CHAPTER I

RUDIMENTS OF NORTH INDIAN MUSIC SYSTEM
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.0</td>
<td>Sangita</td>
</tr>
<tr>
<td>1.1.1</td>
<td>Marga sangita</td>
</tr>
<tr>
<td>1.1.2</td>
<td>Anibaddha</td>
</tr>
<tr>
<td>1.1.3</td>
<td>Nibaddha</td>
</tr>
<tr>
<td>1.2.0</td>
<td>Sound</td>
</tr>
<tr>
<td>1.2.1</td>
<td>Infrasonic sound</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Ultrasonic sound</td>
</tr>
<tr>
<td>1.2.3</td>
<td>Nada</td>
</tr>
<tr>
<td>1.2.4</td>
<td>Ahata</td>
</tr>
<tr>
<td>1.2.5</td>
<td>Anahat</td>
</tr>
<tr>
<td>1.2.6</td>
<td>Sruti</td>
</tr>
<tr>
<td>1.3.0</td>
<td>Svara</td>
</tr>
<tr>
<td>1.3.1</td>
<td>Achal Svara</td>
</tr>
<tr>
<td>1.3.2</td>
<td>Suddha Svara</td>
</tr>
<tr>
<td>1.3.3</td>
<td>Vikrta Svara</td>
</tr>
<tr>
<td>1.3.4</td>
<td>Komala Svara</td>
</tr>
<tr>
<td>1.3.5</td>
<td>Tivra Svara</td>
</tr>
<tr>
<td>1.4.0</td>
<td>Saptal</td>
</tr>
<tr>
<td>1.4.1</td>
<td>Mandra, Madhya &amp; Tarsaptak</td>
</tr>
<tr>
<td>1.4.2</td>
<td>Āṅga, Purvang &amp; Ultarang</td>
</tr>
<tr>
<td>1.5.0</td>
<td>Tala</td>
</tr>
<tr>
<td>1.5.1</td>
<td>Matra</td>
</tr>
<tr>
<td>1.5.2</td>
<td>Theka</td>
</tr>
<tr>
<td>1.5.3</td>
<td>Avarda</td>
</tr>
<tr>
<td>1.6.0</td>
<td>Laya</td>
</tr>
<tr>
<td>1.6.1</td>
<td>Madhya Laya</td>
</tr>
<tr>
<td>1.6.2</td>
<td>Vilambit Laya</td>
</tr>
<tr>
<td>1.6.3</td>
<td>Drut Laya</td>
</tr>
</tbody>
</table>
Music is a fine art, which excels in many respects the arts of architecture, sculpture, and painting. Indian Music has an appeal to the core of the heart of the human beings, nay, it attracts and charms all the living beings of the world, irrespective of caste, creed and colour.

Music can be said to be the sweet and soothing sounds that vibrate and create as aesthetic feeling and beauty that overcome the feelings and beauties of the nature.

So music is recognized as the greatest and finest art that brings permanent peace and solace to the human world.

Music that evolved in Indian soil and imbibed the spirit and atmosphere of spiritual India, is known as Indian Music. It possesses a synthetic vision and special character of its own, and so it differs from music of other countries in its structure, temperament and method of improvisation. Indian music has no doubt been influenced by foreign music and culture, but yet it has preserved its own quality and nature and has contributed immensely its materials to other civilized countries. Or it can be said that Indian music has embraced different materials of music of other countries, but has absorbed them in an unifying method.

The English word music is a derivative from French word ‘muse’ In Sanskrit, it is called ‘gana’, ‘giti’, or ‘sangit’ The later treatise on music has explained or rather defined sangita as combination of vocal music, drumming and dance (gita, vadya, nrtya).1

At present “Sangita” generally means either vocal or instrumental music but especially it means only vocal music. Usually it means vocal or instrumental music accompanied by percussion instruments.2 The art of vocal music, instrumental music and dancing are so closely connected with each other, that the term “sangita” was used by ancient writers to include all the three arts together.3

---

1 Historical Development of Indian Music, by Swami Prajnanananda
2 The Dictionary of Hindustani Classical Music, by Bimalakanta Roy Chaudhury
3 A Short Historical Survey of the Music of Upper India by Pt V N Bhatkhande
I do not propose to deal with dancing here and it should be understood that I used the word “Samgita” by the limited indication of Vocal/Instrumental music. I shall further limit my thesis by carry out my attention mainly to the system, which is prevalent in the North part of the country.

