

# In Search of the *Indian*-ness about Indian Music: A Raga Perspective

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**Author- KAUSTUV KANTI GANGULI**

**PhD student- Department of Electrical Engineering, IIT Bombay  
Scholar- ITC Sangeet Research Academy, Kolkata**

Contact- [kaustuvkanti@yahoo.ie](mailto:kaustuvkanti@yahoo.ie)/[kaustuvkanti@ee.iitb.ac.in](mailto:kaustuvkanti@ee.iitb.ac.in)/[kkganguli.09@gmail.com](mailto:kkganguli.09@gmail.com)

Website- [www.kaustuvkanti.webs.com](http://www.kaustuvkanti.webs.com)

Phone- +919769753366 / +919830899474

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<sup>1</sup> Author's photography at Istanbul, Turkey [2012]

**M**usic is one of the most exquisite means to relax. But when it comes to the national anthem of any country, every sincere citizen makes it customary to be on his feet, not as a compulsion but to honor his own country. We Indians are no exception too and we do boast of being Indian citizens. But are we really aware of the fact what it takes to be proud to be an Indian? This indeed is important for all of us to know whom we represent, to the rest of the universe. Now this is a very deep-rooted question to address and demands a thorough interdisciplinary research that would include: history, archeology, psychology, sociology, anthropology, ethnomusicology, physics, physiology, even from social processes outside the arts such as religion and economics.

That is why we would take up a small yet significant part of India's signature to the whole world: the Indian music, one of the oldest traditions and amongst the richest cultural heritages of the world. Especially for musicians, music students and lovers; it is not just a mere responsibility but a fundamental obligation to realize the identity of the music they cherish and respect, and to understand that special and peculiar element in Indian music that makes it strikingly distinctive from other music traditions of the globe. We Indians might not have given a conscious thought whether our natural preference to Indian music is an innate or an acquired phenomenon. But as a responsible Indian citizen, we should take pride to say that our inclination towards Indian music is not by birth, but by choice.

At this point, one may argue that it is nowhere required for a musician to have knowhow of the evolution of music tradition from an ancient to the present era, to become a successful and well-accepted performer. But it is of paramount relevance for a sensible musician to acquire both in-depth and at-breadth proficiency to excel in the field of music in a long term. In any classical art form, the four pillars as described by the doyens are: *Shastra*, *Tantra*, *Vidya* and *Kalaa* (correlates of theoretical, practical, intellectual and aesthetic skills respectively). A sound dexterity in all these four aspects eases the metamorphosis from a person's profound knowledge to wisdom, a state of evanescence with the welkin of the universe. A noetic discernment of the *Sangeet Shastra* pioneers the avenue that connects the current day music to the indigenous', hence my humble effort to re-search deep into Indian music through this article: "In search of the *Indian-ness* about Indian Music: A Raga Perspective".

Before we get into the core, let me justify a couple of keywords from the title itself. What do we mean by *Indian-ness* and where all do that apply? First of all, we note the fact that music and spiritualism are the two major facets that are unanimously agreed to be originated from India and are regarded as India's elegant contribution to the world. Now, the objects and abstracts that we frequently tag as *Indian*, include: culture, fine arts (music, dance, painting, sculpture, architecture etc.), food, attire and even very subtle concepts like philosophy, ideology, spiritualism and so on. The scope of this article is limited to Indian music only, though we have to touch upon Indian philosophy quite often as there is a very feeble delimitation between the two with equipotent coexistence but minimal predominance. To be precise, we shall 'see' *Indian* music from a raga perspective, per se, and 'say' its uniqueness by a relative canvassing with other archaic music traditions around the globe.

The purpose of a musical message is quite different from a mere speech communication in a way that music has served more of cognitive and affective role in human perception. A very common example might be the fact that we enjoy listening to the same music piece every time with same excitement even if we know the song by heart. So when it comes to the study of feature extraction of a music repertoire, sincere attention should be paid to the psychoacoustic and neuropsychological aspect of it as well. As any scientific approach first targets to identify the source before diagnosing its adaptation, we would also like to first take a look at the origin of Indian music and see how it took the route of evolution. Also it would be interesting to know where else in the world, a music repertoire resembles musical features which are very much Indian. How did the seven notes evolve?

