7. Evolution of Raagas from Musical Scales (Murchhana, Jaati gayan, Raaga Ragini system etc):

The observation of a strict melodic law or a Raaga throughout the piece of the music is one of the most important feature or unity of Classical Indian Music. In Raaga, a particular scale is chosen and its notes are so arranged as to excite a certain emotion in the mind of the listener.

The word raaga literally means, that which enraptures the hearer i.e. which casts an irresistible spell on the hearer. Incidentally, it is not a plain simple thing. It is neither a scale nor a mode, much less is it a melody, as a single scale or a mode may generate more Raagas than one and in one and the same Raaga, innumerable melodic arrangements are possible. Thus in ancient days there were only 'Jatis' or 'Modes', but as it was later on found that it was possible to extend the potentialities of a 'Mode' still further .The 'Jatis' were gradually replaced by what are called Raagas. Out of a single mode or a particular scale, many different Raagas can be formed by giving prominence to this or that particular note /swara or to a particular melodic nucleus.

"A Raaga is thus an artistic idea or an aesthetic scheme of which a Scale, a Mode and a melody or melodies form the raw material."

There are three chief categories under which the Raagas are classified. Thus a Raaga is Suddha (') or pure, Chayalaga(Nk kyx) or derived or is Sankeerna(lahk-means of mixed origin as the scale employed by it is respectively suddha or pure, derived i.e. slightly modified or is wholly chromatic in its character. The suddha Raagas admit a more general & broad treatment than the Chayalaga in which the treatment becomes more and more specific till finally in Sankeerna Raagas it becomes absolutely singular.

Again in one and the same category, there are three primary ways in which a single scale may be employed for the formation of the Raaga. Thus if only five degrees of a scale are chosen, the Raaga is 'Odava' or pentatonic, if six are chosen, it is 'Sadav' or hexatonic and if all the seven are chosen, it is 'Sampurna' or one employing the full scale.

Further there will be Raagas, which may be odava in ascent and decent or may be odava in ascent and sadava or sampurna in decent. Thus for odava variety there will be three subvarieties and for three main varieties together there will be in all nine varieties of choosing the notes for ascent and decent from one and the same scale. A Raaga must therefore belong to one of these nine varieties in which a scale can be chosen.

The chosen scale however, does not attain status of a Raaga unless it further obeys the following conditions:

- 1. It must necessarily possess aesthetic potentialities.
- 2. It must always take Sa as the fundamental swara.
- 3. It must employ the full range of an octave and so must cover both the tetra chords. (Tetrachord- a group of 4 swaras. In a scale there are two tetrachoads, the group of 4 swara Sa,Re,Ga,Ma (either shudh or komal) make the first tetra chord and similarly the group of 4 swaras Pa, Dha, Ni, Sa(upper octave), either shudha() or komal, make the second tetrachord).
- 4. It must not omit both 'Ma' & 'Pa' simultaneously which means that it must always include at least one of them.
- 5. It must not take both flats and sharps of the same note consecutively.

It may be shown that the above conditions have a truly scientific origin in the principle of tonality itself and have nothing that may be called capricious (sudden/unpredictable) about them.

Thus aesthetic potentialities for a Raaga, which are primarily required according to the first condition, are realized by giving prominence to a particular note in preference to others. This preference throws that swara in direct contrast with the tonic harmony of the drone and thereby boldly upholds the particular consonant or dissonant character of that note, thus imparting a direct aesthetic stamp or ethos to the Raaga. The swara receiving such prominence is called 'Vadi'. To heighten the effect of vadi there is another swara either its Fourth or fifth and hence belonging to the other tetra chord which is given next best prominence. This swara is called Samvadi or helpmate of Vadi. The Samvadi imitates what the Vadi does in its own tetra chord and being at a distance of a major fourth or fifth from the Vadi, provides a point of reference to maintain the accuracy of intervals between the notes of its own tetra chord. It thus bears an equally consonant or dissonant relation towards the base note of its tetra chord, as the Vadi bears towards the tonic which acts as the base note of the first tetra chord. If the Vadi belongs to the second tetra chord and Samvadi to the first, the comparison still holds good but with the base interchanged i.e between the Samvadi with the tonic and Vadi with the base note in the second tetra chord. In any

case there is symmetry between the corresponding intervals of the two tetra chords of the scale of a Raaga. Thus the principle of similarity of the two tetra chords of a scale, as required by the first unity is facilitated by the Vadi Samvadi arrangement which, as a result, requires the observance of the second condition viz. that a Raaga must cover both the tetra chord fully.

Now the third condition viz. that a raaga must not omit Sa or the tonic and must include at least 'Ma' or 'Pa' evidently shows that each of the two tetra chords of a Raaga must begin invariably with its respective base notes. The base notes are none other than the prime notes of the tonic harmony of the drone. Thus the arrangement of the tetra chord of a Raaga scale is directly based upon the practice of tuning the Tanpura which supplies the drone without which Raaga scale would be like the ship without the radar. This explains why a Raaga must include either swara 'Ma' (F) or swara 'Pa' (G) in addition to tonic note 'Sa'(C) and also why Indian music requires the constant accompaniment of a drone.

