

## **CHAPTER III**

# **NADA, SRUTI AND SVARA**

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# NADA, SRUTI AND SVARA

### 3.1 Nada

Nāda - sruti - svara is an important topic in music. Hence all the treatises first mention about these three. This has been discussed in detail with reference to Pundarika Vittala and also writers before and after him.

The word Nādā means pure sound. This word is composed of `na' means vital force, and `da' represents fire, the interaction between these two creates Nādā or sound. Nādā or sound is divided into two: Āhata (produced) and Anāhata (not produced). Anāhata nādā pervades throughout the universe. Yogis and Mahatmas only can hear this nada and they do upasana for the liberation from this world to get moksha.

Āhata nada is again divided into two, one is ordinary speech, cries, noise, syllabic articulation, etc. The other one is musical sound. The musical sound is based on the melody or rakthi. Our ancient writers praised this musical sound and say that even by upasana of this musical sound one can get the blessings of all three gods-Brahma, Vishnu and Mahadeva.

चैतन्यं सर्वं भूतानां विवृतं जगदात्मना ।

नादं ब्रह्मा तदा नन्दं मद्भितीयं मुपास्महे ॥१॥

नादोपासनया देवा ब्रह्मं विष्णुं महेश्वराः ।

भवन्त्युपासिता नूनं यस्मादेते तदात्मकाः ॥२॥

(S R - R K Shringy - Vol. I p 108, v 12)

This Nada has been discussed in various works of authors such as Sarangadeva, Pundarika Vithala and others.

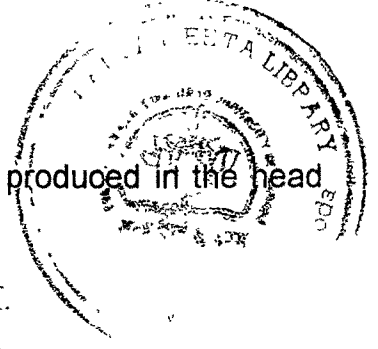
Pundarika Vithala after the introduction of his patrons in all his three works (Sadruga Chandrodaya, Ragamala and Ragamanjari) discussed about nādā. In Sadruga Chandrodaya, he says that nādā is residing in the Brahmagranti in the human body. When a human being desires to speak, this vital air rises upwards and passes through, the various channels. After leaving the Brahmagranti the vital air reaches the navel (nabhi). Here it is said to be in an extremely subtle (अतिसूक्ष्म) stage, when it reaches the heart it is still in subtle (सूक्ष्म) form. And when it passes through the throat it is pushta (loud), then when it rises to the head, it is not so loud (apushta), and finally when it reaches the mouth it becomes artificial (kritrima).

However in actual practice or in actual singing process only three - fold nada, called Mandrā, Madhyā and Tara come into play. In Ragamanjari one more sthana has been mentioned, namely, Anumandra used in instrumental music.

अनुमंद्रो नाभीदेशे

(Ragamanjari P 3)

Moreover, the sound of mandra, madhya and tara get successively doubled in pitch. It means, that, if the nada produced in the heart is taken as 1, then the



nada, produced in the throat becomes 2, and the nada produced in the head becomes 4.

कठे मध्यो मूर्ध्नि तारो द्विगुणश्चोत्तरोत्तर.

(Ragamala - p 1)

### 3.2 Sruti

The nādā is distinguished into 22 varieties, produced by the twenty two upward Nādis situated in different parts of the body, such as, heart, throat and head. These 22 grades are called as Srutis, because of their audibility and these are in the increasing order of pitch.

In Ragamala, Pundarika Vittala clearly says

हेतवो नाद भेदस्य तिर्यक सच्छिद्रनाडिका ।

द्वाविंशति प्रति स्तानं सोपानवत्क्रमात् ।।

वायुपूरणतस्तारस्तात्तारन्तूत्तरोत्तरम् ।

(Ragamala p 1)

Thus in each part of the body, heart, throat, and head there are 22 nadis obliquely situated and when sound passes through them they produce or create 22 srutis. These srutis are successively higher and higher in pitch. So in each sthayi - mandra, madhya, and tara - 22 srutis can be produced.

Pundarika Vithala follows his predecessor Sarangadeva in explaining the nada and sruti. Even the names of these srutis and numbers are very similar to those given by Sarangadeva.

Some of the other authors, like Subhānkara, the author of Sangita

Dāmodara (15th C) and Narada, author of Sangita Makaranda, give different names. In Sangita Makaranda not only names but also the number of srutis are more. The names of the srutis as given by Sarangadeva, Pundarika Vittala, Subhānkara and Narada are given in Table 3.1.