1.1.0 Sangita:

Vocal and Instrumental music, and dance when combined is called Samgita. At present Samgita generally means either vocal or instrumental music, but specifically it means only vocal music. Usually it means vocal or instrumental music accompanied by percussion instruments. Dance or Nrtya has been separated from its original role in the word Samgita and is treated as one of the major five arts.

Music in India is termed “Sangit” from the Sanskrit, whence this as well as all terms connected with it are derived. The Indian authors divide sangit in to seven parts:
1. Sur-Adhyay which treats of the seven musical tones, with their subdivisions;
2. Rag – Adhyay defines the melody,  
3. Tal – Adhyay describes the measures, with the manner of beating time;  
4. Nrit – Adhyay regards dancing;
5. Arth – Adhyay expatiates on the signification of the poetry sung,  
6. Bhav – Adhyay confines itself to expression of gesture; and
7. Hasta-Adhyay instructs the method of performing on the several musical instruments.

According to ancient writers Music define as the Art where singing, playing instruments and dancing include all the three arts together.

Thus considering all these aspects I am of the opinion that while defining the term music some other factors should also be taken in to consideration as it is more connected with emotions, and it is closely related to the Antaratma and less related to Bahirvatavaran.

---

4 The Dictionary of Hindustani classical Music, by Bimalakanta Roychaudhury
5 Music of India by William Jones and N Augustus Willards
6 A Short Historical Survey of the Music of Upper India by Pat V N Bhatkhande
And therefore, I define the term music as follows: Music is an art by which the Artist entertains the heart of the human being with his own heartly emotions through the medium of notes/tones and Rhythm (Swar and Taal).

1.1.1 Marga Samgita

In the past, only the doxological songs in strict conformity with the rules given in the Sastras used to be called Marga Samgita, but at present classical music, as such is known as Marga Samgita. Marga Samgita is that which strictly follows the Sastriya rules. Marga means ‘The path shown by the sages’.

1.1.2 Anibaddha

The music which is not bound by Tala, Chanda or Matra, non-rhythmic, i.e. Alapa.

1.1.3 Nibaddha

The musical composition which is bound by Matra, Tala, Laya and rhythm. Songs, Taranas, Dhrupadas, Gats are of the Nibaddha variety.7

1.2.0 Sound

The most important element of music is the sound by which the note/tone/swar is originated.

In poetry, the objective nature of the plastic arts and the subjectivity of music are, in an ideal sense, united. In reading the description of a place, of a beautiful figure, of a landscape, our mind sees those objects in great reality, while at the same time, the peculiar mood in which these pictures, when associated with certain lyric and tragic situation place us, thrill our soul with emotions and feelings in a great degree similar to those awakened by music.

Since the art of music is "Dhvanipradhan" it is audible and its effects are direct and fast on the human ears from a scientific point of view.

---

7 The Dictionary of Hindustani Classical Music by Bimalakanta Roychaudhuri
Sound, is the physical basis of music and any physical sound is the result of vibrations. Thus, when any two objects collide each other produce sound by the vibrations either visible or invisible.

Sometimes the vibrations are visible as in the case of a violently plucked string of a sitar or a strongly vibrating tuning fork.

After some time the vibrations generated in the string or tuning fork become invisible they can be felt by lightly touching its string or prong with the fingers.

In other cases the vibrations are so feeble that they can be neither seen nor felt by the finger but can be detected by more sensitive instruments.

1.2.1 Infrasonic Sound

The vibrations per second of the vibrating object is called frequency.

If the frequency of the produced sound is less than 30 cycles per second, the sound produced can not be detected by most human ears. Such sounds are called Infrasonic sound i.e the rubber vibrated does not produce audible sound.

1.2.2 Ultrasonic Sound

If the frequency of the produced sound is more than 30,000 cycles per second, the sound produced can not be detected by most human ears. Such sounds are called ultra sonic sound i.e the sound produced by bat which are inaudible to the human ears, but they help to detect the existence of obstacles in their way.

