

Karnatak music

I would like to point out that certain statements made in the article are not correct ('The structure of *Raga* music' by R. Ramanna, *Curr. Sci.*, 1995, 68, 897-916). Ramanna states that a change of tonic (*Shruti*) in a piece of Carnatic music is strictly forbidden. This certainly is not true and there are musicians, especially the most skilled and imaginative, who use tonic shifts (*Shruti Bhedam*) routinely in their concerts. Examples can be quoted from numerous concerts of Balamurali Krishna and late Maharajapuram Santhanam and many others. This is done even in Carnatic instrumental music concerts. What is done is not a shift of the tuning of the *Tanpura*, but stressing the new *Sa*, which is actually any of the notes of the main *raga*, sufficiently to shift the mental tonic of the listener. It is also important to include the specific ornamentation of the derived *raga* as correct *gamakas* (which are in general different from the *gamakas* in the original *raga*) to get the desired effect. Simple examples are singing *ragas* like *Hindolam* and *Madhyamavati* from *Mohanam*.

A mere shift of the tonic without including the correct *gamakas* to change *ragas* in Carnatic music is not practical except for those *ragas* in which the *gamakas* are simple, essentially those that could be played on a harmonium or any keyboard instrument, and even there the effect is momentary, in those passages where even the *gamakas* have some similarity. This aspect cannot be seen in the written notations where any consistent mapping which preserves intervals more or less accurately looks viable. However, there are rare situations where the listener may hear a *raga* which is different from what the singer sings! This happens because the actual tuning of the *tanpura* is on notes *Sa*, *Pa* and *Sa*, whereas what the listener locks on to is *Pa* as his *Sa* and then the *Sa* as his *Ma* - a tonal shift from *Sa* to *Pa* in the drone itself. Then what he will perceive would be the inverted *raga* (in the sense of *raga* generated with the first inverted *shruti* chord). This happens in those situations where the listener is very familiar with the inverted *raga* and not the actual *raga* being sung. (I have heard it only in Hindustani music.)

Another important and controversial aspect which is touched upon (but elaborated only in the book) is the question of harmony in Indian music. R. Srinivasan in his review in the same issue has mentioned some of the practical difficulties in incorporating harmony while rendering Carnatic *ragas*. I merely want to stress the fact that harmony based on triads would be possible only in the obvious cases in which the *raga* has straightforward rendering without too many dynamical *gamakas* (roughly defined as modulations which blur the note in frequency all the way to the neighbouring notes, while stressing the main note itself. For example, many of the notes in *Todi*, combinations of *Ma*, *Pa* and *Dha* in *Kalyani*, *Panthuvarali* and derivatives, etc.) *Todi* would actually be very difficult in this respect with so many dynamical *gamakas* with the notes defined in a very impressionist way. But there are also many examples in which Indian musicians have tried out harmony with good success in *ragas* which do not depend strongly on dynamic *gamakas* (e.g. parts of *Mohanam* and many pentatonic *ragas*). There is a popular LP record by Ramani and his students on flute where many harmonized passages are played very skillfully, for different *ragas*. Harmony has been tried out many times in fusion music with a good Indian music component, and two-string harmony (may not really classify as harmony) has been tried by L. Shankar on some occasions (by recording twice over, playing his double violin) with pleasing effects.

There are statements in the beginning of the article which seem to suggest that only very recently Carnatic music has come out of courts into concert halls and that transformation to hi-fi era has not taken place in India. This obviously cannot be right. In fact, everything in hi-fi including Dolby technology, CDs, good acoustics, etc., are all incorporated already in many prominent recording studios as well as concert halls dealing with Indian music. So the justification that the article aims to educate technologists and scientists on aspects which might help in this technology revolution is misplaced, and after reading the article I also felt that it really does not contribute in this aspect even if there was a need.

The listing of the historical events of importance to Carnatic music (Appendix I) includes the name of Swati Tirunal, mentioned as a *Veena* expert and not as a composer! Is it a slip or taking sides in the well-known controversy?

While introducing Ramanna's article, the editor had commented that 'probably, many scientists may feel that it is not an appropriate subject for *Current Science*'. Many scientists would not really have any objection to publishing an article on music when it pertains to a scientific analysis or study of scientific aspects of music. In fact, some of the greatest of physicists have spent considerable time on musical acoustics and related theory. What was disappointing in the article was the way irrelevant information was included as transcripts of all the *Melakarta ragas* in western notation. This straightforward mapping, once the notation is established, should have been left as 'exercise' if anybody was interested in generating the full list.

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Raja Ramanna's article fails to communicate and is thoroughly misleading.

In Part I of the article, an unsuccessful attempt is made to explain the notation used in Western music. As I could not follow it and as I have no knowledge of it myself, I refrain from commenting on what is presented in terms of that notation. As regards the rest of Part I, I say, without reservation, that it does not convey anything to the reader. In Part II of the article, there is a description of what the author considers to be the salient features of a typical Karnatak music concert. When one reads through it, one is amazed by its divergence from reality. For instance, mention is made of flutists playing accompaniment to vocal musicians in Karnatak music concerts. I regularly go to music concerts and, on the average, I have attended fifteen to

twenty concerts per year during the last fifty years and more. Not once have I found a flutist accompanying a vocalist.

