



## Evolution of notation styles in printing (1900-2000) and its impact on learning ragas through notation with elaborated example of Raga Bhairavi



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### Abstract

*Notations of compositions and related books have an important role to play in day to day lives of Indian Music teachers and students. They have been preserving and propagating the structure of music ideas and compositions of yesteryear's great masters, composers and musicologists. They have also acted as bridge between times when music was passed down from generation to generation through oral tradition and the times when music is being learnt from the audio and video recordings on the internet. An understanding of the present day symbols used to represent an idea in notation and how they have evolved over time with technological advancements in printing from the time of its advent will give us a clear picture of how ragas full of subtle nuances like Bhairavi were represented and understood in the past and present. This paper uses analytical and comparative study methods. It is understood how Raga Bhairavi has been represented and understood over time through notations from books from 1900 to 2000.*

Key Words :

### Research Paper

#### Introduction

This paper sheds light on what documentation means in the field of Carnatic<sup>[1]</sup> music, and how it has evolved with time. The main focus is on six important published works with notations, from the year 1900 to 2000 namely Pallavi Swarakalpavalli (Radha, 10), Sangita Sampradaya Pradarshini (Radha, 11), Vasudeva Kirtana Manjari, Kritimanimalai, Ganamanjari and Sangeeta Sowrabhamu. Various symbols used in these books and how they aid one in understanding ragas like Bhairavi<sup>[2]</sup> from the notations, is discussed in this paper.

#### Documentation and its importance

Most of the knowledge we have about Indian classical music today, was obtained from manuscripts of Music treatises. Earliest documentation related to music, musicology, dance and drama is Natyasastra of Bharata around 1st century BCE. Many manuscripts which belonged to the later time period were found with contents like poetry, literature, treatises, collection

of compositions on palm leaves, copper plates etc. If not for these manuscripts, we wouldn't have any information on how music was perceived in ancient times, how it evolved and what kind of changes have taken place in different time periods. However, the tedious process of writing and maintaining manuscripts has become simple and sophisticated with the advent of the printing press. Printing press entered India in the mid 16th century but it was not until the late 19th century, books related to music were published in Indian languages. The culture of documenting Carnatic music compositions with notations started in the late 15th century and the publishing of notations related books started only in the late 19th century (Narayan). It is interesting to observe that most of these publications are done by the court musicians with the patronage of their kings who took interest in preserving and promoting their valuable works in Sanskrit and other native languages.



**Observations**

It mentions four symbols used in this book after the foreword but it skipped mentioning other symbols despite their usage in the book. For example, it used double vertical bars to denote the end of each line or Avartanam,<sup>[9]</sup> used dots above and below the notes to represent which octave they belonged to, a hyphen is used to separate phrases or a group of notes etc.

There is no usage of any symbol to represent any<sup>[10]</sup> swaras in the entire composition of Bhairavi in page 97, Ninne Nera nammithi thalli. So it is difficult to interpret which Daivatham is used in some phrases because of this reason.

There is only a line mentioned to denote fourth speed phrases in the introductory pages but there are no symbols to represent other speeds.

There are no symbols used to represent oscillation of notes and gamakas which is a drawback in understanding gamaka-pradhana<sup>[11]</sup> ragams like Bhairavi.

**Sangita Sampradaya Pradarshini:** It says in its first ever published copy that it was written by Brahmasri Subbarama Dikshita with the permission of The Maharaja of Ettayapuram at the request of A.M. Chinnasami Modalar(Narayanaswami, 2) at Vidiya Vilasini Press, Ettayapuram in 1904.

Sangita Sampradaya Pradarshini is considered one of the most important works in the history of Indian music, one of the reasons being the authenticity of the author and his lineage and the other being, the content of the book which includes the life-histories of many important Vaggeyakaras<sup>[12]</sup> and Lakshanakaras,<sup>[13]</sup> aspects of lakshya and lakshana, hundreds of detailed notations of various compositions done by many composers, a list of ragas with their structure and lakshana etc.

శ్లోని

1 స / క్రా నీ ధీ వ ధ సీ ధ | పా, ధ ప మ ప మ గ రి ప | రి, గ గా మ వ ప మ వ ప ||  
వైంశయమా | కం ద మూ ల | కం దం ం ం ||

2 క్రా సీ ధ య ద ని సీ ధ | పా, ధ ప మ ప మ గ రి ప | రి, గ గా మ వ ప సీ మా ||  
వైంశయ మా | కం ద మూ ల | కం దం ||

ని ని ప క్రా ధ సీ ప | రి గ గా, మ వ సీ ధా ప | మ గ మ ప మ ప మ గ రి ప ||  
చే త శ్రీ | సీ మా | స్కం దం ||

**Observations**

It has a vast number of symbols explained in detail in the chapter dedicated for this alone(Jayalaskhmi, 122)

The symbols are categorised into Gamakas of various types(Gopalan, 5), Shuddha & Vikruthi swara symbols and the symbols used to denote tala structure & speeds.

