

**Appreciating Carnatic Music**  
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**Lecture - 05**  
**A Hard look**

(Music Starts: 00:20) (Music Ends: 02:36)

We just heard, Dr Jayanthi Kumaresh, a leading Vainika, a leading Veena player in Contemporary Carnatic Music. We have used this clip with her kind permission. What she played was a raga alapana, in the raga Keeravani. Now, as we have seen in the earlier sessions, the music is melodic. The music is created by arranging notes one after another consecutively; but - as was evident - it is not just a succession of notes; it is much more than that, there was considerable variation. There was variation in tempo; there was variation in loudness and softness; there was, long notes were contrasted with notes clustered together; there were pauses, gaps; there were shakes and oscillations; and trills and curves. All of these are very deliberate and stylized way of arranging notes, of treating notes, which marks it out as Carnatic music.

Now, what is it about the seven notes that we hear so much about? Let us take a hard look at what is called the musical material. It is common knowledge that we have seven notes or seven swaras. What is a note? A note is a frequency; a frequency, as you all know, is the basic fundamental property of sound. But, not all frequencies are notes, because the perceptual element is also very much part of the concept of swara. So (Singing Starts: 04:43) (Singing Ends: 04:46) this is definitely a swara, a note and it has a certain frequency. But if the frequency, which is little higher than this; very infinitesimally higher than this. It is quite likely that, most human ears would not be able to discern, that this is a different frequency. And it won't be given the status of another note. So, a note, swara, musical note is a frequency; but it has to be perceived as such. So, it is actually a psychoacoustical property of sound.

Now, as I said we have seven notes, saptha swara (Singing Starts: 05:30) (Singing Ends: 05:33)

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These are the seven notes. We can say and this particular set of notes is called the major scale in western music and it is also a very important scale in Hindustani music as well as in Carnatic music. In fact, in Carnatic music, this scale is associated with a major raga called Sankarabharanam.

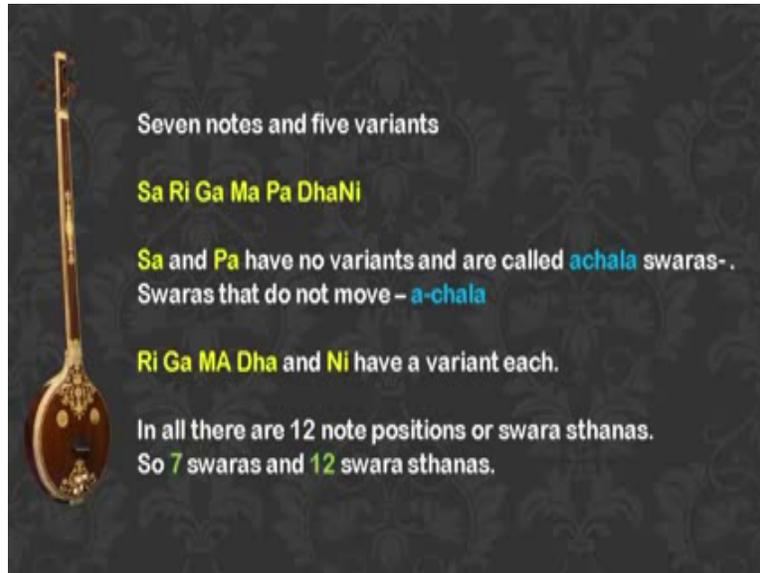
Now taking this as a reference point, since it is universally used, very widely used, very well known in many musical systems, let us see what Dr. Jayanthi played. What she played, the notes that she used are also Sa Re Ga Ma Pa Dha Ni. What she played was (Singing Starts: 06:27) (Singing Ends: 06:37) which is not the same as the major scale, the major scale goes as (Singing Starts: 06:42) (Singing Ends: 06:46), is what the Dr. Jayanthi played was: (Singing Starts: 06:49) (Singing Ends: 06:52).

The difference may be a bit subtle for novices to make out, but the ga and the dha, the third and the sixth notes, they are different in these two scales: (Singing Starts: 07:12) (Singing Ends: 07:15) This is a major scale and what Dr. Jayanthi played the Keeravani scale is: (Singing Starts: 07:22) (Singing Ends: 07:29). So, the ga is different.

So, anybody at all, with basic training in music, will know that though we speak of seven notes or seven swaras, there are five other notes, which are spoken of as the variants of five of these seven notes.

So, we say Sa Re Ga Ma Pa Dha Ni, of these Sa and Pa have no variants and therefore they are called achala swaras.

