RAGAS AND RAGINIS

RAGAS AND RAGINIS

AMIYA NATH SANYAL

First Published February 1959

ACKNOWLEDGEMENT

PREFACE

The aim of the present work is to introduce a method of study of the so-called Rāgas and Rāginis of classical music of North India. The present work is only a synopsis of a much bigger and more comprehensive study which I had completed in the year 1939, but could not publish at that time.

The terms 'Rāga' and 'Rāgini' are very much in vogue among musicians and music lovers all over India. Ordinarily such terms mean some class or group of melodic entities established by tradition or convention or practice, and presentable by means of songs such as Dhrubapada and Khyāl forms, or by means of instrumental music of the forms called Gat and Ālāpa.

Regarding the vocal forms, viz. Dhrubapada and Khyāl, the very denominations imply that the former represents a fixed and conventional pattern of the songs, whereas the latter generally represents fantasia types wherein the form or the pattern and texture are subservient to the fancy of the rāga artiste.

Such Rāga-Rāgini entities generally presented in course of classical programmes go by names like *Bhairava, Bhairavi, Mālkoush, Khambāj*, etc. Most of the names carry a grammatical signature regarding masculinity or femininity of gender. They are also labelled on gramophone records of classical music. As a matter of fact, the classical music of India means the cultural music of the so-called Rāga-Rāgini.

The present study is based on notations of songs and instrumental music principally of the classical type. Various feelings of necessity prompted this work. I will deal briefly with the best of such incentives.

The idea of Rāga in the abstract and also as designs of musical presentation, or as melody forms of pure music,

obtained among the authorities on classical or cultured music of ancient India. The traditions met with in the *Nātyasāstra* of Bharata Muni speak of Grāma-Rāga and Rāga in such a manner as to make us understand that the ideas were part of settled traditions coming down from still more ancient times. Such ideas persist even to the present times. Authoritative works on music appear to have handed down such traditions vaguely but persistently. The master-disciple chain of direct training in Rāga music appears to have been responsible for an intensive, though insular, propagation of both the music as well as the traditions. Nevertheless, an unbiassed student of Rāga music of modern times finds it very difficult and at times impossible to wade through impediments of dogmatic statements of all sorts, variegated now and then with the sombre camouflage of mystic jargon forming the bulk of such literary and oral communications. The *a posteriori* method of approach to the problems of Rāga music was certainly not the strong point with those authoritative writers who dealt with the subject of rāgas, male, female and neuter entities, or rāginis. Cryptic messages embedded in the mass of tradition and attributed to authoritative personalities, such as Nārada, Bharata, Nandikeshvara, Brahmā, Hanumanta, and others, were taken for granted as they were, without any examination or research. The history of the master-disciple method of direct training in Rāga music has as yet remained obscure, to say the least.

As such, this is not so much a matter of complaint or dissatisfaction, as of regret. India, especially North India, had been from a long time past the field of battle for political and religious careerists. No wonder then that valuable records of art and cultural tradition regarding music were lost forever, judging by the scraps of references merely relating to the music of Rāga.

However, the work of purely objective study and research remains to be done. There being definite designed objects

going by names of Rāga and Rāgini, there is no reason why
objective study should be considered as unnecessary.

Another sort of necessity arose from a feeling of disappoint-
ment. As a serious student of Rāga music since 1914, I
had been eagerly going through books of music delineat-
ing classical forms of Dhrubapada and Khyāl music. All the
authors have a lot of things to say about Rāga in general and
about the embodiment of individual rāgas concerning matters
such as Vādī (dominance of particular notes), Samvādī
(consonance relations), Anuvādī (intermediary consonance)
and Vivādī (hostile or dissonance relation) etc. I may frankly
say that discrepancy between such statements and the facts
gleaned from the illustrative notations of the music displayed
in each of the books was a stupendous, as well as an insoluble,
mass of information. For example, the writers state that the
note Madhyama ('Mā' in common musical parlance) is the
Vādī, i.e. the dominant note for the Rāga *Mālkoush*. They
take for granted that the most frequently used note is the Vādī
note, according to the traditional dictum, viz. 'prayōgava-
hulatvād vādī'. But facts of published notations of Dhruba-
pada and Khyāl forms of classical songs show that the note
Shadja ('Sā' in common musical parlance) is the Vādī in at
least sixty per cent of cases. Another authoritative book of
songs and notations of Dhrubapada and Khyāl informs us
that the note Komala Rshava is the Vādī for Rāga *Mārvā*.
That book gives us twenty-seven examples of the Rāga *Mārvā*.
I found that the note Shadja ('Sā' in common parlance) is the
Vādī note for fifteen of the total number of songs, and Komala
Rshava is the Vādī note for only four of the twenty-seven
examples.

Had these been the only two examples of discrepancy and
between two rāgas in only two books of music, I would
not have felt aggrieved at all. But such was not and is not
the case. Had the discrepancy concerned merely the role of
the Vādī note regarding the embodiment of rāga, I would

not have felt at all vexed. But such was not and is not
the case.

I had been feeling like that since 1914. But there was a third
and a happier side of the necessity for objective study. As
early as 1914, I had been studying music seriously and working
under the guidance of Ostad Visvanath Rao, Shyamlal
Khettri and Khalifa Badal Khan Sahib, all of whom were
residents of Calcutta. These masters repeatedly told me to
stick to the facts and the feelings of beauty of actual presentable
music, and not to have much faith in the statements made
about those things.

Badal Khan Sahib would have me do nothing with any
theoretic consideration about rāgas presented through songs,
not even with the Vādi-Samvādī tangle about rāgas. By that
time I had scrutinised the point of issue in books such as
Samgita-manjari by Rāma Prasanna Bandopadhyāya,
Samgita-Chandrikā by Gopeswara Bandopadhyāya,
Gitasūtrasāra by Krishnadhana Bandopadhyāya, *Yamtra-
Kshettradīpikā* by Sourindra Mohan Tagore, the book of
notations of songs edited by Prof. Murtaza Khan Moulabux
(son of Ostad Moulabux of Baroda, who claims to have done
such notations in 1886), books edited by Khettra Mohan
Goswami, and very many numbers of the monthly journal
of music *Samgita-prakāsikā* edited by Jyotirindra Nath
Tagore. The resultant revelation, not of any reliable law of
music, but of discrepancies of many kinds, was enough to
kill all curiosity. The nihilistic views of Badal Khan Sahib
were looming large in my mental horizon. According to
him, a rāga appears by itself without any connection whatso-
ever with any other rāga. That does not matter at all, provided
a particular exhibition presents a really good amount of com-
municable matter to the listener and then it is 'rāga-ramga',
i.e. the colourful beauty of Rāga music. Otherwise, it becomes
a 'rāga-jung' which means a cacophonic parade of musical
notes and nothing else.

Moreover, Khan Sahib used to say that the best of artistes had to begin practising by merely imitating established forms ('Shakl' as he used to say) as met with in the musical composition of 'Sthāyi' (the first or opening movement of Dhrubapada and Khyāl forms). Then they would improve themselves by diligent practice of the thing ('Chiz' as he used to say) without any intriguing thoughts about Vādī, etc., just as potters turn out clay pots only by practice. What he meant was that potters have no idea about geometric theories of circles, cones, etc. Finally, such novices would turn out to be real artistes if they had a sprinkling of the divine faculty. And Khan Sahib would forthwith cite living examples to support his views.

Visvanathji's views were of a different kind, less radical and more conservative. He said errors had crept inside theoretic propositions from a long time past. The best thing was to imbibe those pieces of music which had the sanction of long usage, that is to say, which had been perfected by generations of master artistes and ultimately evolved into beautiful patterns and interpretations of vocal and instrumental music. Nevertheless, Visvanathji was a bit of a pessimist. He questioned the use of the laws of music if freelance artistes of Dhrubapada and Khyāl music went on breaking the established forms into whimsical pieces, and the lovers of music ran after such novelties. He would cite examples of the rāga forms of the good old days misinterpreted by modern wild, runaway disciples who styled themselves as Ustads and Professors. He complained that people nowadays set much store by the quality of mere sweetness of the music presented and neglect the substantial values of real good Dhrubapada music. Then he would yawn and tell us that if good substantial diamonds of music could get buried under heaps of rubbish what wonder then that the good old substantial ideas were also submerged under the accumulating rubbish of loose thinking of ages.

Shyamlalji, with his instinct for cultured music of all types

irrespective of traditions, would have me keep my faith in
the bonafides of ancient traditions which spoke of rāgas
and rāginīs and Vādī etc., of Rāga music of the earliest times,
though we of the present day could not understand such words
and intentions. In the meantime, I, as a novice, ought to develop
the musical feeling which helps us to distinguish good whole-
some music from insipid and indifferent presentations, whether
it be Dhrubapada or Khyāl or Ālāpa or Ghazal or Thumri
or anything else. Forms of music, e.g. Dhrubapada, Khyāl
etc., he used to say, were but vehicles of communication and
as such were not themselves the subtle aesthetic communi-
cable matter intended to be presented to the listeners. Without
this communicable matter, all forms are dead ('Murdā chiz',
as he used to say); impregnated with communicable matter,
the forms come alive, as for instance the actual presentation
of good music. But the dynamic presentations do not lend
themselves to examination just as a bird flying does not help
us to examine its form correctly. Therefore, we have to take
recourse to the study of forms statically presented in the musi-
cal notations; and Shyamlalji was a great lover of notations
correctly prepared. He insisted on my taking down all
'sthāyis', etc., in black and white and in correct notation as
far as possible. In fact, he taught me the best method of trans-
posing musical pieces into notations. Later on I found that
Shyamlalji's way of doing things was just an improvement
on the method adopted by Janab Nawab Ali Chowdhury of
Lucknow, Editor of *Maārif-un-Nagamāt*, a collection of
choice Dhrubapada forms of Rāga music.

About 1915 Shyamlalji offered to teach me certain technical
things which he said would enable me to perform quick mod-
ulations (the dūni and choudūni tāna) of Khyāl and Thumri
music correctly and within a short time. Out of his notebook
on music he dictated to me certain things, which, he said, he
had jotted down while he was taking oral and instrumental
lessons from his erstwhile guru Shri Ganeshilalji of Mathura.

He explained the meaning and practical significance of those technical things. After practising for a short time I got the desired result. However, he offered a suggestion along with the teaching of those technical phrases. This suggestion threw new light on matters of observation and experiment. But for this suggestion, I might not have proceeded further with my curiosity for statistical examination of rāga materials.

Shyamlalji said that those technical things, the *Meru* and the *Khanda-meru* and the *Mātrkā* contained the key to the mystery of Rāga-Rāginī traditions. When I asked him why he thought so, he straight away told me that his Guru himself had told him such things, and he felt it his duty to impart the idea to such an inquisitive disciple as myself. Such is one of the many ideas which are being handed down from master to pupil through the ages. Here, I must add that this *Meru* and *Khanda-meru* are not the things going by the same names in the treatise *Samgita-Ratnākara* written by Shārngadeva in the thirteenth century A.D. This I came to learn afterwards.

I started to work with musical compositions of the Dhrubapada and Khyāl forms only, and diligently tried to unlock the mystery of Rāga-Rāginī affairs by means of those technical things. My work made me stumble on certain peculiar facts which I thought were ready to yield the inner truth about rāgas. I came face to face with a number of basic designs which persistently inhered in the pure music, and which could be studied objectively and measured without serious error by simple arithmetical processes. This happened in 1921.

Near about 1926 I had the good fortune of coming into contact with Pundit Rajabhaiya Pucchwala of Gwalior, a renowned virtuoso, the only person who, as I came to learn afterwards, could face and stand up to arguing with Pundit V. N. Bhatkhande, a name to conjure with in the musical circles of North India.

Without letting him know that I was intently working

with rāga designs, I asked him broad questions about Rāga-Rāgini affairs. He told me frankly that the key to the secret is lost altogether, and only the names and skeletal traditions persisted in the cupboard of treatises on music. I asked him if it were not better in such a case to discard the masculine-feminine concepts altogether and adopt the simple word Rāga as a generality for the whole tribe, i.e. the male-female-neuter entities? To my surprise and delight, he uttered a big 'No'.

He said that such discarding of ancient traditions meant not only the degradation of our intellect, but also idleness on our part and disrespect for the ṛshis who saw the truth of such things. We must confess that our brains are dull and we cannot see truth directly. We have, therefore, to hunt for it. But the ancients saw truth as visions. If we discard the last marks of the traditions, we would be stifling our instinct for enquiry, the forlorn hope left to the ordinary run of mortals such as we. He said by the bye that he was not at all satisfied with the Janaka-janya systems of Rāga. But he had to accept the simplest of them because no better system was forthcoming or even in view. When and where standard measures are not available, people barter grain by handful measures. That is what we are doing.

Here, I must say that my masters also had their doubts about the practicability of Janaka-janya systems of classification of rāgas prevailing in recent and modern times. But these pillars of Dhrubapada, Khyāl and Thumri had not the requisite amount of inclination or temperament for objective study as I had at that time.

From the year 1926, I had enlarged my field of observation and was examining all sorts of musical things from Dhrubapada and Ālāpa forms, down to such refrains of folk music as are indulged in by labourers while engaged in roofing brick houses and timing their music to strokes with wooden handles. I thought I could discover essential designs even in

those refrains, the sort of folk music which will make the sophisticated classicalist stop his ear-holes with his fingers, turn about, and march quickly away to remote places of aural safety. However, I felt as if my vision was getting clearer and clearer. Not the vision of ancient seers, certainly; but something like the clearing of vision after a successful operation for cataract!

About 1927, while approaching such problems from the solely *a posteriori* view, I thought I had reached definite conclusions regarding basic designs and some of the evolutionary principles underlying the embodiment of rāgas. I acquainted Shyamlalji with those tentative conclusions, never suspecting that they might corroborate the truth of bits of ancient tradition of Rāga music attributed to Nārada. Shyamlalji was delighted, to say the least, not only because I had worked diligently and come to tangible conclusions, but also because I had unknowingly upheld the ancient traditions about Rāga music, specially attributed to Nārada. He told me such traditions could be discovered in the book of collections *Samgīta-makaranda* and also as gleanings from a few other authoritative works on music. Shyamlalji gave me his blessings and told me to go on with the other sort of work, viz. to reconcile the *a posteriori* conclusions with the *a priori* traditions of ancient seers. He, my master, who had helped me all along and for so much as was beyond my powers of expressing fully my gratitude towards him, certainly would have helped me to get acquainted with those works on music. Unfortunately, he left this world in 1928.

By 1930, I thought I had licked into shape a reasonable study of Rāga-Rāgini and the Vādī-Samvādī etc. of Rāga music, after having gone through certain relevant traditions as detailed in *Samgita-makaranda* by Nārada (ed. Mangesh Ramakrishna Telang, Baroda, 1920), and also, in the *Brhaddeshi* of Matanga (ed. K. Sambashiva Sastri, Trivan-

drum) and the *Rāgakalpadruma* of Krishnānanda Rāgasāgar
(ed. Vangiya Sāhitya Parishat, Calcutta) principally.

From 1936 to 1939, I occupied myself in preparing
a manuscript in which I presented my experiences in detail.
My friend Dr. Haricharana Dutta, M.B., a most earnest lover
of Rāga music and practical research worker with the instru-
ment Vīnā, — and he is the only one person that I know
of as yet in that line—helped me all through those four years
of my application by supplying me with all sorts of materials
he had in his possession. But that is the least part. For those
four years as I was unfolding my method of work before him
as a most interested listener, he always sided with the opposi-
tion trying to pick holes in the network of the deductions,
so that I had to meet his valid arguments and make my study
free from defects and errors as far as possible. I do not know
how to couch or convey my heartfelt thanks to him who not
only provided me with materials for perfecting my work,
but also presented me with a Vīnā of the best sort prepared
by his own hands.

When I had finished the work, I had a talk with Prof.
Satyen Bose, who was then residing at Calcutta, about the
statistical aspect of my work. He became quite interested in it,
so much so that he took the trouble of going through the
whole work and was eagerly asking me as to when I was
going to have it published. But Providence stood in the way
of publishing that bigger work. I may not say more than this
about Satyen Bose's approval of the work because that
happened near about twenty years ago.

Such in brief is the story of my feelings of necessity for a
work of this type. I had first to satisfy myself and then to
satisfy my master. Later on I felt I ought to satisfy the curiosity
of those of my friends who not only appreciated Rāga music
but were also eager to know the why and wherefore of rāga
affairs. Last though not least, a few experienced amateurs
of music had come to me to learn things and I accorded them

the privilege of learning such things critically but not dogma-
tically. The fact of their satisfaction emboldened me to re-
write this as an introductory work.

Before preparing the original work I had the following
major questions in mind.

1. Is it possible at the present time and by means of
presentable materials of recent and modern times, to set to
analysing Rāga music, setting aside the mass of loose and
fluid, dogmatic and empirical statements made about rāgas,
Vādī, Samvādī, etc., of classical music?

2. Is it possible by means of objective study of musical
notations of the proper sort to arrive at safe, reliable and
reasonable conclusions about Rāga in the abstract and cate-
gorical classifications of rāgas in the abstract or concrete.

3. Objectively speaking can we discover any signature
inhering in the opening movement of musical compositions,
which may lead us to distinguish big classes or groups such
as the male and female of rāgas?

4. Supposing such questions may be answered affirmatively,
could we utilise such knowledge for the work of educating and
improving the instinctive feelings for the pure music of Rāga,
i.e. those feelings which when stimulated make us appreciate
the beauty of rāga music?

My work enabled me to answer all such questions in the
affirmative.

I present a summary of such findings only as are directly
related to the aforesaid questions.

Objective study by itself reveals certain peculiar nuclear
designs, the existence of which is universal for Rāga as a
phenomenon. Such nuclear designs are found to consist of
'couples', wherein the component elements are comple-
mentary to each other. Each categorical 'couple' is the basic,
primordial matrix of Rāga as a class and gives rise to rāga
individuals (male and female categorically) as so many distinct
and different evolutes. A full-fledged rāga as an actuality of

musical presentation is nothing but a beautiful phase of evolution of the basic design. Each rāga as a categorical entity carries the signature characteristic of the class and peculiar to the individual. A rāga is not worth the name if it does not reveal such a signature inhering in it.

The basic design for each rāga reveals the true meaning and import of the relations Vādī-Samvādī, etc., for the rāga individually and as a class also.

It is but another step to discover and arrange primary, secondary and tertiary classes or categories (the 'Shuddha', 'Sālamka', and 'Samkeerna' classes of Nāradiya traditions) by means of the basic designs, and not by the number of notes involved. It would not be at all difficult to assign choice names for such classes. Compound names follow logically.

Investigation of the nature and structure of each pure single categorical design will reveal the peculiar distinction as well as complementariness of the component elements of the design. Acceptance of such things as facts of observation may never be set aside. But interpretation of such facts may or may not lead to the concepts of masculinity and femininity of essential structures, according to the temperamental attitude of the critic or the observer. In other words, an observer who is biased against the masculinity-femininity of grammatical words or names as coming down to us from ancient times, may refuse to accept the ideas of masculinity-femininity of designs of rāga. But bias or no bias, there remain the observed facts of complementariness of primordially-inhering elemental designs, and also, there are the well-arranged names of masculine and feminine entities.

Also, certain simple laws of coherence regarding design are deducible by simple statistical inference. Such laws may be expressed by means of mathematical terms. Such laws are basic and natural to the categorical designs. They are not the unaccountable customs and conventions of thinking.

Lastly, the final results of analysis and synthesis of the mate-

rials show that intrinsic power, personality and individuality of songs and all musical pieces may be fairly assessed by taking into consideration the substantiality of the rāga content of such selected music pieces. In other words, we may evaluate the merit of songs etc., and may separate the strong specimens from the weak ones, from the point of view of the quantity of rāga matter inhering substantially in such songs etc.

And we may go further, and try to observe the same phenomena after careful study of the choice examples of the classical music of European origin. The laws of music, and certainly of the music of Rāga are universal; at least in my opinion. The evolution and development of European classical music through the artificial network of harmonised texture do not necessarily mean that the essential unity and substance of music may vanish into nothing and yet the presentation may have the power and beauty of good music.

Therefore, in answering the last question, we may observe that education concerning the classical music of North India at least, involves selection of really good musical pieces for the practice of students of classical music, if it is worth practising at all.

In this connection I may venture to say that there must be some basic feeling for and some instinctive appreciation of Rāga in the minds of artistes and connoisseurs and even ordinary listeners. The feeling which stimulates the composer to do his work and the artiste to try and communicate something as a speciality to the audience, is the same which enables the connoisseur not only to appreciate the thing presented but also to discern the personality and individuality of the thing communicated to his hearing. And certainly it is the same that enables the ordinary music lover to say 'This is something like what I heard the other day.' The experienced rāga artiste must be imbued with such an instinctive musical feeling without which he could never keep to the norm and form of rāga during the moments of creative impulse. An

experienced artiste means the artiste coming to be as such by the master-and-disciple method of direct training. That instinctive feeling evolves out of an aesthetic organisation of our psychic make-up and it is one of the best of such faculties which need delicate handling and careful training. Musical education is really a matter of educating that subtle psychic faculty by imparting the proper sort of auditory stimuli and evoking the proper sort of reaction in feeling of the students of classical music.

But as we know it to be true for all arts, stimulation of mere feelings of beauty does not mean or guarantee any power of communication or giving proper expression to such communication of feeling. In other words, the superior artiste of today means a thoroughly practising student of a good many yesterdays. Moreover, he must have practised with the best of music imparted by his master. The very process of communication of such specific aesthetic matter presupposes some specific unity or wholeness of design in the contemplation of the artiste and is principally concerned with the gradual evolution of the component parts of such matter, one after another in correlated sequence, charged with the compelling power of beauty, strength, and goodness. The fundamental thing is the contemplation of perfect design. With a design in which there is no resolution of the sequential evolutes, or with a design which breaks itself into unresolved evolutes now and then, the phenomenon of communication of specific aesthetic feeling is a misnomer, whatever charm, finesse and vivacity there might be in the material expression of such communications.

Therefore, some idea, or still better a knowledge of designs, surely ought to be of great help in the training of the novice of rāga music par excellence. Such ideas or knowledge may not be necessary for the other kind of music which depends solely on the faculty of verbatim imitation and as such stands as a bar to the instinct of creative impulse of all true rāga

artistes. Presentation of Rāga music does not mean the sole duty of delivering carbon copies of material imbibed and practised during the training period.

Knowledge of the right and reliable sort is a matter of acquisition, but not of any play of imagination. The criteria of the truth of such knowledge lie in the very things of art of the best composers, and require to be investigated and discovered in the composition of such things, but not in the dogmatic, doctrinal or mystifying statements. Investigation means objective study. Discovery concerns the facts of generalised truth and ideas of inherent unity underlying the designs.

The present work intends to clear the approaches to reliable knowledge and to be of help to students, lovers and connoisseurs of classical music of Rāgas.

Regarding the publication of this work, I herein avail myself of the opportunity of expressing my heartfelt thanks to Shri B. P. Neogi, formerly Additional District Magistrate of Nadia, who took great interest in the M. S. and forwarded it to the State Government of West Bengal for making a subvention in favour of publishing the first edition of this work. The publication of this book remains indebted to the kind concern shown and subvention granted by the State Government of West Bengal.

I also acknowledge my thanks to Mr. N. A. O'Brien and Shri B. P. Lahiri for their invaluable help in going through the proofs and correcting the errors which are very liable to appear in a technical work of this nature. Nor must I forget Orient Longmans Private Ltd. for kindly consenting to publish this work and for the care they have taken in every stage of its production.

Amiya Nath Sanyal

Krishnagar
December 1958

ERRATA

		For	Read
p. 11, Specimen 1		N̤SR̄ S̄N̄S	N̄SR̄ S̄N̄S
p. 17, Specimen 6		| Ṣ — NS |	| Ṣ — NṢ |
p. 27, line 24		r – D – d	r – G – d
p. 57, Specimen 38		SGP	SGP
		– DSG	– GPN
		i.e.	i.e.
		SGPD	SGPN
p. 111, Specimen 66		| d P – D	| d P – d |
p. 176, line 13		ṢNN – dP	ṢNN – – dP
p. 224, last line		r G	D r G

CONTENTS

INTRODUCTION

STUDY presupposes the selection of materials and examination of such materials. What is this material? A material is a song, or a part of a song, or a piece of instrumental music set to musical notation. There are different kinds of notations. I have availed of what appears to me to be the simplest as well as the most precise kind of notation, approximating to the type as met with in *Maārif-Un-Nagamāt*, a book containing a rare collection of *Dhrubapada* classical forms edited by Janab Nawab Ali Chowdhury of Lucknow. I have thought proper to transcribe the symbols into the Roman alphabet, as will be explained presently under the heading 'Interpretation of Symbols'.

A large mass of such written musical material is available at the present time. I have examined just over five thousand of them, of which a majority are available in published form, and a minority as yet unpublished. The present work does not need all of these materials.

It is one thing to hear music, and quite another thing to examine the music after transforming it into notation. The aural perception and the corresponding psychic values which are stimulated in our consciousness by actually hearing the music are not to be obtained by the reading and examining of materials. But this may not devaluate or nullify the worth, necessity and purpose underlying the work of examination, just as chemical examination of a lump of sugar has not been considered worthless, or unnecessary, or without purpose among civilised people.

The present work chiefly concerns the materials representing the classical forms, namely Dhrubapada and Khyal forms. The reason for such a preferential selection has to be gone into, briefly.

The classical Dhrubapada and Khyal forms keep within the limit of a Rāga or Rāgini, such limits being intended to develop and present some specific architectonic design of the Rāga or Rāgini throughout the particular presentation of the music concerned. Especially the *Sthāyi* i.e., the opening or the first movement, introduces and presents the Rāga individual. That is why the Sthāyi has been made the principal subject of study.

It is reasonable to suppose that claims made about the presentation of Rāga individuals invite not only the attention and interest of listeners to the music but also of those listeners who may be tempted to examine such claims for what they are worth. The music of classical forms such as Dhrubapada and Khyal presents such claims to the listeners and the connoisseur. Therefore these forms pre-eminently have been subjected to examination, though other so-called lighter or non-classical forms have been requisitioned now and then.

EXAMINATION OF MATERIALS

The examination presupposes an exhibition of the material as a piece of notation. One should fully unedrstand the symbols and the values attached to them before one proceeds to examine the material.

Actual examination of a material is a work of analysis and synthesis based on the values of the symbolic data offered by the notation. The work is similar to that of an expert engineer examining the design made by a draughtsman of some structure such as a house or a bridge already built or intended to be built on the basis of the design.

Analysis, which literally means 'a resolving or separating of a thing into its elements or component parts', consists of noting down the symbolic constituents of a piece of notation and of assessing certain objective values which may be obtained by such work.

Synthesis is the work of research and reassessment of other

kinds of values, abstract or concrete, categorical or statistical, such values being absolutely dependent on the values obtained by analysis. It may also be said that analysis is concerned with fundamental values, whereas synthesis is concerned with relational values which develop as the work of examination proceeds towards the culmination. And it is the relational values statistically obtained which deliver to our understanding certain salient, characteristic or even peculiar features of the material, individually or by groups of similar individuals.

The term 'value' needs explanation. It means 'a measure in abstract of the quality of a thing in terms of certain other fundamentally accepted thing'.

In the present case, a symbol not only represents a particular musical note as it is, but also shows on analysis the duration of such a note in units of time. Therefore, the value of a symbol as a thing by itself will mean 'the measure of the quantity of appearance of such a note during the time marked out by analysis'. Though a note or a corresponding symbol may be invested with values other than that concerning time-value, the present work is concerned with the findings of the time-value only. The reason for this will be appreciated when the reader examines the text in full.

INTERPRETATION OF SYMBOLS

Materials exhibited show: (a) symbols representing the musical notes supposed to have been used in the actual musical presentation, and also to be used for reproduction of the same music, and (b) symbols representing the time elements involved along with such notes. In fact, the aforesaid symbols are inseparable from each other, because a note symbol obviously means the fact of the appearance of the note in a given moment of time, as well as its continuance through some amount of time until its disappearance.

The facts of Indian music allow the following settled ideas:

1. There are seven categorical notes named *Shadja, Rshava, Gāndhāra, Madhyama, Panchama, Dhaibata* and *Nishāda*. In common parlance they are called Sā, Re, Gā, Mā, Pā, Dhā and Ni respectively. Categorical names remaining the same, the notes Re, Gā, Mā, Dhā and Ni have variants such as *Komala Re, Komala Gā, Teebra Mā, Komala Dhā* and *Komala Ni* respectively.

The prefix *Komala* means 'soft' or 'softened' and intends to convey that the note is a flattened semitone just preceding the categorical note. The prefix *Teebra* means 'sharp' or 'sharpened' and intends to convey that the note is a semitone sharper than the categorical note.

The musicians of North India sometimes use the word *Utrā* which means 'low' for the term *Komala*, and the word *Chadhi* (meaning 'high') or *Teebar* for the term *Teebra*.

2. Of the seven categorical notes, *Shadja* (Sā) is accepted as the first or fundamental note and the others as appearing consecutively through the gamut of seven categorical notes, such a gamut being termed as *Saptaka*, meaning a group of seven categories.[1] The categorical *saptaka* accepts the note *Nishāda* or Ni as the last note of the scale. Theoretically, this *Nishāda* is a semitone lower than and nearest to the *Shadja* or Sā of the higher scale.

3. The categorical notes are relative to the fundamental note i.e., *Shadja* of the categorical scale of seven notes. In other words, the fundamental *Shadja* is not a specific musical note with any fixed value such as for example, the frequency of the number of vibrations as conventionally accepted according to the science of acoustics. Thus the fundamental *Shadja* may be

[1] It is to be noted that the concept of the octave of the European theory of music wherein the Tonic or the key-note is duplicated as the eighth note to suit the exigencies of the theory relating to the double tetrachord system, may not be granted or accepted for the study of Indian classical music, either in theory or in practice. Neither the ancient traditions, nor the modern empirical practice of North Indian music allow such concepts of octave or the double tetrachord arrangement of scale, simply because they are unnecessary for the theory as well as the practice of classical music of North India.

any fixed note such as A, B, C, etc. or the sharps and flats of the European system of music and notation.

4. The succession of consecutive *saptakas* is also taken for granted. The corresponding categorical notes are each of them accepted as being identical theoretically. For instance the *Shadja* or *Rshava* etc. of any one *Saptaka* is identical with the *Shadja* or *Rshava* correspondingly of all other possible *Saptakas*. Arguments about any possible difference or distinction between the same categorically named notes of different *Saptakas* are out of place in this introductory study, because such arguments are unnecessary. Such arguments might be considered necessary for any theory of music and musical composition. But the objective study of Ragas is not the same as any study of theory of music and musical composition.

The idea of Shruti or Shrutis, whatever these really are, is discarded in the present work. Artists do not practise or sing by conscious measurement of Shruti. The notations do not recognise Shruti values. Lastly, the artists or novices when presenting the *Sargam*, i.e. presenting the music by correct utterances of the note-cum-names, do not pronounce any specific notice of Shruti which are supposed to be associated with the notes uttered.

There is another point regarding notes and Ragas, and their supposed associations with things called Shruti.

We know that the experienced draughtsman designs a circle which may be geometrically perfect. And the empirical artisan also designs similar figures which are not geometrically perfect circles, but which are accepted by all and sundry as a circle or circular figure, but certainly not as triangles or triangular figures, or squares or rectangles. This means that the draughts-man, the artisan, the people and certainly the art-critics all have a common categorical idea regarding circular figures. Also such a categorical idea of circular figures is quite different from other categorical ideas about squares, rectangles, triangles, and so forth.

Similarly, the experienced artist of music brings out a parti-
cular feature of a Rāga at a particular moment of presentation
by exhibiting unique shades of certain notes. These shades
or shade effects are usually termed Shruti or Shruti-effects by
connoisseurs. The mediocre or the inexperienced artist might
fail to bring out such shades while demonstrating the same
Rāga. Yet, the experienced listener or the connoisseur accepts
both of such presentations on the basis of a feeling of identity
or commonness regarding the Rāga presented. In other words,
shades or no shades, a *Khambāj* Rāga is a *Khambāj* Rāga by
reason of some peculiar class feature or characteristic, and not
by reason of any specific display of Shruti-effects. This is
borne out by the fact that the Harmonium has its fixed key,
the Setār its fixed frets, and the flute its fixed holes; all of
these may help an artist to present the categorical form of
Rāga, say *Khambāj*, as distinguished from another categorical
form, say of *Jhin jhouti*, or *Behāg*, or *Desh*. On the other
hand, an artist of the Sarode, or Surshrngār (instruments
without any frets or markings of notes) may go in for shades or
vignetting the note effects and yet may spoil or vitiate the Rāga
claimed to be presented by him at that moment, if he does not
possess the categorical idea of the Rāga. That is to say, the
character or the motif of a Rāga does not depend on Shruti
values of notes, primarily speaking.

The present study is concerned with the investigation into
the truth of categorical and concrete forms of Rāgas and
Rāginis. Therefore, the question of shading or vignetting
effects by means of Shrutis need not arise during the work of
examination of materials.

EXPLANATION OF SYMBOLS

The present work transcribes the materials by means of the
Roman alphabet meant to represent the notes. Thus:

S — represents *Shadja* or Sā of the convenient middle *Saptaka*.

Ṣ and Ṡ are equivalents for the identical notes of the lower and the higher *Saptakas* respectively. S is practically equivalent to the 'Do' or Tonic of European convention.

R—represents *Rshava* or 'Re' of the middle *Saptaka*. Ṛ and Ṙ represent the identical notes of the lower and higher *Saptakas* respectively. 'R' is practically equivalent to the 'Re' or the Supertonic of European convention.

G—represents *Gāndhāra* or Gā. It is practically equivalent to 'Mi', or mediant of European convention. Ġ and Ġ stand for identities of the lower and higher *Saptakas* respectively.

M—represents *Madhyama* or Mā. It is practically equivalent to 'Fa' or the subdominant of European convention. Ṃ and Ṁ stand for identities of the lower and higher *Saptakas* respectively.

P—represents *Panchama* or Pā. It is practically equivalent to Sol or the Dominant of European convention. Ṗ and Ṗ stand for identities of the lower and higher *Saptakas* respectively.

D—represents *Dhaibata* or Dhā. It is practically equivalent to 'La' or the submediant of European convention. Ḍ and Ḋ stand for identities of the lower and higher *Saptakas* respectively.

N—represents *Nishāda* or Ni, the last note of the *Saptaka*. It is practically equivalent to 'Si' or 'the leading note' of European convention. Ṇ and Ṅ stand for identities of the lower and higher *Saptakas* respectively.

SYMBOLS WITH LETTERS

r—represents *Komala Rshava* or *Komala Re*. It is the categorical semitone between S and R. r and ṙ stand for identities of the lower and higher *Saptakas* respectively.

g—represents *Komala Gāndhāra* or *Komal Gā*. It is the categorical semitone between R and G; g and ġ stand for identities of the lower and higher *Saptakas* respectively.

m—represents *Teebra Madhyama* or *Teebra Mā*. It is the

categorical semitone between M and P; ṃ and ṁ stand for
identities of the lower and higher *Saptakas.*

d — represents *Komala Dhaibata* or *Komala Dhā.* It is the
categorical semitone between P and D; ḍ and d stand for
identities of the lower and higher *Saptakas* respectively.

n — represents *Komala Nishāda* or *Komala Ni.* It is the cate-
gorical semitone between D and N; ṇ and ṅ stand for identities
of the lower and higher *Saptakas* respectively.

SYMBOLS REPRESENTING THE DURATION OF THE NOTES

Each one of the note-symbols, as it is, denotes one standard
unit measure of time. Such a unit measure is termed *Mātrā.*

A note-symbol immediately followed by a hyphen for
example 'S -' means the note occupies altogether two units
of time. Similarly 'S-' means S equals three units of duration
and so on.

Any two or more note-symbols overlined by a horizontal
bar means, such a group in its entirety occupies only one unit
measure of time, wherein each of the notes cover equal frac-
tions of that one unit to time. Such groups have been termed
'Cluster' generally. There are complex cluster formations
with small hyphens interposed between the notes forming the
cluster. They will be explained as they appear during examina-
tion.

The notations of songs and instrumental pieces, called *Gat,*
exhibit divisions by means of vertical bars. Such divisions are
intended to help the examiner in appreciating the relation be-
tween rhythm as well as cadence and the sequential development
of the music.

For each notation, there are a pair of double vertical bars,
at the very start and finish of each *Sthāyi pada,* that is to say the
first movement of the Rāga music. It means, the enclosed piece
will bear cyclic repetition so far as the musical demonstration
is concerned.

The scope of the present work does not allow investigation into relations between cadence and the music of Rāga or Rāgini. But the rhythm effects are self-explanatory and do not require separate explanation.

KHAMBAJ RAGA

W<small>E TAKE</small> up for examination a group of materials going by the name *rāga Khambāj* or *Khambāj*, or *Khammāch*, or *Khammāchi* among the artists and connoisseurs of the music of North India. In books dealing with music and the teaching of music, such names are met with as headlines over musical notations or chapters expounding specific melodic arrangements of the rāga.

The individual specimens apparently differ from one another regarding form and texture of presentation. It should be noted that with this rāga *Khambāj* as well as many other rāgas demonstrated by classical artists, the entire presentation, musically considered, invariably consists of an opening movement, followed by a second, a third, a fourth, and even a fifth movement. In the minimum — a presentation of classical pattern, i.e., of the *Dhrupad* and the *Kheyal* forms of songs, the peculiar vocal forms known as *Terānā*, *Sargam*, and so on, and the instrumental form known as *Gat-todā*, shows only the first and the second movements. Such movements are called the *sthāyi* (or *asthāyi*, *astāyi*) and the *antarā* respectively. The third, the fourth and the fifth movements are called *samchāri*, *bhog* and *ābhog* respectively. The form of pure musical presentation known as *Alāp* is alone supposed to consist of all the five movements. Occasionally however, the musical presentation may consist of only one movement, such as for example the instrumental form known as *Lahrā* presented by the artist of the instrument *Sārengi*.

In every case, however, the first movement, known as *sthāyi*, is the most vital and important of all movements. This is because, it introduces the Rāga, imparts definite shape and texture to the forms such as *Dhrupad*, *Kheyal*, etc., and communicates the unity and harmony of melodic design in such a

manner as to enable the artist to repeat it cyclically, and the audience to enjoy such repetition with a sense of aesthetic complacency. The connoisseur feels uneasy aesthetically as well as intellectually if he fails to assess and appreciate the spirit and the motif of the rāga presentation in the very first movement. In other words — the presentation of the *sthāyi* means the presentation of the essential motif of the rāga.

Mere presumptions apart, the fact that the *sthāyi*, as a complete independent, self-contained musical sentence, may be and generally is repeated a number of times, leads us to infer that *sthāyi* alone contains the basic design of the presentation. This cannot be said for the other movements which have to follow the *sthāyi* and generally culminate in the *sthāyi* after each separate movement. In short, the *sthāyi* can stand by itself, whereas the other movements cannot do so. Therefore, we shall examine only the *sthāyi* of each individual specimen of presentation done into musical notation.

The notes generally used in specimens of *Khambāj* are S, R, G, M, P, D, n and N.

SPECIMEN No. 1

⫽ G S G G | M M P$\overline{\text{DNS}}$ N | Ṡ — Ṡ — | N Ṡ n D | P D M M |

P D NṢṚ ṢNṢ | n D M P | D M — G

The *sthāyi* as limited by a pair of vertical, double-bars shows the disposition to consist of 32 units of time, divided into eight bars of four-unit measure for each of them. The three clusters need explanation. The first of these, in the second bar, means P, D, N, and S with one quarter of a unit of time for each of them, making up a total of one full unit measure, as indicated by the horizontal bar at the top of PDNṢ.

The second cluster, appearing in the 6th bar means—N and Ṣ have one quarter of a unit of time for each, while Ṛ has

two-quarters, i.e., half of the unit time, making up a total of one full unit measure. The third cluster, immediately following the second cluster, means similarly — Ṡ with one quarter of a unit, N with one quarter of a unit, and Ṡ with two-quarters, i.e., a half unit, making up a total of one full unit measure.

If we reproduce the notation vocally or on a suitable instrument we feel a sense of completeness and satisfaction. We may test our psychic assessment by experiment such as follows. The reproduction of the first bar only, or of the first and second bars, or of the first, the second and the third bars, or of a successively increasing number of bars, up to seven bars, fails to impart that sense of completeness and satisfied expectancy, which is felt when we hear the complete sentence, one bar after another. In other words, such piecemeal dispositions of bars, or phrases, may not be repeated cyclically.

Such an assessment is not entirely or exclusively subjective. Supposing we are looking at a table, with four legs, among which one of the legs does not touch the floor. Such a defect or incompleteness of objective design imparts a corresponding sense of incompleteness in our total perception of the object. It is a sort of expectancy which is created, but not fulfilled. Just as we do not want a repetition of the sight of a defective or incomplete table, so also we do not want to hear incomplete musical sentences, repeated twice or more than that. Therefore, we may say that a musical sentence which imparts a sense of completeness ought to be complete by design. Such a sense of completeness is a fact of experience, as much as the music heard is a fact of our sense of perception.

Let us analyse the thing objectively, i.e., in terms of the notes and the values with which the notes are invested. Scrutinising the sequential appearance of two successive notes we meet with ṠR, SG, GM, MP, PD, DN, DṠ and NṠ. We assume for some reason [See Appendix I—ascent and descent] that a train of successive appearance, such as S R G M P D N Ṡ

and so on, means the 'ascending' aspect of the scale, that the note S is the starting note of all scales, and that, the ascending feature for a particular note is determined by the immediately successive appearance of another note higher than the note in question. With such assumptions only, we may now say, regarding the specimen under our observation, that the notes S, G, M, P, D and N are in the ascending track. The note R is not in the ascending track, because nowhere in the sentence do we come across it with RG, or RM, or RP, or RD, or RN.

Similarly, we note the reversed sequences, such as nD, DM, MG, GS and ṘṠ. The sequence ṘṠ is met with at the junction of the second and third clusters in the 6th bar. Therefore, we may say that the notes n, D, M, G, R are in the descending track. The note P is not in the descending track, because, we do not find anything such as PM, PG, PR, or PS. Similarly, N is missed in the descending track.

Analysis of notes with their values

We begin with a note, S for example, and count the number of appearances of that note inside the whole sentence. In doing this work, we have to admit categorically the fact of identity between S and Ṡ, R and Ṙ and so on, for the three *saptaka*. The total number of appearances for each note is the value of that note. The result is placed in tabular form as:

Notes		units of time
S	..	$7\frac{1}{4}$
R	..	$\frac{1}{2}$
G	..	4
M	..	7
P	..	$3\frac{1}{4}$
D	..	$5\frac{1}{4}$
n	..	2
N	..	$2\frac{3}{4}$
Total	..	32

We also observe the comparative values of the notes. The order, from the highest to the lowest by value is S, M, D, G, P, N, n, and R. If anything, this means that of a totality of thirty-two impingements on our sensorium, S alone has the highest value specifically. Then follow notes M, D, and so on, in order. The impingement due to R certainly has the lowest value. Because the note S has the highest of summation values regarding the sensorial impingement, we may say that for this musical sentence at least, the note S is the dominant note. We should not set aside or belittle this observed fact, because of any dogmatic or a-priori statements to the contrary, e.g., that 'the note G (i.e., *gāndhāra*) is the *Vādi* (i.e., the dominant note) for the *rāga Khambāj*' or other such statement which is not supported by observation of fact or correct inference. The specimen is a notation of a *Kheyal* song '*Sābari surat mai dekh wāki*' of *Khambāj* in Tetala, medium tempo. I had it from the late Madhoji of Mathura, a disciple of Shyamlalji of Calcutta.

<div align="center">

SPECIMEN No. 2

</div>

‖ Ṡ — | Ṡ — | Ṡ Ṡ | D S | n D | P D | G M | P D | Ṡ n | D M |

| P D | M G | G S | S S | M G | M n | D N | Ṡ Ṡ | Ṡ Ṡ | Ṙ Ṙ |

| Ṡ — | N Ṡ | n D | P D ‖

The sentence consists of forty-eight units of time. It is complete by itself, and may be repeated cyclically. It is a notation of a song '*Vanshi dhuna so bajai*' a famous *Dhrupad* song attributed to Tanseyn. This particular interpretation was taken from the late Chandan Chowbeyji of Mathura.

The ascending track shows the notes S, G, M, P, D and N. The descending track shows n, D, P, M, G, R, S.

Analysis of Note Values

Note values			Comparative values		
S	..	18	S	..	highest
R	..	2	D	..	2nd
G	..	4	M	..	3rd
M	..	5	G, P, n	..	4th
P	..	4	R, N	..	5th
D	..	9			
n	..	4			
N	..	2			
Total	..	48			

We find that the note S is dominant, and S, M and D occupy the first three places.

Specimen No. 3

‖ P D P | S S n | D D M | M P D | M — G | — M P | M G R |

| S — S | G M n | D n D | N S N | S — — | N N N | S R S |

| N S n | — D n ‖

The sentence consists of forty-eight units and is complete. It is a notation of a *Kheyal* song '*Garaja garaja barasata*' of *Khambāj*. It was taken from the late Hakimji of Calcutta.

The ascending track shows the notes S, G, M, P, D and N. The descending track shows — n, D, P, M, G, R, S.

Analysis of Note Values

Note values			Comparative values		
S	..	12	S	..	highest
R	..	2	M,D	..	2nd
G	..	4	n,N	..	3rd
M	..	7	G,P	..	4th
P	..	4	R	..	lowest
D	..	7			
n	..	6			
N	..	6			
Total	..	48			

We find S to be the dominant note, and S, M, and D occupy the first two places.

Specimen No. 4

‖ N S G M | P M G M | n D — M | P D — M | G — G M |

D N Ṡ Ṙ | Ṡ n D P | M G R S ‖

The sentence shows thirty-two units, and is complete. It is a notation of an instrumental piece, of *Khambāj*, taken from the late Badal Khan Saheb. It is meant for the instrument called *Sarengi*. With slight variations regarding the 3rd and 4th bars the notation may be adapted for instruments such as the *Sarode* and the *Setar*.

The ascending track shows the notes S, G, M, P, D, and N, The descending track shows — n, D, M, G, R, S.

Analysis of Note Values

Note values			Comparative values		
S	..	4	M	..	highest.
R	..	2	G,D	..	2nd
G	..	6	S	..	3rd
M	..	7	P	..	4th
P	..	3	R,n,N,	..	5th
D	..	6			
n	..	2			
N	..	2			
Total ..		32			

We find that the note, M is dominant, and that M, D, and S occupy the first three places.

Specimen No. 5

‖ M | G M | P D | Ṡ Ṡ | — Ṡ | — — | Ṡ Ṡ | S D̄Ṡ | n D | P̄M̄ G |

M P | D Ṡ | n D | P G | M G | M G | S — | G M | n n | D D̄Ṡ |

| — Ṡ | Ṡ Ṡ | Ṡ D | n D̄P | D ‖

The sentence has forty-eight units and is complete. It is the notation of the song '*Moko to teharo bharosa mero*' of *Dhrupad* form composed by Shri Ananda Kishore of Betiya, and as such was sung and taught by the late Visvanathji of Calcutta. He specially instructed us not to use the note 'N' at all. According to him it is a *Khambāj*.

The ascending track is S, G, M, P, and D. The descending track is n, D, P, M, G, S. The note 'R' is not in the design.

ANALYSIS OF NOTE VALUES

Note values			Comparative values		
S	..	18	S	..	highest
G	..	6	D	..	2nd
M	..	$6\frac{1}{2}$	M	..	3rd
P	..	4	G	..	4th
D	..	$8\frac{1}{2}$	n	..	5th
n	..	5	P	..	6th
Total ..		48			

We find that the note S is dominant, and S, D, and M occupy the first three places.

SPECIMEN NO. 6

‖ S G M P | G M P D | n — D P | M̄P M G — | N — N N |

| S — N Ṡ | N Ṙ Ṡ n | D P M G ‖

The sentence shows thirty-two units and is complete. It is a notation of a flute-piece, attributed to the late H. Dutta of Calcutta.

The ascending track shows—S, G, M, P, D, N. The descending track shows n, D, P, M, G, R, S.

ANALYSIS OF NOTE VALUES

Note values			Comparative values		
S	..	5	N	..	highest
R	..	1	S,G	..	2nd
G	..	5	M,P	..	3rd
M	..	$4\frac{1}{2}$	D,n	..	4th
P	..	$4\frac{1}{2}$			
D	..	3			
n	..	3			
N	..	6			
Total	..	32			

We find that the note N is dominant. The notes S, G, M, P, and N occupy the first three places. The presentation claims to be one of *Khambāj*.

SPECIMEN NO. 7

‖ S G | M P | G M | n D | M P | D G | — M | etc.

The sentence shows twenty-eight units and is complete. It is a notation of *Rāga Khambāj* presented on page 116 of *Kramika Pustaka Mālikā Dusre Pustaka.*

The ascending track is S, G, M, P and N. The descending track is n, D, P, M, G, R and S. We note that 'D' is missing in the ascending track.

ANALYSIS OF NOTE VALUES

Note values			Comparative values		
S	..	3	G,M	..	highest
R	..	1	P,D	..	2nd
G	..	6	S	..	3rd
M	..	6	n,N	..	4th
P	..	4	R	..	5th
D	..	4			
n	..	2			
N	..	2			
Total	..	28			

We find G and M occupying the highest place, and S, G, M, P, and D occupying the first three places.

SPECIMEN NO. 8

‖ P D | S n D P | M P M G | M M P — | etc.

The sentence shows thirty-two units and is complete. This piece is also taken from the book *Kramika Pustaka Malika*. The song is '*Aba Kabataka tarasaye*'.

The ascending track is S, G, M, P, D, N. The descending track is n, D, P, M, G, R, S.

ANALYSIS OF NOTE VALUES

Note values			Comparative values		
S	..	$5\frac{1}{2}$	P	..	highest
R	..	$\frac{1}{2}$	M	..	2nd
G	..	3	S,N	..	3rd
M	..	6	G,D	..	4th
P	..	$6\frac{1}{2}$	n	..	5th
D	..	3	R	..	6th
n	..	2			
N	..	$5\frac{1}{2}$			

Total ... 32

We find the note P is dominant, and the first three places are occupied by S, M, P, and N.

I refrain from citing more examples of such specimens, about which the general claim is put down as *Khambāj Rāga*. Sometimes, we come across the denomination *Khambāj rāgini* wherein the word 'rāgini' is supposed to mean a feminine entity, as a wife to a Rāga.

STATISTICAL FINDINGS IN GENERAL ABOUT KHAMBAJ

In my original study, which was completed in 1939, I worked with fifty-six specimens of so-called Khambāj, as selected from

books dealing with music and rāga notations, and also from private, unpublished repertoires of experienced artists and amateurs. Since that date I have examined fresh numbers of *Khambāj*, from similar or new sources. The statistical results remain almost the same as those obtained in 1939. I will put such results briefly and one after another.

The starting and the finishing notes of the opening sentences: Out of fifty-six specimens the incidence of starting notes are as S=10, R=1, G=15, M=2, P=10, D=4, n=6 and N=8. We can hardly suppose that, 'G', as a starting note, is characteristic of the *Khambāj* class. Because the percentage is as low as 26 per cent.

The incidence of finishing notes are as S=10, R=2, G=11, M=9, P=13, D=10, and n=1. Here also, we can hardly suppose that P as a finishing note is characteristic of the so-called *Khambāj* class.

THE DOMINANT NOTE OF THE OPENING SENTENCES

The incidence regarding the dominant note (the *Vadi* note) is as S=31, G=8, M=11, P=6, D=4, and N=1. In four or five of these, two notes are simultaneously dominant.

The incidence regarding S is more than fifty per cent strength. Nevertheless, we are not justified in concluding that S, of all notes, is characteristically dominant for the Khambāj class. The fact of G appearing with $\frac{1}{7}$ in strength ought to dispel the illusion of a statement to the effect that 'the note G is the *Vādi* note of *Khambāj*' as is quite current in books dealing with North Indian rāga-music.

THE ASCENT-DESCENT FACTORS (*āroha-abaroha*)

The incidence for the ascending combination is:

S G M P D N	..	34	out of 56
S G M P N	..	13	,, ,, ,,
S R G M P D N	..	4	,, ,, ,,
S R G M P N	..	2	,, ,, ,,

S G M P D n	..	I out of 56
S G M P n	..	I ,, ,, ,,
S R G M P D	..	I ,, ,, ,,

The incidence for the descending factor is:

n D P M G R S	..	49 out of 56
n D P M R S	..	4 ,, ,, ,,
N n D P M G R S	..	I ,, ,, ,,
n D P M G S	..	I ,, ,, ,,
n D P M G g S	..	I ,, ,, ,,

Regarding this ascent-descent factor, we may tentatively say that *Khambāj* characteristically shows ascent-descent tracks as S G M P D N and n D P M G R S. Such a statement is tentative because as yet we have only studied the functional aspects of the presentations of *Khambāj*, but not the inner, potential designs, or the hidden motifs which determine such functions.

