

# SANGĪTA RATNĀKARA OF SĀRNGADEVA

R.K. SHRINGY PREM LATA SHARMA

This monumental treatise from the 13th century sums up and organises what had gone before, and in doing so provides both master plan and basic topics for subsequent musicological work, even to the present day. The combination of Devanāgari text (from the Adyar edition) running concurrently with English translation, commentary, and footnotes, makes the work very convenient. Dr. Shringy's English translation and commentary, prepared under the expert supervision of Dr. (Miss) Prem Lata Sharma, is more devoted to a direct explication of Sarngadeva's verses. Its guiding principles (as evidenced in this first volume) are two. First, terms and ideas in the treatise are set in the larger general frame of Indian Sanskritic culture—as for instance a presentation of the Tantric metaphysics behind the doctrine of sound which Śārngadeva took over and elaborated from Matanga's Brhaddeśi. Second, complex technical principles are explicated in full—as for instance a demonstration of how to work with the 5040 permutations of kuta-tana "note-series" as Śārngadeva all too briefly set them forth. The work fulfils the urgent need for a standard and authentic work on the theory and practice of ancient Indian Music in English.

The translation provides English equivalents for technical terms, makes constant parenthetical reference to Sanskrit originals in transliteration. Contains a detailed word index, with multiple senses distinguished, and a glossary.

# SANGĪTA-RATNĀKARA

OF

ŚĀRNGADEVA

Vol. I
Text and English Translation

# SANGĪTA-RATNĀKARA

Construction OF Contract Supply and

# ŚĀRNGADEVA

Sanskrit Text and English Translation with Comments and Notes

Vol. I TREATMENT OF SVARA

English Translation by Dr. R. K. SHRINGY, M.A., Ph.D.

Under the Supervision of Dr. (Miss) PREM LATA SHARMA

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### PREFACE

I was inspired to undertake the present project of translating Sangitaratnākara into English by two factors viz. the inadequacy of the available English translation of the 1st chapter by C. Kunhan Raja, and the education and training that I received from Dr. (Miss) Premlata Sharma, Head of the Department of Musicology, Banaras Hindu University, while I was her student for Diploma in Music Appreciation during 1967-69. Even though the textual study of Sangītau.nākara was not, strictly speaking, a part of the curriculum, she was kind and generous enough to recognise the special position of some of the students, who were also the members of the staff of the department, and to extend to them the benefit of her wide learning and research experience by way of initiating them into the art of interpreting original Sanskrit texts on music with the help of available commentaries, and luckily I was one of them. So, even though I had been working as Research Assistant in the Department of Musicology and in the College of Music & Fine Arts prior to the formation of the department in 1966, for about ten years or so, Sanskrit texts on music could become meaningful to and enjoyable for me only after I could avail of this opportunity of learning the intricacies, the technicalities and the symbolism of the language of Sangīta-śāstra from Dr. Sharma. Hence, the need for a music-oriented, topic-wise, technically precise English translation of Sangita-ratnākara written in a flowing prose style unhindered by frequent Sanskrit interjections and accompanied by an elaborate and lucid commentary, was felt by me not as a scholar of Sanskrit but as a student of Musicology. A detailed note on the method and the manner of the translation has been written separately pointing out the peculiarities of the execution of the work.

In 1970, the University Grants Commission introduced scheme of writing university level books and monographs,

and I took the earliest opportunity of putting forth a proposal of writing an English translation of Sangita-ratnākara in three parts related to music (i. e. excluding the chapter on dancing) under the expert guidance and supervision of Dr. (Miss) Prem Lata Sharma who readily agreed to sponsor the proposal. And the U. G. C. too was kind and gracious enough to grant me a Research Fellowship for three years to undertake this project.

I am happy to say that as the result of the combined efforts of the U.G.C., which provided me the material means to pursue my researches and writing unhindered, the authorities of the Banaras Hindu University who granted me leave to work on the project, and Dr. Prem Lata Sharma who has very affectionately, very carefully and very meticulously nursed the whole product, and Messrs. Motilal Banarsidass, who readily agreed to publish this work, it has become possible for me to present this first volume comprising Chapter I related to the treatment of svara, in the service of the learned scholars and the learning students; and I hope it will be found to be of greater help in understanding Sārngadeva, whose work Sangīta-ratnākara is a landmark in the history of Sangīta-śāstra.

Though the translation was originally planned and written out with an elaborate commentary and critical as well as literary annotations with a view to making it self-sufficient, it has been considered necessary, convenient and useful to give the Sanskrit text as well along with it. This was considered necessary firstly because the translation is presented in a topic-wise order dealing with homogeneous ideas and concepts in convenient paragraphs in order to make the reading more intelligible and easy to grasp, and secondly because it was found unavoidable to modify some of the readings of the text as published by the Adyar Library in view of the technical accuracy of the readings available in the Anandāśrama edition or other comparable texts like Sangītarāja of Rāṇā Kumbha and so on. Thus, the Sanskrit

text has also been partly re-edited in so far as the arrangement of some of the verses has been modified to correspond with the paragraphs as arranged in the translation and also in so far as some modifications have also been made in the text here and there, though very sparingly.

The present project envisages the translation of six out of the seven chapters of Sangita-ratnakara divided as follows:

Volume I : Chapter I

Volume II : Chapters II to IV Volume III : Chapters V & VI

I am happy to disclose that the Ms. of Vol. II is also almost ready. It will not be before long that it is presented for publication, while work on Volume III as well is in progress.

It is not for me to say that the task of translating Sangita-ratnākara (Vol. I), that I had set to myself quite unwittingly in my enthusiasm for doing something worthwhile, could hardly be accomplished by me single-handed, since it not only demands great proficiency in Sanskrit and English languages but also an insight into the musical concepts of Sangita-sāstra, and besides the publication of such a work naturally involves co-operation of many able workers. I am, therefore, greatly indebted to my seniors and friends who have lovingly rendered every possible help in bringing the work upto the mark, though here I can make notable mention only of those few but for whose contribution this work could not have been published in its present form.

I do not find any words indeed to adequately acknow-ledge the contribution of Dr. (Miss) Premlata Sharma under whose expert advice and able supervision the whole work has been executed and who, out of her love for learning, voluntarily offered to write an introduction to the translation. In fact, whatever I have been able to do is primarily because of her, since without her initiation and continued co-operation, nothing could have been finally accomplished. I am

also greatly thankful to Mr. N. Ramanathan, Research Scholar of the Deptt. of Musicology, B. H. U. and presently, Lecturer in Musicology, Indirā Saṅgīta Vishvavidyālaya, Khairagarh, who has been kind enough to go through my press-copy including the index, and has offered many valuable comments and suggestions to improve the translation in its form and content. He has also been kind enough to go through the printed file and much of the credit for the preparation of errata goes to him.

Since Sangita-ratnākara incorporates a chapter on human embodiment (Pindotpatti), which indeed is a unique feature of Sarngadeva's work, (and he could possibly attempt it because he was himself a medical man as stated by him), special care has been taken in preparing the translation and the commentary as well as the notes of this chapter; and I am extremely grateful to Prof. Priyavrata Sharma, Head of the Deptt. of Dravyaguna in the Instt. of Medical Sciences, B. H. U., who has been kind enough to go through the Ms. of the whole chapter and suggest some technical modifications. I am also thankful to Dr. K. C. Gangrade, formerly Reader in Anatomy in the Institute of Medical Sciences and presently Reader in Sitar in the Department of Instrumental Music, B. H. U., who has also been kind enough to glance through this chapter and to offer some technical suggestions for the improvement of the draft translation.

My thanks are due to Shri Ritwik Sanyal, a research scholar of the Deptt. of Musicology, for assisting in the preparation of the Press-copy of the Ms. Many thanks are due to Shri Gopal Lal Bhatt and Pandit Maheshwar Jha, Assistants of the Research Section of the Deptt. of Musicology for assisting in proof-reading and the preparation of the Sloka-index respectively. Also I am thankful to Shri Kapildeo Giri for assisting in writing the Ms. of the Sanskrit text and Shri Chhannulal, Senior Clerk of the Deptt. for typing the Ms. and the Press-copy of the work neatly. I am also thankful to Shmt. Vimla Musalgaonkar, the Sanskrit teacher

of the Deptt. of Musicology, for her constant moral support and encouragement in the accomplishment of the difficult task.

Above all, I am grateful to the University Grants Commission for granting a Research Fellowship for this project and thus providing the initial impetus to this publication.

Our thanks are also due to the publishers of this book, Motilal Banarsidass for readily accepting the work of publication and for seeing it through the press expeditiously. Last but not the least, I am thankful to Tara Printing Works, Varanasi, for providing every facility for printing the work in the desired manner and in a short period of time.

Dated 17.11.1977 Deptt. of Musicology, Banaras Hindu University, Varanasi—221005

R. K. Shringy

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A NOTE ON TRANSLATION

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The present English translation of Sangita-ratnākara of Sārngadeva is based on the Adyar edition of the Sanskrit text published by the Adyar Library and Research Centre of the Theosophical Society, Madras in 1943. The text has almost entirely been adopted from that edition excepting a few places where the readings were not found to be technically significant and relevant to the context, and where sometimes the readings of the Ānandāshrama (Poona) edition (edited by Shri Mangesh Ramakrishna Telanga) are found to be more meaningful; though, that edition has been referred to only in very exceptional cases only and not as a general rule. Apart from these two editions of Sangita-ratnākara no other edition or Ms. has been consulted in preparing this translation, probably because it was not considered within the scope of a translator's work to do so.

When the project of translating this monumental work of Sangīta-śāstra was taken up in 1972, there were quite a few translations available in English, Hindi, Telugu, Kannaḍa and so on, most of them fragmentary. However, even though they were available, none of them was noticed by the author till the first draft of the work was nearly completed so far as this volume is concerned. But by and by the following works were noticed.

- (i) Sangīta-ratnākara (Part—I), Hindi translation by Shri Laksminarayana Garg, Sangīta-kāryālaya Hathras, 1964 (consists of Chapter I only)
- (ii) Telugu translation of the first chapter with that of Kallinātha's commentary in an appendix, by Gandam Sri Ramamurti published by the Sangīt Nāṭak Akademi, Andhra Pradesh, Kalā Bhawan, Hyderabad—4, in 1966.
- (iii) Kannada translation of the first three sections of Chapter—I with a commentary (also in Kannada)

called Niḥśanka-hrdaya by Prof. R. Sathyanarayana, published by Prasaranga, Mysore University, 1968.

- (iv) English translation of Chapter I by C. Kunhan Raja from Adyar Library, Madras, 1945.
- (v) English translation of Chapter VII on Dancing by K. Kunjunni Raja and Radha Burnier, first published in Vol. XXIII parts 3 & 4 of Adyar Library Bulletin, Brahma Vidya, 1959. This has been reprinted in 1976.

Excepting C. Kunhan Raja's English translation, no other work could possibly be consulted by the author (i. e. the present translator). It has been beneficial to consult this translation since some of the charts have been adopted from it with some modification. Another work published in 1975 was noticed as under.

(vi) Marathi translation of chapters I to IV along with the translation of Kallinātha's commentary by G. H. Tarlekar published by Maharastra Rajya Sahitya Sanskriti Mandal, Bombay—32 in 1975.

The author of this work plans to complete the Marathi translation of the entire Sangīta-ratnākara in his 2nd and 3rd Volumes on which he is presently working. Any other translations of this work, if available, have not yet been noticed.

The present English translation is executed in quite a different manner. First of all, the translation does not follow the traditional śloka-wise order, rather it is presented in convenient paragraphs that naturally comprehend a complete idea or expound it conceptually. The śloka-wise translations may be suitable for literature but so far as technical works, as this, are concerned, they hardly make any clear and lucid presentation so that, more often than not, the subject

matter is either confused or distorted. Therefore, in order to make the translation more intelligible to the modern intellect, the entire work has been further classified into many subdivisions according to the different topics. Thus, it is probably for the first time that the Sanskrit text as well as its English translation are being presented in the modern literary format. Accordingly the Sanskrit text has also been provided with suitable headings and sub-headings.

The general order of presentation is such that the text in Sanskrit is immediately followed by translation which in its turn is followed by the comments, and the comments are followed by notes, all of which run concurrently as far as possible. The substance of the two Sanskrit commentaries of Kallinātha and Simhabhūpāla as printed in the Adyar edition of Sangita-ratnākara has generally been incorporated in comments as much as it has been found possible in consonance with the modern style of presentation. However, the purpose of writing the comments is not merely to represent all that is useful in the Sanskrit commentaries, but to make the translation and the subject matter of the text easily intelligible and accessible to an average reader of a musicological text. The comments, in other words, actually constitute a running commentary on the text, comprehending most of the developments in the field since the Sanskrit commentaries were written. The notes are written mostly on the English rendering of the text and are more of a literary nature, while the comments are generally more concerned with the technical exposition of the subject matter.

The Śloka-s of the text have been divided into four parts called a, b, c & d, roughly representing the four quarters of a verse, and since the translation presented here follows a topic-wise arrangement, the paragraph and other topic headings are indicated in terms of Śloka numbers suffixed with a, b, c and d (as the case may be) to cover the entire range of the topic or the paragraph.

While writing Sanskrit words in Roman script, international diacritical marks are applied. These symbols are indicated here in a separate transliteration code.

With regards to translating technical terms from Sanskrit to English, as a matter of principle, every effort has been made to translate or to give English equivalents whenever possible, but exception is made with respect to certain concepts that have no parallel in Western music e. g. grāma, mūrcchanā, tāla and so on, that are retained in their original form. However, even in such cases, an approximate English equivalent has been provided into brackets, at least for the first time, if not every time the word is used, e. g. jāti (melodic type). Sometimes the English equivalents are thought to be unconventional, and in such cases the original Sanskrit terms are similarly provided into parenthesis e. g. tonepattern (varņa). This policy has been executed as far as it has been possible to do so intelligently.

The translation presented here is quite authentic, as near in interpretation to the original text as the English idiom makes it possible. Even though a śloka-wise presentation is not made, every paragraph is truly represented by the verse Nos. indicated at the end of the paras, while the range of the topic is indicated by the verse Nos. at the end of the topic-headings. The words that have been supplied due to gramatical necessity of the English expression have generally been put into brackets, so much so that expository or complementary phrases implied in the original text are also similarly indicated. However, every care has been taken not to make the translation too literal, at the cost of presentable diction, lucidity of expression, or technical meaning. Plurals made out of Skt. words are distinctly indicated by a hyphen e. g. grama-s. So, in short an attempt has been made to present a faithful, authentic, liberal and a clear English translation of the original Sanskrit text couched in a language that can be easily understood by the students as well as the scholars of

The translation is accompanied by three appendices for different specialists; and also a glossary-cum-index is

provided wherin the various technical terms are very briefly elucidated. A half verse line index too is added to provide a guide to the text.

It is hoped that this work will prove to be a useful aid to those scholars and students who are not so well conversant with Sanskrit as to approach the text directly.

