

# **AN INTRODUCTION TO THE CLASSICAL MUSIC OF INDIA**

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## I. INTRODUCTION

Indian classical music is one of the oldest forms of music in the world. It has its roots in diverse areas such as the ancient religious *vedic* hymns, tribal chants, devotional temple music, and folk music[2]. Indian music is melodic in nature, as opposed to Western music which is harmonic. The most important point to note is that movements in Indian classical music are on a one-note-at-a-time basis. This progression of sound patterns along time is the most significant contributor to the tune and rhythm of the presentation, and hence to the melody[2]. Although Indian music is now divided into the two major classes of *Hindusthani* (Northern Indian) and *Karnatak* or *Carnatic* (Southern Indian), the origins and fundamental concepts of both these types of music are the same. The form of presentation may however vary between the two systems, as well as from one *gharana* (family) to another in the former system.

The fundamental concepts that have to be understood at the outset are those of *swara* (musical note), *raga* (a melodic concept, or scale of notes) and *tala* (beats of timing or rhythm). This paper begins with an introduction to these concepts. Examples of *raga* -s and musical compositions in the *Hindusthani* style are used to illustrate the important features of Indian music. Most of the discussion, however, should be applicable to the *Karnatak* system as well, and to Indian music in general.

## II. SWARA-S: THE MUSICAL NOTES

Unlike the case in Western music, the musical notes used in Indian music are not at standardized frequencies. One may choose any frequency of convenience as the reference, and this frequency would then act as the tonic or base of reference for the music to be presented. Before entering the realm of the *swara* -s, we should understand the concept of octaves.

### A. THE OCTAVE:

While it may be convenient at first sight to see the entire gamut of notes on any instrument, for example the piano, as a sequential arrangement of different notes, it soon becomes apparent that there are notes that sound "similar", but are at different frequencies or pitches[2]. Pairs of such notes, where the frequency of the higher note is twice that of the lower note, define a range of notes called an octave. Such a higher note, and further notes that are at integral multiples of the frequency of the lower note referred to, are called the harmonics of the lower note. Thus the entire range of notes available may be seen as a cyclical arrangement of octaves.

### B. MICRONOTES AND NOTES:

It has been observed, by ancient Indian musicians as well as more recent musicians and musicologists across the world, that the human ear is capable of distinguishing at the most 22 musically different or significant notes within any given octave. These notes are referred to as micronotes, or *shruti*. Seven of these notes are considered to be the basic notes or *swara* -s in Indian classical music. For this reason,

an octave is called a *saptak*, meaning a group of seven notes. The basic reference note (the tonic) is called *shadja* (abbreviated as *sa* in singing and writing, as *S* here). While this could be at any frequency, let us consider it to be at 240 Hz (Hertz = cycles per second) for the sake of illustration and further discussion. The octave spanning 240-480 Hz is then the *madhya saptak* or middle octave, the range 120-240 Hz is the lower octave or *mandra saptak*, and the frequencies 480-960 Hz make up the *taar saptak* or higher octave. The remaining notes in an octave are defined with reference to *S*, and are called *rishabh* (*ri* or *ray*, *R*), *gandhaar* (*ga*, *G*), *madhyam* (*ma*, *M*), *pancham* (*pa*, *P*), *dhaivat* (*dha*, *D*), and *nishad* (*ni*, *N*). (These notes correspond approximately to the notes *C*, *D*, *E*, *F*, *G*, *A* and *B* in the Western music scale.) The next note would be the first note of the next octave, a *shadja* again, which is written as  $\dot{S}$ , and the same sequence repeats for the higher notes. The ranges *S*–*M* and *P*– $\dot{S}$  are called the lower and upper tetrachords of the middle octave. The same pattern repeats for the lower octave as well, with the notes written as, e.g.,  $\dot{N}$ . With *S* at 240 Hz, the nominal frequencies of *R*, *G*, *M*, *P*, *D* and *N* are 270, 300, 320, 360, 405 and 450 Hz in the *shuddha* or pure scale of Indian music[3]. It is readily seen that these frequencies do not bear an additive relationship. The progression of notes is geometric, being related by the fifth, i.e.,  $P/S = D/R = N/G = \dot{S}/M = 1.5$  [3]. In terms of the micronotes, the difference or spacing between the above basic notes varies between two, three, and four [1]. These basic notes are called the *shuddha swara* -s, meaning pure notes. Of these notes, *S*, on account of its being the tonic, and *P*, perhaps to serve as a secondary reference at the middle of an octave, are considered to be immobile, or *achala swara* -s. Five additional notes are obtained by altering the

remaining five basic notes as follows. The notes  $R$ ,  $G$ ,  $D$ , and  $N$  are lowered slightly in frequency (by one or two micronotes) to get their flat or *komal* versions, written as  $\underline{R}$ ,  $\underline{G}$ ,  $\underline{D}$ , and  $\underline{N}$ . The note  $M$ , however, is moved to a slightly higher frequency to obtain its sharp or *teevra* variant, written as  $M'$ . With the altered or *vikrit swara* -s included, an octave now has twelve notes as follows:

$$S \underline{R} \underline{R} \underline{G} \underline{G} M M' P \underline{D} \underline{D} \underline{N} \underline{N}.$$

### C. THE IMPORTANCE OF THE TONIC AND THE DRONE:

With the notes defined as above, the importance of the tonic  $S$  cannot be understated. The tonic is, simply stated, the basis of the music. All the musical notes are defined with respect to the chosen  $S$ . A musician has to continuously refer to the  $S$  to create the other notes, and to remain in tune or *shruti* (in the case of vocal music, and instruments without frets or keys for all the notes). In fact, the first exercise given a student is to sing repeatedly the notes  $S$ ,  $P$ ,  $\dot{S}$ , in order to establish the *shruti*. The *shadja* is also the state of rest, which if not provided often could lead to a state of unrest, unease, or confusion[2]. While there can be no *raga* without the *shadja* as may be readily seen from the above discussion, it is sparingly used on purpose in the *raga Marva* to create the feeling of unrest to bring out the corresponding mood of late afternoon, at which time it is to be sung.