Coming to percussion instruments played in Karnatak music concerts, mention is first made of *Tabla* which is seldom used in Karnatak music, and of *morching* which is rarely used. But the more commonly used *Ghata* and *Kanjira* do not find a mention anywhere.

While dealing with *alapana* it is stated that 'more often than not, the percussion instruments are silent during *alapana* as it does not always have a *tala* structure'. It means that *alapana* has sometimes a 'tala structure', and on such occasions, percussion instruments are played. This is ludicrous, to say the least. An incorrect statement is also made about *tani avarthanam*: 'It may or may not be supported by other instrumentalists'. What sort of *tani avarthanam* is it if it 'is supported' by a non-percussion instrumentalist?

'After completing the "statement" of *pallavi* and *anupallavi*,' according to the author, 'the main musician takes on elaboration of the two themes in which new forces are brought in, such as *Kalpana swaras*'. *Kalpana swaras* being 'new forces' used to 'elaborate' *pallavi* is just absurd. Further, 'once *pallavi* and *anupallavi* is elaborated, there is a great degree of freedom for the performer for further elaboration swara-wise and *tala*-wise'. Statements of this sort which challenge our capacity for comprehension are abundant in the article.

'Two *ragas* with identical *Arohana* and *Avarohana* and derived from the same *Janya Mela* may yet differ from each other', says the author. Pray, what is *Janya Mela*? It is common knowledge that the 72 *Melakarthis* of Indian music are described as 'Sampurna' *ragas* because each of them have all the seven *swaras* in the order of their frequencies both in *Arohana* and *Avarohana*. They can also be called *Janaka ragas* because all the other *ragas* are derived from them. The derived *ragas* are *Janya ragas*. From this it is evident that *Janya Mela* is a contradiction in terms and so is meaningless. The context, however, suggests

that *Melakartha* is meant and not *Janya Mela*.

As an instance of the above statement *Arabhi* and *Sama* are mentioned as two *ragas* with identical *Arohana* and *Avarohana* and derived from the same *Melakartha*. It is just not true. *Arabhi* is a derivative of *Dheerashankarabharana* and *Sama* of *Harikambhoji*. Their *Arohana* and *Avarohana* are also different.

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Raja Ramanna replies

I do not know the status of Lakshmana Rao as a musician and therefore if he is disappointed and thinks that there is nothing in my article, it cannot be quite correct because many of the things I have mentioned are based on well-known books on Karnatic music.

It is a pity, as Rao himself says that he does not know staff notations and therefore is unable to understand the comments made using these notations, and yet says that there is nothing in them. The article is written to make it comprehensible to the practitioners and scholars of western music as well as Indian counterparts. It has been necessary to do it through staff notation. Perhaps, the best thing for him to do, I feel, is to learn staff notation and then make his comments. A. M. Chinnasamy Mudaliar (1895), P. Sambamurthy and H. P. Krishna Rao of Mysore, etc. knew western notation and used it.

About the other points. The term Karnatic music concert has been used in a broad sense. In the music team of a Bharata Natyam performance, for instance, one can see the *Flute* functioning as a support to the vocalist. According to some old timers, before the advent of

the *Violin*, *Veena* and or the *Flute* were the supporting instruments in any vocal recital. Many old timers in Mysore city are familiar with the flutist M. Venkatesa Iyengar (father of Doreswamy Iyengar) supporting Venkatagiriappa in the *Veena* recitals. In recent times M. Balamuralikrishna has given many concerts with *Flute* support.

Regarding the use of *Tabla* in Karnatic music, any old timer in Mysore city will vouchsafe the fact that it was the *Tabla* (not *Mrudangam*) which was the accompanying *talavadya* in the music concerts before the *Mrudangam* appeared on the scene in the 1920s. It was similar in Bangalore city. About the absence of mention of *Ghatam*, *Khanjira* the relevant sentence in my article reads 'on his right side are placed percussion instruments like the *Tabla*, *Mrudangam*, *Morching* (Jews Harp), etc., covering other instruments instead of their detailed enumeration.'

About the *alapana*, Rao has laid emphasis on words 'more often than not' and draws his own sarcastic conclusion 'as if the *alapana* has some times a *tala* structure'. Here again, the use of the words *alapana* and *tala* are in a broader sense. Otherwise, how can one classify the *alapana* performed by *nagaswaram* where a person maintains a beat on the cymbals while the *tavil* also joins. I have had discussions with no less a person than Bangalore K. Venkataram, Director of the Percussive Arts Centre, Bangalore, about the *tala* structure in *alapana*. In fact, it was he who has suggested to me to include this particular aspect in my article. *Janya* instead of *Janaka Mela* is a typographical error.

Concerning other comments, answers can be found in Sambamurthy's volumes.

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