### TRANSLITERATION CODE

Devanāgarī script	Roman script
1. Vowels:	in the property of the property
(a) short—ग्रह उऋ लु	a, i, u, ṛ, lṛ
(b) long — आ ई क	ā, ī, ū,
(c) dipthongs—ए ऐ ओ ओ	e, ai, o, au
(d) anusvāra— - & visarga-:	<b>ṁ &amp; </b> ф
2. Consonants:	that It constitutes a large
(i) Gutturals—क् ख्ग्घ्ङ्	k, kh, g, gh, n
(ii) Palatals च छ ज झ ज	c, ch, j, jh, ñ
(iii) Linguals— दृठ्ड्ड् ण्	t, th, d, dh, n
(iv) Dentals त् ध् द् ध् न्	t, th, d, dh, n
(v) Labials - प् फ् ब् भ् म्	p, ph, b, bh, m
Semivowels— य्र्ल्व्	y, r, l, v
Sibilants— श्ष्स्	ś, ş, s
Sonant aspirate—ह	h
Metrical symbols:	Tonal symbols:
(i) laghu—I short	Şadja sa Madhyama ma
(ii) guru —S long	Rşabha ri Pañcama pa
(iii) pluta—\$ prolonged	Gāndhāra ga Dhaivata dha
or elongated	Nişāda ni

### LIST OF ABBREVIATIONS.

		LIST OF ABBREVIATIONS.
	Abh. Bh.	Abhinava-bharati, Abhinavagupta's commentary on N. S.
	Ad. ed.	Adyar edition of Sangita-ratnakara
	Bh. G.	Bhagavadgita
	Br. D.	Bihaddest of Matanga
	Caraka	Caraka samhita
	Chap.	Chapter
	Eng.	English
	Eng. trans. M. Gh	Bristandill of IV. S. DV Shri Mannet
	G. O. S.	Gayakwad Oriental Series, Baroda
	I. M. J.	Indian Music Journal
	J. R. A. S.	Journal of Royal Asiatic Society
	'K'	Kallinātha
	Kashi or K	ed. Kashi (Chowkhambha) edition of N. S.
	K. K.	Kavirāj Kunjala Bhishagratna, the English translator of Susruta
	K. R.	Kunhan Rāja, author of the Eng. translation of S. R. Chapt. I published from Adyar, Madras.
	Lit.	Literally.
	N. S.	Nat yas astra of Bharata
		S. Natya-śastra, Gayakwad Oriental Series, Baroda Edition
	P. L. S.	Dr. (Miss) Prem Lata Sharma
	Rv.	Rgveda
	'S'	Simhabhūpāla
	Skt.	Sanskrit
	S. R.	Sanglia-ratnakara of Śarngadeva
	S. Rāj	Sangita-rāja of Rāṇā Kumbhā
	uśruta	Suśruta Samhita
_1	r.	Translation
# 1	For the training	

<sup>\*</sup>For the translation.

### INTRODUCTION

# 1. Prefatory Remarks

If one were to name a single text of Sangita-sastra which embodies the earlier tradition (lakṣaṇa, body of terms and concepts) in remarkable detail and at the same time incorporates contemporary developments, which has been constantly referred to in musical and literary texts in the subsequent centuries, which has been commented upon profusely¹, which has not only been looked upon with awe and reverence, but has also occasionally been the target of reproach born of frustration, which wielded great influence over later tradition, one would undoubtedly name the Sangita-ratnākara (hereafter referred to as S. R.) of Śārngadeva.

S. R. has been known as saptādhyāyī² on the model of Pāṇini's Aṣṭādhyāyī and has for at least six centuries symbolised the ancient tradition of lakṣaṇa. Earlier texts do not appear to have been directly studied by most of the auhtors of lakṣaṇa in the subsequent centuries. Keen interest in the direct studies of earlier works like Bharata's Nāṭyaṣāstra, Dattila's Dattilam, Matanga's Bṛhaddeṣī, Abhinavagupta's Abhinavabhāratī, Someśvara's Māṇasollāsa and Nāṇyadeva's Bharatabhāṣya, has emerged only in the latter half of the 20th. Century and S. R. has served as a constant frame of reference in this study. Hence S. R. has re-emerged as a landmark in Sangīta-ṣāstra, illuminating its ancient and medieval tradition like a Dehalī-pradīpa³.

1. The latest commentary, 'Setu' of Gangarama was composed as recently as the 19th century.

 cf. S. Sud, p. 152 sl. 407. Sahasras (a compilation, made in the 17th. century of dhrupad texts ascribed to Bakshoo of the 15th. century), song-text no. 188, 400, 479, 958.

3. A lamp on the threshold of a room illuminating both inside and outside.

### 2. Date and Identity of the Author

Śārngadeva introduces himself as belonging to a family which hailed from Kashmir. Kashmir is the glorious land of Sanskrit learning that dominated for centuries the various branches of study; the land that gave birth to a versatile genius like Abhinavagupta preceded by a host of commentators on N.S. and Ānandavardhana, Mātrgupta, Mammata etc. Śārngadeva must have inherited from his father and grandfather the rich tradition of various disciplines. He must also have been acquainted with the laks ya of Kashmir indirectly and with that of the Deccan, where the family settled, directly. In a way the entire śāstra (source of theoretical knowledge) and sampradāya (practical tradition) of the earlier periods must have been accessible to him.

In Deccan, the family lived under the patronage of the Yādava dynasty at Devagiri (present Daulatabad). This dynasty was formally established by King Bhillama in 1145 A. D. It is during his reign that Śārngadeva's grandfather Bhāskara appears to have shifted from Kashmir to Devagiri. One wonders what could have prompted Bhāskara to leave his motherland and move to a distant foreign region. Was it the political persecution which forced him to flee and seek refuge in the other end of the land? Or was it the special patronage extended by the prince of a distant land to him because of his fame that attracted him to the Yādava court? P. V. Sharma feels that although there is no conclusive evidence, it may be that the King of Devagiri, impressed by Bhāskara's scholarship in Āyurveda, invited him to his court as

<sup>1.</sup> Their works are lost today.

<sup>2.</sup> Sources for the historical details are :-

<sup>(</sup>a) Bhāratīya Vidyābhavan's The History and Culture of the Indian Péople, Vol. V.

<sup>(</sup>b) Śārngadeva's own account regarding his genealogy and other details in the first prakarana of the first chapter of S. R.

<sup>(</sup>c) P. V. Sharma's paper in Hindi—"Yadava Kings, the Great Patrons of Ayurveda in the Medieval Times."

a royal physician. Besides, Bhāskara's son Soḍhala was also appointed the Accountant General (Śrīkaraṇāgraṇī) in King Bhillama's court.

King Bhillama died in 1193 A. D. His son Jaitrapala or Jaitugi ascended the throne and ruled for a short period. He was succedeed by Singhana in 1200 A. D. who was not only a very powerful king but also a great patron of arts, literature, and science. It is during his reign that Sarngadeva who continued in his father's (Sodhala's) post as the Royal Accountant, seems to have composed his works. Having had great scholars for his ancestors, Sarngadeva's heredity must have provided him with a very rich 'samskāra-punja' (cultural heritage) combining the northern or north-western and southern traditions in learning and arts. Along with his study of Sangita he appears to have carried on the family profession of Ayurveda. He had also written a book on Ayurveda entitled 'Adhyātmaviveka' to which he himself refers.1 This work is not available. Besides this and S. R. no other work of Sarngadeva is known.

Sarngadeva refers to himself as one who has removed distress of the Brahmins through gifts of large wealth, of those desirous of learning through knowledge, and of the sick through medicines<sup>2</sup>.

घनदानेन विद्राणामाति संहत्य शाश्वतीम् । जिज्ञासूनां च विद्याभिर्गदार्तानां रसायनैः ।।

This verse in a way sums up the three facets of Śārnga-deva's life viz. the accountant, the scholar, and the physician.

Some of the verses<sup>3</sup> in the introductory Section of S. R. giving an account of the genealogy seem to be lavishing praises on the author himself and his ancestors which to a modern reader may appear immodest. But that was,

however, part of the culture of his period and was not regarded improper then. On the other hand, the verses at the conclusion of the work<sup>1</sup> are full of humility and modesty.

# 3. Patronage of Ayurveda in Yadava Dynasty

Scholarship in Ayurveda was confined not only to Sārngadeva's family. History reveals a host of Ayurvedic scholars who lived under the patronage of the Yādava Kings. Furthermore, these scholars were also intimately connected with Sārngadeva's family, for many of them were students of Bhāskara, Sārngadeva's grandfather. In fact it is only through the works of some of these scholars that we come to know of Bhāskara as a great name in Ayurveda; Sarngadeva himself does not give any clear indication P. V. Sharma has ably brought out in his paper<sup>2</sup>, the role of the Yādava Kings in the promotion of Ayurveda and the contribution of Bhāskara and other scholars.

Nāgārjuna, the author of Yogaratnamālā commences his work with a salutation to his guru Bhāskara. Keśava, in the concluding verses of his work Siddhamantra, describes himself as the disciple of Bhāskara in Āyurveda and as the recipient of Simharāja's (Singhaṇa's) patronage. Though Bhāskara himself lived during King Bhillama's reign, his students continued upto King Singhaṇa's reign. It is the reign of King Singhaṇa which seems to have been the golden period in which not only Āyurveda but also all the arts and literature flourished. Many of the Ayurvedic preparations were named after Singhaṇa, e. g. Singhaṇa-cūrṇa Singhaṇa himself seems to have had knowledge of Āyurveda since a few of the preparations are credited to him.

Soḍhala, the author of two works on Ayurveda—Gadani-graha and Soḍhalanighaṇṭu, might be the same Soḍhala mention-

<sup>1.</sup> S. R. 1,2,119.

<sup>2.</sup> ibid. 1,1,12cd-13ab.

<sup>3.</sup> ibid. 1,1, 2-14.

<sup>1.</sup> ibid. 7, 1672-1678.

<sup>2.</sup> See footnote 2. (c) on p. xiii. regarding P. V, Sharma's paper.

ed by Śārngadeva as his father. He also lived in the time of Singhana. Since Śārngadeva mentions the names of the Yādava Kings only upto Singhana, it appears that he too compiled his works Adhyātmaviveka and S. R., during the reign of King Singhana.

Singhaṇa's death saw some scuffle between the descendants for the throne. The Yādava rule itself lasted only 70 years after Singhaṇa died, after which the Muslims took over. In this period Kṛṣṇa, Mahādeva, and Rāmacandra were the successors to the throne. Bopadeva, another illustrious figure in the Yādava rule lived in this period. He was the son of Keśava, the author of Siddhamantra. Bopadeva was a versatile genius and had to his credit a number of books on such diverse subjects as, Sāhitya, Vyākaraṇa, Āyurveda, Jyotiṣa, Bhāgavata, including a commentary, 'Prakūśa' on his father's work 'Siddhamantra'. His contemporary and a close friend was Hemādri who was the chief minister during this period; he too was a great scholar of Āyurveda and had several books and commentaries to his credit

Thus we see that the Yādava rule in the Deccan patronised eminent scholars from various fields and in particular from Āyurveda. Some of the rulers themselves, we have seen, were adepts in Āyurveda and other subjects. All this gives us a picture of the time, place and the environment in which Sārngadeva lived and produced his monumental work.

#### 4. Various Editions of S. R.

Three printed editions of S. R. have been published till now.

- (i) The earliest edition of S. R. was brought out in 1879 by Kālīvara Vedāntavāgīśa and Śāradā Prasāda Ghosa from Calcutta. This was printed at the New Arya Press,
- 1. There is however, an element of doubt regarding the two Sodhalas being identical, for Sodhala of the Ayurveda-nighantu mentions his Gotra as Vatsa whereas Śārngadeva belongs to the Vrsagana Gotra. See introduction to Gada-nigraha edited by Gangāsahāya Pandeya.

Calcutta. This volume contained only the Svarādhyāya and is accompanied by the commentary of Simhabhūpāla.

Since we have not had access to this edition, we cannot say whether this is a critical one or not.

- (ii) In 1896, S. R. was published in the Ānandāśrama Series (No. 35). Edited by Mangesh Ramakrishna Telanga, this was brought out in two volumes. The second volume appeared in 1897. The first volume consisted of the chapters I to V. The remaining two chapters comprised the second volume. Kallinātha's commentary to the entire text accompanied this edition. Thus, this is the first printed edition incorporating the full text of S. R.. This is a critical edition in so far as the various available manuscripts and the reading of the commentator have been collated.
- (ii) The Adyar Library and Research Centre, Madras, has brought out the latest edition of S. R. The entire text along with the two commentaries of Kallinātha and Simhabhūpāla is edited by Pandit S. Subrahmanya Sastri and is published in four volumes. The first volume contains the first chapter; the second volume—the second, the third and the fourth chapters; the third volume—the fifth and the sixth chapters; and the fourth volume—the seventh chapter. The first volume appeared in 1943 and the last one in 1953, while the second volume was revised by Pandit V. Krishnamacharya and published again in 1959.

Even though Kunhan Raja<sup>2</sup> in his introduction to the first volume, states that both the earlier editions of S. R. and other manuscripts have been compared in the preparation of the Adyar edition, it fails to be a critical one. Variant readings, excepting those found in the commentary of Simhabhūpāla have not been indicated.

<sup>1.</sup> See p. vi, Kunhan Raja's introduction to S. R. Vol. I, Adyar ed.

<sup>2.</sup> p. vii Kunhan Raja's introduction to S. R. vol. I, Adyar ed.

### 5. Commentaries on S. R.

S. R. is the only work on Sangitasastra that has to its credit more than one commentary. The editors of the Calcutta edition are reported to speak of seven commentaries, of which four are in Sanskrit, one in Hindi and two in Telugu. M. Krishnamachariar in his 'History of Classical Sanskrit Literature', also mentions seven commentaries. The authors for six are mentioned as Simhabhūpāla, Keśava, Kallinātha, Hamsabhūpāla, Kumbhakarna and Gangārāma. Of these, the commentaries of only Simhabhūpāla, Kallinātha and Gangārāma are available today. Reference to the commentary of Keśava is also found in S. Sud.<sup>3</sup> M. Krishnamachariar mentions the name of this commentary as Kaustubha. 4 'Hamsabhūpāla' seems to be a mistake for 'Simhabhūpāla's. The name of the seventh commentary is Candrikā but the author is not known. No details regarding the Candrika commentary or the commentary attributed to Kumbhakarna are known.

- (i) Simhabhūpāla's Sangttasudhākara is the earliest commentary and is seldom critical; it almost paraphrases the text. In the introductory verses, Simhabhūpāla explaining the need for such a commentary, stated:
  - (a) The whole system of music expounded by Bharata and others had been shattered before the advent of Śārngadeva and it was Śārngadeva who consolidated and now he (Simhabhūpāla) himself is trying to make it understandable, out of consideration for the people.
- 1. ibid. p. x.
  - 2. History of Classical Sanskrit Literature, p. 853.
  - 3. S. Sud., p. 152, sl. 408.
  - 4. History of Classical Sanskrit Literature, p. 853.
  - 5. Kunhan Raja's Introduction to S. R. Vol. I, p. xi.
  - 6. History of Classical Sanskrit Literature, p. 853.
  - 7. Introductory sl. 5-7 of Simhabhūpāla's commentary on S. R. p. 6.

- (b) The text of S. R. is profound (gambhira) and complex (visama) and is intelligible to very few persons; he alone is competent to write a commentary on it.1
- (c) It is difficult for one to be adept at both laks ya and laksana and hence this commentary (which relates lakṣaṇa to lakṣya) is nothing short of an original the standard beautiful and the rate of
- (ii) Kallinātha's commentary 'Kalānidhi' is somewhat critical. Valuable references to contemporaneous practice are found in the raga chapter. At the same time he leaves many sections uncommented, implying either that the sections are irrelevant or are too clear to need any commentary; however. what may have been clear enough to him is seldom so to the present day scholar.

Kallinātha also refers to himself as laksya-laksana-kovida (well-versed). He claims that he has tried to reconcile lakşya and lakşana and remove the contradictions (virodha).8

It is obvious that both Simhabhūpāla and Kallinātha feel that it is a big responsibility to connect the laksana of S. R. with their contemporary laksya. This appears to be a subtle way of indicating the cleavage, that had become conspicuous in their time, between the two. Though they have tried their best to reconcile the cleavage, it becomes more obvious by the time of Rāmāmātya, the author of Svara-mela-kalanidhi.

Some pertinent questions arise in connection with Kallinātha and his commentary.

