

THE TONIC NOTE ON THE CHORDOPHONE

Its gradual development in Indian Music

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According to Abhinavagupta, during the Bharata's time the Vina (chor-dophones) was divided under three heads, viz. principal or mukhya (mattakokila), secondary or anga (vipanci and citra) and subsidiary or pratyanga (Ghosa and Nakul).¹ In the course of this discussion, whenever the names of 'vina' or 'vainika' are used in Natyasastra, the commentator Abhinavagupta clearly links those with the mattakokila and its player. He also defines the vinas such as anga pratyanga.² According to Kallinatha, mattakokila resembles svaramandala.³ A modern thinker, the late Chaitanya Desai says that the description of mattakokila as given by Abhinavagupta, which was well known as svarmandala at the time of Kallinatha, is nothing but the Persian kanun or santoor where one note is played on one string.⁴ Moreover, Nanyadeva describes 'mahavina' as a twentyone-string⁵ instrument.

But there is no ground to consider mattakokila as the same as kanun. King Tulajaji (18th century A.D.) of Tanjore also mentions that the musicians of his time consider mattakokila as svarmandala.⁶ Even in Ain-e-Akbari, Abdul Fazl describes svaramandala with twentyone strings, which is similar to kanun. But he does not mention it as kanun. He also keeps these instruments in different categories. The svaramandala is played to-day but the number of strings has been increased in accord with the need.

According to textual sources, mattakokila was played as a solo instrument as well as an accompaniment to the voice. The current svaramandala, too, follows the same practice whereas kanun has always been played only as an accompaniment to the vocalist. D. R. Parvatikar plays it as a solo instrument with fine technique, though this needs an austere endeavour. In the modern trend of music it was perhaps, the late Ustad Bade Ghulam Ali Khan who began using the svaramandala as an accompaniment for vocal performance. Once the present writer had a discussion with the veteran scholar the late Dr. K. C. D. Brhaspati, who asserted that the solo

performance of svaramandala was in practice upto the 14th century, but size of the instrument was somewhat large so that the distance between the strings from each other was greater. He also gave an example that during the regime of King Devaraya 1st of Vijayanagara, the Muslim musicians used svaramandala as an accompaniment at the time of singing, which proved that also after Sarngadeva (13th century A.D.), this instrument was used. But Dr. Brhaspati could not provide the details of the structure and the length of the strings of this instrument. According to this writer, the instrument which was used by the Muslim singers for accompaniment, was nothing but kanun and certainly not svaramandala. The Persian musicians employed kanun when they sang and even today Greeks and Persians use this instrument as an accompaniment. Both the svaramandala and kanun are psaltery-type instruments. So some scholars have led into a misconception over this problem.

Bharata mentions Ghosa as *pratyanga* (subsidiary) vina⁷ which is played by altering the length of the string by moving the piece of wood along with the string. Later this vina has been considered the origin or prakrti of all vinas. The instrument where one or two octaves could be found altering the length of the string, was not developed much at the time of Bharata but it developed after his period in the name of Ekatantri. We do get a mention of Ekatantri in the Kasi Edition of *Natyasastra* (ch. 29), but examining the other editions this version seems to be an interpolation because there is little continuity and link with the next verses. Sarngadeva calls this Vina as Ghosa, Ghosavati and Ekatantri.

After sometimes, a new kind of Vina, the fretted one, was discovered which is considered as the best kind of Vina till now for its unique techniques. The first of this kind is kinnari. The gradual development of these three Kinds of Vinas have revolutionised the whole system of Indian Music, in so far as tonal quality is concerned. The reasons for this change are as follows :

1. In practice, Bharata describes two Gramas (Gamut) i. e. Sadja and Madhyama. There are twofold ways to change the basic scale of one Grama to another. Firstly, changing the pure (suddha) Gandhara (eb.) of Sadja Grama as modified (antra) Gandhara (e); one can get automatically Madhyama Grama considering Sadja (c) as Madhyama (f), Rsabha (d) as Pancama (g) and so on. In this way one can get a new scale of another grama without changing all the notes. This system is fruitful for those Vinas where every note can be tuned in separate string, and so without changing all the strings one can trip from one Grama to another, changing only one note and considering the basic note in different manner.