The continuous tonic required by an Indian musician is provided by a variety of instruments. The most commonly used drone, as such an instrument is called, is the *tambura* or *tanpura*. This is a stringed instrument, with four or five long strings on an unfretted board, ending in a large resonating chamber hollowed out of wood or a

gourd shell. The strings are tuned to  $P$ ,  $S$ ,  $S$ , and  $S$ . (The  $P$  serves as an additional reference at the middle of the octave, although the notes  $M$  or  $N$  may be used sometimes instead of the  $P$ .) The strings are plucked cyclically one at a time in a slow and steady pace. The contacts of the strings with the bridge are tempered with threads, which lends to the creation of a unique set of harmonics of each of the notes produced by the strings. Additional notes are also generated by the combination of the basic notes produced by the strings. This effect, coupled with the resonance created by the chamber, gives the sound of the instrument a quality its own. The instrument also lends a good sustenance to the sounds, and thus the musician is immersed in the required tonic reference sounds. By referring to these sounds, the musician may derive other notes by either consonance or dissonance.

Reed-based drones, called *shruti petti* (box of notes), are also available, where bellows are used to force air through one or more reeds at the same notes as in the *tanpura*. In this case, however, all the notes are produced together, and hence merge to create a different effect. The *swaramandal* (a group or assembly of notes) is a kind of a mini harp, which is used by some musicians to provide the reference. This is a multi-stringed hand-held instrument, where the strings are tuned to the various notes used in the composition or *raga* to be rendered. Gliding strokes of finger nails are used to set selected groups of these strings into vibration, giving the musician a wider group of reference notes. Modern technology has entered Indian classical music as well, and electronic instruments that simulate the sounds of the *tanpura* and the *shruti petti* are now available.

#### **D. VARIABILITY OF THE NOTES IN INDIAN MUSIC:**

In spite of the above definitions of the notes, it must be noted that some *swara* -s are not constant always even with respect to the same *S*. Depending upon the *raga* being presented, and to create certain special effects and moods, the same note may take different frequencies. This is commonly done in the case of the note R (*komal rishabh*) which is moved very close to *S* in, for example, the *raga Shree* to create the unstable and dissonant mood of dusk, at which time it is sung. This kind of flexibility is provided by the *sitar* by means of movable frets. In the case of the bamboo flute or *bansuri* this is achieved simply by varying the partially closed area of the corresponding hole by appropriate positioning of the corresponding finger. Instruments with fixed frequencies for all the notes, like the harmonium or the piano for example, are thus not always well-suited for Indian classical music[1]. For this reason, traditional musicians do not use the harmonium, which however is currently used by many[3].

#### **E. CREATING CONTINUITY IN MUSIC:**

Given the fact that the notes are presented one at a time in Indian music, and the fact that the notes used are at different frequencies as defined earlier, it may appear that a musical presentation would be discrete and discontinuous. This however is far from the real situation. Continuity is provided both in time and frequency through various tonal graces. Some tonal transitions may be smoothed by gliding from one note to the other. On a stringed instrument such as a *sitar* one may, while staying on the same fret, pull the string to obtain some of the higher notes. This effect, known as

*meend* gives continuity in both time and frequency. In another grace known as *krintan*, four notes are produced in rapid succession on a single stroke of the string of the *sitar* by a complex sequence of plucking the string and pressing on different frets. The general term used to describe such effects is *gamaka*, which encompasses many graces comparable to the shake, trill, glide, swing, etc. It should however be noted that such graces are not to be used without proper care. Depending upon the *raga* being presented, practice dictates the places where one may and may not employ graces. Again, fixed-note instruments such as the piano and harmonium are not always well-suited for Indian classical music as many of the required *gamaka* -s cannot be achieved on them.

### III. RAGA: THE MELODIC CONCEPT

Technically speaking, a *raga* is simply a group of notes or *swara* -s. This, however, would be a gross understatement, as there are many more qualifiers required to establish the many fine features of any given *raga*, which may be more aptly described as a melodic concept or seed idea, to be led to blossom by the musician[1]. The basic definition of a *raga* in terms of the allowed notes merely specifies the alphabet available. One has to know many more details such as the syntax, the phraseology, and the idiomatics of the chosen *raga* in order to be able to communicate, i.e., to present a composition to an audience and create the appropriate meaning and mood. We shall now take as examples a few *raga* -s to illustrate these concepts.