- (a) In the chapter on raga, Kallinatha cites a number of examples from the practice (laksya) of his time to bring out the non-conformity of the contemporary 1. ibid. sl. 11.
- 2. ibid. sl. 12.
- 3. Kallinatha's introductory verses to his commentary on S. R.

laks) a to the laksana of the grama-raga-s etc. described in S. R. In this context it is strange that he does not refer to Vidyāraņya² whose system of mela-s had already been propounded. This is all the more surprising since Vidyāranya too had belonged to the same Vijayanagaram empire of which Kallinatha was a citizen

- (b) Rāmakṛṣṇa Kavi in his Bharata Kośa states that Rāmāmātya is the grandson (dauhitra) of Kallinātha.3 One does not know the source from which Sri Kavi obtained this information, but it is very curious that Rāmāmātya does not refer to Kallinātha at all in his entire work. Again, while Kallinātha frequently asserts his familiarity with the musical tradition handed down by Bharata, Matanga, Śārngadeva etc., i. e., the knowledge of the 'sampradāya'4, Rāmāmātya seems to reveal a lack of understanding of Sarngadeva's work and his svara system in particular. Students of history of music wonder how within the time of Kallinatha and Ramamatya the tradition of S. R. became unfamiliar.
  - (c) Equally strange is the fact that the author of S. Sud. should find Vidyāranya accessible but Kallinātha obscure.5
  - (iii) Kumbhakarna is now established as the author of Sangītarāja. It is indeed strange that Kumbhakarņa should have been noticed as a commentator of S. R. Sangītarāja is an independent work, the scope of which is larger than
    - 1. K. on S. R., 2. 2. 159-160, vol. II, p. 114-116 (Revised edition)
    - 2. Vidyāranya is the author of Sangītasāra, known to be the first work on mela-system and which is no more available.
    - 3. Bharata Kośa, p. 550.
    - 4. cf. K on S. R. 1, 4, 15ab-16, vol. I, p. 108; K on S. R. 5.237-238 vol. III, p. 135 ln, 12 13.
    - 5. S. Sud., p. 152.

that of S. R. in some respects. However, the bulk of its contents is an elaboration of S. R. and hence it may be called a commentary in an informal sense. It is, however, not known on what source this reference was based.

4. A manuscript of Gangārāma's Hindi commentary 'Sangita-setu' is deposited in the library of the palace of the former Prince of Kashi, in Ramnagar, Varanasi.1 The work is more of a translation, though some independent observations or explanations of the commentator are found here and there2. Indication of the verse or group of verses forming a unit of translation is also given with the initial word (pratika), e. g., Brahmeti for the opening verse of the work.

The order of Vadyadhyaya and Nartanadhyaya having been reversed, the commentary ends with the Vādyādhyāya8. The last colophon reads:

इति श्री महाराजाधिराज श्री महाराजा श्री राजा बहादूर सीतारामचंद्र कृपापात्राधिकारी विश्वनाथ सिंह ज् देव तदाज्ञा-प्रयुक्त-श्रीमाथुरकुलमणि तुलारामगर्भ-समृद्भूत-गंगाराम-कृत-संगीतसेतौ वाद्याध्यायः षष्ठः (सप्तमः ?) समाप्तिमगमत् तदेतद्विदुषां प्रीतये भूयात् ।।

संवत् १९०२ के साल मिती भाद्रवदी ८ समाप्त्यः ॥

श्री नपमणो विस्नाथ तव मोद हेत सुख पाइ। लाला दौलत लिखत वाद्याध्याय बनाइ ॥

The colophon gives the following information:

- (a) The date of the work is Samvat 1903, i. e., 1903-57 = 1846 A. D.
- 1. A transcript of the same has been prepared by the Research Section of the Department of Musicology, B. H. U.
- There is reference to Kenopanisad in the commentary to S. R. 1. 2, verse 18-20

"Anahata" is explained as that which is not the product of an attack or striking anywhere.

In the context of Sadharana there are references to Sangitaparijata and Naradīyasiksa

3. This could have been the mistake of the copyist.

- (b) Visvanath Singh is the name of the commentator's patron, obviously the prince of Rewan, who was a great scholar and patron of literature and arts.
- (c) The author hails from Mathura.
- (d) The language of the commentary is Brajabhāṣā.
- (e) The scribe appears to be Lala Daulat.

Critical approach seems to be wanting in this commentary. There appears to have been no attempt to interpret the concepts in the light of current practice.

# 6. General Scheme and Style of the Work

- (a) Objective:—Sarngadeva states the following four reasons for writing S. R.<sup>1</sup>
  - (i) Akhilalokānām tāpatrayajihīrşayā—to liberate everyone from the three kinds of pain, ādhibhautika (physical), ādhyātmika (psychological), and ādhidaivika (natural calamities).
  - (ii) Śāśvatāya-dharmāya—to uphold the eternal dharma (virtue).
  - (iii) Kirtyai-for obtaining fame.
  - (iv) nihśreyasaptaye—for achieving liberation.
- (b) Scheme:—S. R. is devoted to the delineation of sangita—a composite of gita, vādya and nṛṭṭa. Śārṅgadeva has consolidated and arranged in seven chapters the exposition of the entire sangita. Six chapters are devoted to music and the last one to dance. Music, independent of drama, had apparently become crystallised by the time of Śārṅgadeva.

Following is the list of the various chapters and their contents. Since the present volume of the translation includes only the first chapter, the others will be discussed in the introduction to the respective volumes.

### CHAPTER I: SVARAGATADHYAYA

The first chapter is confined to the treatment of svara, i. e., the tonal aspect. It is further divided into eight sections (prakarana-s). They are:

- (i) Padārthasangraha prakarana:—Genealogy of the author, the ancient authorities (ācārya-s) to whom the authoris indebted, and table of contents.
- (ii) Pindotpatti-prakarana: Genesis of the human body combining the Vedāntic, Āyurvedic and Hathayogic views.
- (iii) Nāda sthāna śruti-svara jāti-kula-daivata-ṛṣi-cchand-rasa-prakaraṇa: Nādopāsanā, the production of nāda in the human body according to Śikṣā-s; 22 śruti-s; sāraṇā\*; svara and its definition; śruti-jāti-s\*: names of 22 śruti-s\*; śuddha-vikṛta svara-s; association of animal-cries with svara-s; four kinds of svara-s—vādi-saṃvādi-vivādi-anuvādi; assignment¹ of kula, varṇa (caste), varṇa (colour), janmabhūmi (birthplace), ṛṣi (seers), devatā (gods), chandas (metres) and rasa (sentiments) to svara-s.
- (iv) Grāma-mūrcchanā-krama-tāna prakaraņa: Three grāma-s; mūrcchanā-s; krama-s; śuddha-tāna-s; kūṭa-tānv-s; prastāra; khaṇḍameru and the mode of computing naṣṭa and uddiṣṭa; names of śuddha-tāna-s
- (v) Sādhāraņa-prakaraņa: svara-sādhāraņa; its four varieties—kākalī, antara, şadja, madhyama—and the process of obtaining the 12 vikrta svara-s; jāti-sādhāraņa.
  - (vi) Varņa-alankāra-prakaraņa: four varņa-s; alankāra-s.

The number of alankāra-s in S. R. is more than those mentioned in earlier treatises. However in S. R. the term alankāra has a restricted usage and refers only to the melodic motif, whereas in N. S. the term comprehended 'kampa' also.

<sup>1.</sup> S. R. 1. 1. 13cd-14.

<sup>\*</sup> marked on topics implies that either the author provides the first available record of the respective tradition or has his own way of treatment.

<sup>1.</sup> This body of laksana combines the influence of vedic and tantric tradition.

By Śārngadeva's time kampa and its varietes had acquired the name gamaka.

(vii) Jāti-prakaraņa: Suddhā-jati-s; vikṛtā-jāti-s; vikṛtāsamsargajā-jāti-s; characteristics (laksana) of iāti-s; treatment of individual jati-s and their respective prastara-s.

One may ask why jāti-s should have been treated in the chapter on svara while treatment of raga has been taken up in a separate chapter. This is because raga had become fully developed by the time of Sarngadeva and its large number demanded a separate chapter.

(viii) Giti-prakarana : Kapala-s and kambala; giti-s.

# CHAPTER II : RAGAVIVEKADHYAYA

This chapter is divided into two prakarana-s.

- (i) Grāmarāga uparāga rāga-bhāṣā vibhāṣā -antarabhāṣāviveka-prakarana.
  - (ii) Rāgāngādinirnaya-prakaraņa.

# CHAPTER III: PRAKIRNAKADHYAYA

Lakşana-s of vaggeyakara-s, gayana-bheda: sabda-bheda etc.; śārīra-lakṣaṇa etc.; gamaka; sthāya; ālapti.

Most of the material included in this chapter represents developments of the post-Bharata period.

# CHAPTER IV : PRABANDHADHYAYA

Definition of gita and its division into gandharva and gana; constituents of prabandha; description of individual prabandha-s, guna and doşa of gita.

Prabandha-s definitely represented music independent of drama.

# CHAPTER V: TALADHYAYA

Marga tāla-s; gītaka-s; desī tāla-s; pratyaya of desī tāla-s.

### CHAPTER VI : VĀDYĀDHYĀYA

Structure, modes of playing and the compositions pertaining to tata, susira, avanaddha, and ghana vadya-s.

(XXV)

S. R.'s treatment of all the vadya-s in one single chapter is a distinct departure from Bharata's scheme where the tata and susira are taken along with the chapters pertaining to svara and the others treated separately.

## CHAPTER VII: NARTANĀDHYĀYA

Elements of n<sub>7</sub>tta; dance forms; treatment of nine rasa-s

(c) Style: Sarngadeva presents the subject in a concise and precise manner. His treatment is devoid of any 'sāstrārtha' style, i. e., there is no argumentative approach. Very rarely do we come across some sort of discussion. For instance, after describing sruti and svara, the author himself raises a doubt-"if svara-s are effected only on the 4th. (7th, 9th....) and other sruti-s, then how could the previous sruti-s, i, e., 3rd. (2nd., 1st. or 6th., 5th.) etc. be said to contribute to it (svara)?"1 The author then answers the question himself. Similarly, while pointing out the exceptional case of pancami jāti with regard to the observance of the rule relating to the weak notes and the sadava-auduva formations, he brings in the concepts of parisankhyā and vidhi of the Mīmāmsā school of Philosophy.2

In conciseness of expression and as regards consolidation of earlier laksana, Sarngadeva can be compared with Mammata, the author of Kāvyaprakāśa.

### 7. Consolidation and Supplementation of laksana from earlier and contemporary sources

Sarngadeva in the introductory section of the first chapter of S. R. lists a number of earlier authorities, the essence of whose views, he states, he is presenting in his work.8 A detailed and a comparative study of S. R. and the

<sup>1.</sup> S. R. 1. 3, 25c-27ab.

<sup>2.</sup> ibid. 1. 7. 57 cd-59ab.

<sup>3,</sup> ibid. 1, 1, 15-21ab

earlier texts bears this out. Of the earlier authorities listed by him, works of only some are available today; they are—Bharata, Dattila, Matanga, Bhoja, Abhinavagupta, Someśvara, Nānyadeva and Jagadekamalla.

It is, however, not to be surmised that Sārngadeva has consolidated all that has been stated in the earlier works. He has been extremely judicious, discriminating, and selective in incorporating the lakṣaṇa from the earlier sources. He has left out some portions from the works of Bharata and others. For instance, the entire section on dhruvā-s dealt with in N. S. has been omitted in S. R. Details regarding the reportoire of drums described by Bharata have been left out and instead we have the delineation of vādya-prabandha-s. Sārngadeva has also chosen not to include the polemic discussion on the relation between svara and śruti given in Bṛhaddeśī and has ignored the reference to the twelve svara-mūrcchanā-s mentioned in it.

We shall also state here some of the points on which Sarngadeva seems to have been influenced by the earlier writers or incomporated the current tradition of lakşana lakşya.

(i) Bharata and Dattila: Svara, śruti, grāma, mūrcchanā, jāti, gīti, tāla (mārga-tāla), gītaka-s.

Much of the material in the Nartanādhyāya has been based on N. S. but very little from it is reflected in the Vādyādhyāya.

- (ii) Matanga: (i) Names of śuddha-tāna-s.
  - (ii) Viniyoga of the jāti-s, mentioning of mārcchanā-s in them and the prastāra-s for them.
  - (iii) Rāga-classification and the lakṣaṇa-s of individual rāga-s.
- (iii) Abhinavagupta: Abhinavagupta's influence on Sarngadeva has been enormous. Mostly the influence has been very subtle but sometimes it becomes obvious also. Unlike in the case of other sources the influence is not so

much in terms of information but in terms of elucidation of concepts. For instance, Sarngadeva's definition of svara is clearly seen to be based on that of Abhinavagupta.

- (iv) Someśvara: Some of the topics dealt with in the prakīrņaka chapter could have been taken from the Gītavinoda section of Mānasollāsa, e. g. gamaka-s, guņa and doṣa of musicians.
- (v) Nānyadeva: The verbal texts accompanying the jāti-prastāra-s, details of Kapāla-gāna-s etc. are for the first time seen in Bharatabhāşya. Thus it could have been the source for Śārngadeva.
- (vi) Contemporary tradition of laksana—both written

Information on sthāya-s and gamaka-s must have also been obtained from some contemporary oral tradition. We come across certain deśī names in the sthāya-s. Contemporary works like Sangītasamayasāra of Pārśvadeva also list these names. So these names must have been current at that time in laksya.

Details of desī tāla-s too must have come from some oral tradițion (if not from Sangītacūdāmaņi of Jogadekamall).

# (e) Incorporation from current laksya

In the svara chapter very little from current laksya has been incorporated. In the description of the characteristics of amsa in jāti-s Śārngadeva adds that the amsa can be its own samvādī, anuvādī etc.², implying that rāga-s where the vādī has no samvādī (like our contemporary pūriyā, māravā and sohanī, where neither śuddha-madhyama nor pañcama are present), the vādī is its own samvādī. In the description of sthāya-s and rāga-s also Śārngadeva lists some which he calls 'adhunā-prasiddha' probably indicating their use in the current laksya.

<sup>1.</sup> S. R. 1, 3, 24cd-25ab.

<sup>2.</sup> ibid, 1, 7, 33.

One aspect in which S. R.'s influence is seen to be the

### 8. Constant References in and Influence on Later Literature

Very soon after it was written, S. R. appears to have attracted the attention of the scholars all over the country, and within a century the commentary (by Simhabhūpāla) on the entire work had been completed. Even in this century scholars like V.N. Bhatkhande had accepted the importance of serious study of S. R. Thus almost from the time it was composed upto the present day S. R. has commanded continuous attention of scholars.

The one point on which most of the subsequent authors have cited S. R. as an authority is the importance of laksya in comparison to laksana. This is understandably so because, to the scholars of the post-Śārngadeva period who found it difficult to reconcile the widening cleavage between laksana of S. R. and the contemporary laksya, the statement by Śārngadeva himself asserting the primacy of laksya was greatly welcome.2

Sometimes S. R. has also been the target of reproach for the same reason that the lakşana did not satisfy the lakşya of the medieval period. The author of S. Sud.3 found the laksana-s of raga-s described in S. R. quite obscure and not pertaining to the raga-s of his time. S. Sud. declares that it had to discard the delineation of raga-s in S. R. because of their obscurity and neither did the commentaries of Keśava and Kallinatha make the delineation more accessible. In recent times too S. R. has not been spared. Pt. Omkarnath Thakur in his Sangītānjali\* attacks S. R.'s method of describing the catuh-sarana experiment on the grounds of its not being lucid, clear, scientific, and practical. S. R./s approach has, however, been defended by K. C. D. Brhaspati in his Sangitacintamani. 5 menandi ayadan kanta anta ingga bankananya greatest is the scheme that some of the authors of the post-Sarrigadeva period adopted in composing their treatises. Sangitadarpana, Sangita-sārāmṛta, Sangita-sāra (from Jaipur). and even S. Sud. which is quite critical of S. R., follow the arrangement of the subject set by S. R. But these works are often brief and leave out many of the details given in S. R. 9 References to S. R. in non-musical texts

Many of the writers of non-musical texts have also acknowledged S. R.'s authority in music and allied subjects and have referred to it in their works. Few examples may be noted here.

- (a) Jagannātha in his Rasa-gangādhara, while discussing the problem of rasa-s being eight or nine, quotes a verse from the rasa-section of the last chapter in S. R. Again while explaining how the sthayi-bhava-s become vyabhicaribhāva-s, he quotes a verse from S. R. to support his statement.<sup>2</sup> Thus it is seen that S. R.'s contribution to the treatment of rasa was noticed in the literature on poetics.
- (b) Mallinatha the commentator on the play Sisupalavadha of Māgha, quotes a number of verses relating to śruti and svara from S. R. 8
- (c) Ranganātha quotes S. R. on the characteristics of rāga valantikā, in his commentary 'Prakāśikā' on Kalidāsa's play 'Vikramorvasīyam'.4

Thus it is very clearly seen that S. R. had made a tremendous impact on the field of music literature and established for itself a status next only to Bharata's N. S.