Secondly, in Madhyama Grama, where the Dhaivata (a) is catuhsrutik (major tone), it should be tuned down upto two sruti and consider this

note as pure or suddha Gandhara (eb) of Sadja Grama and the whole scale again changes in Sadja Grama from Madhyama Grama.

There is another important matter to note, i.e. when one needs to change the Murcchana, one can easily start from the Graha (starting) note where the string is actually tuned. Hence, without tuning every time, one can get the wanted scale changing the nomenclature of the note. This system was useful at the time of drama where every now and then the situation changed, so the musical scale also changed accordingly. Sarngadeva mentions this as the primary system.

The secondary system mentioned by Sarngadeva was to place every starting note of murcchana on Sadja and to set the scale increasing and decreasing the tune according to the need. Ghosa or Ekatantri was a less important instrument at the time of Bharata. So, he did not mention this system. Some light was thrown on this point only after him.

2. After Bharata, Ghosa or Ekatantri was developed and here we find the clue of tonic note system. We get a vague idea of this system at the time of Bharata, and after him it became a principal rule. The rule was, to consider a specific place as starting point. We can say that the foundation stone of later key or tonic system was laid here. Ghosa of Bharata was a subsidiary or Pratyanga Vina, so it had to follow the other two kinds of Vinas. We can come to the conclusion easily that as Ghosa was being played by plectrum, in the left hand. So, one had to find the notes altering the length of the string. As a helping instrument and played on one string, there could not be any other way to find one Murcchana to another, other than the place of Sadja naming the starting note of Murcchana (graha). Here, we can throw a little light on Ghosa or Ekatantri.

Sarngadeva says, in Ekatantri, the system of playing the notes altering the length of the string, and Ghosa synonyms Ekatantri, so the system of playing Ghosa was same as in Ekatantri. Therefore, anyone who considers that Bharata never used the notes on the length of the string,⁸ is not correct. Being a less important instrument, Bharata did not mention it in detail. We should not take into consideration that only in fretted Vinas the notes were played altering the length of the string. But the other Vinas can also be included which are without frets but can be played either by the fingers or with some foreign materials. The writers' opinion is, the Kacchapi also comes under this category, Vipanci and Citra of Bharata which were played by plectrum according to the need and present Sarod, Vicitra Vina etc. follows the same rule.

As we have mentioned before, in Ekatantri every murcchana starts from the place of Sadja but the starting note must not necessarily be the Sa (c) only. It may be one of seven notes which is the Graha Svara of the Jati or

Gramaragas. This type of Vina is played altering the length of the string moving the fingers or a piece of wood or metal along the string, by increasing the tension—pressing and deflecting.

3. The fretted Vinas were invented after Bharata and before Matanga so far as we know from the written texts. In Indian music the measurement of one fret to another, when it is to be fixed on the stick (danda) of the Vina, the authors always mention Angula, Yava, Parva etc. right from ancient to mediaeval period. Only the modern scholars like Pandit V. N. Bhatkhande and his followers consider the measurement of thirty six inches (36") of the length of the string of Vina as a basis to fix the frets, which is nothing but an arithmetical calculation. It can be divided into two minimum digits, i.e. 3 and 4. Can't we get the desired notes on the Vinas of less length of strings? As for example, Violin, Sarangi, Santoor, Esraj etc. where the length of the strings is not 36". Neither Ahobala nor Srinivasa has talked of the length of string in inches. Modern Rudra Vina of both Hindustani and Karnatak music have got slightly longer strings and Sitar has a little less than thirty six inches. So it was the idea of Pandit Bhatkhande who mentioned that Srinivasa and Ahobala described the notes on the length of the string as 36" to give weight to his views. His followers never took pain to see the above original texts, neither they ever raised any question whether there was any possibility to get the notes on the longer or shorter lengths of the strings of Vinas.