1.2.3 Nada

In the Sastras, Nada has been mentioned as inseparable from Brahma and has been recognized to be Nadabrahma, Nada is indivisible and is Ananda or Supreme Joy itself. The root of the ‘Pranava’ or ‘Om’ which is ‘Paravak’ and Nada are one and the same and Nada-worship leads to the realization of Brahma. The Sastras have cited an example – as a jewel and its radiance are so inseparable, so that one, trying to discover the source of radiance, gets the jewel itself, so is the relation between Nada and Brahma. The root meaning of Nada has been explained as this – ‘Na’ is life.
(Vayu or air) and 'Da' is fire (energy), these together form sound – expressed, which is called Nada. There are two kinds of Nada, one is Anahata or unstruck i.e., not caused by any means but self sounding, and the other is Ahata or struck i.e. produced, by some means or other. On the other hand three other categories of Nada are to be considered viz., Anudatta or Bass or lover, Svarita or Tenor or medium and Udaatta or Soprano or higher. Anudatta has its site in the thorax region, Svarita in the throat and Udaatta in the head. The conception and the use of three gamuts viz., Bass, Tenor and Soprano have evolved out of these categories mentioned in the Sastras. It has also been mentioned in the Sastras that each of these three Nadas is sounded with double the effort as compared with the previous one (vide 'Saptaka').

1.2.4 Ahata
The Sound or Nada that is produced physically is called Ahata i.e. struck. All of the mundane sounds are Ahata Nadas and from these, musical sounds are chosen (vide 'Anahata').

1.2.5 Anahata
The Sastras admit two varieties of sound – one is produced by striking on something and the other is self-emanating or Anahata i.e., not-struck. This latter is unnecessary in mundane affairs. Anahata sound is self-emanating, spontaneous, infinite and meta-physical.

1.2.6 Sruti
Anything heard can be called a Sruti in a general manner. In Indian musical parlance, a Sruti is a unit of measurement of the pitch of notes. It is to be particularly noted that Sruti, as a unit of the measurement of pitch is not based on any scientific theory – it is rather based on the perception of the sages of old.

The reason for such a unit being called a Sruti appears to be this: A sound can only be heard by the ears and cannot be perceived through any other means or by any other organ. So it has been called a Sruti.
That there are innumerable different pitches of sound within the span of usual 7 notes, is admitted by the ancient Sastras. Then the question may be raised as to why only twentytwo points have been chosen to be known as Srutis. Some explain that only twenty-two points of sound can be differentiated from one another, hence the choice of twentytwo Srutis. But this theory is evidently too wide to be considered, since the capability of picking up the small difference of sound varies with each individual. Samgitarantaraka explains that out of three Nadis or nerves namely, Ida, Pingala and Susumna that pass along the spinal chord, two Nadis namely, Ida and Pingala give our twentytwo invisible side Nadis which are placed one above the other and through these Nadis twentytwo Srutis are perceived. So the number of Srutis has been fixed at twentytwo. The above explanation, however speculative, cannot satisfy an investigating mind. But perhaps all ‘Whys’ cannot be satisfactorily answered. As there is no particular reason to divide a foot rule into twelve inches, so there may not be any specific reason to divide the scale of 7 notes into twentytwo divisions or Srutis – all that we have to do is to accept them if we want to put any value to the ancient Sastras.

The ancient sages classified the twentytwo Srutis into five classes or Jatis as will be found in the tables given hereunder. European scientists have measured the pitches in terms of number of vibrations of the vibrating string in a second. The pitch of a Sruti can be determined in terms of the number of vibrations (vide ‘Vazan’).