<sup>1.</sup> p. 789 Hindustani Sangit Paddhati Vol. IV. edition, Hathras. 2. cf. S. M. K., 2, 12; R. V., 1.33; Sadragacandrodaya, 10.

<sup>3.</sup> S. Sud. p. 152, sl. 407-409 4. Sangitanjali Vol. V, p. 94.

<sup>5.</sup> Sangitacintamani, p. 134-148.

<sup>1.</sup> Rasa-gangādhara p. 37 (quoting S. R. 7.1360)

<sup>2.</sup> ibid. p. 38 (quoting S. R. 7, 1519cd-1520ab)

<sup>3.</sup> Mallinatha's commentary on Magha's Sisupalavadha, Canto 1. sl. 10.

<sup>4.</sup> Prakāśikā on Vikramorvasīyam, Act 4, sl. 25 quotes S. R. 2. 2. 147-148. S. R. however gives the name of the raga as vallata.

# 10. Some Observations on Svaradhyāya and General Evaluation

As stated before, this chapter is largely a consolidation and reorganisation of the lakşana found in the earlier texts. A few relevant points, however, have to be stated here regarding Śārngadeva's treatment of certain topics.

Svara-sādhāraņa: Svara-sādhāraņa as treated in S. R. is already latent in N. S. On the basis of Abhinavagupta's commentary, Śārngadeva has spelt it out and his 12 vikṛta-svara-s are nothing but the renaming of the svara-s born out of the process of sādhāraṇa.

Sādhārana belongs to a context where svara-s are basically seven. Only two vikrta-svara-s, antara (gandhara) and kakali (nisāda) are accepted as regular notes as far as they are also fixed on any instrument, especially of the harp type.<sup>2</sup> On the other hand the kaisika-sādhārana is meant only for covering the consequential changes in intervals that are not to be regularly fixed on the strings of a vina. Texts of the post-Ratnākara period equated all sādhāraņa-s, and tried to fix all the svara-s on the frets of vina. Further, this was not in accordance with the grama-system. Misconception on the part of later authors regarding the treatment in S. R. arose because it was wrongly surmised that both the sadharanas, antara and kaisika were meant to co-exist. In fact the jāti-s in which the svara-sadharana occurred are clearly prescribed. Moreover, when Sarngadeva lists the seven suddha-svara-s and twelve vikrta-svara-s, he is merely consolidating the laksana handed down. Unfortunately the writers of the later period seem to have been confused by the enumeration of the 19 svara-s in one sequence and thought that the svara-s should occur one after another. Consequently they tried to fix these

svara-s on the frets of the vīṇā. They had not apparently tried to relate the sādhāraṇa prakaraṇa with the enumeration of vikṛta svara-s. Otherwise such confusion might not have arisen. S. R.'s description of the rāga-s too follows the same svara system and hence there too there is no need for the kaiśika and other svara-s to be mentioned. Only kākalī and antara need be mentioned in rāga-s.

Jāti-s: Some questions arise in connection with the delineation of jāti-s in S. R.

- (i) Did jāti-s have any practical relevance when the rāga-s had emerged?
- (ii) Each jāti, sādjī etc. was conceived as a 'class' combining different individual melodies having certain common characteristics. But we find that each jāti is illustrated at the end by means of a single prastāra. How could the tradition of specific prastāra of jāti-s be compatible with the generic nature of jāti which could be conceived as a very broad melodic entity encompassing numerous varieties? Or, is it indicative of the fact that jāti had become obsolete in Matanga's time and the prastāra-s were composed just to retain its rough outlines? These questions need to be seriously investigated.

Śārngadeva belonged to that period of Indian history when most of the disciplines, especially Sangīta-śāstra, were trying to consolidate the original contribution of earlier tradition. Talking of sangīta-śāstra in particular, the history of its texts can be divided into four periods.

<sup>1.</sup> A. B. on N. S. 28. 34-36, p. 31-34.

<sup>2.</sup> Nănyadeva states that in the Vipañet vina which had nine strings, the two extra strings were tuned to antara and kakali svara-s, cf. Bharata-bhāṣya, folio 368 & 371.

<sup>1.</sup> These periods have been treated in some detail in my paper entitled "A Historical Note on Musical Research in India" presented at a seminar in M. S. University, Baroda in Nov; 77.

Period II:—Expository and Expansive—600 A. D. to 1200 A. D.

Period III:—Reconciliatory and Revaluative—1300
A. D. to 1750 A. D.

Period IV:—Critical and Interpretative—1750 A. D. onwards.

Śārngadeva occupies a very important posițion in the second period. The basic difference in the approach of the first and the second periods is that whereas the approach of the former was direct, that is to say, laksana was evolved out of a direct study of laks ya; and intuitive knowledge and experience was communicated keeping in view the totality of human expression through sound at all levels, the approach of the latter was mainly indirect, that is to say, through lakşana and only to some extent direct (taking into account laksya). It is not intended here to degrade the latter approach. But it is the laksana-oriented approach which is responsible for the separation of the composite concept of svaraśruti-grāma-mūrcchanā found in N.S.. In the arrangement of topics in S. R., grāma does not appear in the same prakarana as śruti and sāranā. Again sādhārana is separated from the description of vikrta-svara-s. A serious student of today must bear this difference of approach in mind while studying the texts of the first period and those of the second.

### Acknowledgements

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Prem Lata Sharma

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7. Skhalita        (35)       B. Thirteen factors characterising jatis       29-59b         8. Parivartaka        (36)       1. The initial note (graha)        (31)         9. Akşepa        (37c-38b)       2. The fundamental note (amisa)        (32-34)         10. Bindu        (37a-c)       3. The higher pitch range (tara)        (35-36)         11. Udvāhita        (38c-39b)       4. The lower pitch range (mandra)        (37-38b)         12. Ūrmi        (39c-40c)       5. The final note (nyāsa)        (38c-40)         13. Sama        (40c-41b)       6. The semifinal note (apanyāsa)        (41-47b)         14. Prenkha        (41c-42b)       7. Samnyāsa        (47c-48a)         15. Nişknjita        (42b-43a)       8. Vinyāsa        (48b-d)         16. Šyena        (43b-44a)       9. Profusion (bahutva)        (49)         17. Krama        (44b-45a)       10. Rareness (alpatva)        (50-51)         18. Udghatţita        (46c-47a)       12&13. Hexatonic (şāḍava) and pentato-       (52-53)		jati-s	24c-28
8. Parivartaka        (36)       1. The initial note (graha)        (31)         9. Akşepa        (37c-38b)       2. The fundamental note (amsa)        (32-34)         10. Bindu        (37a-c)       3. The higher pitch range (tara)        (35-36)         11. Udvahita        (38c-39b)       4. The lower pitch range (mandra)        (37-38b)         12. Urmi        (39e-40c)       5. The final note (nyāsa)        (38c-40)         13. Sama        (40c-41b)       6. The seánifinal note (apanyāsa)        (41-47b)         14. Prenkha        (41c-42b)       7. Samyāsa        (47c-48a)         15. Niṣkūjita        (42b-43a)       8. Vinyāsa        (48b-d)         16. Šyena        (43b-44a)       9. Profusion (bahutva)        (49)         17. Krama        (44b-45a)       10. Rareness (alpatva)        (50-51)         18. Udghatţita        (46c-47a)       12&13. Hexatonic (şūḍava) and pentato-		B. Thirteen factors characterising jatis	29-59b
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12. Urmi (39e-40c) 5. The final note (nyāsa) (38c-40) 13. Sama (40c-41b) 6. The semifinal note (apanyāsa) (41-47b) 14. Prenkha (41c-42b) 7. Samnyāsa (47c-48a) 15. Nīṣkūjita (42b-43a) 8. Vinyāsa (48b-d) 16. Šyena (43b-44a) 9. Profusion (bahutva) (49) 17. Krama (44b-45a) 10. Rareness (alpatva) (50-51) 18. Udghaţţita (45b-46b) 11. Antaramārga (52-53) 19. Rañiţta (46c-47a) 12&13. Hexatonic (şāḍava) and pentato-		4. The lower pitch range (mandra) (37-38b)	
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14. Prenkha       (41c-42b)       7. Samnyāsa       (47c-48a)         15. Nīṣkūjita       (42b-43a)       8. Vinyāsa       (48b-d)         16. Syena       (43b-44a)       9. Profusion (bahutva)       (49)         17. Krama       (44b-45a)       10. Rareness (alpatva)       (50-51)         18. Udghaţţita       (45b-46b)       11. Antaramārga       (52-53)         19. Rañiţta       (46c-47a)       12&13. Hexatonic (şāḍava) and pentato-		6. The semifinal note (apanyasa) (41-47b)	
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### Chapter I

#### THE TREATMENT OF SVARA

प्रथमः स्वरगताध्यायः

तत्रादिमं पदार्थसंग्रहाख्यं प्रकरणम्

### मङ्गलाचरणम्

ब्रह्मग्रन्थिजमारुतानुगतिना चित्तेन हृत्पङ्कुजे सूरोणामनु रञ्जकः श्रुतिपदं योऽयं स्वयं राजते । यस्माद् ग्रामविभागवणंरचनाऽलङ्कारजातिक्रमो वन्दे नादतन् तमुद्धुरजगद्गीतं मुदे शङ्करम् ॥१॥

#### Section I

#### Introductory

### (i) Propitiation: 1

For delight<sup>1</sup> do I worship Lord Śiva<sup>2</sup> embodied in (the form of) nāda<sup>3</sup>, pre-eminently adored by the entire world, the source of order inherent in the division of domains<sup>4</sup>, the

<sup>1.</sup> The author is offering his prayers without any ulterior motive, i. e., for the very delight that accompanies the act of worship, and so his prayers are immediately answered.

The word used is Sankara, which is capable of double meaning, viz. the name of Lord Siva, and etymologically, one who causes comfort or well-being.

<sup>3.</sup> Nada is primordial sound, the manifest quality of the first of the five elements of creation, akasa (space) in its unmodified state,

<sup>4.</sup> The word grāma is capable of double meaning, viz. the different loka-s (i. e, world-views) such as Bhūh, Bhuvah, etc., and the three basic scales—sadja-grāma, madhyama-grāma and gāndhāra-grāma spoken of in ancient music.

organisation of castes<sup>6</sup> and the distinction of species<sup>6</sup>; who, being manifest in the heart-lotus<sup>7</sup> of yogins as onkāra<sup>8</sup> in the contemplation of mind united to the movement of prāna<sup>9</sup> originating from the root<sup>10</sup> of the navel, shines in its own lustre.<sup>11</sup> (1).

### Interpretation with reference to music:

I take pleasure in paying my homage to gitam<sup>12</sup>, the embodiment of nāda, the cause of comfort<sup>13</sup> in the restless<sup>14</sup> world, the source of the system comprising the division of

- 5. Varna implies the four castes, viz. Brāhmana, Kṣatriya, Vaisya and Sūdra in which the ancient Hindu society was divided; and in the context of music it signifies types of tonal movement, viz. sthīyī, ārohī, avarohī and sancārī.
- 6. Various species of animal kingdom; in music the word (jāti) stands for arche-types of rāgas, viz. ṣādjī, ārṣabhī, etc. The word alankāra is taken by 'K' in combination with jāti. Accordingly, this word has been bracketed with 'species' (jāti) in our translation of the text, in the context of Siva. The etymological meaning of the word is alam-karoti-iti alankārah, i. e., which delineates the optimum, such as that of beauty etc. and is, therefore, also used in the sense of ornament or embellishment. Here it has been interpreted in the simple meaning of delineating the optimum of the species.
- 7. Hītpankaja is the heart-lotus, the seat of anāhata-cakra of twelve petals in the system of Kuṇḍalinī-Yoga
- 8. Śrutipadam is the source of Vedas, i. e. onkāra and in music śruti signifies a microtone
- Prāṇa is the vital breath spoken of as māruta (air) in the text; and the movement of prāṇa is necessary for the articulation of sound.
- 10. Brahmagranthi is the knot in which the psychic currents of ida and pingala join with the central canal of psychic energy, viz. susumna, near about the root of the navel.
- 11. The supreme Being is self-luminous and cannot be enlightened by any modification of the mind. This self-luminosity of pure Being is suggestive, in the musical context, of the etymological meaning of svara.
- 12. Gitam (singing) also implies vādyam (instrumental music) and nīttam (dancing). As gītam is directly related to the process of voice-production in 'the body, and also because it is considered to be the main organ of saṅgīta, it represents the entire art of music.
- 13. The etymological meaning of the word Sankara.
- 14. A free rendering of the word uddhura, meaning 'unrestrained.'

grāma<sup>18</sup>, the composition of varṇa-s<sup>16</sup>, the alankāra-s<sup>17</sup> and the jāti-s<sup>18</sup>, the self-manifest<sup>19</sup> locus of śruti-s<sup>20</sup> that delights the masters of music in the lower<sup>21</sup> register, aided by the mind attuned to the movement of prāṇa originating from the root of the navel.

#### Comments:

It is customary, in the Indian tradition, to offer worship to one's favourite god as a mark of auspiciousness and for the successful completion of the work being undertaken. Here, the author opens his mangalacarana (a benedictory verse) with the word Brahman as a mark of auspiciousness, and offers worship to Lord Siva, his istadevatā (favourite god) who, incidentally, is the presiding deity of Sangita. The concept of istadevatā is peculiar to Indian culture, and is akin to, and seems to have its origin in, what is known as 'Henotheism' of the vedic pantheon. There are various religions, dogmas and sects who have their own supreme deity. The concept of istadevatā implies the understanding that, although there is one God in the absolute sense, yet it is known and worshipped in a particular form and under a particular name that is relevant to a particular sect. It is also implied in the puranic mythology, to which this concept truly belongs, that whatever be the description of the supreme deity in a particular sect, the gods of other sects would be related to it in some way or the other. Thus, every Hindu is free to have his own supreme deity. Faith is, therefore, largely an individual affair. Different members of a family can and do quite often have different istadevatā-s. This concept seems to be supported by the Bhagavad-gita where Lord Kṛṣṇa declares:

"Whatsoever form (of the supreme deity) a devotee wishes to worship earnestly, I strengthen his faith in that deity and make it unflinching." (Bh. G. VII-21)

<sup>15.</sup> Grōma is a specific group of svara-s (tones), and three grāmas are accepted, viz. şadja, madhyama and gāndhāra.

<sup>16.</sup> Varna is 'type of tonal movement', the act of singing, such as sthayi etc.

<sup>17.</sup> Alankara is a specific combination of svara-s.

<sup>18.</sup> Jati is a virtual archetype of raga, e.g. sadji, arşabhī, etc.

<sup>19.</sup> Svayam rājate, suggests the etymological definition of svara, i.e., the sound that is perceptible and delightful by itself.

<sup>20.</sup> Sruti signifies a perceptible constituent unit-factor of tone.

<sup>21.</sup> The heart is identified with the region of voice-production for the lower register, which implies the other two here.

Incidentally this shows that, since the benedictory verse is offered to Lord Siva, Sarngadeva belongs to the Saiva cult. This gives his religious orientation, though as it would be clear in the subsequent passages of the text, he seems to belong philosophically to the Bhedābheda system of Vedānta Philosophy. It is in this context that the concept of a personal God as iṣṭadevatā becomes all the more significant.

Apart from serving the purpose of mangalacarana, this verse figuratively also points out the salient features or the main topics of the subject matter of this chapter. The figure of speech employed is known as samāsokti by which, such qualifying words are used that are capable of double meaning and are so composed in a verse or a sentence as briefly to indicate some other purport not directly implied by the primary meaning of the words (cf. Kavyaprakāša 10.97). Hence the verse is differently interpreted above with reference to music.