**Table 3.1: Names of Srutis as given by Different Authors**

<i>Sruti No.</i>	<i>Sarangadeva, Pundarika Vittala</i>	<i>Subhānkara</i>	<i>Naradā (Sangita Makaranda)</i>
1	Tivrā	Nāndi	Sidhha
2	Kumudavati	Cālānika	Prabhāvati
3	Mandā	Rasā	Kānata
4	Chandovati	Sumukhi	Suprabhā, Manoharā
5	Dayāvati	Citrā	Shikhā
6	Ranjani	Vicitra	Diptimati
7	Ratikā	Ghanā	Ugra
8	Raudri	Mātangi	Hladi
9	Krodha	Sarsā	Nirvari
10	Vajri	Amrtā	Dāra
11	Prasarini	Madhukari	Sarpasaha
12	Priti	Maitri	Kshānti
13	Mruja	Sivā	Vibuti
14	Kshiti	Mādhavi	Mālini
15	Raktha	Bālā	Chapalā
16	Sandhipini	Sāṁgaravi	Bālā
17	Alapini	Kalā	Sarva ratnā, Prabhāvati
18	Madanti	Kalaravā	Shānta
19	Rohini	Mālā	Vikalini
20	Ramya	Visālā	Hrudayā mālini
21	Ugra	Jayā	Visārini
22	Kshobini	Mātrā	Prasuna

Narada gives five srutis to Sa and Pa. Hence the total number of srutis become 24 instead of 22 srutis as mentioned by others. The five srutis of Sa are (1) siddha (2) prabhavati (3) kanta (4) suprabha (5) manohara, and for Pa (1) malini (2) chapala (3) bala (4) sarvarathna (5) prabhavati. Here, the name prabhavati repeats in Sa as well as in Pa. But in another place while describing the distribution of svaras on the srutis, Nārādā mentions just as in other treatises,

the ratio being 4:3:2:4:4:3:2 which accounts for 22 srutis only.

In the later period in the 18th century, a treatise called Meladhikara Lakshana considered 24 srutis instead of 22 srutis. The two extra srutis were situated one between sadharana Ga and antra Ga and the other between kaisiki Ni and kakali Ni.

So, apart from these exceptions all other treatises from Bharata to modern age accepted the existence of 22 srutis.

### 3.3 Svava

Punadarika Vithala has not described like his predecessors the relationship between svava and sruti in detail.

Sarangadeva defines svaras as

श्रुत्यन्तर भावी यः स्निग्धोऽनुरणनात्मकः ।।२४।।

स्वतो रज्जयति श्रोतुचित्तं स स्वर उच्यते ।

(S R - R K Shringy 3 24 - p 134, vol I)

In Sadraga Chandrodaya, Pundarika Vithala refers this same line as given above with a slight modification.

श्रुतेश्च नैरन्तर भाविको यः स्निग्धोऽनुशब्दात्मक ओजसात्मा ।

श्रोतुर्मनोरंजनकारकत्वात्त्वतस्तु तज्ज्ञैरुदितः स्वरोऽसौ

(S.C - p 5 v 24)

Pundarika Vithala says that when a string of the vina is plucked, the very first

sound produced is considered to be sruti, and the next sound following it which is the resounding of the sruti is called as svara. It is also said to be pleasing to the ear and mind. In Ragamala and Ragamanjari, Pundarika Vithala had not mentioned this line, but, he simply says that these srutis are only heard श्रुतयः श्राव्यमात्रतः; but, for the real practical purposes, only svaras, are used. He says that these svaras are Sa, Ri, Ga, Ma, Pa, Dha, Ni.

रागादि व्यवहाराय तासु सप्त स्वरा स्थिता

(Ragamala - p 1)

### 3.3.1 The other aspects of svara:

Like Sarangadeva, Pundarika Vithala in Sadraga Chandrodaya and in Ragamanjari identified the svaras with the sounds of particular animals and birds. These are Sa with peacock, Ri with chataka, Ga with goat, Ma with heron, Pa with cuckoo, Dha with frog and Ni with elephant.

Further, the seven svaras were described in terms of sruti distribution on the 22 srutis. Sadja has four srutis (on the 4th sruti position), three srutis for Rishabha, (on the 7th sruti position), two srutis for Gandhara (on the 9th sruti position), four srutis for Madhyana (on the 13th sruti position), four srutis to Panchama, (on the 17th sruti position) three srutis for Dhaivata (on the 20th sruti position) and finally, two srutis for Nishada (on the 22nd sruti position).

वेदाचलांकश्रुतिषु त्रयोदश्यां श्रुतौ ततः ।

सप्तदश्यां च विंश्यां च द्वाविंश्यां च श्रुतो क्रमात् ।।

(Ragamala p 2)

In Ragamala, Pundarika Vittala mentions about the distribution of srutis. During the 13th century, there was an important question, before the musicologists, whether the intervals make svaras or particular points on the scale make svaras. The answer was, that, though only 7 srutis were involved in the svaras, the rest of the srutis also contributed to making the svaras. This could have happened because of the change in the playing style of veena, from a multi-stringed (22 string) instrument to an instrument with fewer (4th) strings.