Due to the limitations of publication in those days, there are 38 pages with a list of mistakes in publication with correction done on the right half of each page. These pages are found only in the first publication in 1904. There are few more pages dedicated to the topic “how to identify if you go wrong” with 10 points followed by 22 points explaining some tala related symbols and how they should be perceived in case of doubt.

That being said, the information provided about the ragas in the order of Melas and their janyas, each followed by notated compositions is very thoughtful.

మూర్ఛన - { ఆరోహణము సా రి బ గ మ ప బ ధ బ ని స  
అవరోహణము స బ ని బ ధ ప మ బ గ రి స

Regarding Bhairavi, he has given where the “b” shaped symbol is used to denote Sadharana Gandhara, Shuddha Daivata and Kaisiki Nishada. As one can see in the image of the notation for Kriti,<sup>[14]</sup> Chintayama kanda, the notation is extremely detailed with so many symbols used. There is “#” shaped symbol used to denote the usage of Panchasruthi Daivata (Dikshita, 225). This means, only the sruthi<sup>[15]</sup> value is taken into consideration instead of swarasthanas<sup>[16]</sup> of the parent Mela. There is no mention of the term Chatusruthi Daivata in the Bhairavi raga description. It is also mentioned that, except for the phrases 1.P D N D N S 2. N D N S 3. N S D N S, Shuddha Daivata alone should be used for every other phrase. Because of the mentioning of these details, each note can be sung with the given set of rules to get a very accurate structure of the composition.

**Vasudeva Kirtana Manjari:** It was published in 1929 at Govt branch press, Mysore with the patronage of the king, Sri Krishnaraja Wodeyar authored by Vaggeyakara and Ashtana Vidwan of Mysore, K Vasudevacharya. It contains 71 compositions with notations, all composed by the author himself. This publishing also contains 23 pages dedicated to identified printing mistakes and their corrections.

It is mentioned in the Author’s acknowledgement that there were special difficulties in publishing music works yet, the publishing was done excellently, thanking Mr B Srinivasa Iyengar, Assistant Superintendent, Govt Branch Press, Mysore.

**Observations**

Four pages are dedicated for the explanation of all the



symbols used in this book. He mentioned 12 notes used in this book and gave numbers 1 and 2 in case of variations in each swara.<sup>[17]</sup> There is no discussion about any gamakas or related symbols except a horizontal bow to represent the glide from one note to the other. The very first composition in this book is Sri Kesava mam palaya in the raga Bhairavi set to Chaturasra Roopaka tala. The arohana and avarohana of Bhairavi is mentioned as

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The notation has clear symbols to denote parts of the composition like Pallavi,<sup>[18]</sup> Anupallavi<sup>[19]</sup> etc, dots above and below notes to represent the octave they belong to, single and double horizontal lines to denote the speed of the phrases, laghu<sup>[20]</sup> and dhritam,<sup>[21]</sup> start and end of the avartanam etc. However, there is no symbol or number used to represent Daivatam variation within the notation. Lack of details of usage of foreign notes and gamakam details makes it difficult to interpret ragas like Bhairavi.

**Kritimanimalai:** It's authored by Ranga Ramanuja Iyengar, published at Sabarmati Press, Egmore in the year 1947. It's a collection of 145 notated compositions of various Vaggeyakaras. It also has brief information about 100 ragas.

- | த்ருத்தின் அடையாளம்
- || ஆவர்த்தத்தின் முடிவு அல்லது லைவின் ஆரம்பம்.
- ஒரு அட்சரத்தின் கார்வை யளவு; பெரும்பாலும் அங்கத்தின் காலிடமாகும்.
- ; இரண்டு அட்சரங்களின் கார்வையளவு. பெரும்பாலும் அங்கத்தின் அரையிடமாகும்.
- மத்யமகாலக் குறிப்பு.
- = துரிதகாலக் குறி. பெரும்பாலும் ரவை, ஒதுக்கல், முதலியவற்றைக் குறிக்கும்.
- ~ பல்லவி நிறுத்துபிடம் \* தாது ஒன்றே என்ற குறி.
- X ராகத்தில் விசேஷப் பிரயோகமாகத் தோன்றும் அன்னிய ஸ்வரத்தின் அடையாளம்.