## A. SCALE AND MOVEMENTS OF A RAGA

At the outset, a *raga* is defined by the notes allowed in its ascent (*aaroh*) and descent (*avaroh*) in an octave. For example, the *raga Yaman*, which is always the first one taught to students, uses the notes  $S, R, G, M', P, D,$  and  $N$ . However, it is extremely important to add immediately that the *aaroh* is always  $NRGM'DN\dot{S}$ , and the movements  $SRG$  or  $MPDN$  are not used at all. The notes  $S$  and  $P$ , although allowed in the *raga*, are never used in moving up. All the above notes may be used in the descent, which could be written as  $\dot{S}NDPM'GRS$ . Some passages in this *raga* are, for example:  $\dot{N}\dot{D}\dot{N}\dot{R}\dot{S}$ ,  $\dot{S}\dot{N}\dot{D}\dot{P}$ ,  $\dot{M}'\dot{D}\dot{N}$ ,  $\dot{N}\dot{R}\dot{S}$ ,  $\dot{N}\dot{R}\dot{G}\dot{M}'\dot{P}$ ,  $\dot{M}'\dot{P}\dot{M}'\dot{D}\dot{P}-\dot{R}\dot{G}$ , ( $-$  represents a pause of one time unit or an unstruck continuation of the previous note for one more time unit),  $\dot{N}\dot{R}\dot{G}\dot{M}'\dot{P}\dot{R}$ , and  $\dot{G}\dot{R}\dot{S}$ . These examples, known as *pakad* (catch phrase) establish the *chalan* (movement) or phraseology of *Yaman*. Thus familiarity with appropriate tonal transitions is essential. In spite of these restrictions, innumerable passages and combinations of these notes are possible, of course. Indeed, a good musician should be able to present a *raga* for more than an hour without having to repeat the same passages in total.

Thus a *raga* is basically established by the notes used in its ascent and descent. This feature lends to a few modes of classification of *raga* -s. Based upon the number of notes used, the classes are termed *oudav*, *shadav* and *sampoorn*, meaning pentatonic (5-noted), hexatonic (6-noted) and complete (heptatonic or 7-noted). Note that a *raga* may be *oudav* in ascent, and *shadav* in descent, and so on. While *Yaman* is a *sampoorn raga*, *Shreeranjani* is *oudav-shadav* with the scales  $\underline{S}\underline{G}\underline{M}\underline{D}\underline{N}\dot{S}$  and  $\dot{S}\underline{N}\underline{D}\underline{M}\underline{G}\underline{R}\underline{S}$  [6]. *Raga Brindavani Sarang* uses  $N$  in ascent but  $\underline{N}$  in descent as

$\dot{N}SRMP\dot{N}\dot{S}$  and  $\dot{S}\underline{N}PMRS$ , but is still classified as *oudav-oudav*[6]. Considering the movement of notes that characterize a *raga* in ascent and descent, it may also be classified as straight or crooked (*vakra gati*). For example, *raga Darbari Kanada*, which is *sampoorn-shadav*, has the scales  $\underline{N}SRGRSMPD\underline{N}\dot{S}$  and  $\dot{S}\underline{D}NPMPG\underline{M}RS$  [6], with the meandering of the notes and a distinct grace on  $\underline{G}$  giving the *raga* its special charm. In addition to the above characterizations, a *raga* may be said to be *poorvanga pradhan* or *uttaranga pradhan*, depending upon the dominant usage of the lower tetrachord and lower octave, or the upper tetrachord and upper octave respectively.

Some of the basic requirements of a *raga* are: (a) A *raga* must use at least five notes of an octave in both ascent and descent; (b) There can be no *raga* without  $S$  (the tonic or reference); (c) A *raga* must have at least one of the notes  $M$ ,  $M'$  and  $P$  (to serve as an additional reference for the upper tetrachord); and (d) While a note and its altered version may both be used in a *raga*, they cannot be used consecutively. As an illustration of the last rule, while *Brindavani Sarang* uses both  $N$  and  $\underline{N}$ , they are used when moving up scale or down scale respectively, but never consecutively like  $\underline{N}\underline{N}$  or  $\underline{N}N$ . Passages such as  $\underline{N}N\dot{S}\dot{S}\dot{S}-\underline{N}P$ ,  $\dot{S}\dot{R}\dot{N}\dot{S}P\underline{N}MP$ , and  $\dot{S}\dot{R}\dot{S}\underline{N}P\underline{N}PM$  illustrate the appropriate usage of the two notes[5]. These rules are very general, and it may appear that thousands of *raga* -s are possible. However, when the essential requirement of a *raga* as a melodic idea is taken into account, many of the mere mathematical permutations and combinations get discarded. (The same applies to combinations and transitions of notes within a *raga*). It is said that while about 250 *raga* -s have been formulated as practically feasible melodies, a trained person may be able to recognize a maximum of about a hundred of them, and a top musician may render about 25 *raga*

-s although being able to master only about a dozen of them[1].

## **B. DOMINANT NOTES OF A RAGA:**

In listening to a proper rendition of any *raga*, it will be observed that a particular note will be given prominence by using it repeatedly, by using it at emphatic positions in the composition, etc. Such a note is termed the *vadi* or dominant note of the *raga*. A *raga* is, in addition, characterized by a second sub-dominant note, called the *samvadi*. The *vadi* and *samvadi* are usually separated by 4 or 5 notes, and thus serve as anchor points in the two tetrachords of an octave for the *raga*. Appropriate usage of these two notes is essential in the presentation of a *raga*. Pairs of *raga* -s that use the same notes and have even the same movements, but possess different notes as *vadi* and *samvadi* to create different effects do exist. For example, the *raga* -s *Bhoop* and *Deshkar* have the same scales  $SRGP\dot{D}\dot{S}$  and  $\dot{S}DPGRS$ . However, *Bhoop* has *G* and *D* for *vadi* and *samvadi*, whereas they are *D* and *G* for *Deshkar*. Statistical analyses of the notes used in renditions of these *raga* -s have confirmed these features in practice as well[2].

