘Ma’, Visudhda with ‘Pa’, Agya with ‘Dha’ and Sahastrara with ‘Ni’. The continuous flow of prana from the muladhara to sahastrara in the above order, and from sahastrara to muladhara in the reverse, correspond to the aroha and avaroha (rhythmic ups and downs) of the seven swaras.

The practice of classical music deals with the ahata nada while the nada yoga sadhana aims at the realization of its subtlest form – the anahata nada. Devotional practice of music gives an excellent preconditioning of the mind for meditation and the spiritual sadhanas like the nada yoga. The refined music expressed in one’s vani after success in such practices is said to have emanated from his heart – the inner self. Deep mental engrossment in divinely pure music leads one into a blissful state of trance. The aroha-avaroha of the swaras in this state ‘electrifies’ the upward and downward flow of prana and thus helps kindling the spiritual fire of Kundalini.

The above kinds of spiritual endeavors through dedication to pure music could be likened with the most advanced kinds of scientific experiments on human body, sound and consciousness. Quality, rigorous training and dedication are the basic requirements here as would also be expected in any field of scientific research. This area of research has great scope in terms of the enormous physical applications of the rhythmic effects of the collective harmony of the sound waves in music and the extraordinary benefits of spiritual illumination through the inherent power of Nada immanent in it. Shantikunj, Hardwar and its research wing Brahm Varchas Shodha Sansthan have initiated reviving the efforts of the rishis to some extent by endeavoring special research activities in the fields of Music and Nada Yoga.

Footnotes: Glossary of terms from Shastrik Literature.

<sup>1</sup>The terms Ida and Pingla nadis refer to the latent streams of powers connected with the Pituitary and Pineal glands; described to be flowing on the right and the left side of the Susumna Nadi which is hidden inside the spinal cord.

<sup>2</sup> Mraga means deer.

<sup>3</sup> Brahmrandhras are described in the science of yoga as – the subliminal sensors of cosmic consciousness; these are hidden in the suture at the top of the head in the human body.

<sup>4</sup> The streams of powers of Nada that were experienced by the spiritual experts of music in the Vaidika Age are termed “Srutis”.

<sup>5</sup> The seven basic notes of the ‘gamut’ of the Indian classical system of music are termed “sapt swaras”

<sup>6</sup> Kundalini, (referred as the serpentine fire in tantrik yoga) represents the coil shaped subliminal core of the vital force. Hasya rasa (pertaining to humor), Vira rasa (associated with valor),

<sup>7</sup>The nine (nava) rasas correspond to expressions of different moods and emotional force of the human mind; the Hasya rasa (pertaining to humor), Virsa rasa (associated with valor, Sramgara rasa (amorous), Bhakti rasa (devotional), Santa rasa (linked with inner peace).

<sup>8</sup> The term sodasa samskaras refers to the sixteen sacred rites beginning from one’s birth in the form of the naming ceremony and at the later stages in the form of thread ceremony and marriage ....etc, continued till death. These are based on the spiritual experient devised in the Rishi Culture for psychological elevation of a being.

<sup>9</sup> Sraddha implies intrinsic faith and deep sentimental linkage with divine ideals.

<sup>10</sup> Emotional states of the singers and the musicians reflected in their face expressions and actions are called abhinaya

<sup>11</sup> Small bells wore around the ankles are called ghungharu or p<sup>3</sup>yal

<sup>12</sup> A small-scale yajna is called agnihotra or havan

<sup>13</sup> The subtle body of the sun is referred as Savita

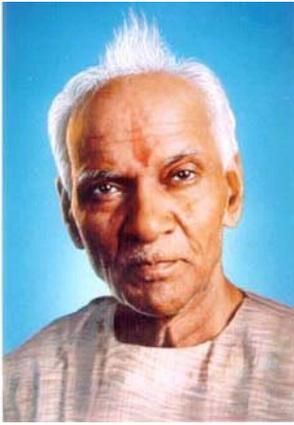
<sup>14</sup> The place where yajna is performed is called yajnasala

<sup>15</sup> The Yug Nirman mission aims at reconstruction of the era towards the revival of the divine glory of human life at personal, social, intellectual and spiritual levels.

<sup>16</sup> The local centers of Shantikunj, Hardwar are called Shaktipithas or Pragya Kendras.

## About the Author:

**Pt. Shriram Sharma Acharya:** A seer-sage and a visionary of the New Golden Era.



His personality was a harmonious blend of a saint, spiritual scientist, yogi, philosopher, psychologist, writer, reformer, freedom fighter, researcher, eminent scholar and visionary. He pioneered the revival of spirituality and creative integration of the modern and ancient sciences and religion relevant in the challenging circumstances of the present times. In 1979, he founded the Brahmavarchas Research Institute, the research center in Haridwar (India) dedicated to the integration of the modern and ancient sciences in a practical way motivated by the noble goal of health and happiness for all. This center houses well equipped laboratories of Haemetology, Biochemistry, Neurophysiology, Cardiology, Phytochemistry, Psychometry, Yagyopathy etc.

At the age of 15, (Jan 18<sup>th</sup>, 1926) a great Himalayan yogi, Swami Sarveshvaranandji appeared before him in astral body from the flame of the Dipaka (lamp) and guided him throughout his entire life. The next 24 years of his life were devoted to 24 Mahapurashcharanas –each consisting of the rhythmic recitation (japa) of 2.4 million Gayatri Mantra with strictest of disciplines. In 1943, he married Bhagwati Devi, and ever since, the saintly couple dedicatedly pursued the noble mission of spiritual upliftment of humankind.

Realizing the potential of inspiring literature and its relevance in the present era of intellectual evolution, he had chosen writing as the principal mode towards uprooting the evil tendencies and blind faith from people's minds and arousing the indwelling wisdom, strength and spiritual bliss. He wrote about 3000 enlightening books in Hindi on almost all topics concerning human life. He translated the entire Vedic Vangmaya (4 Vedas, 108 Upanishads, 18 Puranas etc.) in Hindi elucidating the tradition, style, universality and history of Vedic Literature. He also practiced higher-level Sadhana on the arduous heights of the Himalayas and established enliven contact with the Rishis of the Himalayas. During 1984-1986, he carried out the unique spiritual experiment of Sukshmikarana, meaning sublimation of vital force and physical, mental and spiritual energies. He authored a special set of 20 books highlighting the future of the world and conveying the message of the dawn of the New Era of Truth during the 21st Century. On 2nd June 1990, he voluntarily shed his physical sheath.

For more information:

To find out more about Pt. Shriram Sharma Acharya and his spiritual establishment visit [www.awgp.org](http://www.awgp.org)

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