So far as I know about any statement regarding inner design or motif of presentations of *Khambāj*, the advocates of the 'Thāt system' of North Indian music say that phrases n D—M P D—M G—are 'catches' (*Pakad*) for *Khambāj*. In other words — whenever we hear a presentation with a claim of *Khambāj*, we should be on the alert for the exhibition of such 'catches'. If the *sthāyi* shows the catches, we are sure it is a *Khambāj*; if not, then it is not a really good *Khambāj*. Therefore we put such signatures to statistical test.

The 'catch' n D M G—P D M G occurs in fifteen out of fifty-six specimens. Therefore, it cannot be said to be characteristic of the *Khambāj* class. It may be said, however, that the catch 'M P D—M G' occurs in many specimens of *Behāg*. Also the catches n D—M or P D—M or P D—M G—, separately considered, are met with in rāgas other than *Khambāj*.

Granting however that a particular section of theorists puts exclusive reliance on the catch, and refuses to accept such specimens as *Khambāj* which do not exhibit the catch or catches, then this particular section must offer some reason for their

theory on the basis of naturalness of archetectonic design. This is not yet forthcoming.

The catch signature idea appears to be like this. There are cows with white coats, brown coats, yellow coats or with spotted, and mottled coats and so on. It may be that in a particular locality, a majority of cows show a white coat, and the cow with a mottled coat is rare or non-existent. This being the case, the people of the locality take it for granted that the cow with the white coat is the superior animal. If such a person travels to another locality and finds a number of cows with mottled coats, he is misled into thinking that these are abnormal individuals, or that these creatures are of a different species altogether. Such is an example of an insular way of thinking which does not take into account the essential, invariable qualities which go to characterize the class of cow and differentiate such a class from other classes, as for example the Buffalo, Nilgai or Chamari.

Similarly, in a particular locality, music loving people may find that the majority of specimens going by the name *Khambāj* show the catches as stated, and dispositions such as G M P N, N Ṡ N Ṡ, or P N Ṡ R N Ṡ n D. For example P N Ṡ Ṙ | n D M P | D M G M | P Ṡ N Ṡ | etc., of the song *'Maikā nidiyā na jagāo rājā gāri dungi'* is a favourite among the dancing girls of Lucknow and Delhi. People of those localities will naturally fall into pattern ideas, about *Khambāj*, that *Khambāj* has to exhibit 'P N Ṡ Ṙ', or 'n D M P D G—M' and so on. If such an insular minded person travels to Calcutta and hears the song *'Mo ke to tehāro'* ... (Specimen No. 5) from a disciple of the late Visvanath Rao of that city, he will quite probably take it to be an abnormal, eccentric specimen of what according to his experience is the real *Khambāj*.

Therefore, we should not rely solely upon the catch signature ideas of *Khambāj* or any other Rāga.

EXAMINATION OF SPECIMENS BY MEANS
OF THE RELATION OF NOTES

FROM the statistical data obtained by analysis of values merely of single notes, we discover inner designs and finally the norm of a rāga, by examination, analysis and synthesis of relations of notes forming the elements of presentation of the music. Analogically speaking it is like examination, analysis and synthesis of varieties of circular figures, as a result of which we may discover the hypothetical object called the centre of a circle, together with the relations maintained between such a point and the peripheral curve of the figure.

For this purpose I present the following ideas, based on the teachings received from my master, the late Shyamlalji. The ideas involve three primary concepts, technically termed by him as: one, the *Meru*, two, the *Khandameru* and three, the *Mātrkā*. These concepts are, first and foremost, of immense help for the practical aspect of teaching and learning modulations of Rāgas. Besides that, they form the very ground work of a possible theory of Rāga.

GENERAL PROPOSITIONS ABOUT MUSICAL NOTES
AND THEIR RELATIONS

There are the twelve notes— S, r, R, g, G, M, m, P, d, D, n and N. By whatever names we may call them, each of them is distinctly perceived as a separate entity. We cannot mistake r for S or R, or any other note. Of this there is not the slightest doubt in our minds. Moreover, we accept the identity of S, Ṡ and Ṣ or, r, ṛ and ṛ and so on for other notes, because we appreciate the unison between such notes.

Over and above such perceptions of notes as distinct in themselves we also appreciate the relations between them

whenever they appear in the scale of musical presentation. Briefly, we are able to say that hearing music means not only hearing the notes but also appreciation of certain relations appearing between such notes.

Taking S, for example, as the categorically fundamental note, and N as the categorically finishing note, we observe two kinds of musically pleasurable relations holding between any two such notes. They are (*a*) the relation of consonance (the *Sambāda* of ancient Indian traditions) and (*b*) the relation of intermediary consonance, (the *mediant* as it is termed in Europe, and the *Anubādu* as termed in ancient Indian traditions). Of such relations, the most important is the consonance.

Consonance may be defined as the naturally pleasurable relation appearing between a note and another note which is sequentially either the eighth counting from the first note [App. 2 — Sequential number of notes], or the sixth counting from the first note. Here sequence means the order S, r, R, g, G, M, m, P, d, D, n, N and so on through three *saptaka*. For example — note P is sequentially the eighth from S.

Thus the relation S ʃ P is a consonance for S and P. The note M is sequentially the sixth from S. Therefore S ʃ M is a consonance for S and M. We observe that for each note there are two consonants namely by the eighth and the sixth sequences. Or, assuming that the categorical notes are only seven in number, and S, R, G, M, P, D, and N by sequence, and also that notes r, g, m, d, and n, are as variants of such categories, then we might say that consonant relation occurs between notes sequentially separated as the fifth and fourth from each other. In such a case P is the fifth of S, and M is the fourth of S.

Next in importance to consonance is the relation of intermediary consonance. I choose to call it *mediant relation*. For the sake of brevity, I call it simply 'mediance'. The mediance may be defined as the naturally pleasurable relation appearing between a note and another note which is sequentially either

the fourth or the fifth, counting from the first note. For example, g is sequentially the fourth from S; G is sequentially the fifth from S. Thus S ∫ g and S ∫ G are mediant relations; and similarly for all the other notes.

Apart from these naturally pleasurable relations there appear other relations which are primarily neutral or insipid, but which may merge into the naturally pleasurable relations and lend colour to the music. Such are, for example, the relations S-r, S-R, S-m, S ∫ n, S ∫ N; also similar relations maintained between other notes, such as r ∫ R, r ∫ g, r-P, r ∫ N.

It should be said that the person who cannot appreciate the naturally pleasurable relations, such as consonance and mediant relation, is peculiarly unfit for hearing music of any kind. He is practically deaf with regard to music. The present statements will probably fail to stimulate his curiosity. The question of satisfying an intellectual curiosity is not barred however.

If we take into consideration the fact that the twelve notes appear serially through the three saptaka, and the fact of the relations between the notes, we obtain the ideas regarding the *Meru*, *Khanda-meru* and *Mātrkā*. The range of notes involving a categorical series from the first to its twelfth is called *Meru*. For example—S to nor N is a *Meru*; r to Ṡ is a *Meru*; R to ṛ or Ṡ is a *Meru* and so on. Whatever may be the names of the notes, the one entire compass is the *Meru*. Such *Meru* may be sectionally presented, in which case the sections are called *Khanda-meru*. With twelve notes, the maximum number of sections would be twelve, such as yield only eleven kinds of sections.

A *mātrkā* is a peculiar, selective, sectional modulation made up of three distinct mediant relations and involving two direct consonances in all. For instance (*a*) S-g-P-n is a modulation which shows three mediants, S-g, g-P and P—n, and two consonants S—P, and g—n. (*b*) S-G-P-N is a modulation which shows three mediants, S-G, G-P and P-N and two direct consonants S-P and G-N. Thus starting from S we have two *matrka* in the form of selective

modulations, namely, S-g-P-n and S-G-P-N. And beginning, similarly, from each of the other eleven notes we get different series of *mātrkā*. For every *mātrkā*, we shall observe that there are three mediants and two consonances, which are constants for *mātrkā*. We shall also observe that such a combination of two consonances and three mediants in the minimum does not occur with any other possible sectional presentation of the *meru*. Accepting the note S as the tonic, or the Fundamental, the modulation of the notes S—g—P—n, or S—G—P—N deserves acceptance as a naturally pleasurable combination because there are the consonance and the mediance inside such an arrangement.

It was suggested by my master that such modulations (*Murchhanā*) are the very matrices which deliver or evolve the rāgas. Each of such *mātrkā* may be supposed to be made up of two component parts, such as S—g—P and g—P-n, or S—G—P and G—P—N. Such component parts are complementary to each other, and are termed 'couples' (*mithuna*) from the formal point of view.

The twelve notes give rise to twenty-four couples as presented serially:

Mātrkā		Couples		
1. S–g–P–n	yields S–g–P	and	g–P–n
2. S–G–P–N	„ S–G–P	„	G–P–N
3. r–G–d–N	„ r–G–d	„	G–d–N
4. r–M–d–Ṡ	„ r–M–d	„	M–d–Ṡ
5. R–M–D–Ṡ	„ R–M–D	„	M–D–Ṡ
6. R–m–D–ṙ	„ R–m–D	„	m–D–ṙ
7. g–m–n–ṙ	„ g–m–n	„	m–n–ṙ
8. g–P–n–Ṙ	„ g–P–n	„	P–n–Ṙ
9. G–P–N–Ṙ	„ G–P–N	„	P–N–Ṙ

	Mātrkā		Couples		
10.	G–d–N–ġ	yields	G–d–N	and	d–N–ġ
11.	M–d–Ś–ġ	,,	M–d–Ś	,,	d—Ś–ġ
12.	M–D–Ś– Ġ	,,	M–D–Ś	,,	D–Ś–Ġ
13.	m–D–ṙ– Ġ	,,	m–D– ṙ	,,	D–ṙ– Ġ
14.	m–n–ṙ–Ṁ	,,	m–n–ṙ	,,	n–ṙ–Ṁ
15.	P–n–Ṙ–Ṁ	,,	P–n–Ṙ	,,	n–Ṙ–Ṁ
16.	P–N–Ṙ– ṁ	,,	P–N–Ṙ	,,	N–Ṙ– ṁ
17.	d–N–ġ– ṁ	,,	d–N–ġ	,,	N–ġ– ṁ
18.	d–Ś–ġ–Ṗ	,,	d–Ś–ġ	,,	Ś–ġ–Ṗ
19.	D–Ś– Ġ–Ṗ	,,	D–Ś– G	,,	Ś–Ġ–Ṗ
20.	D–ṙ– Ġ–ḍ	,,	D–ṙ– Ġ	,,	ṙ– Ġ–ḍ
21.	n–ṙ–M–ḍ	,,	n–ṙ–Ṁ	,,	ṙ–Ṁ–ḍ
22.	n—ṘṀ–Ḍ	,,	n–Ṙ– Ṁ	,,	Ṙ–Ṁ–Ḍ
23.	N—Ṙṁ–Ḍ	,,	N–Ṙ– ṁ	,,	Ṙ–ṁ–Ḍ
24.	N–ġ– ṁ–ṅ	,,	N–ġ– ṁ	,,	ġ–ṁ–ṅ

The notes S and Ś, or r and ṙ, or R and Ṙ are identities, as I have already stated. Therefore, these twenty-four *meru*, together with the couples inhering in them, are represented by the following modulations of one single *meru*, starting from the note S:

1.	S g P n	– showing	S–g–P	and	g–P–n
2.	S G P N	– ,,	S–G–P	,,	G–P–N
3.	S r G d N	– ,,	r–D–d	,,	G–d–N
4.	S r M d	– ,,	r–M–d	,,	M–d–S
5.	S R M D	– ,,	R–M–D	,,	M–D–S
6.	S r R m D	– ,,	R–m–D	,,	m–D–r

7.	S r g m n	–	showing g–m–n	and m–n–r		
8.	S R g P n	–	,,	g–P–n	,,	P–n–R plus S–g–P
9.	S R G P N	–	,,	G–P–N	,,	P–N–R ,, S–G–P
10.	S g G d N	–	,,	G–d–N	,,	d–N–g ,, d–S–g
11.	S g M d	–	,,	M–d–S	,,	d–S–g
12.	S G M D	–	,,	M–D–S	,,	D–S–G
13.	S r G m D	–	,,	m–D–r	,,	D–r–G plus D–S–G
14.	S r M m n	–	,,	m–n–r	,,	n–r–M
15.	S R M P n	–	,,	P–n–R	,,	n–R–M
16.	S R m P N	–	,,	P–N–R	,,	N–R–m
17.	S g m d N	–	,,	d–N–g	,,	N–g–m plus d–S–G
18.	S g P d	–	,,	d–S–g	,,	S–g–P
19.	S G P D	–	,,	D–S–G	,,	S–G–P
20.	S r G d D	–	,,	D–r–G	,,	r–G–d plus D–S–G
21.	S r M d n	–	,,	n–r–M	,,	r–M–d ,, M–d–S
22.	S R M D n	–	,,	n–R–M	,,	R–M–D ,, M–D–S
23.	S R m D N	–	,,	N–R–m	,,	R–m–D
24.	S g m n N	–	,,	N–g–m	,,	g–m–n

These modulations, with a majority of five notes and a minority consisting of four notes, present us with clues regarding our work of analysis and synthesis by means of relations of notes among one another. Each part of the couples, such as S—g—P, or S—G—P, or g—P—n, or G—P—N, is termed 'Universal.' A Universal is a group of three notes, wherein these notes are related among one another, by means of one consonance and two mediance. These Universals, together with the couples, are now used as discrete, elementary radicles, showing new values and designs. It will be seen that eight of the twenty-

four couples and also the corresponding modulations pre-
suppose the occurrence of a third Universal, because the note
S as the Fundamental is constant for all modulations, Such
are Nos. 8, 9, 10, 13, 17, 20, 21, and 22. Such couples are mis-
nomers in the true sense of the word, because there are three
instead of two elementary radicles. Thus, setting aside those
eight couples, we get altogether sixteen couples or *mātrkā*.

RE-EXAMINATION OF THE SPECIMENS OF KHAMBAJ

(by means of synthesis and valuation regarding the Universals
and the couple).

Specimen 1 shows the notes S, R, G, M, P, D, n and N.
These notes potentially show the Universals as S G P, R M D,
G P N, M D S, P n R, P N R, D S G, and n R M.

We work out the total values by adding up the note
values as :

S	$-7\frac{1}{4}$	S+G+P	$=14\frac{1}{2}$	i.e. S G P	$=14\frac{1}{2}$
R	$-\frac{1}{2}$	R+M+D	$=12\frac{3}{4}$	,, R M D	$=12\frac{3}{4}$
G	-4	G+P+N	$=10$	,, G P N	$=10$
M	-7	M+D+S	$=19$	,, M D S	$=19\frac{1}{2}$
P	$-3\frac{1}{4}$	P+n+R	$=5\frac{3}{4}$	,, P n R	$=5\frac{3}{4}$
D	$-5\frac{1}{4}$	P+N+R	$=6\frac{1}{2}$	,, P N R	$=6\frac{1}{4}$
n	-2	D+S+G	$=16\frac{1}{2}$	,, D S G	$=16\frac{1}{4}$
N	$-2\frac{3}{4}$	n+R+M	$=9\frac{1}{2}$	,, n R M	$=9\frac{1}{2}$

Total -32

The Universals in order of comparative values are as follows : M D S $=19\frac{1}{2}$
+the highest by value; D S G $=16\frac{1}{2}$+second by value; S G P $=14\frac{1}{2}$+ third;
R M D $=12\frac{3}{4}$+fourth; G P N $=10$ + fifth; n R M $=9\frac{1}{2}$+sixth; P N R $=6\frac{1}{2}$+
seventh and P n R $=5\frac{3}{4}$+eighth.

Specimen 2 worked out in a similar way shows :

S	-18	S G P	$=26$	M D S	highest by value
R	-2	R M D	$=16$	D S G	2nd ,, ,,

G – 4	G P N	= 10		S G P	3rd	highest by value	
P – 4	P n R	= 10		n R M	5th	,,	,,
D – 9	P N R	= 8		G P N			
n – 4	D S G	= 31		P n R	6th	,,	,,
N – 2	n R M	= 11		P N R	7th	,,	,,

Now we can compare the first two specimens in the light of these new findings.

(*a*) We see that for both of the two specimens the Universal MDS has the highest value, and the universal DSG stands as a near second.

(*b*) For both of them the Universals MDS, DSG, SGP and RMD occupy the first four places.

(*c*) Just as in specimen No. 1, the fact that S equals $7\frac{1}{4}$ means a neat value of impingement due to S, out of a total value thirty-two of the presentation, so, the fact of MDS equalling $19\frac{1}{2}$ means a combined specific value of impingement due to MDS, out of a total value thirty-two. By 'impingement' is meant a strike or thrust on our auditory sensorium together with a corresponding perception occurring in our experience.

(*d*) Such an impingement value means not merely a sum-mation-value of the notes S, M and D, but also a summation-value of two mediant relations M – D and D – S and one consonance M – S. Similarly, for specimen No. 2, MDS equalling thirty-two out of a total value of fourty-eight means an impingement value made up of such mediant and conso-nance relations.

(*e*) And, just as S is the dominant note of specimen No. 1, so we should suppose that MDS is the dominant Universal. That is to say, the basic, specific individual motif of specimen No. 1. For specimen No. 2, also, the basic, individual motif is MDS as the dominant Universal.

(*f*) And finally, we can suppose for the present that the modulation SGMD, due to the couple MDS—DSG, is a common as well as the prime motif regarding the two specimens.

Now, we reassess the specimens by this method and put the results in the following tabular form.

SPECIMEN No. 1.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 7¼	S–D.Note	S G P – 14½	M D S–D.Un.	M D S =60% nearly of the total value	MDS —DSG i.e. SGMD =73% of the total value
R – ½	M – 2nd	R M D – 12¾	D S G – 2nd		
G – 4	D – 3rd	G P N – 10	S G P – 3rd		
M – 7		M D S – 19½	R M D – 4th		
P – 3¼		P n R – 5¾	G P N – 5th		
D – 5¼		P N R – 8½	n R M – 6th		
n – 2		D S G – 16½	P N R – 7th		
N – 2¾		n R M – 9½	P n R – 8th		

Total 32

N.B. The abbreviation N.V. means 'note value'; C.V.N. means 'comparative note value'; U.V. means 'value of Universals'; C.V.U. means 'comparative value of Universals'; P.C. Value of D. Un. means 'percentage value of the Dominant Universal out of the total value'; and P.C. Value of D. Couple means 'percentage value of the Dominant Couple out of the total value'. D. Note means 'Dominant Note (*Vadi*)'. D. Un. means 'Dominant Universal'.

SPECIMEN NO. 2.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 18	S–D.N.	S G P – 26	M D S–D.Un.	M D S =66% of the total value	MDS —DSG i.e. SGMD =75% of the total value
R – 2	D – 2nd	R M D – 16	D S G – 2nd		
G – 4	M – 3rd	G P N – 10	S G P – 3rd		
M – 5		M D S – 32	R M D – 4th		
P – 4		P n R – 10	n R M – 5th		
D – 9	R – last	P N R – 8	G P N ⎫ 6th		
n – 4		D S G – 31	P n R ⎭		
N – 2		n R M – 11	P N R – 7th		
Total 48					

SPECIMEN NO. 3.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 12	S – D.N.	S G P – 20	M D S – D.Un.	MDS =54% of the total value	MDS —DSG i.e. SGMD =62% of the total value
R – 2	M ⎫ 2nd	R M D – 16	D S G – 2nd		
G – 4	D ⎭	G P N – 14	S G P – 3rd		
M – 7	n ⎫ 3rd	M D S – 26	R M D – 4th		
P – 4	N ⎭	P n R – 12	n R M – 5th		
D – 7	R – last	P N R – 12	G P N – 6th		
n – 6		D S G – 23	P n R ⎫ 7th		
N – 6		n R M – 15	P N R ⎭		
Total 48					

<div align="center">SPECIMEN NO. 4.</div>

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4	M –D.N.	S G P – 13	M D S –D.Un.	MDS just more than 50% of the total value	MDS —DSG i.e. SGMD =71% of the total value
R – 2	D ⎫ 2nd	R M D – 15	D S G – 2nd		
G – 6	G ⎭	G P N – 11	R M D – 3rd		
M – 7	S – 3rd	M D S – 17	S G P – 4th		
P – 3		P n R – 7	n R M ⎫ 5th		
D – 6		P N R – 7	G P N ⎭		
n – 2		D S G – 16	P n R ⎫ 6th		
N – 2		n R M – 11	P N R ⎭		

Total 32

<div align="center">SPECIMEN NO. 5.</div>

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 18	S – D.N.	S G P – 28½	M D S – D.Un.	MDS —just over 66% of the total value	MDS DSG i.e. SGMD =81% of the total value
G – 6	D – 2nd	M D S – 33	D S G – 2nd		
M – 6½	M – 3rd	D S G – 32½	S G P – 3rd		
P – 4					
D – 8½					
n – 5					

Total 48

3

SPECIMEN No. 6.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5	N –D.N.	S G P – 14½	G P N – D.Un.	G P N —just about 50% of the total value	S G P –G P N i.e. S G P N —64% of the total value
R – 1	S ⎱2nd	R M D – 8½	S G P – 2nd		
G – 5	G	G P N – 15½	D S G – 3rd		
M – 4½	M ⎱3rd	M D S – 12½	M D S – 4th		
P – 4½	P	P n R – 8½	P N R – 5th		
D – 3		P N R – 11½	R M D ⎱6th		
n – 3		D S G – 13	P n R		
N – 6		n R M – 8½	n R M		

Total 32

SPECIMEN No. 7.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
					MDS – DSG i.e.
S – 3	G ⎱D.N.	S G P – 13	S G P ⎱D.Un.	Each of S G P, MDS, and	S G M D is just about 68%
R – 1	M	R M D – 11	M D S		
G – 6	P ⎱2nd	G P N – 12	D S G		
M – 6	D	M D S – 13	G P N –2nd	D S G is just less than 50%	
P – 4	S – 3rd	P n R – 7	R M D – 3rd		
D – 4		P N R – 7	n R M – 4th		
n – 2		D S G – 13	P n R ⎱5th		
N – 2		n R M – 9	P N R		

Total 28

SPECIMEN NO. 8.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5½	P – D.N.	S G P – 15	S G P } D.Un.	S G P or G P N less than 50% of the total value	S G P– G P N i.e. S G P N is just over 64% of the total value
R – ½	M – 2nd	R M D – 9½	G P N }		
G – 3	S } 3rd	G P N – 15	M D S – 2nd		
M – 6	N }	M D S – 14½	P N R – 3rd		
P – 6½		P n R – 9	D S G – 4th		
D – 3		P N R – 12½	R M D – 5th		
n – 2		D S G – 11½	P n R – 6th		
N – 5½		n R M – 8½	n R M – 7th		

Total 32

Before tabulating other examples, we should observe that (*a*) five out of the eight specimens exhibit individual motifs through MDS as the dominant Universal of the design; (*b*) such five, again, exhibit a group motif by MDS-DSG as the leading couple; (*c*) two out of the eight specimens exhibit GPN and SGP as the individual motifs; (*d*) these two exhibit group motifs SGP-GPN as the leading couple; anid (*e*) specimen No. 7 exhibits a crowded confused motif, ndividually or by group, by the fact of SGP, MDS, and DSG being equal in value.

SPECIMEN NO. 9.

Song: Taba kahat chatura . . . .' *Khambaj* from *Kramika Pustaka Malika*
'Part II.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 7	M – D.N	– 14½ M D S–D.Un.		M D S = just	M D S —D S G
G – 6	S – 2nd	D S – 19½ D S G – 2nd		over 60% of the	i.e. S G M D
M – 8	G – 3rd	– 17½ S G P – 3rd		total value	is near 79% of
P – 1½	n – 4th				the total value
D – 4½					
n – 5					

Total 32

SPECIMEN NO. 10.

Song: 'Saba sakhiya mila khambāj gabo . . .   from *Kramtka Pustak*
Malika, Part II.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 9	S – D.N.	S G P – 15	SG P– D.Un.	S G P = 53%	S G P —G P N
G – 3	N – 2nd	G P N – 11	M D S ⎱	of the	i.e. S G P N
M – 3	G ⎱	M D S – 14½	D S G ⎰ 2nd	total value	= 71% of the
P – 3	M ⎬3rd	D S G – 14½	G P N – 3rd		total value
D – 2½	P ⎰				
n – 2½					
N – 5					

Total 28

SPECIMEN No. 11.

Song: 'Na manungi . . . . .' from *Kramika Pustaka Malika*, Part II

N.V.	C.V.N.	U.V.	C.V.U.	P.C. of Value D.Un.	P.C. Value of D.Couple
S – 16	S – D.N.	S G P – 27½	S G P ⎫	Each of the D.Un.	S G P N S G M D
G – 7	G ⎫	G P N – 18½	M D S ⎬ D.Un = 57%	= 71%
M – 7	M ⎬ 2nd	M D S – 27½	D S G ⎭	of the	of the
P – 4½	N ⎭	D S G – 27½	G P N – 2nd	total value	total value
D – 4½					
n – 2					
N – 7					
Total 48					

SPECIMEN No. 12.

Song: 'Shyam sundara . . . .' from *Kramika Pustaka Malika*, Part II.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 11	S – D.N.	S G P – 18	D S G – D.Un.	D S G = 64%	D S G —M D S
G – 5½	G – 2nd	G P N – 9½	M D S – 2nd	of the total	i.e.
M – 4½	M – 3rd	M D S – 19½	S G P – 3rd	value	S G M D = 78%
P – 1½		D S G – 20½	G P N – 4th		of the total value
D – 4					
n – 3					
N – 2½					
Total 32					

<div align="center">SPECIMEN No. 13.</div>

Song: 'Maira barajo na māne' of Shreeman U.N. *Bhatkhande*, published in *Maorif-Un-nagamat*, edited by Ali Janab Muhammad Nawab Ali Khan Saheb of Lucknow.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 7	S ⎫ ⎬DN	S G P – 15½	M D S –D.Un.	M D S =57% of the total value	M D S – D S G i.e. S G M D approximately of the total value
R – 1	D ⎭	R M D – 14½	D S G – 2nd		
G – 4½	M – 2nd	G P N – 10½	S G P – 3rd		
M – 6½	G – 3rd	M D S – 20½	M D – 4th		
P – 4		P n R – 9	n R M – 5th		
D – 7		P N R – 7	G P N – 6th		
n – 4		D S G – 18½	P n R – 7th		
N – 2		n R M – 11½	P N R – 8th		

Total 36

<div align="center">SPECIMEN No. 14.</div>

Song: 'Khelan aye hori . . .' from Shreeman Lalluji of Mathura.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 8	S ⎫ ⎬D.N.	S G P – 18	M D S –D.Un.	M D S =54% of the total value	M D S – D S G i.e. S G M D =a little over 64% of the total value
R – 1	D ⎭	R M D – 16	D S G – 2nd		
G – 4	M – 2nd	G P N – 15	S G P – 3rd		
M – 7	P – 3rd	M D S – 23	R M D – 4th		
P – 6		P n R – 10	G P N – 5th		
D – 8		P N R – 12	P N R – 6th		
n – 3		D S G – 20	n R M – 7th		
N – 5		n R M – 11	P n R – 8th		

Total 42

SPECIMEN No. 15.

~~Song. Kangarala rupatala . . . . . from Pathakji, of Banaras.~~

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 13½	S – D.N.	S G P – 19¼	M D S –D.Un.	M D S =55% of the total value	M D S – D S G i.e. S G M D =61% of the total value
R – 3	D – 2nd	R M D – 16	D S G – 2nd		
G – 3	N – 3rd	G P N – 13½	S G P – 3rd		
M – 5		M D S – 26½	R M D – 4th		
P – 3		P n R – 11	G P N ⎫ 5th		
D – 8		P N R – 13½	P N R ⎭		
n – 5		D S G – 24½	n R M – 6th		
N – 7½		n R M – 13	P n R – 7th		

Total 48

SPECIMEN No. 16.

Saragam in *Jhamptala* obtained from the late Visvanathji of Calcutta.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5	M – D.N.	S G P – 20	M D S –D.Un.	M D S =50% of the total value	M D S – D S G i.e. S G M D =68% of the total value
R – 2	D – 2nd	R M D – 22	D S G – 2nd		
G – 9	P – 3rd	G P N – 19	R M D – 3rd		
M – 11		M D S – 25	S G P – 4th		
P – 6		P n R – 12	G P N – 5th		
D – 9		P N R – 12	n R M – 6th		
n – 4		D S G – 23	P n R ⎫ 7th		
N – 4		n R M – 17	P N R ⎭		

Total 50

SPECIMEN No. 17.

Instrumental piece, *Masidkhani* pattern, obtained from the late Hafiz Khan of Jaipur, disciple of the late Amrita Sen of Jaipur.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5¾	S ⎫ D.N.	S G P – 14¼	M D S –D.Un.	M D S nearly 50% of the total value	M D S —D S G i.e. S G M D =64% of the total value
R – 1	M ⎭	R M D – 10¾	D S G – 2nd		
G – 5¼	G 2nd	G P N – 13½	S G P – 3rd		
M – 5¾	N – 3rd	M D S – 15½	G P N – 4th		
P – 3¼		P n R – 6¼	R M D – 5th		
D – 4		P N R – 9¼	P N R – 6th		
n – 2		D S G – 15	n R M – 7th		
N – 5		n R M – 8¾	P n R – 8th		

Total 32

SPECIMEN No. 18.

Song: 'Kaise anokhe khelayiā ....' Dhamar, from the late Chandan Chaubeyji of Mathura.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 9	S – D.N.	S G P – 13	M D S–D.Un.	M D S =57% of the total value	M D S -D S G i.e. S G M D =60% of the total value
R – 2	D – 2nd	R M D – 9	D S G – 2nd		
G – 1	N – 3rd	G P N – 8	S G P – 3rd		
M – 2		M D S – 16	R M D ⎫ 4th		
P – 3		P n R – 7	P N R ⎭		
D – 5		P N R – 9	G P N – 5th		
n – 2		D S G – 15	P n R – 6th		
N – 4		n R M – 6	n R M – 7th		

Total 28

SPECIMEN No. 19.

Song: 'Terohi chandrabadana ....' Chowtāla, of *Kramika Pustaka Mālikā.*

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 7	M – D.N.	S G P – 15	M D S – D.Un.	M D S =58% of the total value	M D S –D S G i.e. S G M D =72% of the total value
R – 1	S – 2nd	R M D – 15	D S G – 2nd		
G – 5	D – 3rd	G P N – 10	S G P } 3rd		
M – 7½		M D S – 21	R M D }		
P – 3		P n R – 8	n R M – 4th		
D – 6½		P N R – 6	G P N – 5th		
n – 4		D S G – 18½	P n R – 6th		
N – 2		n R M – 12½	P N R – 7th		

Total 36

Regarding the columns showing percentage values, I will state for the present and in general that:

(*a*) The Dominant Universal shows the specific 'motif' of the individual specimen. A strength such as fifty per cent or of a higher amount shows the force or strength of motif in measurable terms. The value concerns the specific amount of impingement on the sensorium of the person hearing the presentation. Values such as fifty per cent or more indicate that the specimen is strong regarding the specific motif signified by the dominant Universal. It may also be said that values below fifty per cent indicate weak quality of the specific motif of the presentation.

(*b*) The dominant couple shows the *mātrkā*, i.e. the ground matrix, from which the class evolves into the individual. Thus the force or strength of the couple means the quantitative

strength of 'class-motif'. Here also the class-motif may be strong or weak.

(c) Later on, when we shall have to search out and fix the norm for a class, or the archetype, for the rāga, we shall select strong and healthy specimens. It is of little use generalising with weak individuals, or weak motifs, except by preference of some kind or other regarding any unique distinction of that particular specimen.

SPECIMEN No. 20.

Song: 'Airi mai tore mandirba,' slow tempo, obtained from the late Shyamlalji of Calcutta.

N.V.	C.V.N.	U.V.	C.V.U.	P.C Value of D.Un.	P.C Value of D.Couple
S – $6\frac{1}{2}$	M – D.N.	S G P – $13\frac{3}{4}$	M D S – D.Un.	M D S just over 50% of the total value	M D S –D S G i.e. S G M D =69% of the total value
R – $2\frac{5}{6}$	S – 2nd	R M D – $12\frac{1}{6}$	D S G – 2nd		
G – $5\frac{3}{4}$	G – 3rd	G P N – $10\frac{7}{12}$	S G P – 3rd		
M – $7\frac{1}{2}$		M D S – $16\frac{1}{2}$	R M D		
P – $1\frac{1}{2}$		P n R – $6\frac{5}{12}$	n R M } 4th		
D – $2\frac{3}{4}$		P N R – 7	G P N – 5th		
n – $2\frac{3}{4}$		D S G – 15	P N R – 6th		
N – $3\frac{1}{3}$		n R M – $12\frac{1}{6}$	P n R – 7th		

Total 32

SPECIMEN No. 21.

The *sthayi* or *mukhachāla* of Alāpa for the Sarode, copied from a demonstration made by Ostad Hafiz Ali Khan of Gwalior.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S –25½	S – D.N.	S G P – 45	M D S–D.Un.	M D S =58% of the total value	M D S –D S G i.e. S G M D =73% of the total value
R – 7	M – 2nd	R M D – 38	D S G – 2nd		
G – 14	G ⎫ ⎬3rd	G P N – 28½	S G P – 3rd		
M – 17	D ⎭	M D S – 56½	R M D – 4th		
P – 5½		P n R – 16½	G P N – 5th		
D – 14		P N R – 21½	n R M – 6th		
n – 4		D S G – 53½	P N R – 7th		
N – 9		n R M – 28	P n R – 8th		

Total 96

SPECIMEN No. 22.

A simple instrumental piece for the Harmonium.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 3	G – D.N.	S G P – 18	S G P – D.Un.	S G P =56% of the total value	S G P – G P N i.e. S G P N =62% of the total value
R – 2	P – 2nd	R M D – 10	G P N – 2nd		
G – 8½	M – 3rd	G P N – 17	D S G – 3rd		
M – 6		M D S – 11	M D S – 4th		
P – 6½		P n R – 10½	P n R ⎫5th		
D – 2		P N R – 10½	P N R ⎭		
n – 2		D S G – 13½	R M D ⎫6th		
N – 2		n R M – 10	n R M ⎭		

Total 32

N.B. A major group shows the class-motif as S G M D. This and a few others show the class motif as S G P N. Whether or not, these latter should be considered to belong to the same Rāga as a class will be settled after we have settled the norm for the class *Khambāj*.

I present two interpretations of one and the same song demonstrated by the late Zohra Bai and Gohur Jan, famous songstresses of their times. The song runs as '*Hā koeliā kuhuka sunābe . . .*'

<div align="center">SPECIMEN NO. 23.</div>

‖ P D Ṡ – | n D P M | M G – R | G M P D | M P Ṡ n | D M P D |

| M – G – | M G R S | S G M P | D M – G | Ṇ S G M | P D N Ṡ |

| P NṠ Ṙ | N Ṡ n D | P D N Ṡ | Ṡ G – M ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 10	M – D.N.	S G P – 30	M D S – D.Un.	M D S = 50% of the total value	M D S – D S G i.e. S G M D = 67% of the total value
R – 4	G – 2nd	R M D – 26	D S G ⎫ 2nd		
G – 11	S – 3rd	G P N – 25	S G P ⎭		
M – 13		M D S – 32	R M D – 3rd		
P – 9		P n R – 16	G P N – 4th		
D – 9		P N R – 18	n R M – 5th		
n – 3		D S G – 30	P N R – 6th		
N – 5		n R M – 20	P n R – 7th		
Total 64					

<div align="center">SPECIMEN NO. 24.</div>

‖ P̄D̄ P̄ Ṡ – | n D P M | M G – G | M – P D | M P Ṡ n | D M P D |

| M – G – | M G R̄S̄ S | S G M P | D M – G | Ṇ S G M |

| P̄D̄ M̄P̄ N Ṡ | Ṙ g Ṙ Ṡ | N Ṡ n D | D N Ṡ N | Ṡ M G M ‖

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 11½	M – D.N.	S G P	– 29	M D S	–D.Un.	M D S =54% of the total value	M D S –D S G i.e. S G M D =70% of the total value
R – 2½	S – 2nd	R M D	– 26	D S G	– 2nd		
g – 1	G – 3rd	G P N	– 22½	S G P	– 3rd		
G – 10		M D S	– 35	R M D	– 4th		
M – 15½		P n R	– 13	G P N	– 5th		
P – 7½		P N R	– 15	n R M	– 6th		
D – 8		D S G	– 29½	S g P	– 7th		
n – 3		n R M	– 21	P N R	– 8th		
N – 5		S g P	– 20	P n R	– 9th		
Total 64		g P n	– 11½	g P n	– 10th		

Note that (a) R is used in the ascending, as Ṙg in the 13th bar, and (b) the note g is introduced without the least hesitation. Yet (1) the class motif remains M D S—D S G as in many other so-called classical specimens, (2) the strength appears to have increased in spite of Ṙg.

I should also point out that the first interpretation is one of the best of older interpretations of the song, while the second was remodelled by the late Ganapat Rao Vaiyasaheb, who was the 'Guru' of Shyamlalji. And Gohar Jan learnt it from Shyamlalji. The mere introduction of g in the design does not disturb or affect the motif, nor does it turn the presentation into one of *Kāfi* or *Kāfi-Khambāj*, provided that the artist knows how to set about the business of presenting the music. In the pages of '*Maarif-Un-Nagamat*' we find a *Dhrupad* of *Khambāj* exhibiting g at the closing of the sentence. The song is attributed to no less a person than Ostad Muhammad Ali Khan Saheb, supposed to belong to the lineage of Mia Tanseyne. The order of Universals and couples is :

M D S—24 out of a total 48; strength= 50%
D S G—23 ,, ,, ,, ,, ,,
S G P—20½ ,, ,, ,, ,, ,,
R M D—17 ,, ,, ,, ,, ,,

The strength of S G M D= 61% out of a total of 48.

SPECIMEN NO. 25.

The following is an interpretation of the song '*More saiyān āye na sābanake dina bitē*' which I learnt from the late Hakimjee of Calcutta, formerly of Lucknow.

‖ P P | G P̄ D̄n D P | D G—M | G — — — | ḠR̄ G —R̄S
| R — S̄N̄ S | S̄ R G — R̄G | P P ‖

The ascending track is S R G P D N. The descending track is n D P M G R S. The catch 'n D P D G — M G —' is quite distinct.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 2½	G – D.N.	S G P – 22½	S G P – D.Un.	S G P =70% of the total value	S G P - G P N i.e. S G P N =72% or near about
R – 4	P – 2nd	R M D – 8½	G P N – 2nd		
G – 14½	R – 3rd	G P N – 20½	D S G – 3rd		
M – 2		M D S – 7	P n R ⎫		
P – 5½		P n R – 10	P N R ⎬4th		
D – 2½		P N R – 10	R M D – 5th		
n – ¼		D S G – 19½	M D S – 6th		
N – ¼		n R M – 6½	n R M – 7th		

Total 32

The class motif is S G P—G P N. The song stands by reason of the strength of the motif and not for the reason of its label

as *Khambāj* or *Behagadā*, or *Behag-Khambāj* or any name
imagined.

But, if a claim is put forward to the effect that it is as good a
Khambāj as—specimen Nos. 1, 2, 3, 4, 5, 7, 9, 12, 13, 14, 15,
16, 17, 18, 19, 20, 21, 23 and 24—then, such a claim is set
aside, because the motif or essential design is different from
that of the specimen numbers quoted.

On the other hand, if it is claimed to be as good a *Khambāj*
as specimen Nos. 6, 8, 10, 11, and 22, then such a claim is
valid, because the motif S G P N is leading in each of these
presentations.   The fact that R is in the ascent, and M is not
in the ascent in specimen No. 25, and also the fact that R
is never in the ascent, and M is always in the ascent in the
specimen numbers quoted, does not at all affect the validity
of such a claim, which is based on the fact of identity of
inner design and motif of these specimens.

SPECIMEN No. 26.

Song: '*Are more sayian*', *Kramika Pustaka Malika*, PartII.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6¾	G – D.N.	S G P – 17¾	S G P – D.Un.	S G P =55% of the total value	S G P -G P N i.e. S G P N =74% of the total value
R – 1	S – 2nd	R M D – 7	G P N ⎫		
G – 8	N – 3rd	G P N – 17	D S G ⎭ 2nd		
M – 3¾		M D S – 12¾	M D S – 3rd		
P – 3		P n R – 5¼	P N R – 4th		
D – 2¼		P N R – 10	R M D – 5th		
n – 1¼		D S G – 17	n R M – 6th		
N – 6		n R M – 6	P n R – 7th		

Total 32

SPECIMEN NO. 27.

Song: 'Pardesba jina jaiye', *Kramika Pustaka Malika.*

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – $8\frac{1}{2}$	S – D.N.	S G P – $15\frac{2}{5}$	D S G –D.Un.	D S G $= 56\%$ of the total value	M D S - D S G i.e. S G M D $= 73\%$ of the total value
R – $\frac{7}{10}$	G – 2nd	R M D – $9\frac{2}{3}$	M D S – 2nd		
G – $6\frac{3}{20}$	M – 3rd	G P N – $9\frac{9}{10}$	S G P – 3rd		
M – $5\frac{2}{5}$		M D S – $17\frac{2}{5}$	n R M – 4th		
P – $\frac{3}{4}$		P n R – $5\frac{8}{10}$	G P N – 5th		
D – $3\frac{1}{2}$		P N R – $4\frac{9}{20}$	R M D – 6th		
n – 4		D S G – $18\frac{3}{20}$	P n R – 7th		
N – 3		n R M – $10\frac{1}{2}$	P N R – 8th		

Total 32

SPECIMEN NO. 28.

Song: 'Ajato sakhiri', *Kramika Pustaka Malika.*

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – $19\frac{1}{2}$	S – D.N.	S G P – 28	D S G – D.Un.	D S G $= 64\%$ of the total value	M D S -D S G i.e. S G M D $= 70\%$ of the total value
R – 3	G – 2nd	R M D – $11\frac{1}{2}$	M D S ⎱ 2nd		
G – 6	D – 3rd	G P N – 13	S G P ⎰		
M – 3		M D S – 28	S G P – 3rd		
P – $2\frac{1}{2}$		P n R – $9\frac{1}{2}$	G P N – 3rd		
D – $5\frac{1}{2}$		P N R – 10	R M D – 4th		
n – 4		D S G – 31	n R M ⎱ 5th		
N – $4\frac{1}{2}$		n R M – 10	P N R ⎰		
			P n R – 6th		

Total 48

SPECIMEN NO. 29.

Instrumental piece of Ferozkhani pattern, from the late Fida Hussain Khan of Rampur.

‖ S R̅R̅ S . G . M P D | N S̅S̅ N̅N̅ S̅S̅ | n . D . D | S̅N̅ R̅S̅ n . D . D
G M | P DD m DD | P . M . G ‖

The bracketed parts need explanation. Such a part always consists of four units of time, divided as $1\frac{1}{2}$, $1\frac{1}{2}$ and 1, for the three consecutive notes covered by a bracket. The strike for such notes sounds as 'dār dār dā'. The technical phrase 'diri diri dār dār dā' is peculiarly characteristic of the 'Ferozkhani' pattern of instrumental presentation, as I learnt from the late Ostad Fida Hussain Khan Saheb, Sorodiya of Rampur.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – $5\frac{1}{2}$	D – D.N.	S G P – $12\frac{1}{2}$	M D S	M D S = D S G = 53% of the total value	M D S -D S G i.e. S G M D = 64% of the total value
R – $1\frac{1}{2}$	S – 2nd	R M D – 13	D S G		
G – $3\frac{1}{2}$	n – 3rd	G P N – $9\frac{1}{2}$	R M D – 2nd		
M – $3\frac{1}{2}$		M D S – 17	S G P – 3rd		
P – $3\frac{1}{2}$		P n R – 9	G P N – 4th		
D – 8		P N R – $7\frac{1}{2}$	P n R		
n – 4		D S G – 17	n R M		
N – $2\frac{1}{2}$		n R M – 9	P N R – 6th		

Total 32

SPECIMEN NO. 30.

Notation of *Terana 'Ode tana dere'*, from the late Khalifa Badal Khan Saheb of Calcutta.

4

‖ n D | n D n P | DN ṠṚ Ṡṅ DP | D G – M | G – M M |

| R S – S | S M G M | D – n D | n D N Ṡ | Ṡ Ṁ – Ġ | Ṙ Ṡ NṠ Ṙ |

| Ṡ D Ṡ n | – D ‖

Note that M R S has been used here, for once; the late Visvanathji also used G M R S occasionally in *Khambāj Dhrupad* without the least hesitation.

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 10½	S – D.N.	S G P	– 18	M D S	– D.Un.	M D S = 57% of the total value	M D S – D S G i.e. S G M D = 69% of the total value
R – 3½	D – 2nd	R M D	– 20½	D S G	– 2nd		
G – 6	M – 3rd	G P N	– 9½	R M D	– 3rd		
M – 7		M D S	– 27½	S G P	⎫ 4th		
P – 1½		P n R	– 12½	n R M	⎭		
D – 10		P N R	– 7	P n R	– 5th		
n – 7½		D S G	– 26½	G P N	– 6th		
N – 2		n R M	– 18	P N R	– 7th		
Total 48							

SPECIMEN No. 31.

Song: '*Cheona cheona edike cheona*' in *Dādrā*, once a very popular piece in Bengal, especially in connection with dramatic settings.

‖ P N N | Ṡ Ṡ Ṡ | N Ṙ Ṡ | DṠ n D | M M P̅n̅ | D G M | P N Ṡ |

| ṠṘṠn DPMG M ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	S – D.N.	S G P – 10	M D S – D.Un.	M D S =54% of the total value	M D S -D S G i.e. S G M D =59% of the total value
R – 1¼	M – 2nd	R M D – 8¼	D S G ⎫ 2nd		
G – 1¼	P ⎫ 3rd	G P N – 8	S G P ⎬		
M – 4¼	D ⎭	M D S – 13	R M D – 3rd		
P – 2¾	N – 4th	P n R – 5¼	G P N ⎫ 4th		
D – 2¾		P N R – 8	P N R ⎭		
n – 1¾		D S G – 10	n R M – 5th		
N – 4		n R M – 7¼	P n R – 6th		

Total 24

The sentence, as it is presented, is complete. The singer repeats it without hesitation. Nevertheless, it has another half which is no less interesting, so I present the whole sentence.

‖ P N N | Ṡ Ṡ Ṡ̇ | N Ṙ Ṡ | D̄S̄ n D | M M P̄n̄ | D G M | P N Ṡ |

| ṨṚ̇S̄n̄ DPMG M | Ṡ G Ġ | G M Ġ | Ṁ G Ṩ | Ṙ N Ṡ | P P D |

| Ṡ Ṙg̈ Ṛ̇ | N Ṡ D̄ Ṡ | nD M ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D. Couple
S – 11½	S – D.N.	S g P – 16¾	M D S – D.Un.	M D S =just over 50%	M D S - D S G i.e. S G M D =64% of the total value
R – 3¾	M – 2nd	S G P – 22½	D S G ⎫ 2nd		
g – ½	G – 3rd	R M D – 16¾	S G P ⎬		
G 6¼	N – 4th	G P N – 17	G P N – 3rd		

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D. Un.	P.C. Value of D. Couple
M – 8¼		g P n – 7½ R M D			
P – 4¾		M D S – 24½ S g P			4th
D – 4¾		P n R – 10¾ P N R	– 5th		
n – 2¼		P N R – 14½ n R M	– 6th		
N – 6		D S G – 22½ P n R	– 7th		
Total 48		n R M – 14¼ g P n	– 8th		

It is evident that the class-motif, indicated by the couple M D S — D S G has improved in strength, in spite of the phrase P D Ṡ R̄ḡ Ṙ N Ṡ, which is not met with in the classical specimens. There is a large number of such unlabelled popular songs in the Bengali and Hindi languages which are popular although without any due notice and consideration having been taken of them. Students of classical music would wish otherwise.

SPECIMEN NO. 32.

Sarengi piece of the type *Lahrā*, slow tempo.

‖ N N Ṡ P̄N̄S̄Ṙ | n D M P | Ṡ n D M | P D P̄M̄G – M | G S G M |
| P D P̄M̄G – M | N N Ṡ D̄N̄S̄Ṙ | n D M P ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4½	M – D.N.	S G P – 12¼ M D S–D.Un.		M D S =a little over 50% of the total value	M D S – D S G i.e. S G M D =60% of the total value
R – ¼	D – 2nd	R M D – 12¼ D S G – 2nd			
G – 3	P – 3rd	G P N – 12¼ S G P			
M – 6½	S } 4th	M D S – 16¼ R M D } 3rd			
P – 4¾	N }	P n R – 8¼ G P N			

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D. Un.	P.C. Value of D. Couple
D – 5¼		P N R – 9¾	n R M – 4th		
n – 3		D S G – 12¾	P N R – 5th		
N – 4½		n R M – 10	P n R – 6th		
Total 32					

<center>SPECIMEN NO. 33.</center>

Sarengi piece *Dādrā*, medium tempo.

‖ M | P G M | P – M | D P – | – – P | P G M | D – P |

| S̄ N R̄ S̄ N S̄ n | D P̄ P P | N N N | S̄ – S̄ | N S̄ – | – – P♩ | N N S̄ |

| D S̄ – | n D P̄ – | – – ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 11	P – D.N.	S G P – 29½	S G P – D.Un.	S G P = 61% of the total value	S G P – G P N i.e. S G P N = 72% of the total value
R – ⅓	S – 2nd	R M D – 9⅚	G P N – 2nd		
G – 2	N – 3rd	G P N – 25⅛	P N R – 3rd		
M – 4		M D S – 20½	M D S – 4th		
P – 16½		P n R – 18⅚	P n R – 5th		
D – 5½		P N R – 23½	D S G – 6th		
n – 2		D S G – 18½	R M D – 7th		
N – 6⅗		n R M – 6⅓	n R M – 8th		
Total 48					

Both of these are considered as *Khambāj*. Yet, by the distinction of class motif, they belong to different classes. No. 33 is much the stronger as an individual and as a class. As a matter of fact, it produces a more enthralling effect than No. 32,

if the listener is not biassed against the popular cadence of
Dādrā.

Song: '*Paniya bharana kaise*' obtained from the late Hakimji.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D. Un.	P.C. Value of D. Couple
S – 10	S – D.N.	S G P – 15½ M D S–D.Un.		M D S just over 50% of the total value	M D S –D S G i.e. S G M D = 58% of the total value
R – 1½	M – 2nd	R M D – 8 S G P – 2nd			
G – 2¼	P – 3rd	G P N – 12 D S G – 3rd			
M – 3½		M D S – 16½ G P N – 4th			
P – 3¼		P n R – 6¾ P N R – 5th			
D – 3		P N R – 11¼ R M D – 6th			
n – 2		D S G – 15¼ n R M – 7th			
N – 6½		n R M – 7 P n R – 8th			
Total 32					

Song: '*Hori āja jāre*' from *Kramika Pustaka Malika* Part II.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	P – D.N.	S G P – 28¼ S G P – D.Un.		S G P just over 50% of the total value	S G P –G P N i.e. S G P N = 57% of the total value
R – 4	D – 2nd	R M D – 21 G P N – 2nd			
G – 5	M – 3rd	G P N – 26¼ P N R – 3rd			
M – 8¼		M D S – 23 P n R – 4th			

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D. Un.	P.C. Value of D. Couple
P – 17¼		P n R – 24	M D S – 5th		
D – 8¾		P N R – 25¾	R M D – 6th		
n – 2¾		D S G – 19¾	D S G – 7th		
N – 4		n R M – 15	n R M – 8th		
Total 56					

Specimen No. 36.

Song: '*Sāri dār gayo mope rangaki gāgar*' obtained from Shyamlalji. The form and texture resembles very much specimen No. 35.

‖ G – M D PMP – | M GMG – RM – – G | RS – – R̄Ḡ – –
RSR – ḠM̄ | P̄P – PMG – GPDn | D̄P ḠP M̄Ḡ – |
GMPD̄ N̄S̄N̄ – S̄ - | N̄S̄ – – N̄S̄ R̄n –D P | P P – GP |
M MḠM̄ – ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4½	P – D.N.	S G P – 20⅓	S G P – D.Un.	S G P =64% of the total value	S G P –G P N i.e. S G P N =68% of the total value
R – 1¾	G – 2nd	R M D – 9¼	G P N – 2nd		
G – 7¼	M – 3rd	G P N – 17½	D S G – 3rd		
M – 5¾		M D S – 11¾	P N R – 4th		
P – 9		P n R – 11⁴	M D S ⎫		
D – 1¾		P N R – 12	P n R ⎬ 5th		
n – 1		D S G – 13¼	R M D – 6th		
N – 1¼		n R M – 8½	n R M – 7th		
Total 32					

Specimen No. 37 is the design of a song '*Eri jobana tero*' from Maarif-Un-nagamat. It is labelled '*Behagdā Dhamar*'. Its essential design is exactly that of specimens 35 and 36. Whether this should be classed among *Khambāj*, or whether Nos. 35 and 36 should be classed among *Behagdā* is a problem which will be settled afterwards.