The notes not used in a *raga* also deserve special attention. Such a note is known as the *vivadi* or enemy, as injection of such a *varjit swara* (the left-out note) could lead to a jarring effect and spoil the mood of the *raga*.

Couplets known as *dohay* have been written for most of the *raga* -s, listing the notes used, *vadi/ samvadi*, and *varjit swara* -s to aid memorization[6]. Longer verses called *lakshan geet* describing each *raga* in more detail have also been composed, and set to tune in the corresponding *raga*.

### C. APPROPRIATE PUNCTUATION:

Another important aspect of a *raga* that is mentioned in some texts, but is more effectively brought out only by continuous training and practise is that of appropriate punctuation. Stopping at the wrong note can not only change the mood of a *raga*, but it may even introduce a different mood or create aesthetic and technical confusion[1]. Taking the example of *Bhoop* and *Deshkar* again, yet another aspect the two differ by is in the appropriate *nyas* (point of stasis or rest). While in the case of *Bhoop* one should not stop on *P*, it is the note *R* where a pause should not be made in *Deshkar*[1]. Similarly, practice alone teaches about notes from which one may or may not start a phrase in a given *raga*.

### D. MOOD AND TIMING OF A RAGA:

The concepts of mood and timing of a *raga* are not readily amenable to scientific analysis, are controversial, and may even be alleged to be ingrained merely by tradition and folklore. Patient and careful listening and analysis will however lend credibility to these concepts at least in a few cases. Any bias introduced by wordings of the composition may be easily ruled out by analyzing instrumental performances, or the abstract exposition of a *raga* in an *alap*.

The most readily noticeable effects are brought out by *raga* -s that make use of the notes  $\underline{R}$ ,  $\underline{D}$  and  $M'$ . These notes strike dissonances with *S*, *P* and *M* that cannot be missed or dismissed, and this feature lends the *raga* -s that make use of them a definite characteristic that has been linked to the semi-conscious state of the mind at dawn and dusk, the *sandhiprakash* or twilight times[1,2]. Proper renditions of such

*raga* -s indeed bring out the appropriate effects. The notes  $M$  and  $M'$  are used together (an exception to rule (d) stated earlier) in the early morning *raga Lalit*, which has the scales  $\underline{N}\underline{R}\underline{G}\underline{M}\underline{M}'\underline{M}\underline{G}\underline{M}'\underline{D}\underline{S}$  and  $\underline{R}\underline{N}\underline{D}\underline{M}'\underline{D}\underline{M}'\underline{M}\underline{G}\underline{R}\underline{S}$  [6], to create a mood corresponding to the unstable state just before sunrise. The early morning *raga Bhibhas* has the scales  $\underline{S}\underline{R}\underline{G}\underline{P}\underline{D}\underline{P}\underline{S}$  and  $\underline{S}\underline{D}\underline{P}\underline{G}\underline{P}\underline{D}\underline{P}\underline{G}\underline{R}\underline{S}$ , and possesses a very serene character corresponding to sunrise. Almost all of the *Hindusthani raga* -s have been assigned specific times of the day, and some are even assigned seasons such as monsoon, spring, and harvest. The bases of such associations with moods and times not only lie with the notes used by the *raga* -s, but also with the dominant notes, movements, graces, tempo, octaves and levels used, etc[2].

Let us now take up a brief study of *Marva*, *Pooriya*, and *Sohini*, all of which make use of the same notes  $S$ ,  $\underline{R}$ ,  $G$ ,  $M'$ ,  $D$ ,  $N$  and  $\dot{S}$ . They possess different dominant notes and differ in movements, however, and hence are assigned different times, and indeed create different moods. *Marva* has been assigned the time of late afternoon, as the mood created by it corresponds to the uneasy and uncomfortable feelings at the end of the day. Its scales are  $\underline{S}\underline{R}\underline{G}\underline{M}'\underline{D}\underline{N}\underline{D}\underline{S}$  and  $\underline{S}\underline{N}\underline{D}\underline{M}'\underline{G}\underline{R}\underline{S}$  [6]. The dominant use of the dissonant note  $\underline{R}$  and  $D$  as *vadi/ samvadi*, the use of  $M'$ , and the particularly sparing use of  $S$  lend to the creation of these moods. A typical movement of this *raga* is  $\underline{D}\underline{N}\underline{R}\underline{G}\underline{M}'\underline{D}\underline{N}\underline{R}$   $\underline{G}\underline{R}\underline{N}\underline{R}\underline{N}\underline{D}$   $\underline{N}\underline{D}\underline{M}'\underline{D}\underline{M}'\underline{G}$   $\underline{M}'\underline{G}\underline{R}\underline{S}$  [5]. By moving around and suggesting the tonic  $S$ , but mostly avoiding it, movements as above create tension and desire for rest. *Pooriya* has the scales  $\underline{N}\underline{R}\underline{S}\underline{G}\underline{M}'\underline{D}\underline{N}\underline{R}\underline{S}$  and  $\underline{S}\underline{N}\underline{D}\underline{M}'\underline{G}\underline{R}\underline{S}$ , and  $G$  and  $N$  for *vadi* and *samvadi*[6]. Some of its typical movements are  $\underline{N}\underline{R}\underline{G}\underline{M}'\underline{D}\underline{G}\underline{M}'$   $-\underline{G}-\underline{R}-\underline{S}-$   $-\underline{N}\underline{R}-$   $-\underline{N}\underline{M}'-$   $-\underline{S}$  [5]. As may be seen, the