### **3.3.2 Suddha and Vikruta Svaras:**

The prakruta and vikruta or suddha-vikruta svara classification was a post Jati development. In the post Sarangadeva period the term 'suddha' was referred to the svaras of Sa Grama. But this concept of suddha was not there during the time of Bharata and Dattila. The svaras were called as prakruta, meaning naturally evolved, and the vikruta svaras were modified form of the prakruta. Dr. N. Ramanathan in his thesis 'A Critical study of the treatment of gitis in Sangita Ratnakara' says "Sangita Ratnakara does not clearly state what suddha svaras are or which seven are the suddha svaras or what make them suddha? From the context one has to infer that the suddha svaras are Sa, Ri, Ga, Ma, Pa, Dha, and Ni, tuned in druva and chala veenas. It is only with reference to this svara arrangement that Sarangadeva seems to have made all his subsequent statements. This arrangement of svaras belong to the Sadja grama and so it can be inferred that the suddha svaras mentioned by Sarangadeva were the svaras found in the Sa grama arrangement". No earlier text designated svaras as suddha. This line of thinking is found only in the Abinavabharati, quoting his teacher (guru) Utpaladeva, Abhinava mentions the formation of svaras in the ratio 4:3:2:4:4:3:2 described as Sa grama is actually termed as natural (prakruta) form



compared to other forms termed as unnatural. So Sarangadeva was influenced by this thinking to characterize the prakruta form of svaras i.e. Sa grama svaras as suddha svaras.

Hence the concept of suddha started to come into existence only from Sarangadeva's time. Further writers of post Ratnakara period called the sadja grama svaras which are in the ratio of 4:3:2:4:4:3:2 on the 22 srutis, as suddha svaras. These svaras increased or decreased their sruti value or modified form of these svaras were called as Vikruta svaras. Pundarka Vithala, only in his Sadraga Chandrodaya mentions seven suddha svaras and seven vikruta svara.

शुद्धाः स्वरा येतु भवन्ति सप्त तज्जान्विकारान्प्रवदामि सप्त ।।

(S.C - p 5, v 26)

But he had not mentioned this in his other works. In Ragamala and Raga-manjari, Pundarika Vithala explains the vikruta svara in a different way.

### **3.3.3 The Development of Vikruta Svaras before Pundarika Vittala**

The very first vikruta svara considered as the reduced panchama of Ma grama. The panchama which stands on the 17th sruti position in Sa grama, and if panchama was reduced to 16th sruti from 17th, then that panchama was called as Madhyama grama panchama in the ancient days and later it was called by many other names, such as, chyuta panchama by Sarangadeva, chyuta madhyama panchama by Ramamatya, lagu panchama by Pundarika Vithala, and in the modern days as prati madhyama in Carnatic music and teevra Ma in Hindustani music.

Then during the time of Bharata two more vikruta svaras, called as kakali Ni, and antra Ga were evolved. Moreover, the interval between the two svaras was the main cause for the vikrutava of svaras. For instance, Dha and Ri never moved from their respective sruti positions. But in Ma grama when Pa came down from its place (17th sruti position to 16th) then without moving from its place, Dha got one more sruti (4 sruti) meaning that the interval between the reduced panchama (16th sruti position) and Dha (20th sruti position) increased. Hence Dha also was considered as vikruta svara. This was the main feature of Ma grama in the ancient period. In the same way Ri also became chatusruti when Sa reduced from 4 sruti to 3 sruti.

Until Sarangadeva these vikruta svaras were worked out by a way of sadharana vidi. Sadharana vidi was broadly divided into 2, one was svara sadharana and the second was jati sadharana. Then again this svara sadharana was divided into 4. (1) kakali (2) antra (3) sadja and (4) madhyama sadharana.

### **3.3.3a Kakali and Antra Sddharana**

The kakali sadharana was conceived in between gandhara and madhyama. The gandhara was situated on the 9th sruti position and madhyama on the 13th sruti position. When Ga takes two srutis from madhyama and situated on the 11th sruti position, it was called as antra sadharana or antra Ga. Similarly Ni is situated on the 22nd sruti position and Sa on the 4th sruti position, when Ni takes 2 sruti from Sa, then it moves from 22nd to 2nd sruti position, then it was called as kakali nishada.

### **3.3.3b Sadja Sadharana**

This kind of sādharana occurs only in sadja grāma. When nishada takes one sruti from sadja (now it is situated on the 1st sruti position of Sa) and when rishabha takes the last sruti of Sa, meaning the 4th sruti of Sa, rishabha becomes 4 sruti and now sadja gets reduced to 2 sruti, and this means it has now only 2nd and 3rd srutis. This was called as sadja sadharana.

### **3.3.3c Madhyama Grama Sadharana**

In the same way in madhyama grama, panchama is already situated on the 16th sruti position when madhyama gives its last sruti to panchama, that is, (13th sruti to Pa), the difference between Ma and Pa becomes 4 srutis. Similarly, Ga takes one sruti from Ma (it means that Ga moves up one sruti from 9th to 10th sruti position). Now Ma has only 11th and 12th sruti positions. This was called as Madhyama Sadharana. This will occur only in madhyama grama.

### **3.3.4 Jati Sadharana**

The second type of sadharana was called as Jati Sadharana. Sarangadeva defines it as the same grama having the same tone as the fundamental note, the identical melodic presentation that obtains between them is called as overlapping of jati by the noble one (Sangita Ratnakara - R.K. Shringy - p.233).