# (ii) प्रन्थकृदंशवर्णनम्

अस्त स्वस्तिगृहं वंशः श्रीमत्काश्मीरसंभवः।

ऋषेवृंषगणाज्जातः कीर्तिक्षालितिवङ् मुखः।।२।।

यज्विभधंमंधीधुर्यैर्वेदसागरपारगैः।

यो द्विजेन्द्रैरलञ्चके ब्रह्मिर्भूगतैरिव।।३।।

तत्राभूद्भास्करप्रख्यो भास्करस्तेजसां निधिः।

अलङ्कर्तुं दक्षिणाशां यश्चके दक्षिणाऽयनम्।।४।।

तस्याभूत्तनयः प्रभूतिवनयः श्रोसोढलः प्रौढधीयंन श्रीकरणप्रवृद्धविभवं भूवल्लभं भिल्लमम्।

आराध्याखिललोकशोकशमनीकीर्त्तः समासादिता

जैत्रे जैत्रपदं न्यधायि महती श्रीसिङ्गणे श्रीरपि।।४।।

एकः क्ष्मावलये क्षितीश्वरमिलन्मौलोन्द्रनोलाविलप्रोदञ्चद्द्युतिचित्रिताङ्द्रिनखरश्रेणिर्नृपालाग्रणोः।

श्रीमित्सङ्गणदेव एव विजयो यस्य प्रतापानलो

विद्यवच्याप्यपि दन्दहीति हृदयान्येव द्विषामुद्धुरः।।६।।

तं प्रसाद्य सुधीधुर्यो गुणिनं गुणरागिणम् । गुणग्रामेण यो विप्रानुपकारैरतीतृपत् ।।७।। ददौ न किं न किं जज्ञौ न दधौ कां च सम्पदम् । कं धमें विदधौ नेष न बभौ केर्गुणैरयम् ।।६।।

### (ii) Author's lineage: 2-8

There<sup>1</sup> is a family line, an abode of beneficence, founded by the sage Vṛṣagaṇa in the beautiful (valley of) Kashmir, which has spread its fame in all the quarters of the world through the descendant dignitaries representing Brahmā<sup>2</sup> on the earth as it were, the best among the brahmins, the masters of the vedic lore, the upholders of religious order and the presiding priests of vedic sacrifices, who have enriched its lineage. (2-3)

In that family was born a treasure-house<sup>3</sup> of extraordinary excellences bearing the name Bhāskara<sup>4</sup> (lit. the sun) who, with a view to grace the southern<sup>5</sup> direction by his presence, migrated to the south. (4)

- 1. 'S' informs that Vrsagaha is the name of a sage (i. e., rși) as well as a surname (i. e., gotra).
- 2. The creative aspect of pure being, one of the gods of the Hindu trinity Brahmā, Viṣṇu and Siva. The significance of this metaphor is brought out by the words bhū-deva and bhū-sura which are the synonyms of brāhmaṇa. The brahmins are accordingly considered to be the gods of earth, gods in the sense of beings of extraordinary religious spirit.
- 3. The receptacle of divine glory or spiritual pre-eminence resulting from a sacred knowledge, as per one of the interpretations of 'S'.
- 4. That is, to mention one of the pioneers of the family line.
- 'S' puts forward two other interesting interpretations, viz. i) 'he set out in search of a generous patron', ii) 'he set out to answer the call, to meet the demand of the experts'. The word dakşina in Sanskrit has three different meanings, viz. right (as opposed to left) or south, efficient or clever, and favourable. The word is actually loaded with all the three connotations, as its meaning as 'right' is suggestive of his sectarian affiliations, since there are two paths dakşinacara and vamacara, the positive and the negative approaches to the fulfilment of life. Besides, in Indian tradition, charity and gifts are given by the right hand and that is how the word dakşina is suggestive of the meaning that he set out in the search of a generous patron.

He begot a son Śrī Sodhala by name; who, modest and mature of intellect as he was, attained the glory of alleviating the misery of the entire populace by endearing himself to king Bhillama whose fortune was fast-growing by the grace of Lakṣmī. Also for Jaitra, he established a column of victory in the majesty of king Śrī Singhaṇa. (5)

The king Srī Singhanadeva was the only victorious monarch of the entire world, the emperor whose line of toenails was picturesque by the reflection of the brilliant streak of light issuing forth from the garland of the crown-gems of the (other) kings (of his time) falling at his feet; and the pervasive fire of whose victorious prowess burned the hearts of his foes only. (6)

Foremost among the intellectuals, he (Sodhala) by his various accomplishments pleased the emperor, a mine of merit by himself and a lover of merit of (in others); and satisfied the host of brahmins by affording generous gifts. Indeed, what did he not give away, what did he not know and what wealth did he not acquire of the conserved every virtue and good quality of character. (7-8)

'S' interprets the entire verse taking *Bhāskara* as a proper name and also as referring to the sun, and thereby brings out the poetic beauty of the verse.

- Goddess of wealth. It is implied that Sodhala having pleased
  the king Bhillama of immense treasures, obtained enormous
  riches from him which he distributed among the needy out
  of his generosity.
- 7. Jaitra was the son of king Bhillama who succeeded him, 'S' however says that it is a name of a city.
- 8. Viśvavydpi of the text literally means 'pervading the entire universe'. 'S' points out the figure of speech known as Viściokti whereby, despite the presence of the cause, the effect is not fully manifest; since here the fire of his prowess pervades the whole world, yet it burns the hearts of his enemies only.
- 'S' points out the use of parikara alankāra (a figure of speech) since the expression gunarañjana is an adjective loaded with meaningful intention.
- 10. The purport is that, he could and did part with every valuable thing, i. e. he generously gave in charity and gifts, he was proficient in every branch of knowledge, and he did not lack in any kind of wealth; and thus he was prosperous in every way.

# (iii) मन्थकृतो वैशिष्ट्यं, मन्थप्रण्यनहेतुश्च

तस्माद्दुग्धाम्बुधेर्जातः शार्ङ्गदेवः सुधाकरः । उपर्यपरि सर्वान्य: सदौदार्यस्फुरत्करः ।।९॥ कृतगुरुपदसेव: प्रीणिताशेषदेव: कलितसकलशास्त्रः पूजिताशेषपात्रः । विततकीत्तिर्मन्मथोदारमूर्तिः जगति प्रचरतर विवेकः शार्झंदेवोऽयमेकः ॥१०॥ नानास्थानेषु संभ्रान्ता परिश्रान्ता सरस्वती । सहवासप्रिया शश्वद्धिश्राम्यति तदालये ॥११॥ स विनोदैकरसिको भाग्यवैदग्ध्यभाजनम् । घनदानेन विप्राणामाति संहत्य शास्वतीम् ।।१२।। जिज्ञासूनां च विद्याभिर्गदार्तानां रसायनैः। अधुनाऽखिललोकानां तापत्रयजिहीर्षया ।।१३।। शाश्वताय च धर्माय कीत्त्यें निःश्रेयसाप्तये। आविष्करोति संगीतरत्नाकरमुदारधीः ।।१४।।

(iii) Author's personality and the purpose of his undertaking: 9-14

From the heavenly ocean of milk<sup>1</sup> (Śrī Sodhala) was born the producer of nectar (the moon) named Śārngadeva (the author), the rays<sup>2</sup> of whose righteous generosity spread wide upon all. (9)

In serving his preceptor, endearing himself to all the gods, studying all the sciences, adoring the worshipful,

<sup>1.</sup> Moon was one of the precious gems that were churned out of the mythological milk-ocean by the gods and the demons together (by a mythological convention).

<sup>2.</sup> The Skt. word kara means a ray, as well as a hand. So, since the poet is presenting a metaphor, the word is quite significant in both of its connotations.

comparable to cupid and endowed with clever wit and sharp discrimination, is unique by himself in this world. (10)

Bewildered and tired of roaming around various places, and desirous of his (Sarngadeva's) association, Sarasvati, the goddess of learning, has found a permanent rest-house in his residence. (11)

The incomparable reveller of amusements, the deserving candidate of good luck and skill, having mitigated the eternal poverty<sup>8</sup> of the brahmins by generous distribution of his wealth among them, having satisfied the inquisitive scholars by his learning, and having cured the sick by his drugs, he the high-minded one now commences his work Sangīta-ratnākara for emancipating4 the entire populace from the threefold misery of the worldly life, serving the cause of eternal dharma<sup>6</sup>, obtaining glory and for achieving liberation<sup>7</sup>. (12-14)

# (iv) पूर्वाचार्यस्मरणम्

सदाशिवः शिवा ब्रह्मा भरतः कश्यपो मुनिः। मतङ्गो याष्टिको दुर्गाशक्तिः शार्दूलकोहलौ ।।१५॥

विशाखिलो दत्तिलश्च कम्बलोऽश्वतःस्तथा। वार्युविश्वावसू रम्भाऽर्जुनो नारदतुम्बुरू ।।१६।।

3. Since the brahmins are entirely devoted to the pursuit of knowledge they are always in the need of money.

4. Liberation is the ultimate end of the art of music as understood in India. 'S' points out prakarana songs such as madraka etc., that are mentioned subsequently in the text for this very purpose.

5. Threefold misery is suffering pertaining to the physical, mental and spiritual being.

6. Dharma is moral law, religion and duty appropriate to one's station in life.

7. Sangita is also a medium of attaining liberation, through the vocal compositions known as prakarana-s to be sung in the praise of Lord Siva.

आञ्जनेयो मातृगुप्तो रावणो नन्दिकेश्वरः। स्वातिर्गणो बिन्दराजः क्षेत्रराजश्च राहलः ।।१७।। रुद्रटो नान्यभुपालो भोजभुवल्लभस्तथा। परमर्दी च सोमेशो जगदेकमहीपतिः ।।१८।। व्याख्यातारो भारतीये लोल्लटोद्भटशङ् कुकाः । भट्टाभिनवगुप्तश्च श्रीमत्कीत्तिधरः परः ।।१९।। अन्ये च बहवः पूर्वे ये संगीतविशारदाः । अगाधबोधमन्थेन तेषां मतपयोनिधिम् ।।२०।। निर्मध्य श्रीशार्झंदेवः सारोद्धारमिमं व्यधात् ।

### (iv) The predecessors of the author: 15-21b

Śārngadeva, having churned, by the churning rod of his deep understanding, the ocean of the manifold viewpoints of previous music experts such as-Sadāśiva, Šiva, Brahmā, Bharata, sage Kaśyapa, Matanga, Yastika, Durgaśakti, Śārdūla, Kohala, Viśākhila, Dattila, Kambala, Aśvatara, Vāyu, Viśvāvasu, Rambhā, Arjuna, Nārada, Tumburū, Ānjaneya, Mātrgupta, Rāvaņa, Nandikeśvara, Svāti, Bindurāja, Ksetrarāja, Rāhula<sup>8</sup>, Rudrata, King Nānyadeva, King Bhoja, (Paramardi<sup>9</sup>), Someśa the vanguisher of his foes, king Jagadeka and the interpreters of Bharata such as Lollata, Udbhata, Sankuka, Abhinavagupta and Kirtidhara-has brought out the cream10 of knowledge in the form of this book. (15-21b)

<sup>8.</sup> Ad. ed. of S. R. reads Rāhala. See Dr. V. Raghavan's article on "Some Names in Early Sangeet Literature", Sangeet Natak Academy Bulletin No. 6, May 1957.

<sup>9.</sup> Paramardi-cf. G. O. S. No. 45-Bhavaprakasana p. 73, of Introduction, conjecturing Paramardi, to be a man of letters and a king Paramardi can also be an epithet of Somesa.

<sup>10, &#</sup>x27;K' suggests that, by describing his work as the acme of the works of his predecessors, the author is pointing out the superiority of his work. However 'S' poses the question, "Since so many works do exist on the subject what then is the need for the author to write a new book?", to which he

(v) सङ्गोतलक्षणं, तत्र मार्गदेशीविभागर्च

गीतं वाद्यं तथा नृत्तं त्रयं संगीतमुच्यते ।।२१॥ मार्गो देशीति तद् द्वेधा तत्र मार्गः स उच्यते । यो मार्गितो विरिञ्च्याद्यैः प्रयुक्तो भरतादिभिः ।।२२॥

देवस्य पुरतः शंभोनियताभ्युदयप्रदः । देशे देशे जनानां यद्गुच्या हृदयरञ्जकम् ।।२३।। गीतं च वादनं नृत्तं तद्देशीत्यभिधीयते ।

(v) The definition of sangita: its classification as marga and desi: 21c-24b

Gītam (vocal melody), vādyam (playing on instruments) and nṛttam (dancing), all the three together are known as saṅgīta which is twofold, viz. mārga and deśī. That which was discovered by Brahmā and (first) practised by Bharata and others in the audience of lord Siva is known as mārga (saṅgīta), which definitely bestows prosperity; while the saṅgīta comprising gītam, vādyam and nṛttam, that entertains people according to their taste in the different regions, is known as deśī. (21c-24b)

replies that, "all these ancient works are too numerous and intelligible with great difficulty and therefore the author's attempt to present the essence of these works in a nutshell is worthwhile and creditable". Another purpose of the author in having referred to his predecessors as suggested by 'S' is that, Sarngadeva, by having claimed to have taken the views of all these authorities into consideration, wants to prove the authenticity of his own work.

- 1. All the three are comprehended as different constituents of the same art, called saṅgīta. Etymologically the word saṅgīta means singing along with accompaniments and embellishments. The term saṅgīta is also used merely for music; but, that is a figurative use, taking container for the thing contained; or, taking the part for the whole.
- 2. The term marga is etymologically explained by 'K' as derived from the Skt. root mrg, to seek. Thus marga is the way, the technique or practice based on the findings of the investigation

### (vi) गीतस्य प्राधान्यम्

नृत्तं वाद्यानुगं प्रोक्तं वाद्यं गीतानुवर्ति च ॥२४॥ अतो गीतं प्रधानत्वादत्रादावभिधीयते ।

(vi) The predominance of gitam: 24c-25b

Dancing is guided by instrumental music which, in its own turn, follows the vocal practice. Therefore, the vocal melody (i. e. gitam), being the main constituent (of sangita) is expounded in the first instance. (24b-25c)

# (vii) गीत-प्रशंसा

सामवेदादिदं गीतं संजग्राह पितामहः ॥२४॥
गीतेन प्रीयते देवः सर्वज्ञः पार्वतीपतिः ॥
गोपोपतिरनन्तोऽपि वंशध्वनिवशं गतः ॥२६॥
सामगीतिरतो ब्रह्मा वीणाऽऽसक्ता सरस्वती ॥
किमन्ये यक्षगन्धवंदेवदानवमानवाः ॥२७॥
अज्ञातविषयास्वादो बालः पर्यङ्किकागतः ॥
कदन्गीतामृतं पीत्वा हर्षोत्कर्षं प्रपद्यते ॥२६॥
वनेवरस्तृणाहारश्चित्रं मृगशिशुः पशुः ॥
लुब्धो लुब्धकसङ्गीते गीते यच्छति जीवितम् ॥२९॥
तस्य गीतस्य माहाऽऽत्म्यं के प्रशंसितुमोशते ॥
धर्मार्थकाममोक्षाणामिदमेवैकसाधनम् ॥३०॥

carried out by Brahma, the creator in the subject matter of the four Vedas (cf. नाटयभेज्ञिममं वेदं सेतिहासं करोम्बह्म) as quoted by 'K'. So, by implication marga means classical, while dess means regional practice.

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Section I : Introductory

(vii) The importance and significance of gitam (melody): 25c-30

Gttam1 (the vocal music) was extracted from the Sāmaveda and collected2 by Brahmā. Omniscient God, the husband of Pārvatī (i. e., Siva) is propitiated by gītam (i. e., singing); Krsna, the lord of gopi-s, in spite of being infinite, was enamoured<sup>8</sup> of the sound of the bamboo flute. When Brahmā (the creator) is devoted to sāmagīti (i e., the hymns of the Sāmaveda sung in a particular style), and Sarasvatī is attached4 to the lute (vīṇā), what to speak, then, of other creatures, such as the paksa-s, and of gandharva-s, the gods and the demons, and the human beings. An infant, crying in cradle, unaware ef the enjoyment of objects, on tasting the nectar of a song, knows no bounds of joy. Even a fawn, an animal feeding on grass and moving in the forest, attracted by the song of a hunter, is ready to sacrifice its life. Who indeed can describe the grandeurs of melody, for in fact, it is the only means for the realisation of the four

1. As suggested by 'K' the hymns of the Samaveda are sung in seven tones, viz. kruṣṭa, prathama, dvitiya, tṛitīya, caturtha, mandra and atisvaya, and so is the present music based on seven tones of a different nomenclature.

2. 'K' suggests that since the creator himself has extracted sangita from the Samaveda it is open to all the four castes.