Some Indian scholars hold that the Srutis are not equal in pitch, but they have not established their theory logically. We are in favour of treating all the Srutis to be equal. Otherwise a Sruti cannot be a measuring unit nor can there be any ground to refer to the number of Srutis a note contains. The pitch of a Sruti depends upon the pitch of the initial note of a scale i.e. S. In this context it is to be particularly pointed out that Indian notes S, R etc. are not standardized by allotting fixed number of vibrations to each Svara; any single sound can be the initial note i.e., S of a scale of seven notes. So, if the number of vibrations of any note is A, then the higher octave of that note will be 2A and each Sruti would be of the value of A +22, since the number of vibrations which is A is uniformly spread out upon the scale of seven notes. But the Sruti value thus arrived at may not be scientifically accurate since the sages depended upon their perception only in fixing a Sruti to be a unit of measurement of pitches of
notes. Doubts have been cast in the scientific world as to the fixed value of an inch as a measuring unit after the discovery of the Theory of Relativity by Prof. Einstein. Then how can a Sruti be absolutely determined by scientific methods when Srutis never depended upon science? Modern musical scholars have a queer tendency of sounding metaphysical objects by modern science just like dissecting a stone idol to see if the heart beats inside. This tendency of putting the inside concept of Sruti under scientific microscope has given the modern scholars the wisdom that Srutis are unequal and this wisdom unnecessarily complicates the problem instead of resolving it. If the Srutis are not equal then ceases the question of referring to a particular note having a particular number of Srutis — and such a reference is not only irrelevant but ridiculous also.

1.3.0 Svara

There are infinite varieties of sounds in the world but all sounds are not Svaras or notes. Samgitaratnakara defines a Svara thus: “The sound which has a vibrational (Anurananatmaka) quality of a pleasing nature (Snigdha) and also has Srutis immediately before it, and pleases the mind of the listeners without depending on any other factor is called a Svara”.

This definition requires clearer annotations. The mention of ‘Sruti immediately before it’ points to the fact that there are other sounds also, separated by intervening Srutis, and the sounds that have intervening Srutis can point only to a scale. Then we are to formulate that to be called a Svara, a sound in addition to the foregoing qualities, must be a note in the scale of seven notes. Therefore, we can define a Svara thus: If between a musical sound and its double in pitch, there are other musical sounds separated from each other, with gradual rising of the pitch following a particular law, then those sounds can be called Svaras and all such Svaras taken together can be called a scale.

It should be remembered that an Indian Svara is not fixed by any particular frequency, any note can be a key note to a scale. A musical sound, bereft of a scale, is no Svara in Indian music. It can only be called a Svara or a note if it belongs to a scale i.e., its relation to the tonic must be established before it can be called a Svara. Singly, it is only a pleasing sound.
Anurananatmaka means 'of persisting vibrations' - a piece of wood when thrown on the ground, gives out a sound which is not Anurananatmaka. Therefore, it cannot be a musical or 'Snigdha' sound. On the other hand, a broken piece of glass, if struck with a stick, gives out a sound that can be called a Svara if the identity of this sound can be fixed in relation to a scale.

In our own definition of a Svara as mentioned above, a reference has been made to the gradual rising of the pitch following a particular law. Now, we can measure this gradual rising of the pitch in two ways (vide 'Sruti'):

1. In the Indian way by Sruti units
2. In the Western way by frequencies.

Usually the notes are written with the initials of the names of Svaras: Sadja, Rsabha, Gandhara, Madhyama, Pancama, Dhaivata, and Nisada i.e., S, R, G, M, P, D, N.

These are the Suddha or pure notes of the scale. Then there are five Vikrta Svaras which are but the changed forms of R, G, M, D, and S. N and P cannot be changed and they are known as Acala Svaras (q.v.). Such change can be brought about by two methods:

1. By the use of Murcchana (q.v.)
2. By shifting the notes from their own Srutis to other unoccupied Srutis in the scale.

(1) **Change by the use of Murcchana**: We are once again writing out the scale showing the interval of Svaras.

S Tone R Tone G Semi-Tone M Tone P Tone D Tone D Semi-Tone S Tone

and Semi-tone divisions are borrowed from temperamental scale for convenience.

This is the original Bilavala Thata and is called Sadja Murcchana. The descending portion of the Murcchana has been left out as unnecessary here. The second or the Rsabha Murcchana would be:

R Tone G Semi-Tone M Tone P Tone D Tone N Semi-Tone S Tone R

Let us see what happens if this Rsabha Murchana is played on an instrument from the S fret:

S Tone R Semi-Tone G Tone M Tone P Tone D Semi-Tone N Tone S
The semi-Tones are between the R and G frets and also between D and N frets – this gives us Kaphi Thata with flattened G and H.