*raga* is *poorvanga pradhan*. It is assigned the time of dusk. The scales of *Sohini* are  $SGM'DN\dot{S}$  and  $\dot{S}\dot{R}\dot{S}NDM'DM'GRS$ , with  $D$  and  $G$  for *vadi/ samvadi*[6]. Some of its movements are  $NDN\dot{S}$   $NDM'G$   $M'DN\dot{S}$   $\dot{R}-\dot{S}-$ ,  $DN\dot{S}$   $DN\dot{S}$   $DN$   $\dot{S}NDM'$   $GGRS$ , and  $\dot{S}\dot{R}$   $N\dot{S}$   $DN$   $M'D$   $N\dot{S}$   $DN$   $M'D$   $GM'$   $M'DGM'$   $M'GRS$   $\dot{N}SGM'DN\dot{S}-$   $\dot{N}SGM'DN\dot{S}-$   $DN\dot{S}DN\dot{S}DN$ . As evident from these movements, this is an *uttaranga pradhan raga*, making use of the upper tetrachord and higher octave notes more often. The time assigned to *Sohini* is the last quarter of the night. Thus the mood of a *raga* is determined not merely by the notes used, but by their appropriate use and emphasis, and by the right movements.

#### IV. TALA: THE SENSE OF RHYTHM

Just as the concept of the octave breaks down the gamut of notes into cycles of "similar sounding" notes, the continuum of time is broken into cycles or *avartan* -s by the concept of the *tala*[2]. Simply stated, a *tala* is the beat given for timing notes and words in a musical composition. It is cyclical, and gives the musician the rhythm and tempo. In Indian classical music this is provided by different kinds of drums, known as *tabla*, *pakhavaj*, and *mridangam*. While ancient books mention 108 different *tala* -s, only about a dozen of them are commonly used in current practice.

The basic beat or *theka* of a *tala* is described using words called *bole* -s which relate to the different sounds of the *tabla*. The beat that starts a cycle is called the *sam* and marked with an X. Another beat that is given importance is the *khali* (o), which is usually the beat at the beginning of the second half of the cycle. These two

beats, which have distinct sounds in each *tala* aid the musician in remaining in *laya* or tempo. The most commonly used *tala* is the *teental* or *trital*, which has 16 beats or *matra* -s per cycle, broken into four sub-groups of four beats each. The *theka* of *teental* is as follows:

X  
*dha dhin dhin dha dha dhin dhin dha*  
 (1 2 3 4 ) (5 6 7 8 )

o  
*na tin tin ta na dhin dhin dha*  
 (9 10 11 12) (13 14 15 16)

The *theka* -s of a few other commonly used *tala* -s [1,5] are as follows:

*Ektal:*

X  
*dhin dhin na truk tin na o kat tin na truk dhin na*  
 (1 2 3) (4 5 6) (7 8 9) (10 11 12)

or

X  
*dhin dhin dhage tirakita tu na o kat ta dhage tirakita dhi nana*  
 (1 2 3 4 ) (5 6 7 8) (9 10 ) (11 12)

*Jhaptal:*

X  
*dhi na dhi dhi na ti na ti ti na*  
 (1 2) (3 4 5) (6 7) (8 9 10)

*Roopak tal:*

o X  
*ti ti na dhin na dhin na*  
 (1 2 3) (4 5) (6 7)

*Kerava:*

*dha ge na ti na ka dhi na*  
 (1 2 3 4) (5 6 7 8)

or

*dha ge dhage truk dha tin take truk*  
 (1 2 3 4 ) (5 6 7 8 )

*Dadra:*

*dha dhin na dha tin na*  
 (1 2 3) (4 5 6)

The last two of these *tala* -s are used in light compositions only. Note that although some of the *bole* -s above are complex and made up of up to four strokes or sounds of the *tabla* (e.g. *ti-ra-ki-ta*), each of them is given the same time unit (*matra*) as the other *bole* -s in the *tala*. The sub-groups indicated within each cycle are for convenience only, and different compositions set to the same *tala* may have different internal groupings. The above are only representative beats of the *tala* -s, and the *tabla* player does indeed play other variations of the basic beats and improvisations, maintaining however the cyclical pattern and indicating the *sam* and *khali* with the appropriate beats always. Any such improvisation, however, must begin on a *sam* and end immediately prior to another *sam*, thus extending over one or more complete cycles of the *tala*.

The speed of the beats or pace is described by the adjectives *vilambit*, *madhya* and *dhрут*, meaning slow, medium and fast tempos. The additional adjective *ati* (very) is also used with the first and the last tempos. In the *Hindusthani* style, these tempos do not have any standardized timings or inter-relationships, and are only relative. Also, one may move gradually from one pace to another.