SPECIMEN No. 37.

Song: 'Eri jobana tero' from *Maarif-un-Nagamat*, Part III.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S - 4½	P - D.N.	S G P - 15½	S G P-D.Un.	S G P = 55% of the total value	S G P -G P N i.e. S G P N = 66% of the total value
R - 1½	G - 2nd	R M D - 7½	G P N - 2nd		
G - 5	S - 3rd	G P N - 14	D S G - 3rd		
M - 3		N D S - 10½	M D S ⎫		
m - 1		P n R - 8½	P N R ⎬ 4th		
.P - 6		P N R - 10½	P n R - 5th		
D - 3		D S G - 12½	R M D - 6th		
n - 1		n R M - 5½	n R M ⎫		
N - 3		N R m - 5½	N R m ⎬ 7th		
		R m D - 5½	R m D ⎭		
Total 28					

Note that the introduction of m has merely introduced the Universals N R m and R m D into the design, while the leading motifs of the individual and the class remain the same as in specimens 35 and 36. The small amount of m introduced is not sufficient excuse for attaching a new label. Had it been so, then we would have come across new names other than

Khambāj because of the introduction of g to the general design of *Khambāj*.

There are anomalies, however. *Iman* rāga has no M; *Kalyāṇa* or *Kalyāni* has no M. But we come across *Iman Kalyāṇa* with M added to the notes of *Iman*. Of course, there are classical specimens of *Iman Kalyāṇa* without M. The reason for such an introduction will be discussed later on.

SPECIMEN No. 38.

Song: 'So le kaleja me' of Jhamptala, *Kramika Pustaka Malika*.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S $-8\frac{2}{5}$	S $-$ D.N.	S G P $-21\frac{2}{3}$	S G P–D.Un.	S G P $=54\%$ of the total value	S G P –D S G i.e. S G P D $=64\%$ of the total value
R $-1\frac{1}{6}$	G $-$ 2nd	R M D $-10\frac{4}{5}$	D S G $-$ 2nd		
G -7	P $-$ 3rd	G P N $-17\frac{2}{3}$	M D S $-$ 3rd		
M $-5\frac{1}{2}$		M D S $-18\frac{1}{6}$	G P N $-$ 4th		
P -6		P n R $-10\frac{1}{3}$	P N R $-$ 5th		
D -4		P N R $-11\frac{2}{3}$	R M D $-$ 6th		
n -3		D S G $-19\frac{2}{3}$	P n R $-$ 7th		
N $-4\frac{2}{3}$		n R M $-9\frac{5}{6}$	n R M $-$ 8th		

Total 40

I finish citing examples here with number thirty-eight. My original work deals with fifty-six examples of *Khambāj*, the majority of which were taken from published notations in books and journals dealing with the music of Rāga. For the present I have covered all the varieties that I have come across. Students may come across hundreds of new examples cropping up at different times and places. I have suggested the method of analysis and synthesis in general.

Concentrated and detailed statistical study should reveal the Norm and the genius of *Khambāj* as follows:

1. More than 65 per cent of specimens show the MDS-DSG couple as the leading class-motif.

2. With such a leading class-motif, i.e. S G M D, we find S, M, D and G as dominant, on varying occasions. Here also, about 60 per cent show S as the dominant note.

3. There are specimens in which M D S or D S G do not lead. Among these a large number show that the combined strength of MDS-DSG is a little more than that of other couples.

4. About 8 per cent show G as the dominant note. The central features in these reveal abnormality of structure. Statistical study does not allow us to make or accept a statement such as the note G is the *Vādi* note for *Khambāj* Rāga. Such a statement shows 8 per cent only of the truth about the *Vādi* for *Khambāj*.

5. But we can make the following statements:

(*a*) SGMD is the normal class-motif for *Khambāj*, and therefore the notes S, G, M, and D may be the dominant note variously.

(*b*) A strong majority of such a class shows the Universals S G P and R M D occupying the third and fourth places. Nevertheless, there are specimens without R. Therefore, the norm for the class is:

$$
\begin{aligned}
&\text{M D S} - \text{Dominant Universal} \\
&\text{D S G} - \text{2nd} \\
&\text{S G P} - \text{3rd} \\
&\text{G P N} - \text{4th}
\end{aligned}
$$

Specimen No. 5 represents such a norm, minus the Universal GPN. Such, also, is specimen No. 9. The design of No. 11 shows that there is a mixture of individual motif.

(*c*) Such a norm is associated with the ascending-cum-descending feature S G M P D N − n D P M G S.

(*d*) The catch-phrases, n D-M, P D—M, M P D—M or P N Ṣ Ṙ N Ṣ, though occurring inside normal specimens of *Khambāj*, are not exclusive signatures for a normal *Khambāj*. They are merely artifices of presentation.

For instance, the sentence P N Ṣ Ṙ | N Ṣ n D | P D M P D G—M, which is cyclic and complete by itself, shows that:

N.V.	C.V.N.	U.V.	P.C. Value of D. Un.	P.C. Value of D.Couple
S – 2	P ⎫	S G P – 7 ⎫	Each of the	S G P D
	⎬ D.N.	⎪	D.Uni-	i.e.
R – 1	D ⎭	G P N – 7 ⎪	versals is	⊸D S G
		⎬ D. Un.	less than	–S G P
G – 2	S ⎫	M D S – 7 ⎪	50% in	has the
	⎪	⎪	strength	highest
M – 2	G ⎪	D S G – 7 ⎭		value i.e.
	⎬ 2nd			10. That
P – 3	M ⎪	R M D ⎫		means
	⎪	⎬ 2nd		62%
D – 3	N ⎭	P N R ⎭		of the
				total
n – 1		P n R – 3rd		value
N – 2		n R M – 4th		

Total 16

Here the individual shows crowding of the four Universals, whereas the leading class-motif is S G P D by a combination of choice. Such an abnormal design does not compare favourably with the norm for *Khambāj* which shows, in order, MDS, DSG, SGP, GPN or MDS, DSG, SGP, RMD, GPN. Also, the note P as dominant cannot be associated with normal *Khambāj*.

Supposing, for the sake of argument, that the sentence is incomplete, and may have to be completed as

‖ P N Ṣ Ṙ | N Ṣ n D | P D M P | D G–M | G–S G | M P D G | | –M n D | P G– M ‖

We have:

S – 3	G – D.N.	S G P – 17	S G P ⎫ D.Un	S G P or S G P D or
R – 1	M ⎫	R M D – 11	D S G ⎭	D S G S G M D
G – 9	P ⎬ 2nd			just just
	D ⎭	G P N – 16	G P N – 2nd	over 50% over 68%
M – 5	S – 3rd	M D S – 13	M D S -- 3rd	of the of the
				total total
P – 5		P n R – 8	R M D – 4th	value value
D – 5		P N R – 8	P n R ⎫	
			P N R ⎬ 5th	
n – 2		D S G – 17	n R M ⎭	
N – 2		n R M – 8		

Total 32

In this example the individual as well as the class-motif, has become stronger. Yet the design scarcely approaches that of normal *Khambāj*. The individual and the class-motif are both of them confused.

Therefore the idea of signature by means of catch phrases (i.e. the Pakaḍ or khās tāna, as it goes in colloquial Hindi) has to be abandoned, so far as the norm for *Khambāj*, or any rāga is concerned.

6. Regarding class-names or labels, we are justified in proposing that all specimens of *Khambāj* showing normality of design should be called simply *Khambāj*.

Except such a normal *Khambāj* by design, all the others showing abnormalities of design should be called *Chitra Khambāj* that is 'Variety of *Khambāj*'.

7. A *Chitra Khambāj* does not mean that the specimen is necessarily weak by motif, or insipid or uninteresting by presentation. Strength or weakness of motif has nothing to do with labels.

On the contrary, a *Chitra Khambāj* may be exceptionally strong and interesting by itself, just as a freak or mutation may be stronger and prettier than a normal individual of the species.

8.   It is concerning the *Chitra Khambāj* only that the question of catches as signature for a particular sub-class comes in. The idea is like recognising the zebra by its stripes or the *nilgai* by its blue-grey coat. Certainly, an ordinary horse patched over with stripes does not become a zebra, and a cow painted with dull-blue colour does not become a *nilgai*.   Similarly, a normal *Khambāj*, showing bits of catch-phrases, does not become a *Chitra Khambāj* by reason of such signatures.

9.   It would be better to recognise *Chitra Khambāj* by listening attentively and appreciating a dominance of either P or G in the presentation.   In the case of normal *Khambāj*, our attention is fixed on either S or M, or more rarely D.

The power of appreciating the dominant note or the motif, is not at all a rare achievement for persons listening attentively. Also, such power improves by practice (*see* Appendix III Khambāj Thāt and current ideas).

INVERSION OF A DOMINANT COUPLE

Assuming that M D S—D S G, i.e. the modulation S G M D꜓ represents the normal motif of the class *Khambāj*, we find that in a good number of cases the Dominant Universal is D S G, while M D S is next in strength.   Such a distinction pointing to inversion of the couple may be represented as

(1)	(2)
M D S—D. Univ.	D S G—D. Univ.
D S G—2nd	M D S—2nd
S G P—3rd	S G P—3rd

R M D
  or }—4th
G P N
	R M D
	  or }—4th
	G P N

In each case the class-motif is the same, but the individual motif is different.   Should we suppose that such a distinction

ought to be associated with some minor distinction regarding class or individual ?

Examples are Nos. 12, 27 and 28, as enlisted here. In my original work 12 per cent of the examples show the Universal D S G as dominant and M D S as second. But I surmise that the percentage may be higher than that if we enlarge the field of our observation.

Superficially, such a minor distinction appears to be trivial and such distinctions appear to be negligible.

But in reality they are not so. Because examples are not wanting where, the design and the class motif remaining the same, the inversion of the Universals of the leading couple has given rise to distinct Rāgas with different names attached to them.

The simplest examples are afforded with the scale of notes S, R, G, P and D. The scale allows only one couple, or, two complementary Universals D S G and S G P.

In my original work, I have examined seventy-four specimens of Rāga individuals with the notes S R G P D only. The entire number involves Rāgas with names such as *Bhūpāli, Bhūp-Kalyāṇa, Suddha Kalyāṇa, Deshkāra, Jayet-Kalyāṇa, Pahāḍ, Deogiri*, though only one single couple D S G - S G P runs through them. I will not enter into the details of examination of this group. But I will restrict myself to generalised findings based on objective study.

Four noteworthy divisions are observable:

1. *Bhūpāli*, associated chiefly with D S G as the dominant Universal, and having D, S, and G in the first three places. P is the lowest in value.

2. *Suddha-Kalyāṇa*, associated chiefly with S G P as the dominant Universal, and having S, G and P in the first three and R, and D as the lowest in value.

3. Atypical *Bhūpāli* and atypical *Suddha-Kalyāṇa*. Specimens of this division lie scattered as well as concealed under the titles *Bhūpāli* and *Kalyāṇa* or *Suddha-Kalyāṇa*. This division

very well deserves the class name *Bhūp-Kalyāṇa* a name which is no longer in vogue.

4. *Deshkāra Rāga*. This is associated with either D S G, or S G P as the dominant Universal, but invariably shows P, S, and D in the first three places and G and R as the lowest in value.

These four divisions are statistical. But the first two divisions are certainly categorical and will comprise any creation new or old, normal and abnormal within their folds. Examination shows, however, that the distinction and difference occur along with the categorical predominance of one of the two Universals forming the couple D S G-S G P.

Because such a distinction is natural, we are therefore logically justified in inferring that inversion occurring with the Universals of the leading couple (i.e. the prime class-motif) makes some distinction in the Rāga as a class, whether such distinctions are recognised as such or not during the actual presentation. This peculiar distinction occurs irrespective of the facts of normality and abnormality, and runs through each individual specimen, because each individual shows the leading Universal at least.

What is the natural distinction between the Universals D S G and S G P ? Why should we take it as natural ?

The answer is this — the total motif is represented by D S G P, that is to say, by S G P D. We have already accepted the naturalness of such modulations with reason. Such a couple, and certainly every other couple, shows complementary Universals. Examination shows that each Universal of such a couple is reducible to the categorical arrangement either of S g P or of S G P. These represent the major and the minor chords of European terminology and are the *Khanda meru*. D S G is equivalent to S g P ; S G P fundamentally remains as S G P. Now the musically trained ear appreciates a qualitative difference or some distinction between S g P and S G P. Such appreciation is natural or instinctive.

Observing closely we find that the broad natural distinction ultimately rests on the finer distinction between two mediants S g and S G. We know and appreciate by our senses that the mediants are pleasurable. Consequently, the distinctions between S g P and S G P, or between S g and S G, or between g P and G P are all of them distinctions of pleasurable relations only.

It may be argued that analysis of phrases such as S r P and S R P shows distinctions. But we must presume such distinctions to involve the relations S r and r P and S R and R P. In each case the relations S r and S R are neutral — that is to say not of the kind of S g or S G which are pleasurable. Therefore, acknowledging as we must the distinctions between S r P and S R P, we have to admit that the distinction involving S r, or S R is not the same as the distinction between S g and S G. In other words, the distinction between things or relations which are neutral is not comparable with the distinction between things which are pleasurable.

From time immemorial, the traditions of practical music have evolved out of fundamental distinctions of pleasurable relations. To say that there does not exist any distinction between the pleasurable and the non-pleasurable relations in music is to sound the death-knell of all music. Such a statement has been made in recent times in Europe by a section of musicians (or non-musical musicians) with the putting forward of a theory of 'Atonality'. While criticising such a theory, R.O. Morris says: 'The theory may be outlined thus:— The scale consists of twelve semitones, all of which are in the widest sense of the word, of equal value. Pre-existing relationships within the scale are abolished out of hand; there is no tonic, no dominant, no anything of the kind...... One note is as good as another, therefore one interval is also as good as another, so also the chords into which these intervals are combined.... This theory or method or whatever you like to call it, is associated

entirely with the name of Arnold Schonberg and a handful of his disciples—Allen Berg, Anton Von Webern and one or two others'.[1] In a final summary R.O. Morris says:

'Once more I must confess to my total inability to foresee any possible future for this kind of thing. This complete upsetting of all traditional values, this disdain of all previously accepted melodic and harmonic relationships, suggests to me not so much courage and sincerity as an inflated arrogance of mind that can only be described as megalomania.. To my ear it makes no more sense today than it did when I first made its acquaintance some fifteen years ago. Schonberg's experiments have aroused so much discussion in the past few years that it was impossible to omit all reference to them. But one can speak only for oneself, and to me, the result is pure anarchy and destruction of musical values — dreary wilderness of cacophony that somehow contrives to be pedantic and hysterical at the same time.'

I quote from Mr. Morris's writing not because of the pointedness and pungency of his remarks against the Atonality principles started in Europe, but because he clearly acknowledges melodic relationships in European music, and also speaks of values traditional in the main. Following his example, speaking for myself, I may say that European music recognises the existence and evolutionary behaviour of Universals considered discretely, but does not take into account the pleasurable as well as natural relationship which exists between the Universals themselves forming into couples and ultimately evolving into the class-motif of Rāga. For European music, each specimen has its own individual motif inside the key, but there is no recognition of the coupled relations and class-motif. That is why the European system fails to appreciate the class of individuals known as Rāgas.

---

[1] *See* 'An Introduction to Music', sub-heading 4, Atonality, *An Outline of Modern Knowledge*, ed. Dr. William Rose, Victor Gollancz, London, 1931, p. 1045

Nevertheless, the European system recognises the peculiar effects of the major and minor chords, that is to say, the modulation values of S g P, and S G P, or simply, of S g and S G.

So we should recognise the distinction between two designs such as:

D S G — D. Univ.	S G P — D. Univ.
S G P — 2nd	D S G — 2nd

Though the class-motif, viz. S G P D, is the same for the two designs and such a class-motif may evolve into actual Rāga, such as *Bhūpāli*, and *Suddha-Kalyāna*, with S R G P D, yet the basic distinction regarding the individual dominance of an Universal has to be recognised as such.

That being granted, we must suppose some distinction between the following, whether we appreciate it or not, by actually hearing the presentations. There are persons who do not care to recognise the distinction between presentations of normal *Bhūpāli* and normal *Suddha-Kalyāna*. Similarly, there are persons who do not care to recognise the distinctions regarding the class *Khambāj*. That does not matter as long as we recognise the facts of such inversion-designs.

M D S — D. Univ.	D S G — D. Univ.
D S G — 2nd	M D S — 2nd
S G P — 3rd	S G P — 3rd
R M D or }—4th G P N	R M D or }—4th G P N

Distinctions based on inversion of design concerning the leading couple being taken for serious consideration, how are we to expound or clarify them regarding our examinations? That question is answered after we have studied the specimens of Rāga Bhairava.

BHAIRAVA RĀGA

SPECIMENS labelled as *Bhairava* (Bhainro in colloquial Hindi) generally show the notes S, r, G, M, P, d and N. Rarely is n added to the scale.

SPECIMEN No. 38a.

Song: 'Govinda mukhārabinda'. Ektala, popular in Bengal.

‖ G M | r – | S S | N S | S ḍ | – N | S M | M M | M P | M G |
| r M | – – | M – | M M | – M | P – | P M | G M | d – | d P |
| M M | M G | r M | – – ‖

The notes in the ascending track are S, r, G, M, d, N. The notes in the descending track are N, d, P, M, G, r, S.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D. Un.	P.C. Value of D.Couple
S – 5	M – D.N.	S G P – 14	M d S –D.Un.	M d S over 66% of the total value	M D S -r M D i.e. s r M d =75% of the total value
r – 4	S ⎫ P ⎬2nd	r G d – 13	r M d – 2nd		
G – 4	d ⎭	r M d – 32	S G P – 3rd		
M – 23	r ⎫	G P N – 11	r G d – 4th		
P – 5	G ⎬3rd	G d N – 11	G P N ⎫		
d – 5		M d S – 33	G d N ⎬5th		
N – 2					

Total 48

Song: 'Sundara tero rupa' ....in Sulfak, obtained from the late Janab Mirza Saheb, Metiaburj, Calcutta.

‖ Ṡ – | Ṡ N | d M | M – | – – | G r | G M | G r | – S | – – | ḍ ḍ
| Ṇ S | S r | r S | – – | S r | G M | M G | r – | – S ‖

This does not show the note P, yet it feels like *Bhairava.*
The ascending track is S r G M d N; the descending track is
N d M G r S.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 13	S – D.Note	r G d – 17	M d S–D.Un.	M d S =60% of the total value	M d S –r M d, i.e. S r M d =82% of the total value
r – 9		r M d – 20			
G – 5	r – 2nd	G d N – 10	r M d – 2nd		
M – 8		M d S – 24	r G d – 3rd		
d – 3	M – 3rd				
N – 2			G d N – 4th		

Total 40

By individual, as well as class-motif, this specimen is similar
to No. 38a. Therefore we have no hesitation in putting it in
the same class as No. 38a.

Song: 'Bhairaba lacchana gai' from *Kramika Pustaka Malika.*

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 12½	S – D.N.	S G P – 20	M d S–D.Univ.	M d S =55%	M d S —r M d

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
						.	i.e.
r – 10	r ⎫ 2nd	r G d	– 19½	r M d	– 2nd	of the total value	S r M d =76% of the total value
	M ⎭						
G – 5½		r M d	– 24	S G P	– 3rd		
	G 3rd						
M – 10		G P N	– 11½	r G d	– 4th		
P – 2		G d N	– 13½	G d N	– 5th		
d – 4		M d S	– 26½	G P N	– 6th		
N – 4							
Total 48							

SPECIMEN NO. 41.

Song: 'Sāmba sadāsiva' from *Kramika Pustaka Malika.*

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 7	r – D.N.	S G P	– 12	r M d	– D.Un.	r M d =56% of the total value	r M d -M d S i.e. S r M d =78% of the total value
r – 10	S – 2nd	r G d	– 16½	r G d	– 2nd		
G – 2	d – 3rd	r M d	– 18	M d S	– 3rd		
M – 3½		G P N	– 7	S G P	– 4th		
P – 3		G d N	– 8½	G d N	– 5th		
d – 4½		M d S	– 15	G P N	– 6th		
N – 2							
Total 32							

SPECIMEN NO. 42.

Song: 'Dhana dhana murata' from *Kramika Pustaka Malika*, Part II

N.V.	C.V.N.	U.V.		C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 13½	S – D.N.	S G P	– 23	M d S – D.Un.	M d S = 59% of the total value	M d S -r M d, i.e. S r M d is about 73% of the total value
r – 6½		r G d	– 19	S G P – 2nd		
G – 4	d – 2nd	r M d	– 21½	r M d – 3rd		
M – 6½		G P N	– 12½	r G d – 4th		
P – 5½	M ⎫ ⎬3rd	G d N	– 15½	G d N – 5th		
D – 8½	r ⎭	M d S	– 28½	n r M – 6th		
N – 3		n r M	– 13½	G P N – 7th		
n – ½						
Total 48						

SPECIMEN NO. 43.

Song: 'Aba na jagao' from *Kramika Pustaka Malika*, Part II

N.V.	C.V. N.	U.V.		C.V.U.	P.C. Value of D.Univ.	P.C. Value of D.Couple
S – 10	S ⎫ ⎬D.N.	S G P	– 19	M d S ⎫ ⎬D.Un.	M d S or r M d less than 50% of the total value	M d S r M d i.e. S r M d = 68% of the total value
r – 10	r ⎭	r G d	– 22	r M d ⎭		
G – 4	d– 2nd	r Md	– 23	r G d – 2nd		
M – 5	N – 3rd	G P N	– 15	S G P – 3rd		
P – 5		G d N	– 18	G d N – 4th		
d – 8		M d S	– 23	G P N – 5th		
N – 6						
Total 48						

As already stated, it is no use generalising from specimens which show weakness of the individual motif, i.e. specimens in which the dominant Universal is less than fifty per cent of the total. Nevertheless, I have placed this No. 43 with a particular purpose in mind. Firstly, though the individual motif is weak, the class motif is strong. Secondly, in order to compare the value of motifs, as a class, the following method should be adopted:

(a) First of all the dominant Universal, or any one of the dominant Universals, should be taken, and the individual value is to be noted against it. Then we should search for that complementary Universal which is nearest in value to the dominant Universal. The dominant and this Universal combine to form the class-motif of the specimen.

(b) There may be other Universals forming into other couples. To find out such other sub-dominant motifs, we should note the Universal, with a value, which comes next to the second Universal. Then, we search for the other complementary couple which is nearest to this. These combine to form a sub-dominant motif. And so on, for other Universals and motifs. The following table illustrates the method and the findings regarding specimens of *Bhairava*, so far examined.

No. 38a	MdS–rMd-D. couple SGP–GPN-2nd couple rGd–GdN-3rd couple	SrMd-Dom. motif=75 % SGPN=16 Sub-Dom. rGdN=15 Subsidiary.
No. 39	MdS–rMd-D. couple rGd–GdN-2nd couple	SrMd-Dom. motif=82 % rGdN=19 Sub-Dom.
No. 40	MdS–rMd-D. couple SGP–GPN-2nd ,, rGd–GdN-3rd ,,	SrMd-Dom. motif=76 % SGPN=24. Sub-Dom. rGdN=23½ Subsidiary.
No. 41	MdS–rMd-D. couple rDd–GdN-2nd ,, SGP–GPN-3rd ,,	SrMd-Dom. motif=78 % rGdN=18½ Sub-Dom. SGPN=14 Subsidiary.

No. 42 $\left\{\begin{array}{l}\text{MdS–rMd-D. couple}\\ \text{SGP–GPN-2nd \quad,,}\\ \text{rGd–GdN-3rd \quad\quad,,}\end{array}\right.$ SrMd-Dom. motif $=73\%$
                                       SGPN $=26$-Sub-Dom.
                                       rGdN $=22$ Subsidiary.

No. 43 $\left\{\begin{array}{l}\text{MdS–rMd-D. couple}\\ \text{rGd–GdN-2nd \quad,,}\\ \text{SGP–GPN-3rd \quad,,}\end{array}\right.$ SrMd-Dom. motif $=68\%$
                                       rGdN $=28$-Sub-Dom.
                                       SGPN $=25$-subsidiary.

It should be observed that the dominant motif of the class comes first, because Rāga is a class. A specimen is entitled to belong to a class by reason of identity of the dominant class-motif represented through the dominant couple.

An extreme hypothetical example may be analysed.

| S S | r r | G G | M M | P P | d d | N N | Ṡ Ṡ | N N | d d | P P |
| M M | G G | r r | S S |

N.V.	C.V.N.	U.V.	C.V.U.	The Dominant Couple
S – 6	S – D.N.	S G P – 14	S G P ⎫	Either of S G P–
			⎬D.Un.	G P N, or M d S
r – 4		r G d – 12	M d S ⎭	–r M d may be
				the leading couple
G - 4		r M d – 12	less than 50%	
M – 4		G P N – 12		
P – 4		G d N – 12		
d – 4		M d S – 14		
N – 4				

Total 30

We see that the class-motif, though strong, shows equally strong inclinations for the class with S r M d as the leading motif, and the class with S G P N as the leading motif. In short, the sentence is simple improvisation of the nature of *tāna*, which may follow specimens either of the *Bhairava* class or of the *Gouri* class (with S r G M P d N).

Therefore the outstanding motif of the class has to be ascertained first of all.

Next comes the question of a sub-dominant motif. As soon as the sub-dominant motif is ascertained by means of examination and valuation of the Universals exhibited in the body of the presentation, there is a specialisation, as it were, of the class motif by means of the factor of the sub-dominant motif.

There is not the least harm in supposing that the dominant class motif shows the genus, while, the sub-dominant motif distinguishes a species belonging to the genus.

Speaking of a scale with S r G M P d N, showing three couples S G P - G P N, r M d - M d S, and r G d - G d N, we shall state the case theoretically as follows:

1. r M d–M d S (D. couple)
(S r M d the dominant motif or class or genus)

Species (a) { S G P-G P N (Sub-dom. couple) / r G d-G d N (Subsidiary couple) }

Species (b) { r G d-G d N (Sub-dom. couple) / S G P-G P N (Subsidiary couple) }

2. r G d—G d N (D. Couple)
(r G d N the dominant motif, or class, or genus)

Species (a) { r M d-M d S (Sub-dom. couple) / S G P-G P N (Subsidiary couple) }

Species (b) { S G P-G P N (Sub-dom. couple) / r M d-M d S (Subsidiary couple) }

3. S G P—G P N (D. Couple)
(S G P N domi. motif, or class or genus

Species (a) { r M d-M d S (Sub-dom. couple) / r G d-G d N (Subsidiary couple) }

Species (b) { r G d-G d N (Sub-dom. couple) / r M d-M d S (Subsidiary couple) }

So we get three genera and altogether six species. There is not the least doubt that the Rāga *Bhairava* belongs to genus 1

as shown here. Whether this *Bhairava* belongs to species *a*, or to species *b* of that genus is a question which has to be settled by statistical findings, based on an examination of strong specimens, claimed to represent Rāga *Bhairava*.

From 1919 to the present day I have examined more than one hundred and fifty claiming to belong to the *Bhairava* group. Eliminating weak specimens, I have come to conclude that the group which follows ought to be labelled as normal *Bhairava*.

$\left\{ \begin{array}{l} \text{r M d-M d S the D. couple i.e. S r M d as the D. motif.} \\ \\ \text{r G d-G d N the Sub-dom. couple r G d N as the Sub-dom. motif.} \end{array} \right.$

If anyone chooses to believe that the following ought to be labelled as normal *Bhairava*, there is not the slightest harm, provided he is prepared to label the *former* with any name other than normal *Bhairava*.

$\left\{ \begin{array}{l} \text{r M d-M d S—as the leading couple} \\ \\ \text{S G P-G P N—as the Sub-Dom. couple} \end{array} \right.$

In support of my findings I should say that the note P is generally missed in the ascending track, that the note P is not very prominant, and that it can be dispensed with altogether without disturbing the specific feeling due to *Bhairava* as a species. Thus — S G P - G P N, containing the note P, has but a faint claim as a sub-dominant motif.

SPECIMEN NO. 44.

'Song: 'Anataka hajina' from *Kramika Pustaka Malika*, Part II.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D. Un.	P.C. Value of D.Couple
S $-9\frac{1}{2}$	S $-$ D.N.	S G P $-22\frac{1}{2}$	M d S-D.Un.	M d S less than	M d S- r M d
r $-8\frac{1}{2}$	r $-$ 2nd	r G d $-20\frac{1}{2}$	S G P $\Big\}$ 2nd	50% of the total	i.e. S r M d
G $-5\frac{1}{2}$	M $\Big\}$ 3rd	r M d $-22\frac{1}{2}$	r M d	value	=66%
M $-7\frac{1}{2}$	P	G P N -15	r G d $-$ 3rd		

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
P $-7\frac{1}{2}$		G d N -14	n r M $-$ 4th		
d $-6\frac{1}{2}$		M d S $-23\frac{1}{2}$	G P N $-$ 5th		
n -1		n r M -17	G d N $-$ 6th		
N -2					

Total 48

Here S G P N $= 24\frac{1}{2}$ and r G d N $= 22\frac{1}{2}$. Therefore it belongs to species (a) of class or genus r M D-M d S. The specimen is weak. But that does not disallow its reception into the genus and species.

<div align="center">SPECIMEN No. 45.</div>

A instrumental piece of the Feroz Khani type, preferably for *sarode* and fairly popular among classical artists. It claims to be a *Bhairava*.

$$\| \text{N SS } \overline{\text{GG}} \ \overline{\text{MM}} \mid \text{N . d . M} \mid \text{M } \overline{\text{PP}} \ \text{G } \text{M} \mid \text{r } \overline{\text{GG}} \ \overline{\text{MM}} \ \overline{\text{PP}} \mid$$

$$\text{M . r . S} \mid \overline{\text{dd}} \ \overline{\text{dd}} \ \text{S . r . S} \mid \overline{\text{MG}} \ \text{PM M . r . S} \|$$

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. of Value of D.Couple
S $-5\frac{1}{2}$	M $-$ D.N.	S G P $-11\frac{1}{2}$	M d S ⎫ ⎬ D.Un. r M d ⎭	M d S or r M d $=56\%$ of the total value	S r M d $=73\%$
r $-5\frac{1}{2}$	S ⎫ ⎬ 2nd r ⎭	r G d $-12\frac{1}{2}$			
G $-3\frac{1}{2}$	G ⎫ ⎬ 3rd d ⎭	r M d -18	r G d $-$ 2nd		
M -9		G P N $-8\frac{1}{2}$	S G P $-$ 3rd		
P $-2\frac{1}{2}$		G d N $-9\frac{1}{2}$	G d N $-$ 4th		
d $-3\frac{1}{2}$		M d S -18	G P N $-$ 5th		
N $-2\frac{1}{2}$					

Total 32

Here, r G d - G d N, that is r G d N, is about forty-seven per cent. The couple S G P - G P N, that is S G P N, is about forty-four per cent. This means that r G d N is subdominant and S G P N is subsidiary.

Song: 'Peyala mujhe bhar' rom *Kramika Pustaka Malika*, Part II.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S - 7	P - D.N.	S G P - 24	S G P ⎫ D.Un.	S G P =M d S	S r M d =58%
r - 4	M ⎫ 2nd	r G d - 19½	M d S ⎭	= 50%	of the total
G - 7	d ⎭	r M d - 21	r M d - 2nd		value
M - 8½	S ⎫ 3rd	G P N - 20	G P N - 3rd		
P - 10	G ⎭	G d N - 18½	r G d - 4th		
d - 8½		M d S -- 24	G d N - 5th		
N - 3					
Total 48					

Here S G P N equals fifty-six per cent; r G d N is less than fifty per cent in value. Thus S G P N is the subdominant motif and it should not be classed in the same species as Nos. 39, 41, 43, 45.

In *Kramika Pustaka Malika*, the specimen is labelled as a *Bhairava*.

The song is the same as No. 46, and I obtained it from Shyamlalji. It used to be considered as a specimen of *Rāmakeli*, by Shyamlalji, Visvanathji and Radhika Goswamiji.

ꟿ P d M̄ P M G | M M P P | d - - P | - - M M | P̄d N̄ Ṣ N d |
| - P M P | M GM̄G - - r | G P M - | r G G r | - S P d |
| P d P d | M P G M ‖

N.V.	C.V. N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S - 1½	P - D.N.	S G P - 21¾	r M d -D.Un.	r M d is just over 50% of the total value	r M d - M d S i.e. S r M d = 54% of the total value
r - 4	M - 2nd	r G d - 19¾	M d S - 2nd		
G - 6¾	d - 3rd	r M d - 24¾	S G P ⎱ 3rd		
M - 11¾		G P N - 21¼	G P N ⎰		
P - 13½		G d N - 17¼	r G d - 4th		
d - 9		M d S - 22¼	G d N - 5th		
N - 1½					

Total 48

Evidently S G P N is the sub-dominant motif.

Ostad Visvanathji, Lachmiprasad Misra, Radhikamohana Goswami, Pathakji of Kashi, all of them *Dhrupadiyas* of the old times, had minor disagreements about Rāgas. Yet they sang *Rāmakeli* with S r G M P d N, and sometimes with n also, but never introduced m into the design. Ostad Muhammad Ali Khan Sahab, classicalist, agreed to both of such scales. The case is like that of *Iman Kalyāṇa*. The older school had nothing to do with M in the design. The new school introduces M inside the *Iman Kalyāṇa* with S R G m P D N.

I am of the opinion that failure to distinguish between *Bhairava* and *Rāmakeli*, both with S r G M P d N is responsible for the creation of an artificial distinction between them, by the introduction of m. Similarly, M was introduced just to distinguish between *Iman* and *Imana Kalyāṇa*.

SPECIMEN No. 48.

Here is an analysis of a specimen of *Rāmakeli* from *Maarif-un-Nagamat* credited to Ostad Muhammad Ali Khan Sahab. Song 'Utho pyaro bhor' from *Maarif-un-Nagamat*.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	P – D.N.	S G P – $23\frac{1}{2}$	M d S–D.Un.	M d S just over 50%	S r M d $=61\%$ of the total value
r – 5	M – 2nd	r G d – $18\frac{1}{2}$	r M d		
G – $4\frac{1}{2}$	d – 3rd	r M d – $23\frac{1}{2}$	S G P } 2nd		
M – $9\frac{1}{2}$		M d S – $24\frac{1}{2}$	r G d – 3rd		
P – 13		n r M – $15\frac{1}{2}$	n r M – 4th		
d – 9					

Total 48

N occurs in the fourth movement of the presentation. Therefore the Universals GPN and GdN are certainly in the design but suppressed in the first movement.

Assuming the value of N as zero, we have GPN $= 17\frac{1}{2}$ and GdN $= 13\frac{1}{2}$. That gives us a comparative order of Universals as

> MdS—D. Universal.
> rMd }
> SGP } —2nd
> rGd—3rd
> GPN—4th
> nrM—5th
> GdN—6th

Now, we have S G P N $= 23\frac{1}{2}$, and rGdN $= 22\frac{1}{2}$. Thus, we can say that S G P N is a sub-dominant and rGdN is a

subsidiary motif. Comparing this with Nos. 46 and 47, we are struck with the similarity of design, including even the comparative order of note-values. Therefore Nos. 46, 47 and 48 are classed in the same species with Nos. 38, 40, and 42. If it is now asked what is the distinction between the group Nos. 46, 47, and 48, and the group Nos. 38, 40 and 42, we can say that dominance of the note P distinguishes the groups. That is to say the genus rMd-MdS and species SGP-GPN generally shows S, or M, or D, or even r, as the dominant note. But a particular variety, such as Nos. 46, 47, and 48 may evolve with dominance of the note P. This variety is the *Rāmakeli* of the old classicalists.

It is evident that the compositions are defined, separate entities and may not be challenged or set aside. But the classification and the labels attached to them as 'class' are not clear, but confused and empirical. Because things, i.e. the compositions, come first and the classification and labelling of these things come after they are evolved, we therefore ought to study these forms first of all, and not the names.

Here is an analysis of a specimen of *Rāmakeli* with m, credited to Ostad Mahammad Ali Khan, in *Maarif-un-Nagamat*.

SPECIMEN No. 48 a.

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4	P – D.N.	S G P	– 18½	S G P	–D.Un.	S G P is just over 50%	Wanting N, S r M d the dominant motif = 56%
r – 3	d – 2nd	r G d	– 16	M d S	– 2nd		
G – 4	M – 3rd	r M d	– 16½	r M d	– 3rd		
M – 4½		M d S	– 17½	r G d	– 4th		
m – 1							
P – 10½							
d – 9							
Total 36							

Because the note N appears in the second movement, we might therefore say that N is suppressed in the first movement.   •

Granting a value zero for N, we have GPN=$14\frac{1}{2}$ and GdN =13. Thus the design intended is as follows :

SGP—$18\frac{1}{2}$	D. Universal.	rMD–MdS	—D. Couple
MdS—$17\frac{1}{2}$	2nd	SrMd	—D. motif.
rMd—$16\frac{1}{2}$	3rd		
rGd—16	4th		
GPN—$14\frac{1}{2}$	5th		
GdN—13	6th		

Now, S G P N = $18\frac{1}{2}$, and r G d N = 16. That means, S G P N is the subdominant motif, and r G d N is the subsidiary motif. That is to say, the design is similar to Nos. 46, 47 and 48. It matters little whether m is used or not in such a design.

<div align="center">SPECIMEN NO. 49.</div>

A Sargam, labelled as 'Bhairava-tritala, madhyalai, Kalabanti'. The adjective Kalabanti may qualify either *Bhairava* or *tritala* or *madhyalai*, or any two, or even the three of them, as possibilities. I am unable to determine the meaning beyond all doubt. See *Kramika Pustaka Malika*, the very first example of *Bhairava*.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 1	G – D.N.	S G P – 19	r G d –D.Un.	r G d =66% of the total value	r G d N =75% of the total value
r – 10	r – 2nd	r G d – 32	G d N – 2nd		
G – 15	M – 3rd	r M d – 25	r M d – 3rd		
M – 8	D – 4th	G P N – 22	G P N – 4th		

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
P – 3		G d N – 26	S G P – 5th		
d – 7		M d S – 16	M d S – 6th		
N – 4					
Total 48					

Here S G P N = 23, and S r M d = 26. Therefore S r M d represents the subdominant motif, and S G P N the subsidiary motif.

My frank opinion is that, whether it is a 'Kalābanti' or anything else, it cannot be *Bhairava* at all, so far as an unbiassed study of things goes to show. It does not give us the feeling of *Bhairava*, or *Rāmakeli*, or *Kalangrā*, or *Khat* (i.e. S r G M P d N) or *Joga* (or *Jogiyā*). Neither does it show d as the Vādi, as stated in the introductory part, relating to *Bhairava* rāga in that same book.

Nevertheless, the specimen has its distinctive feeling, with an outstanding motif which deserves consideration for its own sake, whatever be the label attached to it.

I present two specimens, obtained from Khalifa Badal Khan Sahab which feel similar to that of No. 49.

SPECIMEN NO. 50.

Song: 'Bega le jāore patia' labelled as '*Purvā*' by Ostad Badal Khan Sahab.

‖ r̄G m̄d N d | – m G – | M G – M | G r G – | r G r S | Ṇ r Ṇ ḍ |
| Ṇ r G G | – M̄M Ḡr S̄Ṇ ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 1½	G – D.N	r G d – 21½	r G d – D.Un.	r G d over 65% of the total value	r G d N =79% of the total value
r – 6	r – 2nd	r M d – 11½	G d N – 2nd		
G – 12	N – 3rd	M d S – 7	r M d – 3rd		
M – 2		G d N – 20	M d S – 4th		
m – 2½					
d – 3½					
N – 4½					

Total 32

The similarity in musical feeling between Nos. 49 and 50, may be personal. However, others may feel it for themselves. The find, viz. r G d N = seventy-nine per cent, is not personal however, nor is the commonness regarding the dominant Universals and the leading motif a personal element.

Specimen No. 51.

Song: 'Keo re mana elāhike nāma' of *Shuddha-Dhanāshri*, according to Ostad Badal Khan Sahab. The song is in slow tempo.

‖ m̄m̄Gr Ḡm̄dN | m̄d Ḡm r̄G r̄S | S r – S | r̄N̄ r – S | r r̄N̄ r G |
‖ – G m̄r G | – – m d | m̄dN̄S̄ N̄ŕ N d | m G ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 3¾	r – D.N.	r G d – 20¾	r G d – D.Un.	r G d =64% of the total value	r G d N =74% of the total value
r – 9¼	G – 2nd	G d N – 14¼	G d N – 2nd		
G – 8¼	m – 3rd				

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
m – 4½					
d – 3					
N – 3					
Total 32					

From our point of view, I will place Nos. 49, 50 and 51 first of all under the class or genus represented by the couple r D d—G d N, and the motif r G d N. Then I will place Nos. 49 and 50, under the species signified by r M d—M d S. No. 51 represents the genus, species, as well as an individual under the couple or mātrkā r G d N. We need not worry about names or claims thereof.

SPECIMEN No 52.

Song: 'Dhaibata komal kara' from *Kramika Pustaka Malika.*

N. V.	C. V. N.	U.V.	C .V.U.	P.C. Value of D. Un.	P.C Value of D. Couple
S – 7	r ⎫ D.N.	S G P – 19	r M d – D.Un.	r M d = 50% of the total value	S r M d = 67% of the total value
r – 7½	M ⎭	r G d – 18½	M d S – 2nd		
G – 6	S 2nd	r M d – 20	S G P – 3rd		
M – 7½	G ⎫ 3rd	G P N – 13	r G d – 4th		
P – 6	P ⎭	G d N – 12	G P N – 5th		
d – 5	D 4th	M d S – 9½	G d N – 6th		
N – 1					
Total 40					

Here S G P N = 20; r G d N = 19½. Thus, S G P N represents the sub-dominant motif. The words of the song are intended to give broad hints regarding the body or structure of the rāga *Bhairava*. The words in the second movement of the song mean that d is the *Amsa* note. The appellation *amsa* is not clear at all. Whether *amsa* is the same as *Vādi* or not, it is evident that the note d in this specimen is far from being dominant.

<div align="center">SPECIMEN No 53</div>

Song: 'Bhore bhailo' from *Kramika Pustaka Malika*. There is variation for the first two bars. Therefore two computations are given as follows:
<div align="center">1st to 12th bar.</div>

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	d –D.N.	S G P	– 22½	r G d	– D.Un.	r G d = 52% of the total value	S r M d (which is greater than r G d N) = 61%
r – 5	G – 2nd	r G d	– 25	M d S	– 2nd		
G – 9	M ⎫ 3rd	r M d	– 23½	r M d	– 3rd		
M – 7½	P ⎭	G P N	– 18½	S G P	– 4th		
P – 7½		G d N	– 22	G d N	– 5th		
d – 11		M d S	– 24½	G P N	– 6th		
N – 2							
Total 48							

We find an example where d is the dominant note and r G d N is the sub-dominant motif. It claims to be put in the same class with Nos. 39, 41, 43 and 45.

3rd to 14th bar.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	G – D.N.	S G P – 23	M d S–D.Un.	M d S = 50% of the total value	r M d – M d S i.e. S r M d = 60% of the total value
r – 5	M ⎤	r G d – 23½	r G d – 2nd		
G – 9½	d ⎦ 2nd	r M d – 23	r M d ⎤		
M – 9	P – 3rd	G P N – 19	S G P ⎦ 3rd		
P – 7½		G d N – 20½	G d N – 4th		
d – 9		M d S – 24	G P N – 5th		
N – 2					

Total 48

Here r G d N = 25½; S·G P N = 25. Thus r G d N is the sub-dominant motif. The disposition of the bars shows that this second variant opening is really intended to be musically demonstrated, cyclically or repeatedly. Here, the note 'd' is no longer the dominant note.

SPECIMEN No. 53.

Song: 'Meherko najar' from *Kramika Pustaka Malika*. Bars 2nd to 13th inclusive.

N.V.	C.V N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 9	S ⎤	S G P – 20	M d S – D.Un.	M d S = 56% of the total value	S r M d = 68% of the total value
r – 6	M ⎬ D.N.	r G d – 19½	r M d – 2nd		
G – 4½	d ⎦	r M d – 24	S G P – 3rd		

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
M – 9	P – 2nd	G P N – 15	r G d – 4th		
P – 6½		G d N – 17½	G d N – 5th		
d – 9		M d S – 27	G P N – 6th		
N – 4					
Total 48					

Here r G d N = 23½   S G P N = 24.   Thus S G P N is the sub-dominant motif.

<p align="center">Specimen No. 54.</p>

Song: 'Pravu dātā' from *Kramika Pustaka Malika*. The first bar is excluded.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5	M –D.N.	r M d – 21	r M d –D.Un.	r M d =65% of the total value	S r M d =81% of the total value
r – 6	r – 2nd	M d S – 20	M d S – 2nd		
M – 12	S – 3rd	n r M – 19	n r M – 3rd		
P – 4					
d – 3					
n – 1					
N – 1					
Total 32					

The collector of the specimens enlisted in *Kramika Pustaka Malika*, as well as the editor, does not find any difficulty in enlisting this among specimens of *Bhairava*. Or, putting it the other way, they do not find sufficient reason for classing this specimen along with similar specimens of what is

generally named *Joga* or *Jogiyā* Rāga. Evidently, there is a tacit acceptance of the name Bhairava probably on the authority of the source from which it was collected.

On the other hand, our views and methods of classification lead us to put this specimen along with such a raga or group of ragas which shows the notes S r M P d N (sometimes with n) and the only motif, r M d-M d s, as is apparent. The late Kshetramohan Goswami of Calcutta notices a *Dhabalashree* with S r M d N only. This also shows the same motif; the addition of the note P to such a *Dhabalashree* does not disturb the motif, though it lends a distinct colour to the design. Besides that I heard a raga, so-called *Mangal*, with S r M P d N, but I had not the opportunity to transcribe it into notation.

The raga *Jogiyā*, or *Joga*, is however, a favourite with the classicalists. I have examined about thirty specimens of this raga. I arrived at a distinct conclusion that M d S, as the dominant universal, is the outstanding feature of this species of Raga.

SPECIMEN NO. 55.

Song: 'Eho to bāra bāra' from *Kramika Pustaka Malika*.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 3	d –D.N.	S G P – 16½	r M D – D.Un.	r M d =61% of the total value	S r M d =69% of the total value
r – 7	M – 2nd	r G d – 26	M d S – 2nd		
G – 6	P – 3rd	r M d – 30½	r G d – 3rd		
M – 10½		G P N – 14½	G d N – 4th		
P – 7½		G d N – 20	S G P – 5th		
d – 13		M d S – 26½	G P N – 6th		
N – 1					
Total 48					

Here, r G d N is sub-dominant. I stop here, because all the possible varieties of design claimed as *Bhairava* rāga have been presented in the preceding text. I will present my ideas about the structure of *Bhairava* with S r G M P d N based on such findings.

1. M d S - r M d is the leading couple; S r M d is the dominant motif. And, surely, M d S is the dominant universal.

2. This means that any of S, M, or d, may be dominant. The note 'r' will never be dominant, because if that was so, then r M d would be greater than M d S.

3. r G d N is the sub-dominant motif; S G P N is the third, subsidiary motif.

4. The conditions may be met with in three designs such as :

(1)	(2)	(3)
M d S-D. Un.	M d S-D.Un.	M d S-D.Un.
r M D-2nd	r M d-2nd	r M d-2nd
r G d -3rd	S G P-3rd	r G d-3rd
G d N-4th	r G d -4th	S G P-4th
S G P-5th	G d N-5th	G d N-5th

In each case, however, r G d N should be the sub-dominant motif.

5. Of three such designs the first is to be understood as 'regular' in the sense that the order of the 2nd, 3rd and 4th Universals manifestly points to the sub-dominance of r G d N. The second and the third are to be understood as 'irregular' in the sense that the order does not manifestly prove the sub-dominance of r G d N. And the sub-dominance has to be worked out.

6. All other designs, with M d S as the dominant Universal and S G P N as the sub-dominant motif, should be considered as *Chitra Bhairava* i.e. variety of *Bhairava*.

NORMAL VERSUS VARIETY

We had the normal and the varieties for *Khambāj*. We also have the normal and varieties for *Bhairava* Rāga.

The underlying idea is that the normal individual is rarer than the abnormal. It certainly does not mean that variety is less effective musically than the normal. On the contrary, creative instinct always searches for variety in order to at least escape monotony. It seems that the creative instinct, while following the original dominant motif, surrenders itself to the diverse sub-dominant motif without reason, restraint, or discrimination. Abnormal evolutions are, as it were, aesthetic experiments ever ready to stumble upon accidental, unexpected designs of beauty—strong or weak, regular or irregular.

At the same time, it has to be granted that a normal specimen may be as strong and beautiful as an abnormal one. In other words, beauty is not the monopoly of a creative impluse for the abnormals only, or of an impulse running wild over the gamut. The fact that the majority of individuals are abnormal does not prove *that normality is to be associated with ugliness or steel-framed impositions.*

Thus, the problem 'normal versus variety' is reduced to this: Perfect circles, perfect ellipses, or perfect parabolas are rare. But they are not absurdities, impostures, or impossibilities. Perfection is a matter of reasoned opinion from the point of view of objective idealism. In matters of Art it is no sin or crime to be regular and perfect ! Perfection or regularity does not mean asceticism or isolation from the world of necessities, objective or subjective, aesthetic or logical.

A point of objection will possibly be argued as follows :

A 'thing' or a musical specimen is a 'thing' only, and the idea of class only emerges when there are at least two similar things. Whether or not a similar thing exists, and comes up for comparison, the thing stands by itself. Since the ideas of 'norm' and variety are dependent on the facts of similarity between more than one thing, such ideas are therefore artificial. In other words, an object evolves for its own sake and not for proving or disproving any similarity that might come up in the consciousness of persons experiencing the same.

Therefore such ideas of 'norm', 'class' and variety are artificial.

The argument is met in the following way :

A musical specimen, considered by itself, shows the class and class-motif. On the other hand the scale, S R G m d n, with six musical notes will never evolve into a musical reality. We cannot speculate on the 'class' evolving out of such a scale because there is not a single 'Universal' in the design.

Whereas a scale, S R G d D, of only five notes shows the possibility of evolution of a dominant individual motif such as D S G. We have a *Hindole* Rāga with S G m D N showing such a possibility with a different background of notes.

A scale of notes SrRmD shows the possibility of developments such as :

(a)	(b)
R m D — Dominant Un.	m D r — Dominant Un.
m D r — 2nd	R m D — 2nd

It is possible that, as yet, no specimen has been found with such a motif. But that does not matter to us because possibility is not ruled out.

A scale of notes S R g m d shows d S g as the only individual motif. It is as good as *Hindole*.

A scale of notes, S R M d D n has the possibility of developments such as the following and also a few others.

(a)	(b)	(c)	(d)
{ R M D	{ n R M	{ M D S	M D S
{ M D S	{ R M D	{ R M D	{ n R M
n R M	M D S	n R M	{ R M D
M d S	M d S	M d S	M d S

A scale of notes, S R g M P d n, shows possibilities of class-motifs as : (a) S g P-g P n (b) M d S-d S g (c) P n R-n R M. Any single specimen with such notes is bound to come

under any one of such class-motifs. Therefore, the conception of class as a category is not arbitrary or artificial. The names or labels, however, are conventional. But there is no help for it. Because the class inheres in the musical design, therefore the ideas of norm and variety are logically concomitant to such an idea of class.

M D S AS THE DOMINANT MOTIF FOR BHAIRAVA.

I have accepted the dominance of r M d-M d S as the class-motif, together with a sub-dominance of r G d-G d N. A question arises. Supposing r M d, instead of M d S, were the dominant Universal, what is the difference, if any, and where is the objection to its being classed under *Bhairava* ? In answer it may be said that no harm is done to the class-motif if r M d were dominant instead of M d S.

Yet M d S as dominant ought to be the signature for *Bhairava*, because *Bhairava* is a Rāga, that is, a male entity by the common, age-long tradition regarding the Rāga music of North-India.

By way of explanation I should say that universals such as S g P, r G d, R M D, g m n, G P N, M d S, m D ṭ, P n Ṟ, ḍ Ṇ g, Ḍ S G, ṇ r M, and Ṇ r m are all equivalents for S g P, the major chord of European terminology.