3. Lit. entrapped, charmed, confined.

4. That is, fond of Sarasvatī, the goddess of learning, who, in the Hindu mythology, is contemplated with a vinā in two of her four hands and is considered to be the presiding deity of fine arts.

5. Takşa-s and gandharva-s are semi-divine beings of mythological origin that have also found a place in poetic convention in Sanskrit literature. Takṣa-s as demigods are considered to be the attendants of Kubera, the god of wealth, and guard his gardens and treasures; while gandharva-s are celestial singers.

6. Lit. the significance and importance.

7. Though there are definite means for the attainment of these values, music is a delightful medium of achieving the same ends. Vocal music is employed in the worship of the Divine almost universally. Thus it earns spiritual merit. 'S' further points out that, as mentioned in the text in the context of jati-s, the proper use of jati-s is instrumental to the attainment of dharma.

That music is a means of earning one's livelihood and wealth needs no explanation, and similarly it also serves as a

primary values of human life, viz. righteousness (dharma), wealth (artha), enjoyment (kāma) and emancipation (mokşa). (25c-30)

(viii) ग्रन्थस्थसप्ताध्यायानां वस्तुसंग्रहः

तत्र स्वरगताध्याये प्रथमे प्रतिपाद्यते । शरीरं नादसंभृतिः स्थानानि श्रुतयस्तथा ।।३१।। ततः शृद्धाः स्वराः सप्त विकृता द्वादशाप्यमी । कुलानि जातयो वर्णा द्वीपान्यार्षं च दैवतम ।।३२।। छुन्दांसि विनियोगाश्च स्वराणां श्रतिजातयः । ग्रामाश्च मूर्छनास्तानाः शुद्धाः कूटाश्च संख्यया ।।३३।। प्रस्तारः खण्डमेरुश्च नष्टोहिष्टप्रबोधकः। स्वरसाधारणं जातिसाधारणमतः परम् ।।३४॥ काकल्यन्तरयोः सम्यवप्रयोगो वर्णलक्षणम्। त्रिषिटरप्यलङ्गारास्त्रयोदशविधं ततः ॥३४॥ जातिलक्ष्म ग्रहांशादि कपालानि च कम्बलम । गीतयश्चेत्येतावान्वस्तुसंग्रहः ।।३६।। नानाविधा अथ रागविवेकाख्येऽध्याये वक्ष्यामहे क्रमात । ग्रामरागांश्चोपरागान्रागान्भाषा विभाषिकाः ॥३७॥ ततोऽप्यन्तरभाषाश्च रागाङ्गाण्यखिलान्यपि । भाषाऽङ्गाण्यप्युपाङ्गानि क्रियाऽङ्गाणि च तत्त्वतः ।।३६।। ततः प्रकीर्णकाध्याये तृतीये कथयिष्यते। वाग्गेयकारो गान्धर्वः स्वरादिर्गायनस्तथा ।।३९।।

medium of entertainment apart from affording aesthetic delight; e. g., music is employed to heighten the sentiment of love. So, music serves as means to the realisation of the two other values, viz., wealth and enjoyment. Finally, music is a means to spiritual emancipation when it is practised in the spirit of dedication, e. g. in the case of songs like madraka given in the text subsequently (Chap. V.).

गायनी गुणदोषाश्च तयोः शब्दभिदास्तथा । गुणदोषाश्च शब्दस्य शारीरं तद्गुणास्तथा ।।४०।। तहोषा गमकः स्थाया आलप्तिर्व न्दलक्षणम । ततः प्रबन्धाध्याये तु धातवोऽङ्गानि जातयः ।।४१।। प्रबन्धानां, द्विधा सुडः शद्धश्रुखायालगस्तथा । आलिक्रमप्रबन्धाश्च सुडस्था आलिसंश्रयाः ॥४२॥ विप्रकीर्णास्ततश्छायालगसुडसमाश्रिताः गीतस्था गुणदोषाश्च वक्ष्यन्ते शार्ज्जसुरिणा ॥४३॥ तालाध्याये पञ्चमे तु मार्गतालाः कलास्तथा । पाता मार्गाश्च चत्वारस्तथा मार्गकलाऽष्टकम् ।।४४।। गुरुलध्वादिमानं चैककलत्वादयो भिदाः। पादभागास्तथा मात्रास्ताले पातकलाविधिः ।।४४।। अङ्गुलीनां च नियमो भेदा युग्मादयस्तथा। परिवर्ती लयास्तेषां यतयो गीतकानि च ।।४६।। छन्दकादीनि गीतानि तालाङ्गनिचयस्तथा। गीताङ्गानि च वक्ष्यन्ते देशीतालाश्च तत्त्वतः ।।४७॥ निःशङ्कशार्द्धदेवेन तालानां प्रत्ययास्तथा। षष्ठे नानाविधं वाद्यमध्याये कथयिष्यते ॥४८॥ सप्तमे नर्तनं नानारसभावाः क्रमेण च।

(viii) Synopsis of the work: 31-49b

Now in the first chapter concerning svara<sup>1</sup> (tone) etc., the topics of study are:

(i) human embodiment2,

- (ii) the process of sound production (in the body),
- (iii) the places (of sound production, i. e., the three registers),
- (iv) the sruti-s3 (micro-tones),
- (v) the seven śuddha<sup>4</sup> (standard) svara-s (notes or tones) along with twelve vikṛta<sup>8</sup> (modified forms),
- (vi) the family, caste, colour, terrestrial region, originator sage, presiding deity, metre and the proper application<sup>6</sup> of each of the svara-s,
- (vii) the generic groups of śruti-s,
- (viii) the grama-s (basic scales),
- (ix) the mūrcchanā-s7 (modified prototype scales),
- (x) the śuddha<sup>8</sup> and kūṭa tāna-s (specific combinational and permutational note-series) with their number,
- (xi) the prastara 9 (sequential permutation),
- (xii) the khandameru10 (permutation indicator),
- 3. Sruti-s are the twentytwo divisions of the scale of seven notes, to be defined and demonstrated later in the text.
- 4. Suddha svara-s are the seven tones of a definite pitch comprehending 4, 3, 2, 4, 4, 3 and 2 sruti-intervals respectively.
- 5. Vikīta-svara-s comprise these very seven tones with more or less modified pitch in the terms of śruti-intervals, explained later in the text.
- 6. Viniyoga indicates the proper context in the terms of dramaturgy and aesthetic delight, ie, rasa for which a particular melody is employed. See Rāgādhyāya (Chapter II) for illustrations.
- 7. Series of seven notes in ascending and descending order, commencing with different notes.
- 8. In the ancient sense, when one or two notes are omitted from a scale, in the act of singing, it becomes a tāna; and if such omission does not alter the order of the rest of the notes, it is called a suddha tāna, while kāṭa-tāna is related to the permutation of notes in groups of two to seven.
- 9. Prastara represents an actual working out of these various permutation and combination patterns.
- 10. Khandameru is the name of a mathematical device in the form of a numerical graph which indicates naşla and uddişla, where the former points out the particular permutation for a given number and the latter gives the number of a given permutation, to be explained subsequently in the text. (63-70 of Sec. IV)

<sup>1. &#</sup>x27;K' explains svaragata in svaragatādhyāya as स्वरानुगताः स्वरगताः श्रुतियामा—etc, i. e the topics pertaining to svara such as sruti, grāma, mūrcchanā and so on dealt with in this chapter.

Human embodiment is discussed in this context because human body is the instrument of voice production, i. e. the manifestation of nāda.

- (xiii) the svara-sādhārana<sup>11</sup> (overlapping in note-intervals),
- (xiv) the jāti-sādhārana<sup>12</sup> (overlapping in jāti-s).
- (xv) the proper use of kākali-nisāda<sup>13</sup> and antara-gāndhāra,
- (xvi) the definition of varna<sup>14</sup> (colour or pattern of tonal movement),
- (xvii) sixtythree alankāra-s15 (patterns of tonal phrases),
- (xviii) the thirteen characteristic features of jati-s16 (melodic types), graha (initial note), amsa<sup>17</sup> (fundamental note) etc.,
- (xix) the kapāla and kambala songs, and
- (xx) the various types of giti-s18.

These form the collection of topics under study. (31-36)

In the chapter entitled 'Ragaviveka' (lit. the discernment of raga-s) we shall respectively speak of :-

Grāmarāga-s, uparāga-s, rāga-s, bhāsā-s, vibhāsā-s, antarabhāsā-s and rāgānga-s in full detail and the bhāsānga-s, upānga-s and the kriyanga-s, in their essentials. (37-38).

- 11. Svarasādhāraņa is defined later in the text; but here it would suffice to say that it comprehends a pitch interval that is commonly incorporated by both the tones involved.
- 12. Among the jati-s of the same grama having the same tone as the fundamental note, the identical melodic presentation that obtains between them is called jāti-sādhārana (See 10-11b of Sec. V).
- 13. Antaragāndhāra and kākali-nisāda are the pitch-intervals obtaining in the svara-sadharana, located at the distance of 2 śruti-s from gandhara and nisada respectively.
- 14. Varna signifies 'type of tonal movement', viz. ascending, descending, etc.
  - 15. Alankara signifies a melodic phrase, a definite arrangement of
  - 16. 7āti represents the first written record of a scientific study of the melodic patterns that later on developed into ragastructures 7ati, therefore, is conceived as an archetype of melodic patterns, the mother of raga-s.
  - 17. Graha and amsa are specific notes of a raga-structure which are defined later in the text.
  - 18. Gtti signifies the act of singing, comprehending the tonal, rhythmic and verbal structure of a musical composition.

Then in the chapter entitled 'Praktrnaka' (lit. miscellaneous) will be described :-

- Vaggeyakāra19 (master composer),
- (ii) Gandharva, 20
- (iii) Svaradi21
- (iv) Songster.
- Songstress and (v)
- (vi) the good and bad characteristics of the two (i. e., iv & v).
- the classification of voice and (vii)
- the good and bad qualities of voice,
- Sarira22 and its
- good and bad qualities,
- Gamaka<sup>28</sup> (shaking on tones), i. e., grace,
- Sthāya<sup>24</sup> (specific features of tonal rendering), (vii)
- (xiii) Alapti25 and
- the nature of group performance. (39-41b)

The following topics will be dealt with by the learned Sarngadeva in the fourth chapter entitled 'Prabandha'28 (musical composition):

- 19. Vaggeyakāra, a master composer, is capable of composing not only the tonal structure of a musical composition but also the verbal structure, i. e., the text of the melody.
- 20. One who is proficient in marga as well as dest, music, is called
- 21. Svarādi is the performer of desi music only.
- 22. Sartra is peculiarly an Indian concept and has no counterpart in western terminology. The author elsewhere defines it as "the built-in capacity of voice (or the entire organism responsible for the production of voice) for musical application (or for the delineation of a raga etc.) without any training" (cf. S.R. III. 82).
- 23. Gamaka is a graceful shake.
- 24. Sthaya is an organic part (avayava) of raga. (See S.R. III
- 25. Alapti is the delineation of raga.
- 26. Prabandha is a musical composition, but in this chapter, the author deals with only vocal compositions and their classi-

Treatment of Svara

Dhatu-s27 (sections) of vocal composition Anga-s28 (integral parts) 7ati-s29 (classes) (iii)

the twofold suda, viz. suddha and chayalaga, and (iv)

- Alikrama-compositions rooted in the suda and (v) depending on ali
- Viprakīrņa<sup>8 9</sup> compositions, depending on Chāyālaga (vi) sūda, followed by
- the good and bad qualities inherent in vocal (vii) performance (41c-43).

In the fifth chapter entitled 'Tāla'81 (the cyclic timefigure) we shall essentially speak of-

(i) The mārga-tāla-s

Kalā-s<sup>32</sup> (inaudible movements of the hand) (ii)

Pāta-s<sup>33</sup> (audible movements of the hand) (iii)

27. Dhatu, literally means a basic element and this expression seems to have been borrowed from Ayurveda (cf. verse 71 of Section 2) Here it signifies 'section' of a musical composition which basically refers to its tonal aspect in contrast with its syllabic content or the non-tonal aspect called matu. The constitution of prabandha has been conceived on the analogy of an organic body like that of a human being A prabandha may have 2 to 5 dhatu-s, the average being 4, i. e. udgraha dhruva, melapaka and abhoga, the fifth being anlara.

28. Anga, literally means a part of an organic body; here, an integral part of a musical composition. Prabandha is said to have six limbs (i.e., organs), viz. two feet, i e., svara and tala; two eyes, i.e., pada and tena; and two hands, ie., pata and biruda. We can have two to six of these in a piece.

That is, generic classes of vocal compositions, viz. medini etc., five in number, based on the number of anga-s used in a

Viprakirna-miscellaneous, i.e., apart from those enumerated 30.

Tala signifies cyclic movement in time and is popularly known as the 'time beat'. The author classifies tala as marga and desi and speaks of five marga-tala-s and 120 desi-tala-s.

Tola literally is derived from the Skt. root tal-to establish. So, in tala are established (i.e., based) the three arts of singing, playing on musical instruments and dancing. Tala is the measure of time that regulates action in music.

32. Kala, in this context is defined as nihšabda-kriya, i.e., soundless

Pata is defined as sasabda-kriya, i.e., act, accompanied with sound (beat).

Mārga-s<sup>84</sup> (styles)

the eight margakala-s (i. e., matra-s, viz. dhruvaka etc.)

the standard measure of guru (long) and laghu85 (short)

the varieties beginning with ekakala etc.

the pādabhāga-s36 (viii)

the matra-s<sup>37</sup> (fixed units of time) (ix)

the technique of pāta88 and kalā in tāla

the regulation of fingering (xi)

the varieties such as yugma etc. (xii)

Parivarta<sup>89</sup> (the repetition of pāda divisions) (xiii)

Laya-s40 (tempo or musical speed) (xiv)

and their yati-s (orders of laya) (xv)

Gītaka-s41 (xvi)

Chandaka gita-s42 (xvii)

the group of talanga-s, and (xviii)

34. Marga-s in this context signify the four ways, viz. dhruva etc. in which a particular time-beat cycle can be executed.

35. Laghu and guru signify, primarily, effort in pronouncing a syllable. In metres regulated by the number of syllabic instances—one instance or matra is allotted to a short vowel and two to a long one. A syllable is that part of a word that can be pronounced at once, i.e., a vowel with or without one or more consonants.

36. A unit of two or four guru-s.

37. Matra signifies a unit, a standard time-measure of a beatcycle.

38. Pata roughly signifies a beat that sounds and kala, a beat that does not sound.

39. Parivarta signifies repetition of pādabhāga etc.

40. Laya is tempo, i. e. space in between the beats. 'S' defines it as the time interval in the act of beating, while yati signifies a scheme of sequence in laya-s.

41 & 42. Seven (or fourteen) song-patterns known as madraka etc. are called prakarnakhya gita-s which are predominently, based on tala and are said to be sung in the praise of lord Siva for obtaining (spiritual) emancipation.

- (xiv) gitanga-s
- (xx) Dest tāla-s48
- (xxi) the *pratyaya-s* (tabular formulas for finding out the serial number and the structural form of tāla-s (44-48b)

In the sixth chapter will be described numerous musical instruments, while in the seventh chapter, we shall deal with dancing and the various rasa-s (types of aesthetic delight) and bhāva-s (modes of being) in due order. (48c-49b).

# अथ हितीयं पिएडोत्पत्तिप्रकरगाम्

### क. विषयावतरणम्

## (i) नादमहिमा

गीतं नादात्मकं वाद्यं नादव्यक्त्या प्रशस्यते । तद्द्वयानुगतं नृत्तं नादाधीनमतस्त्रयम् ॥ १ ॥ नादेन व्यज्यते वर्णः पदं वर्णात्पदाद्वचः । वचसो व्यवहारोऽयं नादाधीनमतो जगत् ॥ २ ॥

#### Section 2

#### The Genesis of the Human Embodiment

#### A. Introduction:

(i) The importance of nada: 1-2

Nāda<sup>1</sup> is the very<sup>2</sup> essence of vocal music. Instrumental music is enjoyable<sup>3</sup>, as it manifests nāda. Nṛtta (dance)

Having presented a synoptical view of the proposed work, the author proceeds to describe the genesis of human embodiment. What is the relevance of such a topic in a music treatise? It is indeed exceptional that Śārngadeva has considered it necessary to deal with this subject matter which concerns embryology and physiology of human body. He could do so, for he was himself a physician; and he thought

1. Nāda, as already stated, is primordial sound considered by some of the schools of Indian Philosophy, specially Toga and Tantra, to be the primary cause of the phenomenal world. Of the five basic elements, earth, water, fire, air and ether, perceived correspondingly by the senses of smell, taste, vision, touch and hearing, ether is the most pervasive and the cause of the rest. Sound is considered to be the manifestation of nāda, which is described as Nāda-brahman and is thus equated with the absolute of the Upanişads.