### **3.3.5 Sarangadeva's Vikruta Svaras**

Sarangadeva gives 12 vikruta svaras. These are (1) kaisika Ni (2) kakali Ni (3)

chyuta sadja sadharana when Sa gives its last sruti to Ri and stands on the 3rd sruti) (4) achyuta sadja (Sa stands on the 4th sruti itself, but gives its 1st sruti to Ni) (5) chatusruti Ri (when Sa comes down and stands on the 3rd sruti position, then the last sruti of Sa goes to Ri then it becomes chatusruti) (6) sadharana Ga (when Ga moves one sruti upward) (7) antra Ga, (on 11th sruti position) (8) chyuta Ma (when in the madhyama sadharana Ma gives its last sruti to madhyama grama panchama and stands on the 12th sruti) (9) achyuta Ma (Ma gives its 1st sruti to Ga, it stands on the 13th sruti position, but because Ga takes its first sruti, then Ma gets reduced to 3 sruti) (10) chyuta Pa (Ma grama Pa on the 16th sruti position) (11) chatusruti Dha (in madhyama grama Ma stands on the 16th sruti then Dha gets its last sruti and becomes chatusruti) (12) achyuta Pa (in Ma grama Pa stands on the 16th sruti, but Ma stands on the 12th sruti position, then the interval between Ma and Pa becomes 4 sruti)

### **3.3.6 The use of kakali Ni and antra Ga**

Sarangadeva describes how to use the kakali Ni and antra Ga

प्रयोज्यौ षड्जमुच्चार्य काकली धैवतौ क्रमात् ।

एवं मध्यममुच्चार्य प्रयुज्जीतान्तरर्षभौ ॥४॥

षड्जकाकलिनौ यद्वोच्चार्य षड्जं पुनर्व्रजेत्

तत्परान्यतमं चैवं मध्यमं चान्तरस्वरम् ॥५॥

प्रयुज्य मध्यमो ग्राह्यस्तत्परान्यतमोऽथवाः ।

अल्पप्रयोगः सर्वत्र काकली चान्तरः स्वरः ॥६॥

(S R - R K Shringy - Vol I - p 231)

After singing sadja, kakali followed by dhaivata may be employed. In the same way after singing madhyama one should practise antara and rishabha. Alternatively, having sung sadja and kakali one may return to sadja and after that move on to any succeeding note. Similarly, after employing madhyama and antara, madhyama should be taken before resorting to any succeeding note. Everywhere the notes kakali and antra should be sparingly used.

Bharata's statement about the usage of kakali and antra was that they should be in the ascending scale (ārohin) and be made specially weak (alpā).

The above description, shows that the kakali Ni and antra Ga were not taken independently, they were taken in between Sa and Sa, like Sa Ni Sa, or Ma Ga Ma. Kakali Ni had to be taken with Sa and in the same way antra Ga with Ma. It can also be taken as Sa, Ni, Dha, and Ma, Ga, Ri. But this is, in the descending order. In Natya Sastra it has been mentioned that kakali Ni and antra Ga had to be taken in the ascending order only like Dha, Ni, Sa. This was the difference between Bharata and Sarangadeva.

Even in the later period (16th century), Pundarika Vithala had mentioned in Ragamanjari

स्वल्पप्रयोगः सर्वत्र काकली चान्तरः स्वरः ।

रत्नाकरेऽपि चेत्युक्तः शार्ङ्गदेवेन सूरिणा ।।६।।

(R M - p.8)

He says that the svaras are to be taken sparingly (alpā), but had not mentioned about descending or ascending order.

Bharata lived in the 2nd - 4th century AD and Sarangadeva in the 13th

century. During this intervening period the main development in music was the evolution of Desi Ragas and the introduction of vikruta svara in them. Though Sarangadeva said that antara and kakali were to be taken sparingly, in all the desi ragas mentioned in the 'aduna prasidha' (modern) Raganga ragas and their derivatives, out of 13 ragas 8 ragas have used kakali Ni, and 4 had kakali and antara Ga, only in one raga Malava Kaisika, Sarangadeva says that Ni is weak. But he used the word 'weak' even to the other svaras, other than kakali Ni and antara Ga.

### **3.3.7 The development of Vikruta Svara after Sarangadeva**

In the development of svaras in the third stage started after Sarangadeva (13th century). From 13th to 17th century many musical treatises were written. Among them, Kallinatha's commentary on Sangita Ratnakara, Ramamatya's Svaramela Kalanidhi, Pundarika Vithala's 4 books (a) Sadraga Chandrodaya, (b) Ragamala (c) Ragamanjari (d) Nartana Nimaya, Ahobala's Sangita Parijata, Sangita Darpan by Damodara etc were important contributions.