**Observations**

There are 8 symbols discussed in the beginning of the book like vertical bars for talam, comma and semicolon representing the duration of a note, X mark to represent foreign note, horizontal single and double bars to denote the speed of the phrase etc

Raga lakshana of Bhairavi is given as raganga raga and that in the sancharams, all of the 12 prakriti and vikriti swarams are being heard. It is also said that all 7 notes are ragachaya<sup>[22]</sup> notes.

Analysing the notation for the Tyagaraja Kriti, Lalithe Sri Pravruddha, it seems to be very detailed with a good number of sangatis and generous usage of Chatusruti Daivatam, Da marked with X on top.

**Ganamanjari:** It was published in 1966 at Vasantha Press, Madras by Kalakshetra, with the aid of The Sangeet Natak Academi. It contains author Veena Krishnamacharya's self composed kritis, edited by Dr Alamelu Govindarajan.

**Observations**

There are 3 pages full of symbols with their description, which cover basic elements like comma, semi-colon, vertical and horizontal bars, dot to represent octave etc. But the overall usage of these symbols in the notation seems to be comparatively less than other works. There is no usage of any symbol to denote anya-swara in this book. We can observe the same in the above picture with notation of a Bhairavi composition, Paranmukhudai. All compositions seem to be simple in structure.

4.    ... , , , ) பா மா , ம ர ர ர ர ச ) ப ர ஹ் . சூ . . சூ .	ச ரி நி ச னி ச   சீ . . . னி .	ரி , ர ர ச ரி   சூ . சூ . . ச	
5.    ... , , , ) பா மா , ம க ரி ரில ) ப ர ஹ் . மு . . கு .	ஸ ரீ நி ஸ ரி னில   டை . . . ரீ .	ரீ , க ரி ஸ ரீ   வு . கு க் . . ந	
1.    மா , ரி ர ம ) பா வா , பா . . சி . ) ப ர . ச வ . ர	மா , ச பா ம ர . . ட க நா .	ப மா ச ப ம மா . . ர நி . ய	
கா , ரிகம ) பா பா , பா , பா . . சி . ) ப ர . த் ப . ர	மா , த் பா ம க . . இ க நா .	ப மா த் ப ம மா . . க தி . யே	
2.    ர ர ச ரி ர ம ) ப ச பா , பா , பா நி . . ர . . ) ப ர . ச வ . ர	ம ப ச ப ம ம ம . . . ட க . நா .	ப ச ப ச நி ச ப ம . . . ர நி . ய .	

In this case, it is difficult to say if the compositions really do not have any complex sangatis and gamakams or if the lack of the gamaka related symbols in the publishing makes them seem so.

Sangeeta Sowrabhamu: Sangeeta Sowrabhamu is one of the greatest works of Music in Telugu language in the 20th century authored by 'Padmabhushan', 'Sangita Kalanidhi' Dr Sripada Pinakapani. A total of 1090 compositions were published in extreme detail with notation in four volumes by Tirumala Tirupati



devasthanams(TTD), Tirupati in 1995. In addition to this, all the ragas of compositions mentioned in each volume are briefed with key points at the end. The author mentioned in the foreword that he has written notations for the compositions only after learning each of them by himself and that he is very particular in bringing out the structure of the song as it is in the notation. One can observe that he has achieved it by providing all the necessary details in his notation format.

1. ~ ఈ గుర్తు 'కంపిత', 'అందోళిత' గమకముల కుంఠుంది.
2. ^ ఈ గుర్తు 'తాడు' గమకము సూచిస్తుంది.
2. / \ ఈ గుర్తు 'ఎగుదాటు', 'దిగుదాటు' సూచిస్తుంది.
4. X ఈ గుర్తు అన్యస్వరమును తెలుపుతుంది.
5. W ఈ గుర్తు 'నొక్క' గమకమును తెలుపుతుంది.
6. — స్వరములపై పైన ఒక గీత రెండవకాలమును సూచిస్తుంది.
7. = స్వరముల మీద రెండు గీతలు మూడవ కాలమును తెలుపుతుంది.
8. = స్వరముల మీదుగా రెండు గీతలు, వాటిమీద 3 అంతే వ్రాసియుంటే ఆ స్వరములు మూడవ కాలములో త్రిస్రగతిలో పాదవల్లెని సూచన. విసేరిసారీ అనే స్వరములకు, విసేరిసారీ అనే స్వరములకు, కాలవ్రామాణం ఒకటే.