Hence, when we try to fix the notes on the frets, the frets occupy some place according to their breadth and width, it is obvious that the upper octave note of the string can not be fixed exactly in the middle of the string, but the pitch becomes a little higher and so the fret is to be fixed towards the Meru. It should be applied with every fret. The system of setting the frets on Vina described by Pandit Ahobala and Srinivasa was a rough estimation and the makers of modern instruments also know it well. The modern instrument makers do not follow the theory of consonance, neither they put stress only on altering the length of the string, nor on the calculation of 36 inches. The writer had a session with some makers who agreed that with the help of the tuned jora string (tuned in Sadja), they set up the frets on the Vina respectively, i.e. the frets are fixed with the help of Sadja. They do not set the notes on the basis of Sadja-Pancama or Sadja-Madhyama consonance. But it is a fact that for musicological study or experimenting the intervals of the notes, the theory of consonance is more helpful than anything else.

If the problem is raised that because the tonic in Sadja today, the setting of the notes are to be started from Sa as said by Ahobala and others. But even Dattila refers to the notes after setting up Sadja, as described by Simhabhupala.⁹ He says that according to Dattila, after fixing up Sadja (considering any sound as basic sound), one has to pay attention (avadhana) to set Rsabha, Gandhara and other notes respectively.¹⁰ Simhabhupala also tries to prove

that in Gandharva also, one could get the notes gradually after Sadja was set and not through the consonance of Sa-Pa or Sa-Ma. But there was a rule of consonance, no doubt which had been followed time to time as said by Bharata and others. That is why, Daksa – Prajapati also mentions and gives stress on 'attention' or avadhana.¹¹ Even today one has to be very attentive and careful in tuning and it is a fact that the new entrants can not tune the strings or notes perfectly.

The murcchanas were to tune with the help of the Sadja-Sthana (the place where Sa was tuned in fretted instrument) and not only the Sadja Murcchana but also the other Murcchanas were tuned considering Sadja as Nisada or Dhaivata as Pancama and so on whichever is needed.

This system was not in vogue at the period of Bharata but later on this was developed gradually as described by Abhinavagupta and Sarngadeva. When the fretted Vinas developed, especially Desi Kinnari, this revolutionized the whole theory of Grama-Murcchana system.

The first fretted Vina was Marga Kinnari which might have followed the above Murcchana system. But the Marga Kinnari was, after sometime, considered as unpleasant for the players as well as to the listeners.¹² Does it not prove that either the Gandharva or later Marga system was not liked by the society and Desi system was developed and welcomed by all? Desi Kinnari was adored by Sarngadeva and Kumbha. According to Kumbha, all the Desi Kinnari and the other instruments and the Desi-ragas, (described by him) were previously mentioned by Matanga, though Sarngadeva does not mention the name of Matanga, when he describes the Desi ragas or Desi Kinnari. It seems Kumbha did justice to Matanga and as long we do not get the whole portion of Brhaddesi we should rely on Kumbha.

Now, the fretted one, especially the Kinnari and Alapini, changed the whole theory of Grama-Murcchana system and *tonic note was established* though a few scholars hold that the above mentioned system was in practice till the time of Sarngadeva. But as it was said above, we get the clue in Brhaddesi of Matanga, in the commentary of Abhinavagupta and a clear description by Sarngadeva about the tonic note as Sadja if we sincerely scrutinize these three texts. And Rana Kumbha also gives a clear cut picture of tonic note referring from Brhaddesi. The writer has also described clearly in her book entitled 'Svara aur Ragon ke Vikas me Vadyon Ka Yogdan' (in Hindi), that in Desi Kinnari or in Alapini, the basic scale as Sadjagrama or Madhyamagrama can in no way be received.

So, we come to the conclusion that the concept of tonic note has been changed gradually because of the Vinas—the chordophones. Finally this

study proves that the idea of attributing Persian influence on Indian musical notes and system of tonic note as Sadja too, is baseless.

REFERENCES

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5. *ibid*.
6. Sangita Saramrta p. 122, Vadya chapter
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8. Sangita Cintamani, p. 184.
9. Sangita Ratnakara, 1-4. p. 109 Commentary of Simhabhupala.
10. *ibid*.
11. *ibid*.
12. Sangita Ratnakara 6. 257, 279 & 522-524 and Sangita Raja 3. 1. 4. 135-139.

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