Taken separately, each of such Universals, when presented as modulation, gives us a 'feel' which may be expressed as a combination of steadiness, gravity and self-restraint. Such a feel is common to each of such Universals, and is peculiar to them only, in the sense that Universals such as S G P, r M d, R m D, g P n, G d N, M D S, m n ṭ, P N Ṟ, d Ṣ ġ, D ṭ Ġ, ṇ R M and Ṇ g m do not communicate or stimulate such a 'feel'. These latter are equivalent to S G P, the minor chord of European terminology.

That there is a distinction in feeling, regarding S g P and S G P, there is no doubt. Those who do not perceive or appreciate the distinct feels have no right to deny that others

feel the distinction. These others are spread all over the world. I feel it myself, so I appraise my feelings and try to find out the cause which goes to make such distinction.

The distinction between the feels concerning 'M d S' and 'r M d' is similar. In fact, the same distinction is felt between the two Universals going to make a couple.

The dominance of M d S in a specimen really means a cumulated impression created in the mind of the hearer by the fact of impingement of the notes M, d, and S. If the specimen is strong i.e. when M d S is greater than 50 per cent of the total value, certainly the impression created by M d S over-rules the other specific impressions due to other Universals.

Similarly, the dominance of M d S, over d S g, regarding the presentation of rāga *Mālkoush* creates a similar impression with a different setting. The name *Mālkoush* is an abbreviation of 'Malla-Koushika' meaning generally, he who plays with a serpent. Specifically it means 'Shiva'. Just as *Bhairava* is a male rāga, so is *Mālkoush*.

Such is true also for the rāga called *Bhūpāl* or *Bhūpāli*, or *Bhūp* which shows D S G as the dominant universal. A similar, but vivid impression is created by the same D S G in a setting of rāga *Hindole*. The rāga *Suddha-Kalyānā* or *Kalyāni* with S R G P D as the scale, is based on the dominance of S G P.

The variant names, as for example, *Bhūp, Bhūpal* and *Bhūpāli*, or *Kalyān-Kalyāni*, or *Lalat-Laltā, Khammāch-Khamāchi* appear to be mere dialectal accidents, superficially. Yet, the entities which are signified by them, reveal on examination the inversion of the Universals of the structurally dominant couples.

Let us take a few of them for cursory study.

BHAIRAVI

BHAIRAVI is a famous rāga, and perhaps the most popular of all rāgas so far as North India, from the Punjab to Bengal, is concerned. The classical form shows the scale S r g M P d and n. The Universals are S g P, r M d, g P n, M d S, d S g and n r M. These form into three couples S g P - g P n, M d S - d S g, and n r M - r M d. The norm for classical *Bhairavi* is characterised by the dominant class motif as S g M d, and the dominant Universal as d S g.

For example :

$$\| \; \bar{S}\bar{g} \; - \; | - M \; | - M \; | \; M\bar{P} M \; | \; g \; r \; | \; S \; S \; | \; \overline{r \dot{n}} \; S \; | \; d \; d \; | \; \overline{dP} \; \overline{dM} \; |$$

$$| \; Pg \; g \; | \; \bar{r}g \; r \; | \; S \; \overline{\underline{d} \; \dot{n}} \; \|$$

The song is 'Aye eju bhore lāla, nakha-chhata gāta sohai' in Bhairavi Chowtala, composed by the late Raja Anandaki-shore, of Betia. We learnt the song from Ostad Visvanathjee of Calcutta. It should be executed in slow tempo.

It shows the following :

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4½	g –D.N.	S g P – 11½	d S g – D.Un.	d S g	M d S–d S g
r – 3	M – 2nd	r M d – 11½	M d S – 2nd	=54%	i.e.
g – 5½	S – 3rd	g P n – 8	S g P – 3rd	of the	S g M d
M – 5		M d S – 13	r M d – 4th	total	=75%
P – 1½		d S g – 13½	n r M – 5th	value	of the
d – 3½		n r M – 9	g P n – 6th		total
n – 1					value

Total 24

I cannot help saying that properly interpreted by techniques such as *meerh* and *sut*, the song brings out with grace and loveliness, the pathos of d S g, a motif which aptly responds to the aesthetic and ethical character of a *Dheerā nāika* who is the speaker of the words of the song. As events of my life worth remembering, I have heard all sorts of *Bhairavi*, pretty, graceful, splendid, vivacious, flimsy, coy, or even heroic and austere, of the types of *Dhrupad, Kheyal, Thumri, Tappa, Gazal, Bhajan, Dādra,* and what not. And yet, I have not met the`equal of this song, so far as the ethos of d S g is concerned.

All honour goes to the composer, and to such other composers of song, who have the proper clarity of aesthetic vision in combining the meaning and innuendo of the words with the spirit of the rāga.

Here is another, from the same composer.

‖ d P d – M | d – M M g | g g g – M | g r S - S | r͞ n͏ S d - d |

| – d n Ŝ Ŝ | g̣ g̣ r̂ – Ŝ | n Ŝ d P g̅M ‖

It shows:

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 8	d –D.N.	S g P	– 18⅓	d S g	– D.Un.	d S g = 67% of the total value	M d S-d S g i.e. S g M d = 80% of the total value
r – 3½	S ⎫	r M d	– 19¹₆	M d S	– 2nd		
g – 8⅓	g ⎬ 2nd	g P n	– 12⁶₀	r M d	– 3rd		
M – 4⅔	M – 3rd	M d S	– 23³₃	S g P	– 4th		
P – 2		d S g	– 27¹₃	g P n	– 5th		
d – 11		n r M	– 10³₃	n r M	– 6th		
n – 2½							

Total 40

The name *Bhairavi*, in the feminine, is quite fit in the sense that M d S as the dominant Universal finds its best expression

in *Bhairava*, and one of its female partners, as it were, viz., d S g is the dominant Universal in *Bhairavi* !

The last bar has a variant as | n Ṡ n d P ‖

This, however, does not disturb the outstanding motif in the least.

OTHER EXAMPLES OF INVERSION OF THE UNIVERSALS
ASSOCIATED WITH A CHANGE OF NAME

The phenomenal part of the problem is this. Quite a large number of specimens show only one couple and therefore, only one class-motif. Yet, for the same couple and with the same class-motif, we accept a difference and distinction of entities. The fact that it does not happen always, offers no explanation for the fact that sometimes the distinction is accepted, and there is a new name for the entity.

For instance, I have already spoken about *Bhup*, or *Bhupāl*, or *Bhūpāli*, and *Suddhakalyāna*, both with S R G P D and nothing else. The scale of notes with S g M d n gives us the rāga *Mālkousha* with M d S as dominant. It is a male rāga, that is if we suppose M d S to be the male signature of the *mātrkā* S g M d n.

The following is a specimen of an instrumental piece on the Sarode which shows d S g as dominant, with notes S g M d n. It is an exact copy of a *gat* demonstrated by the late Fida Hussan Khan Saheb of Rampur. He called it *Koushiki* and not *Mālkoush*, when he was demonstrating it in a musical soiree held at the residence of Shyamlaljee. A little later I asked Khalifa Badal Khan Saheb about it and he said that it was a rare specimen which he remembered being called *Kousiyā* in his circle.

g g S ṇ | ḍ n̄n̄ S g | S ḡḡ M d | – m̄m̄ d n | Ṡ – – ḡḡ | Ṡ n d n —

d M̄M̄ ḡḡ M̄M̄ | g. S. S. | ḍ n̄n̄ S̄S̄ M̄M̄ | g. S. S. | M̄g d̄M

g. S. ḡḡ. ṇ S | ḍ n̄n̄ S g | M d n Ṡ | – Ṡ ḡḡ M̄M̄ | g. ṇ. S. |

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 20½	S –D.N.	M d S – 37	d S g –D.Un.	d S g =71% of the total vaue	M d S —d S g i.e. S g M d =82% of the total value
g – 15½	g – 2nd	d S g – 45½	M d S – 2nd		
M – 7	n – 3rd				
d – 9½					
n – 11½					

Total 64

The pattern is known as *Feroz Khāni*. It is characterised by smart jumps and somersaults such as $\overline{\text{gS Mg}}$, $\overline{\text{Mg dM}}$ and so on. The late Fida Hussain Khan, a master artist all round, was the best exponent of the *Feroz Khāni* pattern. Next in proficiency to him were the late Abdulla Khan Saheb and Ameer Khan Saheb, of Calcutta.

Speaking of this *Kousiki*, or *Kousiyā*, at once reminds me of a *Kos*, or *Kosi*, as taught by Badal Khan Saheb. He was quite particular about the distinction of names.

‖ Ḍ Ṇ S M | G S – Ś | N D G M | G – S – | G G M D | M D Ś – |

| – N̄Ś N̄D M̄D | Ś Ġ – Ś | – – Ś Ś | N D N D | G M G – |

| M G – S ‖

The song is 'Balamuvā ajhu nāhi āye'.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 15½	S –D.N.	M D S –29	D S G–D.Un.	D S G about 74% of the total.	M D S –D S G i.e. S G M D 87%
G – 13	G – 2nd	D S G – 35½	M D S – 2nd		
M – 6½	D – 3rd				

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
D - 7					of the total value
N - 6					

Total 48

If we accept *Bhairava* as a male rāga because of the dominance of M d S with a male signature, and *Bhairavi* as a female rāga because of the dominance of d S g with a female signature, then certainly we should accept this *Kous*, or *Kousi*, as a male rāga, because of the dominance of DSG with a male signature. For all that we know, *Kous* or *Kosi* may be a dialectal abbreviation of a name *Koushika*, which means he who plays with a serpent.

The following is a specimen of *Megha* Rāga, taught by Ostad Badal Khan Saheb. The song is 'Gagana garaje':

‖ M M R S | ṅ Ṗ R S | R–R R | R S S - | S R M M | P P n n |

| n n P M | R R S S | n̄S R M̄ R S | ṅ S Pṅ Ṗ | R S R - | S S S - |

| n n P P | M R S S | ṅS R M Pn SR̄ | Sn PM RS ṅS ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 20	S –D.N.	P n R – 36½	P n R–D.Un.	P n R = 57% of the total value	P n R –n R M i.e. R M P n = 67% of the total value
R – 17	R – 2nd	n R M – 35½	n R M – 2nd		
M – 7½	n – 3rd				
P – 8½					

Total 64

7

The feel of P n R certainly inclines us to accept this as an interpretation of a male rāga.

Now follows the counterpart of this *Megha* rāga. It is a song 'Ghora ghora' obtained from Ostad Gofur Khan Saheb.

‖ n M | P Ṡ – Ṡ | n – P M | – M R R | ṇ ṇ S R | M – M M | M̄M̄

P̄n̄ P̄n̄ P | M̄P M R̄M̄   S̄R̄ | – – ‖

N.V.	C.V.N.	U.V.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4½	M – D.N.	P n R – 16½	n R M $=71\%$ of the total value	P n R—n R M i.e. R M P n about 86% of the total value
R – 6	R ⎫			
M – 11	n ⎬2nd	n R M – 23		
P – 4½	P ⎫			
n – 6	S ⎬3rd			

Total 32

Gofur Khan Saheb chose to call it *Megha-malār*. The feel due to n RM as the outstanding individual dominant Universal leads us to put it in a class with the female entities. I remember interpreting this song before Ostad Badal Khan Saheb, and later on before Pundit Raja Bhayia of Gwalior. Badal Khan was of the same opinion as Gofur Khan. But Punditji said that the same thing was accepted in his circle as simply *Megha*. Punditji condescended to interpret the Sthāyi and did almost the same thing. Practically, there was no difference about the predominating 'feel', because the note M was out-and-out the dominant note in the opening sentence.

I have already presented the statistical conclusions regarding the study of *Bhūpāli, Suddha-Kalyāṇa, Jayet-Kalyāṇa, Deshkāra*

Pahār and so forth. All of these entities are done with S R G P D.

Because of only one couple and two possible dominant features, we naturally infer that there ought to be two rāgas only. But in fact there are many, and statistical study alone shows that with only one class motif there might occur different groups of rāgas, normals and varieties.

What has happened with the scale of notes S, R, G, P, D with only the couple D S G—S G P, may certainly be expected to happen with the notes S R M P n with only the couple P n R— n R M. In other words, two stable groups represent the two stable motifs P n R and n R M. All others spring from such groups as varieties, and certainly merge in them regarding class-motif.

I shall not go into the details regarding the rāgas *Sāranga, Megha, Megha-Mallār,* and other *Mallāras.* They form a subject, and a very interesting one, requiring special study.

But I will say generally and for the present that (*a*) the word *Sāranga* in Sanskrit (certainly not the word *Shārnga* in Sanskrit) means *Megha* or cloud, though it means other things also; (*b*) the rāga *Sāranga* is a particular variety of the traditional *Megha* rāga which shows a preponderance of PnR; (*c*) the fact that specimens of *Megha* as a male entity are rare, goes to prove that this particular rāga has surrendered its speciality and has merged into the norm of a male entity named *Sāranga,* which also means *Megha* after all.

These are the best of a number of examples which show that inversion of the dominant couple was appreciated and accepted as a new rāga with a new name, the class-motif remaining the same as ever.

Such is the reason why I have chosen for the *Bhairava* Rāga the dominance of the Universal M d S, instead of the dominance of r M d.

Likewise we may say that the norm accepted for the rāga *Khambāj,* with M D S as dominant, shows it to be a female

rāga. Therefore, those specimens of normal *Khambāj* which show D S G as dominant, may be supposed to be a male entity, the class-motif remaining the same. In short, there is some justification for the names *Khambāj* and *Khammāchi*, if we look in that way. The name *Khambābati* is also feminine. A specimen of song, 'Aliri mai jāgi' of *Khambābati*, from Badal Khan Saheb shows S R G M P D and n only; and the dominant Universal is M D S.

SUMMARY OF OUR OBSERVATIONS ON KHAMBAJ AND BHAIRAVA

Khambāj; *Khammāch*, or *Khammāchi*, or *Khammbābati*

(*a*) Accepting M D S — D S G as the dominant couple, S G P — G P N as the sub-dominant couple, and M D S as the dominant universal, we have the norm of a female entity, to which we attach the conventional name *Khammāchi*, or *Khambāj* female.

(*b*) From the functional point of view the ascending track would be S G M P D N. The descending track would be n D P M G R S. But there is no harm in introducing R in the ascending track provided that the norm is not disturbed thereby.

(*c*) The *Vādi* (i.e. the dominant note) may be M, D, S, variously and preferably.

(*d*) With D S G as the dominant universal the ascending and descending tracks remain the same. The Vādi would be D, S, and G. It would be a male entity, however.

(*e*) Any theory regarding the time of day or night, or seasons is out of place here. The conventional suppositions of recent times have no reasonable justification and cannot be based on facts of analysis.

Bhairava

(*a*) Accepting r M d — M d S as the dominant couple, r G d — G d N as the sub-dominant couple, and M d S as the

dominant Universal, we have the norm of a male entity, to which we attach the traditional name *Bhairava-rāga*.

(*b*) From the functional point of view, the ascending track as S r G M d N is compulsory. Use of the note P in the ascent is optional. The descending track is N d P M G r S.

(*c*) The *Vādi* (i.e. the dominant note) may be any one of M, d, and S. The note r cannot be Vādi, because in that case r M d would become dominant, instead of M d S.

(*d*) When r M d becomes the dominant Universal, the entity becomes a female one. This happens when r has a value greater than that of S. I suggest the name *Ahiri* for this thing.

On page 53 of the book *Samgeeta-Sudarshana* by Pundit Sudarshan Acharya Sastri, I find the name *Ahiri* as a rāgini. Regarding the delineation of the Rāgini, I translate the words of the author as follows:

'This rāgini is *Sampurna* (i.e. consisting of seven notes). The notes *rshava, madhyama* and *dhaibata* are used as *Utrā* (i.e. r, M and d) in this rāgini. The notes *gāndhāra* and *nishāda* are used as *chadhe* (i.e. sharp; practically G and N). This rāgini demands the use of r very considerably in the descent. Generally artists begin it with d and neglect r in the ascent.'

This is followed by a general picture of *sārgam* which is quoted verbatim:

‖ d d P M G r r S Ṇ r S | G M P d N Ṣ ṙ Ṣ N d P M d
| P M G M M G r r S M G r r S ‖

This much is evident that r M d preponderates over M d S. The ascending and descending tracks for such an entity are the same as with *Bhairava* rāga. Only r, M, and d may be the *Vādi* note, but S cannot be the Vādi.

As yet we have no reasonable argument for setting the clock regarding *Bhairava* rāga or its partner. To set the time by the *Vādi* note does not specifically point to any fixture.

Regarding the naming of entities as male and female, it

should be observed that cultural necessity alone will stimulate such efforts. So long as we do not make the distinction an important issue we remain satisfied with the general name *Bhairava* as based on the class-motif S r M d. Cultural necessity is not a matter of enforcement by regulation; it appears from within the mind as an aesthetic trend.

Necessity seeks its own excuse, but does not pause to see whether such excuse is rational or otherwise. We cannot say at what exact historical time some musically cultured artists felt the necessity of distinguishing between *Bhūpālī* and *Suddh-Kalyāṇa*, and *Bhūp-Kalyāṇa*, and *Deshkāra*, all with S R G P D. Nor can we give the reason why, or the time when, the artists set aside such niceties of distinction, and felt the necessity of accepting the scale S R G P D , or S R G m P D or S R G m— P D N for *Suddha-Kalyāṇa*, and *Kalyāṇa*.

Yet we can do something to clear the confusion regarding names. It is a fact that there is a hopeless confusion of names. For example, we heard a *Vasanta* with S r G M m D and N; we hear a *Vasanta* with S r G m P d N, and to make the confusion worse we find a *Vasanta* with S r g m P d N in the pages of *Maarif-Un-Nagamat*.

So while observing, generalising and classifying the musical creations, we have to pick out the classes and sub-classes, and varieties as they present themselves and catalogue them accordingly. In doing this work, we will be beset with difficulties about names. The best thing is not to be bewildered by names. We shall be forced to observe that (*a*) the names remaining the same, things are different and (*b*) things remaining the same, names are different. People have a fascination for names. It will be useless to go against current, popular ideas. But the scientific student works out rational conclusions about things and classes.

Also, we have to remember the difference between patent names and class-names. 'Man' is a class-name. Smith, or Mohanchand, and such others are individual names. If some

composer chooses to call S r g m P d N by the name *Vasanta dusre prakāra*, no one can oppose it, because, as a matter of fact, there are tribes of Smiths in America and elsewhere, and ever so many Mohanchands all over India.

Regarding European music, the general tendency is for patent names such as 'Sunset on the Rhine' or 'Moonlight Sonata' and so on. The tendency for class names flows as an under-current. Such for example occurs as statements 'in C minor', 'in C major'. Ordinary people do not understand such vocabulary, nor do they care for it very much.

Long, long before Europe could think in terms of class names, the adepts of Indian music conceived melodic arrangements and motifs as a class and as an individual. The cultural tradition had its swing from logical perfection to mere empirical dabbling.

We are now trying to determine whether we can redis-cover the old truths in the light of present day findings. If we are able to do so, we shall have the satisfaction, and the plea-sure of facing Truth herself, as she plays hide-and-seek in the world of musical things, ideas and names.

RAMAKELI OR RAMAKALI AND OTHERS

ALTHOUGH not so famous as *Bhairava* or *Khambāj*, a large number of specimens are met with in the books of musical notation. Generally the scale of notes is S r G M P d n N. We come across m now and then, and there are specimens which do not exhibit N in the sthāyi.

SPECIMEN NO. 56.

Song: 'Kanhaiya aj', Dhrupad Ramakali Chowtāl Ekprakāra, credited to Mohammad Ali Khan from *Maarif-Un-Nagamat*

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4	P –D.N.	S G P – 18½	S G P – D.Un.	S G P just over = 50% of the total	r M d –M d S i.e. S r M d = 56% of the total
		r G d – 16			
r – 3	d – 2nd	r M d – 16½	M d S – 2nd		
G – 4	M – 3rd	M d S – 17½	r M d – 3rd		
M – 4½			r G d – 4th		
m – 1					
P – 10½					
d – 9					
Total 36					

SPECIMEN NO. 57.

Song: 'Utho pyaro' Dhrupad Ramkali Chowtāla Dusre Prakāra, credited to Mohammad Ali Khan from *Maarif-Un-Nagamat*.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	P–D.N.	S G P – 23½	M d S–D.Un.	M d S	r M d

N.V.	C.V.N.	U.V.	C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple.
r – 5	M – 2nd	r G d – 18½	r M d	⎫	just over 50% of the	–M d S i.e. S r M d
G – 4½	d – 3rd	r M d – 23½	S G P	⎬ 2nd	total	= 61%
M – 9½		M d S – 24½	r G d – 3rd	⎭	value	of the total value
P – 13		n r M – 15½	n r M – 4th			
d – 9						

Total 48

In spite of the fact that for both of these P is the dominant note and P, d, and M occupy the first three places, we could say from *our* point of view, that the specimens belong to two different kinds, with only one common characteristic, viz. the dominant motif is S r M d for both of them. This does not at all help us to put it in a class different from that of 'Variety of *Bhairava*'.

Specimen No. 58.

Sārgam: 'Ramakali' from *Kramika Pustaka Malika*, Part IV

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 3	M –D.N.	S G P – 23	S G P–D.Un.	S G P is just less than 50%	S G P –G P N i.e. S G P N
r – 2	G – 2nd	r G d – 18	G P N – 2nd		
G – 11	P – 3rd	r M d – 20	M d S – 3rd		= a little over 50%
M – 13	d – 4th	G P N – 22	r M d – 4th		

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
m – 1		G d N – 18	r G d	} 5th	
P – 9		M d S – 21	G d N		
d – 5		m n r – 5	n r M	– 6th	
n – 2		n r M – 17	m n r	– 7th	
N – 2					

Total 48

Note that the four couples are exactly in order of their values. This type of arrangement has been technically called by me as 'regular', as distinguished from the other 'irregular' type as for instance:

S G P - D. Univ.
M d S - 2nd.
G P N - 3rd.
r M d - 4th.
r G d - 5th.
n r M - 6th.
G d N - 7th.
m n r - 8th.

From the statistical point of view regular specimens are outnumbered by the irregular ones, especially in those rāgas which show three, or more than three couples. That is the chief reason why we have to work out the values of the couples separately in order to know which is the dominant motif, which is the sub-dominant, and which else the subsidiary motif.

SPECIMEN NO. 59.

Song: 'Nita utha sumarana' from *Kramika Pustaka Malika,* Part IV

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5	G ⎫ D.N.	S G P – 22½	S G P–D.Un.	S G P is a little less than 50% of the total	r M d –M d S i.e. S r M d = 53% of the total value
r – 5	M ⎭	r G d – 20½	r G d ⎫ 2nd		
G – 9½	P – 2nd	r M d – 20½	r M d ⎬		
M – 9½	d – 3rd	G P N – 19½	M d S ⎭		
m – 1		G d N – 17½	G P N – 3rd		
P – 8		M d S – 20½	G d N – 4th		
d – 6		m n r – 8	n r M – 5th		
n – 2		n r M – 16½	m n r – 6th		
N – 2					

Total 48

SPECIMEN NO. 60.

Song: 'Sagari rainake' from *Kramika Pustaka Malika*, Part IV

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4½	P –D.N.	S G P – 25	S G P – D.Un	S G P = 52% of the total value	S G P –G P N i.e. S G P N = 56% of the total value
r – 4½	M – 2nd	r G d – 15	G P N – 2nd		
G – 7	G – 3rd	r M d – 19½	r M d ⎫ 3rd		
M – 11½		G P N – 22½	M d S ⎭		
P – 13½		G d N – 12½	n r M – 4th		
d – 3½		M d S – 19½	r G d – 5th		
n – 1½		n r M – 17½	G d N – 6th		
N – 2					

Total 48

SPECIMEN NO. 61.

Song: 'Raba gariba' from *Kramika Pustaka Malika*, Part IV

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 3½	P –D.N.	S G P – 12	M d S ⎫	M d S	M d S
			r M d ⎬ D.Un.	or r M d	-r M d
r – 3½	M – 2nd	r G d – 10	⎭	= 50%	i.e.
				of the	S r M d
G – 1	d – 3rd	r M d – 16	S G P – 2nd	total	= 60%
				value	of the
M – 7		G P N – 10½	n r M – 3rd		total
					value
m – 1		G d N – 8½	G P N – 4th		
P – 7½		M d S – 16	r G d – 5th		
d – 5½		n r M – 11½	G d N – 6th		
n – 1		m n r – 5½	m n r – 7th		
N – 2					

Total 32

Here S G P N is the sub-dominant motif.

SPECIMEN NO. 62.

Song: 'Kanhaiya aja' from *Kramika Pustaka Malika*, Part IV. It is the same song as No. 56, from *Maarif-Un-Nagamat*

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5	d –D.N.	S G P – 19	R M d –D.Un.	r M d	r M d
				= 60%	-M d S
r – 6	P – 2nd	r G d – 26½	M d S – 2nd	of the	i.e.
				total	S r M d
G – 3½	r ⎫	r M d – 29	r G d – 3rd	value	= 70%
	⎬ 3rd				of the
M – 6	M ⎭	M d S – 28	S G P – 4th		total
					value
P – 10½					
d – 17					

Total 48

Comparing the tabulated findings of the above with those of No. 56, we find that although class-motif remains the same, the individual motif is quite different.

Comparing the actual notations by interpreting them vocally, one cannot but feel that No. 62 of *Kramika Pustaka Malika* is practically a *Bhairava* and nothing else. It compares favourably with Nos. 41, 43, 45, 53 (2nd interpretation) and 55.

SPECIMEN NO. 63.

A popular song of the Bengali opera 'Vidyāsundar'. It is accepted as Kalangrā.

| d P | d P M G | M M P – | d – d d | P – – – | G M G r | G M P – | G M G r | – r S – | Ṇ S G M | P d N Ṡ | d Ṡ N d | P – ‖

The vocal interpretation certainly does not give us any impression resembling that which is due to *Bhairava*, either normal or in variety.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 5	P –D.N.	S G P – 25	S G P – D.Un.	S G P = 52% of the total value	S G P -G P N i.e. S G P N = 58%
r – 4	d – 2nd	r G d – 20	G P N – 2nd		
G – 7	G ⎫ 3rd	r M d – 20	M d S – 3rd		
M – 7	M ⎭	G P N – 23	r M d ⎫ – 4th		
P – 13		G d N – 19	r G d ⎭		
d – 9		M d S – 21	G d N – 5th		
N – 3					
Total 48					

SPECIMEN NO. 64.

Song: 'Bhorki chiriyā' Ramkali from *Kramika Pustaka Malika*.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 7	P–D.N.	S G P – 28	S G P – D.Un.	S G P =58% of the total value	S G P -G P N i.e. S G P N =60% of the total value
r – 3½	d – 2nd	r G d – 18	G P N – 2nd		
G – 6½	S – 3rd	r M d – 16	M d S – 3rd		
M – 4½		G P N – 22	r G d – 4th		
m – 1		G d N – 15½	r M d – 5th		
P – 14½		M d S – 19½	G d N – 6th		
d – 8		m n r – 6½	n r M – 7th		
n – 2		n r M – 10	m n r – 8th		
N – 1					

Total 48

The sub-dominant motif is S r M d just as with No. 63.

SPECIMEN NO. 65.

An instrumental piece of *Masidkhāni* type slow tempo. It was accepted as Kalangrā in the circle of Shyamlalji and Badal Khan Saheb.

‖ P̄d | P M̄P G M | d d P P̄d | P M̄M G P |

| M ḠG r S | N S̄S G M | P d̄d N Ṡ | ṙ ḠG ṙ Ṡ |

| N d P ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4	P–D.N.	S G P – 16½	S G P – D.Un.	S G P just over 50% of the total	S G P -G P N i.e. S G P N =60%
r – 3	G ⎫ – 2nd	r G d – 13	G P N – 2nd		
G – 5	d ⎭	r M d – 12½	M d S – 3rd		

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
				value	of the total value
M – 4½	M - 3rd	G P N – 15½	r G d ⎫		
P – 7½		G d N – 13	G d N ⎬ 4th		
d – 5		M d S – 13½	r M d – 5th		
N – 3					
Total 32					

Here, S r M d is the sub-dominant motif and r G d N is the subsidiary.

SPECIMEN NO. 66.

Popular song, generally accepted as *Kalangrā*.

‖ Ṡ N | d P – D | M P G M | G – – – | G M G r | G – – – | G r S – |

| Ṇ S G M | P d N Ṡ | Ṡ Ġ ṙ Ṡ | – ṙ N Ṡ | d Ṡ N d | P – ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 10	G – D.N.	S G P – 30	S G P – D.Un.	S G P =61% of the total value	S G P –G P N i.e. S G P N =71% of the total value
r – 4	S – 2nd	r G d – 23	G P N – 2nd		
G – 14	P – 3rd	r M d – 13	G d N – 3rd		
M – 4		G P N – 25	r G d – 4th		
P – 6		G d N – 24	M d S – 5th		
d – 5		M d S – 19	r M d – 6th		
N – 5					
Total 48					

Here r G d N is the sub-dominant motif and S r M d is subsidiary. The name *Kalangrā*, with a suffix *Paraj*, is empirical but appears to be justified if we observe that by far the majority of specimens of *Paraj* rāga show the class-motif as r G d N, and the dominant motif as G d N.

SPECIMEN No. 67.

An instrumental piece of the *Ferozkhāni* pattern, an exact copy of what I heard demonstrated by Ostad Fida Hussain Khan at Calcutta. I also heard a slightly variant form as demonstrated by Ostad Hafiz Ali Khan Saheb, at Calcutta. Supposed to be *Kalangrā* according to both of these authorities.

‖ G $\overline{MM}$ G M | P $\overline{MM}$ P d | P $\overline{dd}$ $\overline{SN}$ $\overline{SS}$ | N d - P |

| $\overline{SN}$ $\overline{rr}$ N d – P $\overline{MG}$ $\overline{PM}$ | G r - $\overline{GG}$ | r S - r ‖

Here S r M d is the dominant, and r G d N the sub-dominant motif. (*See* Appendix V)

SPECIMEN No. 68.

This is a favourite tune called *Gouri* among the wandering musicians of rural Bengal. It is generally done in quick tempo.

‖ G M G | r S r | Ṇ S – | – d d | d d – | P – P | M G M | d – – ‖

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 4	d –D.N.	S G P – 10½	M d S – D.Un.	M d S = 60% of the total value	M d S –r M d i.e. S r M d = 66% of the total value
r – 2	S – 2nd	r G d – 13	r G d – 2nd		
G – 3½	G – 3rd	r M d – 12½	r M d – 3rd		
M – 3		G P N – 7½	G d N – 4th		

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
P – 3		G d N – 12	S G P – 5th		
d – 7½		M d S – 14½	G P N – 6th		
N – 1					

Total 24

Here r G d N is the sub-dominant motif. Below I present the second and third movements because they are very inter-esting.

Second movement

‖ – – M | d N Ṡ | Ṡ ṙ N | Ṡ – – | – – Ṡ | Ġ ṙ Ṡ | N Ṡ – | – – – |
| – – Ṡ | Ṡ Ṡ Ṡ | N Ṡ N | d P – | – – P | n d P | M G M | d – – ‖

Third movement

‖ – – S | M M M | M P d̄P̄ | M G – | – – M | d P P | G M G |
| r S – | – – ṇ | ṇ S S | ṇ S rṠ | ṇ ḍ – | – – ḍ | ṇ S r | G M G |
| r S – ‖

There is a fourth movement which is a prototype of the second. To give due justice to the piece, I must say that the requisite expression for d, G and N, especially of the first and third movements is almost impossible for foreigners to master and it appears to me as if one has to be born in Bengal in order to interpret those notes properly. Instruments with fixed keys, such as the harmonium or piano cannot achieve perfect expres-sion. One has to take recourse to the *Sārindā* or *Sangraha*, both stringed instruments of Bengal, or to the violin, if one really wants to interpret such expressions.

SPECIMEN No. 69.

The song: 'Eman din ar pābe nāre', is a popular Bengali song. The following interpretation, credited to Gohar Jan Baiji, as I actually had the good fortune to hear it from her, not only does justice to the song, but to Gohar Jan also, a unique personality who had her ears alive to the beauty of all sorts of musical compositions and the genius to interpret folk tunes, caring little for the biassed criticism on the part of connoisseurs of classical forms.

‖ M | M M M | $\overline{MP}$ G – | G $\overline{GM}$ $\overline{Pd}$ | $\overline{MP}$ – M | $\overline{Mn}$ d P |

| G M G | r S r | N S d | N S – | – – ‖

				P.C.	P.C.
N.V.	C.V.N.	U.V.	C.V.U.	Value of D.Un.	Value of D.Couple
S – 6	M –D.N.	S G P – 15	M d S – D.Un.	M d S = 55% of the total value	M d S –r M d i.e. S r M d = 61% of the total value
r – 2	S – 2nd	r G d – 10	S G P – 2nd		
G – 5½	G – 3rd	r M d – 12½	r M d – 3rd		
M – 8		G P N – 11	G P N – 4th		
P – 3½		G d N – 10	n r M – 5th		
d – 2½		M d S – 16½	r G d ⎫ 6th		
n – ½		n r M – 10½	G d N ⎭		
N – 2					

Total 30

Here S G P N is the sub-dominant motif. This also is popularly called *Gouri*.

SPECIMEN No. 70.

Song: 'E māyā prapanchamaya' with a popular tune, called *Khat*.

‖ R $\overline{RM}$ | M – M | P – | P P – | P d | Ṣ – Ṣ | N Ṣ | N d P | d d |

| d – d | P n | d – P | M P | $\overline{MP}$ d P | M G | r S – ‖

After the full sentence is sung, the opening bars are cyclically repeated, and with the fourth bar a beautiful improvisation occurs as follows :

R R$\overline{\text{M}}$ | M – M | P – | P $\overline{\text{Pd}}$ $\overline{\text{NS}}$ | N d | P d M | P – | P P – ‖

Note that R is really intended and is not a misfit.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	P –D.N.	S G P – 18½	M d S – D.Un.	M d S = 55% of the total value	M d S r M d i.e. S r M d = 57% of the total
r – 1	D – 2nd	r G d – 12	S G P – 2nd		
R – 1½	S ⎱ 3rd	r M d – 17	r M d – 3rd		
G – 1	M ⎰	G P N – 14½	G P N ⎱ 4th		
M – 6		G d N – 13	P N R ⎰		
P – 11½		M d S – 22	P n R – 5th		
d – 10		P n R – 13½	G d N – 6th		
n – 1		P N R – 14½	r G d – 7th		
N – 2		n r M – 8	n R M – 8th		
Total 40		n R M – 8½	n r M – 9th		

Here S G P N is the sub-dominant motif.

I have introduced specimen Nos. 63, 65, 66, 67, 68, 69, and 70, all showing S r G M P d and N, just to give an idea of various other rāgas which may be as good and sound as *Bhairava* or *Rāmakeli*. In fact there are hundreds of popular songs interpreting such ragas, though they are not generally noticed by the classicalists. Such songs, tunes and melodies are like so many birds living free and natural lives, as distinguished from the limited group of birds trying to live inside a zoo and taken great care of by the keeper in charge of the establishment.

Here are a few more examples of *Ramkali* so-called from *Kramika Pustaka Mālikā*.

SPECIMEN No. 71.

Song: 'Dhooma machāi' Ramkali Dhamār

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 12	S – D.N.	S G P – 29	M d S ⎫ D.Un.	M d S, or S G P =just over 50% of the total value	Class-motif S r M D about 59% of the total value
r – 4	d – 2nd	r G d – 23	S G P ⎭		
G – 9	G – 3rd	r M d – 21	r G d – 2nd		
M – 7		G P N – 20	G d N – 3rd		
m – 1		G d N – 22	r M d – 4th		
P – 8		M d S – 29	G P N – 5th		
d – 10		m n r – 7	n r M – 6th		
n – 2		n r M – 13	m n r – 7th		
N – 3					

Total 56

SPECIMEN No. 72.

Song: 'Eri gowarbār' Ramkali Dhamār

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 1	r – D.N.	S G P – 11	r G d ⎫ D. Un.	r G d or r M d =57% of the total value	S r M d =60% of the total value
r – 9	G ⎤	r G d – 16	r M d ⎭		
G – 5	m ⎬ 2nd	r M d – 16	S G P – 2nd		
M – 5	P ⎦	M d S – 8	M d S – 3rd		
m – 1	d – 3rd				
P – 5					
d – 2					

Total 28

<div align="center">

SPECIMEN NO. 73.

</div>

Song: 'Peeta vasana anga' Ramkali Chowtāl

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 13	S – D.N.	S G P	– 23	S G P –D.Un.		S G P —less	Worked out below
r – 10	r – 2nd	r G d	– 20	M d S	– 2nd	than 50% of the	
G – 3½	P ⎫	r M d	– 19	r G d	– 3rd	total	
M – 2½	d ⎬ – 3rd	G P N	– 12	r M d	– 4th	value	
m – 2		G d N	– 12	n r M	– 5th		
P – 6½		M d S	– 22	m n r	– 6th		
d – 6½		n r M	– 14½	G P N ⎫			
n – 2		m n r	– 14	G d N ⎬ 7th			
N – 2							

Total 48

Here, S G P N=25; S r M d=32; r G d N=22; m n r M =16½. Therefore M d S—r M D is the dominant couple and S r M d is the dominant motif, though S G P appears as the dominant individual motif. S r M d equals sixty-six per cent of the total value.

<div align="center">

SPECIMEN NO. 74.

</div>

Song: 'Aba bali' Ramkali Jhabtāla

N.V.	C.V.N.	U.V.		C.V.U.		P.C. Value of D.Un.	P.C. Value of D.Couple
S – 8	S ⎫	S G P	– 20	M d S	– D.Un.	M d S —just	M d S -r M d,
r – 4	d ⎬ D.N.	r G d	– 17	S G P	– 2nd	over 50%	i.e.

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
G – 5	P – 2nd	r M d – 17	r G d ⎫ 3rd		S r M d =62% of the total value
M – 5	G ⎫ 3rd	G P N – 14	r M d ⎭		
P – 7	M ⎭	G d N – 15	G d N – 4th		
d – 8		M d S – 21	G P N – 5th		
n – 1					
N – 2					

Total 40

Although r G d and G d N are nearer to each other in order than S G P and G P N, still S G P N is the sub-dominant motif by reason of value.

SPECIMEN No. 75.

Song: 'Pyari ayi' Ramkali Jhabtāla

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 6	d –D.N.	S G P – $17\frac{1}{2}$	M d S – D.Un.	M d S =56% of the total value	M d S –r M d i.e. S r M d =63% of the total value
r – 3	P – 2nd	r G d – $17\frac{1}{2}$	r M d – 2nd		
G – $3\frac{1}{2}$	S – 3rd	r M d – $19\frac{1}{2}$	S G P ⎫ 3rd		
M – $5\frac{1}{2}$		G P N – $12\frac{1}{2}$	r G d ⎭		
P – 8		G d N – $15\frac{1}{2}$	G d N – 4th		
d – 11		M d S – $22\frac{1}{2}$	G P N – 5th		
n – 2		n r M – $10\frac{1}{2}$	n r M – 6th		
N – 1					

Total 40

Here S G P N $= 18\frac{1}{2}$; r G d N $= 18\frac{1}{2}$. Thus both S G P N and r G d N contend for sub-dominance.

Song: 'Achho rangilre' Ramakali Jhūmrā

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 8	M –D.N.	S G P – 26	M d S – D.Un.	M d S $= 55\%$ of the total value	M d S –r M d i.e. S r M d $= 66\%$ of the total value
r – 6	P – 2nd	r G d – $20\frac{3}{4}$	r M d – 2nd		
G – 6	d – 3rd	r M d – 29	S G P – 3rd		
M – $14\frac{1}{4}$		M d S – 31	r G d ⎫ 4th		
m – $\frac{1}{2}$		n r M – $20\frac{3}{4}$	n r M ⎭		
P – 12					
d – $8\frac{3}{4}$					
n – $\frac{1}{2}$					
Total 56					

Song: 'Darbara dhaun' Ramakali Tritāla

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 10	d –D.N.	S G P – 22	M d S – D.Un.	M d S $= 53\%$ of the total value	M d S –r M d, i.e. S r M d $= 65\%$ of the total value
r – 6	S – 2nd	r G d – $19\frac{1}{2}$	S G P – 2nd		
G – $2\frac{3}{4}$	P – 3rd	r M d – $21\frac{1}{2}$	r M d – 3rd		
M – $4\frac{3}{4}$		G P N – 14	r G d – 4th		
m – 1		G d N – $15\frac{1}{2}$	G d N – 5th		

N.V.	C.V.N.	U.V.	C.V.U.	P. C. Value of D.Un.	P.C. Value of D.Couple
P – 9¼		M d S – 25½	G P N – 6th		
d – 10¼		m n r – 8½	n r M – 7th		
n – 1½		n r M – 12¼	m n r – 8th		
N – 2					
Total 48					

Here S G P N is the sub-dominant motif.

<center>SPECIMEN NO. 78.</center>

Song: 'Medā dil' Ramkali Ektāla

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S – 1½	P ⎤ D.N.	S G P – 10¼	r M d – D.Un.	r M d = 50% of the total value	M d S –r M d, i.e. S r M d = 56% of the total
r – 3	M ⎦	r G d – 9	M d S ⎤ 2nd		
G – 3	r ⎤	r M d – 12	S G P ⎦		
M – 6	G ⎬ 2nd	G P N – 9½	n r M – 3rd		
P – 6	d ⎦	G d N – 6½	G P N – 4th		
d – 3		M d S – 10½	r G d – 5th		
N – ½		n r M – 10	G d N – 6th		
n – 1					
Total 24					

Here S G P N is the sub-dominant motif.

Specimen No. 79.

Song: 'La sahebko nāma' Ramkali Ektāla

N.V.	C.V.N.	U.V.	C.V.U.	P.C. Value of D.Un.	P.C. Value of D.Couple
S $-1\frac{1}{2}$	P $-$ D.N.	S G P $-11\frac{1}{2}$	r M d $-$ D.Un.	r M d $=50\%$ of the total value	S r M d $=56\%$ of the total value
r $-2\frac{1}{2}$	d $-$ 2nd	r G d $-10\frac{1}{2}$	S G P $-$ 2nd		
G -3	M $-$ 3rd	r M d -12	M d S $-$ 3rd		
M $-4\frac{1}{2}$		G P N $-10\frac{1}{2}$	r G d $\Big\}$ 4th		
P -7		G d N $-8\frac{1}{2}$	G P N		
d -5		M d S -11	G d N $-$ 5th		
N $-\frac{1}{2}$					

Total 24

Here S G P N is the sub-dominant motif.

I will not enlarge the list of examples. There are many more recorded in other books. I examined them and found all of them falling under one or other of the groups placed here.

Let us analyse first of all those which are labelled as *Ramkali* or *Ramakeli*. Such are specimens Nos. 56, 57, 58, 59, 60, 61, 62, 64, 71, 72, 73, 74, 75, 76, 77, 78 and 79.

We find that (a) the dominant note is varying, (b) the actual scale of notes is varying, yet all are labelled as *Ramkali*.

From our point of view can we fix any common design or norm for *Ramakeli* or not ? Yes, we can.

Taking into consideration these seventeen specimens only, and setting aside the issue of names assigned by various authorities, we find two big groups :

(A) r M d — M d S couple as the dominant couple, S r M d as the dominant motif.

(B) S G P — G P N couple as the dominant couple, S G P N as the dominant motif.

Specimen Nos. 56, 57, 59, 61, 62, 71, 72, 73, 74, 75, 76, 77, 78, and 79 belong to group A.

Specimen Nos. 58, 60, 64 belong to group B.

GROUP A

Examining the specimens and the designs worked out, we find that though r M d — M d S shows the common class-motif for all, yet M d S is individually dominant in specimen Nos 57, 74, 75, 76, 77. For each of these S G P N is the sub-dominant motif where S G P N is manifestly present. In No. 75 S G P N and r G d N are equal claimants for sub-dominance.

Already we had fixed the norm for *Bhairava* as class-motif M d S — r M d, individual motif M d S, and r G d N sub-dominant.

Therefore we place Nos. 57, 74, 75, 76, and 77 under the class *Bhairava* rāga, a male entity by design. And because in these cases S G P N instead of r G d N is sub-dominant, we therefore label them as *Ramkali*, or *Ramakeli* 'a variety of *Bhairava*', as distinguished from the normal *Bhairava* by the sub-dominance of S G P N. Here the feminine name *Ramkali* or *Ramakeli* is anomalous. Traditionally *Ramakeli* is a female rāga.

No. 62 does not show either S G P N or r G d N because N is wanting. But supposing N were added to it, r G d N would be greater than S G P N. Therefore we shall say that this specimen with r M d as dominant is a female entity of the class *Ahiri*, as was previously suggested.

No. 79 showing r M d as dominant and S G P N as sub-dominant is a variety of *Ahiri* as proposed. Nos. 56 and 78 also belong to this group.

This is the group, which according to my opinion is the *Ramakeli*, a variety of *Ahiri*.

Going back to the examples labelled as *Bhairava*, we find that No. 52 comes under the class *Ramakeli*, a variety of *Ahiri*. So does No. 47. No. 52 goes by the name *Bhirava*. No. 47

goes by the name of *Ramkali*. We class both of them under *Ramkali*—a female rāga, a variety, of *Ahiri*.

The following diagram shows the relation of *Bhairava, Ahiri* and the *Ramakeli* varieties.

S r M d — Class–motif.

Bhairava
M d S–D. Un.
r G d N–Sub-dom. motif

Ahiri
r M d–D. Un.
r G d N–Sub-dom. motif

Varieties.

Varieties

Ramakeli
S r M d—Class-motif
S G P N—Sub-dom. motif
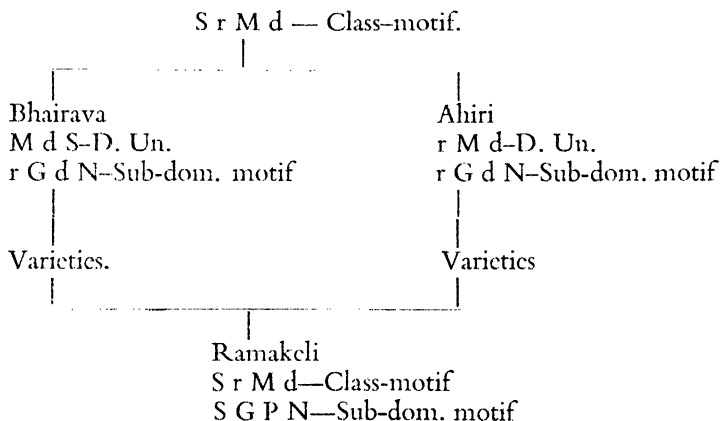
Between the varieties springing from *Bhairava* and *Ahiri* I choose the norm for *Ramakeli* as :

r M d — D. Universal
M d S — 2nd. $\Big\}$ —Class-motif S r M d

S G P — 3rd.
G P N — 4th. $\Big\}$ —Sub-dominant motif S G P N

r G d — 5th.
G d N — 6th. $\Big\}$ —Subsidiary motif r G d N

To such a norm the super-addition of m or n does not mean any change in the constitution.

In choosing this particualr variety as the norm for *Ramakeli*,

I have tried to follow the thread of tradition, viz. *Ramakeli* is a female entity, 'one of the wives of *Bhairava*'. We must remember that a number of specimens belonging to this class have been enlisted empirically under the title of *Bhairava*.

In doing this kind of work, we have also to remember that our intention is not to discard or neglect some one or more of the specimens; far from it. We cannot neglect the empirical names and intentions, too, because the world goes by empirical names and practical outlooks. Nevertheless we are compelled to observe that it is easy to produce a thing or to utilise it, and it is as easy to name it by any trick of the imagination or popular belief. But it is very difficult to classify things from the point of objective findings, and it is as difficult to put class labels which will distinguish one class from another.

We are tempted to put new class names as labels, irrespective of tradition. But that is not wholesome. Doing so will set everything topsyturvy. On the other hand, we possess the clues in the form of class names. Therefore first and foremost we should avail ourselves of such clues. In the absence of any clue whatsoever, we shall be justified in proposing a new name.

GROUP B

Once we determine the classes and the norms regarding *Bhairava* and *Ramakeli* or *Ramkali*, and *Ahiri*, as we have done, we cannot put the specimens which reveal S G P N as the class-motif in the classes named *Bhairava*, *Ramakeli* or *Ahiri*. The reasons are objective and obvious.

Therefore we have to define two other classes by means of the class-motif such as (a) S G P — G P N i.e. S G P N and (b) r G d — G d N, i.e. r G d N. There is no other alternative from the objective point of view.

Of those two classes, one, i.e. with S G P N as the class motif, will comprise within its fold the specimens of group B and will give rise to two distinct norms as follows :

S G P N—Class-motif

I $\begin{cases} \text{S r M d — sub-dominant} \\ \text{r G d N — subsidiary} \end{cases}$ II $\begin{cases} \text{r G d N —sub-dominant} \\ \text{S r M d —subsidiary} \end{cases}$
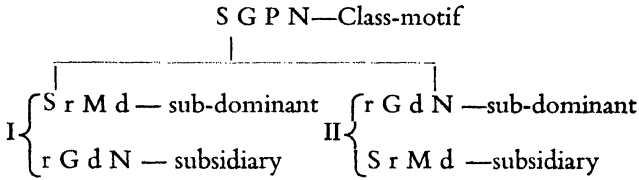
Of these two again, sub-group II deserves the name *Kalangrā, Kalangdā,* or *Kalingadā.* Such is the norm for *Kalangrā.*

Sub-group I will be presented for proper labelling when we have studied specimens of *Gouri* with S r G M P d N, *Pūravi* with S r G M m P d N, *Zilaf* with S r G M P d N, and a few others.

Regarding the class showing r G d N as the dominant motif and S G P N as the sub-dominant motif, we shall see that a number of *Paraj-Kalangrā* specimens fall in this group. It is a fact that *Paraj* shows r G d N as the class-motif and S G P N as the sub-dominant motif.

SMALL CAPS REMARKS ON SPECIMEN NOS. 63, 65, 66, 67, 68, 69, AND 70.

Nos. 63 and 65 belong to Group I. No. 66 belongs to class II of *Kalangrā.* No. 67, though called *Kalangrā,* and by analysis showing r G d N as the class motif, is reserved for future consideration—that is to say, when we have explored the rāgas exhibiting r G d N as the class-motif and r G d as the dominant Universal. The name *Paraj-Kalangrā* may be accepted as the empirical or popular name.

No. 68 belongs to the class *Bhairava,* no doubt. The name *Gouri* accepted as such creates a misunderstanding, because there are the *Gouri* specimens with S r G M m P d N, with S G P N as the leading motif and r G d N as the sub-dominant motif. The name *Gouri* is feminine; so is S G P the dominant Universal. It is probable, however, that the name is a distortion of *Goudi* which means 'pertaining to *Gouda*', i.e. to Bengal of medieval times. It is to be noted that the names *Bangāl Bangāli* and *Bangāl-Bhairava* appear in various books.

No. 69 is a variety of *Bhairava*, as we have tabulated; such also is No. 70.

Taking the scale S r G M P d N for instance, which shows three couples, r M d— M d S, S G P—G P N and r G d— G d N, we are justified in supposing that the outstanding motif represented by the dominant couple is the signature of the class, i.e. the fundamental class.

The class, as signified by the dominant class-motif, may undergo primary modification by the co-existence of the sub-dominant motif, and secondary modification through the agencies such as subsidiary and other couples. All such modifications involve the class of the thing.

In the case of entities exhibiting S r G M P d N, signifying the dominance of the r M d—M d S couple, and with S r M d as the dominant motif, we have the class with its modifications as follows :

S r M d — dominant motif

r M d-M d S —dominant couple

I	II
S G P N— sub-dom. motif	r G d N— sub-dom. motif
S G P— G P N—couple	r G d— G d N—couple
r G d— G d N—subsidiary	S G P— G P N—subsidiary

The class is represented by r M d—M d S; the sub-classes by I : S G P—G P N and II : r G d—G d N.

If the concept of individuals of the class and sub-classes is now necessary for our understanding, then we have to begin

with the incidence (a) r M d as the dominant individual motif, (b) M d S as the dominant individual motif.

Thus we have the following individualities of the class :

(1) r M d as the dominant Universal and standing for feminine individuality regarding the motif.

(2) M d S as the dominant Universal and standing for masculine individuality, regarding the motif.

Each of these may undergo further evolution accordingly as (a) S G P—G P N is sub-dominant or (b) r G d—G d N is sub-dominant. Lastly, each of such evolutes may individuate accordingly as (a) S G P or G P N predominates, one over the other, (b) r G d or G d N predominates, one over the other.