**Observations**

One can observe from the above picture that five types of gamaka symbols, an X mark for anya swara and horizontal lines denoting 3 speeds are mentioned. Though there is usage of other symbols like vertical lines for tala and avartana division, a dot to represent octave etc, the author didn't mention them in the symbols chart. The pace of the composition and composer's name is also mentioned before each notation.

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బైరవి రాగం - ఆది తాళం

(తాళం చిత్రకమ మార్గంలో నడుస్తుంది, నాచేపను రెండవ కాలములో వ్రాసియున్నది)

(త్యాగరాజ కృతి)

- మౌ దేవీద దవచ్చో విసేరి సా ; సవిదవ మపాచు । పాదో విసేరిగ ॥  
 కొ.. యి.. వై.. .. . । . . . . . యు.. ॥
- రిసే గగరి స విసేరిసారీ గరిసేని । దవ సేవిదవ మని । దవ మగరిగ మవ ॥  
 .. న్నా.. . . . . . . . . . . దే.. . . . . ॥
- (2) దేవీద దవచ్చో విసేరి సారీసారీసారీ పి । విదపా మపాచు । పాదో విసేరిగ ॥  
 కొ.. యి.. వై. . . . . . . . . . . యు.. ॥
- రిసే గరిరి స విసేరి సారీసారీ నిని । దవ విసే పద మవ । మగరి రిగసా ॥  
 .. న్నా.. . . . . . . . . . . దే.. . . . . ॥
- (i) నిసే రీగరిసా గరిసారీచ్చో నిసరిగ । రిస రిగసా ; మగరిగ మవదవ ॥  
 కో. . . . . . . . . . . దం.. . . . . ద . పా.. . . . . ॥

In the above image of the notation for the Tyagaraja23 Kriti, Koluvayyunnade, the very first note is mentioned as an anya-swaram. All gamakams are used in this notation with extreme detail given for each sangati. It is very easy to interpret the original structure of the composition, when the notation is this detailed.

**Conclusion**

With a few differences in detail, the notation format has evolved to be very precise by the end of the 20th century. In the 6 books analyzed in this paper, Sangita Sampradaya Pradarshini and Sangita Sowrabham respectively seemed to be most scientific and detailed in notation, with fine definitions given to all symbols and their accurate usage. For musicians with good Swara gyanam(knowledge of Swaras and Swara Sthanams), both books can be most helpful to learn compositions through notation.

**Footnotes**

1. Carnatic Music known as Karnataka Sangitam is a system of music commonly associated with South India(Pichu, 20)
2. Bhairavi is a musical scale derived from parent scale NataBhairavi which is 20th in the list of 72 Parent scales of Carnatic Music
3. Sargam notation is a music notation language for Carnatic music. It starts with specification of Raga, Tala and Mela. The ascending and descending order of notes called Arohana and Avarohana is also mentioned.
4. Jayadeva is a 12th Century poet from Orissa, India
5. Annamacharya is a 15th Century composer from AndhraPradesh, India
6. Arohana is an ascending pattern of notes representing the structure of the scale
7. Avarohana is the descending pattern of notes representing the structure of the scale
8. Gamakas are the oscillations given to a single note or set of notes within a construct which adds beauty to the scale. Gamakas are also called nuances which are unique to each scale.
9. Avartanam is one round of Tala, that is a rhythmic cycle
10. Anya swaram is a foreign note that appears in child scale, which doesn't feature in it's parent scale
11. Gamaka Pradhana ragas are those scales which are known for their beauty due to oscillations in their notes
12. Vaggeyakaras are those who can write the lyrics for a music composition and also tune the composition
13. Lakshanakaras are those who authored Musical treatises which deal with the theoretical and practical aspects of music or dance or both
14. Kriti is an advanced level musical composition, usually with 2 or more partitions



15. Srithi is the term for pitch in Carnatic Music
16. Swarasthana is the absolute value at which the note should be placed mathematically or sung or played on an instrument
17. Swara is a note in Carnatic Music. There are 16 notes in total
18. Pallavi is the first partition of any composition in Carnatic Music
19. Anupallavi is the second partition of any Carnatic music composition. It is not necessary that all compositions have Anupallavi
20. Laghu is the finger count part of Tala
21. Dhritam is the part of Tala that is denoted by a beat and a wave
22. Ragachaya swarams are those important notes that define the structure of a raga
23. Tyagaraja is one of the Carnatic Music Trinity (Bhagawathi,1)

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