

Elementary Ideas in Carnatic Music: Part 1 Ideas of "Sruti", "Swara", "Laya", "Tala" and "Nadai"

(Thanks to Amit Kumar Shenoy for transcribing some of the exercises)

This is the first of a series of notes, accompanied by audio online lessons freely downloadable from my web site:

<http://www.ecse.rpi.edu/Homepages/shivkuma/personal/music/index.html>

or by searching for "carnatic music audio shivkumar" on a search engine like google.com

These notes and accompanying audio lessons are meant to be COMPLEMENTARY to the traditional practice of learning sarali, janta, alankaras. The focus of these lessons is to offer a big-picture *perspective*, i.e. to relate elementary lessons to the *fundamental ideas or concepts* of music. Carnatic music like other musical forms has a nice set of building blocks which when understood (or learnt), can be used to literally "synthesize" music, or "analyze" compositions in terms of these building blocks.

If you would like to enjoy music as a rasika, or practice it as an amateur, I believe that an appreciation of the fundamental ideas or concepts in music is more important than the means to achieve that end (i.e. saralis, janta, alankaras, varnams, krithis etc). One can then use these ideas to appreciate in greater depth and enjoyment the manodharma or extempore aspects of carnatic music (eg: alapana, swarakalpana, neraval, ragam-tanam-pallavi, tani avartana). It can also be used by the amateur to synthesize, i.e. construct an alapana, sing a krithi with a full appreciation of the grandeur that it represents.

In this note, we discuss the notion of sruti, swara, laya, tala and nadai in the context of sarali swaras to understand some of the latent ideas in the sarali swaras. A learner can quickly learn sarali/janta to get going, but could come back later to this kind of an approach get a perspective (or the "big picture"). This is why I believe these notes are complementary to the usual practice of learning sarali, janta etc.

SRUTI ASPECTS IN SARALI SWARAS:

What are the sruti aspects we would like to learn from sarali swaras? I will use the word "sruti" to refer to a note or a tone or a frequency (eg: expressed in swara form as "sa", "ri", "ga", "ma", "pa", "dha", "ni") and its relation to a base frequency (eg: "sa" as expressed by the background tambura or sruti box). When a learner listens to or sings the syllable "sa", what should he/she look for?

First, since our music is expressed with respect to an arbitrarily chosen sruti note (eg: the tambura or sruti box), the student should first LISTEN to the tambura or sruti box, close ones eyes and try to "feel" the music of the note to get a rough visual idea of where the note "sa" is (i.e. an understanding of where "sa" is absolutely located in the "space" of musical frequencies). You can outwardly express this understanding by indicating a level with your hands.

This understanding is important because, once you listen to some other note (expressed simply as "aaaa", i.e. as akaaram), you should be able to say whether that note is higher than "sa" or lower than "sa" (i.e. a relative understanding of notes relative to "sa"). You can outwardly express this relative understanding by raising or lowering your hand relative to the original level for "sa." I have some examples of this in my audio lesson.

The next step is to go deeper, and ask, "how much is the note higher or lower than sa"? You can raise or lower your hand proportionately to reflect your understanding. Once you do this, you can replace the original sa with another note as the reference and ask if another note is higher or lower than it, and by how much? I have some examples of this in the audio lesson.

Believe me, getting a true and deep appreciation of note location on the frequency scale is a non-trivial task and must be revisited over the long-term. This knowledge is called "sruti jnana" or knowledge of sruti! By the way, in this process you have also learnt the basics of the hand-waving histrionics of several carnatic music vocal artistes!

The next step is to go beyond listening and into singing. When musicians start, they first tune their voice to the sruti by singing saa-paa-saa. Lets start with "saa." What does it mean to sing "saa" correctly when there is no one (but yourself!) to tell you whether you are correct or wrong?

The important point is that when you sing anything, you have to keenly LISTEN TO YOURSELF singing! This is easier said than done, because it is very hard to have your mind do a balancing act of BOTH the output (i.e. singing) and the input (listening). I have also observed that my ears tend to block a little when I am singing and makes this a little more harder. But this "feedback" is very important because then you can compare the feedback to the reference "saa" and as you practiced earlier, distinguish whether what you are CALLING "saa" is indeed the frequency of "saa" or if it is higher or lower! You can again do your act with the hand to judge whether the note you are singing is higher or lower than the reference. Once you have established this, you can try to correct your output online till you reach the correct level of "saa". I must say that I have found this step (the student able to recognize and correct the note sung to match saa) to be the biggest stumbling block among beginners. But remember that singing in tune ("sruti shuddham") is the primary source of joy in music!

This step above is also an example of putting a few basic ideas together -- listening to a frequency, judging its relative position and singing it at the same time. If you cannot get this right, I would suggest decomposing this and doing each piece separately (i.e. divide-and-conquer: listen only, listen+judge, sing only, sing+listen, sing+listen+judge). You can skip some of these combinations if it comes naturally to you: you just need to be aware and able to do any one of these things on demand...

The next step is to sharpen these pieces of understanding and pick up some related concepts:

Relative Positions:

- Try deliberately singing the syllable "sa", but sung at a higher or lower frequency than the tambura sruti. Can you do it? Can you see why people may sing "apa-swaras", i.e., they say the word "sa", but sing something else?
- Can you listen to yourself and judge where the syllable you are singing is relative to the reference? Can you start higher?
- Can you make it come back to the correct frequency location without taking a new breath, and just sliding to the correct position? Do you know appreciate the difference between saying the word "saa" in some frequency vs singing it at the correct frequency?