Today's advance science is capable of measuring musical frequencies in a very close precision, recent musicological studies talk about micro-tonality, vis-à-vis, *shruti* in Indian raga music. But it is not at all rational to analyze primitive music with such a scientific mind, equipped with sound technological aids. Rather, we should be empathizing the aboriginals and interpret the anthropological findings in a reasonable way. Evidences say about the existence of bone flutes, instruments made of animal skins, harp-like wooden structure etc. in the prehistoric civilizations of India. Now, whether this primitive music was primarily vocal or instrumental, whether it had melody or harmony is a farfetched affair to argue upon. But where did they find the first musical sound? How did they create music?

Music and musicality, in a way, are two realms of looking at the same musical universe. The entity of the same musical object gets a different identity while reviewed from perspectives of music and musicality. The term 'musicality', per se, has different interpretations in every other domain: a sound, an ambience, even a person can be tagged as musical. In brief, whatever soothes human sense organs are musical; in case of auditory sensation it's the tone.

During the primeval era, music did not have its material form in the human civilization. But it was very much a part of and close to Mother Nature: birds and animals had their own spontaneous music. Human beings have always been keen on mimicking and they were experts in imitating whatever attracted them. This marked an epoch in the primordial human civilization, the initiation of man-made music in India. Even there are mythological evidences that the seven notes of Indian music have correlates of birds' and animals' cry. Indeed birds are genuinely gifted with pure musicality: they just ad-lib it to sheer perfection and hence my conscious choice of the illustration on the title page.

Let me, once again, stress upon the fact that music or *Sangeet* holistically denotes vocal, instrumental and dance repertoires; but here we shall only concentrate to the melody and briefly rhythm aspect of it. This is not going to be an article on the history of Indian music per se; but as mentioned earlier, we have to gather adequate circumstantial evidences in order to appreciate the contribution of India to the world's music. Though the term raga music tends to showcase the lucid portrait of the raga tree, but we have to first focalize onto its seed, vis-à-vis, the primitive or the musical notes. Then only we can cherish the invaluable treasure of the moments when a musician breaths life onto the aura of a raga.

One or perhaps the most significant feature of Indian music is the 100% guardianship of the tonic key 'Sa' or the *Shadja* which literally refers to the parent of other six notes, viz., 'Re', 'Ga', 'ma', 'Pa', 'Dha' and 'Ni'. Now, the natural question which is very reasonable to ask is how all these seven notes came about, so to say, how did humans come up with a music scale that sounds so musical? And why only seven: is there any implicit relation between the seven notes and the seven colors (VIBGYOR), vis-à-vis, the audible and the visible spectrum? The scientific approach to address these questions has been discussed in great details in one of the other articles by the author, entitled "How *musical* is the music scale?" and hence kept beyond the scope of this one. But, it would be more relevant here to focus on the chronological events during the evolution of the seven-note music scale.

The tuning of a music scale deals with auditory perception and let me clearly state that human ears are the most advanced apparatus equipped with such sophisticated mechanisms that even present-day technology has not been able to model it completely. The psychoacoustic correlate of the frequency of a musical note is its relative pitch (note that subjective pitch perception is always relative, ability of absolute pitch perception is rarely observed). Now, the phenomenon of a two-note couplet sounding pleasing or disturbing to the ear, is known as theory of consonance and dissonance. Experimental evidences say that it is an innate ability: even a six month-old child shows a natural preference to harmonious sounds and reacts to a dissonant tone-complex. At this point, I would like to clarify that the contribution of great philosophers Pythagoras and Helmholtz in regard to tuning of musical scales is restricted only to the scientific rationalization of the Physics and Psychophysics of musical sounds.