As will be explained in a later section, the concepts of *tala* and *laya* are very important to a musician, and it is crucial for the musician and the *tabla* player to reach the *sam* together. The two may sing and play freely for certain lengths of time, but must always return to the *sam* together whenever they return to the main lines of the composition. As an indication of the importance of the three concepts of *shruti* (i.e., the tonic provided by the drone), *raga* and *tala*, they are referred to as the three unities of Indian music[3].

## V. MODES OF PRESENTATION

Although the basic theories behind all forms of Indian classical music are the same as described in the preceding sections, styles of presentation of the same *raga* vary from one region to another, and from one family or *gharana* of musicians to another. Brief descriptions are given in the following sections of the major styles of presentation in vocal and instrumental music in the *Hindusthani* system. Descriptions of other forms of presentation may be found in references[1-3].

### A. THE KHAYAL FORM OF SINGING:

The most common style of singing (currently) in the *Hindusthani* tradition is the *khayal*, which literally means (the musician's) feelings and thoughts about the chosen *raga*. At the beginning of a presentation of a *raga* in this style, it is common for the musician to provide a slow introduction to the notes and movements of the *raga*. This part, known as the *alap*, is not set to any rhythm and hence is not accompanied by the

drums. The musician may sing the notes of the *raga* either by their short names *sa*, *ray*, *ga*, etc., or sing to those notes using vowels only (*aakaar*), or use abstract syllables such as *nome*, *tome* and *na*. The first composition presented is usually set to slow tempo in any of the *tala* -s, and the "song" may have poetry set to a few cycles of the *tala*. At this point the *tabla* player joins the musician, providing timing beats. The first one or two lines of the song usually span the lower tetrachord, and form the *sthayi*. The musician may sing the *sthayi* a few times to imprint upon the audience the basis of the music to follow. Most of the presentation is typically spontaneous improvisation within the bounds of the chosen *raga* and *tala*, and herein lie the capabilities of the musician. This is performed as follows. A part of a line of the song is sung, and the musician then breaks off in to a brief *alap*. This brief exposition may be, again, in the form of vocalization of a vowel following the various notes and passages, or passages expressed in terms of the short names of the notes (*sargam*), or musical passages built into the words of the song (*bole alap*). At such times the *tabla* player usually plays the *theka* only, indicating the *sam* and *khali* clearly. When the musician returns to the main line of the song, it is essential that the point corresponding to the *sam* be at the same instant as the *sam* provided by the drummer. It should be noted that at this stage the inner structure of the exposition is not set to any rhythm, although the lines of the composition are so set. This proceeds as long as the musician wishes to elaborate, whereby various melodic passages and phrases are presented. The one or two lines of the song used merely serve as anchor points, giving the musician and the audience something familiar to return to often. As the expositions gradually move up-scale, the second set of lines of the song, called the

*antara* are introduced, which typically span the upper tetrachord and octave. These lines are again further embellished with *alap* in between.

When the musician feels an adequate exposition of the *raga* has been rendered, the pace may be gradually increased by singing the *sthayi* a few times again. Next follows another round of extempore exposition of the *raga*, but now using fast and intricate phrases known as *taan* -s, which have complicated and inter-twining rhythmic and melodic patterns. These may, as in the case of the *alap*, be expressed as vocalizations of a vowel, or using the names of the notes (*sargam taan*), or by building the new patterns into the words of the song (*bole taan*). The important point again is to reach the *sam* with the *tabla* player at the right instant when returning to the main line of the song. The pattern is usually repeated with the *antara* as well, along with a new set of *taan* -s.

After an adequate exposition of the first composition, the artist may present a second composition in the same *raga* at a faster pace in the same or a different *tala*, following the same general style of presentation. It should now be clear that most of the music presented is a spontaneous improvisation, and two presentations of the same *raga* by the same musician may not be the same! Depending upon the capabilities of the artist, the above type of presentation in a single *raga* may last an hour or two!

As may be seen in the above discussion, a musical exposition in the *khayal* form is very abstract, with hardly a few lines of poetry. Thus writing a score sheet for a *khayal* is impossible. This is so due to the extempore nature of the exposition as well. The short or *chhota khayal*, however, may be written down to some extent. The following example illustrates the basic nature of the *khayal*, using a *cheez*

(composition) based on *raga Sohini* and set to *teental*[5]. Although the main lines have a corresponding song meant for vocal presentation, some instruments such as the flute and violin follow the vocal style, and this composition may be played on them, and on other instruments as well.

*Sthayi :*

$\overset{o}{\dot{N}}\dot{D}\dot{N}\dot{S}$   $\dot{N}D\dot{M}'G$   $\overset{X}{\dot{M}'D}\dot{N}\dot{S}$   $\dot{R}-\dot{S}-$   
 $\dot{M}'\dot{R}\dot{S}\dot{R}$   $\dot{N}\dot{S}DN$   $GM'DG$   $M'GRS$   
 $SSGG$   $M'DN\dot{S}$   $\dot{S}\dot{R}\dot{N}\dot{S}$   $DNM'D$

*Antara :*

$M'-G-$   $M'-DN$   $\dot{S}\dot{R}\dot{S}\dot{R}$   $N\dot{D}\dot{S}N$   
 $\dot{N}\dot{R}\dot{G}\dot{M}'$   $\dot{G}\dot{R}\dot{S}\dot{S}$   $\dot{S}\dot{R}\dot{S}\dot{R}$   $N\dot{D}\dot{S}N$

*Taan* -s for *sthayi* (all start at X):