Thus, we have sixteen kinds of regular individuated evolutes, all of them springing from one, single, common motif, viz., S r M d as the class-motif, and all of them made up of the notes S r G M P d N. They show the following designs and essentially individuated characters :

<div align="center">

I

Class design:

r M d — MdS —Dominant Couple

S r M d — Dominant class-motif

S G P N — Sub-dominant motif

r G d N — Subsidiary motif

Regular individuated design of the class:

M d S — Dominant Universal

r M d — 2nd   ,,

S G P — 3rd   ,,

G P N — 4th   ,,

</div>

r G d — 5th   Universal
G d N — 6th   ,,

Popular or empirical names *Bhairava, Ramakeli*, etc.
Suggested scientific name *Bhairava rāga variety No.* 1.

2

Class design:

r M d — M d S —Dominant couple
S r M d — Dominant class motif
S G P N — Sub-dominant motif
r G d N — Subsidiary motif

Regular individuated design of
the class:

M d S — Dominant Universal
r M d — 2nd   ,,
S G P — 3rd   ,,
G P N — 4th   ,,
G d N — 5th   ,,
r G d — 6th   ,,

Popular or empirical names—*Bhairava, Ramakeli*, etc.
Suggested scientific name—*Bhairava rāga variety No.* 2.

3

Class design:

r M d — M d S-Dominant couple

S r M d — Dominant class-motif

S G P N — Sub-dominant motif

r G d N — Subsidiary motif

Regular individuated design of
the class:

M d S — Dominant Universal

r M d — 2nd.   ,,

G P N — 3rd.   ,,

S G P — 4th.   ,,

r G d — 5th.   ,,

G d N — 6th.   ,,

Popular empirical names—*Bhairava, Rāmakeli,* etc.
Suggested scientific name—*Bhairava rāga variety No.* 3.

4

Class design:

r M d — M d S dominant couple

S r M d — dominant class-motif

S G P N — sub-dominant motif

r G d N — subsidiary motif

Regular individuated design of
the class:

M d S — Dominant Universal

r M d — 2nd.   ,,

G P N — 3rd.   ,,

S G P — 4th.   ,,

G d N — 5th.   ,,

r G d — 6th.   ,,

Popular empirical names—*Bhairava, Rāmakeli,* etc.
Suggested scientific name—*Bhairava rāga variety No.* 4.

5

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of
the class:

M d S — Dominant Universal
r M d — 2nd.   ,,
r G d — 3rd.   ,,
G d N — 4th.   ,,
S G P — 5th.   ,,
G P N — 6th.   ,,

Popular empirical names—*Bhairava, Rāmakeli,* etc.
Suggested scientific name—*Bhairava rāga Normal.*

6

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of
the class:

M d S — Dominant Universal
r M d — 2nd.   ,,
r G d — 3rd.   ,,
G d N — 4th.   ,,
G P N — 5th.   ,,
S G P — 6th.   ,,

Popular empirical names—*Bhairava, Rāmakeli* etc.
Suggested scientific name—*Bhairava rāga variety No.* 5.

7
Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of the class:

M d S — Dominant Universal
r M d — 2nd.　　　　,,
G d N — 3rd.　　　　,,
r G d — 4th.　　　　,,
S G P — 5th.　　　　,,
G P N — 6th.　　　　,,

Popular empirical names—*Bhairava, Rāmakeli* etc.
Suggested scientific name—*Bhairava rāga variety No.* 6.

8
Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of the class:

M d S — Dominant Universal
r M d — 2nd.　　　　,,
G d N — 3rd.　　　　,,
r G d — 4th.　　　　,,
G P N — 5th.　　　　,,
S G P — 6th.　　　　,,

Popular empirical names—*Bhairava, Rāmakeli,* etc.
Suggested scientific name—*Bhairava rāga variety No. 7.*

9

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
S G P N — Sub-dominant motif
r G d N — Subsidiary motif

Regular individuated design of
the class:

　r M d — Dominant Universal
　M D S — 2nd　　　　　　,,
　　S G P — 3rd.　　　　　,,
　　G P N — 4th.　　　　　,,
　　r G d — 5th.　　　　,,
　　G d N — 6th.　　　　　,,

Popular Empirical names—*Bhairava, Rāmakeli,* etc.
Suggested scientific name—*Rāmakeli Normal.*

10

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
S G P N — Sub-dominant motif
r G d N — Subsidiary motif

Regular individuated design of
the class:

　r M d — Dominant Universal
ɕ M d S — 2nd.　　　　　,,
ɕ S G P — 3rd.　　　　　,,
　G P N — 4th.　　　　　,,
ɕ G d N — 5th.　　　　　,,
ɕ r G d — 6th.　　　　　,,

Popular empirical names—*Bhairava, Rāmakali* etc.
Suggested scientific name—*Rāmakeli variety No.* 1.

II

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
S G P N — Sub-dominant motif
r G d N — Subsidiary motif

Regular individuated design of
the class:

r M d — Dominant Universal
M d S — 2nd.   ,,
G P N — 3rd.   ,,
S G P — 4th.   ,,
r G d — 5th.   ,,
G d N — 6th.   ,,

Popular empirical names—*Bhairava, Rāmakeli* etc.
Suggested scientific name—*Rāmakeli variety No.* 2.

12

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
S G P N — Sub-dominant motif
r G d N — Subsidiary motif

Regular individuated design of
the class:

r M d — Dominant Universal
M d S — 2nd.   ,,
G P N — 3rd.   ,,
S G P — 4th.   ,,
G d N — 5th.   ,,
r G d — 6th.   ,,

Popular empirical names—*Rāmakeli, Bhairava* etc.
Suggested scientific name—*Rāmakeli variety No. 3.*

13

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of
the class:

r M d — Dominant Universal
M d S — 2nd.   ,,
r G d — 3rd.   ,,
G d N — 4th.   ,,
S G P — 5th.   ,,
G P N — 6th.   ,,

Popular empirical names—*Bhairava, Rāmakeli, Ahiri* etc.
Suggested scientific name—*Ahiree Normal.*

14

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of
the class:

r M d — Dominant Universal
M d S — 2nd.   ,,
r G d — 3rd.   ,,
G d N — 4th.   ,,
G P N — 5th.   ,,
S G P — 6th.   ,,

Popular empirical names—*Bhairava, Rāmakeli, Ahiri* etc.
Suggested scientific name—*Ahiree variety No.* 1.

15

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of
the class:

r M d — Dominant Universal
M d S — 2nd. ,,
G d N — 3rd. ,,
r G d — 4th. ,,
S G P — 5th. ,,
G P N — 6th. ,,

Popular empirical names—*Bhairava, Rāmakeli,* etc.
Suggested scientific name—*Ahiree variety No.* 2.

16

Class design:

r M d — M d S-Dominant couple
S r M d — Dominant class-motif
r G d N — Sub-dominant motif
S G P N — Subsidiary motif

Regular individuated design of
the class:

r M d — Dominant Universal
M d S — 2nd, ,,
G d N — 3rd. ,,
r G d — 4th. ,,
G P N — 5th. ,,
S G P — 6th. ,,

Popular empirical names—*Bhairava, Kalangrā, Rāmakeli* etc.
Suggested scientific name—*Ahiree variety No. 3.*

Such are the regular designs of male and female Rāgas com-
posed of S r G M P d N and exhibiting S r M d as the dominant
class-motif. There are designs which are irregular, that is to say,
those which show irregular disposition of the Universals.

Lastly, there are a few which show r M d=M d S, S G P=
G P N, r G d=G d N; or r M d=S G P, r G d=M d S and so
on. These may be considered as freaks in the sense that herm-
aphrodites appear as freaks of nature. Nevertheless, the categori-
cal dispositions—the male and female entities—are the only two
worth considering logically. An equal disposition of male and
female units does not appear to be an exclusive feature.

THE NAMES OF THE SIXTEEN DESIGNS

We have spotted the norms for *Bhairava, Rāmakeli* and *Ahiree.*
The rest may be considered as varieties of them.

The problem is whether these varieties should be labelled
with specific names, or not.

The problem should be tackled in this way. If we accept the
factor of class-motif only, then there ought to be one single
name for all these sixteen designs. But if we accept the factors
(a) class-motif, (b) dominant Universal and (c) sub-dominant
motif, then we get four broad individuations, of which three
have been named, viz. *Bhairava, Rāmakeli,* and *Ahiree.* The four
designs are broadbased as follows :

<div align="center">

I

M d S — Dominant Universal

r M d — 2nd.

S G P N — Sub-dominant motif

2

M d S — Dominant Universal

r M d — 2nd.

r G d N — Sub-dominant motif

</div>

3

r M d — Dominant Universal

M d S — 2nd.

S G P N — Sub-dominant motif

4

r M d — Dominant Universal

M d S — 2nd.

r G d N — Sub-dominant motif

And, we may reasonably suppose the rest, that is the remaining twelve designs, to be varieties of these four.

Regarding four such broad-based designs, we find that Nos. 2, 3, and 4 may be accepted as *Bhairava*, *Rāmakeli* and *Ahiree* respectively. Only No. 1 remains unnamed.

For No. 1, I suggest the name *Khat*, a male name. The reason is that I find a number of musical specimens showing an identical design, and being labelled as *Khat* or *Khat-Bhairava*, in Bengal at least. For instance :

‖ r r M – M | P – P – – | P d Ṣ – Ṣ | N Ṣ d P – ‖

| d – d d d | P N d – P | M P d – P | M G r S – ‖

N.V.	C.V.N.	U.V.	C.V.U.		
S – 6	P – D.N.	S G P – 19	M d S – D.Un.	S r M d –	D. Class motif.
r – 3	d – 2nd	r G d – 15	r M d ⎫	S G P N –	Sub-dom. motif.
G – 1	S – 3rd	r M d – 19	S G P ⎬ 2nd	r G d N –	Subsidiary motif.
M – 5		G P N – 15	G P N ⎫	The design is strong,	
P – 12		G d N – 14	r G d ⎬ 3rd	regular and perfect.	
d – 11		M d S – 22	G d N – 4th		
N – 2					

Total 40

This and the design of No. 69 and No. 38a (Chapter III) are quite similar, except that No. 69 shows n super-added and is irregular. For such distinctions, the name *Gouri* (*Goudi*) as a variety may be accepted without much hesitation.

ALTERNATIVE PROPOSALS

Granting that there are sixteen regular designs, if it is proposed that, for each design and specific incidence of the dominant note a new specific name ought to be accepted for the individual, then there would be utter confusion regarding classification.

The confusion would be like this. Granting the class design for 'horse', and the characteristic sub-classes and varieties, one may suggest specific names for classes or individuals of 'horse' according to the colour of the coat. In trying to do that, there would be a confusion of classification, because categories of formal designs would get mixed up with categories of colour-combinations. Colour is no part of the formal category termed 'horse', and does not distinguish one class or sub-class of the genus or species of 'horse' from another class or sub-class.

Similarly, we have the class design for *Bhairava Rāga*, as well as the varieties springing from such a class design. Observations show that the class design for normal *Bhairava* remaining the same, individual specimens show that S, M, or d may be the dominant note; similarly for the varieties and the specimens of such varieties. Again, observations do not justify in the least a conclusion that rāgas, by class or variety, are distinguished from one another by reason of specificity of the dominant note. For instance, with notes S R G P D, we may have *Bhūpāli* (rāga) with note G as the dominant, and also *Kalyāna* (sudh) with note G as the dominant.

Thus, there is no tangible reason underlying such a proposal, and there is no rhyme for such a proposal. That is to say, there is not a single authoritative verse or ruling of the ancient sages which gives one to understand that for each

rāga, only one single note is specifically dominant and distinctive. Certainly, there is the *Vādi* note for the rāga. But that does not preclude the possibility of more than one note as *Vādi* for the different presentations of the same rāga.

Therefore, such and other alternative proposals, which cannot be supported by reason or observation, do not deserve acceptance.

PRACTICAL CLASSIFICATION

Having studied the designs with S r G M P d N and with S r M d as the dominant class motif, we are justified in inferring that there will be sixteen separate designs under the class motif S G P N and sixteen others under the class motif r G d N.

Because we choose to accept *Bhairava* and *Khat* (or *Khat-Bhairava*) and *Ahiree* and *Rāmakeli* as the only four representatives, therefore we may suppose that for each of the other two groups, with S G P N and r G d N as the respective class motifs, we ought to have 'four' discrete normal designs for each of them.

It follows that—with S r G M P d N—we have twelve normal designs, each being worthy of a specific name. The rest of the designs, thirty-six, are to be considered as varieties of some one or other of these twelve designs. If anyone requires a name for any of the varieties he may use the prefix *Chitra* before the name of the normal design from which the variety originates.

And yet, some of us will not find peace of mind, until we choose an independent proper name for a variety. Let it be so. We have the scientific class names, as well as the empirical proper names in the fields of Botany, Zoology and Chemistry. But we must take proper care to associate such empirical names with the requisite class names and designs. Negligence in this matter has been responsible for creating troubles in the recent past, i.e. for the last thousand years. At the present time we are suffering under a load of such troubles. It is time we were sensible enough to get rid of this habit of cumulative negligence.

THE ABNORMAL SPECIMEN

As soon as we are able to determine a class of individuals by means of normality of inherent design, we come to think of the abnormal specimen belonging to the class. And vice versa, if we deny the existence of class, design and norm, then there would be no such thing as abnormality of an individual specimen. If it so happens that we have stumbled on the truth of the rational class, design and norm of rāgas by means of observation, then we have to face the facts and the problems regarding abnormal specimens.

The first question is: 'Are the varieties abnormal?' We may settle the question by understanding that so long as varieties exhibit signatures for the class, they are not abnormal. Variety or variation does not necessarily mean abnormality, either by design or by function. A zebra is a variety of the 'horse' class. Recognition of the signs or the complete design of the 'horse' class is manifestly possible when we look at a specimen of zebra.

Thus, abnormality is something other than variation or variety. We look at a horse with one of its legs wanting. As a matter of fact, it is 'three-legged'. We conceive the 'horse' class to be a quadruped. How we arrive at such a conception need not be discussed. Also, we need not be curious about the reason why or how the three legs came to be, or how the four-leggedness came to be wanting. The problem is that a three-legged animal resembling the 'horse' class, is before us. Are we to suppose it to be a variety of horse? Or are we to take it as an abnormal individual of the class 'horse'?

To say that it is a normal horse which lost its leg through accident would be going too far; because this individual might have been born three-legged! Biological study acquaints us with innumerable examples of deformities

concerning the individual. Congenital three-leggedness for a horse is not a biological impossibility.

So we say, that it is a deformed specimen or individual of the 'horse' class. And certainly, it is not a variety or a variation. We know that such a deformity may be compatible with the functional life of the individual. Finally, a deformed horse may be better than a dead horse which is normal and perfect by the design for the class. Yet the three-legged horse is a deformity.

Let us take another class of examples. A table with four legs may be presented to our view in such a way that we can see only the rectangular board, but not the legs. The sight of such a board may stimulate our aesthetic susceptibilities, or even satisfy our aesthetic cravings. Yet it is not a table that we are actually looking at. Or, for example, a teacup may be presented to our view in such a way that we see a circle inside another bigger circular brim, with an almost meaningless appendage of what is really the handle of the cup. The smaller circle represents the contour of the circular bottom; the bigger circle represents the peripheral contour of the brim of the cup; and the appendage is but a cross-section of the handle. Such are the abnormal presentations of normal things.

Thus, a designed thing by itself may be sound and whole, and yet the presentation may be so peculiar as to suppress some one or more of the relations of the parts that go to make the entire purposeful design. The presentation, as such, brings out a sectional image. This image may give us an impression of a different thing or even of a different class of things. In short, we have the abnormal cross-section of a normal thing.

Then again, a thing may be unsound by design and awkward by presentation. For instance, the front view of the face of an adult human being may show one of the ears much bigger than the other. The formal presentation by itself exposes the defect, whether it is a cross-section of the complete design or otherwise.

Finally, artistic necessity alone may be responsible for a sectional view of an otherwise complete design. For instance, a picture may show the upper part of a horse only, and the lower part, i.e. all the four legs, are non-existent, being covered by high bush or grass. We do not see the legs at all. That does not lead us to conclude that the animal is a rare variety of horse with no legs at all.

The student of rāga music will come across all kinds of abnormality if he hears with his ears and sees with his eyes. I will place representative types of each of the kinds.

I. ARTISTIC IMPULSE AND ABNORMALITY

We have understood that *Bhairava* rāga by itself is a class by design, and the specimens are as so many individuals of the class which we choose to call *Bhairava* rāga by name. The entire design, composed of the notes S r G M P d N, is broadly based on the S r M d class-motif, r G d N sub-dominant motif, and M d S dominant Universal. The individuals are expected to present S r G M P d N in order to fulfil the conditioned relations.

Nevertheless, we come across individuals without N, or without P, in so far as the *Sthāyi*, or the first movement, is concerned, as for instance, specimen No. 39 in Chapter III.

Rāmakeli is supposed to be composed of S r G M P d N, but is sometimes with additional m and n. Specimen No. 56, to be found in Chapter V, shows S r G M m P and d only. For those who suppose m as intrinsic or essential to *Rāmakeli*, specimen No. 57, which does not show m and N, ought to be an example of abnormality for that reason only.

Rāmakeli specimen No. 62, Chapter V, shows S r G M P d only. *Rāmakeli* specimen No. 72 shows S r G M m P d only; and N is wanting.

In Specimen No. 5, Chapter I, by name *Khambāj*, R and N are wanting. The complete design of *Khambāj* has S R

G M P D n N. Specimen No. 9 of *Khambāj* shows R
and N wanting. Specimen Nos. 10, 11 and 12 of *Khambāj* do
not exhibit R.

The *Dhrupad* song 'Hirana jatita' of *Suddha Kalyāna* (*Maārif-un-Nagamāt*), intended to exhibit S R G P D N, suppresses
N in the *Sthāyi*.

The current idea about *Chhāyānata* assures us of S R G
M P D n N. A *Dhrupad* song, 'Mānani māna' of *Chhāyānata*,
on the authority attributed to Shreeman V.N. Bhatkhande
(*Maārif-un-Nagamāt*), curtails N. Immediately following
this specimen is a *Dhrupad* of *Chhāyānata* attributed to Gāyak
Abbankhan of Saharanpur, which curtails n and N. It is followed
by a *Hori* of the same rāga, attributed to Mahammad Ali
Khan, which also curtails n and N altogether.

A *Dhrupad* and a *Hori* of *Kedārā* of *Maārif-un-Nagamāt*,
attributed to Mahammad Ali Khan and Mohammad Hussain
Khan of Lucknow, have nothing to do with m, a note which
the singers of classical *Kheyāl* can ill afford to suppress so far
as *Kedārā* is concerned. In the same book, a *Dhrupad* of
Hamir on the authority of Nazir Khan of Moradabad curtails
N altogether from the presentation.

I will not enlarge the number because they are much more
numerous than could be generally guessed.

All such examples, when studied by means of the technique
already presented, reveal peculiar and characteristic designs of
rāgas, in spite of curtailment of some one or two notes.
We can feel the motif, and work out the class-design.
The main design remains intact, though some limb may be
wanting. These are like busts of human beings or animals.
I will not go into details about the designs of these rāgas;
I mean to present their stories in separate books.

For the present, it will be sufficient to understand that
artistic impulse is not only creative, but is also self-restraining
to the extent of curtailing limbs from the design. And yet,
the true artiste will produce really aesthetic designs, whether

he frees himself, or checks himself now and then. Such things are not abnormalities in the true sense of the word.

2. ABNORMALITY WITH MANIFEST WANT OF CLASS-MOTIF

We already know the factors, such as dominant class-motif, dominant individual motif, sub-dominant motif, and subsidiary motif, by means of observation and inference regarding the study of rāga specimens. We know that a manifest couple in the minimum leads us to work out the class-motif; and finally, to classify the thing.

There are specimens, however, which do not show the manifest existence of even a single couple. The most famous example is *Hindole* rāga with S G m D N. It shows D S G Universal only. Similar other scales are for example (*a*) S r M D N (*Panchama* according to some; *Fulashri* according to the late Ostad Keramat Ulla Khan Saheb, and Harendranath Sil of Calcutta); (*b*) S R g P D, *Shivaranjani*, (*c*) S r g m P D as I heard the rāga from Ostad Hafiz Ali Khan Saheb, on the Sarode. I remember hearing him call it a 'kind of *Bahāduri Todi*'. It presents two Universals, S g P and m D r, which may not be coupled at all; (*d*) S R G M P *Maluhā Kedārā*, which I heard and learnt from Pundit Rajabhayia Pucchwala of Gwalior; and (*e*) S G P, *Mālashri*.

Because the specimens composed of such scales do not show a single couple, they are, therefore, apparently devoid of class-motif. So on the face of it, it seems impossible to classify them. But in reality they are as capable of classification by means of intrinsic designs as the normal specimens. We shall see that in the next chapter.

3. ABNORMALITY WITH THE ABSENCE OF UNIVERSALS

There are just a few scales which yield peculiar specimens absolutely devoid of any Universal altogether. For instance,

specimens of the scale S r M m N are devoid of any Universal. On scrutiny we find the existence of consonances S-M, r-m and m-N, and the mediant r M. Devoid of a single Universal, the presentation of *Megha Ranjani* with S r M m N is capable of creating in us the feeling of musical delight with which we listen to the music of normal rāgas such as *Bhairava, Bhūpāli* or *Khambāj.*

From the *a posteriori* point of view we are justified in supposing that the presence of the consonants alone is responsible for that minimum of musical feeling. It seems that a pair of consonant notes, whether mediated or unmediated, is required to stimulate the basic feeling.

What is mediated, or unmediated consonance? The idea is this. S P, S M, R D, r d, etc. are consonances. For S P as consonance, the note G or g is a mediator in the form of S G P or S g P. Similarly the note D or d is a mediator regarding S M, and so on for others. The relations S g, S G, g P GP, etc. are called mediance simply because those relations are mediating agencies for the respective consonances. Thus S G P, S g P, R M D, R m D, etc. are essentially mediated consonances. In other words, the Universals are mediated consonances.

Unmediated consonance means that the consonant notes exist manifestly, but the mediating note is absent, and mediant relations are obviously non-existent.

The scale S r M m N shows the consonances S M, r m and m N . But none of them are mediated because of the absence of d, D, R, and g. The presence of d means M d S; of D means M D S, m D r; of g means N g m (as in *Multān i* and *Todi* rāgas, so-called); of R means N R m (a Universal met with in *Iman, Imankalyāna, Behāga,* and other rāgas). All of these manifestations would be examples of mediated consonance.

The *a posteriori* point of view just presented is supported by considerations regarding the last group of abnormal specimens, which follow.

4. ABNORMALITIES DEVOID OF ANY CONSONANCE

An example is met with in the pages of *Sangita-sudarshana* by Pundit Sudarshana Achārya, in the description of a rāga named *Jaladhara Sāranga*. It shows only S, R and n. There is not a single consonance, and there is only one mediant relation, viz. n R.

Another and more peculiar example, though hypothetical, is the scale S R G m d n. This would find acceptance as a base for some rāga, according to the *Janaka-Janya* system of Venkatmakhi. There are the six notes fairly distributed in the *Saptaka*.

For me and my ways of thinking and also of musical feeling, this scale of six notes is absolutely incapable of producing music of the rāga. I have tried my utmost and without bias to compose a sentence or even a phrase which gives me some tangible satisfaction, or feelings of unity and coherence of design, which a rāga ought to create as a minimal effect. But I have failed!

STUDY OF ABNORMAL SPECIMENS

It is easy to guess that type No. 1 will yield class designs when treated by means of the technique concerning the Universals and the couples, the dominant motif and the class-motif.

Nos. 2 and 3 come in for serious consideration if we want to assess them.

No. 4 is worthless regarding musicality, but it will come in for some critical consideration after we have scrutinised Nos. 2 and 3.

TYPICAL EXAMPLES

Here is a musical specimen of abnormal type No. 3. It appears to be one of the best of the type; we need not worry about the name of the rāga.

SPECIMEN NO. 80.

$\| \text{G}-\text{G G} \mid \text{G M G G} \mid \text{G M M M} \mid \text{G}-\overline{\text{R S}} \text{ S} \mid \underset{\cdot}{\text{N}}\text{S } \overline{\text{R}}\text{g g g} \mid$

$\mid -\text{R S R} \mid \underset{\cdot}{\text{N}} \underset{\cdot}{\text{N}} \text{ S}- \mid \overline{\text{R G}} \text{ M } \overline{\text{R G}} \quad \overline{\text{S R}} \|$

It is the notation of the song : 'Anjana ganjana jagajana ranjana meghapunja jini baranā', a famous Mahājana-pada attributed to Govindadas of Bengal. The music was composed by Shri Visvarupa Goswami of Bengal. It gives us a sense of completeness, and is charged with musicality if anything.

The thing is assessed below:

N.V.	C.V.N.	
S $- 5\frac{1}{2}$	G - D. N.	No Universal.
R $- 4\frac{1}{2}$	S - 2nd	No outstanding motif, manifestly.
g $- 3\frac{1}{2}$	M - 3rd	S M and N G are the two consonances.
G $- 11$		These are unmediated.
M - 5		
N - $2\frac{1}{2}$		
32		

It was pointed out in the very first chapter that a complete sentence allows for repetitions within reasonable limits. This specimen appears to be a complete sentence in that respect.

Below is a complete sentence, a favourite instrumental piece by the late Ostad Imdād Khan of Calcutta.

SPECIMEN NO. 81.

$\| \text{S } \overline{\text{g g}} \text{ R g} \mid -\text{S r } \underset{\cdot}{\text{N}} \mid \text{S} - - \overline{\text{M M}} \mid \text{g R S } \underset{\cdot}{\text{N}} \|$

N.V.	C.V.N.	
S - 6	S - D. N.	No Universal
r - 1	g - 2nd	No manifestly outstanding motif.
R - 2	R ⎫ 3rd.	
g - 4	N ⎭	S M is the only consonance, unmediated.
M - 1		
N - 2		
16		

Below is a song 'Dolere jobana' from my repertoire. I need not specify the rāga name here. The notation shows the thing exactly as I got it from Hakimji of Calcutta. Moujdin Khan, one of the greatest of songsters that I had the good fortune to come across in my life, used to sing it with slight variation, which is also given below.

.

SPECIMEN No. 82.

Hakimji's rendering; medium tempo:

‖ S G—r | G m G— | r m G r | G r S Ṇ ‖

S - 2	G - D. N.	No manifestly outstanding motif.
r - 4	r - 2nd	N G, N m and r m are the consonances, all unmediated.
G - 7		
m - 2		
N - 1		
16		

SPECIMEN NO. 82a.

Moujdin's interpretation of the above:

‖ r G—r | G m G— | r̄Ḡ r̄m̄ G r | S r Ṇ S ‖

S - 2	G - D.N.	No manifestly outstanding motif. NG, N m and r m are the consonances, all unmediated.
r - 5	r - 2nd	
G - 6½		
m - 1½		
N - 1		
———		
16		

Substantially, these two are the same. In black and white the compositions differ slightly regarding the 1st, 3rd and 4th bars. In actual presentation, the inimitable, though unsophisticated, Maujdin Khan would give us a vision as it were of 'dolere' in the 3rd bar. His interpretation alone could achieve the meaning, the innuendo, and the implications of the words 'dolere jobana-mada māti', in a way that would reveal to us the skyline of the whole song, i.e. the music, the words and the rhythm, all fused together in the totality of aesthetic vision.

SPECIMEN NO. 83.

‖ R M M M | M — M — | G M G R | S R Ṇ — | Ṇ Ṇ S S |
| Ṇ S R G | R — — M | G R S — ‖

S - 6	M - D. N.	No manifestly outstanding motif.
R - 8	R - 2nd	SM and N G are the two consonances, both unmediated.

G - 4

M - 9

N - 5

———

32

It is a notation of a piece of music which I heard a clarionet artiste presenting in company with a couple of artistes on the bagpipes and one with a dholaka.

Here is another like the above:

SPECIMEN NO. 84.

‖ S̄R̄ | Ṇ SS R g | R — — S̄S̄ | R̄M̄ M M M̄Ḡ | R̄Ḡ Ḡ R̄ S ‖

S - 3½	R - D. N.	No manifestly outstanding motif.
R - 6	S - 2nd	S M and N G are the two consonances, both unmediated.
g - 1		
G - 1½		
M - 3		
N - 1		
———		
16		

Below is an instrumental piece which was in vogue at Calcutta among the artistes of Setar during the time of Ostad Imdād Khan Saheb and Ostad Kaukav Khan.

SPECIMEN NO. 85.

‖ — G — G | M — — G | — G S — | — S — R | Ṇ — — S |

| — S R R | S R̄R̄ M̄M̄ M̄M̄ | G.R.S ‖

S - 11	S - D. N.	No manifestly outstanding motif.
R - $5\frac{1}{2}$	G - 2nd	S M and N G are the two consonances, both unmediated.
G - $7\frac{1}{2}$		
M - 5		
N - 3		
32		

Below is a rendering of the song 'Ogo āmār nabin shākhi' composed by the late Atul Prasad Sen.

SPECIMEN NO. 86.

‖ S S̄R̄ M̄g | R̄gR – S Ṇ | S ṆS̄ R̄g | R g — | R̄S̄ - - - S |

| R M M | G R G | R̄S̄ - - S — | — — S | G G G | M — M |

| G R̄Ḡ M̄Ḡ | R̄S̄ - - — S | R M M | G R G | S̄R̄ ṆS̄Ṇ - — ‖

S - 16	S - D. N.	No manifestly outstanding motif.
R - $8\frac{1}{2}$	G - 2nd	S M and N G are the two consonances, both unmediated.
g - $3\frac{1}{4}$		
G - 9		
M - 8		
N - $3\frac{1}{4}$		
48		

No. 87 is an assessment of a specimen of *Pahāri* rāga, so-called according to Shri Surendranath Bandopadhyaya, Sangitaratnākar, of Calcutta. The specimen is an instrumental piece for Setar.

<div align="center">SPECIMEN NO. 87.</div>

S - 5½	S - Dom. Note.	No manifestly outstanding motif.
R - 3	G - 2nd	S M and N G are the two consonances, both unmediated.
G - 4		
M - 2		
N - 1½		
16		

<div align="center">SPECIMEN NO. 88.</div>

Here is an opening movement of Ghazal, Dādrā.

‖ -- Ṡ | Ṡ Ṡ Ṙ | N̄Ṡ N Ṙ | Ṡ Ṡ Ṙ | N Ṡ N̄Ṡ̄N̄- | D D̄ -N̄ |
| d̄ D d D | N Ṡ - ‖

S - 10¾	S - D. N.	No manifestly outstanding motif.
R - 3	N - 2nd	D R is the only consonance; it is unmediated.
d - 1½		
D - 4		
n - ½		
N - 4¼		
24		

No. 89 is an opening movement of a *Chaitiyā* form, popular in the districts near about Lucknow. The form is slightly different from that which is current in Benares and its neighbourhood. The song is 'Tang bhayi choliyā, ho Rāmā'.

SPECIMEN NO. 89.

‖ g | g R̄S̄N̄S̄ — Ṇ | S — S — | S — — — ⌐ S̄R̄ GM ḠMG- R̄S̄ |

| R S̄R̄ G S̄R̄ | G — M — | — — G M | R M — ‖

S - 11½	S - D. N.	No manifestly outstanding motif.
R - 4¼	M - 2nd	S M and N G are the two consonances, both unmediated.
g - 2		
G - 5¼		
M - 7¾		
N - 1¼		
32		

The musical artistes of Benares and its neighbourhood do the same song in the following way:

‖ M | g R̄S — - Ṇ | S— —S | — — —S̄R̄ | GM GMG - R̄S — - R |

| M̄G R̄S R̄GM - R̄GM - | M—M— | GMG - — RS̄Ṇ̄ - - |

| — S M ‖

S - 11¾	S - D. N.	No manifestly outstanding motif.
R - 3¼	M - 2nd.	S M and N G are the two consonances, both unmediated.
g - 1		
G - 4		
M - 8½		
N - 3½		
32		

I stop here; there are many others, without doubt.   It is to be noted that these pieces are really musical and complete in the sense that they may be repeated cyclically a number of times, short of physiological fatigue or monotony.   They would not be worth a second's notice, unless they could charm and enthral the audience.   Therefore, they deserve unbiassed study from the objective point of view.

Attempts in this direction reveal problems as follow:

(*a*) All of them are devoid of the manifest existence of the essential element, i. e. the Universal, and yet they really stimulate musical feeling.

(*b*) There is just a shade of conviction that each of them might be sectional presentations of some rāga. But how are we to be sure about it? And what is that original rāga design?

(*c*) There are only a few notes in each of them. Hearing each of them, could we offer any reason for saying that this particular specimen is bound to exhibit such and such notes later on in the 2nd, 3rd or 4th movements?

For instance, regarding No. 80, could we say with the conviction of inductive reasoning that it must or must not show the notes r, or P, or m, or d, or D, or n? If so, what is the basic proposition?

Regarding No. 81, could we say that it ought to exhibit the notes G, or m, or P, or d, or D, or n? If so, why and how? And, similarly, for others.

It is no use saying that because specimen No. such and such is a section of rāga such and such, therefore it ought to show the rest of the notes of the rāga.

For instance, Nos. 82 and 82a; one person will say it is a sectional aspect of *Pūrvi*; another will say, it is one of *Mārva*; another will say it is one of *Dinki Pūriā* (with S r G m P d D N); others may say, it is a *Pūriā* and nothing else; finally some will guess it is a shade of *Pūriā-Dhanāshri* (with S r G m P d N).

Statements like that are all of them vitiated by presumptions arising out of previous associations of names and things. Besides that, there is no hope of reconciliation between the party statements on any reasonable basis.

Should we discard all thoughts about these abnormal specimens, or relegate them to the curiosity shop of music? This means defeatism, if anything. I am simply hopeful and optimistic when I present before my readers a new technique of analysis in order to assess these abnormal specimens. The following chapter explains the technique and its application.

THE RULE OF THE TWO-FIFTHS

IT IS introduced as follows:

For each first movement of rāga specimen, normal
or abnormal, regular or irregular, weak or strong, there
is the total value, viz. T.V., measurable in units of time.
The two-fifths of this T.V. is also a definite measure. This
measure enables us to discover latency of unmanifested notes
and Universals concerning the particular specimen sought to
be studied. As such, it is a 'coefficient of latent values', i.e.
C.L.V., of the specimen through which the norm of a rāga may
be supposed to evolve.

DIRECTIVE FOR THE RULE EXPLAINED

(*a*) A Universal is composed of two sets of mediance.
For instance, S G P is composed of S G and G P and so on for
others. S G and G P and similar others are mediants (Sanskrit:
Anuvādi).

There may appear in rāga specimens only one set
of mediants, so that for want of its partner, the possible
Universal is absent. For instance, specimens of rāga *Hindole*
so-called (with S G m D N), there is only one Universal,
D S G, which is mediated by S. It is like this. D G is a
consonance. The note S encompasses the coherence and
functioning of the mediants D S, S G. In this case we see
that the mediant S G has only D S as its partner. For *Hindole*,
G P, the other partner of S G, is wanting. In short,
the absence of the note P in the design means the absence
of this other possible partner G P.

According to this rule, if in a specimen of *Hindole* so-called
we find that the combined value of the mediant S G, i.e.
S+G, is equal to or more than the two-fifths of the total

value (i.e. the C. L. V. for the specimen), then this is an indication of the latency of the other mediant G P, in that particular specimen under examination. That means it is an indication of the latency of the note P in the design of the specimen.

For the same reason, with rāga *Hindole*, if the combined value of D S is found to be equal to or more than the C.L.V. of the specimen, then that would mean an indication of the latency of M D, the other partner of D S, and also note M with reference to the consonance M D S.

(*b*) Certain consonances may occur which are unmediated. As already explained, 'mediant', or 'mediance', is so-called because it mediates functionally between the two notes which are consonant to each other.

Now, it is not necessary to suppose that in each specimen all consonances must occur as mediated consonances. Mediation of all the consonances is not a *sine qua non* regarding the unfolding of a rāga, or the stimulation of the musical feelings. For instance, *Megha* rāga so-called (Chapter IV: two examples) with S R M P n shows two mediated consonances, viz. P n R, n R M, and two other unmediated consonances, viz. S M and S P. The mere fact of unmediated consonances in a design does not mean that the specimen or the design is abnormal, or imperfect or irregular or weak.

According to this rule, if a specimen with notes S R M P n — it may be a *Megha* or a *Sāranga* or any other thing by name —shows the value of S P, i.e. S+P, equal to or exceeding the C.L.V., then for that specimen only, the mediant g or G is indicated as latent notes. Similarly, if S M, i.e. S+M, equals or exceeds the C.L.V., then the note d, or D, is indicated as the latent note.

In other words, we see that specimens may reveal uncomplemented mediance and unmediated consonance. In case such mediance or consonance has a supercharge value, i.e. a value equal to, or exceeding the C.L.V., then that value

as a supercharge indicates latent notes etc. Such supercharges
do not necessarily mean that they will be actually ventilated
by means of a new note or Universal in the specimen when
the 2nd or other movements are presented. But such super-
charges really indicate a potentiality, a tendency, or an inten-
tion which might culminate in the manifest appearance of a
new required note which was manifestly wanting in the
design. In cases where such a culmination does not materialise
in the emergence of the new note or a new Universal, we
have to understand that *the note is really there* in a latent condi-
tion, and forms a part of the design as a whole. To cite an
analogy, a chair is placed before my eyes in such a way that I
do not see one of its legs. So far as direct vision is concerned
I see three legs only. But undoubtedly there is the fourth leg
in the design of the chair.

So far as the application of the rule is concerned, it does
not mean that each manifest Universal in a specimen ought
to be equal to, or more than, the C.L.V. in value. It means
simply *application in such cases where a Universal is non-existent,
and yet one of the mediants may point to the latency of a note or
the Universal.* That is to say, the rule is to be applied in every
case when (*a*) an existing mediant does not culminate in a
consonance, and (*b*) an existing consonance does not have any
mediant functioning between the notes of the consonance.
The rule deserves testing and unbiassed application in such
cases which show one single Universal only, and finally in
those which show mediance and consonance but do not exhibit
a single Universal.

Let us test it on the abnormal specimens already presented.

<div align="center">SPECIMEN NO. 80</div>

The notes are S, R, g, G, M, N; the consonances are S M
and N G, both unmediated. The mediants are S g, S G,
R M, N R and N G; all of them without their respective
partners.

Testing the specimen by the rule of the two-fifths:

The C.L.V. for the specimen is $= \frac{32 \times 2}{5} = 12\frac{4}{5}$

S g, i.e. S+g=9. i.e. less than C.L.V.

S G i.e. S+G=16½, which exceeds C.L.V.; indicates P, and D, i.e. S G P and D S G Universals as latent.

R M, i.e. R+M=9½, i.e. less than C.L.V.

N R, i.e. N+R=7 ; i.e. ,, ,, ,,

N g, i.e. N+g=6 ; i.e. ,, ,, ,,

S M, i.e. S+M=10½ i.e. ,, ,, ,,

N G, i.e. N+G=13½ which exceeds C.L.V.; indicates P and d, i.e. G P N and G d N Universals.

Thus the rule shows the notes P, d, D as potentially existing in the design. As a matter of fact, such notes are met with in the 2nd, 3rd and 4th movements of the song.

The correct design is estimated in the following way :

$$S+G+P=5\tfrac{1}{2}+11+0=16\tfrac{1}{2}$$
$$S+g+P=5\tfrac{1}{2}+3\tfrac{1}{2}+0=9$$
$$R+M+D=4\tfrac{1}{2}+5+0=9\tfrac{1}{2}$$
$$G+P+N=11+0+2\tfrac{1}{2}=13\tfrac{1}{2}$$
$$M+d+S=5+0+5\tfrac{1}{2}=10\tfrac{1}{2}$$
$$M+D+S=5+0+5\tfrac{1}{2}=10\tfrac{1}{2}$$
$$d+S+g=0+5\tfrac{1}{2}+3\tfrac{1}{2}=9$$
$$D+S+G=0+5\tfrac{1}{2}+11=16\tfrac{1}{2}$$
$$G+d+N=11+0+2\tfrac{1}{2}=13\tfrac{1}{2}$$
$$P+N+R=0+2\tfrac{1}{2}+4\tfrac{1}{2}=7$$

S G P
D S G } - D. Un.

G P N
G d N } - 2nd

M d S
M D S } -3rd.

R M D - 4th

S g P
d S g } -5th

P N R

The Dom. class motif. S G M D=21½, i.e. approximately 70 % of the total value. S G P N is the sub-dominant motif.

Specimen No. 81.

Notes are S, r, R, g, M, N. S M is the only consonance, unmediated; mediants are S g, r M, RM, NR, Ng, all uncomplemented.

The C.L.V. $= \dfrac{16 \times 2}{5} = 6\dfrac{2}{5}$

S g=10, exceeds C.L.V.; indicates P, and d; S g P, and d S g Universals.

r M = 2, less than C.L.V.
R M = 3, ,,   ,,   ,,
N R = 4, ,,   ,,   ,,
N g = 6, ,,   ,,   ,,

S M=7, exceeds C.L.V. indicates d and D; i.e. M d S, M D S. The design is estimated as below:

S g P   = 10
d S g   = 10
r M d   = 2
M d S   = 7
P N R   = 4
R M D   = 3
M D S   = 7
d N g   = 6

Thus we have:

S g P
       D. Un.
d S g

M d S
    } -2nd
M D S

d N g - 3rd

P N R - 4th

R M D - 5th

r M d - 6th

Each of the dominant Universals considerably over 50% of the total value.

The Dom. class-motif S g M d =11, also considerably over 50% of the total value. S g P d appears as the sub-dom. motif.

Thus we are justified in classifying the specimen along with rāga *Piloo*, so-called by older classicalists, i.e. *Piloo* with S r g M P d N. Whatever that may be, this design at the start is not the modern *Kāfi-Piloo* with S r R g G M P d D n N, a scale which is overrunning the sphere of instrumental music of Sorode, Setar, etc., and the Thumri songs of the present time.

It is comforting to catalogue this specimen along with the song 'Rāma nāma bhajle' Dhrupad Piloo Chowtāla (authority Gāyak Mahammad Ali Khan, *Maārif-un-Nagamāt*, Part III). The song lends itself to the following design:

S g P - D. Un.   Dominant class-motif.
d S g - 2nd   S g P d ⎫
M d S - 3rd   S g M d ⎬
    etc.   ⎭

Song 'Virajme udat hai', *Piloo Dhamār*, authority Gāyak Mahammad Ali Khan, *Maārif-un-Nagamāt*, Part II, reveals practically the same basic design as specimen No. 81.

SPECIMEN NO. 82.

The notes are S, r, G, m, N. The consonances are r m, G N, and m N, all of them unmediated. The mediants are S G, r G, both without any partners.

The C.L.V. $= \dfrac{16 \times 2}{5} = 6\dfrac{2}{5}$

S G=9; exceeds C.L.V.; indicates P and D; S G P, D S G
                                                                          Universals.
r G=11;   „   „   „   d and D; r G d, D r G   „   .
r m=6; less than C.L.V.
G N=8; exceeds C.L.V.; indicates P, d; G P N, G d N Universals.
m N=3; less than C.L.V.

The design is estimated as:

11

$$S \ G \ P \ = \ 9$$
$$D \ S \ G = \ 9$$
$$r \ G \ d \ = \ 11$$
$$D \ r \ G = \ 11$$
$$G \ P \ N = \ 8$$
$$G \ d \ N = \ 8$$
$$m \ D \ r = \ 6$$

Thus we have:

r G d	}-D. Un.	The dominant Universals are each over 69% of the total value.	The dominant class motif, r G d N, is 75% of the total value.
D r G			
S G P	}-2nd		S G P N (and not S G P D) is the sub-dominant motif.
D S G			
G P N	}-3rd		
G d N			

m D r - 4th

We are justified in classifying this specimen with others which show S r G m P d D N, dominant class-motif r G d N, dominant individual motif r G d, and the sub-dominant motif S G P N. Are there specimens with S r G m P d D N ? Of course there are. We get *Pūrvi* (so-called specimens in *Maārif-un-Nagamāt*) with S r G m P d D N, but not with r G d N as the class-motif. Older classicalists, such as Ostad Badal Khan Saheb, would have *Dinki-Pūriā* with those notes. For them, and in their times, *Dinki-Pūriā* and *Pūriā-Dhanāshri* were identities in respect of the notes, but different individuals regarding the *daul*, i.e. modulation. A specimen of *Dinki Pūriā* obtained from Ostad Badal Khan Saheb, shows r G d as the dominant motif, and r G d N as the class-motif.

Therefore, I place this apparently non-descript but really designed specimen along with the *Dinki-Pūriā* of Badal Khan Saheb, ('Sāndā dilokā thagi be' with r G d N as the class-motif). A '*Dibasni-Pūriā*', in the book of notations edited by Prof. Murtaza Khan Moula Bux (1886, Bombay),

shows the notes S r G m P d D N (D latent), with S G P N as the class-motif.

Specimen No. 82a, which is a variation of the above, gives us the following readings:

The C.L.V. $= 6\frac{2}{5}$

S G$=8\frac{1}{2}$; exceeds C.L.V.; indicates P, D, and S G P, D S G.
r G$=11\frac{1}{2}$,,   ,,   ,,   d, D ,, r G d, D r G.
r m$= 6\frac{1}{2}$ less than C.L.V.
G N$=7\frac{1}{2}$ exceeds C.L.V., indicates P and d; G P N, G d N.
m N$=2\frac{1}{2}$; less than C.L.V.

The design is estimated as:

$$
\begin{aligned}
\text{S G P} &= 8\tfrac{1}{2}\\
\text{D S G} &= 8\tfrac{1}{2}\\
\text{r G d} &= 11\tfrac{1}{2}\\
\text{D r G} &= 11\tfrac{1}{2}\\
\text{G P N} &= 7\tfrac{1}{2}\\
\text{G d N} &= 7\tfrac{1}{2}\\
\text{m D r} &= 6\tfrac{1}{2}
\end{aligned}
$$

Thus we have:

r G d
D r G } -D. Un.

S G P
D S G } -2nd

G P N
G d N } -3rd

m D r - 4th

The dominant Universals are just over 50% of the total value.

The dominant class-motif r G d N is over 78% of the total value. S G P N is the sub-dominant motif.

<div align="center">

SPECIMEN NO. 83.

</div>

The notes are S, R, G, M, N; S M, G N are the consonances,

unmediated. The mediants are S G, R M, and N R, all without partners.

The C.L.V. $= \dfrac{32 \times 2}{5} = 12\dfrac{4}{5}$

S M=15; exceeds C.L.V., indicates d, D; M d S, M D S Universals.
G N=9; less than C.L.V.
S G=10 ,, ,, ,, .
R M=17; exceeds C.L.V. indicates D, n; R M D, n R M
Universals.
N R=13; ,, ,, ,, P, m; P N R, N R m ,, .
The design is estimated as:

$$
\begin{array}{lcr}
\text{S G P} & = & 10 \\
\text{R M D} & = & 17 \\
\text{G P N} & = & 9 \\
\text{M D S} & = & 15 \\
\text{M d S} & = & 15 \\
\text{R m D} & = & 8 \\
\text{P N R} & = & 13 \\
\text{P n R} & = & 8 \\
\text{D S G} & = & 10 \\
\text{n R M} & = & 17 \\
\text{N R m} & = & 13 \\
\end{array}
$$

Thus we have:

R M D ⎫
      ⎬ -D. Un.
n R M ⎭

M D S ⎫
      ⎬ -2nd
M d S ⎭

P N R ⎫
      ⎬ -3rd
N R m ⎭

S G P ⎫
      ⎬ -4th
D S G ⎭

G P N - 5th

R m D ⎫
      ⎬ -6th
P n R ⎭

The dominant Universals are over 50% of the total value.

The dominant class motif S R M D is about 72% of the total value.

R M P n is the sub-dominant motif; just over 50% of the total value.

The specimen falls in with a large number of other full-fledged specimens which popularly go by the local names *Kajri*, *Sāvan*, *Jhūlan*, etc., but which really belong to a class based on:

$$\left.\begin{array}{l} \text{R M D} \\ \\ \text{M D S} \end{array}\right\rbrace \text{Dominant Couple; S R M D — Class-motif.}$$

$$\left.\begin{array}{l} \text{n R M} \\ \\ \text{P n R} \end{array}\right\rbrace \text{-Sub-dominant;}$$

SPECIMEN NO. 84.

The notes are S, R, g, G, M, N. The consonances are SM and GN; the mediants Sg, SG, RM, NR, Ng.

$$\text{C.L V.} = \frac{16 \times 2}{5} = 6\frac{2}{5}$$

S M=6½; just over C.L.V; indicates D, d; M D S, M d S Universals.
G N=2½ less than C.L.V.
S G=5 ,, ,, ,,
S g=4½ ,, ,, ,,
R M=9; exceeds C.L.V.; indicates D and n; R M D, n R M
                                                            Universals.
N R=7; ,, ,, ,, P and m; P N R, N R m ".
N g=2, less than C.L.V.

The design is estimated as:

$$\begin{array}{ll} \text{S g P} & - 4½ \\ \text{S G P} & - 5 \\ \text{R M D} & - 9 \\ \text{n R M} & - 9 \\ \text{P N R} & - 7 \end{array}$$

$$P n R \quad — 6$$
$$N R m \quad — 7$$
$$D S G \quad — 5$$
$$G P N \quad — 2\tfrac{1}{2}$$
$$M D S \quad — 6\tfrac{1}{2}$$
$$M d S \quad — 6\tfrac{1}{2}$$

Without going into the details, we see that the class-motif S R M D is dominant; and R M P n is sub-dominant. It is the subsidiary elements which individuate it from No. 83.

<div align="center">SPECIMEN NO. 85.</div>

The notes are S, R, G, M, N. The consonances are S M and G N. The mediants are S G, R M, and N R.

$$\text{C.L.V.} = \frac{32 \times 2}{5} = 12\frac{4}{5}$$

S M = 16; exceeds C.L.V; indicates D, d; M D S, M d S Universals. G N = $10\tfrac{1}{2}$ less than C.L.V. S G = $18\tfrac{1}{2}$ exceeds C.L.V; indicates P, D; S G P, D S G Universals. R M = $10\tfrac{1}{2}$, less than C.L.V. N R = $8\tfrac{1}{2}$ less than C.L.V.

The design is estimated as:

$$S G P \quad — 18\tfrac{1}{2}$$
$$D S G \quad — 18\tfrac{1}{2}$$
$$R M D \quad — 10\tfrac{1}{2}$$
$$M D S \quad — 16$$
$$M d S \quad — 16$$
$$G P N \quad — 10\tfrac{1}{2}$$
$$P N R \quad — 8\tfrac{1}{2}$$

Without going into details, the design stands by its class with a large number of others which show S G M D as the

class-motif, and S R M D as the sub-dominant motif. It is useless to identify it with a name such as *Kūkūva*, or *Nata-Kalyāna* or some such thing, until and unless we have catalogued all similar specimens by means of similarity of design and not by means of identity of empirical names.

<center>SPECIMEN NO. 86.</center>

The notes are S, R, g, G, M, N. The consonances are S M, G N. The mediants are S g, S G, R M, N R, N g.

$$\text{C.L.V.} = \frac{48 \times 2}{5} = 19\frac{1}{5}$$

S M=24; exceeds C.L.V; indicates D, d; M D S, M d S Universals.
G N=12¼; less than C.L.V.
S g=19¼, exceeds C.L.V.; indicates P, d; S g P, d S g Universals.
S G=25; exceeds C.L.V.; indicates P, D; S G P, D S G   "   .
R M=16½; less than C.L.V.
N R=11¾; less than C.L.V.
N g=6½; less than C.L.V.

We have:

<center>

S G P — 25
S g P — 19¼
D S G — 25
M D S — 24
M d S — 24
R M D — 16½
G P N — 12¼
P N R — 11¾
d S g — 19¼

</center>

It is based on S G M D as the class-motif, S G P as the dominant motif, and S R M d as the subsidiary element.

<center>SPECIMEN NO. 87.</center>

The notes are S R G M N. The consonances are S M, G N. The mediants are S G, R M and N R.

$$\text{C.L.V.} = \frac{16 \times 2}{} = 6\frac{2}{}$$

S M—$7\frac{1}{2}$; exceeds C.L.V; indicates D, d; M D S, M d S Universal·.
G·N—$5\frac{1}{2}$; less than C.L.V.
S G—$9\frac{1}{2}$; exceeds C.L.V; indicates P, D; S G P, D S G Universals.
R M—5; less than C.L.V.
N R—$4\frac{1}{2}$,,　,,　,,　·

The design is estimated as:

$$M D S \quad - 7\frac{1}{2}$$

$$M d S \quad - 7\frac{1}{2}$$

$$S G P \quad - 9\frac{1}{2}$$

$$D S G \quad - 9\frac{1}{2}$$

$$R M D \quad - 5$$

$$P N R \quad - 4\frac{1}{2}$$

$$G P N \quad - 5\frac{1}{2}$$

The design is based on the class-motif S G M D and the sub-dominant motif S R M D. Other structures are subsidiary. It introduces itself in the class of specimens of so-called *Behāri* of older classicalists.