Thus the changes of other notes can also be brought about in the similar way. Usually this is shifting of the key note or in other words, Kharaja Parivartana (q v)

(2) Change by the shifting of the notes from their original Sruti

1.3.1 Achala Svara

Svara is a note. S and its major consonant P are regarded as fixed or immovable notes since they do not undergo any change into either sharp or flat; all other notes can be raised or lowered from their natural position. 'Achala' means that which does not move i.e., S and P.

1.3.2 Suddha Svara

The five notes of a scale or gamut – excepting S and P – can either be flattened or sharpened i.e., they are capable of being shifted from their normal place. But when they are in their normal place, they are known as Suddha Svaras. S and P are always Suddha since they do not undergo any change. Because of this, these are also known as Achala Svaras. It is to be noted here that G and N, as they are in the diatonic major scale or Bilavala Thata are known as Suddha Svaras at present, and the flattened G and N are known as Vikrta Svaras, whereas, according to the ancient Sastras, flattened G and N were considered Suddha Svaras and Suddha G and N of the Bilavala Thata were considered Vikrta Svaras. So the Suddha Thata, according to the ancient Sastras, was the modern Kaphi Thata, having flattened G and N (vide 'Svara').

1.3.3 Vikrta Svara

Literally altered notes. At present S and P do not lend themselves to be altered whereas R, G, D and N can be altered by flattening and M by sharpening. In the Sastras G flat used to be known as unaltered note but at present it is known as Komala G or G flat. The sharp M is an altered M, so it is a Vikrta Svara. In a word, when a note is shifted from its natural Sruti to any other Sruti, it is called a Vikrta Svara or altered note (vide 'Sruti').
1.3.4 **Komala Svara**

Flat notes. Excepting S, M and P all other notes can be flattened or made Komala. Literally Komala means 'Soft'. When Svaras are shifted from their natural Srutis to preceding ones they are called Komala (vide 'Sruti').

1.3.5 **Tivra Svaras**

Tivra means sharp, hence sharp notes. The present day Hindustani vogue is to call natural notes R G m D N as Tivra, but in Bengal these are called Suddha or natural Svaras and only sharp M i.e., Kadi or Tivra M is called as such (vide 'Sruti').

1.4.0 **Saptaka**

The scale of 7 notes is called Saptaka. Generally Mandra (lower), Madhya (middle) and Tara (higher) Saptakas are used but in Alapa, 'Ati Mandra Saptaka' i.e. still lower scale, is also used. The Saptakas are also known as Gramas when Udara (lower), Mudara (middle) and Tara (higher) Gramas are often mentioned.

1.4.1 **Mandra, Madhya & Tarsaptaka**

The upper gamut of seven notes indicated by "•" sign on top of every note of a notation In the human body there are three regions of importance to music viz., (i) the heart, (ii) the throat and (iii) the head, and the Sastras refer to these regions as (i) Mandra (deep or low) (ii) Madhya (middle) and (iii) Tara (high). The notes that come out deep from the heart are known as Mandra or low, those from the throat as Madhya or middle and those from the head as Tara or high. The pitch of a note in the middle region is double of the corresponding note in the low region and half of the same in the high region. If the low S has 128 as its number of vibrations per second, the middle S will have 256 and the high S 512 as the numbers of vibrations. The low gamut uses "•" sign under the notes in notations and the middle gamut uses none.

1.4.2 **Anga**

The literal meaning is limb or part. In Hindustani music the gamut of 8 notes has been divided into two parts viz., lower and upper tetrachords which are called 'Purvanga' and 'Uttaranga' respectively. 'Uttara' here means the upper and 'Purva' means the lower. It can be seen that each of the notes in the Purvanga (i.e., SRGM) has its corresponding consonant note in the Uttaranga (i.e., PDNS) Here the
consonant of S is P, that of R is D, that of G is N and that of M is S. It is evident that a note and its consonant both cannot exist in any one Anga or tetrachord. The exception is in case where M is considered a consonant of S in the Anga SRGM (vide 'Vadi').