I do anticipate that the reader might wonder that in what way these discussions are connected with the *Indian-ness* of Indian music. I defend by assuring to gather enough evidences that support the fact that the just intonation or the pure scale is India's contribution to the whole world and hence has the authority to be called as *Indian*. We shall take two routes: archeological findings and analysis of the Vedic literature by philosophers and historians. It is perhaps a good time to mention that the *Sanskrit* word for music, *Sangeet* literally refers to the tuneful chanting of the *Samveda* hymns.

Let us first look back to the different eras of Indian music tradition, right from the prehistoric period. The most accepted opinion as described in the book "The Cultural History of Indian Music" by Swami Prajnanananda divides India's music history into three eras, viz., 1) Ancient age (includes Primitive, Prehistoric or Pre-Vedic, Vedic and Classical periods) – archaic till 1200 AD, 2) Medieval age – 1300 to 1800 AD, 3) Present age – 1900 AD to recent time.

We shall narrow down to the Vedic period which would be the most relevant one for our discussion. There are evidences in literature, regarding the existence of seven different classes of Vedic music which would directly relate to the number of notes used in the then music. These are: 1) *Archic* – single note, 2) *Gathik* – two notes, 3) *Samic* – three notes, 4) *Swarantar* – four notes, 5) *Oudav* – five notes, 6) *Shadav* – six notes, 7) *Sampurna* – seven notes. The last three classes are very much a part of our present day raga music: the pentatonic, hexatonic and heptatonic scales respectively.

Another perspective, as mentioned earlier, that supports our claim is the material findings from the excavations over the regions of the ancient civilizations. Famous archeologist Piggott says in “Prehistoric India” (1950, pp. 270-271): “There is some interesting evidence for Aryan music...there were reed flutes or pipes, a stringed instrument of the lute class, and a harp or lyre, which is mentioned as having seven tones or notes. This last piece of information is important for our knowledge of ancient music”. Not only that, there have been reports stating the existence of bow instruments called the *Pinga* which later on transmuted to the *Bahulin* (hand-held instrument) or the violin. According to McCulloch, “...the flutes being pierced with holes at regular intervals or consisting of two bones, which were joined, would make modulated tones”. Along with unsophisticated instruments like the *Ektara* or the *Dotara* (single and double string harps), fretted lute-class instrument called the *Sapta-Tantri Veena* was also present in the Vedic period which metamorphosed itself to the present form of *Sitar*. All these evidences logically put together, points to the fact that the music scale was very much present in Indo-Aryan period, one of the oldest civilizations of the globe. Now questions may arise whether there were any parallel developments of the same in other parts of the world. We shall briefly see what historians have said in this regard.

Most of the Western history literature mention: ‘from the East’, while describing their musical chronicle. Old Egyptian music is known to have used both harmony and melody in its music. Historians agree with the fact that they have had high influence of Greek music, which got hugely pioneered by Pythagoras around 600 BC. Renowned musicologist Alain Daniélou says in “Introduction to the Study of Music Scales” (1943, pp. 159-160): “Greek music, like Egyptian music, most probably had its roots in Hindu music, or at least, in that universal system of music, much of which the tradition has been fully kept only by the Hindus”. Note that this refers to ‘Hindustan’ and not the religion ‘Hinduism’. Swami Avedananda remarks: “...the scale with seven notes and three octaves was known in India, centuries before the Greeks had it. Probably the Greeks learnt it from the Hindus”. Dr. Burnet says in “Greek Philosophy, Thales to Plato” (1943, pp. 45-46): “In the time of Pythagoras, the lyre had seven strings and it is not probable that the eighth was added later as the result of his discoveries”. De Lacy O’Leary says in “Arabic Thought and its Place in History” (1922, p. 10): “The Pythagorean elements, probably, can be traced ultimately to an Indian source”.