The last condition, that Raaga must not take the sharps and flats of the same note consecutively, has also a similar justification. For which passing from the fundamental to its octave by gradually raising the pitch of a note, it is at certain specific points only that consonance comes to a peak. The degrees of a Suddha or model scale are so chosen as to represent the consonance, indicating these peaks. Thus between the two consecutive peaks or notes of the model scale, there can be no other peak or note as consonant as the two Suddha notes. An intermediate note, if chosen, is bound to be a little more sharp or flat than the neighbouring natural notes. A Suddha note being a consonant compares more favourably with the drone as also with its neighbouring Suddha notes, than either it's sharp or flat form. The Suddha note is, therefore, related to the drone or other Suddha notes as a consonance and the sharp or flat one as a dissonance. In taking the Suddha note consecutively with its sharp or flat form, there will thus be two conflicting aesthetic processes in one and the same Raaga and so they would baffle the very unity for which a Raaga stands viz. that of making a specific emotional or aesthetic appeal.

In such procedure there is yet another difficulty viz. that the small chromatic intervals not belonging to the scale check the easy flow of the melody and are distant handicap particularly in vocal performance and produce dissonance. Introducing discords without any aesthetic end in view is meaningless and merely annoying. For

all these reasons the consecutive use of sharp or flat of a note along with its Suddha form is strictly forbidden in Indian music.

Over and above these rules there are some other conventions which the Raaga has to observe. Particular Raagas are to be sung in a particular season and even in that season at a particular time of the day or night. Though the restriction on the season has gone but the restriction about the time of the day or night still remains. For the purpose of allotment of proper time of each Raaga, they are divided in to Purva & Uttara Raagas. Purva Raagas have their Vadi note in the first tetra chord, while the Uttara Raagas have their Vadi in second tetra chord. In Purva, since the Vadi swara belongs to the lower part of the scale it is but natural that they should have a tendency for ascending progression while on the account of high position of Vadi, the Uttara raagas can evidently show their best charms in the descending form of progression. The Purva Raagas are sung from midday onwards up to midnight and their ascending progression is in keeping with more vigorous and active part of the day. The Uttara Raagas on the other hand, with their descending progressions are delicate and plaintive and justly employ such hours viz. those from midnight up to midday during which one is mostly by oneself and puts on a reflective mood.

It may be seen that the Raaga system has been an ever-growing idea and has gradually developed along rational lines of evolutions, even in the past. Thus from Scales the Modes or Jatis were obtained, from the Jatis the Raaga were obtained by particular arrangement of the tetra chords and by giving prominence to an individual note or a group of notes serving as Raaganga (jkk) or nucleus of the Raaga.

Unlike the Northern system which is predominantly based on melody the Raaga system of South is a matter of mathematical computation and is thus easy to understand. The Southern system recognizes only twelve notes in an octave including Suddha, Sharps and Flats. Each tetra chords consists of six notes. Of the twelve notes a Raaga scale has to employ only seven notes covering up the whole octave and has to obey further all the rules previously referred to. Thus, by different arrangements of the notes in each tetra chord and combining those so as to give the maximum number of individually, different parent Scales have been formed. Thirty six such Scales are obtained for Raagas which take Suddha 'Ma' or the note F and an equal number of those that take Tivra 'Ma' or the note F# giving 72 Males or parent scales. Again each Male/Thaat or parent Scale gives 484 different Raagas by

permitting the notes of each of nine varieties of choice such as Odava, Sadava and Sumpurna etc. Thus the total number of possible Raagas according to the southern system is $72 \times 484 = 34848$. But of these only about two hundred are current even in South, the rest either not have been explored or do not possess the aesthetic individuality necessary for the formation of a new Raaga as distinctly different from the already known.

The Northern school on the other hand did not attempt the mathematically possible but aesthetically impossible task of obtaining the maximum number of Raagas, but choose to start with such scales as offered a good aesthetic nucleus. Since the aesthetic appreciation is more a psychological phenomenon and is slightly more difficult to understand the Raagas developed in this system, which are based on melodies, are slighted more complicated and not easy to understand.

Raagas and their parents; The Jatis:

We know that there are two families or organic groups of swaras called Gramas, born respectively from Shadja & Madhyama. We have also seen that Raagas or melodic designs have correspondingly a twofold classification in to Shadja Grama Raagas & Madhyama Grama Raagas. Raagas, however, are not among the first generation of melodic designs. They are born from melodic designs which have been given a special name Jati (That from which Raagas are born).

Composition of Notes in Two Gramas:

According to Marga or perfectly scientific system the two natural Gramas of music are constituted by swaras whose constitution and staying shrutis differ a little in two swaras 'Pa' & 'Dha'. In Shadja Grama 'Pa' formed by four shrutis, 'Dha' is constituted by the three shrutis 18th, 19th & 20th and has 20th as its staying. But in Madhyama Grama 'Pa' is constituted by three shrutis 14th, 15th & 16th and stays in 16th shruti, while 'Dha' is constituted by four shrutis 17th, 18th, 19th & 20th and stays in 20th shruti. Though swaras of two Gramas differ so little but still in the melodic effect there is real difference, Shadja Grama being more masculine than the Madhyam Grama.