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They don't move: achala- swaras. Whereas Re Ga Ma Dha Ni - each has one variant and this variant swara is called *vikrta* swaras. So, we have seven swaras and five variant swaras taking the total to twelve. What is called swara sthanas... We don't say that there are twelve swaras; we say that there are twelve swara sthanas. That is twelve positions which can be occupied by a swara. There are very good reasons for not calling them for twelve swaras. We will look at it very shortly.

Now in order to demonstrate these twelve swara sthanas, let me use a keyboard. I would also like to emphasize, that a keyboard is far from an ideal instrument for Carnatic music. Why I am using it, is only because what I have to demonstrate is just the swara sthanas, the notes that are there and also because it is very easily available. It should be accessible to most people, we even have online versions of the keyboard. So, I will demonstrate a bit - these twelve swara sthanas on the keyboard.

So here, I have a very small keyboard, with three octaves. The advantage of keyboard is also that you can actually, see there is a visual count part of these swaras. So as I (demos on keyboard)

one key corresponds to each swara, in many ways it is ideal for demonstrating the number of swaras or tones or notes. Now suppose we start with this and let us play the major scale:

(Video Starts: 10:11) to (Video Ends: 10:17)

This is the major scale, let us see the other notes that are there in this range. So the first is:

(Video Starts: 10:27) to (Video Ends: 10:29)

This is the second swara re, but actually there is a variant of this which is:

(Video Starts: 10:39) to (Video Ends: 10:44)

The *vikrta* is:

(Video Starts: 10:46) to (Video Ends: 10:48)

so, for convenience... all these notes have technical terms in Carnatic music. But for convenience sake we also refer to them as:

(Video Starts: 10:59) to (Video Ends: 11:04)

Ri1 and Ri2, this is Ri1, this is Ri2.

Now the Ga in the major scales actually is Ga2

(Video Starts: 11:15) to (Video Ends: 11:19)

And there is a variant of this:

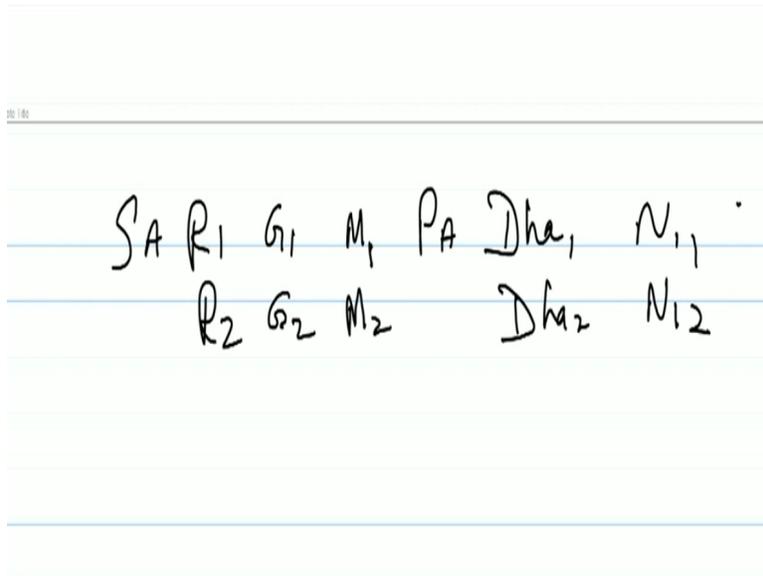
(Video Starts: 11:22) to (Video Ends: 11:44)

We have two Ma, Ma2 and so on, for Pa as I said it does not have a variant. Sa and Pa, achala swaras. They have no variants:

(Video Starts: 12:01) to (Video Ends: 12:05)

Again, Dha there are two. The seven notes and their five variants:

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We have Sa and Pa which are achala swaras. They don't move. We have r1, r2, g1 and g2, m1, m2 and then Pa of course, which has no variants. Dha1, dha2, ni1, ni2 and this is how we have the schema of twelve note positions; swara sthanas.

Here there are twelve swara sthanas or twelve tones as it is called: (Video Starts: 13:04) to (Video Ends: 13:25) 1,2,3,4,5,6,7,8,9,10,11,12..and this - which is actually the same (as 1) this is the end of the scale and we have twelve swara sthanas within it. And I don't need to tell that it doesn't sound musical at all when you play on this twelve in this way: (Video Starts: 13:40) to (Video Ends: 13:44)

We may use this kind of music in some situations in a movie or something, we want to suggest that something particularly unpleasant is going to happen; but otherwise, it is really not musical to use these twelve notes like this.