Let us now quickly look at glimpses of some other countries. According to Sir John Malcolm in his “History of Persia” (1815): “...but they (Persians) cannot be said to be further advanced in this science than the Indians, from whom they are supposed to have borrowed it”. Musicologist Curt Sachs says about Arabic music in “The Rise of Music in the Ancient World” (1944): “Maqam is, like raga in India, the essential quality of a melody...the exact counterpart of the Indian raga: a pattern of melody”. Buddhism had served as a major carrier of Indian music tradition to the eastern countries of Asia. Dr. Probodh Chandra Bagchi says about Chinese music in “Indian Civilization in Central Asia” (The Four Arts Annual 1935, p. 167): “The music of the country...reveals its Indian origin, as the name of some of its seven notes are given as *Sadja*(3), *Panchama*(6), *Virsa*(7) and *Sahagrama*(4)”. Dr. Kalidas Nag remarks about the existence of a sandalwood *veena* or lute called *Biwa* in Japanese music history in his book “India and the Pacific World” (1941, p. 250).



Let us switch to a different perspective now. I have deliberately mentioned about this article being a raga perspective, but till now our canvas did not portray any explicit lineament about Indian raga music. We shall now redirect to a question raised a while before: are the seven musical notes related in any way with the seven colors? There is a saying in *Sanskrit: Ranjayati Iti Raga*, meaning that which colors the mind is a raga, again the literal meaning of the word 'raga' is also color. This color refers to the emotion or the sentiment, which is closely associated with the *Nava Rasa* theory of fine arts of India – music, dance, drama, poetry etc. Each musical note in music theory is colligated with one of these nine rasas: *Shringara, Hasya, Karuna, Raudra, Veera, Bhayanaka, Vibhatsa, Adbhuta, Shanta*. Even every raga is tagged with an emotion in the musicological texts. But the true essence of Indian music lies in the fact that despite all these theoretical prescripts, the practical application, vis-à-vis, a raga performance portrays the sensible musicianship and aesthetics of the exponent with all its subtle emotive nuances in its full glory.

Indian music is primarily modal in nature, but ragas should not be confused with modes (lit. *thaat*), though the gamut system (lit. *gram*) has been unanimously agreed to have originated from India and spread to the Western world through Arab, Persia and Greece. There is presence of a single predominant melody, vis-à-vis, monody and no explicit harmony. But the inconspicuous harmony that is deep-rooted in Indian music is in a vivid form of the social harmony, a state of concordance of the musical notes in a raga kingdom. The *Vadi* (dominant) is the king, vis-à-vis, the melodic centre; the *Samvadi* (subdominant) acts as the consort. There are *Anuvadi* and *Vivadi* notes playing the roles of friend and foe. And the universal monarchy of the tonic 'Sa' is held by the drone of the *tanpura*, perhaps the harmonically richest instrument of the world. This is a key feature of Indian music and probably takes place in the first row of idiosyncrasy that attributes to *Indian-ness* about Indian music.

As impersonated by the anecdote, *tanpura* provides one of the highest forms of harmony per se, a noble degree of consonance, vis-à-vis, friendship amongst all pure notes and their overtones and partials. Sir C. V. Raman mentioned in his article "On some Indian stringed instruments" (1921, pp. 29-33) about the special configuration and curvature of the *tanpura* bridge and use of the silk thread for incorporating sonorousness (lit. *javari*). From the study of precise measurements of the harmonic locations and weights, it so turns out that the natural Indian tuning resembles the 5-limit tuning of the diatonic chromatic scale. In a *pancham*-tuned *tanpura*, the perception of the *Swayambhu Gandhar* is nothing but the reinforcement of the 4<sup>th</sup> harmonic of 'Ga'. The *vadi-samvadi* pair often holds a fifth note relationship that strengthens the skeleton of the scale. The 'Sa'-'Pa' affinity is nothing but that of 'ma'-'Sa'. But the raga recognition highly depends on the tuning, for example, the scale of 'Kafi' on a *swarmandal* sounds as that of being 'Bageshri' if the *tanpura* is *madhyam*-tuned. Not only that, the dominance of *tanpura* in Indian music helps satisfy a major clause in the definition of melody: sense of return to the tonic, which is now rarely found in Western music repertoires, that has chosen the path of 'tonicization' as a key feature since the inception of the equal temperament tuning system. This conformity turns out to be very significant when seen from the perspective of a typical Indian family structure and human values.