The fourteen Moorchanas: In Marga system we start the fourteen Moorchanas as the basis for formation of Raagas. These fourteen Moorchanas have been given specific names. From these Moorchanas, the parent designs of Raagas are formed.

Moorchanas have seven swaras only:

In every moving melody the initial or the final note generally determines the emotional quality of a particular musical phrase. We also know that different note enrich different emotions. Therefore, to begin in a particular note and ascend up to its Samvadi completes a perfect musical phrase with a definite emotional quality. If we want another ascending phrase of the same emotional type we will have to begin in the same note in the higher or lower octave and go up to its Samvadi.

The essence, therefore, of a Moorchana is that it must stop at the end Swaras of that series of seven notes and turn back. A Moorchana, in fact, is a closed curve formed by the two arcs namely the ascent and descent through the seven notes.

Classification of Raagas according to the traditional Moorchana System:

Raagas are grouped under a number of scales known as Melas or Thaats, a custom which is nearly 400 years old.

It is an admitted fact that Moorchana play an important part in the production of Raagas, in other words ancient Moorchana are themselves what we call them the present day Thaats. The great advantage of classification of Raagas according to Moorchana is that one can simply at a glance know the exact Shrutis intervals vibrations, Samvadi relationship etc. of all the notes before commencing studying Raagas grouped under that Thaat.

Moorchanas (Melody Bases, Raaga scales):

Moorchanas are developed from both Sa Grama & Ma Grama by shifting the tonic note Sa to each note of the Scale thus forming seven different Scales for each Mode i.e in all 14 Scales for both the Gramas. Each moorchana extends downwards i.e Sa Ni Da Pa Ma Ga Ri Sa in Sa Grama & Ma Ga Ri Sa Ni Da Pa in the Ma grama.

Thats (Fundamental modes):

Raaga is the basis of melody in Indian music and a substitute for a Western Scale. Raagas are different series of notes with the octave which form the basis of all Indian melodies and are differentiated from each other by the prominence of certain fixed notes and by the sequence of particular notes. Raagas are not the melodies themselves but the ground work from which the melodies are afterwards formed. A thousand different melodies may be composed upon the same Raaga. Melody is a general term which is vaguely used to denote the successions of single notes which are musically effective.

Origin of Raagas:

Raagas have probably originated from four main sources:

- 1. Local creations
- 2. Devotional songs
- 3. Poetical creations
- 4. Compositions of scientific musicians.

Many of these sources may be traced in their names. Raaga is therefore an attempt of an artistic culture to reduce to law and order the melodies that come and go on the lips of the people.

It is an accepted rule of Indian music that a Raaga should not have more than 9 notes or less than 5 notes. Combination of more than 7 notes are called Mishra Raagas i.e mixture of several Raagas ,however, combination of less than 5 notes will be only pleasing Tanas.

Rules relating to Thaats:

- 1. According to the principle of Moorchana Thaats can be of seven, eight or nine Swaras. A Thaat of 9 Swaras is called Janak (Parental, Primary) Thaat from which are derived Janya Thaat (Derivative), Thaat of eight or 7 swaras by omitting one or two swaras. Out of Janak and its Janya Thaats only those Thaats that are suitable for our Raaga melodies are made use for the classification of Raagas.
- 2. That of seven eight or nine swaras is named after the Janak Raaga attached to it.
- 3. In Raagas only those shrutis are used which are used in Thaat.
- 4. A Raaga is supposed to be the basis of all Indian melodies. As Raaga originate from Thaat, it is absolutely essential that there should be a melody also in Thaats. Melody can only be had from the samvadi relationship of swaras, hence it is of vital importance that all the swaras of the Thaats should stand in samvadi relationship with one another, and that the same concordant relationship must exist in swaras of all the Raagas grouped under that Thaat.
- 5. Thats have Aroha (ascending notes) only. They become Raagas themselves as soon as Aroha and Avaroha (descending notes) both are given to them.

Western view point on Indian Raagas: The term Raaga, "which is generally translated by Mode" is much more accurate than the term 'Mode' as usually understood by occidental's i.e in western music. Its meaning is rather passion and its stands for a group of sounds utilised for representation of a definite emotional state. A

Raaga could only be compared to that which in Western music is a figured bass, leaving every possibility open for variations but having the outline of expression defined in advance.

Insisting upon only one form of emotion, the mood penetrates the hearer, even if inattentive, and establishes itself in their minds. This is why the power of suggestion of Modes is so much stronger than that of other musical forms in which the mood is always changing. This influence can be strong enough to bring about physical and psychological transformations which seem unbelievable to those who are accustomed only to the powerful but the superficial effects of harmonic music.