That is, the intangible substance which manifests itself through the articulate sound. The manifest refers to the unmanifest by implication.

3. Literally prasasyate means, 'is praised'; but, 'S' rightly interprets it as 'ramantyatam upaiti', i e, attains the excellence of beauty, becomes enjoyable as beautiful.

<sup>43. 120</sup> dest-tāla-s such as ādi-tāla etc. have been enumerated by Sārngadeva.

follows<sup>4</sup> both (i.e., vocal and instrumental music); therefore, all the three<sup>5</sup> together depend on nāda. (1)

it fit to do so because, human body provides the required circumstance and instrumentation for the production of voice and vocal melody. Just as some study of physiology is necessary for understanding the process of voice production in the science of voice culture, so also, our author finds it necessary to investigate the genesis of human embodiment. This is indicated by him in the first few verses of this section.

However, Śarngadeva does not seem to be the only writer on musice of his times, who has considered it worthwhile to deal with the subject of human embodiment. Śaradātanaya, who is almost a contemporation of Śarngadeva (cf. Introduction to Bhāvaprakāsanam, G.O.S. No. XLV, Baroda, p. 76, wherein he is placed between 1175-1250 A.D.), and whose work mainly concerns poetics and deals with music as a subsidiary art to dramatics, also mentions in the beginning of the seventh Chapter the process of creation according to the Kashmir Śaivism and Tantra, the process of human embodiment (albeit very briefly as compared to S.R. and rather somewhat differently) and voice production in the body. Attention would be drawn to some of his theories in Section 3 of this Chapter, and a note pointing the salient features of his account of the embodiment is given at the end of this topic (vide comments on 119).

It is, however, interesting to note that he designates the subject matter significantly as geya-samulpatti (the creation of vocal musid). Geya is the technical word for melodic structure. Therefore, his treatment of the subject is quite differently oriented. With him the description of the phenomenal world or of the physical body is incidental to what he calls geya-samulpatti. And he describes it because geya (in the sense of music) is a means of realising the four values of life, viz. dharma, artha, kāma and mokṣa—i.e. social and moral good, economic prosperity, enjoyment and spiritual emancipation (cf. p. 182 Bhaval prakāśanam).

Nada<sup>6</sup> manifests the letters (of alphabet), letters constitute the word, and words make a sentence; so, the entire business of life is carried on, through language; and therefore, the whole phenomenon (i. e., the world) is based on nada. (2)

Nada is the basis, not only for music and dance, though specially related to it, but of the entire business of life; since it constitutes the very substance of speech which is the only means of communication. The implication, as derived by 'K' is that, the fact that nada is the very basis of all manifest life, makes it more important and relevant for the author to deal with the subject of the genesis of the human embodiment.

# (ii) द्विविधो नादः, पिण्डोत्पत्तिप्रतिपादनौचित्यम्

आहतोऽनाहतइचेति द्विधा नादो निगद्यते । सोऽयं प्रकाशते पिण्डे तस्मात्पिण्डोऽभिधीयते ॥ ३ ॥

#### (ii) Twofold nāda: 3

Nāda is said to be twofold, viz., produced and unproduced. Since it manifests itself in the human body, the (process of) embodiment is being described. (3)

<sup>4.</sup> In the ancient Indian aesthetic concept of rasa and beauty sangita, comprises the three arts of vocal and instruments music and dance. The statement is, therefore, to be understood in that context. 'S' quotes, angenalambayed gitam, i. e., 'song should be supported by the gesture', to support and to elucidate the statement, which becomes intelligible if sangitation is considered to be a composite art of singing, playing or instruments and dancing.

<sup>5.</sup> The word trayam of the text brings out the composite nature of sangita.

<sup>6.</sup> Nada, here, means sound, i. e., articulation of consonant letters in conjunction with vowels; 'S' interprets nada, in this context, as 'dhvani' and explains it as the sound which is not distinguished in terms of varna-s, i. e., the particular articulations of sound symbolised by the letters of alphabet, but which is heard from afar and is responsible for the perception of high and low pitch associated with letters.

<sup>7.</sup> Pada in Sanskrit is a meaningful word, i. e., a word with a relational value.

<sup>8.</sup> Lit. sentence which is accepted to be the unit of language.

<sup>9.</sup> Cf. Br. D. verses 16-20, quoted by 'S', for similar import.

<sup>1.</sup> Ahata of the text literally means 'struck' and anahata literally means 'unstruck.' The idea is that nada has two forms, viz., the created and the uncreated, the former being an object of sense perception and the latter a matter of mystic experience of Toga in which sound and light are fused together and there is direct perception.

## खः पिण्डोत्पक्तौ दार्शनिकतत्त्र्वनिरूपगाम्

(i) ब्रह्मस्वरूपम्

अस्ति ब्रह्म चिदानन्दं स्वयंज्योतिनिरञ्जनम् । ईश्वरं लिङ्गिमित्युक्तमिद्वतीयमजं विभुः ॥ ४ ॥ निर्विकारं निराकारं सर्वेश्वरमनश्वरम् । सर्वशक्ति च सर्वेज्ञम्,

- B. Genesis: The metaphysical viewpoint.
- (i) The nature of Brahman: 4-5c

Brahman is existence<sup>1</sup>, blissful<sup>2</sup> awareness, the self-luminous<sup>8</sup> and taintless<sup>4</sup> supreme<sup>5</sup> deity, said to be the ulti-

Human body is a part and parcel of the manifest phenomenon. To trace the process of the genesis of human embodiment, the author begins with the unmanifest, unconditioned, timeless reality; and explains the emergence of numberless individuals, their relationship with the reality, and the principle determining the differences inherent in the individual manifestations of that pure existence.

- 1. Asti Brahman of the text literally rendered would mean, 'there is Brahman'; but the word 'there' has to be used for the convenience of the syntax of English language, there being no corresponding idea implied in the text So Brahman is the essence of all existence, the is-ness.
- 2. The concept of Brahman, best expounded in the Advaitic school of the ved anta system of Indian philosophy, visualises three aspects of Brahman in the well-known phrase—'Saccid ananda' which refers to the unitary character of pure being, pure intelligence and pure bliss. Though Brahman is devoid of all qualities, these are the essential features in terms of which the time-less reality is comprehended through language. Cidananda is 'bliss', as distinguished from the duality of feeling in terms of pain and pleasure, which is possible in awareness, the operation of pure intelligence.
- 3. Svayamjyotik of the text literally means that which is a light unto itself, i.e., the one that requires no external power to manifest itself.
- That is without any blemish, absolutely pure, free from ignorance.
- 5. The word *Isvara* of the text etymologically is derived from the root '15a', to control, and literally means the controller, the ruler. But, since here it is used in the context of vedantic

mate cause, the non-dual, unborn, measureless, unmodified, formless, imperishable, omnipotent and omniscient supreme ruler, (4-5c)

## (ii) जीवस्वरूपम्

, तदंशा जीवसंज्ञकाः ।। ५ ॥

अनाद्यविद्योपहिता यथाऽग्नेविस्फुलिङ्गकाः। दार्वाद्युपाधिसंभिन्नास्ते कर्मभिरनादिभिः॥ ६/॥

सुखदुःखप्रदैः पुण्यपापरूपैनियन्त्रिताः । तत्तज्जातियुतं देहमायुर्भोगं च कर्मजम् ॥ ७ ॥

प्रतिजनम प्रपद्यन्ते,

parlance, following in the wake of Brahman, it is used to denote Saguna-Brahman, i. e., Brahman qualified by the power of universal consciousness; and therefore, is equivalent to God or the personal deity. Isvara is defined as one who is capable of doing, not doing or doing otherwise.

- 6. Lingam is defined by 'K' as Prapancalayanallingam, i. e., that in which the dissolution of the phenomenon takes place. Brahman is said to be the cause of the origination, sustenance and the dissolution of the creation.
- 7. Advitiya is a negative epithet, i. e., it negates duality but does not affirm oneness, for any positive statement presupposes its opposite, e. g., one implies many, so Brahman is non-dual, i. e., incomparable, inconceivable. 'S' interprets it as devoid of internal and external differentiation.
- 8. That is timeless existence.
- 9. Vibhu means pervasive, unlimited.
- 10. Yāska (Nirukta I. 1.1.2, p. 23) has spoken of six modifications of existential being, i. e., coming into being, being in existence, growing, disintegrating, decaying and destruction. Brahman is free from these modifications.
- 11. That is, the God of the gods, the controller of all the natural forces.

In the text this expression appears after 'formless' and not at the end as given in the translation for syntactic convenience.

(ii) The nature of jiva (individual being): 5d-8a

Its relative<sup>1</sup> manifestations called jiva-s, delimited by the beginningless<sup>2</sup> nescience, are like the sparks of fire, differentiated by the circumstances<sup>3</sup> of wood etc. (5d-6c)

Here the author elucidates the essential nature of the individual beings and their relationship with the source of all manifestation. As the sparks are identical with fire in essence and yet have an individual identity in form, so also the individual beings are limited manifestations of the unlimited Brahman, distinguishable from each other by the exigencies of existence caused by the unawareness of the totality of being, the substratum of individual existence. Thus the relationship between the manifest individual and the unmanifest, unconditioned reality is that of identity in difference. 'S' admits of another interpretation as well. He lays emphasis on the word amsa of the text and points out the fact that, since the individuals are conceived as parts and are admitted to be many, their relationship with Brahman is the one that subsists between the parts constituting the whole. 'K' interprets amsa as matra, i.e., a partial manifestation.

However, amisa cannot be interpreted merely as a part, for the concept of amisa implies an incomplete or partial manifestation of the whole, i.e., it must be understood that the part in this context necessarily implies the whole. So the part is not essentially different from the whole, though a limited manifestation of the whole.

- 1. An amsa as explained above, is a partial manifestation of the whole, i.e., a relative entity. This in fact is a unique relation, and when actually comprehended, transcends every form of relationship. So each implies all.
- 2. 'Time' is a relative concept, and it is only in the relative existence that time has significance; in the absolute, time has no value, since it is timeless. Nescience is said to be beginningless, i. e., causeless, since it has no real value in terms of being. Nescience is unawareness of the total being and is responsible for delimiting awareness in the consciousness of the individual, and thus bringing time into being. So being anterior to time, it can have no beginning in time.
- 3. Fire arising out of different kinds of wood gives rise to the sparks of a different colour or intensity; so, the sparks are not different from fire in so far as heat is the essence of both; but, yet, they are different with reference to the circumstance of their being due to the difference in the kind of wood that is the material cause of the fire. Thus the individuals differ in the form of their conditioning; but, are the same in so far as all are conditioned manifestations of awareness which by itself is unlimited.

Governed by their beginningless actions<sup>4</sup>, virtuous as well as evil, productive of pleasure and pain, they (jīva-s) attain, in every<sup>5</sup> birth, to a physical body associated with appropriate genus<sup>6</sup>, life-time and enjoyment, as a consequence of their unfructified<sup>7</sup> accumulated action. (6d-8a).

Here the author accounts for the variety in the form of individual beings so very characteristic of our creation. Nescience being the basis of individuation, action proceeding from it is also of the same order. i. e., beginningless. Since the nescience is itself the cause of time. individual differences cannot be accounted for in time, nor the differences are caused by any divine agency for God, though conceived to be the substratum of the nescience, is, by that very reason, unaffected by it. So, the differences in individual beings are taken to be a given fact and explained by the law of karma. Karma is incomplete partial action which necessitates a process of time-space for its completion. A seed when sown takes time to grow into a tree and bear some fruit. Thus sowing of the seed is a part of the whole process of a fruit-bearing tree. Another implication of the statement is that, since the actions of the individuals are beginningless, the differences characterising their being must ultimately be traced to the nescience, which is impersonal and beginningless. Thus the problem of the origination of good and evil is shifted from the individual level to the universal level.

This is a unique concept which avoids the problem of the origination of evil, being attributed to divine authorship and also the individuals are absolved from having good or evil as their inherent quality. Good and evil actions alike are the product of nescience, which is beginningless but not endless, since it can be ended by right knowledge or self-awareness. Thus, nobody is eternally damned and everybody can hope for salvation.

4. Since the nescience, responsible for the sense of doership in the individual, is beginningless, the actions proceeding from that mentality are also spoken of as beginningless.

5. Many births are visualised for an individual; and this involves the theory of reincarnation. A thought body enduring till final emancipation is spoken of in the next verse. In every birth the individual is endowed with the suitable physical vehicle necessitated by his action.

6. The individual may be born in any kingdom, viz, vegetable kingdom, animal kingdom, etc. in their species, i. e. various animals, or among human beings, in different classes, occupied with different vocations, since the enjoyment of life is related to it.

7. The Skt. word karma is difficult to translate. The word is derived from the root ky meaning 'to do', and denotes action, work, vocation, etc., in general. But in the context of reincarnation and the law of karma associated with it, karma is incomplete action, unspent force involving a time process for a fruitful end.

# (iii) सूक्ष्मश्रीरम्

, तेषामस्त्यपरं पुनः । सूक्ष्मं लिङ्गशरीरं तदामोक्षादक्षयं मतम् ।। ८ ॥ सूक्ष्मभूतेन्द्रियप्राणाऽवस्थाऽऽत्मकिमदं विदुः ।

(iii) The subtle body: 8b-9b

They are also possessed of another subtle body<sup>1</sup>, which is considered to be indestructible<sup>2</sup> till emancipation<sup>3</sup>, and is known to be made of the (essence of the five great) elements<sup>4</sup>, the senses<sup>5</sup> (indriva-s) and the vital<sup>6</sup> breaths in their subtle<sup>2</sup> form. (8b-9b)

The physical gross body is obviously subject to decay and is destroyed in course of time; how then, is the individual reborn in another body? Anticipating the question, the author declares that an individual, apart from his physical body, is possessed of another subtle body that is made up of very fine matter which is not directly perceived by our senses, since it constitutes the very essence of the five elements etc. This thought body, so to say, is ideal and transmigrates from one birth to another. But even this subtle body is destroyed at the time of liberation which is the state of unconditioned intelligence or pure consciousness.

## (iv) सृष्टिसंहार-प्रवाहः

जीवानामुपभोगाय जगदेतत्सृजत्यजः ।। ९ ।। स आत्मा परमात्मा च विश्रान्त्यै संहरत्यथ । तदेतत्सृष्टिसंहारं प्रवाहानादि संमतम् ।।१०।।

(iv) The cycle of creation and destruction: 9c-10

The unborn<sup>1</sup> one creates this world for the enjoyment<sup>2</sup> of the individual beings; and that Atman,<sup>3</sup> the universal self.<sup>4</sup>

Having stated what the nature of reality is, and the relationship of reality as a whole with the fact of individual beings, now the author proceeds to relate the nature of phenomenon, the fact of the ephemeral world and its relationship with its substratum, the timeless being, the causeless which is unborn. Whereas the phenomenon is essentially transitory (that is, it comes into being, continues for a certain time and returns to its source), the source, the reality is causeless, beyond time, eternal. The phenomenon of the world is created out of the measureless eternity and is dissolved back into it. Such is the relationship of the unmanifest and the manifest, which is beginningless, an eternal play of the Lord.

<sup>1.</sup> Linga sartra is the subtle body which endures the death of the physical body and becomes responsible for a new birth.

<sup>2.</sup> Indestructible in the relative sense; for it lasts as long as there is craving in any form, and craving is caused by nescience which is dispelled by right knowledge. When the individual is free from craving, he no longer is held in this body and becomes one with reality.

<sup>3.</sup> Ad. ed. reads tada moksad etc. instead of tad-amoksad etc.

<sup>4.</sup> That is earth, water, fire, air and ether.