Sarangadeva was followed by Rana Kumbha the last one who mentioned Grama-Murchama-Jati system. But after him this system was discarded. Upto Sarangadeva Ma was the important svara which was not alterable. But slowly Pa took the place of Ma and became unalterable svara. There was no vikruta variety to Pa and Sa. Kallinatha also mentions about how the Madhyama grama ragas, madhyamadi and Todi were not starting from madhyama but from sadja. He also says that on the veena the indicator of graha svara which helped to start the grama ragas was absent during his time. So this shows that a remarkable change was taking place during his time.

----- इदानीमधुना प्रसिद्ध रागाङ्गदीनां लक्ष्ये प्रतीतानां लक्षण विरोधानां परिहारार्थं मध्यमः क्रियते । तत्र विरोधोद्भवानां प्रकारस्ता वद्ग्राम द्वया ज्जात्यादि परम्परयोत्पन्नानामेतेषां रागाणां मध्यमस्थ षड्ज मध्यस्थानयोरेव तत्तन्मूर्छनारम्भ पक्षाश्रयेणे शास्त्रविहिते संभवत्यापि मध्यमग्रामोत्पन्नानां मध्यमादि तोडीप्रभृतीनां च मध्यममध्यमारम्भं विहाय मध्यमषड्जस्थान एवारम्भो लक्ष्य लक्षण विरुद्धः ।। तथा ग्रहस्वरायत्तोत्तरस्वर सारणानामभावश्च चित्त तुःश्रुतित्वेन ग्रामद्वय भेदकस्य पञ्जस्थालोप्यत्वेन प्रयुज्यमानायापि सर्वरागेष्वेकरूपता

(Kallinatha N.S.R - p. 36)

The first important development during the post Sarangadeva period was the reduction in the number of svaras. Both Ramamatya and Pundarika Vithala accept only seven suddha svaras and seven vikruta svaras. The five vikruta svaras of Sarangadeva was rejected by Pundarika Vithala and Ramanatya were (1) achyuta sadja (2) achyuta madhyama (3) vikruta rishabha (4) vikruta Dha and (5) grama sadharana Ma.

These were rejected because

- (1) achyuta sadja and suddha sadja were identical in pitch. Similarly the others svaras are given below,
- (2) achyuta madhyama and suddha madhyama,
- (3) vikruta rishabha and suddha rishabha,
- (4) madhyama grama panchama in grama sadharana and madhyama grama panchama,
- (5) vikruta dhaivata and suddha dhaivata.

Again the names of these svaras (1) chyuta sadja, (2) chyuta madhyama, and (3) chyuta panchama were redesignated by Ramamatya and Pundarika Vithala as given below

<b>Sarangadeva</b>	<b>Ramamatya</b>	<b>Pundarika Vittala</b>
Chyuta sadja	Chyuta sadja nishada	Lagu sadja
Chyuta madhyama	Chyuta madhyama gandhara	Lagu madhyama
Chyuta panchama	Chyuta panchama madhyama	Lagu panchama

According to Ramamatya, besides these changes, some varieties of gandhara and nishada in some context were regarded as varieties of rishabha and dhaivata. These were

suddha gandhara regarded as pancha sruti Ri,  
sadharana Ga regarded as satsruti Ri,  
suddha nisada regarded as pancha sruti Dha, and  
kaisiki nisada regarded as satsruti Dha.

### **3.3.8 Ramamatya's Vikruta Svaras**

These were (1) chyuta sadja Ni (2) chyuta madhyama Ga, (3) chyuta panchama madhyama (4) sadharana Ga, (5) antara Ga (6) kaisika Ni and (7) kakali Ni.

### **3.3.9 Pundarika Vittala's Vikruta Svaras**

#### **3.3.9a Sadraga Chandrodaya:**

As mentioned earlier Pundarika Vithala accepted 7 suddha svaras and 7 vikruta



svaras. His vikruta svaras were (1) lagu sadja (3rd sruti) (2) sadharana Ga (10th sruti) (3) antara Ga (11th sruti) (4) lagu Ma (12th sruti) (5) lagu Pa (16th sruti) (6) kaisiki ni (1st sruti) and (7) kakali Ni 2nd sruti.

Sadraga Chandrodaya 126.

स्वोपांतिकश्रुत्यधिसंश्रितः स्यात् षड्जाभिधानो लघुषड्जनामा

एवं मपौ स्तो लघुशब्द पूर्वो साधारणो गः प्रथम श्रुतिस्थः ।।२६।।

मस्य द्वितीय श्रुति गोंऽतरः स्यात् षड्जाव्यस्य प्रथम श्रुतिस्थः ।।

तथा द्वितीय श्रुति वर्तमानो निः कौशिकी काकलि नाम धेयः ।।२७।।

(S C - p 5 v. 27-28)

Pundarika Vithala also says that those svaras which moved from its own position were called as vikruta

स्वस्थानकस्थेषु चतेषु नेष्टा स्वरेषु भेदा विकृता मुनीर्द्वौ ।।२८।।

(SC p 5, v 28)

He also says that Sarangadeva did not mention Dha's vikruta variety even in koota tana.