It is evident by now, that, if the readings are complete and merely the values of the notes known to us, we may be able to assess and classify the specimen without even looking at the musical notation. The rule of the two-fifths helps us to achieve this, especially concerning the abnormal specimens.

The notes are S, R, d, D, n, N. R D is the only consonance. The mediants are d S, D S, n R, and N R.

$$\text{C.L.V.} = \frac{24 \times 2}{5} = 9\frac{3}{5}$$

R D = 7; less than C.L.V.
d S = 12¼; exceeds C.L.V.; indicates g, M; d S g, M d S Universals.
D S = 14¾; ,,   ,,   ,,   G, M; D S G, M D S   ,,   .
n R = 3½; less than C.L.V.
N R = 7¼; ,,   ,,   ,,

We have:

d S g	— 12¼
M d S	— 12¼
D S G	— 14¾
M D S	— 14¾
n R M	— 3½
R M D	— 7

The design is broad-based on M D S — D S G. It naturally tends to use S R g G M d D n N. As a matter of fact, I heard this sort of thing many times at Benaras and Calcutta, and the artistes would do the 2nd and other movements thus:

(1) Ṡ G Ġ Ṁ Ġ R Ṡ, N Ṙ Ṡ N D, d D N Ṡ—

(2) N Ṙ Ṡ N D d D, d M—, M G, M D—, M D N Ṡ—

(3) D N Ṡ Ṙ Ṙ —, Ṙ g Ṙ Ṡ Ṙ N Ṡ, $\overline{NṘ}$ $\overline{ṠN}$ $\overline{Dd}$ D, $\overline{dDN}$, $\overline{DNṠ}$ and so on. The artistes introduce the note P *sometimes*, but rather late in the programme; that is, when S and G have become considerably supercharged.

SPECIMEN No. 89.

The notes are S R g G M N; the consonances, S M, G N; the mediants S g, S G, R M, N R, N g.

$$\text{C.L.V.} = \frac{32 \times 2}{} = 12\frac{4}{}$$

S M = 19¼; exceeds C.L.V.; indicates D, d; MDS, M d S Universals.
G N = 6½; less than C.L.V.
S g = 13½; exceeds C.L.V.; indicates P, d; S g P, d S g Universals.
S G = 16¾; ,,   ,,   ,,   P, D; S G P, D S G   ,, .
R M = 12; less than C.L.V.
N R = 5½   ,,   ,,
N g = 3¼   ,,   ,,

We have:

M D S	— 19¼
M d S	— 19¼
S g P	— 13½
d S g	— 13½
S G P	— 16¾
D S G	— 16¾
R M D	— 12
P N R	— 5½

etc.

The design is broad-based on class-motif S G M D, with S R M D as the sub-dominant motif. It may not be classed with the *Piloo* of older classicalists.

The variant of this shows:

S M $= 20\frac{1}{4}$; exceeds C.L.V.; indicates D, d; M D S, M d S Universals.
G N $= 7\frac{1}{2}$ less than C.L.V.
S g $= 12\frac{3}{4}$,,   ,,   ,,.
S G $= 15\frac{3}{4}$ exceeds C.L.V.; indicates P, D; S G P, D S G Universals.
R M $= 11\frac{3}{4}$ less than C.L.V.
N R $= 6\frac{3}{4}$,,   ,,   ,,. .
N g $= 4\frac{1}{2}$,,   ,,   ,,.

We have:

$$
\begin{array}{ll}
\text{M D S} & - 20\frac{1}{4} \\
\text{M d S} & - 20\frac{1}{4} \\
\text{S g P} & - 12\frac{3}{4} \\
\text{d S g} & - 12\frac{3}{4} \\
\text{S G P} & - 15\frac{3}{4} \\
\text{D S G} & - 15\frac{3}{4} \\
\text{R M D} & - 11\frac{3}{4} \\
\text{P N R} & - 6\frac{3}{4} \\
\text{G P N} & - 7\frac{1}{2}
\end{array}
$$

etc.

The base S G M D and the sub-dominant S R M D are more stable than in the former specimen. The element of *Piloo* is less important. The design falls in with specimens of *Tilaka-Kamode* of older classicalists and Dhrupadiyās.

Indications regarding latent notes and consequently of Universals, may sometimes give rise to problems of choice of a particular latent note and Universal in preference to other possible claimants. It is best to cite an example.

‖ G S G – G | P – M – – | G S G M – | M P G – P ‖

| M $\overline{\text{GMG}}$ – G – S | – GG S G M | P MPM- G – P |

| M P G M $\overline{\text{GMG}}$–

It shows:

S - 5   S G P=28¾   C.L.V.=16
G - 16½ one single   Unmediated consonance SM=16¼; exceeds
M -11¼   manifest   C.L.V.; thereby indicates D, d; M D S,
                                          M D S.
P - 7¼   Universal.   S G=21½, exceeds C.L.V., indicates D, and
───────   D S G
  40
                      G P= 23¾   ,,   ,,   N and G P N

The design is really;

S G P   - D. Un.   S G M D is the class-motif

G P N   - 2nd   S G P N is the sub-dominant motif

D S G   - 3rd

M D S ⎤
        ⎬ - 4th
M d S ⎦

Here the value of S M indicates latent claimants D and d, because S M, the unmediated consonance with a supercharge, has to be mediated either by D or by d. The mediant S G shows latency for D. The power operating behind d is 16½. The power operating behind D (as D S G) is 21½. *And because D will mediate and satisfy both S M and S G, the claim of d is ruled out in this case. Thus, M d S remains out of the picture by the best intention; at least so long as the artiste or the composer does not create a special condition for its appearance.*

Such in brief is the general proposition about the necessity of the rule of the two-fifths. The examples support the issues involved.

If we examine the specimens of so-called rāga *Hindole* (D S G as the Universal) with S G m D N, we must see that mediants S G, m D, D S, and the unmediated consonances G N, m N are tested by the rule of the two-fifths.

We shall find that indication for either (*a*) the note P or (*b*) the note M will come to the surface; and that the major group of *Hindole* specimens really shows two different class-motifs, viz. D S G — S G P and M D S — D S G. The scale for the former would be S G m P D n, and for the latter S G M m D N. *It is only by this means that we may classify* Hindole *specimens which show only one Universal manifestly*. A modern section of theorists gives us to understand that *Hindole* is born out of *Kalyāna Thāt* (S R G m P D N) by the curtailment of R and P. They overlook the other possibility. However, this curtailment theory of creation is unsound logically, as already shown. The theory wants us to believe that number 5 was born out of number 7, after number 2 was curtailed from that 7. Also, the idea that the original embodiment for all rāgas and rāginis is designed with seven categorical notes, and the rāgas and rāginis of six and five notes emerge from those original embodiments as so many sectional pictures, is not supported by the facts observed or the deductions generalised from such facts. We know as a general rule that creative evolution proceeds from the simple towards the compound and complex groups, and that the examples of atavistic degeneration, i.e. from some complete or complex evolution to a comparatively simple, primitive phase, is not the vital news in the procession of life. That is one of the reasons why we cannot appreciate the fundamental propositions of the 'janaka-janya' system of Venkatamakhi, or the *Thāt* systems of empiricists of modern times. At least, these latter systems fail to explain the facts of Rāga music of North India.

Let us now apply the rule of the two-fifths to the examples of abnormality No. 1, i.e. those cases which reveal class design but fall short of a note or two in the 'sthāyi' movement.

Specimen No. 56, so-called *Rāmakeli* shows the mediant G P to just exceed the C. L. V. Thus N, and G P N are latent in the design which is now revealed as:

C.V.U.

S G P	– D. Un.	$S+G+P+N = 18\frac{1}{2}$
r M d	– 2nd	$S+r+M+d = 20\frac{1}{2}$
M d S	– 3rd	$r+G+d+N+ = 16$
r G d	– 4th	S r M d is the class-motif
G P N	– 5th	S G P N is the sub-dominant motif
G d N	– 6th	r G d N is subsidiary.

Specimen No. 62, a variation of the above, also shows N by intention, though it is latent.

Maārif-un-Nagamāt gives us a Dhrupad *Zilaf*, Jhaptālā on the attributed authority of Gāyak Mahammad Ali Khan. It shows S, G, M, P and d, manifestly. The two manifest Universals S G P(= 24) and M d S (= 23) do not form a couple. Class-motif seems to be manifestly wanting.

But applying the rule of the two-fifths, we find that r and N are latent in the design, which is estimated as:

S G P – 24

G P N – 7 $S+G+P+N$ i.e. S G P N = 24-Dominant class motif.

M d S – 23 $S+r+M+d$ i.e. S r M d = 23-Sub-dominant motif.

r M d – 16 $r+G+d+N$ i.e. r G d N = $9\frac{1}{2}$-subsidiary ".

r G d – $9\frac{1}{2}$ P is the dominant note of the Specimen.

G d N – $9\frac{1}{2}$

Thus we can catalogue it under the class S G P N with S r G M P d N, whether its name be *Zilaf* or anything

else. The 2nd movement reveals N; but not r. There is
no 3rd movement. It is simply a case of suppression of r.

Specimen No. 72 shows S r G M m P d. Whether it should
be classed among *Rāmakeli* or something else is a different
matter. We find the total value to be 28; two-fifths is 11 .
Because r+M=14, therefore the note n is latent. Thus the
Universal m n r and n r M˙ are concealed in the design.

Revaluation gives us:

S G P	- 11	r G d ⎫	
r G d	- 16	r M d ⎭ -D. Un.	

S r M d = 17- Dom. motif

r M m n = 15- Sub-dom. motif

r M d	- 16	n r M	- 2nd
M d S	- 8	S G P	- 3rd
m n r	- 10	m n R	- 4th
n r M	- 14	M d S	- 5th

This alters the design of the picture, and we have a different
vision of anything other tham *Rāmakeli*, as defined by our
method.

Regarding *Bhairava*, there is a general idea to the effect
that the 'addition of n increases the beauty of the rāga
sometimes'. It is not stated however:

(*a*) Why the note n, and not R or g or m, should not
be added sometimes, provided such an addition increases
the beauty.

(*b*) What is the 'sometimes'? Is it morning, or tea-time,
or noon, or evening; or, merely the caprice of the artist?

As a matter of surmise if n, could be added over N, then
D could be added over d, m over M, g over G, and so on.
As a matter of fact, there are the abnormal *Bhairavas* with
D and g.

The clue to such mysterious propensities on the part of the composer or · the artiste is a · supercharge of r, or M, or both in *Bhairava* showing latency of n and n r M. That latency may be suppressed in the design. But it may be ventilated also; there is nothing to stifle the naturalness of motif, nor is suppression always necessary.

I will place one instance, out of hundreds, just to show how latency may flare up in different directions with the evolution of a new motif, new design, and new rāga.

The following is a specimen of an instrumental piece of *Vasanta* (S r G m P d N) in the old Masit Khāni style.

‖ $\overline{SS}$ | r $\overline{GG}$ m d | $\dot{S}$ $\dot{S}$ $\dot{S}$ $\overline{d\dot{S}}$ | N $\overline{dd}$ P P | $\overline{Gm}$ m G $\overline{GG}$ |

| m $\overline{dd}$ $\dot{S}$ $\dot{S}$ | D$\dot{S}$ - - $\dot{S}$NN— d P | m m G $\overline{mGm}$— | G r S ‖

	N.V.	U.V.
S	- 8½	S G P - 17¼ — D. Un.	S G P N is the dominant motif.
r	- 2	G P N - 10½	r G d N is the sub-dominant motif.
G	- 5¾	r G d - 12¼	
m	- 6¼	G d N - 12¼	
P	- 3		
d	- 4¾		
N	- 1¾		

Total 32.

Here, C. L. V. is 12¼. We find S+d=13¼. This indicates latency of M, and M d S. Also S+G=14¼. This indicates latency of D and D S G and D r G. And we have the same *Vasanta* with M added to it; and rarely with M and D added to it. For this specimen, M d S, would be by value 13¼, and r M d = 6¾. Revaluated, it stands thus:

U.V.	C.V.U.	
S G P - 17¼	S G P - D. Un.	S G P - G P N i.e. S G P N - 19
r G d - 12½	D S G - 2nd	M d S - r M d i.e. S r M d - 15¼
r M d - 6¾	M d S - 3rd	D S G - M D S „ S G M D - 14¼
G P N - 10½	r G d - 4th	r G d - G d N „ r G d N - 14¼
G d N - 12¼	G d N - 5th	m D r - D r G „ r G m D - 14
M d S - 13¼	G P N - 6th	
m D r - 8¼	M D S - 7th	
D S G - 14¼	m D r - 8th	
D r G - 7¾	D r G - 9th	
M D S - 8½	r M d - 10th	

Revaluated assessment shows that S G P N remaining the dominant motif as before, S r M d is the latent subdominant motif instead of r G d N; and, S G M D, r G d N are joint subsidiary motifs.

As it is, the specimen is labelled *Vasanta*. It is also labelled *Paraj-Vasanta*. Revaluated, it may certainly be labelled *Vasanta Bhairava*, because of the M d S — r M d element. It is a female rāga. It is noticed in the treatises 'Sangitā-pārijāta' and 'Sangita-sudarshana'.

Interested people know that the note M is used with beautiful effects in this sort of *Vasanta*. There are records which show that d and D were used in this *Vasanta*. There is a gramophone record of the song 'Eri gaili', credited to Ostad Abdulkarim Khan Saheb, showing d and D. Also in 1915, I heard the song 'Fagua brija lootana', as demonstrated by Gohar Jan Baiji at Calcutta. I asked Ostad Badal Khan Saheb about it. He said that there was no harm done to it, and that the 'Pachhāobaji' (western group of instrumental musicians in the lineage of Tansen) use d and D, and

sometimes the note D only! This last statement was brought home to me when I read the book *Sangita-Sudarshana* by Sudarshana Sāstri. According to the author, himself a disciple of the late Amritasenji of Tansen lineage, *Vasanta* used to be done with S r G M m P D N only.

Speaking of the varieties under the common name *Vasanta* we may review the situation as follows:

1. The existence of r, G, m, and N is beyond controversy. Apart from these notes, we get M or m, or both; sometimes P is used, sometimes not; and sometimes we get D, or d, or both of them. Yet the composers name all of them *Vasanta*.

2. Whatever be the design, the supercharge of the mediants S G provokes latent P and D, i.e. S G P and D S G. The supercharge of r G provokes D and d, i.e. r G d, and D r G.

3. As a result of various such superchargings of the mediants we get the different kinds of *Vasanta*, viz. (*a*) with S r G M m D N (*b*) S r G m P d N (*c*) S r G M m P d N (*d*) S r G M m P D N (*e*) S r G M m P d D N.

4. Only one (that is known to me) is with S r g m P d N. The specimen is recorded in *Maārif-un-Nagamāt*. It seems to me that supercharging of the consonance S — P, together with supercharging of the mediant d S is responsible for the latency of the note g and the resulting appearance of the note. The specimen with 56 units as total value shows S= 14, P= 13, and d=9½. The only note that can truly mediate between such S, P, and d, is g and not G assuredly.

To cite all the examples regarding the latency of notes and Universals, one would have to write a separate volume. There is no need for that after all. I have presented examples to illustrate all sorts of possible events. Moreover, we understand the necessity of searching for the latent notes by means of the rule of the two-fifths as I call it. I may venture to say that for me at least, it has the force and operative utility of a law which has not failed yet.

CHAPTER VIII

THE PERFECT SPECIMEN

IF anybody examines the musical specimens without bias he will find that a considerable number of what we have termed 'normal, strong specimens' show latent notes and Universals.

I say this from my own experience, viz. my examination of more than three thousand specimens of all sorts.

But occasionally we come across *strong, normal specimens* which do not show any latency whatsoever. Certainly these deserve special recognition, exactly as sections of triangles, circles, squares, or cubes deserve examination. The point of such special recognition is that such specimens are self-contained by themselves. I call them 'perfect' as distinguished from many others, *which are sectional presentations manifestly*, and as such may be termed 'imperfect'. I must add that the adjective 'imperfect' does not imply in the least any aesthetic or substantial fault or want.

Once we understand the idea and implications of the rule of the two-fifths, it becomes easy to select the perfect specimens from the imperfect ones. Practically we have to search for (*a*) unmediated consonances and (*b*) uncomplimented mediances, and to subject these to the testing by the rule of the two-fifths. If the test fails to reveal latent notes, the specimen is perfect, otherwise it is imperfect.

We may utilise this knowledge and the selection in two ways, viz. theoretical and practical.

Theoretically. We arrive at the final conception of the norm of a rāga from the generalisations based on the data of perfect specimens.

Practically. If we think that a novice of Rāga music ought to practise with the best designs available, the knowledge goes a great deal towards the selection of the standard specimens

of a rāga in Dhruvapada and Kheyal forms of composition especially.

In this work, I will not take up the practical issues. I reserve such for a future occasion. I will take up what I call:

SUPERCURRENT LATENCIES

with the purpose of finding out and clarifying the data necessary for the classification of specimens and of rāgas.

The examination of specimens which show only one couple, and, therefore, only one class-motif manifestly, will reveal that these specimens are more liable to harbour concealed notes and latent intentions than the specimens which show two, or three, or more couples manifestly. We may account for this by supposing that the simplest rāga designs, i.e. those with five or six notes and only one couple manifestly, allow of bigger note values on the average than the compound or complex designs, i.e. those which show two or three or more couples, total value of the presentation remaining constant. For instance, we consider the specimens exhibiting the notes S R M P and D only, and only one couple R M D — M D S.

Let us suppose, for the sake of convenience, the total value of the specimens to be 40 (as with *Jhaptāla* and *Surfākta* cadences). The C. L. V. in each case would be 16, an integer number. The unmediated consonances for the scale are S P and R P. The unsatisfied mediants are R M and D S. In order that a specimen may be perfect, the values of the notes involved in the unmediated consonances, and the unsatisfied mediants ought to be less than 16, the C. L. V.

Now distribution of the value 40 between the notes S R M P D gives us an average of 8. With such a distribution the values of S P, R M, R P, and D S, would all of them be equal to the C. L. V. Of course, all the specimens are not like that.

Nevertheless we conclude that such consonances and the mediants have to be guarded against supercharging if indeed they have to be perfect.

Is such a guarded distribution of values possible regarding specimens of S R M P D? Yes, of course it is possible. We may have, for example:

S - 4½	S - 3	S - 2½
R - 2½	R - 3½	R - 4½
M - 12 or	M - 10 or	M - 11 and so on.
P - 11	P - 12	P - 9
D - 10	D - 11½	D - 13
Total 40	Total 40	Total 40

If we want to search out only the perfect specimens of the presentations with S R M P D (names do not matter in the least), let us pick out only *those which show M, P, and D, as the first three notes by value*. Perfect specimens are possible with such a condition. But *perfect specimens are impossible with S or R as the dominant* or the next-to-dominant note. The reasons will be discussed in a separate chapter.

Let us take the scale S g M d n. The unmediated consonances are g n and M n, the unsatisfied mediants are S g and M d. Supercharge on g n means latency of m, P; supercharge on M n means latency of r, R; supercharge on S g means latency of P. A perfect specimen ought to be free from such supercharges. The name of the rāga or rāgini does not matter at all.

If we want to get hold of the perfect specimens let us pick out only those specimens which show d, n, and S, as the first three notes by value. It is among these only that perfect specimens of rāga *Mālkoush* (M d S dominant Universal), or

Koushiki (d S g dominant Universal), or their varieties are possible. With such perfect specimens when M is greater than g by value, the rāga is a masculine one, whether its name be *Mālkoush* or anything else. And when g is greater than M by value, the rāga is feminine, whether it is called *Mālkoush*, or *Koushiki*, or anything else.

Now suppose we have a specimen with S R M P D n. This gives us the couples R M D — M D S, and P n R — n R M. Moreover in this case the mediant R M stands satisfied already with n R M and R M D. Similarly R P finds complete expression with P n R. So only the mediant S D and the consonant S P are the two factors, concerning which supercharging has to be guarded against. This means that probabilities regarding latency are reduced in the specimens with S R M P D n. In fact the original latencies regarding the scale S R M P D have as it were found vent, though in part, in the manifest appearance of P n R and n R M.

Let us now suppose we are dealing with a scale S R G M P D n. It gives us R M D — M D S, P n R — n R M, and D S G — S G P. Obviously the unsatisfied latency springing from the unmediated consonance S P has now found expression in the appearance of the note G and of the D S G — S G P couple. Thus, the possibilities regarding latency, which appeared originally with the scale S R M P D, are reduced when the scale becomes S R M P D n. With the scale S R G M P D n the possibilities are reduced to almost nothing.

Such are the phenomena of *supercurrent latencies* as may be observed by a mere examination of scales only, irrespective of the question of rāgas that may evolve out of such scales.

We have to consider that we took up the scale S R M P D originally and then traced out the evolution such as:

SRMPD ⎫ laten- ⎫ SRMPDn ⎫ ⎫ SRGMPDn
RMD-MDS ⎰ cies ⎬ RMD-MDS ⎬ laten- │ RMD-MDS
⎩ PnR -nRM ⎭ cies │ PnR -nRM
⎩ DSG -SGP
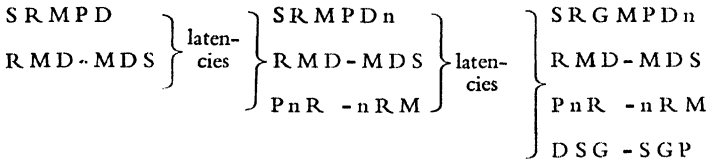
This means that the secondary and tertiary evolutes, may all be dominated by the class-motif S R M D, i.e. the R M D — M D S couple, and yet may present more and more complex designs.

But we must take into account similar, possible evolutions, taking the original scale as S R M P n and the single couple P n R — n R M at the start. The evolutions may be as:

SRMPn ⎫ laten- ⎫ SRMPDn ⎫ ⎫ SRGMPDn
PnR-nRM ⎰ cies ⎬ PnR-nRm ⎬ laten- │ PnR-nRM
⎩ RMD-MDS ⎭ cies │ RMD-MDS
⎩ DSG-SGP
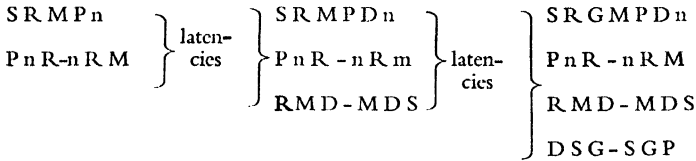
And so also for the primary scale S R G P D; wherein the evolutions may be as:

SRGPD ⎫ laten- ⎫ SRGMPD ⎫ ⎫ SRGMPDn
DSG-SGP ⎰ cies ⎬ DSG-SGP ⎬ laten- │ DSG-SGP
⎩ RMD-MDS ⎭ cies │ RMD-MDS
⎩ PnR-nRM
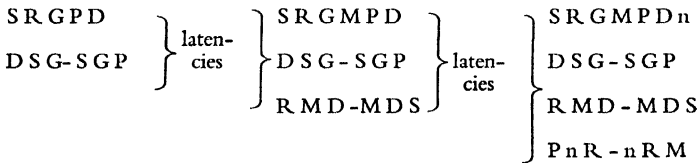
As an example of the third class of possibilities, the following may be examined:

=DnDP | —PRG | MPGM | R—S— | DDP— | SRS— | | RGMP | GMRS ‖

N.V.	U.V.	The design.	Remarks.
S - 6	S G P - 17	S G P - D S G i.e. S G P D	-Dom. C.L.V.-12¾. All motif. the consonants
R - 6	R M D - 14	R M D - M D S ,, S R M D	- Sub- and mediances Dom. are satisfied.
G - 4	M D S - 14	P n R - n R M ,, R M P n	- Sub- There is no la- sidiary tency in the pre-
M - 4	P n R - 14		sentation. It is a perfect speci-
P - 7	D S G - 14		men.
D - 4	n R M - 11		
n - 1			

Total 32

Unless we grasp the truth of such supercurrent as well as crosscurrent phenomena and a trend towards perfection as remote possible effects, we can never realise why *Suddha Kalyāna* starting with S R G P D (see *Maārif-un-Nagamāt*) encompasses the note N, and then N and m, and may be seen to rest on a structure with S R G m P D N, which ensures the easiest chance for perfect specimens. We should not be surprised or disconcerted if we come across rāga *Bhupāli* with S R G P D N (cf. book of notations edited by Prof. Murtuza Khan of Baroda, son of the famous Ostad Moulabux of Baroda, of the latter half of the 19th century). Nor should we neglect specimens of so-called *Jogiyā* with S r G M P d N, when we come across such a thing in the book *Sangita Sudarshana* by Pundit Sudarshana Sastri, or come to hear such a thing from artistes belonging to the school of the late Guruprasad Misra or the late Radhikamohan Goswami of Bengal — both of them classicalists and Dhrupadiyās by reputation.

There were things of so-called *Behāg* with S G M P N only. The only class-motif is S G P N. Then came the other things of the same or similar name with S G M P D N,

S R G M P D N, S R G M P D n N (*Behāgarā* of *Maārif-un-Nagamāt*), and S R G M m P D N. Yet the couple S G P — G P N may be dominant in such things. For such cases with S G P N as the class-motif, we should never think that it was mere whim on the part of the composers to have added the notes D, R, n, and m. Were it so, we could expect a *Behāg*, or a *Bihamgi*, or a *Bihāgarā* with g also, or even with r, and d. Why not? Simply because with S G P — G P N as the basic dominant couple, the consonance S P is perfectly satisfied with S G P; there is not the slightest need for S g P. The artiste, i.e. the artiste with the true instinctive vision of basic motif (*Rāga-vrtti* in Sanskrit), will never commit himself to whimsicalities, so long as he externalises his contemplation through a particular dominant motif. But, of course there are artistes and artistes, who sing and sing without the slightest regard for their inner instinctive motif, caring only for novelties and kinematographic presentation of notes. They want us, the listeners, to appreciate their motion instead of motif. We do appreciate them now and then, just as we appreciate the meaningless body movements of infants; movements which are devoid of artistic motif at the start, and which never culminate in the artistic presentations at the finish. There lies the difference between motive and motion and between art and activity, and there is such a thing as infantilism in the art of presentation of music.

CHAPTER IX

THE STATUS OF NOTES

WE began our studies on the basis of the twelve musical notes, with S or Shadja as the categorically accepted Fundamental note. With relation to that one particular note as the Fundamental, the other notes appear invested, as it were, with specific names and individual capacities. If we do not accept any note as the Fundamental, the assignment of names regarding the other notes becomes useless. For instance, if we accept the key named C as the Fundamental note, then, and only then, do the other notes arrange themselves in the scale as shown in the following diagram:

C D E F G A B, C D E F G A B

S R G M P D N, Ṡ Ṙ Ġ Ṁ Ṗ Ḋ Ṅ

And this is also true of all the other notes such as C sharp, or D, or g and so on correspondingly.

The notes C, D etc., remain specific and constant because they are associated with fixed values regarding the number of vibrations emitted per second during their evolution or emergence.

Not so, however, are the notes S, R, G etc. of music of the Rāga. For instance, the artiste may choose the note D (of foreign terminology) as the Fundamental. Then we have:

C D E F G A B, C D E F G A B

ṇ S R g M P D, n Ṡ Ṙ ġ Ṁ Ṗ Ḋ

And such is also true for the semi-tones in between the full tones.

In India, so far as the music of the Rāga is concerned, the notes are not accepted on the status of acoustic properties,

such as the number of vibrations per second, or any other intrinsic specific quality.

On the contrary, the artiste selects the Fundamental as a tone by itself according to his convenience. By the term 'artiste' I mean the person who sits down with the definite purpose of demonstrating the music of the Rāga before an interested person or group of persons.

Such convenience itself varies according to factors such as vocal or instrumental exhibition, limitations due to age and sex, and finally the 'thing intended to be demonstrated'. I intentionally exclude the factor of convenience regarding the teaching and learning of music, because in these cases the person is but a demonstrator for those moments.

I will not enter into the details of such convenience. The main point is that the Fundamental, i.e. S or Shadja, apparently has no *absolute* objective status by itself, so far as the music of Rāga is concerned.

And yet, there is a relatively objective status of such a Fundamental note. Otherwise the rāga musician would not have to tune up instruments such as the Tamburā or Vinā or Sarode. The question is what is that status.

The validity of the question is this. The acceptance of a note as S appears first and foremost in determining the subsequent demonstration. In other words, the appearance of S is independent of the notes which have not appeared, but which may appear afterwards. That being granted, what is it that determines the evolution, or emergence, or appearance of the Fundamental, i.e. S ? Is the Fundamental predetermined or not? If it is predetermined, what is the determinant? If not, then should we suppose the emergence of the Fundamental to be an accident?

The last question is ruled out. The music of rāga is not accidental; accidents do not happen with the frequency and regularity which are manifest regarding the selection or appearance of S the Fundamental.

So there is a determinant after all; of the existence of such a determinant, there is at least no logical doubt. It is after the determinant has necessitated the appearance of the Fundamental that the problem appears as to how is such a Fundamental is selected, i.e. the factors of convenience already mentioned.

Next, for the same artiste and for a given time, the Fundamental note remains fixed, in his percept and certainly on instruments such as the Tamburā. This fixture however depends on the secondary factors, viz. of convenience.

What then is the primary determinant for the Fundamental? Unless this determinant can be arrived at by reasoning, the status of S, the Fundamental tone, becomes obscure, if not accidental and inconstant.

The determining factor is the motif of raga which is preserved in the kinesthetic or psycho-physiological memory of the artiste. When the memory is stimulated the motif takes the design of a modulation. This is explained thus:

We have understood the truth of class motifs inhering in the couples. The couple S g P — g P n gives rise to the motif S — g— P— n. The couple r G d — G d N gives rise to motif r—G—d—N, and so on. Taken individually, the couple r G d —with the G d N, and motif r G d N is exactly equivalent to the couple S g P — g P n and its motif S g P n respectively, if we think of the facts of relation of notes and neglect the status of the Fundamental. In other words, a major chord coupled with a minor chord is the same thing, whether such an event happens at C, or G, or D, or any other point in the gamut Similarly, a minor chord coupled with a major chord would be the same thing, even if it happened at different points of the gamut. Here 'same thing' means categorically the same thing, because we of India do not recognise the specificity of notes so-called C, G, D etc., i.e. the specificity which is accepted according to acoustic values. As already stated, musical values regarding the Rāga music of North India are apprecia-

ted by values of relation only, not by values of acoustic properties.

Therefore, we would get only two kinds of couples, and only two kinds of motifs; and consequently, only two classes of Rāga and nothing else. But, as a matter of fact, we distinguish more than two kinds of motifs, and certainly, more than two kinds of rāgas. Such distinctions and differences are solely due to the distinctions and differences in modulations which emerge or evolve out of the couples or the motifs on account of the signature of the Fundamental. In other words, the couples $S g P - g P n$ and $r G d - G d N$; and the motifs $S g P n$ and $r G d N$ being the same categorically, the distinctions come out, when they emerge as modulations, as follows :

$S g P$ $- g P n$ $-$ motif $S g P n$ $-$ modulation $S g P n$

$r G d$ $- G d N -$,, $r G d N -$,, $S r G d N$

wherein- S is accepted as the common Fundamental. Similarly, though the couple $R M D$-$M D S$ is categorically equivalent to $S g P$ $- g P n$, the modulations are distinct and different as

$S g P$ $- g P n$ $-$ motif $S g P n$ $-$ modulation $S g P n$
$r G d$ $- G d N -$,, $r G d N -$,, $S r G d N$
$R M D$-$M D S -$,, $R M D S$- ,, $S R M D$

Now the distinctions and differences between class and individualities of rāga are primarily due to the distinctions and differences of modulations springing from motifs and couples; and the instinct for appreciation of such differences and distinctions is a natural one.

Therefore, we infer the possibility of an instinctive appreciation of the status of the Fundamental, without which the appreciation of the distinctions and differences of rāgas would be impossible. That means that the Fundamental pre-exists virtually in the musical memory of the artiste, such being predetermined by the designs of couples and the motifs.

And, when the artiste contemplates a demonstration, that Fundamental emerges in his foreconscious, charged with the noumenal motifs, together with the distinctions and differences. After the reinstatement of the Fundamental as a *de facto* .tone, it is simply the volitional impulse of the artiste, which is responsible for the selection of a particular Rāga, or an individual song.

Thus, the status of the Fundamental is a predetermined thing in the psychic make-up of the Rāga-artist. But it is a status only; and not a specific acoustic property. There is a great difference between musical status, and acoustic status. The tone emitted by an ass during moments of exultation is considerably rich in acoustic make up, consisting of many tones, overtones etc. However rich and powerful that status may be acoustically speaking, it is not recognised by the musical ears of human beings as a musical status.

It may be objected that the appreciation of distinctions and differences of motifs of rāgas is not a matter of natural instinct, but is due to artificial training because everybody cannot appreciate such differences.

Such an objection may be answered in this way. The appreciation of distinctions and differences by means of the sense organs is a natural instinct which may be considerably perfected by practice. We cannot say that no such instinct exists naturally, and the fact of appreciating the differences is a matter of habit. Every human being, even a newborn babe, can appreciate the difference between a salt-solution and a sugar-solution, though he cannot say what salt or sugar is. Mere appreciation of differences or distinctions has been seen to exist without the ability of explaining and attributing such differences to some essential cause. The man in the street, who has not studied Helmholtz's *Sensations of Tone*, may say, 'This person's voice is sweeter than that person's voice'. How does he do it, if he does not possess the instinct of appreciation of differences and distinctions between tones charged with

good harmonic overtones, and a tone charged with inharmonic overtones?

The example cited in the course of the objection is, however, partly true. There being the instinct for appreciating the distinctions and differences of motifs and rāgas, certainly such instinct may be perfected by proper education, and as certainly it may be suppressed by neglect or want of education, or vitiated by faulty training and introducing faulty theories.

Resuming our subject, we first of all accept the status of the Fundamental, because in the instinctive psychic make-up there are the distinctions and differences of motifs and modulations. These potential characters regarding the motifs predetermine the status of the Fundamental. Granting that, it follows naturally that the status of other notes of any particular motif is also predetermined in relation to that Fundamental.

Thus *the problem of the status of musical notes resolves itself into the problem of the notes which go to make up the motifs and primary modulations of rāga.* Any note which plays its part in the organisation of a motif, and the emergence of a modulation representing the class-motif, is a note which has its status determined already. Any note which has no part to play, or no role in the class-motif, is devoid of status.

The words 'mode' and 'modulations' convey ideas which are practically equivalent to those conveyed by the Sanskrit term 'Mūrchhanā' and the Hindi term 'Daul'. I heard virtuosos, for example Fidahussain Khan Saheb, Ostad Badal Khan Saheb, Hafiz Ali Khan Saheb, and Chandan Chowbeyji, using the term 'daul' with intentions practically identical with those expressed by the terms, 'mode' and 'modulation'. And yet, the word 'āroha-abaroha' does not mean the same thing as 'daul' of a rāga.

In short, *only the peculiar groups of five or six notes out of twelve notes* are vested with a status which is intrinsic or endogenous. The rest of the notes are merely subordinates regarding the prime group of notes. These subordinate notes have

only an exoteric status. Such status grows out of their inci-
dental association with the intrinsic design.

Let us examine the status of notes intrinsic to the design,
i.e. class-motif, because the primordial evolute is the class-
motif, the most intrinsic part of the entire design.

The class-motif inheres in the couple, and is essentially
constituted of four notes only. We take an example.

D S G — S G P is a couple with the class-motif S G P D.
Here the Fundamental is merged in the motif. We examine
the notes S, G, P, D.

We know that, S G, G P, and D S are related as mediants,
S P and G D are related as consonances, and there is a relation
P D which we shall take into account later on.

We may say that the class-motif is constituted of two
mediances and two consonances, plus a relation P D. The
mediance and consonance confer the status or responsibility on
the notes. So, status No. 1 is mediance; No. 2 is consonance and
No. 3 is that P D relation. Notes constituting the class-motif
appear with those three status.   ·

In other words, S G, G P reinforce the consonance S P; S G
and D S reinforce the consonance D G; S and P reflect
consonances for each other, i.e. P and S; D and G reflect con-
sonances for each other. Such reinforcements and reflections
constitute the functions of mediance and consonance.

The status of S with its organic role in the class-motif is
one of mediance and consonance regarding G, D and P. The
status of G is one of mediance regarding S P and consonance
regarding D. The status of P is one of mediance and conso-
nance regarding G and S, and *an unnamed relation regarding D.*
The status of D is one of mediance and consonance regarding
S and G, and *an unnamed relation regarding P.*

What is this unnamed relation between P and D? We
have seen that the class-motif is constituted of the Uni-
versals D S G and S G P. Any preponderance of one over
the other makes for the dominance of the individual motif.

The factor causing such preponderance is the comparative values of D and P. If D is greater than P, D S G becomes dominant by power of value; if P is greater than D, S G P becomes dominant by power of value.

Thus D is a champion as it were regarding the dominance of D S G; and P is a champion regarding the dominance of S G P. *So a relation of rivalry or opposition potentially exists between P and D, so far as the class-motif S G P D is concerned.*

WISDOM OF ANCIENT THEORISTS

The exponents of the Rāga theory of ancient India conveyed such deductions to us by saying that notes of the Rāga appear with relations of (a) Sambāda (consonance) (b) Anubāda (mediance) and (c) Vivāda (rivalry, opposition). The terms show that the person or persons who invented them had their intelligence fixed upon the objective design of Rāga, but certainly not on any imaginary mystico-spiritualistic delineation about Rāgas, which did not appear earlier than the fifteenth century A.D. Such terms are met with in the famous compilation known as the *Nātyasāstra* (of Bharata Muni, the earliest authority on drama, dance and music) as part of settled tradition.

The consideration of the status of the notes leads us to think of the intrinsic design of rāga as an organisation in which the notes involved have separate portfolios, but combined operative capacities.

The next question is what is the necessity of such a static design or organisation? The answer is that some one of such notes may become the spokesman for the individual raga during phenomenal appearance. Such a note is the dominant note. And that note has to be assisted by the other notes with their status and capacity. That dominant note has the temporary status of spokesmanship as it were of the organisation. The word 'Vādi' signifies such meaning and intention

13

viz. 'spokesmanship'. Such a dominance is *de jure*; but not *de facto*.

Thus we conclude:

(*a*) Only such notes as have their role in the class-motif of a rāga are charged with intrinsic status. All other notes of scale have only incidental or extrinsic status.

(*b*) The relations of consonance, mediance and rivalry signify three general status of the notes of the class-motif. These again combine and converge to make one of such notes individually dominant. Thus the dominance of a note appears as a 'relation of particular relations'.

(*c*) The status of notes as observed is formal and static by nature and design, just as in the draftsman's design of a house, the status of the different parts of the house is formal and static by nature and design.

(*d*) The static picture is necessary to the future, phenomenal, or functional appearance of the rāga with its individual and class-motif. If the status of the notes in the design is neglected, the design suffers first and foremost. Abnormal or defective design undergoing functional metamorphosis gives rise to abnormalities of the body and development of the rāga that was designed and intended to be presented.

(*e*) Lastly, the static picture of the organisation points to the different phases of the functional appearance of the rāga as an objective presentation. In other words, just as there are the static relations of the design and categorical status of the notes, so there are functional relations of the notes of a rāga in its evolution and phenomenal appearance.

Regarding the functional or *de facto* status of notes of rāga in course of evolution, I will not enter into details in the present work. But I present briefly the substantial truth contained therein.

The set of terms, *Graha, Nyāsa, Apanyāsa* and *Angsa*, was intended for the explanation of the phenomenon of functional appearance of a rāga — as distinguished from the other set, Vādī etc., which was intended to explain the static design.

The set *Graha* or *Grha* etc. is chiefly concerned with the facts and theory of composition of music and song. As such, I will not deal with the details of this set here.

In connection with the idea regarding the status of the dominant note (the same as the Vādi note of ancient authoritative traditions), it is interesting as well as important to observe that,

(*a*) according to objective findings, more than one note may be dominant for any one raga.

(*b*) regarding the oldest traditions, there is not the slightest reason for thinking that the ancient authorities while defining the Vādī note, intended to mean *only one note as the Vādi for each rāga*, and disallowed more than one note as the Vādi for each rāga. Later medieval and recent theorists on the music of the Rāga simply failed to understand or properly interpret the dictum about the Vādi of the oldest traditions.

THE NEUTRAL NOTE AND ITS STATUS

As yet we have examined some of the designs which reveal three or sometimes more than three couples. Such for instance are the specimens of *Khambāj*, *Bhairava*, and *Rāmakeli* so-called.

We shall see that there are specimens with five or six notes which reveal only one couple and only one class-motif manifestly. Applying the rule of the two-fifths, we may discover perfect specimens from among these specimens. I just hinted at the general method of searching out the perfect specimens. So we take it for granted that there may exist perfect specimens in all individual ragas which reveal only one couple and a single class-motif.

Let us take up, for example, an individual of the famous class named *Bhūpāli* (or *Bhūp*) with S, R, G, P, and D only. Our intention is to study the status of the notes involved therein.

The couple is D S G — S G P; the class-motif is S G P D. So the essential notes are S, G, P, D. But what about the note R associated with the scale? The question looms large before our mind's eye because the note R may be dominant in some one or more of the perfect specimens. There is no denying such a possibility. In that case, should we consider the note R as an essential note, i.e. intrinsic or vital note of the design? How and why does it come to be installed as it were in between the notes S and G, i.e. the common mediants of the modulation D S G — S G P (Appendix VIII)?

Close observation shows (*a*) the note R to be placed in between the common mediants, viz. S and G, (*b*) the note R does not introduce a new Universal to the design and (*c*) the note R is consonant to both D and P, i.e. the notes at the extremities of the modulation D S G — S G P, as may be shown in the diagram.

D————S   R   G————P

I call such a note a *neutral note* for its position and its rela-
tion.   A neutral note is posited between the common
mediants and it is consonant to the starting or the ending
note of the modulation. *But it must not introduce a new
Universal to the design.*

Let us take the modulation of M d S — d S g, which runs
through the rāga *Mālkoush* so-called. We see the note n
placed as neutral note. The modulation of R M D — M D S,
running through the so-called *Durgā* rāga shows the note P as
a neutral note. The modulation of P n R — n R M, running
through *Megha, Sāraṅg* etc. shows the note S, the Fundamental
itself, as the neutral note. The modulation of P N R — N R m
of the scale S R m P N shows the note S as the neutral note,
which is consonant to P only. The modulation of d S g —
S g P of the scale S r g P d (concerning *Bhūpāl Todi* so-called
and others) shows the note r as the neutral note, consonant
to d. The modulation of S G P — G P N, which runs through
Oudab Behāga so-called, shows the note M as the neutral
note consonant to S. The modulation of r G d — G d N,
which runs through *Shuddha Dhanāshri* (with S r G m d N),
shows the note m as a neutral note, consonant to both
r and N. The modulation of M D S — D S G shows the notes
n and N as neutral notes, consonants to M and G respectively.
The motif is presented in rāga *Kosi* or *Hindolī* and a few others.

All this goes to show that the neutral note is not an incidental
note any way. In other words, the neutral note, whether it
is S or any other note, has its peculiar status and a responsibility.
Its peculiar status is this. The best neutral note is by choice a
consonant to one or both the notes which are at the start or
finish of the class modulation.

Its responsibility has to be inferred from certain considera-
tions. We cannot have a perfect specimen of a rāga with
S G P D (D S G—S G P), or   S g M d (M d S—d S g) or

S G M D (M D S—D S G), or S G P N (S G P—G P N), or
S g P n (S g P—g P n) and many others. *A fifth note is
necessary. And it must be such as does not introduce a new Universal.*

One may say that the scale *S r G d N of five notes* ought to
exist as a rāga scale, with S as the fifth note. But it does not,
though we see that the rule of the two-fifths allows of a
perfect specimen with such a scale. Similarly we may try a
scale S r G P N and compose a perfect specimen, and so on for
a few others like that [Appendix VIII]. That is to say, a bare
statement, for instance a rāga must have five notes in the
minimum would be wrong if it does not take into account
the virtual as well as *de facto* necessity of a neutral note. The
scales S r G d N and S r G P N may turn out perfect designs
provided they utilise neutral notes. In the former with
r G d—G d N as the modulation, the neutral note of choice
is m; in the latter with S G P—G P N, the neutral notes of
choice may be M or m or both. Perfect specimens will be
possible with S r G m d N (*Suddha Dhanāshri*) and S r G
M P N because there are the neutral notes of choice neces-
sary to such scales.

How such a neutral note or notes comes to be are matters
of detailed study and inference. The reader is referred to the
Appendix: 'Class Modulation and the Neutral Note'. In the
meantime we observe that:

(*a*) the minimum number of notes required for the embodi-
ment of a rāga is five, one of which must be a neutral note.

(*b*) For the purest, i.e. the simplest design, of rāga with
one single couple and one class-motif, the neutral note is such
which does not give rise to a new Universal.

(*c*) The neutral note of choice is consonant to either or both
the first and last notes of the class modulation. Constituted as
such, it occurs in natural, primitive scales of melodies.

(*d*) The other variety of neutral notes is by accident a
mediant only to some of the notes of the class-motif. As
such, it occurs in unnatural, sophisticated scales of melodies.

THEORETICAL CONSIDERATION OF
THE VADI NOTE

A SSUMING the force and power of latencies indicated by the rule of the two-fifths we may generally infer that the greatest chances regarding the indication of latent notes occur with the specimens of the pure class of rāgas, i.e. with one single couple and with five or six notes only. The reason is that the distribution and adjustment of values have to be limited in such a way that latencies do not manifest themselves. And such a distribution and adjustment is most difficult for rāgas with five notes. The difficulty decreases quite swiftly with rāgas of six notes, and it becomes negligible with rāgas of seven or more notes.

This leads us to certain considerations about the Vādi note, i.e. the note with the highest value in the design of pure class of rāgas with five notes only. Because the pure class of rāga is the simplest, therefore the consideration of the factors which go to instal the Vādi is of utmost importance.

The examination of specimens, as they are, has discovered for us an unchallengeable fact regarding the incidence of the Vādi note for a rāga. The fact is that for any rāga, any of the notes of the dominant Universal may be the Vādi; moreover some neutral note may also be the Vādi. That gives us altogether four notes, each of which may be the Vādi for a rāga. Thus we may say with confidence *that the idea of one and only one note as the Vādi for a single particular rāga is a myth. It is not supported by any ancient thesis, or by observed facts.*

On the other hand, correct readings of the design of rāgas with only five notes, in the light of the ideas of latency show that the empirical statement, viz. four notes may be Vādi for a rāga, has to be curtailed or modified. The rectified

statement would read 'only the notes of the common mediant, and the neutral notes, may stand as candidates for Vādi; and none else so far as the rāgas of the pure class with five notes are concerned'. This is a rule deduced out of correct observations. And, because this rule applies to all the rāgas of the pure class, i.e. the simplest class, therefore, categorically speaking it applies to all the rāgas. Enlargement of the scope does not mean violation of the rule as it is.

The truth of this rule is clarified when we examine the rāgas with five notes with reference to the distribution of note values.

Rāgas with five notes are for example *Bhūpāli* and *Suddha Kalyāni* with S R G P D; *Mālkoush* and *Koushiki* with S g M d n; *Megha, Sārang,* or *Mallār* with S R M P n; *Durgā* with S R M P D; and such others. Let us take up one of them, say *Bhūpāli*, with S R G P D. The basic design shows:

$$
\begin{array}{c}
\text{R} \\
\text{D}\text{------}\text{S}\text{------}\text{G} \\
\cdot \qquad \text{R} \\
\text{S}\text{------}\text{G}\text{------}\text{P}
\end{array}
$$
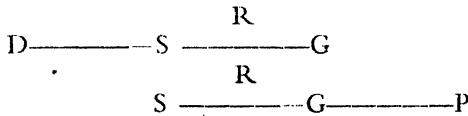
wherein S G is the mediant common to D S G and S G P. In other words, S G is the common mediant, and the notes S and G are the notes of the common mediant. We have already understood why the notes D and P are considered as rivals or Vivādi notes. The note R is the neutral note. Categorically it is the '*Madhya Svara*', i.e. the note intermediate between the mediants S, G [Appendix VIII].

For the rāga *Mālkoush* we have:

$$
\begin{array}{c}
\text{n} \\
\text{M}\text{------}\text{d}\text{------}\text{S} \\
\text{n} \\
\text{d}\text{------}\text{S}\text{------}\text{g}
\end{array}
$$
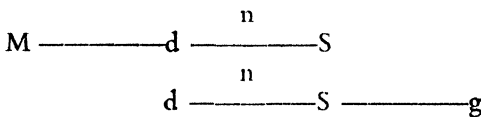
Here, S and d are the common mediants; M and g are the rivals (Vivādi) and n is the neutral note (madhyasvara).

For the rāga *Megha,* we have:

```
                      S
P —————————n —————————R
                      S
        n ——————————R ——————————M
```
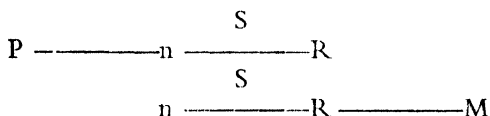
Here, n and R are the common mediants; P and M are the rivals; and S is the neutral note.

For *Durgā* we have:

```
                    P
R—————————M—————————D
                    P
        M—————————D—————————S
```
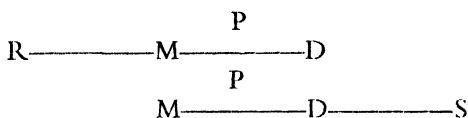
Here M, D are the common mediants; R and S are rivals and P is the neutral note; and so on for other rāgas of five notes.

Of course there may be a few others of five notes, which show an abnormal placing of an incidental note, such as a scale with S r G P N. Here we have:

```
            r
S —————————G —————————P
          G —————————P —————————N
```
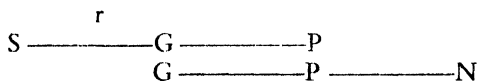
We have G, P as common mediants; S, N as rivals; and the note r as incidental, because it does not belong to either of the Universals. It is mediant to G only.

If we remember the implications regarding C. L. V. and the latency of notes and Universals, we at once infer that supercharges on any or both of the common mediants will not provoke a latency because the mediancy is satisfied in both directions.

For instance, S and G are the common mediants for *Bhūpāli* and *Kalyāni*. Let us suppose the total value of a specimen to be forty units of time. C. L. V. = 16. If S+G exceeds C. L. V., i.e. 16, still no latent notes would be invoked because there are the D S G, and S G P Universals already on the stage. Let us suppose S= 10, G= 11; that would

be no cause for an indication of latency. In fact, even if S= 16, and G= 15 or 16, there would be no harm. But there is a limit for them. And that limit is due to some minimum value of D, P and R.

Assuming that a note ought to have at least one unit of time as a minimum value, we put D= 1, and P= 1 just for an example, also R= 1. In that case, S+G is a value which is limited by the consideration: T. V. (i.e. total value) — (1+1+1) = S+G = 37. If we distribute this 37 variously between S and G, we may have:

(1)	(2)	(3)	(4)
S = 18	S = 19	S = 30	S = 1
G = 19	G = 18	G = 7	G = 36

and so on. Now we find that whatever be the values on S and G, both of them, or any one of them, provoke latency when combined with the values of D and G or any one of them.

That means that if we want S as the dominant note, we cannot give it a value more than C. L. V.—$\frac{1}{2}$, and so also for G. In other words, in trying to make S the Vādi, and at the same time to avoid the cause of latency by D+S, we may not charge S with a value higher than 14$\frac{1}{2}$. Similarly for G also, the number is limited to 14$\frac{1}{2}$, provided D= 1 and P= 1 as the minimum values.

Thus, we may say that the notes of the common mediants may be Vādi, but with a limiting value (C.L.V.—1$\frac{1}{2}$). If we discard thinking in terms of fractions, we may put it as: the values of S, or G, as dominant may reach up to (C.L.V.—2), i.e.= 14.

If number 14 be the highest values for S and G, then we have S+G= 28. That means that the total value — 28= 40 — 28= 12. This is the value which has to be distributed between D, R, and P. Again, of this 12, D and G may not have more than the value 1, for each of them, because number 2 for D or G would

invoke latency when combined with 14, the value for S or G. Thus R= 10 by practical limitations.

Thus for the total value, 40, and with the Vādi as S or G, we may say that the limiting value of the Vadi $= \frac{14}{40} \times 100$ percent= 35 percent of the total value.

Let us find out the lower limit of values of the Vādi for S and G. We know that supercharges on D S, D R, R P, and G P would give rise to indications of latency. We have to avoid them. That means S+G would be such a value in the minimum that the value 40—(S+G) may be distributed among D, R, and P without provoking latency.