**M**usic is all about prosody: the same statement denotes multiple prospects of the same being when the focus or the stress syllable is altered. Same is the case with the theme concerned here: Indian music. In search of the *Indian-ness* about Indian music, insofar our attention has pointed toward Indian *music*, the music element of the subject. But now I would like to elucidate the other facet of the tale, the *Indian* music. Actually speaking, this dyad is a literary gestalt; but let me demystify it to some extent. Any work of art can be visualized from two perspectives: the creation and the creator. We have till now depicted Indian music from the objective point of view; but to enter deep into the subjective musicians' minds, it takes to consideration of manifold realms: purpose of music, training system and even the socio-economic status quo play a role.

Vocal music is the most spontaneous form and perhaps closest to Mother Nature, as this is the only God-made instrument among other man-made ones. Inhaling is life, controlled exhaling creates music: painting the inconspicuous canvas on air. Eventually from the Vedic era itself, the mode of music training in India has been oral-aural: another name of the Veda being *Shruti*. Even instrumentalists in present days mandatorily learn vocal music and emulate the thoughts on their respective *saaz*. As we have arrived at the deliberation about instruments, let us put some light upon the rhythmic aspect of the *Indian* training system. The tala system comprises of rhythmic cycles: the 'cycle' is quite significant and unique. It has a closure and the centre of gravity lies on the *sam* or the first beat, though its expectation is rather crucial. Every music student learns how to recite and play the *bols* or the syllables with proper prosody irrespective of his subject of proficiency and even these are directly imported into forms like the *tarana* or the *thillana*. At the debut of the first Carnatic term per se, I anticipate that readers might have had a feeling that by raga music I have referred only to Hindustani music. I think this is a good time to emplane aboard the Carnatic story.

There is a conception that the genres Hindustani and Carnatic have a regional demarcation. Though it happens to be true that the latter has much more acclaim and connoisseurship around the southern part of India but the word 'Carnatic' has a different intuition altogether: *Karne Atati Iti Karnataka* [courtesy: "Samgithasasthramritham" (2005) by eminent scholar and musicologist A. D. Madhavan] referring to whatsoever pleasing to human ears. Practically speaking, source of all raga music is folk or the music of the earth. Hindustani tradition belonging to the greater northern India (including present Pakistan) has been influenced, attenuated and blended with lot of exotic and alien elements from the Middle East whereas the Carnatic custom could preserve their tradition to a much larger extent. This reflects even in the lyrical values: most of the old Carnatic compositions are in praise of the almighty; in contrast Hindustani lyrics had faced a phase of humdrumness with mundane household affairs making its place in the poetry. The present-day scenario is lot more liberal: there has been a collection of ragas that are mutually exchanged and adopted in either tradition. It may seem superficially that the ornamentation, instrumentation, structure and presentation of the two are quite disparate but the conformity lies in the purpose and intellectual orientation of the singer as well as the listener: to be one with the supreme soul of this sole universe. An honest rendition of Indian music should be able to disseminate divine pleasure and elevate one's conscience to a state of non-dualism or the *advait*.

Neuropsychology states that human brain by its nature, chooses a ‘minimum effort way’ to cognize a melody line and this has a rather strong correlation of the existence of music scales, because the JND (just noticeable distortion) or the frequency resolution of human ears is much more precise. The full-fledged representation of Indian music involves micro-tonality: the true essence lies more in legato than staccato. This idea is contemplated even in the *alankars* used: the free flowing *meend* and quivering *andolan* elicit the natural expression of love, affection and a sense of full freedom to sail through every niche of the musical arena. The charisma of long held *nyas* and blooming stentorian *gamak* emote the two contrastive flavors of life: relaxation and excitement, vis-à-vis, *lasya* and *tandav*. All I would like to motivate is the fact that the improvisation in Indian music has its roots and is a direct form of Indian lifestyle and philosophy; this discernment has enough potential to be accepted as a doctrine: a dogma of *Indian-ness* about Indian music.