नोपाददे धस्य विकार भेदं निशंकसूरिः कलु कूटताने ।।

(S C p 6, V 29)

Further, Pundarika Vittala says that Ri and Dha in practice occupy the first sruti of Ga and Ni. So it becomes in laksya 4 sruti. Similarly, Ma also takes first sruti of panchama and becomes 5 sruti.

अथो रिधावाद्यगनिश्रुतिस्थौ लक्ष्येषु वेदश्रुतिकौ भवेताम् ।।

मः पंचमाद्यां श्रुतिमेत्य लक्ष्ये क्वचिच्च पंचश्रुतितां प्रयाति

(S C p 6 v 30)

Usually, Ma is on the 13th sruti position, according to theory, but in practice, the suddha Ma (13th sruti) occupies the 1st sruti of panchama, that is, 14th sruti position. Some ragas, take this 14th sruti Ma instead of 13th sruti Ma (suddha Ma). Such ragas have been discussed in a later chapter. This is what Pundarika Vittala indicates in the above sloka.

Pundarika Vittala was the first one who mentioned about the sruti replacement of suddha Ri, from 3 sruti to 4 sruti. (In Hindustani music, catusruti Ri is considered as suddha Ri. This might have started from Pundarika Vittala's time).

But if the suddha position had shifted from 3 to 4 sruti then there would be a wide gap between Sa and Ri. So it is possible to create a new position below the old 3 sruti Ri and hence a second sruti Ri (6th sruti position) was established and was called as kaisiki Ri. (This has been explained in Ragamanjari)

"Pundarika Vittala shifted the traditional suddha sthanas of Ri, Ga, Ni, Dha to one svara-sthara below, and named them as suddha svaras while he called the original (suddha) ones as vikruta of respective notes. and he says "The ragas (lakshya) and their features (lakshana) before and after Thyagaraja" by Sangita Sastra Visarada Hulugur Krishnachar in the Journal of Music Academy Madras Vol XIX p.116.

In Sadraga Chandrodaya Pundarika Vittala only mentions about the increase of Ri, Dha and Ma by one sruti but not about the reduction of Ri, Dha, Ga and Ni. (refer to sloka in this section above) (अथोरिध आद्य)

In veenaprakarana, Pundarika Vittala also mentions about the permutation of svaras and he calls it paryaya vriti. He also mentions in this chapter that for antra Ga and kakali Ni there are no frets, for these on the veena one has to inflate the string to get these svaras. Moreover, in Sadraga Chandrodaya, Pundarika Vittala mentions that lagu Ma, (12th sruti position) acts as pratinidhi to antra Ga (11th sruti position). Paryayavriti has been mentioned in detail in the chapter on Mela classification in this thesis. Similarly, lagu Sa (3rd position) can represent kakali Ni (2nd position).

In Sadraga Chandrodaya, he did not recognise a svara sthara as a variety of another svara; for example, in Kedara mela the following svara occur, suddha Sa, suddha Ga, lagu Ma, suddha Ma, suddha Pa, suddha Ni and tri-sruti Ni. Now, suddha Ga is actually functioning as Ri, but Pundarika Vittala says it as variety of Ga, and not as a variety of Ri. Similarly, suddha Ni is referred to as Ni and not as Dha. This is a slight difference in the approaches of Pundarika Vittala and that of Ramamatya. Even now, in Hindustani music, they use the Gas, but not as Ri and Ga.

While mentioning about the paryavriti of Sa, Ga, Ma, Pa, Ni in their 3 vikruta forms, in many ragas vivadhi dhosha occurs. For this he says that the vivadi notes have to be taken in vakra gathi, then it will not spoil the beauty of the raga.

पर्यायवृत्त्या विकृतैश्च तत्र व्यस्तैः समस्तैः प्रभवन्ति भेदाः ।।

किंतु स्वरा ये विकृताश्च लिप्यां वक्रोन्तमांगाः प्रकटीभवेयुः ।।४५।।

(S C p.13, v. 45)

H. Krishnamachari in the above referred article also confirms "Pundarika Vittala mentions the usage of vivadi notes in vakra prayoga."

### **3.3.10 Ragamala**

This is the second book of Pundarika Vittala. In Ragamala instead of using the usual names such as kaisiki, kakali, he used a new nomenclature movement of the svaras from one sruti to another and calls it as 'gathi'. 'Sthithi', meaning has been defined as standing on the original position or can be called as suddha sthithi and the gathi was the movement of the svaras. First gathi means going forward one sruti, and second gathi means two steps forward etc.

In the same way all the svaras except Sa and Pa move forward. The svaras Ri, Ma, Dha, Ni have 3 gathis, and Ga has one more gathi, that is, four gathis, or it moves upto 13th sruti position, that is, upto the suddha Ma. He also says that the sruti positions 5th, 6th, 18th, 19th were not taken as svaras. So, out of the total 22 srutis, 4 srutis were not taken as svaras. But in the 18 other svaras 7 were suddha svaras and the remaining 11 srutis were taken as the vikruta form. In Ragamala while explaining the svara positions, he explains, for example, Ri on the 2nd gathi shows that Ri is on the 9th sruti position, (originally Ri was standing on the 7th sruti). But on the 9th sruti suddha Ga also stands. But in Ragamala, just like Ramamatya he explains that when Ri moves 2 gathis, standing on the 9th sruti, Ri was called as 9th sruti Ri or, not as suddha Ga. So even though 11 srutis were taken as vikruta forms, but there were 16 forms of vikruta varieties of svaras were created. This is in variance with the explanation given in Sadraga Chandrodaya.