Now, the Veena is a traditional musical instrument in Carnatic music and I am going to now show you a clip from a demonstration on the Veena by Dr. R.S.Jayalakshmi. She gave us this demonstration for this course, and here she is taking what may be called the basic scale in Carnatic music, it is basic in the sense that beginners are introduced to this scale.

The first scale you learn in Carnatic music is this - the scale called Mayamalavagowla, the veena unlike the keyboard is quite the contrast of the keyboard. The veena is the quintessential Carnatic musical instrument; this is an ancient Indian instrument and it is eminently suited to

demonstrate, to listen to Carnatic music on. So, let us watch this clip where Dr. Jayalakshmi demonstrates how the scale of Mayamalavagowla sounds and how the twelve notes, twelve swara sthanas can be found on the veena fret board. Interestingly, she also plays another scale and between these two scales, Mayamalavagowla and Hemavathi, all the twelve swara sthanas are covered. So, let us watch it now: (Video Starts: 15:37) to (Video Ends: 18:01)

Sa, Ri, Ga, Ma, Pa, Dha, Ni, Sa.

Sa Ni Dha Pa Ma Ga Ri Sa.

This is the first exercise in Carnatic Music- the first Saralivarisai. This introduces the 7 notes to the student. But I played 8 notes, the 8<sup>th</sup> basically completes the cycle. An octave is contained between one Sa and the next Sa – like a flooring and ceiling. When these seven notes are rendered plain... – this is a scale.

Now, if we take this scale – the Maya Malava Gowla scale it has only some of the notes from the 12 semitones that are possible. Shadjam, Shuddha Rishabham, Antara Gandharam, Shuddha MAध्यमam, Panchamam, Shuddha Dhaivatam, Kakali Nishadham.

Now another scale takes the second variety of Ri, first variety of Ga, second of Ma, Pa, second of Dha, first of Ni. This is, in fact, the complement of Maya Malava Gowla in the sense all its notes are the other variety. This scale is called Hemavati.

Like the keyboard, the veena also has the advantage of offering a visual of the note that is being played. Each fret on the fret board of the veena corresponds to a swara, a note. Now we have seen, both on the keyboard and on the veena how there are twelve swaras - though we speak of the seven. There are actually seven plus five and we say that, there are twelve swara sthanas. Now the question would be, why don't we say that there are twelve swara and be done with it and why must we say seven swaras and five variants?

Now the straightforward answer to this is, the obvious answer to this, would be - that is how it is in practice. And this cannot be emphasized enough that what we are doing here - talking about music, theorizing about music - this entirely follows practice. Practice very rarely draws from theory and theory is only an attempt to explain the practice of music. And in practice, musicians speak of seven swaras and their variants and they do so for very good reasons because combining

seven swaras in various ways very often yields meaningful music. Music making is very possible when we have seven swaras at our disposal. Whereas a combination of these twelve swarasthanas as we just saw results in cacophony. It is very difficult to create meaningful music out of these twelve swarasthanas; using all of them together. Now what music practice does, is that of these twelve swara sthanas; seven of them are made primary and five of them are made their variant. Suggesting that, both variants of a single note, may not normally be used; that is the suggestion here.

Music is made with one of the variants of Ri Ga Ma Dha Ni. And we must acknowledge a general principle here in music making, that notes that are very close to each other such as this they do not, for instance, this: (Video Starts: 20:51) to (Video Ends: 20:58). These are very close swaras and the positions on the keyboard as you can see that they are very close: (Singing Starts: 21:06) (Singing Ends: 21:13)

This kind of combination of notes that are very in close to each other; it does not make very pleasant music. And having said this again, I must also point out that, we do use notes that are very close to each other all the time, but too much of it is, well, it might be too much.

And as a matter of fact, as we will see later, there are ragas in Indian classical, in Carnatic music especially that use both varieties of the same notes for instance. (Singing Starts: 21:54) (Singing Ends: 22:02). This is actually using two variants of the same note. (Singing Starts: 22:05) (Singing Ends: 22:11).

This kind of ragas - we have a significant number of such ragas - and some of you who have some exposure to Carnatic music would no doubt have heard of vivAdI raga-s; and this is what the vivAdI raga is. But when more such dual notes come into the picture, it becomes very challenging to create meaningful melodies out of them.