1.  $\dot{N}\dot{S}\dot{N}\dot{S}\dot{G}\dot{S}$   $GM'GM'DM'$   $\dot{D}\dot{N}\dot{S}-$
2.  $GM'DN$   $\dot{S}\dot{N}DM'$   $\dot{N}D\dot{M}'G$   $M'GRS$
3.  $\dot{N}\dot{S}GM'$   $SGM'D$   $GM'DN$   $M'DN\dot{S}$
4.  $\dot{N}\dot{S}GM'$   $DM'GM'$   $GM'DN$   $\dot{S}\dot{N}DN$
5.  $\dot{N}\dot{S}G$   $SGM'$   $GM'D$   $M'DN$   $\dot{D}\dot{N}\dot{S}-$
6.  $\dot{S}\dot{R}$   $\dot{N}\dot{S}$   $DN$   $M'D$   $\dot{N}\dot{S}$   $DN$   $M'D$   $GM'$   
 $M'D$   $GM'$   $M'G$   $\underline{RS}$  ( $\dot{N}\dot{S}GM'D\dot{N}\dot{S}-$ )<sub>2</sub>  $\dot{D}\dot{N}\dot{S}DN\dot{S}DN$

*Taan* -s for *antara*:

1.  $\dot{G}\dot{G}$   $\dot{R}\dot{R}$   $\dot{S}\dot{S}$   $NN$   $DD$   $M'M'$   $GG$   $\underline{RS}$
2.  $\dot{S}\dot{R}\dot{S}N$   $\dot{N}\dot{S}\dot{S}N$   $DNND$   $M'DDM'$   $\dot{N}\dot{S}\dot{S}N$   $DNND$   $M'DDM'$   $GM'M'G$

*DNND M'DDM' GM'M'G M'GRS ( NSGM' DNṠ– DNṠ– DNṠ– )3*

The *sam* in this composition is on the ninth note of each line of the song, the starting note of each line being on the *khali*. Each note in the song takes up one beat or *matra* and each line corresponds to one cycle or *avartan* of 16 beats of *teental*. While *alap* may be introduced anywhere in the song, it is impossible to write the score for such improvisations. *Bandish taan* -s as above, which are set to an appropriate number of beats and serve as examples for further extemporization, are however written down for the sake of learners. All the *taan* -s listed above start on the *sam*, being preceded by the first half of the first line. There is no restriction on the length of a *taan*, the only requirement being the return to the *sam* at the appropriate instant. The pace of the *taan* -s above is double that of the lines of the song, that is, two notes of the *taan* are sung or played for each beat. With the exception of the last *taan* -s for the *sthayi* and *antara* which are longer than the others, the *taan* -s above span eight *matra* -s. Note that the *taan* -s have varying internal rhythmic patterns as indicated by the grouping of the notes. While these patterns are different from the rhythmic patterns of *teental*, the total timing of the *taan* -s still makes them fit in the cyclical pattern. These are just a few examples, and one has to improvise and present a number of such *taan* -s in order to render a *raga* for a reasonable length of time.

The last *taan* for the *antara* illustrated above deserves special mention. Note the repetition of the last phrase three times, known as a *tihayi* (triple). Further, the group *DNṠ–* appears thrice within each phrase, and this makes the *taan* a *chakradhar tihayi* (cyclical triple), which when accompanied by an appropriate rhythmic pattern on the

*tabla* provides a special effect. The *taan* spans 48 *matra* -s, and as it starts with the *sam*, it would end on the note just before the *sam*. This is appropriate for conclusion of the rendition, which must always be on the *sam* (the *taan* may be followed with a lengthy stay on  $\dot{S}$  and a gradual descent to *S*).

## **B. INSTRUMENTAL GAT STYLE:**

While some instrumentalists follow the vocal or *gayaki* style, most of the presentations on the *sitar*, for example, are set in a different style. The introduction is as before, with a gradual presentation of the notes and typical passages of the *raga* in a slow *alap*. This is usually followed by the *jod* (put together) where phrases with various internal rhythmic patterns are presented. This part, however, is not set to any regular overall rhythm, and hence is not accompanied by the *tabla*. The pace of the *jod* is gradually increased, and the musician moves over to another type of rhythmic movement known as the *jhala* where strokes of the side strings (*chikari*) are introduced between the notes in different patterns. This leads to the climax of the initial exposition or *alap*.

The *tabla* player joins the *sitar* -ist with the commencement of the *gat*, which is a fixed composition spanning one or two cycles of the chosen *tala*. After playing the *gat* a few times, *alap* and *taan* -s are introduced as the in the case of the *khayal*. The presentation usually has the *sthayi* and *antara* parts as in the *khayal*. The artist may present a *gat* in slow tempo, another in medium tempo, and then yet another in fast tempo, with more *taan* -s introduced at each stage, thereby providing considerable scope for improvisation. The presentation is typically concluded with another round of

*jhala* to the beats of the *tabla*.

An interesting and entertaining episode that some musicians engage in is the *saval-javab*, which means challenge-response. In this section, the *sitar* player plays a *taan* in a certain rhythmic pattern, to which the *tabla* player responds in the same rhythmic pattern using special *bole* -s and tricks. This proceeds in rounds and builds up in tempo as well as in the complexity of the rhythmic patterns, providing grounds for an entertaining duel between the two instruments.