The highest values that may be distributed between D, R and P without provoking latency are D= $7\frac{1}{2}$, R= $7\frac{1}{2}$, P= $7\frac{1}{2}$; together= $22\frac{1}{2}$. Therefore 40—$22\frac{1}{2}$ is a value which has to be distributed between S and G, that is to say S+G= $17\frac{1}{2}$. Let us suppose, we distribute this $17\frac{1}{2}$ as 8 and $9\frac{1}{2}$ between S and G.

Now, we find that D+S or G+P has an undesirable charge. Therefore, we have to reduce the values of D and P to 6 and $7\frac{1}{2}$ respectively. Consqeuently, the value of R has to be increased above $7\frac{1}{2}$ by discrimination and R may be dominant without the chance for latency.

Thus, we find that, with certain limitations regarding values, the notes of the common mediant and the neutral note may be Vādi.

Now we try to find out if dominance of the Vivādi notes (rival notes) P and D may be possible or not.

In trying to bring about dominance for D, we must see that any of the combinations D+S, D+R, R+P, G+P does not reach upto C.L.V., i.e. 16, and the same holds for the dominance of P. We find that satisfying those conditions, dominance for either of P or D is impossible. Thus we may say that concerning the rāgas of the pure class and with five notes only, the notes of the common mediant and the neutral note of choice may stand as candidates for dominance and none else.

Not only does this rule hold good for pure rāgas of five notes, but also for pure rāgas of six notes, and all other rāgas —hybrid and mixed. The only modification is that for the latter groups of rāga, the clause 'none else' has to be deleted, because with rāgas of 6 notes and all the others of the hybrid and mixed classes, the increase of notes in the body of rāga helps an easier distribution of values without indicating latencies.

For example, with a rāga made up of S r G m d N, the common mediants are G, d. They may stand as candidates by birthright as it were. The note m as neutral note may also stand for dominance without trouble. Let us see whether S, or N may be Vādi or not.

Granting a total value as 40 and C.L.V. as 16, we see that high values may be put on S, r, and N, because combinations of the values of these notes never indicate latencies. Suppose we have S= 10, r= 9, and N= 8, we have already distributed 27 units out of 40. The remaining 13 units may now be distributed between G, m and d, for instance as 5, 4, 4, without indicating latencies arising out of S+ G, r+ G, r+ m, m+ N and d+ N.

Thus we may say, excepting the pure rāgas of five notes, all the other rāgas may exhibit all the notes as Vādi without indicating latencies.

Let us induce this for Khambaj with S R G M P D n N. We saw that the class modulation is S G M D N or S G M D n. We found also that the basic mūrchhanā is S G M P D n or S G M P D N.

In all these the common mediants are D, S; n and N are neutral notes. Any of these may be Vādi. Besides that S, M, and P also may be Vādi, if we take into consideration the abnormals and varieties.

Strictly speaking, the normal designs ought to allow dominance for S G M D and n or N, if the class-motif and the dominant motif are to be adhered to.

NEW MEANING OF VADI, SAMBADI ETC.

The rule for dominance as obtaining for pure rāgas with five notes discovers for us a new meaning of the terms Vādī, Sambādi etc.

Taking a perfect specimen of *Bhūpāli* with D S G as the dominant motif, we see that S, R, and G may be Vādī. P and D are engaged with each other as fighting rivals (Vivādī). They may never be Vādī.

The possible Vādīs are quite near to each other. In case S is Vādī, the notes R and G are Anubādis as servants; and P is Sambadi at a distance, just as the minister is to the king. The minister is never dancing attendance as the servants of the king are. Finally, the note D, which is tolerably near S, is also an Anuvadi.

If R were Vādī — S, and G would be Anubādis, and P and D as Sambādis. If G were Vādī, S, R, and P would be Anuvādis and D the Sambādi.

For *Bhūpāli* rāga, P and D may never be Vādī, because if any of them be the king, the other becomes an Anuvādi and a Vivādī at the same time. A rival in the guise of a dancing attendant forbodes evil for the king.

P and D are rivals, because, dominance of one over the other subverts the rāga design. Whichever of S, R, or G may be Vādī, if P is greater than D, then the case is *Kalyāni* rāga, or the derivatives; but not *Bhūpāli* rāga. Thus P represents as it were the status of a female minister or administrator, or possibly the queen. Such an administrator has to be kept is check by D in the opposition bench.

In the case of *Kalyāni* rāga, with any of S, R or G as Vadi — the chief minister is P with power greater than the rival D.

It is interesting to note, that from very ancient times, the ideas, meanings and implications of the terms Vādī, etc. had developed along these two collateral lines of thinking.

Such ideas came down from quite early times, in the form

of settled traditions of still more remote times. It seems to me that the rāga-minded people of comparatively later times neglected to put such traditions to the test of objective analysis, thereby letting loose the play and interplay of speculative and empirical interpretations verging on absurdity. If anybody asks my opinion about those early times when interested people had already neglected objective research, I would say such were the times when authorities such as Kāśyapa, Dattila, Yāstika lived and flourished. Matanga, the author of *Vrhaddeshi*, quotes from such authorities. A study of *Vr-haddeshi* shows that by far the best part of the intellectual energy of Matanga was spent in trying to reconcile the loose empirical statements of such authorities on the one hand, and the cryptic statements of Mahāmum Bharata and Nandi-kesvara on the other. Matanga has scarcely anything to say for himself. He is occupied for the major part of his work in solving the crossword puzzle of widely divergent interpreta-tions of earlier authorities. Nevertheless, we come across gems of earlier tradition; such gems as are still capable of illuminating the facts of the present day if made proper use of in intellectual discussion on Rāga music in general.

DOMINANCE OF VIVADI NOTES

Theoretical considerations lead us to conclude that for scales of pure rāgas with five notes wherein the neutral note is one of choice, the rule is 'any of the common mediants, or the neutral note of choice may be Vādi, i.e. dominnant; and none else'.

But there may be hypothetical scales with a note which is not placed between the common mediants. Such a note is inci-dental. The scale S r G P N may be taken as an example. Here r is incidental. Working out the possibilities regarding the do-minance of notes, we find that the notes S, r, or N may be dominant, but not the notes of the common mediance. In

other words, the Vivādi notes S and N, and the accidental note r may be dominant with such a scale. Such a scale is unstable in the sense that the note r has nothing as a check which prevents its becoming sharper and sharper, and approximating towards the note R, which is a consonant to the note P. We may suppose that there are natural scales as well as unnatural, sophisticated scales, and that a scale like S r G P N is a sophisticated scale. Similarly, S r G d N is an unnatural or sophisticated scale. The chromatic series N S r in these scales is really unnatural in the sense that it tends to disrupt and the note r tends to become sharper and sharper.

From the point of view of ancient traditions, such scales and rāgas would be considered as 'Vikrta' in the sense that the Vivādi notes try to forcibly assume dominance with the handicap of a rival note close to the Vādi note.

CONCEPTS OF SHRUTI, GRAMA, AND MURCHHANA

So far as the objective study of the categories of Rāga and Rāgini of North Indian traditions is concerned, the concepts of Shruti and Grāma are not necessities as propositions. Bharata Muni, the authority of *Bhāratiya Nātyasāstra*, felt the necessity of such propositions regarding a particular ideology and purpose of dramatic music. The ideology of music of *Bhāratiya Nātyasāstra* takes its stand on the proposition of Rasa as an aesthetic perception, but had nothing to do with the concept of Rāga, the active principle of Rāga-Rāgini music.

Setting aside theories and ideologies, we have to see whether the notes invested with different so-called Shruti values may alter or disturb the categories of Universals (*Khandameru*) and the couples.

Let us suppose, we have three kinds of r, i.e. Komal Rshava. Correspondingly we have three kinds of d, i.e. Komal Dhaibata. Let us call them r_1, r_2, r_3, and d_1, d_2, d_3.

Now the categorical Universal termed r M d according to our observation covers all of them, as:

$$\left.\begin{array}{ll} (1) & r_1 \text{ M } d_1 \\ (2) & r_2 \text{ M } d_2 \\ (3) & r_3 \text{ M } d_3 \end{array}\right\} \text{ Category is r Md.}$$

Thus even if we accept the fluctuating values of the r etc., such fluctuations do not disturb the categorical status. So for present purposes any theory about fluctuations due to Shrutis need not complicate the categorical issues. And because the idea and delineations of Grāma rest on the basic theory of Shruti, and because the theory of Shruti is not

needed here, therefore the concept of Grāma is also not needed
for the present.

In other words, the denominations of the twelve notes,
1. Shadja, 2. Komala Rshava, 3. Rshava, 4. Komala Gāndhāra,
5. Gāndhāra, 6. Madhyama, 7. Teebra Madhyama, 8. Panchama,
9. Komala Dhaibata, 10. Dhaibata, 11. Komala Nishāda,
12. Nishāda, are not only categorical, but also practical, in the
sense that they cover all the fluctuations that may appear
regarding such twelve notes.

MURCHHANA, OR MODULATION, AND THE NEUTRAL NOTE.

We had sufficient justification for accepting the primordial
modulation of the notes which make up the class-motif.
For instance, the couple S G P—G P N yields the notes of the
class-motif as S G P N. The successive musical appearance
(Appendix VII) of these notes constitutes the primary modula-
tion for the class. Or, for instance, the couple r G d—G d N
yields the class-motif r G d N. Because the Fundamental S
may never be discarded the primary modulation for the class
would therefore be S r G d N.

Then, considerations about the latency of notes, arrived
at by means of the application of the rule of the two-fifths
together with the considerations of necessity regarding the
exposition of the simplest rāga designs and the neutral note,
led us to add another note of choice to each of the class modula-
tions. Thus the primary motif S G P N would evolve
into a concrete and complete modulation such as S G M P N
or S G m P N. And for the motif S r G d N the evolute
would be S r G m d N. In this latter case, an evolute such
as S r G M d N would not be considered as a modulation for
the class r G d N simply because the appearance of the note
M evidently introduces another new elemental class, r M d—
M d S, inside the design.

Such are the typical examples of what I term 'final modula-
14

tion' or simply 'modulation', concerning the purest, i.e. the simplest designs of rāga. This modulation is equivalent to the word 'Mūrchhanā' in the Sanskrit language. A modulation or Mūrchhanā is composed of five essential notes in the minimum and six essential notes in the maximum, so far as the simplest rāga designs are concerned. That is to say the simplest rāga design does not require more than six notes for its modulation.

It is not difficult to understand that this modulation or Mūrchhanā is not specific for a particular rāga, male or female. On the contrary, a particular modulation evolving out of a particular class-motif is the common, axial feature for more than one individual rāga arising out of such a class. For instance, the modulation S R G P D is common to *Bhūpāli, Suddha Kalyāna, Deshkāra, Jayet Kalyāna* etc. so called. The modulation S r G m d N is common to the designs as follows:

1	2
r G d - Dom. Universal.	G d N — Dom. Universal.
G d N - 2nd	r G d - 2nd

as also of the varieties springing from two such designs.

Let us examine the modulation or Mūrchhanā of designs constituted of two couples, as for example S G P—G P N and r G d—G d N. The modulation would be S r G P d N of six notes.

The modulation of the class S G P—G P N taken individually is bound to involve the note M or m by choice, as S G M P N or S G m P N. The modulation of the r G d—G d N class taken individually is bound to involve the note m. These are foregone conclusions. When the two classes and not the modulations are combined in one design, the note m is a better choice and a virtual necessity, though *the six notes S r G P d and N are sufficient to compose a perfect specimen.*

Of the two neutral notes, M and m, the former is a vitiating superfluity, because its appearance introduces a third couple,

r M d—M d S. I say 'vitiating' because we are limiting ourselves to the arrangement of only two couples in this case A third couple vitiates the contemplated mixture.

The note m is however a necessity not only because its appearance does not cause a vitiation categorically, but also because it stabilises all the possible modulations evolving out of the hybrid class composed of the two couples S G P— G P N and r G d—G d N. In other words, a rāga presentation consisting only of S, r, G, P, d and N is unstable as a Mūrchhanā, even if it is perfect by design.

The importance of the idea of Mūrchhanā, i.e. modulation, is to be appreciated in the sense that, objectively speaking, a Mūrchhanā forms the very backbone of the phenomenal emergence of the rāga. Regarding this Mūrchhanā, the ancient tradition says 'rāga is born of Mūrchhanā'. And the specificity of Mūrchhanā may be well utilised in symbolising the rāga, first as a class, and secondly as an individual of the class. The method of symbolisation was generally termed 'Mūrchhanā-pratyabhijnāna' by traditional authorities of ragā music of times earlier than those of Matanga Muni.

For instance the couple D S G—S G P delivers the class-motif S G P D. This yields the class modulation S R G P D. This class modulation is the same for both the evolutes, viz. rāga *Bhūpāli* with D S G as the dominant Universal and *Kalyāni* with S G P as the dominant Universal.

We may lay out a specific Mūrchhanā or modulation for those two kinds of evolutes in the following way :

The Mūrchhanā D S R G P by itself is intended to signify that the Universal D S G is the dominant one. The start with D is a signature for the Universal D S G which appears first in the run of the notes. The Mūrchhanā S R G P D by itself is intended to signify that S G P is the dominant Universal.

Thus, speaking of this particular class of rāgas, we may express ourselves by saying that rāga *Bhūpāli* and some others

have *Dhaibatādika Mūrchhanā*; while *Kalyāni* and some others
have *Shadjādika Mūrchhanā*. *Dhaibatādika* means 'beginning
with note D'. *Shadjādika* means 'beginning with note S'.
The idea underlying the term 'daul', in the Hindusthani lan-
guage of the pre-Tansen period, is equivalent to this sort of
thing concerning classical rāga music of North India.

The concept of Mūrchhanā, in the abstract, is of great value
regarding the principles of the music of rāga, because, as we
have observed, the 'ebullition' of the class-motif together
with the dominant motif is the vital event in the presenta-
tion of rāga. I use the word 'ebullition' intentionally.
The word 'Mūrchhanā' is derived from the root 'mūrchh'
which has one of its meanings as 'samuchhrāya', i.e. 'ebulli-
tion'. Milk in a pan is seen to undergo ebullition when it
is heated. Similarly, the predetermined motif in the musical
memory of the artiste undergoes a process of ebullition when
he commences to present a rāga. Mūrchhanā is the subtle
convection current of ebullition which appears and conti-
nues throughout the period of the presentation of the rāga.
The musical savants of ancient India were past masters in the
art of coining words from appropriate roots. The least
homage that we of the present day can pay them is to be
able to understand their words and their intentions underlying
such words.

It is a foregone conclusion that all rāgas with the same class-
motif will be based on the identical, primordial modulation.
Individuation of this primordial modulation will necessitate
one or two extra notes in the Mūrchhanā. For instance
Jogiyā, *Bhairava*, *Lalita*, *Ahiree* and *Rāmakeli* have the same
class-motif S r M d. Individuation begins with the pre-
determination for a rāga as an individual.

EXAMPLES OF INDIVIDUATED MODULATIONS

Setting aside names of rāgas which may create confusion,

let us take the couple r M d — M d S and the motif S r M d as an example.

We have two fundamental designs:

<div align="center">

(1)   (2)

r M d - D. Universal.   M d S - D. Universal

M d S - 2nd   r M d   - 2nd

</div>

Taking No. 1 showing r M d as dominant, the note m becomes a natural candidate for introduction as a neutral note because m is consonant to r.

Thus we have the primary modulation as:

<div align="center">(1) r M m d S, i.e. S r M m d,</div>

whatever be the class name. The neutral note m appears as:

<div align="center">

m

r———M———d———S

</div>

Now the note P may also be introduced inside the interval M — d because P — S is a consonance. Thus we may have another primary modulation:

<div align="center">(2) r M P d S, i.e. S r M P d.</div>

whatever be the class name.

Supposing now we invert the design, with 'M d S' as dominant, we get two other primary modulations:

<div align="center">

(3) M P d S r - i.e. S r M P d

(4) M m d S r - i.e. S r M m d

</div>

Thus with S r M m d and S r M P d we get altogether four primary modulations.

Perfect presentations of these designs would not stimulate any latency for G or N, or any other note. But, as already stated, 'perfect' specimens are comparatively rare with

rāgas of five notes. Any supercharge on S and P regarding
No. 3 with S r M P d, will provoke latency of the note G
and of the Universals S G P and r G d. Ultimately, the elastic
mind of the artiste may avail itself of a new modulation S r G M
P d. Individual motif of No. 3 remaining the same, a new
modulation would come into being, viz. M P d S r G. Experi-
ments within the limit of these notes will give rise to
varieties such as:

(1)

M d S - D. Universal.

r M d - 2nd

S G P - 3rd

r G d - 4th

(2)

M d S - D. Universal.

r M d - 2nd

r G d - 3rd

S G P - 4th.

Ultimately, and working with the scale S r G M P d,
intentional supercharge on G and d is bound to provoke N,
and thereby G P N and G d N.

Thus, *between the swing of evolutionary modulations and
superchargings, varieties of original design, or new designs of
rāga, come into being.* Such phenomena are quite natural, if
we assume that the artiste or the composer has as much liberty
to restrain himself as of giving way to new creative impulses.
It can never be predicted why and when the artiste or the
composer will restrain himself or freely indulge in impulsive
recreations.

Similarly, regarding No. 4 with S r M m d any super-
charge on r and d will provoke G, and thereby r G d. This
will give rise to a new individuated modulation as M m d S
r G. A new variety will come into being:

M d S - D. Universal.

r M d - 2nd

r G d - 3rd

With all such distinctions, regarding Nos. 3 and 4, we observe that the class-motif and the individual motif remain the same as always. Thus all these varieties and new rāgas will belong to one original source.

Again, experimenting with Nos. 1 and 2, wherein r M d is the dominant Universal, similar phenomena may occur on homologous lines of evolution.

With No. 1, supercharges on m, r and d will provoke and ultimately precipitate G and r G d. The scale will be S r G M m d. Experimenting with this scale, a supercharge on S and G will provoke and precipitate S r G M m P d. Finally, a fresh supercharge on G and d will provoke and precipitate N and G P N, G d N Universals.

Ur biassed students of Rāga music will observe such phenomena happening with a majority of the primordial couples, class-motifs, and individual motifs. In other words, the large variety of rāgas of all sorts of scales may be explained on the grounds of such basic phenomena happening at all times.

Such phenomena give us a logical handle to classify and catalogue rāgas from a new angle of vision, namely (1) Pure rāga with varieties, (2) Hybrid rāga with varieties and (3) Mixed rāga with varieties. Comparatively ancient traditions about Rāga speak of (1) Shuddha (2) Sālanka or Chhāyālaga, and (3) Sankeerna. Those of the present day who may be biassed against ancient denominations or the ideas of purity and impurity may however accept denominations such as (1) simple (2) compound, and (3) complex regarding the classes of rāgas.

I present the ideas in the following chapter.

PRINCIPLES OF RAGA CLASSIFICATION

NOTES forming the body of rāga combine to form the elemental designs which we have called the couple. The entire body design of a rāga is mainly constituted of couples.

The most elementary design is that which shows only one couple mainfestly. Such a class is termed 'pure' (or Suddha) because it is not complicated or qualified by the coexistence of any other couple or even Universal.

Matanga, the author of the *Brhaddeshi*, an elaborate treatise on what he proposes as 'deshi' music, offers us a reasonable definition of the 'purity of rāgas', in the chapter called *Rāgalakshmana*. According to him (Verse 317), 'things are said to belong to the pure class when such things come to exist independently of other class, when such things follow the behaviours of things of its own class, and when such things are as entities of its own class'. These are the three logical tests of purity.

Matanga does not explain or exemplify the meaning and implications of the dictum. But we may understand his words by means of examples.

Let us suppose there are bars, balls and cubes whose substance is pure gold, and also similar objects made of pure iron. Though such bars, balls and cubes of gold and iron may be identical or similar in shape, size, or pattern, i.e. form, yet those of pure gold specifically follow the behaviour of one another when chemically treated or tested, while those of pure iron follow the behaviour of one another, when tested. A bar of gold does not behave like a bar of iron, though the form is the same, because the substances, gold and iron, are different though pure classes.

Again the bars etc. of gold may appear independently

of the bars etc. of iron and vice versa. Last of all, bars, balls, and cubes of gold are three of the many things belonging to or evolving out of the class gold. We say, 'a bar of gold', 'a ball of gold' and so on. We differentiate the forms, but generalise the substance called pure gold.

On the other hand, bars etc., made of alloys of gold and iron (possibly, of course), do not follow the behaviour of either pure gold or pure iron when tested. Of such things we cannot say that any of them was made of pure gold or pure iron. Nor can we say that such things particularly belong to the class of pure gold or pure iron.

In short, when we say 'this bar and this ball are made of pure gold', we have already classified the objects according to substance, but not according to form. Thus there is a substantial classification and there is a formal or morphological classification. When we say 'this is a ear ring', 'this is a bracelet' we have merely classified the form. We know fully well that forms may not persist, and mankind has become wise enough to appreciate the value of substance which lasts even though the forms change or perish.

Inducing such ideas in our field of observations we may say that:

(*a*) There are the forms such as Dhrupad, Ālāpa, Hori, Kheyāl, Tappā, Thumri, Ghazal, Dādrā, etc. Such forms may reveal or yield the substances, i.e. the rāgas, generally speaking when carefully tested.

(*b*) The substances, irrespective of their forms, reveal inherent designs. Further, observations of such designs reveal basic elements, viz. the couples consisting of two complementary Universals and also combinations of such couples.

(*c*) Classification of the substances, so to say, which form the body of musical specimens irrespective of forms and patterns etc., has to begin with the categorical as well as concrete things, i.e. the couples, the existence of which is revealed by study, analytical as well as synthetical.

We may also add:

(d) All other attempts at classifying the rāgas, e.g. by the concepts such as Janaka-janya-mela or the Ṭhāṭ system in vogue, of Grāma systems, of Oudaba-Shādaba-Sampurna systems, etc., are found to be misleading and impractical.

For example, we observe that there are the song-forms and instrumental forms concerning rāgas such as *Bhūpāli, Kalyāna, Megha, Sāranga* etc., so-called. Purity or impurity of such *Bhūpāli* etc., does not depend on the forms presented. Ideas such as Dhrupad of *Bhūpāli* is pure and Kheyāl of *Bhūpāli* is impure, or vice versa, are wrong and unjustifiable.

We observe that specimens of *Bhūpāli, Suddh Kalyāna* and a few others show manifestly a design consisting of a single couple. Some of these specimens show latent indications of a design which is not as simple as the manifest design. And there are others which reveal perfect as well as simple design. The idea of a pure, i.e. the simplest, class begins at this point. But the mere fact or assumption that a specimen showing only one couple manifestly is worthy of being considered as a presentation of a pure rāga, does not tell the whole story about purity of the rāga presented.

A presentation of *Bhūpāli* may show on analysis indications of M, or m, or other notes. Yet another presentation of the same rāga may fail to show any such indication of latent notes.

This latter presentation is 'perfect' in the sense that not only does it not show anything but the D S G — S G P couple manifestly, but also it does not potentially contain within itself the signs of other notes and Universals.

Thus all the pure rāgas may be presented in perfect as well as imperfect designs. Perfect or imperfect as the presentation may be, the idea of a categorically pure class remains as steady and logical as ever, and has to be clarified by rational analysis. How many pure classes are possible is a question which is easily answered from the theoretic point of view. The follow-

ing is a list of the sixteen archetypes of the pure class, symbolised by the couples and class-motifs only.

1.	S g P	- g P n	- Motif	S g P n
2.	S G P	- G P N -	,,	S G P N
3.	r G d	- G d N -	,,	r G d N
4.	r M d	- M d S -	,,	S r M d
5	R M D-	M D S -	,,	S R M D
6.	R m D-	m D r -	,,	r R m D
7.	g m n	- m n r -	,,	r g m n
8.	M d S	- d S g -	,,	S g M d
9.	M D S-	D S G -	,,	S G M D
10.	m n r	- n r m -	,,	r M m n
11.	P n R	- n R M -	,,	R M P n
12.	P N R-	N R m -	,,	R m P N
13.	d S g	- S g P -	,,	S g P d
14.	D S G-	S G P -	,,	S G P D
15.	N R m-	R m D -	,,	R m D N
16.	N g m	- g m n -	,,	g m n N

It is to be noted : (*a*) these sixteen represent the categories or classes only, not rāgas, (*b*) the sixteen classes may go by the general name Mātrkā, (*c*) the sixteen motifs may go by the general name Rāga-Vrtti or Dhvani.

The word 'Mātrkā' means 'the little mother'. The idea is quite ancient. The implication is that the little mother is as the womb which holds the embryo of the future offspring. The specific rāga, male or female, hibernates as it were in the Mātrkā in some potential form with a corresponding potential energy and quality. Such potential energy and quality combined together are indicated by the word Rāga-Vrtti, or Dhvani, i.e. the motif.

Each specific Mātrkā holds within herself a specific mould, which may turn out a male or a female rāga, according to the creative impulse. Each mould is thus a couple representing masculine as well as feminine elements. When the body of the offspring develops, one of such elements becomes dominant while the other remains recessive.

The word 'Mātrkā' may be substituted by the word 'Jāti' for mere liking. The underlying idea regarding Jāti is that Jāti is the specific cast or mould which turns out or delivers the Vyakti, i.e. individual. The word 'Rāga-Vrtti' means 'externalisation' of motif. The word 'Dhvani' means outstanding specific sound-configuration which evolves as Mūrchhanā (or daul) and finally as rāga.

But the word 'Mātrkā' with its implications may never be substituted by words such as 'mela' or 'Thāt' as used by modern theorists, or the adherents of the 'Thāt' system of North India. Reasons are as follow:

(*a*) The word 'mela' suggests unification of two parts such as Pūrvānga and Uttarānga. As a matter of fact, two such parts are not complementary; they are by face value identities, e.g. S — M and P — Ṡ. Thus mela is a mere duplication and nothing else of two tetrachords wrongly supposed to be categorical entities [Appendix III].

(*b*) In concrete forms any Pūrvānga may be tied to any Uttarānga, e.g. S r g M may be attached to m D N S. Such a mela does not show any compulsory complementation like the Universals of the couple. Many of the resulting scales are unnatural and sophisticated.

(*c*) The facts of the 72 melas show that the unification is mechanical and does not invariably depend on the natural musicality of relations such as consonance or mediance.

(*d*) The theory of mela is not based on the observation of facts of relations underlying male and female rāgas; neither does it throw any light on the questions of maleness or femaleness of rāga entities.

(*e*) The theory of the Janaka-janya-mela system, or of the Thāt systems, turns down upon itself when it accepts an *anga* m — Ṡ as a substitute for P — Ṡ, or S — m as a substitute for S — M. The exponents of the system would have us believe that m in the former case is a Panchama and the same note m in the latter case is M or Madhyama. Also, the relation be-

tween the two *angas* S — M, and P — Ṣ is one of identity, because both are consonances in the form of a tetrachord. But the relation between the other two *angas*, e.g., S — m, and P — Ṣ, or S — M and m — Ṣ are not identical as categories. Thus the theory is charged with the defect of inconsistency or instability of categories at the very start.

Therefore the principles of classification by means of Mātrkā or Jāti should not be confounded with the theory of the Janaka-janya-mela or Ṭhāt systems. Concomitantly the words Mātrkā or Jāti with their obvious implications may never be substituted by the words 'mela' or 'Ṭhāt' with their implications.

EMERGENCE OF VARIETY OF THE PURE OR SIMPLE CLASS OF RAGA

Imperfect presentations of rāgas of the pure class contain the seed as it were of the future variety evolving out of pure class. Indications of latent unmanifested notes are the seeds which sprout forth into varieties under suitable conditions.

We may just suppose that the artiste's or the composer's mind may be working under the pressure of supercharges. The only escape is an overflow with the precipitation of latent notes and Universals, and the ultimate emergence of a variety of pure class.

However that may be as a theory, we come across specimens as a matter of fact, showing (*a*) only one couple plus one uncoupled Universal, (*b*) only one couple, plus two Universals which may not be coupled at all, or (*c*) one couple plus another couple which is not self-existent or independent.

As in the case of the pure class of specimens, so in the case of the varieties of the pure class, thorough examination is required before labelling a specimen as a variety of the pure class. The following example will illustrate the point.

Song: 'Maine sikhāi' of *Dhrupad Gunakali Sūl* credited to

Mahammad Ali Khan (*Maārif-un-Nagamāt, Part II*), shows the scale as S R G P D N. As such it shows this design:

> D S G - S G P - Dominant couple
>
> G P N - P N R - Sub-dominant couple

The couple G P N — P N R cannot represent a pure class, because G P N cannot exist independent of S G P. So apparently, the specimen is a case of variety under the pure class represented by D S G — S G P.

But really it is not so because examination reveals the complete design as:

> D S G - S G P - Dominant couple.
>
> R M D - M D S - Sub-dominant couple (latent)
>
> G P N - P N R - Subsidiary couple.

Thus the scale is S R G M P D N, and the design is really a hybrid made up of two independent couples. The specimen is a sectional view of such a design. *The fallacy of classifying rāgas as* Ouduba, Shādaba *and* Sampūrna, *by merely spotting and counting the notes of the scale, is exposed thereby.*

This does not mean that a perfect specimen of Gunakali with S R G P D N can never exist. It means simply that superficial features are not reliable for scientific classification.

Henceforth, all the statements about theoretical classification will imply that only perfect specimens concerning the scales are being considered, unless otherwise indicated.

THE HYBRID CLASS

Such a class is consituted of an organisation of two different, discrete, individual couples. This is termed the Sālanka or Chāyālaga class according to traditions of Rāga music of comparatively ancient times.

For example, the scale S r G M m d N shows only two couples, viz. r G d — G d N and r M d — M d S. A specimen, Dhrupad *Lalit* Chowtāl (authority Mahammad Ali Khan), is met with, for instance, in *Maārif-un-Nagamāt* with the following analysis:

N.V.

S - 2   M d S - 12 D. Un. ⎫
                                    ⎬ Class-motif - S r M d
           r M d - 11½ 2nd.   ⎭

r - 1½   r G d - 8¼   ⎫
                             ⎬Sub-dominant motif.
           G d N - 8¼   ⎭

G - 5   C.L.V. = 9³

M - 8   The thing is free from latent indications.

m - 4

d - 2

N - 1½
─────────
Total 24

It is a perfect regular specimen of a hybrid class. The name *Lalita* in the masculine is quite fit because of the dominance of M d S indicating maleness.

Specimen No. 50 (Chapter III) is another which shows r G d N as the class-motif and S r M d as the sub-dominant motif.

The scale S r G m P d N is made up of the couples S G P — G P N and r G d — G d N. As such, all the rāgas with such arrangements belong to the hybrid class, including, of course, *Shree Rāga*. The rāga *Puriā-Dhanāshri* so-called is a hybrid made up of the same elements.

I present here the analysis of two examples each of *Shree Rāga* so-called and *Puriā-Dhanāshri* so-called. The specimens are from *Maārif-un-Nagamāt*.

Puriā-Dhanāshiri Dhrupad, Chowtāla (Mahammad Ali Khan) song 'Eri ānanda'.

N.V.

S - 4	r G d	- 25 - D. Un.	⎫
r - 8	G d N	- 21 - 2nd	⎬ Class-motif r G d N.
			⎭
G - 11½	S G P	- 19	⎫
m - 11	G P N	- 19	⎬ -3rd - Sub-dominant motif.
			⎭

P - 4   C.L.V. = 19½   There is just an indication for the note
                         D because r G - 19½.

d - 5½

N - 4

─────────
Total 48

Ostad Badal Khan Saheb used to say that during his youth (from 1858 to 1880) he heard *Puriā Dhanāshiri* and *Dinki-Puriā* with S r G m P d D N.

Puriā Dhanāshiri Dhamār (Mahammad Ali Khan); song 'Dhotā teri'.

N.V.

S - 5	r G d	- 24 - D. Un.	⎫
r - 10	G d N	- 18	⎬ Class-motif r G d N.
			⎭
G - 11	S G P	- 19	⎫
m - 6	G P N	- 18	⎬ Sub-dominant motif.
			⎭

P - 3   C.L.V. = 16⅘

d - 3   mediant r G = 21. Thus D and D r G are latent.

N - 4

─────────
Total 42

Both the specimens show overcharging on the mediant r G. This does not at all mean that all the specimens of so-

called *Puriā Dhanāshri* are bound to indicate such latencies.

For instance the song 'Mahbuba Nizamuddina' *Puriā Dhanāshri* Ektāla as presented in the pages of *Kramika Pustaka Mālikā*, Part IV, shows:

N.V.

S - 2	r G d - 18 - D. Un.	⎤ Class-motif r G d N
r - 3½	G d N - 16½ - 2nd	⎦
G - 9½	S G P - 16 - 3rd	⎤ Sub-dominant motif S G P N.
m - 9½	G P N - 16	⎦
P - 4½	C.L.V. = 14⅜	
d - 5	There is no indication of a latent note.	
N - 2		

Total 36

Thus, abnormal specimens set apart, we have actually examples of the hybrid class of rāgas which are strong, regular and perfect.

Shree Rāga, Dhrupad Chowtāla (Mahammad Ali Khan) song 'Vasmabukhana' (*Maārif-un-Nagamāt, Part II*) shows:

N.V.		C.V.N.		
S - 25	S - D Note.	S G P - 35	S G P N - Class-motif
r - 23	r - 2nd	G P N - 20	r G d N - Sub-dominant motif
G - 7		r G d - 32	
m - 2		G d N - 19	
P - 3		C.L.V. = 28⅘	
d - 2			
N - 10		r G = 30, indicates D.	

Total 72

15

Of course there are specimens of *Shree Rāga*, so-called, with the same designs, which are strong, regular, and perfect.

Here is a specimen, which is quite interesting:

‖ m | G r S Ṇ | S — S — | S r Ṇ — | S G — — | —m̄m̄

 Gr G | r̄G   mP m P | m P G m | G — — ‖

Apparently it shows the S G P—G P N couple and nothing else. On analysis, it gives us:

N.V.	
S - 7	S G P - 20½
r - 3	G P N - 16½
G - 11	C.L.V. - 12¼
m - 5½	
P - 2½	The mediant S G = 18, indicating D, and D S G.
N - 3	The mediant r G = 14, „ D and d, D r G, r G d.
32	

Because the power or charge on S G is greater than that on r G, the note D and the Universal D S G are more powerful candidates than the note d. Thus, the design is:

S G P — 20½ S G P — 20½ ⎫
G P N — 16½ G P N — 16½ ⎬ Class-motif S G P N (not S G P D)
                              ⎭
m D r — 8½   D S G — 18

D r G — 14   D r G — 14   ⎫
D S G — 18   m D r — 8½: ⎬ Sub-dominant couple.
                              ⎭

Such was the *Pūrvi*, of the times of Ostad Visvanathji, Badal Khan Saheb, and Radhikamohan Goswami. Whatever be the name, it belongs to the hybrid class by analysis. There is no indication or expectancy of the note M.

Each design of the hybrid class admits of two different class-motifs inhering in the two couples, as well as two different class modulations respectively. The variant scales of the class modulations must have broken down in the patterns of different ascending-cum-descending tracks, i.e. the so-called 'āroha-abaroha' of rāgas.

Each of such class-motifs, again, gives rise to two individual motifs, according to the incidence of the dominant Universal. At the same time, two individuated Mūrchhanās come into being. Finally, each of the individual motifs admits the combination of a sub-dominant motif and a subsidiary factor. Thus, altogether eight different rāga designs are possible as evolutes of one single design of a hybrid class.

In the case of design of the pure class, there is no question of a separate, sub-dominant couple or motif. In the case of varieties of the pure class, the uncoupled Universal or Universals appear as subsidiary factors only. But they do not gather the distinction or force of a sub-dominant motif. Whereas the rāgas evolving out of a hybrid class exhibit not only a sub-dominant motif, but also may reveal a subsidiary factor which inheres in the sub-dominant motif.

For example, with S r G M m d N, we may have the following subsidiary factors.

(1)		
M d S - D. Un.	} Class-motif	
r M d - 2nd	S r M d	
r G d - 3rd	} *Subsidiary factor*	
G d N - 4th	} Sub-dom. motif.	

(2)		
M d S - D. Un.	} Class-motif	
r M d - 2nd	S r M d	
G d N - 3rd	} *Subsidiary factor*	
r G d - 4th	} Sub-dom. motif.	

(3)

r M d - D. Un. ⎤
               ⎬ Class-motif
M d S - 2nd   ⎦ S r M d

r G d - 3rd ⎤ *Subsidiary factor*
             ⎦ Sub-dom. motif.
G d N - 4th

(4)

r M d - D. Un. ⎤
               ⎬ Class-motif
M d S - 2nd   ⎦ S r M d

G d N - 3rd ⎤ *Subsidiary factor*
            ⎦ Sub-dom. motif.
r G d - 4th

(5)

r G d - D. Un. ⎤
               ⎬ Class-motif
G d N - 2nd   ⎦ r G d N

r M d - 3rd ⎤ *Subsidiary factor*
            ⎦ Sub-dom. motif
M d S - 4th

(6)

r G d - D. Un. ⎤
               ⎬ Class-motif
G d N - 2nd   ⎦ r G d N

M d S - rd ⎤ *Subsidiary factor*
            ⎦ Sub-dom. motif
r M d - 4th

(7)

G d N - D. Un. ⎤
               ⎬ Class-motif
r G d - 2nd   ⎦ r G d N

r M d - 3rd ⎤ *Subsidiary factor*
            ⎦ Sub-dom. motif.
M d S - 4th

(8)

G d N - D. Un. ⎤
               ⎬ Class-motif
r G d - 2nd   ⎦ r G d N

M d S - 3rd ⎤ *Subsidiary factor*
            ⎦ Sub-dom. motif.
r M d - 4th

Such are the designs for eight rāgas, four masculine and four feminine, evolving out of the hybrid composed of the couples r M d—M d S, r G d-G d N.

There is nothing to preclude the possibility of or anticipation for strength, normality, regularity, and perfection of specimens with such intrinsic designs. Therefore each of them ought to be invested with a specific name. Such work of labelling is beyond the scope of this introductory study.

VARIETIES UNDER THE HYBRID CLASS

If a specimen shows two couples plus one or more uncoupled Universals in the design, the specimen, that is to say the rāga

inhering in it, is to be considered as a variety of the hybrid class composed of those two couples.

For instance, rāga *Tilang* so-called, with S R G M P n N shows S G P—G P N, P n R—n R M plus P N R an uncoupled Universal. Assuming that a specimen of *Tilang* is seen to be perfect on analysis — and there is no bar to such a possibility — we conclude that *Tilang* is a variety of hybrid composed of S G P—G P N and P n R—n R M. The question is what is that design under which *Tilang* is a variety. This is easily settled by the analysis of a good, strong specimen. It is a variety under that class design wherein S G P—G P N is the class-motif and P n R—n R M the sub-dominant motif.

Because the existence of a sub-dominant couple is essential to the design of a hybrid class, it should therefore also be observed that the sub-dominant modulation is complete with its proper neutral note in the design. In the absence of a required neutral note, the specimen should be tested by the rule of the two-fifths for the indication of the latent neutral note. In case the test fails to discover the required latent note, the design may no longer be supposed to be one of the hybrid class. It is a variety of the pure class.

For example, a design shows D S G — S G P as the dominant class-motif and S G P — G P N as the sub-dominant motif. The ruling motif requires the modulation S R G P D. But the sub-dominant motif requires a modulation S G M P N or S G m P N. A specimen may exhibit only S R G P D N. If analysis fails to bring out the note M or m as latent, then the specimen is perfect as it is and is certainly a variety of the pure class. It is not a hybrid though it shows D S G — S G P and S G P — G P N.

This is very important regarding the assessment of a design which appears to be a hybrid by the face-value. Any mistake at this stage will tend to persist in the assessment of the designs apparently belonging to the mixed class.

THE MIXED CLASS OF RAGAS

A normal perfect presentation of a rāga may exhibit three couples, or three couples plus an uncoupled Universal, or even more than three couples. Such is considered to belong to the mixed class, or the Samkeernā Jāti of comparatively ancient traditions of rāga-rāgini music. The minimum condition is, however, a combination of three couples only.

Whether the couples are three or more than three, or there are uncoupled Universals or not in the design, the class evolves with the dominant class-motif and the individual evolves with the specific stamp of the dominant motif. But the individuation is delimited by the sub-dominant motif and the subsidiary factor inhering in the third couple only. If there be more than three couples, such couples do not make for further individuation.

The following examples will illustrate the events.

Bhairava rāga is a famous example of a combination of three couples. It is not at all a pure or primordial (Ādi) rāga as is erroneously supposed by some theorists. It shows the following design:

M d S	— D. Universal	⎫ Class-motif S r M **d**
r M d	— 2nd	⎭
r G d	— 3rd	⎫ Sub-dominant motif
G d N	— 4th	⎭
S G P	— 5th	⎱ Subsidiary factor
G P N	— 6th	⎰ Third couple.

Suppose we add the notes g and n to the design so that the order of the Universals is not disturbed. We get:

M d S — D. Universal ⎫
                     ⎬ Class-motif S r M d
r M d — 2nd   ⎭

r G d — 3rd   ⎫
                     ⎬ Sub-dominant motif r G d N
G d N — 4th   ⎭

S G P — 5th   ⎫ Subsidiary factor
G P N — 6th   ⎬ Third couple.

S g P — 7th   ⎫
                     ⎬ Fourth couple.
g P n — 8th   ⎭

I have cited the instance of *Bhairava* because it is one of the few rāgas which have a great hold on the imagination of the artiste and the listener. As soon as the class-motif S r M d is exhibited, the listeners anticipate the shades as it were of *Bhairava* appearing in the psychic horizon. *Kramika Pustaka Mālikā* presents a *Bhairava* with S r M P d n N, i.e. the couple r M d—M d S, plus an uncoupled Universal n r M (specimen No. 54). Then there is a *Bhairava* with S r G M d N (specimen No. 39) from my own repertory. It shows two couples only, viz. r M d—M d S, and r G d—G d N. Then there is the normal *Bhairava* with three couples. And finally we have a *Bhairava* with S r g G M P d n N from *Maārif-un-Nagamāt* (*Komal Bhairava*; authority Munne Khan, Lucknow). This shows:

M d S — D. Universal ⎫
                     ⎬ Class-motif S r M d
r M d — 2nd   ⎭

S g P — g P n — Sub-dominant couple

r G d — G d N — 3rd Couple.

S G P — G P N — 4th Couple.

Here the couple S g P—g P n is as high as a sub-dominant couple. In my opinion, it should have been at least as low as the third in value.

Another instance is *Kalyāna* rāga so-called. We have *Suddha Kalyāni* with S R G P D, and S G P as the dominant motif. Then we have *Kalyāna* with S R G P D N, with S G P—D S G couple and G P N, P N R Universals. Finally we have Kalyāna with S R G m P D N, with S G P—D S G as the leading couple, followed by G P N—P N R and N R m—R m D couples.

I cite these two instances just to show that individuation may proceed as far the third couple. An extreme example is *Bhairavi* with M d S—d S g, S g P—g P n, n r M—r M d, g m n—m n r, P n R—n R M, and possibly one or two other couples. But *Bhairavi* as an individual remains constant with

> d S g - M d S - Class-motif S g M d
>
> S g P - g P n - Sub-dominant couple.
>
> n r M - r M d - third couple.

In other words, a combination of three couples shows the mixed class, and any extra Universal or couple makes for a variety of the design.

Thus we arrive at the tentative conclusion that co-existence of three discrete, different, independent couples is the characteristic of the mixed class.

VARIETIES OF THE MIXED CLASS.

A combination of three discrete, independent couples plus one or more uncoupled Universals, or one or more extra couples shows the variety of the mixed class.

A combination of three couples, together with one uncoupled Universal gives us 48×4, i.e. 192 different designs.

A combination of three couples, plus one extra couple, gives us $48 \times 4 \times 2 = 384$ designs for a single scale.

We need not proceed further. The general statement to the effect that rāgas are innumerable is quite correct. It means that mathematically speaking we may arrive at a finite number, no doubt. But the general span of an artiste's life and the exigencies of aesthetic demand and supply for the period of say one century, do not allow us to manipulate or enjoy more than one hundred and twenty rāgas at the most. Therefore numbering is practically of no use.

OTHER IDEAS OF CLASSIFICATION.

The terms *Oudaba* (original form *Ouduba*), *Shādaba*, and *Sampūrna*, meaning 'of five notes', 'of six notes', and 'of seven notes' respectively, are used freely in the present day to indicate sub-classes and varieties under the class 'Mela' or 'Thāt' as conceived by the adherents of such systems.

Such terms are of academic interest only, in so far as we know that Bharata Muni, the expounder of Nātyasāstra traditions appears to be the earliest musical authority to have utilised such terms for qualifying *mūrchhanā*, but not rāga. There the adjectives have real and distinctive significance for the system of Jāti proposed by Bharata Muni. But the terms as adjectives became vague or contradictory as soon as they came to be used by theorists of rāga-rāgini systems of later times. Anybody who knows anything about modern *Bhairavi* or *Piloo* knows full well that eleven out of the twelve categorical notes are used in the presentations. Yet academically *Bhairavi* and *Piloo* are stated as belonging to the Sampūrna class, i.e. the class consisting 'of seven notes' by definition.

However, the idea underlying such a classification suggests that a rāga is not complete, i.e. *Sampūrna*, if it does not show seven notes. Also, it implies that complete, perfect rāgas originally evolved with seven notes; and later on,

imperfect rāgas came to be born when one or two notes were deleted variously from the scales.

Such ideas are wrong from start to finish simply because they spring from a stock of dogmatic statements which are not supported by the observation of facts and sound reasoning. For those who accept such customs of thinking, a rāga exhibiting, for instance, the notes S, R, g, G, M, P, D, n and N (i.e. nine notes), will be considered as belonging to the *Sampūrna* class. They also accept rāga *Bhairava* with S r G M P d N, i.e. seven notes, as being the first, or the primordial rāga (Ādi rāga) simply because somebody of medieval times started the conception and associated the scheme with Lord Shiva. Poetry and mysticism apart, no good as yet has been shown to come out of such doctrines except misconceptions involving vague unwarrantable ideas about 'āroha-abaroha' 'vakra' (i.e. re-entrant notes), 'pakad or 'khās-tāna' and all that. The patch-work rules and regulations of music at the present time, especially those relating to combinations such as *Oudaba-Shā-daba, Shādaba-Oudaba* and so on, are of some importance, in the sense that they are meant to regulate a steel-frame system, which on one hand prevents the nervous artiste from wriggling out on to the world of creative art, and on the other, throws an express invitation to the mediocre for joining with one another in the work of producing worthless pattern-music of the so-called classical type. It seems as if trade guilds are being licked into shape, consciously or otherwise, in the name of classical music, wherein hall-marks are considered to be more important than the substance exhibited before the bewildered public.

An unbiassed student of rāga music will come to set aside all such ideas as soon as he finds that the classification is artificial, i.e. not natural, whether such a classification has the stamp of ancient tradition, or is voiced by some personality. Nevertheless, we ought to examine the theories very carefully for what they are, and for what they are worth.

SUMMARY OF THE WORKING METHOD

WITH materials of all sorts of music, especially of the classical forms prevailing in North India, the method has for its aim and purpose the examination of the materials and arriving at statistical findings leading to the rediscovery of the basic design, i.e. the rāgas inhering in such materials.

These may be collected from books containing notations of songs etc. and also from private repertories. The best course would be to place the materials in the form of a catalogue or classified repertory wherein headlines would cover groups of materials associated with the respective rāga names. Such a catalogue will help the examination serially speaking.

Besides these, we have a considerable body of songs without any claim to a definite rāga name. These ought to be placed in a separate catalogue, and wherever possible, to be covered by headlines indicating mere formal names such as Kajri, or Bhatiāri, or Thūmri, or Ghazal and so on. Folk music and lullaby songs are not excluded thereby.

For all of such materials, the available data regarding the source of such things, or the authority of publication, and the composer of the songs etc. should be noted down against each material as a historical statement in the minimum.

We know full well that both of such catalogues or repertories allow for enlargement, and we ought to be prepared for such incidences all along. Healthy curiosity and unbiassed study of such materials are the premium we have to pay as we work. And certainly we may be assured of the results thereby. Reasoned study brings forth truth and predictable results.

One should begin with the catalogue of the regular, or rather regulated, set of materials, because, working with such a repertory and with a series of so-called rāgas, one will

familiarise oneself with the standardised method of work more
easily and in a shorter period of time, than by working with
the other catalogue of the irregular or non-regulated set.
Nevertheless, the work remains the same qualitatively or quan-
titatively speaking.

Taking up a series, we proceed with specimens one by one,
in the following way.

1. We observe the notes S, R, etc., which manifestly go to
compose the particular specimen only. Then we place the notes
serially in the form of a scale, as it is. Of course, only the
Sthāyi or the opening movement is taken up for examina-
tion.

Supposing the examiner is sufficiently qualified for reproduc-
ing the specimen, i.e. interpreting the music vocally or on any
suitable instrument, such as, the Harmonium, Piano, Esrāj,
Sārengi, Setar, Sarode, Violin, or Flute, then he ought to repro-
duce that specimen and record his own feeling of satisfaction
regarding the wholeness or completeness of the design in a
general way. Such experiences may be subjective so far as the
examiner is concerned. And yet, that would be a record of the
fact of such feeling and satisfaction regarding the examiner
in relation to the object examined. As such it is not to be
neglected or set aside. Besides that, the feeling of completeness
is generally found to be common between many examiners,
the object examined or interpreted remaining the same.

It is important to note in this connection that with some
specimens the opening bar, or even a couple of bars, are
changed as soon as the specimen is intended to be repeated
cyclically. In such cases both the original as well as the modi-
fied movement must be laid down for examination, and the
results placed in different tables.

Also a small number of specimens may show repeated
presentations of one and the same phrase inside the sentence.
For such cases also, the sentence containing the repetitions
as well as the sentence minus the repetitions or duplications

are to be examined separately and the results placed in different tables. One should not anticipate identity of results.

Therefore, the examiner should search for any modification, or duplications, at the very start.

2. We take up for examination the main thread of the sentence and set aside the grace notes altogether.

REASONS FOR SETTING ASIDE THE GRACE NOTES

What is a grace note? It is a note symbol set forth in a comparatively smaller type on the top and a little to one or the other side of the note of the main sentence.

Because the grace notes do not show any definite time-value, because the infinitesimal, indefinite values of such notes practically merge inside the value of the main note, and because they are generally misleading as they appear in print, they are to be set aside.

3. Taking up the main sentence of the music, we have to be cautious about any symbol which may be misleading or ambiguous, or capable of different interpretations regarding presentation as well as objective assessment.

Of course we are to check up symbols correctly according to the method of symbolisation as presented by the publisher of that musical specimen.

Yet there are accepted symbols with dubious interpretations. The most famous are (1) a note inside a bracket such as (S) or (r), and (2) clusters separated into groups by means of commas, the entire thing being intended to cover one unit of time.

If we can check up such and other intentions by means of 'the method of interpretation of symbols' as presented by the publisher, there is no trouble except putting the correct values. But in case the publisher himself is not definite on this point or suffers from oversight or does not care for differences of musical value, then we are in for some troublesome work. Leaving aside the excuses and all that, we have to work

with different, yet possibly intended, interpretations. To be as accurate as possible is a minimal, indispensable qualification for the examiner, though such a qualification may be lacking in the publisher. And any idle or negligent attitude on the part of the publisher of the music is no excuse for idleness or negligence on the part of the student of objective examination of the music or or for rejecting the specimen altogether.

4. Being assured of the bona fides of the musical notation regarding a definite possibility of interpretation both as presentation and assessment of values, we proceed with the substantial part of the work of examination.

5. We observe the total value of the specimen, by counting and summing up the values in unit time of notes as they come one after another. We place the observation on the left hand side in writing, such as T.V. = such and such number.

Next we find the Coefficient of Latent Value as:

$$\frac{T.V. \times 2}{5} = C.L.V.$$

We place the result just below the first observation as:

    T.V.= such and such

    C.L.V.= such and such.

6. Next we prepare a table consisting of six vertical columns, with abbreviated headings for each of them. The six headings (*a*) N.V., meaning note-values (*b*) C.V.N., meaning comparative order of notes by value, (*c*) U.V., meaning values of Universals, (*d*) C.V.U., meaning comparative order of Universals by value (*e*) P.C. value of D. Un., meaning percentage value of the Dominant Universal, and (*f*) P.C. value of D. Couple., meaning percentage value of the Dominant Couple. Chapter II of this work shows the table and the placings of the columns.

7. After that we fill up the columns by observed values, one after another.

For the first column, we place the notes of the scale observed at the start serially and vertically at the extreme left. Then we place the values as observed for each of such notes against the respective symbols. Fractional values must not be neglected or sacrificed for the sake of smooth, easy work.