Music is an ocean: spillage of even tons of bucket-load does not affect the sea-level. So is the case with musical contentment: a generous sharing of knowledge and matter would not harm one’s wisdom, rather incarnates an embodiment of serenity. At the same time, we must pay an acknowledgement for whatever small debt we owe. It is a pity that Pythagoras nowhere mentioned about Indian contribution to his conjecture, but Indian music should admit all its indebtedness to all sources: this will in turn exalt India’s glory and people across the globe will start appreciate the *Indian-ness* about Indian values and philosophy as well as Indian music.

At the very end, I should concede the fact that the term ‘Indian music’ is a heavily loaded one and specially in today’s practical scenario, I owe no offence to state the fact that Bollywood music per se, is indeed the face of Indian music to the current internet universe of discourse. In terms of music popularity index and mass preference in social networks and media, it has attained a higher rank during the last decade. Though the scope of this article has been limited to a raga perspective, I regard this sensitive issue as a crucial one because it opens up a question whether our age old Indian music tradition is at all in safe hands. A proper fusion, in the true sense of the term, of Indo-Western music is always heartily welcome, provided the *Indian-ness* and the *Western-ness* of the music is vividly embraced. Conscious morphing makes an animator more adept: correspondingly, imparting Western harmony would make Indian music ornate if and only if the music portrays the true *Indian* face.

As a loyal student, lover and connoisseur of Indian music and a responsible citizen of India, I consider it my elementary social obligation to first know and then let others know about the morality and *Indian-ness* of the Indian values and music. As an art music tradition, Indian classical music holds the purest form and the folklore of this archaic heritage; therefore it is customary for the young generation to take the lead in carrying forward the legacy of Indian music with great care and attention. A bright sunny day colorizes our minds: it confirms that all colors are present, but the preeminence of white restricts our vision from perceiving others. In a similar fashion I would like to witness the *Indian-ness* about Indian music being eulogized: as long as the ‘Sa’ finds its supremacy, Indian music will follow the pathway of an introspective progress or simply an ‘Inner Journey’.



### Brief Bio-data of the author



**KAUSTUV KANTI GANGULI** is a professional vocalist, an engineer and a budding musicologist trained in Hindustani music tradition (North Indian Art Music). Hailing from the Patiala gharana (music-lineage), he is proficient in Khayal, Dhrupad, Thumri-Dadra, Bhajan and other forms of Hindustani music. Initiated into music at an age of 4 through his grandfather Late Phanindra Mohan Ganguli, he has continued his musical training since the age of 7 with vocal maestro Pt. Ajoy Chakrabarty, first at his institution Shrutinandan and later as a scholar at ITC Sangeet Research Academy, Kolkata.

Kaustuv has been actively performing in various cities of India as well as abroad since the age of 12 in prestigious concerts such as the Young Artist Festival (Mumbai), Art Music of India Festival (Barcelona, Spain) to name a few. He has received the President's Award for winning the All India Radio National Competition (2011), 'Scholarship to Young Artiste' from the Ministry of Culture, Govt. of India (2010) and scholarship from the National Center for the Performing Arts, Mumbai, India (2012).

Presently, Kaustuv is pursuing his PhD at the Indian Institute of Technology Bombay, Mumbai, India under the Dept. of Electrical Engineering and is an active member of the 'CompMusic' international research group for the computational models of the discovery of world's music, with a view to converging music and technology. His main area of research interests includes Audio Signal Processing, Music Information Retrieval, Emotion Cognition and Perception. Kaustuv has been a part of the peer review committee of renowned conferences and has recently been awarded the 'Best Paper Award' for the International symposium FRSM-2014. He has recently visited the Music Technology Group, Universitat Pompeu Fabra in Barcelona, Spain as an invited researcher and for music concerts and lecture-demonstrations. Apart from engineering studies and several technical publications in International conferences and journals, Kaustuv also has got his musicological articles published in the International journal 'Samakalika Sangeetham' from the Sangeet Natak Academy. He has delivered invited talks and lectures in renowned musicological conferences such as the Indian Musicological Society and the MS University Baroda to name a few.