The following passages in the afternoon *raga Madhuvanti* (scales  $\dot{N}\underline{S}\underline{G}M'P\dot{N}\dot{S}$  and  $\dot{S}\dot{N}DPM'\underline{G}RS$  ) set to *teental* illustrate the basic patterns of the *gat* style. [4]

First line of *gat*:

$PP \ M' \ \underline{GG} \ R \ S \ \overset{X}{R} \ R \ S \ \underline{RSNN} \ S \ \underline{GG} \ M' \ DPM'P \ M' \ \underline{G} \ M'$

*Taan* -s (all start at X): *Tishram*:

1.  $\dot{N}\underline{S}\underline{G} \ \underline{S}\underline{G}M' \ \underline{G}M'P \ \underline{G}M'P \ NDP \ ( \ DPM' \ \underline{G}RS ) 3$
2.  $\dot{M}'-P \ \dot{N}\underline{S}- \ \underline{G}M'G \ RS- \ \dot{N}-S \ \underline{G}M'P \ \underline{G}-M' \ \dot{P}\dot{N}\dot{S} \ \dot{M}'-\underline{G} \ R-S \ \underline{G}RS$

*Chatushram*:

3.  $\dot{N}\underline{S}\underline{G}M'PM'\underline{G}RS- \ \underline{G}M'P\dot{N}\dot{S}\dot{N}DPM'- \ ( \ \dot{P}\dot{N}\dot{S}\dot{N}DPM'\underline{G}RS ) 2 \ \dot{N}\underline{S}\underline{G}M'$
4.  $\dot{G}\dot{R}\dot{S}\dot{N}DPM'P \ DPM'\underline{G}M'\underline{G}RS \ \dot{N}-S-\underline{G}M'P- \ \underline{G}-M'-\dot{P}\dot{N}\dot{S}- \ ( \ \underline{G}M'P\dot{N}\dot{S}- ) 2$

*Chegun*:

5.  $( \ \dot{N}\underline{S}\underline{G}M'PM' \ \underline{G}M'P\dot{N}\dot{S}\dot{N} \ \dot{P}\dot{N}\dot{S}\dot{G}\dot{R}\dot{S} \ \dot{N}\dot{R}\dot{S}\dot{N}DP \ DPM'\underline{G}RS ) 2 \ DPM'\underline{G}RS$
6.  $\underline{G}RS\underline{G}RS \ \underline{G}RS\underline{N}DP \ DPM'DPM' \ DPM'\underline{G}RS \ \dot{G}\dot{R}\dot{S}\dot{G}\dot{R}\dot{S} \ \dot{G}\dot{R}\dot{S}\dot{N}DP$   
 $\dot{G}\dot{R}\dot{S}\dot{N}DP \ DPM'\underline{G}RS \ ( \ \dot{N}\underline{S}\underline{G}M'P- ) 3$

Each group of notes in the *gat* shown above takes up one time unit or *matra*, and the entire *gat* takes up one cycle of 16 beats of *teental*. The *gat* includes many graces such as *meend* and *krintan* which have not been shown above for simplicity. The *sam* is on the sixth group of notes in the *gat*, that is, the *gat* starts with the 11th beat of *teental*. Three, four, six, and even eight notes in a *taan* may be played per *matra*, giving the names *tishram*, *chatushram*, *chegun*, and *atgun* respectively, as illustrated above. Each of the above *taan* -s starts on the *sam*, and spans eleven beats. Thus each *taan* must be preceded by the first five *matra* -s of the *gat*. While the notes in *taan* -s 1,2,5 and 6 above have been grouped on a beat-by-beat basis, they have been left in their intrinsic rhythmic pattern in the third and fourth *taan* -s to illustrate the fact that *taan* -s may have intricate inner rhythmic patterns that are different from the overall rhythm or grouping of notes. The requirement of getting back to the *sam* at the right instant still holds, of course. It should be noted that the above scores do not always accurately represent what is actually played, as many graces are introduced which may be impossible to indicate in a score.

### **C. OTHER FORMS:**

The more detailed style of exposition known as *dhrupad* is not commonly encountered nowadays, but was in vogue a few decades ago. Other lighter forms of singing are the *thumri*, *tappa* and *hori*, which are mostly romantic in theme. The *tarana* is a particularly interesting mode of presentation, where instead of poetry in words or a composition in *swara* -s, syllables such as *nadir*, *nome*, *tome*, *tarana* are used in singing. These syllables represent the *bole* -s of the *tabla* and hence aid in the

presentation of complicated rhythmic patterns set to a *raga*. This is usually done at a fast pace. Although such a presentation is very abstract, it can indeed convey melody, and provides scope for a lively exchange as the vocal and *tabla* sounds and patterns compete and merge. Devotional compositions known as *bhajan* -s, on the other hand, have considerable poetic strength in praise of God and virtuous living. Parallel styles exist in the *Karnatak* tradition as well, although known by different names.

## VI. CONCLUDING REMARKS

The preceding sections have presented a discussion of the fundamental concepts and nature of Indian classical music. The three unities of Indian music, namely *shruti*, *raga* and *tala* have been described in adequate detail, providing examples to aid a general comprehension. The commonly encountered names and terms in the *Hindusthani* system have been used throughout, giving their equivalents in English often, which should give the reader familiarity with the terminology. The various *raga* scales and movements, and the brief compositions listed in the previous section may be played on any instrument to gain a practical experience. Although incomplete, they provide bases for further exploration, and the reader is encouraged to attempt improvisation, which is the essence of Indian music.

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