In Ragamala he classifies ragas into ragas, raginis and sons. (Raga, Ragini Parivara system). This has been dealt with in detail in a later chapter.

### 3.3.11 Ragamanjari

In Ragamanjari, Pundarika Vittala describes his own views. Just like in Ragamala he says that except Sa, Pa all the svaras Ri, Ma, Dha, Ni move 3 gathis and Ga moves 4 gathi, upto suddha Ma on the 13th sruti position and also classifies ragas under Mela system. In Ragamanjari he did not mention that 5th, 6th, 18th, 19th srutis were not used as svaras.

साधारणः कैशिकी चान्तर काकलिनौ तथा ।

साधारणः कैशिकी द्वौ क्रमादगति गनि क्रमः ।।

(Ragamanjari - p.4, v. 25)

Pundarika Vittala says that first sadharana and kaisiki, meaning sadharana Ga on the 10th sruti position and the kaisiki Ni on the 1st sruti position. Then next antra and kakali meaning that Ga on the 11th sruti and Ni on the 2nd sruti position. In the next line he again says that apart from these two, sadharana and kaisiki, there are another 'kramath gathi Ga, Ni', which means another one more movement, apart from the sadharana and antra. This means that antara Ga (11th sruti and after movement 12th sruti); similarly, kaisiki Ni (1st sruti) kakoli (2nd sruti and after movement comes to 3rd sruti).

Then in the next line he says

उर्ध्वखलस्तु गांधारो मध्यमोपरो संस्थितः ।।

मस्यत्रिगति भेदाच्च मनुः पक्षान्ति को नृपः ।।

(Ragamanjan - p.4, v. 26)

The gandhara which was moving upwards goes upto the sthana of suddha madhyama. Next he describes about the madhyama which also moves 3 gathis.

Originally it was on the 13th sruti position, now it moves from 13th to 14th 15th and 16th.

After this he described the Ri and Dha which were reduced from 3 sruti to 2 sruti, and 20th to 19th sruti positions. He says

अद्य कैशिकि नावाद्यादुक्ष खलौ द्वितीयकः ।

अत्युच्छंखल नामानौ तृतीय गतिकौ रिधौ ।।

(Ragamanjari - p 4, v 27)

First the kaisiki Ri means the reduced 2 sruti Ri and then nava and adhya mean new and old. It means that old Ri was on the 3rd sruti from Sa, now this old suddha Ri shifted to 4th (new Ri) sruti from Sa. Hence after the 3rd, 4th sruti Ri's comes the 2nd gathi, which means the pancasruti Ri on the 5th from Sa. He uses the word (uksha) meaning sprinkling. So he must be meaning that just like the sprinkling of water, Ri is sprinkled over 6th to 10th sruti position. Then he says uccankala means unbridled movement of Ri, over the range, implying the next gathi, that is, the 10th sruti position or on the 6th sruti from Sa, which would mean satsruti Ri (third gathi).

The period of Pundarika Vittala was the transitional period. He himself says in Ragamanjari that the old svaras were not used in his days

पूर्वापरस्वर स्थानं किंतु नैकत्र कारयेत् ।

(Ragamanjari - p 8, v. 67)

He also says that just as in Sadraga Chandrodaya, where the 3 gathi Ga and Ni represent (pratinidhi) the old antra Ga and kakali Ni. Similarly, he refers to suddha Ri, which probably can be taken as either 6th or 7th sruti position.

काकल्यंतरयो स्थाने तृतीय गतिकौ निगौ ।

प्रयोगे च प्रतिनिधि क्रियते संप्रदायिकैः ।।

(Ragamanjari - p 8, v 60)

In the same manner for suddha Dha, one can take the 19th or 20th sruti position. This, he has not explicitly mentioned in Ragamanjari, but he was the first one to mention in the reduction of one sruti of Ri and Dha. In Sadraga Chandrodaya and Ragamanjari while explaining Sri Raga he clearly says chatusruit Ri and Dha but the reduction of the sruti value of Ri and Dha was not clearly mentioned by Pundarika Vittala.

But in the 16th century in Raga Tarangini by Lochana Kavi it was clearly mentioned as:

स्वस्वशेषश्रुति त्यक्त्वा यदा रिषभ धैवतौ ।

गीयते गुणिभिः सर्वैस्तदा तौ कोमलौ मतौ ।।

(RT - p 2)

If Ri and Dha leaves their respective positions (come down) they were called as komal. Hence the Ri and Dha which were mentioned as kaisiki became komal during the time of Locanakavi.