1.5.0 Taal

This has been derived from the root 'TaaP having the meaning of 'Being established'. In rhythmic music, vocal instrumental or dance, Taal carries almost the same meaning. Taal is that by which music is established or regulated in time. Time is infinitely continuous and when a section of it, so to say, is made apparent by intervals of sounds struck heavy or light, slow or fast, accented or unaccented, so that this section stands out with individuality from the great continuum known as 'Time', it may be called a musical time. It is bound by a number of beats, which we call 'Taal'. This musical time or Taal can have infinite number of variations according to the various characteristics of rhythm and the number of beats in each. In the present work, only a few of the Taals, some rare and some more commonly used in Hindustani classical music, are given. In this case the word 'Taal' is used in a general sense. In a specific sense it means only the accented beats on the Matras, of which there are several in a rhythmic composition. To allay the possible confusion arising out of words 'Beat' and 'Matra' it is necessary to make the meaning of the words more explicit. Matra is a division of time with regular intervals either sounded or otherwise, while beat is that particular Matra which is sounded either with claps or with one solid object struck against another. The existence of a Matra may be felt rather than heard. But a beat must be heard, and this beat also we call Taal. Now, for example, here is a rhythm bound by sixteen Matras and three beats or Taals (in a specific sense) and the pattern of rhythm is called 'Tritala' (this time Taal in a general sense). The syllables to be played on a percussion instrument are called the Bolas. The notation below contains the Matras represented by vertical strokes, the Taals (specific) represented by the digits or a cross:

```
\[\begin{array}{cccccccc}
  & 1 & \quad & 1 & \quad & 2 & \quad & 2 \\
Dha & Dhin & Dhin & Dha & Dha & Dhin & Dhin & Dha \\
\end{array}\]

\[\begin{array}{cccccc}
  & 0 & \quad & 1 & \quad & 3 \\
Dha & Tin & Tin & Ta & Dhin & Dhin \\
\end{array}\]
```

The percussionist plays the syllables on his instrument and naturally sounds all the Matras but puts accents on the Matras with numerals, keeping in mind the place of
loudest accent which is known as Sama and is marked by a cross and that of the
softest accent marked by a naught. This is called Visama or ‘Opposite of Sama’. It is
commonly known as ‘Phamk’ i.e., ‘Void’ or Khali, i.e., ‘Empty’ or without sound.
Actually ‘Phamk’ is never kept unsounded as such since it is a Bola to be played on
the Tabla, yet it must be played most softly to mark the difference from other beats
(Vide ‘Sama’, Visama’, ‘Atita’, ‘Anagata’ and ‘Graha’). It is in the nature of a human
body to sway with a rhythm heard and felt, but in this Tritala, there is hardly any
rhythm to cause any swaying. It is uniformly flat in divisions of three beats and a
Phamk. However, it has been accepted as the fundamental or basic Taal with
reference to which other rhythmic variations in other Taals are made to appear
different and are appreciated as such. In the Sastras everything regarding Taal has
been described keeping this Tritala in view. For example, sign x is called the Sama
(meaning ‘Together’), ‘2’ is called Atita (i.e., the Sama having passed by) ‘0’ is
Phamk or Visama i.e., opposite of Sama, ‘3’ is Anagata (i.e., Sama having not come
yet). These terms have been fully treated under their respective heads.

The whole composition cited above is called a Theka (vide). Some call it ‘Gat’
also.

1.5.1 Matra

Matra is a bear, a measuring unit of time interval. According to
Samgitaratnakara, a Nimesa Kala is called Matra or Kala. Nimesa Kala is that period
of time which is required in uttering a short letter. It can also be explained as the
twinkling of an eye. Samgitaratnakara also measures a Matra in an ingenious way.
According to it, the time required to utter five short letters of the alphabet is called a
Matra i.e., the interval between two Matras or beats. Five Sanskrit letters Ka, Ca, Ta,
Ta, and Pa should be uttered uninterruptedly and the time required would be one
Matra and is called a Laghu Matra. Thus ten letters would require double of the time
and it would be known as Guru Matra and if fifteen letters are uninterruptedly uttered
the time required would be called Pluta Matra. In other words, a Guru Matra takes
twice the time required for a Laghu Matra and a Pluta Matra takes thrice the time of
Laghu Matra.
Taal has been created to represent Matras by sound so that the time interval can be well appreciated. At present the sounded beats are being called Matras. Time is infinite. Man, for his own comprehension and use, has divided it into intervals of years, months, weeks, days, hours, minutes and seconds. The act of thus dividing time is called Matra.