For the second column, we observe and find out the first three notes with the highest values, and place the highest, i.e. the dominant note, at the top. Against that note we write D.N., meaning dominant note for the specimen. Below that we place the notes coming as second and third, and qualify them as such.

For the third column, i.e. U.V., we have to do some rough work in making out the Universals. The scale for the specimen at once comes to our help. For example, with a specimen of *Imana-Kalyāna* so-called, we have a scale S R G M m P D N. Now we try to make out the Universals, starting with the note S, and then with the notes R, G, M, m, P, D, and N one after another. As we work them out we place them on the right of the column one after another vertically. Then, taking each of them, we add up the values of the particular notes composing a particular Universal. We place the value against the symbol representing that particular Universal; and do the same thing for all the Universals possible with the scale, as shown below:

1.	Universal starting with	S;	S G P	—	value so and so.
2.	,, ,, ,,	R;	R M D	—	., ,, ,, ,,
3.	,, ,, ,,	R;	R m D	—	,, ,, ,, ,,
4.	,, ,, ,,	G;	G P N	—	,, ,, ,, ,,
5.	,, ,, ,,	M;	M D S	—	,, ,, ,, ,,
6.	,, ,, ,,	m;	Nil		
7.	,, ,, ,,	P;	P N R	—	,, ,, ,, ,,
8.	,, ,, ,,	D;	D S G	—	,, ,, ,, ,,
9.	,, ,, ,,	N;	N R m	—	,, ,, ,, ,,

Such is the rough work before we place the substantial part of it in the column with the heading U.V.

For the facility of understanding the method of this sort of work, I place a few other examples.

Suppose we are working with specimens of rāgas *Pūriā*, *Mārvā*, and *Sohini*, and we find that the scale S r G m D N is common to such specimens. Such a scale leads to the rough work as follows:

1. Universal starting with S;   Nil
2.   ,,   ,,   ,,   r;   ,,
3.   ,,   ,,   ,,   G;   ,,
4.   ,,   ,,   ,,   m;   m D r   — value so and so.
5.   ,,   ,,   ,,   D;   D S G —   ,,   ,,   ,,   ,,
6.   ,,   ,,   ,,   D;   D r G —   ,,   ,,   ,,   ,,
7.   ,,   ,,   ,,   N;   Nil.

Suppose we are working with specimens of rāgas *Mūltāna* and *Todi*, and we find the scale S r g m P d N as common to such specimens. That leads to the rough work as follows:

1. Universal starting with S;   S g P — value so and so.
2.   ,,   ,,   ,,   r;   Nil
3.   ,,   ,,   ,,   g;   Nil
4.   ,,   ,,   ,,   m;   Nil
5.   ,,   ,,   ,,   P;   Nil
6.   ,,   ,,   ,,   d;   d N g — value so and so.
7.   ,,   ,,   ,,   d;   d S g —   ,,   ,,   ,,   ,,
8.   ,,   ,,   ,,   N;   N g m —   ,,   ,,   ,,   ,,

Whenever there are two Universals starting with the same note, such as S g P and S G P, or d N g and d S g, the Universal with the middle note nearer to the starting note should be placed higher in the vertical column in preference to the other Universal; as for example:

$$\left.\begin{matrix} S\,g\,P \\ S\,G\,P \end{matrix}\right\}or \quad \left.\begin{matrix} d\,N\,g \\ d\,S\,g \end{matrix}\right\}or \quad \left.\begin{matrix} m\,D\,r \\ m\,n\,r \end{matrix}\right\}or \quad \left.\begin{matrix} r\,G\,d \\ r\,M\,d \end{matrix}\right\}and\ so\ on.$$

This prevents oversight, and helps checking up.

For the fourth column, marked C.V.U., we have to pick out the particular Universal (or Universals) having the highest value, and place it (or such others) at the top of the column. Against that we write down D. Un., implying Dominant Universal (or Universals). Then we place the other Universals in order of values obtained for them. Of course, and here we test the uncomplemented mediances and unmediated consonances of the specimen by means of the rule of the two-fifths. Latent notes or Universals, if any, have to be properly adjudged and placed inside the respective columns.

For the fifth column, we have to work out the percentage value of the dominant Universal, as a ratio of the T.V. In case there is a crowding of dominant Universals, each of them deserves equal individual percentage values.

For the sixth column, we have to use our discrimination, regarding (*a*) selection of the dominant couple, (*b*) discernment of the dominant motif, or class-motif, and finally (*c*) fixing the percentage value of the dominant motif. We do the work keeping in view the following points:

(*a*) The column C.V.U. has to be depended on regarding the coupling of Universals. Knowing that each Universal may couple with two other Universals as a possibility, giving rise to two couples, we have to exert our discrimination in such matters.

(*b*) Knowing that there may be dependent Universals, i.e. which have no independent existence, we have to reconsider certain possibilities.

For instance, with the scale of *Imankalyāna* as alluded to, we may have a number of specimens showing the Universal G P N as dominant, and possibly P N R as second to that. The Universal G P N by itself depends on the fact of S G P. Therefore, the couple G P N—P N R is ineligible as a dominant couple.

So, we reject coupling of that G P N with P N R, and

16

consider the Universal G P N as being coupled with S G P, which is bound to appear in the list, near to or remote from that G P N. The individual dominance is not questioned at all. The rejection concerns the coupling of such a G P N with P N R first of all, and then trying to adjust the other couples.

A list of such dependent Universals is given in Chapter II of this book.

(*c*) Searching the column C.V.U. from the top, we have to go down the list, at each step, and find a complementary Universal by the very first preference. For instance a specimen of *Imanakalyāna* shows S G P as dominant, P N R as second, D S G as third, and G P N as fourth etc. Here S G P is an independent Universal. We take it and search for its nearest partner. For this specimen D S G is the nearest partner. Therefore we make a couple by D S G—S G P and not by S G P—G P N, because G P N is more distant than D S G.

In another case of *Imankalyāna*, the list may show:

        P N R — D. Universal.
        G P N — 2nd
        S G P — 3rd
        D S G — 4th
        N R m — 5th
        R m D — 6th etc.

We know that P N R plus G P N which comes second could not be accepted as an independent couple because G P N presumes S G P.

So we search for a partner of P N R. We see that N R m, the 5th Universal, is a fit partner. Therefore, we make a couple P N R—N R m by the first preference. The next one is made out as S G P—G P N, because this is an independent element. In this case, we get a preferential chance with G P N—S G P.

Now we consider which of the couples is the dominant.

(*d*) For this we have to lay out the couples in the form of

class-motifs. P N R—N R m yields R m P N; S G P—G P N
yields S G P N. And then we have to evaluate the motifs
by summing up the values of the notes concerned. If P N R m
has greater value than S G P N, then P N R — N R m is
the dominant couple and R m P N is the leading class-
motif. On the other hand, if S G P N exceeds R m P N by
value, then S G P — G P N is the dominant couple and
S G P N is the leading class-motif for the specimen.

(*e*) In exactly similar manner, we have to fix up the other
Universals into couples, keeping in view the fact that for
any Universal the nearest partner is to be selected by
preference.

(*f*) *It is concerning the position of the dominant couple only,
that a dependent couple is barred by rationalised limitation.* But
a dependent couple may be considered to exist for itself,
provided such coupling does not disturb other arrangements.

It is not at all impossible that one or more Universals
may remain uncoupled after the dominant and other couples
have been properly enlisted.

(*g*) We may guess and select by sight only the dominant, the
sub-dominant, and the subsidiary couples of the column
C.V.U., provided the order of the Universals is regular and a
dependent Universal is not dominant.

But the strength in percentage of the dominant couple and
the other couples have to be worked out by laying down the
couples in the form of class-motif and assessing the compara-
tive values of the class-motifs.

(*h*) We should be cautious regarding a proneness of our
mind for anticipating facts and results. We must never put
down or accept facts or results by anticipation.

In this way we fill up the six columns with data statistically
arrived at concerning the specimen only. We must not think
that such data, for a single specimen, constitute the design of
the rāga generally.

But we may say with confidence that this Table properly

filled up, remains as the basic field of observation regarding the specimen. Just as the master engineer prepares a chart of measurement for a particular building, so we prepare this chart which shows the individual, normal or abnormal, strong or weak, perfect or otherwise. We may also say that the specimen in the form of notation is a guide to the musical interpretation vocal or instrumental; and this Table is a guide to the intellectual assessment of the composition of the music. In other words, by comparing the final values of many specimens of the same rāga design, we are perfectly justified in stating that such and such a specimen is the best composition regarding prefection, strength, and regularity of design of the rāga.

Of course, after we have prepared the Table correctly we allow ourselves the option of remarks on the entire finding concerning that specimen only.

Remarks such as (*a*) the specimen is strong, or weak regarding dominant motif, (*b*) the specimen shows confusion of motifs, (*c*) the specimen is regular or irregular, (*d*) the specimen is perfect or imperfect, (*e*) the specimen is normal or abnormal, may be placed in paragraphs. Each of such remarks should be supplemented by statements in brief regarding the reason for such conclusions.

A specimen is considered to be minimally strong, when it has at least 50% P.C. value by the individual dominant motif, as observed by the incidence of a discrete, independent, dominant Universal at the top of the column C.V.U. On the other hand, if such a dominant Universal shows a value less than 50% P.C., or, if there be a crowding of Universals each of which has equal as well as highest value, then the specimen is to be considered as weak. Such a strength or weakness of the individuality has nothing to do with the deductions or conceptions about the incidence of couples, class-motif, and classifications of the design, as may be inferred from the data placed in the sixth column.

The point is that the dominant motif of a specimen may be strong, though the specimen may be abnormal regarding the design or the class. The strength makes us anticipate a corresponding character of the musical effect, generally considered. A healthy association of such a strength of the individual with a corresponding normality of design and power of the class-motif, means vitality and power of the thing from the point of view of rāga-effect. On the other hand, weakness of the individual, either due to the sub-critical value, or due to the crowding of many Universals for dominance, means not so much as a really appreciable rāga-effect, as mere musical fun. Moreover, when such a weakness is combined with weakness, abnormality, and vagueness of the design and the class-motif, the thing becomes a musical nuisance, and the presentation of the thing calls for virtues of endurance and toleration on the part of the listeners more than anything else. These may be rejected as unhealthy growths.

The point about regularity or otherwise is this. Regular specimens are generally pattern-bound. They mean a past history of experimentation in some regulated way. By itself this is not a defect. On the contrary, it means some sort of self-imposed restraint on the part of the composer or the artiste. Again, an irregular specimen means some centrifugal tendency on the part of the composer or the artiste. It would not be far from the truth if we were say that irregularity is the premonitary sign of a tendency towards free experimentation which may ultimately lead to the evolution of new designs.

The point about perfection or otherwise is this. A perfect specimen, whether it belongs to the pure or other classes, means intensive adherence to and concentration upon one particular rāga-motif on the part of the composer or the artiste. Such activity may be unconscious and impulsive, or it may be conscious and regulated by thorough training. Imperfect specimens mean accidental experiments with latent motifs.

Lastly, the normality or abnormality of the specimens means a concentration on a full view of the rāga-design or its opposite. The abnormals do not certainly come in for adverse criticism unless of course they are weak. On the other hand, the strong specimens command our respect not only because such specimens stimulate as wholesome musical feelings as the normal ones, but also because they remain forever as touchstones for testing the many so-called theories of classification of rāgas of North Indian tradition.

The entire procedure helps us to arrive at statistical truths and reliable conclusions regarding the classification of specimens into classes of rāga. Finally, it serves as a guide to the preparation of catalogues. This latter activity needs some clarification.

Music is a living, dynamic art. Musical specimens, as musical notations, are as so many hibernating phases of dynamisable music. When we think of the trouble undertaken to collect pieces of prehistoric things, we reinvigorate ourselves with the idea that our activities may help us to reconstruct a speculative Mohenjodaro temple or a hypothetical figure of a prehistoric animal. All this is very interesting no doubt. But, with all that, we cannot revivify a Mohenjodaro, or the skeletal structure of animals, or put a drop of life into fossilised trees or leaves or such other things. This means that the archeological catalogues serve as our intellectual pleasures, based on mere speculation and nothing else.

It is not so in the case of a perfected catalogue of musical specimens. Just as we have been creating and reproducing music from time immemorial, so we may reproduce and recreate from past records. Each of such recorded specimens begins to vibrate with life as soon as the artiste touches it with magical powers of musical determination as it were of a Pegasus carrying and communicating divine news and suprabiological feelings. Transcendental as they are, such news and feelings are part of direct, actual experience, and as such, do not have to depend

on any reconstructive imagination on the part of the listener. I mean that sort of reconstructive imagination, which is indispensable for an archeologist in order that he may put together bits of evidence as best as possible under the circumstances and make out a hypothetical picture of the past.

Again somebody may start questioning, e.g. 'but why all this trouble about designs and names and classifications? A simple but complete catalogue of specimens merely ought to suffice.' None but a dilettante would ask such a question. Yet it is worth answering.

Music of each specimen carries its own character within itself and communicates its individuality. A catalogue without classification is the worst trouble which might befall an intelligent hunter of recorded things. In short, cataloguing presupposes the work of classification, and classification requires scientific or rational methods of study regarding especially musical specimens.

The cultured music of rāgas of North Indian traditions as a class, lends itself to natural and evolutionary classification on the lines of genus and species divisions. As such it has scarcely any parallel in the world of refined music. That is why such music should be properly preserved in repertoires and catalogues by all true music lovers.

I close with a request to interested readers. I wish them to consider the present work essentially as an introduction to a method of study of rāgas and rāginis so-called. Whether it is workable or not depends on working with the method. Merely going through the book does not achieve anything. We casually say the proof of the pudding is in the eating. It is a practical truth; nobody denies it. But it is a half-truth, and everybody may not be satisfied with it. The other half is the art of making the pudding worth eating before presenting it to the tester. This leads us to a world of thought about the art and science of pudding-making and the traditional and other values of the substances that make up

the pudding. Working out such ideas requires a stout heart. Neither my masters nor my humble self were faint-hearted enough to think that Bhāratavarsha is lacking in stout hearts.

Appendix 1

The Ascent and Descent of Notes

If we accept the categorical scale of twelve notes to be
S r R g G M m P d D n N , we mean that the notes sequen-
tially presented get higher and higher in pitch. The lowest is S,
the highest is N. The note Ṡ being identical with the note S,
or the note ṙ and Ṙ etc., being identical with notes r and R etc.,
all of these are absorbed in the categorical scale shown above.

As a matter of fact, notes do not ascend or descend. Notes
appear as individual musical sounds, continue as such for some
time, and then disappear. But the sequential appearance of any
two notes of different pitch inside the scale of the categorical
twelve notes gives us the impression of high and low relatively
speaking. This class of phenomena is at the root of the idea of
ascent and descent of notes.

The idea is empirical. Practically all the writers of Rāga
music of modern times take it for granted, and have tried to
utilise it in delineating rāga features. That is the only reason
why I refer to such a technically accepted idea. Whether this
will help us in a work of objective study or not will be evident
as we make some progress in our work.

Generally speaking, a note is supposed to be in the ascent
when the note appearing immediately after it is higher in scale,
on the analogy of steps of a ladder. For instance, with R G,
R M, RP, RD, and RN, each of them represents the note R in
the ascent. RS does not mean R in the ascent, because S= Ṡ
= Ṣ and is always below R categorically. So in RS, R is in
the descent. The note N being the last note categorically, it
could never be in the ascent. But an exception is made in the
case of note n, occurring as nN. Here, the note n is supposed
to be in the ascent. The note S is always in the ascent, evidently.

Conversely, a note is supposed to be in the descent when the

note appearing next to it is lower in the scale. For instance, DP, DM, DG, DR, DS show the note D in the descent.

There are apparent anomalies. For instance D N Ŕ shows the note D in the ascent, but N in the descent; because Ŕ is categorically lower than N. Placings such as R Ś, G Ś, M Ś, P Ś, D Ś indicate descent for R, G, M, P and D; but not ascent.

As already hinted at, the idea of ascent and descent of notes is empirical and does not stand scrutiny all throughout. As such, ascent-descent factors may not be expected to specifically characterise a rāga.

Appendix II

Sequential Number of Notes

The notes as accepted by observation are twelve in number. I have followed the implications regarding relations of consonance and mediance of notes by means of the number twelve of notes, and not of number seven of the notes. I will state the reasons.

Cultured music all over the world accepts seven notes one after another. In India they are S, R, G, M, P, D, N; in Europe they are C, D, E, F, G, A, B. The practice and teaching of music are also based on that sequential number seven. Custom or convention approves of the idea and the number, whether or not there is any valid reason behind such acceptance.

But on the other hand the incidence of twelve notes can never be denied anywhere and at any time. Each of the notes is not only a fact of perception, but also a category which comprises fluctuations, as for instance, the three kinds of r. Nevertheless, the original convention stands unshaken for some reason.

In defining or clarifying the relation of consonance, the older method gives us to understand that the Fundamental, and the Fourth, and the Fundamental and the Fifth are consonants to each other. Here the indication of numbers four and five does not take into account the notes r, g, and m. The underlying idea is based on some undefinable distinction between a categorical note and a semitone.

Is there any reason why the interval S to R should be taken as a full note interval? Probably there is. It may be that the primitive folk could distinguish between S and R; but not between S and r, or r and R. For such people the unit of interval was generally S—R.

In India it is otherwise. Historically speaking the seven notes were accepted categorically. But the intervals were accepted on the basic unit of Shruti. The evidence is met with in the system expounded by Bharata Muni. And there was the other system which reckoned twelve notes in the scale. Matanga, the author of *Bṛhaddeshi*, refers to the twelve-note Mūrchhanā of Nandikesvara.

Supposing we wanted to learn the numerical relation of consonance about r, how are we to describe it? It will be said, 'Count the fourth and the fifth notes, and you have the two consonants m and d, for r.' But this is easier said than done.

Are we to take the note r as the first? If so, why should it have been left out of the count in the categorical sequence? Are we to take R as the first? In that case, are we to proceed only via those notes which occur in the categorical sequence? If so, then P is the fourth, and D is the fifth instead of m and d. Are we then to count r as the first, g as the second, M as the third, and m as the fourth? Yes. That shows the notes r, g, m etc. have the prestige of categorical numbers after all. In that case, why are they denied that prestige originally counting for the consonances of S? There is no reasonable answer to such a question. Or, it may be said, 'Convert r

into S, and proceed to the fourth and the fifth.' Yes, but why this unnecessary trouble about conversion?

The simplest statement would be to say that for each of the twelve notes, there are two consonants. The first one is the sixth counting from that note; the second is the eighth counting from that note. This is clear and matter of fact. It does not admit of confounding questions.

The following linear diagram may illustrate the statement:

S r R g G M m P d D n N

If we wish to locate the consonant pairs, i.e. locate them and spot them out as symbols, it is done in three seconds. There is not the slightest need to convert or transform scales or to hypothesise full-notes or half-notes or *Shrutis*, in order to arrive at practical results.

The fact is that any musician worth the name need not consult any diagram at all, because he has the consonant pairs at his finger tips. Yet, when he is requested to make some generalised statement about his consolidated experience by means of numerical terms, he is apt to get confused. Here, the diagram may be helpful, at least in avoiding round about and confused statements about facts which are commonplace.

Appendix III

Khambāj Ṭhāt and Current Ideas.

First. Supposing one chooses to think that the part of the scale S to M inclusive is Pūrvānga and the other part P to Ṣ inclusive is Uttarānga part of the scale, the foremost objection to it is that S as a categorical note cannot be duplicated. S, Ṣ, Ṣ, are categorically S or Shadja, i.e. categorical identities. Therefore the divisions S—M and P—Ṣ are illogical, involving thirteen notes instead of twelve.

Second. Supposing we amend and say that S-M is Pūrvānga

and m-N (or P-N) is Uttarānga, (although nobody has said such a thing as yet) we may say, quite generally that normal *Khambāj* is dominant by Pūrvānga, not because of any dominance of the note G, *but because of the dominance of the notes S and M.*

Third. If we suppose that the dominant note is responsible for the adaptation of particular period of time of day and night, then, we must have to fix the time, not of the rāga *Khambāj,* but of the specimens of rāga *Khambāj* variously, according as the notes S, G, M, P, D, and N are dominant in a particular specimen. That means almost any time of the day and night.

As a matter of unbiassed consideration, the statement that the 'note G is Vādi for *Khambāj*' is true by 8% P. C. Therefore, to set the clock for *Khambāj* by that statement would be sheer injustice to rāga *Khambāj.* No admission for a rāga except between such and such hours hears something, like the visitors' period in hospitals.

Fourth. It is said that the note G is Vādi, and the note Nishād is Samvādi for *Khambāj* (*Kr. Pustaka Mālikā,* Part II). The sentence does not define or clarify what it means by the term 'Samvādi' or 'Samvāda'.

However, we find that notes S, M, and D especially may be Vādi or the dominant note for *Khambāj normal,* and we have (*a*) M and P (*b*) S and n and (*c*) R and G as consonances respectively for S, M, and D.

Practically, if anybody observes the instrumental artistes tuning up the minor strings (taraf ki tār) he will find that M and P strings are tuned in consonance with S; and P and D strings with R, and so on. The string G is always in consonance with the N string for *Khambāj* and, of course, for rāgas such as *Iman,* or *Piloo* or *Paraj.*

Therefore, we cannot make out head or tail of the statement, viz. Nishād is Samvādi for *Khambāj* specifically. Where is the particular necessity for the statement? There is

not the least necessity either theoretically or practically. It is a useless indoctrination for all who may be concerned with the theory and practice of rāga music of North India.

Appendix IV

Essential Notes

We may define the term essential note as any note which has its natural status in the formation of the couple inhering in the class-motif of the rāga, or is a neutral note of choice emerging between the common mediants, or is by itself the Fundamental note for the design, is an essential note. This helps us to distinguish the essential notes from the non-essential notes of the designs of rāgas of the hybrid (Sālanka) and the mixed (Samkeerna) classes. Of course, and without a single exception the essential notes go to form the modulation of the pure (Suddha) class of rāgas, there being no non-essential note in such designs.

For instance, M D S—D S G is a couple and the class-motif is S G M D. The Fundamental note inheres in the design. The common mediants are D and S, the class modulation is spread out as:

$$S — G — M — D.$$

The neutral notes of choice are n and N, which are to appear inside the common mediants D and S as:

(1)   M————D———^{n}——S

        D———^{n}——S————G

(2)   M————D———^{N}——S

        D————^{N}——S————G

As the pure class of rāgas consists of five notes (by a large majority), the class modulation for rāgas springing from this couple would be:

(1) S G M D n

(2) S G M D N

It has to be observed also that the neutral note must have a status by virtue of some consonance relation with at least one of the notes of the couple or class-motif. In other words, the neutral note is not an unrelated interloper of a note, nor is it an accidental note encroaching upon the couple. For instance, with the couple S g P—g P n, the interval g—P is a big one, having accomodation for possible notes such as G, or M, or even m, in between g and P, as:

(1) S——————g——— $\overset{M}{\quad}$ P

$\qquad$ g——— $\overset{M}{\quad}$ P——————n

(2) S ——————g——— $\overset{m}{\quad}$ P

$\qquad$ g——————P—— ———n

We find that (a) the note G may not be introduced because as such it has no consonant relation in the design; and (b) artificial introduction of the note m gives rise to a new Universal g m n, and vitiates the categorical purity of the class. But the note M has two consonant relations, and the introduction of the note M in the design does not give rise to a new Universal. Therefore, the neutral note M is a note of choice in this particular case. Thus the best modulation is as:

$$S — g — M — P — n$$

This forms the body of rāga *Nilāmbari* so-called. The rāgas *Dhānee, Bhimpalāsi* and *Sindhū* are reducible to this prime modulation.

In the case of rāgas of the hybrid and mixed classes, a note which is non-essential regarding the dominant class-motif, or the class modulation, may appear as an essential note of the sub-dominant couple or class-motif. For instance, the note P is a non-essential note for the design of M D S —D S G. That very note is an essential note of the design of S G P—G P N. Now, in a hybrid design constituted of the couples M D S— D S G and S G P —G P N, any of them may be dominant and the other sub-dominant. In any case, the notes for the hybrid design will be S G M m P D n N. As a large variety of rāgas is possible, the class modulations will also be matters of selection.

For instance, with M D S — D S G as the dominant couple and S G P — G P N as the sub-dominant couple, the notes would be S, G, M, m, P, D, n, N. Of these, S, G, M, P, D, N, are the common constituents; and m, n, are inconstant elements. Thus the modulation would be S G M P D N. And so on, for all other designs and varieties. As soon as we understand the implications of such modulated designs, we are forced to conclude that the idea of ascent-descent of notes may be discarded as quite unnecessary.

CHOICE BETWEEN TWO OR MORE NEUTRAL NOTES

The interval between the common mediants is of two kinds, the big, and the small.

An example of the big interval is S g P — g P n. An example of the small interval is S G P — G P N. The interval g—P is bigger than the interval G - P.

We find that there is an allowance of two possible neutral notes in between the common mediants. With the big kind, three notes are possible, but only two may be neutral.

Whatever the possibilities may be, the solidarity of a categorically pure design requires only one neutral note of choice and the others are superfluities. The idea underlying categori-

cal purity and practical classicalism is one of natural self-restraint against superfluities, because the purpose alone, that is the presentation or communication of some specific motif on the part of the musical artiste, dictates the necessity and eliminates the superfluities. To combine necessity with superfluities means vagueness, unsteadiness of purpose, and bad economy. Where one is necessary and sufficient for the purpose, two is a superfluity to be avoided.

Appendix V

A Peculiar Idiosyncrasy

This particular piece reminds me of a peculiar experience. The very first time I heard it, I fell in love with it, and began to practise it orally. Shyamlalji, my Master, who knew my habit, told me, 'It is all very good, but don't do the thing in the presence of Seth Dulichandji.' Sethji was a disciple of Ganapat Rao Vaiyasahib. I asked 'Why?' My Master told me that Dulichandji could not bear the music of *Kalangrā*, and had attacks of palpitation of the heart as soon as he hears *Kalangrā*. That was news, indeed, to me, a medical student at that time.

Within a week I had the occasion to meet Seth Dulichand at his Dum Dum residence. As soon as I guessed he was coming to the hall where I was waiting for him, I started singing this particular piece, as if I were practising it for my own satisfaction. Sethji stepped into the room and at once stood still when the tune reached his ears. After a few seconds he said to me, 'Pānchu Babu, for God's sake, don't do it. I feel so uneasy.' As if I knew nothing, I asked him what was the matter with him really. He told me that whenever he heard *Kalangrā*, he had difficulty in breathing, followed by palpitation of the heart. He could not assign any reason for it. He had consulted medical experts such as the late Drs. Kailas Babu and

17

Manmatha Chatterjee. But none could cure him of his peculiar
idiosyncrasy. Since then, I looked upon the case as one of
musical anaphylaxis due to *Kalangrā.* I may say that Sethji was
a great lover of music all round, and never felt uneasy while
listening to music of all sorts. This happened near about 1919.
So far as I knew Dulichandji (from 1914 to 1929), I can say that
he was never a neurotic or neurasthenic. In fact he was as
sane and normal a man as ever walked on two legs and touched
the earth at every step.

Appendix VI

Evolution of Scales

It seems as if the primitive experimenters of the music of
Rāga had worked first of all with scales of four or five notes.
Certainly the vocalists, at least, did not experiment with a
scale, say S r R g G, though the notes are five. They must
have instinctively felt the basic motif as an uprising, so to say, in
their musical feeling. And, certainly, they must have developed
the faculty of supercharging the mediants and the consonances
by sheer emotive uprisings, and ultimately enlarged their
scales and perfected them with anticipated notes. With no
idea of what a perfect specimen ought to be, and without the
least intellectual directive regarding the relations such as medi-
ance and consonance, they must have instinctively tried to equa-
lise the supercharges by adding new notes to the primitive
scales or designs. Such behaviour, by itself, is nothing but
instinctive progress towards artistic perfection.

On the other hand, it is hard to suppose that the primi-
tive artistes on the very eve of creative impulse had sudden
visions of some one or other of the seventy-two septatonic
scales (Venkatamakhi's *Janaka Melas*) with seven or eight
notes; and then from time to time, discarded one or two or
three or four notes and landed on scales of five notes. Modern

That systems would have us believe this sort of absurdity, viz. the number seven of musical notes came first of all or dropped from the sky, with the Pūrvānga and Uttarānga divisions; subsequently, fanciful retrenchment of the notes gave us Shādava and Oudava scales. Comments on this sort of thing would not have been necessary but for the fact that such ideas have gained a foothold even among intelligent people who feel very much concerned for some theory of music. If they must have some theory of music, let them have it by all means. I find comfort in the fact, that such theories could not prevent me from examining the facts of music or musical presentation. After all, I do not know whether the reader of this book will console himself with some theory or incline towards observations of facts and correct deductions from such generalisations, and then go in for some rational theory.

Appendix VII

Class Modulation

The word 'modulation' as a technical term used in connection with European music means the act of passing by a succession of notes from one key to another.

For my present work I have used this term with some modified meaning for convenience of understanding. By the word 'modulation', I mean, not only the act of passing, but also the passage which is marked by a succession of essential notes, one after another, such a passage itself signifying the class-motif inhering in a discrete, independent couple. The European idea involves the passing from one key (say C major) to any other key. As such, there is no significance of couple formations. Here, the idea involves the passing as well as the passage of notes in such succession that only one couple with one class-motif becomes manifest.

The word 'succession' has to be clarified, because of its practical importance. A note appears, stays for sometime, and then disappears out of our conscious perception. Even then the tonal presentation leaves something as an after-image in our consciousness, though the note may have disappeared altogether objectively. Supposing that the after-image also has disappeared and a second note succeeds the former, the word 'succession' may be used theoretically to represent the fact. But I do not intend to mean this sort of succession at all. A note is struck on the piano. It dies out. Five minutes elapse before another note succeeds. Such may be the succession, but it is no good for music.

Leaving out the factor of after-images which vary according to the individual receptivity and the capacity for retaining impressions on the part of the hearer, the desirable succession implies that the succeeding note should appear just when the preceding note is on the point of disappearing from actual audition or auditory perception. This type of conditioned succession creates a continuity of musical percepts. And the modulation of the essential notes on such a musical background is a material and basic evolution of the class-motif. Finally, individuated modulations of the notes of the couple give rise to individual rāgas male or female as the case may be.

There is another point about modulation. Modulation does not necessarily mean all the possible successions of notes in any serial order or any other disposition. For instance, the notes of the couple D S G — S G P may appear with successions such as D P S D S G S P G P D G or S G P D P G S or G S G D P S P G and so on. When a modulation shows succession strictly in serial order, then that modulation becomes a Mūrchhanā specially. Such is one of the earliest traditions of Rāga music in India.

It may be said that a song or Ālāpa is a living dynamic thing, wherein the Rāga is the life itself and the Mūrcchanā, i.e. the specific modulation, is the life-line for the evolution of the Rāga.

Minus this modulation, the song or Ālāpa disintegrates into a wishy-washy sort of musical affair, communicating nothing but so many musical notes to the listener, stimulating nothing but a few sensations in his nervous mechanism. Yet the modulation as the mere lifeline is not life by itself, nor is it the dynamism of the graphic thing as presented to the senses and the feeling of the listener, in the form of a song or Ālāpa.

Thus the idea of modulation is equivalent to that of Mūrcchanā, a traditional Sanskrit word which means 'ebullition' of some noumenal motif as well as phenomenal presentation. The noumenal continuity is the base for the motif that appears in the mind of the artiste. If that continuity of motif is disturbed or broken, the presentation that follows is sure to show confusion of motif and errors of composition. It is a fact that artistes of Rāga music maintain or try to maintain the life-line of the rāga through the concourse of sounds created by themselves. Practice imparts security and a steadiness of endeavour only, but practice does not make the inner motif originate or evolve in the form of an undisturbed modulation and ultimately in the dynamic form of a rāga.

Accepting the ideas about modulation as I present them, the idea of class modulation follows as a corollary. Class modulation is a speciality, a category or an archetype of all the modulation that may represent the class of Rāga. And the pure class is the ultimate representative of the idea of all the classes such as pure, hybrid and mixed.

Each discrete, independent couple shows the elements of a pure class, wherein the Fundamental has to appear as a constant note. For instance, D S G — S G P is a pure class. The notes D, S, G, and P are the elements. When notes are arranged in serial order, starting with the Fundamental, we have D S G — S G P, i.e. S G P D. This serial presentation looks like a passage wherein the notes are the halting stations as it were. The modulation in this case represents the motif of the class. The couple shows categorical duplication of the common

mediants S and G. The class modulation is a morphological evolution wherein the categorical duplication disappears and the passage becomes simple and straight.

Also, by spreading out the notes in that manner and indicating the halting stations, we have the basic method of measuring the time-values of such halts and calculating the individual strength of the notes, as well as the percentage strength of the class-motif compared to the total value. The idea that certain notes represent halting stations for each rāga is met with in the technical parlance of the older school of classical artistes. They spoke of such and such notes as the makān for the particular rāga. 'Makān' means 'home', 'shelter' (original Arabic word). The oldest Indian traditions speak of notes such as Graha and Gṛha, Nyāsa, and Apanyāsa. The implications cover varieties of halts. Graha means the starting note of a presentation of a rāga. How can a rāga start at a note, unless it has already taken shelter or halted at the note? The Gṛha (meaning 'house') implies a particular shelter. A start of the phenomenal presentation means nothing but the appearance of a limb of the rāga. Such is Graha. Similarly, during the successive evolution of the rāga there appear the major and minor halts, viz. Nyāsa and Apanyāsa. It is to be noted that the evolution of a rāga, according to this ideology, does not mean the motion or passage of a rāga, but certainly means the being and becoming of the potential motif, into the manifest presentation. It is the dynamism of a bud sprouting forth into a flower; but not the motion of an animal going hither and thither.

The couple D S G — S G P contains the Fundamental. The class-motif is S G P D. But the notes S G P D cannot be manoeuvred so as to present a perfect specimen, i.e. a specimen free from any indication of latencies. Therefore, a fifth note, the neutral note so-called by me, has to appear by proper relation and position. This was the Madhya svara of very ancient traditions (at least as early as Nātyasāstra texts).

Is the neutral note as important and necessary as the Funda-

mental, and if so, why? The validity of the question is this. There is a couple r G d — G d N, with class-motif r G d N. The addition of S makes it S r G d N, showing five notes, a perfect specimen is now possible. That being so, where is the necessity of a neutral note of choice, such as m in the design?

In answer it may be said whether the note S appears in the design, or it appears separately as the Fundamental, some particular neutral note of choice is necessary. Other considerations will go to prove the truth of the statement, and examples will confirm it.

Appendix VIII

The Status of the Neutral Note

Let us take the very first couple starting with the note S. It is S g P — g P n. Spread out in modulation it shows itself as:

$$S \quad — \quad g \quad — \quad P \quad — \quad n$$

Of these four notes, S—P and g—n are consonants. S is a fixed entity; therefore P is also fixed. But the note g in between S and P (a long interval any way) is not so constant as S or P. In other words, g may fluctuate, and necessarily n, its consonant pair, will fluctuate. Ultimately, there is the chance of g P n being shifted to the position of G P N. Maladjustments of presentation, especially regarding the rāgas *Bahār* and *Adānā,* show that g tends to become G as a matter of fact, if the demonstrator is not careful about his work.

Thus the note g has to be made steady. We know that the note M in between g and P is consonant to S as well as n. Therefore, the introduction of the note M fixes the note n and steadiness of the note n reflects steadiness of the note g as such.

What is true for the couple S g P — g P n is categorically

true for all other couples. For instance, r G d — G d N when spreadou t shows itself as:

$$S — r — G — d — N$$

Here the note r just ahead of S is not steady by itself. It may fluctuate and become 'R'. That would make the thing R M D — M D S. This has to be checked.

The note r by its adjacency to the note S, and the note N also by its adjacency to the note S, are incapable of receding and advancing respectively. Such a fixed N was traditionally called *Kākali Nishāda* (*Nātyasāstra*). The implication is that *Nishāda* by its meaning is the last note. Nevertheless it may fluctuate either way. The farthest that the note *Nishāda* can go and be musically pleasant at the same time, is the *Kākali Nishāda*. The word *Kākali* means the note with the highest pitch.

Here the notes r and N are not fixed between themselves. r may advance towards R and there is nothing to check it. N may recede towards n and there is nothing to check it.

If now the note m is introduced in between G and d so that such an m be consonant to the *Kākali Nishāda*, as well as to r then the notes r, m and N become fixed and steady. The note N helps to keep G steady generally and it helps to fix the note m as a consonance by relation. Finally, the note m tethers the note r fairly well within required limits.

We should observe that in this particular modulation the note S has no control effect on the note r. The perfect modulation is thus:

$$S — r — G — m — d — N$$

The rāgas, for example *Suddha Dhanāshree*, *Pūriā-Dhanāshree*, *Vasanta*, and *Paraj*, are reducible to this basic modulation. The favourite catches m r G or r m G are the halter marks as it were on the neck of r, especially concerning *Shuddha*

Dhanāshree, Pūriā Dhanāshree, and *Dinki-Pūriā* (of the nine-teenth century).

Speaking of recent times, we know that the top artistes of Dhrubapada, Khyāl, and Ālāpa forms used to teach the mo-dulation (rāgkā daul, as they termed it) of *Bhūpāli,* i.e. S R G P D (which is the simplest of the pure class of rāga devoid of Madhyama), as the very first thing. And then they used to teach the scale of *Iman-Kalyān* with S R G m P D N. This helped the student to practise the m as correctly as possible. After this, the student should not find any difficulty in doing things of rāga *Pūriā* etc., which do not exhibit the note Panchama.

Regarding the class modulation of rāga *Bhūpāli* and *Shuddha Kalyāna* (both with S R G P D only), we shall observe that these rāgas evolve out of the couple D S G — S G P. The note R is a neutral note in between the common mediants S and G. This R is consonant to both D and P.

All this goes to prove that the neutral note of choice, that is to say the note which introduces itself inside the interval of the common mediants of a couple, is indispensable for the class modulation, because, without such a note, some of the modu-lated notes may shift forwards and backwards, and thus vitiate the class-motif of an individual rāga.

I have not the least doubt that the earliest traditions on music (i.e. the *Gāndharba* of Nārada, thrice alluded to by Bharata Muni, the greatest authority on music, dance and drama) took into account the status of what I term the neutral note as indispen-sable for the selection, grouping and scientific classification of musical scales. For instance, there is a verse in Chapter 28 of the *Nātyasāstra* which lays down as a formula that the Madhyama-Svara is avināshi, i.e. unobliterable or indispensable regarding classification and serial presentation of scales of Mūrchhanā which evolve the rāgas. However, the formula came down from times older than that in which Bharata Muni flourished. It was recognised by Shārngadeva the author of *Samgitaratnā-*

kara (A.D. 1243). After this it vanished into the limbo of non-recognition.

Appendix IX

List of Modulations

We may use the inductive method in delineating the modulations for the pure class.

Couple	Class-motif	Modulation
1. S g P — g P n	S g P n	1. S g M p N
2. S G P — G P N	S G P N	1. S G M P N
		2. S G m P N

With S g P n as class-motif, modulations such as S g G P n, S r g P N, S g m P n, S g P D n and S g P n N, are possible as mere achievements, so far as the vocal and instrumental endeavours are concerned. But none of these stabilises the couple or the motif. All of them contain superfluities. Therefore these are avoided for the pure class of rāgas.

Couple	Class-motif	Modulation
3. r G d — G d N	r G d N	1. S r G m d N
4. r M d — M d S	S r M d	1. S r M m d
		2. S r M P d
5. R M D — M D S	S R M D	1. S R M P D
6. R m D — m D r	r R m D	1. S r R m P D
		2. S r R m d D

Modulations of No. 6 are not impossible to achieve vocally or on an instrument. The reason why they are obsolete is not because they exhibit the so-called chromatic successions S r R or d D. There is not the slightest difference between N S r as accepted and S r R as avoided at the present day. Other acceptances are: g G M (for a rāga called *Hansadhvani*, or *Hanskinkini*); G M m (for *Lalita* etc.); m P d

(for *Dhanāshri, Vasanta*); and n N S (*Mallār* according to the ideas of the Gāndharba Mahāvidyālaya, Poona, an out-an-out centre of classical music).

The reason is that the note m has no check against fluctuations and recessions towards M. If the scale were S r R M m P D, or S r R M m d D, then the note m would be comparatively steadier. But these scales would no longer be classed among categorically pure scales with only one couple and class-motif.

Couple	Class motif	Modulation
7. g m n - m n r	S r g m n	1. S r g m n
8. M d S - d S g	S g M d	1. S g M d n
9. M D S - D S G	S G M D	1. S G M D n
		2. S G M D N.
10. m n r - n r M	r M m n	1. S r M m n N
11. P n R - n R M	R M P n	1. S R M P n
12. P N R - N R m	R m P N	1. S R m P N
		2. S r R m P N
13. d S g - S g P	S g P d	1. S r g P d
		2. S R g P d
14. D S G - S G P	S G P D	1. S R G P D
15. N R m - R m D	R m D N	1. S R m D N
16. N g m - g m n	g m n N	1. S g M m n N

Altogether we get these 22 simplest modulations with class-motif inhering in them. Each of these modulations is capable of evolving into one male and one female rāga by the dominance of one of the Universals over the other. But scrutiny will show that the modulations (*a*) S r R m P D (*b*) S r R m d D (*c*) S r g m n and (*d*) S g M m n N are practically unstable, at least for vocalisation, owing to there being no checks against fluctuations of one or more of the essential notes.

It is quite reasonable to presume that originally the music of rāga took its start on practically stable vocalisation of the modulations. Instrumental music of rāga appeared later on, and was responsible for the artificial and mechanical stability

of some of the modulations which were naturally unstable as
bases for vocal music. That is the reason for many different
lists about basic rāgas or modulations, so far as the traditions
of North Indian Rāga music is concerned.

Whatever that may be, the practical Rāga music for vocal
demonstration discarded the four aforesaid modulations and
accepted the rest, i.e. 18 modulations, simply because these
were naturally stable.

Since each of the accepted modulations could give rise to
one male and one female rāga by means of inversion of the
Universals, it was quite reasonable to categorise the basic
rāgas as 36 in number.

This reminds us of the tradition about *Shat-tringsha:*
rāgas which the author of the *Panchatantra* humourously puts
in the mouth of the Ass of the story. The Ass tries to estab-
lish his claim for singing and for being regarded as a
virtuoso because he knows the category of 36 Rāgas! The
sarcasm remains true to this day and for ever.

If we pause to think of categories or categorical numbers for
a system of thought, we cannot help concluding that such
categories or numbers represent the minimum essential things
or numbers limited by logical and mathematical possibility.
Obviously the maximum as evolutes need not be fixed or set
down. The practical category of 18 modulations represents
the irreducible minimum for objective understanding. It is
more than probable that those later theorists of Rāga and
Mūrchhanā who failed to grasp the objective and logical cate-
gory of modulation or Mūrchhanā tried to induce the number
on either three Saptaka (21) of notes, or three Grāmas. Such
false inductions caused a chain of misunderstandings and mis-
interpretations; and the correct ideas of Mātṛkā, Mūrchhanā
and Rāga went down under debris. By the time the story of
the *Panchatantra* was written, the correct idea of 18 modula-
tions or Mūrchhanā had become submerged. The reference
to 36 Rāgas does not at all mean however that there were

36 ragas as a maximum at the time when the story was written.

The tradition of 6 rāgas and 36 rāginis of comparatively ancient times is enveloped in mystery and will remain forever like that, so long as innocent people choose to fancy that Rāginī is the wife of Rāga. The word 'Rāginī' is homologous with the word 'Garbhinī' which means 'a female carrying a child in her womb'. 'Rāginī' means that thing which carries the embryo of future Rāga in its womb. Practically it means Rāga Mūrchhanā or modulation, because modulation contains Rāga in its womb. The words 'Rāginī' and 'Mūrchhanā' are feminine grammatically.

The numerical relation between 6 and 36, of Rāga and Rāgini respectively, may be traceable to the idea of attributing one representative rāga to each of the six seasons of the year. In other words, some *a priori* time-category was tied to the 36 Mūrchhanā-rāga category, and the result came down as a tradition of 6 rāgas and 36 rāginis. Or again, some of the theorists might have gone to the length of supposing that 'rāginī' being a female it should not be allowed to go free and they should be subordinated to male entities, on the dictum of Manu viz: females never deserve to remain free etc. So they started the system of 6 rāgas with six modulations for each as wives; and so on, with sons and daughters, until the social pattern was complete by the family as a unit. Later on poets and poetasters had their fill of imagination in weaving out detailed lists, such imagination running wild with the wrong idea, viz. Rāginī is the wife of Rāga! Even now, dabblers in classical music are making the most of such false ideas.

Medieval imagination took recourse to mythological concepts such as the five mouths of Lord Shiva uttered five rāgas, and the mouth of Goddess Pārvatī gave utterance to the sixth. That acted like the seal of Solomon in the story of *The Arabian Nights*, which tells of the fisherman hauling out a pitcher with its mouth tightly closed and engraved with

BIBLIOGRAPHY

CRITICAL

Bandopadhyaya, K. D., *Gītasutra-sāra* (Bengali), Calcutta, 1885.
Bhatkhande, V. N., *Hindusthani Sangita Paddhati* (Maharastri).
Mukhopadhyaya, H., *Prāchya Sangīta Tathya* (Bengali), Kashidham, 1919.
Popley, H. A., *The Music of India*, Calcutta, 1921.
Prajnanananda Swami, *Sangīta O' Sangskriti* (Bengali), Calcutta, 1953.
         „   *Rāga O' Rūpa* (Bengali), Calcutta, 1949.
Roy, H. L., *Problems of Hindusthani Music*, Calcutta, 1937.
Sanyal, A. N., *Prāchina Bhāratera Sangīta Chintā* (Bengali), Calcutta, 1945.
Sastri, S., *Sangīta-sudarshana* (Hindi), Prayaga, 1916.
Strangways, A. H. Fox, *Music of Hindustan*, Oxford, 1914.
Tagore, Sourindra Mohun, *Universal History of Music*, Calcutta, 1896.

THEORY (Sanskrit)

Ahobala, *Sangīta-pārijāta*, Calcutta, 1879.
Bharata, *Nātyasāstram*, Kashi, 1929.
Bhatkhande, V. N., *Shrīmallakshya-sangīta*, Poona, 1934.
Dāmodara Misra, *Sangīta-darpana*, Calcutta, 1881.
Lochana, *Rāga-tarangiṇī*, Darbhanga, 1934.
Matanga, *Bṛhaddeshi*, Trivandrum, 1928.
Nārada, *Sangīta-makaranda*, Baroda, 1920.
Rāga-Sāgara K. V., *Rāga-Kalpadruma*, Calcutta.
Rāmāmātya, *Svaramela-kalānidhi*, Madras, 1932.
Sārngadeva, *Sangīta-ratnākara*, Poona, 1896.
Somanātha, *Rāga-vibōdha*, Madras, 1930.
Tagore, S. M., *Gāndharba-kalāpa-vyākaranam*, Calcutta, 1902.
Venkata Makhin, *Chaturdandi-prakāsikā*, Madras, 1934.

THEORY (Bengali)

Mitra, Vasanta Lala, *Gāndharba-sanghitā*, Calcutta, 1888.
Roy, R. L., *Rāga-nirnaya*, Calcutta, 1949.
Sen, R. M., *Sangīta-taranga*, Calcutta, 1903.

MANUALS OF NOTATION

Bandopadhyaya, G., *Sangīta-chandrikā*, Calcutta, 1913.
         „   *Gīta-pravesikā*, Calcutta, 1938.
Bandopadhyaya, R., *Sangīta-manjari*, Calcutta.
Basu, S. N., *Sangīta-pravesikā* (Hindi), Kashi 1929.
Bhatkhande, V. N., *Kramika Pustaka Mālikā* (Maharastri) Parts I to VI, 1929
         to 1937.

Chowdhuri, N.A., *Maārif-un-Nagamāt* (Hindi, Urdu), Lucknow, 1924.
Framji, F., *Hindusthani Sangitki Encyclopaedia* (Hindi) Poona, 1931.
Gangopadhyaya, Y. N., *Ucchānga-sangīta-pravesikā*, Calcutta, 1949.
Goswami, K. M., *Kaṇṭha-Koumudi*, Calcutta, 1923.
       ,,   *Sangīta-sāra*, Calcutta, 1879.
Maitra, R. M., *Yantra-sangīta-pravesikā*, Calcutta, 1951.
Moulabux, M. K., *Prathama-pustaka* (Hindi), Baroda, 1899.
Mukhopadhyaya, H. N., *Svaralipi-sangraha*, Kashi.
Patavardhana, V. N., *Rāga-Vijnāna*, Poona, 1938.
Roy Chowdhury, B. K., *Pravesikā Sangīta*, Calcutta, 1940.
Sanyal, Dwijendra Nath, *Sangīta-vikāsa*, Lucknow, 1940.
Sen Gupta, J. K., *Rāgālāpa*, Calcutta, 1948.
       ,,   *Saptaranjani*, Calcutta, 1942.
Swami, P., *Bāngālā Dhrupad-mālā*, Calcutta, 1938.
Tagore, S. M., *Yantra-kshetra-dīpikā*, Calcutta, 1879.

JOURNALS AND REPORTS

Report of the 4th All India Music Conference (English and Hindi), Lucknow, 1925.
Sangīta, quarterly journal of Hindusthani music (English and Hindi), Lucknow, 1930, 1931.
Sangīta Prakāsikā, monthly journal, ed. Jyotirindra Nath Tagore, Calcutta, 1902-06
Sangīta-vijnāna-pravesikā, monthly journal, Calcutta, 1928.

INDEX - GLOSSARY

278 *Index-Glossary*

Goswami, Visvarūpa (19th century composer of Bengali songs and *kīrtana* music), 147

Hakimji, K. L. (19th century artiste and trainer of classical forms, Setār and flute artiste), 15, 46, 54, 148

Kāsyapa (ancient authority on Rāga music alluded to by Matanga Muni in *Brhaddeshi*), 206

Khan Sahib, Abban (19th century classicalist), 143

Khan, Abdulla (19th century classicalist and Sarōd artiste), 96

Khan, Ameer (19th century Sarōd artiste), 96

Khan, Fida Hussein (19th century Sarōd artiste), 49, 95, 112

Khan, Gofur (19th century artiste of Khyāl and Ghazal forms), 98

Khan, Hafiz (western states' 19th century artiste of Dhrubapada forms and performer on Vīnā and Setār), 40

Khan, Hafiz Ali (19th century classicalist and Sarōd artiste), 43, 112

Khan, Imdād (19th century artiste of Setār and Surbāhār instruments), 147

Khan, Keramat Ulla (19th century artiste of Sarōd), 144

Khan, Mahammad Ali (19th century classicalist and performer on Rabāb), 45, 77-9, 104, 143, 222-4

Khan, Mahammad Hussain (19th century classicalist and Dhrubapad specialist), 143

Khan, Maujuddin (19th century artiste of Khyāl and Thumri forms), 148

Khan, Munne (19th century classicalist), 231

Khan, Nāzir (19th century classicalist), 143

Kshettri, Shyamlalji (19th century amateur artiste of classical forms, disciple of Bhaiyā Sahib), 14, 23, 45, 55, 76, 110, 257

Lalluji, Shrimāna (20th century amateur artiste of classical forms), 38

Manu (ancientmost authority on Indian Law); dictum of, concerning status of female sex, 269

Matanga Muni (author of *Brhaddeshī*, treatise on Rāga music of ancient India), 211, 216, 251

Mirzā Sahib, Janab (19th century artiste of classical forms, especially of Thumri), 68

Misra, Lakshmiprasāda (19th century artiste of classical forms and performer on Vīnā and Setār), 77

Morris, R. O. (19th century critic of European music), 64, 65

Nandikesvara (probably most ancient authority on Rāga music and expounder of twelve-note scale; alluded to by Matanga Muni), 251

Nārada (legendary personality and attributed authority of Gāndharba system of music), 265

Pāthakji (19th century artiste of classical music and performer on Mrdanga: classical drum instrument). 39, 77

Raja Bhaiyā Pucchwala (19th century artiste of classical forms), 98

Sen, Atula Prasāda (19th century composer of Bengali songs), 151

Sethji, Dulichand (19th century composer and patron of classical forms of music), 257-8

Tānsen (16th century stalwart classicalist and composer of undying fame), 14, 45

Trivedi, Madho ji (19th century artiste of classical forms), 14

Venkatamakhin, Pundīt (17th century virtuoso of South India, called 'the Pānini of Carnātic music', author of *Chaturdandi Prakāsikā* and innovator of Janaka-Janya-Mela system of Rāga scales, 146, 258

Visvanāthji (19th century classical artiste, especially of