From Raga Tarangini onwards the komal Ri (2nd sruti) was fully recognized. Accordingly first komal (2nd sruti Ri) then comes suddha Ri, the sruti value of suddha Ri is original 3 sruti. While explaining Bhairavi, Locana Kavi says that all svaras are suddha, Dha is komal. So only Ri and Dha svaras were called komal and suddha, and all other svaras Ga, Ma, Ni suddha means original 9th sruti for Ga, 13th sruti for Ma, 20th sruti position for Ni. When those svaras acquire one sruti from the next svara they were called as तीव्र, if 2 sruti were

acquired तीव्रतर etc.

Then, during the time of Sangita Parijata by Ahobala, and in Raga Vibhodha by Somanatha, all the 22 srutis were considered as svaras. The suddha vikruta svara on the 22 srutis of the varies authors are given in Table 3.2.

Table : SUDHA AND VIKRUTA SVARAS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Sudha Svara				Sa			Ri		Ga				Ma				Pa			Dha		Ni
S				Sa			Ri		Ga				Ma			Ch	Pa			Dha		Ni
Sangita Ratnakara	Kai	Ka	Ch	Ac			V			Sa	A	Ch				MV	Ac			V		
V	Ni	Ni	Sa	Sa			Ri			Ga	Ga	Ma				Pa	Pa			Dha		
S				Sa			Ri		Ga				Ma				Pa			Dha		Ni
Svaramela Kalanidi	Kai									Sd												
(*=another name)	St*	Ka	Ch						P*	St	A	Ch				Pa						P*
V	Dha	Ni	Sa	Ni					Ri	Ri	Ga	Ma	Ga			Ma						Dha
S				Sa			Ri		Ga				Ma				Pa			Dha		Ni
Sadraga Chandrodaya	Kai	Ka	L							Sd	A	L				L						
V	Ni	Ni	Sa							Ga	Ga	Ma				Pa						
S				Sa			Ri		Ga				Ma				Pa			Dha		Ni
Ragamala	Ni	Ni	Ni							Ga												
V	(1)	(2)	(3)							(1)												
	Dha								Ri	Ri	Ri	Ga	Ga	Ga	Ma	Ma	Ma				Dha	Dha
	(3)								(1)	(2)	(3)	(2)	(3)	(4)	(1)	(2)	(3)				(1)	(2)
S				Sa			Ri		Ga				Ma				Pa			Dha		Ni
Ragamanjari	Ni									Ga	Ga	Ga	Ga	Ma	Ma	Ma			Kai		Dha	Dha
V	(1)									(1)	(2)	(3)	(4)	(1)	(2)	(3)			Dha		(1)	(2)
	Dha	Ni	Ni			Kai		Ri	Ri	Ri												
	(3)	(2)	(3)			Ri		(1)	(3)	(3)												
S				Sa			Ri		Ga				Ma				Pa			Dha		Ni
Raga Vibhuda						Ko		Ko													Ro	
V	T	TT	TM		Pu	T	P	T	TT	T	TT	Tm		T	TT	Tm		Pu	Ko	P	T	TT
	Ni	Ni	Ni		Ri	Ri	Ga	Ri	Ri	Ga	Ga	Ga		Ma	Ma	Ma		Dha	Dha	Ni	Dha	Dha
S				Sa			Ri		Ga				Ma				Pa			Dha		Ni
Raga Tarangini	T	TT	TM			Ko				T	TT	TM	At	T	TT	Tm			Ko			
V	Ni	Ni	Ni			Ri				Ga	Ga	Ga	TM	Ma	Ma	Ma			Dha			

Kai = Kaisiki  
Pr = Prati  
Na = Kakali  
T = Tavra

Ch = Chyuta  
Sd = Sadarana  
V = Viruta  
At = Ati

A = Antara  
Ko = Kormal  
St\* = Satsrut  
TT = Tavratarā

P\* = Panchsruti  
MV = Madhyama Grama Viruta  
L = Lagu (1), (2), (3)=gathi  
Tm = Tavrātama

Then Tulaja (1728 AD) explains that there were 7 suddha svaras and 5 vikruta svaras, in all 12 svaras. Vikruta svaras, sadharana Ga, antra Ga, (16th



sruti), vikruta panchama madhyama, kaisiki nishada, and kakali nishada. Then suddha gandhara and pancasruti Ri are on the same sruti, sadharana Ga and satsruti Ri are on the same sruti. Similarly suddha Ni and pancasruti Dha, kaisika Ni and satsruti Dha, are on the same sruti.

In the same way Chaturdandi Prakasika (17th century) mentions only 7 suddha svaras and 5 vikruta svaras. Hence from 17th century onwards the vikruta svaras were reduced to 5. These are given in below, as given by venkatamakhi

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| (1) Sa                            | (7) Pratima                       |
| (2) Suddha Ri                     | (8) Pancana                       |
| (3) Chatusruti Ri and Suddha Ga   | (9) Suddha Dha                    |
| (4) Sadharana Ga and Sat sruti Ri | (10) Chatusruti Dha and Suddha Ni |
| (5) Antra Ga                      | (11) Kaisiki and Sat sruti Dha    |
| (6) Suddha Ma                     | (12) Kakali Ni                    |