1.5.2 Theka

Literal meaning of Theka is ‘Support’, ‘Prop’, or ‘Shore’. In music, it is a composition for the percussion instruments showing a definite rhythm (Chanda), beats (Matras), and Taals (beats which are sounded). This last i.e., sounded beats or Taals help determining a rhythm and the nature of a Taal (vide). The strokes representing the composition are called Bolas (vide). Songs, Taranas or Gats for instruments are composed in Taals and are accompanied by percussion instruments with Theka by way of supporting the Taal and rhythm of the melody. Demonstration in the percussion instruments takes the nature of melodic music in the sense that Thekas are repeated and extempore improvisations presented in between. Some authors call ‘Theka’ a ‘Gat’ also. The improvisation, either extempore or composed, employing stroke phrases of the Theka, is known as Kayada (Qaeda) or Vistara. When a Theka is played twice within the normal time limit for one cycle of the Theka, it is also called Kayada (Qaeda).

1.5.3 Avarta

The popular form of the word Avarta or cycle. The entire cycle of a melodic or rhythmic composition is called Avarta or Avarda.

1.6.0 Laya

According to Samgitaratnakara, the time interval between two Matras or beats is called Laya. It would be obvious if we consider the description of Samgitaratnakara annotation i.e., Tika: viz. "If a strike is immediately followed by another without any gap or respite, there cannot be any Laya." According to this, Laya is an intervening period between two successive beats. If such periods are of small duration, the beats must be faster, hence we call them fast tempo. If the periods are twice the duration of the fast tempo, the beats become slower and we call them medium tempo, if four times the duration, we call slow tempo or Vilambita, meaning extended. It may be
pointed out that if the medium tempo is considered the standard, then both slow and fast tempo can be better demonstrated in relation to the medium tempo. It is worthwhile, in this context, to refer to 'Matra' where this has been further explained.

It has been explained under Matra that if a Matra is extended to twice its duration, it is called 'Guru', if to three its duration, it is called 'Pluta' – that is, one and the same thing (Laya) has been classified in three ways, viz., fast, medium and slow.

We are giving below the examples of medium, slow and fast tempo by Bolas as used in Gats and also the percussion Bolas in medium tempo, which is considered to be normal Laya:

<table>
<thead>
<tr>
<th>Percussion Bolas for Tabla in Barabara or Medium Tempo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tempo</strong></td>
</tr>
<tr>
<td><strong>Gat Bolas</strong></td>
</tr>
<tr>
<td><strong>Medium Tempo</strong></td>
</tr>
<tr>
<td><strong>Slow Tempo</strong></td>
</tr>
<tr>
<td><strong>Suluppi Tempo (Extra Fast)</strong></td>
</tr>
</tbody>
</table>

It can be noticed that the percussion Laya is in the medium tempo and this being the standard background for the Gat Bolas, variations there of can be better appreciated by the listeners.

1.6.1 Madhya Laya

Literally, medium tempo. This is considered to be the natural tempo. Its half is considered to be slow and its double to be fast tempo. Madhya Laya is also called Barabara Laya. Actually the slow, medium and fast are all relative terms and there is no standard to determine tempo or Laya, yet Samgitaratnakara mentions some standard which has been fully dealt with under Laya (q.v.).
1.6.2 Vilambita Laya

Slow tempo - it is a relative term and by Vilambita is meant half of medium Laya (vide 'Laya')

1.6.3 Bruta Laya

Fast tempo – the word is relative since it is twice as fast as Madhya laya or medium tempo (vide 'Laya')

10 The Dictionary of Hindustani Classical Music by Bimalakanta Roychoudhuri