Simple Voice Culture Techniques:

- Akaaram: Can you abstract out the word saa, and just sing it as "aaaaa" or "eeee" or "uuuuuu" (you need this to be able to correctly articulate sahitya in songs) ?
- Can you sing saa with your lips closed (i.e. utter "mmmmm")? How much volume can you produce? Can you outshadow your tambura, but still listen to it? How long can you maintain the note in a single breath?
- Can you open your lips, and again produce maximum volume and maximum length of saa? Sustainence of a note for a long time is called "karvai". If you are in the mood to challenge yourself, keep a stop-watch and see how long you can hold the note before it starts to waver. Concert musicians can easily hold a note for a full minute.
- Can you check if you are uttering the syllable saa by primarily "vocalizing" it (i.e. significant reverberations of the vocal chord) vs primarily "nasalizing" it (i.e. significant and dominant reverberations of the nose) ? The latter is often mentioned as singing through the nose (and in some extreme high frequencies as "false voice"). You may have heard some critics disparagingly say that he/she is "singing through their nose" instead of their mouth! You dont want to be object of this criticism!
- Can you check if you are uttering the word "saaa" and not unconscious slurs of the word (eg: "seh")? The mouth opening should be roughly in a pear-shape or diamond-shape (and not like a

flat line or crevice!). This is sometimes referred to as "opening" your mouth fully or sufficiently to articulate the word "saa."

- One test is to ask whether the simple SPOKEN syllable "saa" is articulated exactly the same way as the SUNG syllable "saa". If not, there is probably some error to correct -- this is another example of what it is important to LISTEN to what you are singing (i.e. feedback) and MENTALLY COMPARE it to an ideal or reference version. I believe that this view of vocal music sahitya or swara as an extension of simple spoken words is very important as we try to articulate sahitya correctly even when there are a lot of underlying musical or tala gymnastics/transitions going on... This view has also been expressed by Ramesh Mahadevan in one of his inimitable articles giving a primer on carnatic music (also mirrored on my web site). Inimitable because he makes this point with the Hindi film song: "Roop Tera Mastanaa"

Concept of Swara: (based in part upon Ramesh Mahadevan's discussion)

So far, we have been looking at only one note, and called it "saa".

Lessons :

1 . Sa ---- Pa ---- Sa

Concept of “Shruti” and “Talam”/Layam
Singing 7 swaras in varying length and loudness

2. Singing 7 swaras in ascending and descending sequence

3. Singing the swaras with different counts/beats, and identifying the count of a swara

e.g Sa with 1,2,3,4,5,6,7,8,9,10 counts

4. Fitting varying number of counts in 1 beat/cycle

			1											
		1		2										
	1		2		3									
		1		2		3		4						
	1		2		3		4		5					
	1		2		3		4		5		6			
	1		2		3		4		5		6		7	

The number of counts/beat is also referred to as “nadai” or “gait”. This pure tempo or talam exercise is a very important one and you need to do this frequently in order to imbibe a sense of timing and equi-split of the beat.

Sing this in ascending and descending order of counts/beat.

5. Replacing 1 2 3 4 in Lesson 4 by

mridangam notes: “Ta Ka Ja Nu” or “Ta Ki Ta” etc

				Ta						
		Ta			Ka					
	Ta		Ki			Ta				
	Ta		Ka		Ja		Nu			
	Ta		Ka		Ta		Ki		Ta	

| Ta Ki Ta Ta Ki Ta |
 | Ta Ki Ta Ta Ka Ja Nu|

Again practise in increasing and decreasing patterns

Replace the counts with swaras, i.e combine both sruti (frequency exercises) with tala (tempo exercises)

Sa	Ri	Ga	Ma	Pa	Dha	Ni	Sa
	Sa						
	Sa Ri						
	Sa Ri Ga						
	Sa Ri Ga Ma						
	Sa Ri Ga Ma Pa						
	Sa Ri Ga Ma Pa Dha						
	Sa Ri Ga Ma Pa Dha Ni						
	Sa Ri Ga Ma Pa Dha Ni Sa						

Note that the notes must be sung equidistant from each other even though the notation may be somewhat misleading (as it seems to indicate a larger gap in the end).

7. Sequence of 1234(5) i.e. introducing '5' to shift the

1-234	1-234	1-234	1-234	
5-123	4-123	4-123	4-123	
4-512	3-412	3-412	3-412	
3-451	2-341	2-341	2-341	
2-345	BEAT!			

Emphasize the 1st note. Sing slowly if this does not come to you immediately. If necessary separate the counting from the physical action of putting the beat in order to grasp the counting. As a general rule, you can either slow down or separate out pieces of a complex exercise and practice them separately before combining them (divide-and-conquer) approach.

A philosophical aside:

I have jokingly said to my engineering friends that this is like a linear algebra approach to music, i.e. first resolve music into its various "dimensions" to understand it (i.e. "divide"), and then mix different dimensions in appropriate proportion to get back the original form (i.e. "conquer"). Each dimension can be understood relatively independent of the others (i.e. is "orthogonal" to other dimensions), and a deeper understanding of each dimension will help constructing the whole form either deliberately or spontaneously.

This reductionist building-block method is not the only way to learn music, but it is one way to get out of mechanical repetition of musical structures such as krithis, varnams etc, and a way to infuse life into the music that is expressed. Another way is to take a "bhava" viewpoint, i.e. to abstract out all these details and focus on what in the "form" of music appeals to you, and use an intuitively learnt appreciation of that "form" as the starting point in expressing the music. Most performing musicians use some mix of both (in addition to some mechanically repetitive elements). Ultimately music should be spontaneous; it should communicate and inspire the listener. If you cannot inspire yourself (the first and foremost listener), how can you inspire other listeners? This question (does your music truly inspire your own self?) is the first acid test of musical expression. I hope to cover some of the ideas of the bhava-based approach in future notes.