<sup>5. &#</sup>x27;K' enumerates only sense-organs, while 'S' also includes the five motor organs known as karmendriya-s and the mind, under the import of the word indriya of the text.

<sup>6.</sup> Five types of the vital breath spoken of later in this Section.

<sup>7.</sup> Subtle form is that which is imperceptible by the senses.

<sup>1.</sup> Being eternal the cause of creation is causeless. The Skt. word aja of the text literally means 'unborn' and is a familiar epithet of Brahman in the vedantic texts.

<sup>2.</sup> Why does the creation take place? For the enjoyment of the individual beings that constitute the creation. The creator has no motive; so creation is a spontaneous movement. The Skt. word bhoga is neutral and includes all experience, pleasant as well as painful. Thus, it is the individual beings who are involved in the duality of opposites in experience, for the creator, creation is sportive action.

<sup>3.</sup> That Atman, refers to Brahman, the unborn. The word Atman, by itself stands for reality behind all experience; and is in this sense synonymous with the word Brahman. However, when the word jiva is prefixed to it, it refers to the individual being, and when the word parama is prefixed to it, it means the universal being, God

<sup>4.</sup> Paramatman is the super-self. Atman with reference to the individual beings that are conditioned by nescience indicates the substratum of reality that sustains the illusion of individuality; while with reference to the creator it indicates the substratum of reality supporting the entire phenomenon. Thus, Paramatman is the supreme self, i. e., the self of all the beings.

withdraws it for the sake of rest<sup>5</sup>: thus, the order of creation and dissolution is believed to be an incessant flow. (9c-10)

### (v) जीवब्रह्मणोः सम्बन्धः

ते जीवा नात्मनो भिन्ना भिन्नं वा नात्मनो जगत् । शक्त्या सृजन्नभिन्नौऽसौ सुवर्णं कुण्डलादिव ॥११॥ सृजत्यविद्ययेत्यन्ये यथा रज्जुर्भुजङ्गमम् ।

#### (v) The relation of jiva and Brahman: 11-12b

These individual beings are not different<sup>1</sup> from the Atman, neither is the world<sup>2</sup> different from it; for, creating by its own power<sup>3</sup>, it is non-different (from its creation),

- 5. 'K' suggests that, since creation takes place for the enjoyment of the individual beings, it is withdrawn by the creator also for the rest of the individual beings. Since the creator, being the substratum of the phenomenon, is not affected by the duality of pain and pleasure and for him creation is sportive, he needs no rest.
- 6. Anadi of the text means beginningless. The idea is that creation and dissolution do not take place in time, since time itself is a part of creation. The world process is thus conceived to be an incessant flow. 'K' suggests that the world has a beginning with reference to the particular, i. e., individual manifestations only, viz a son is born and has a beginning but the universal, i e., the process of regeneration has no beginning.
- 1. The individuals are considered here in the relationship of the constituents and the constituted, i.e., amsamsibhava, and are thus essentially non-different from, i.e., identical with Atman, reality.
- 2. The world too is conceived to be non-different from Atman, since the creator and the creation are understood to be in the relationship of cause and effect, i. e., karyakaranabhava. This relationship as well as the above one is accepted by the Bhedabheda school of the vedanta system of Indian philosophy.
- 3. According to the Bheda heda red anta philosophy, the creator creates the universe by its own power and therefore is not essentially different from its creation, just as the sunshine is not essentially different from the sun.

just as gold<sup>4</sup> is non-different from (its products such as) ear-ring etc.; according to others, however, it creates through nescience as the rope (gives rise to) the snake.<sup>5</sup> (11-12b)

Now the author is presenting the whole picture of the creator and the creation; the relationship of the creator, the created beings and the world is that of identity in difference—identity with reference to substance and diversity with reference to form, just as ornaments made of gold are gold in substance and are yet called by different names such as ear-ring, bracelet, etc. The visible differences belong to the phenomenon and not to the reality manifested through it. However, as it would be clear from the analogy of gold and ornaments, creation in this view involves a transformation of reality.

The other view regarding the relationship of the creator and the creation does not accept the phenomenon to be a transformation of reality, rather it conceives it as an illusion based on individual nescience. According to this view the nature of phenomenon is essentially illusory, even though the substratum of the phenomenon is real. So phenomenon is only an appearance of the real caused by the limitations of individuality. The stock example of, 'the snake appearing in a piece of a rope due to darkness', is a popular analogy to explain this particular relationship. Here, the non-existence of the snake is realised in the existence of the rope; similarly the true significance of appearance is realised only in the experience of reality.

## (vi) भौतिकसृष्टिः

आत्मनः पूर्वमाकाशस्ततो वायुस्ततोऽनलः ।।१२॥ अनलाज्जलमेतस्मात्पृथिवी समजायत । महाभूतान्यमून्येषा विराजो ब्रह्मणस्तनुः ॥१३॥

- 4. Gold is not different from the ornaments made out of it, as far as the substance is concerned, and yet, they are different in form with reference to each other. So the creation is not different with reference to the creator, the perceptible difference being relative in the manifest world.
- 5. As the rope, acting as the substratum gives rise to the illusion of the snake appearing in it; so also, through ignorance and the power of illusion, Atman, acting as the substratum, gives rise to the illusion of the phenomenon of duality.

ब्रह्म ब्रह्माणमसुजत्तस्मै वेदान्प्रदाय च। भौतिकं वेदशब्देभ्यः सर्जयामास तेन तत् ।।१४।। तदाज्ञयाऽसूजद ब्रह्मा मनसैव प्रजापतीन। तेम्बस्त रैतसी सुष्टिः शरीराणां निरूप्वते ॥१४॥

(vi) The physical manifestation: 12c-15

From Atman<sup>1</sup> emanated, ether<sup>2</sup>, first<sup>3</sup> of all, followed<sup>4</sup> by air, fire, water and earth in their respective order. These are the great elements, and they constitute the body of Brahman, then called virāj.6. (12c-13)

Having elucidated the metaphysical basis of reality and appearance, the creator and the creation and their mutual relationship, now the author proceeds to describe the order of physical emanation and the manifestation of nature etc. In Indian philosophy, the manifest phenomenon as perceived through the five senses is classified into the five basic elements, called mahābhūtā-s, which term is translated here as 'great elements'. These elements are not necessarily the equivalents of the English words ether etc. used here; but, since there is roughly a similar tradition in Greek philosophy, these terms have tentatively been considered acceptable. However, in essence akasa means that objective

- 1. That is because atman has been spoken of as being the cause of the phenomenon. Atman is obviously taken as synonymous with Brahman.
- 2. Akāša is translated as ether, because that is the general practice; and also because there is no other proper word for it in the English language.
- 3. Ether is the first evolute from which other elements evolve later in their respective order.
- The word 'tatah' of the text, means 'thereafter'. The doctrine of the physical evolution, represented here, holds that from Atman or Brahman emanates ether, from ether air, from air fire, from fire water and from water is evolved earth; and accordingly, they are dissolved back one by one unto Brahman.
- 5. Mahābhūta-s, the great elements represent the gross manifestation of Brahman before pañcikarana (amalgamation).
- 6. Brahman, as conditioned by these universal elements is known as virāi. The word viāi literally means luminous, splendour. It is held in this doctrine that Brahman, having created the five universal elements, entered into them The physical world has no existence apart from the intelligent principle; and thus, no real difference is conceived between the creator and the creation.

Brahman created Brahma and having handed over the veda-s8 to him, it caused him to create the physical world

reality, which is the substratum of sound perceived by the ear; vayu denotes the element through which the perception of touch takes place; anala (also called agni or tejas etc.) is the element that is responsible for the perception of colour; jala is the element that is responsible for the perception of taste; and pthivt is the element that produces the perception of odour. Thus these elements are conceived on the basis of five types of perception to which they respectively correspond. These elements are quite different from the elements of modern science.

Then, these elements produce the physical universe, which is essentially perceptive and has consciousness as its basis, by the process of permutation and combination in various proportions, known as pañctkarana in vedantic parlance. That, however, involves too great a divergence from the subject of this text.

This physical universe is conceived to constitute a body, a form, to Brahman, the formless; who therefore is given a different name, viz., Viraj to distinguish it from the unconditioned Brahman.

Brahman, conditioned by the five universal elements, called Viraj is not yet in the position to create the physical world; since the elements are in the state of equilibrium before the process of Panakarana takes place, i.e., before they intermingle in ratio and proportion. But the act of creation is possible through Brahman only while it is conditioned by the universal elements in terms of physical manifestation, and by the universal nescience, in terms of psychological manifestation. Thus, even though the author has not clearly stated in the text, it is implied

- 7. 'K' identifies Virāj with the four faced Brahmā of the purāṇā-s and thus attributes the act of creation directly to the unconditioned Brahman, Brahma viradrupam Brahmanam catur. mukham ast jat'. However, this does not accord well with the metaphysical doctrine of Bhed abheda system.
- Brahmā is a symbolic figure of the puranic mythology, having four faces. Each of his faces is supposed to give expression to each of the four vedas. He is considered to symbolise the creative aspect of Brahman in the trinity of Brahma, Visnu and Siva, the last two being responsible for the maintenance of the creation and the dissolution of the phenomenon. Obviously, the author is presenting a synthesis of the vedic and the puranic traditions.
- That is how Brahman is the final cause, though it is Brahma who actually creates, yet he is inspired by Brahman to do so.

By his 11 command Brahmā created through 12 his mind, the Prajapati-s18, and from them the seminal14 creation of bodies is being expounded.15

in the context that Brahman, as conditioned by the five universal elements created Brahma, the progenitor of all the beings and the physical world inhabited by them. However, the Veda proclaims Viraj to be the first progeny of Purusa; Tasmad Viradajayata (Rv. 10.90.5). But then in vedic mythology, Brahmā possibly has no such place. Thus obviously, our author has synthesised the concept of Viraj and Brahma in this doctrine. In this context Brahman is not differentiated from Viraj, which has been spoken of as Saguna-brahman in the puranic parlance. Indeed, perhaps that is why 'S' has equated Brahman of this verse with Isvara of the vedanta philosophy.

## (vii) भौतिकदेहभेदाः

स्वेदोद्भेदजराय्वण्डहेत् भेदाच्चत्र्विधम् देहं युकाऽऽदिनः स्वेदादुद्भेदात्तु लताऽऽदिनः ॥१६॥ जरायोर्मानुषादीनामण्डात्त विहगादिनः।

# (viii) मानुषदेहाभिधाने हेतुः

तत्र नादोपयोगित्वान्मानुषं देहमच्यते ।।१७।।

(vii) Types of physical bodies: 16-17b

The body is of four types, depending on the nature of its cause, viz., sweat, sprout, womb<sup>1</sup> and egg; such as louse etc., from sweat, creeper etc., from the sprout, human being etc., from the womb and birds etc., from the egg.<sup>2</sup> (16-17b)

(viii) The purpose of dealing with the human body: 17cd

Of the above (four), the human body<sup>1</sup>, being suitable for (the manifestation of) nada is dealt with (here). (17cd)

The Ayurvedic classification of the manifestation of life is substantially different and quite comprehensive. It comprehends life under three main heads, viz., jāngama (animals), audbhid (plants) and parthiva (minerals). The jangama (animal class) is subdivided into jarayuja, andaja, svedaja (all the three given in the text) and udbhijja, the last of which comprises of animals in hybernation etc. that remain unmanifest for a certain period of time concealed in the soil, and develop only during particular seasonal conditions. The author has identified the vegetable kingdom with udbheda rather than the fourth category of animals spoken of in the Ayurvedic tradition. The inclusion of creepers etc. under types of bodies does not seem to be as scientific as the udbhijja class of Ayurveda. The author's classification, however, appears to follow the puranic tradition.

<sup>10.</sup> The creation takes place through the word, as codified in the vedas. The vedas in the Indian tradition are considered to be 'apauruşeya', i.e., literally, beyond human authorship. Since creation and dissolution in the author's view form a unitary movement, the creation takes place through the word of the vedas which, through the process of association give rise to the form as ideas in the universal mind, which then created the world according to those ideas, the latent seeds.

That is, Viraj; it is notable that here 'K' also interprets it as such.

<sup>12.</sup> That is, by his will power.

<sup>13.</sup> Literally, the word prajapati means the lord of creatures. of all the created beings. There have been many prajapatiand their number differs from seven to twenty-one, according to different accounts. Prajapati originally seems to be a god of the vedic hymns who was later raised to the status similar to that of Brahma in the sutra-s. But later in the purana-s, the word prajapati became more or less an appellation of the founders of the great dynasties such as Marici, Atri, Angiras Pulastya, etc. However, in the present context prajapati-s are conceived as the mental progeny of the creator, Brahma.

<sup>14.</sup> Retas, literally means 'semen', but the expression is metaphorical and signifies the product of copulation, i. e., the creation that takes place as a result of the opposites coming together.

<sup>1.</sup> The word jaraju of the text precisely means the outer layer of foetus, and technically refers to the viviparous creatures.

Ad. ed of S. R. reads "andātta" instead of "andāttu" wherein tu seems to have been used as a conjunctive.

<sup>1.</sup> That is why the author has introduced this section on human embodiment in a musical treatise. Also, this provides the reason for dealing with the human body only from out of the four types.

# (ix) जीवस्य गर्भाश्येऽवतरणम्

क्षेत्रज्ञः स्थित आकाश आकाशाद्वायुमागतः। ततश्चाभ्रमभ्रान्मेघे ऽवतिष्ठते ।।१८।। वायोर्धमं आहुत्या ऽऽप्यायितो ग्रस्तरसो ग्रीष्मे च भानुभिः। भानुमेंघे घनरसं निघत्ते तं वलाहकः ।।१९।। यदा वर्षति वर्षेण सह जीवस्तदा भुवः। संक्रामत्यविलक्षितः ।।२०।। वनस्पत्योषधीर्जाताः ताभ्यो उन्नं जातमन्नं तत्पुरुषैः शुक्लतां गतम् । शद्धार्तवाया योषाया निषिक्तं स्मरमन्दिरे ।।२१।। चेद्गर्भाशयगतं भवेत । सहार्तवेन शृद्धं तदा ॥२२॥ गर्भमारभते जीवकर्मप्रेरितं तद्

(ix) The descent of jīva into the womb: 18-22

The self-aware<sup>1</sup> intelligence, the resident<sup>2</sup> of ethel, descends into air; and from air into smoke, from smoke into

The embodied self, i. e., the self-aware intelligence, has already been spoken of as having two bodies, subtle and gross. Here the process of the physical, i. e., gross embodiment is being described, and therefore, the thought-body is taken for granted to be existent in the form of etheric vibrations as the residue of past incarnation of the individual self or soul who is called kṣetraj na, which signifies intelligence involved in the self-conscious individual being.

1. The word ksetrajña of the text literally means the knower of the field, i. e., the observer, the witness of the field of consciousness. The word ksetra also means an abode; so, by implication the word signifies the body. Ksetrajña thus means the soul or intelligence as conditioned by self-consciousness, and here, the word is used in this technical sense of Bh. Gita XII. 1 & 2. "This organism, oh! Arjuna, is named as ksetrajíad (the field); and the one who is aware of it is called as ksetrajíad (the perceiver of the field) by the experts." (13.1)

Thus kṣetra and kṣetrajña may roughly be understood as the field of consciousness and consciousness subsisting in the awareness of the field. The deeper significance of these terms would be clear from the next verse.

"Oh, Arjuna, understand that I am the kşetrajña (intelligence) in all the kşetra-s (organisms). The comprehension the body and the soul is considered to be my knowledge."

2. It is assumed that thought body is made of subtle matter in the form of ethereal vibrations.

cloud-formation<sup>8</sup> and from the cloud-formation into the cloud. (18)

The sun, being satiated by the oblations and surrounded by vapours drawn by its rays in the summer, confines the waters in the clouds. When the clouds release the waters, the self-conscious intelligent being, descending with the showers, transfers itself imperceptibly to the terrestrial growth of trees and herbs. This (vegetation) becomes food; and when eaten by men, is transformed into semen; which, being sprinkled in the temple of love in the body of a young

The process of the descent of the thought-embodied intelligence into the physical human organism follows the general pattern of the evolution of the five great elements, viz., from ether to air, from air to fire as associated with smoke, and from fire to water as associated with cloud, and from water to earth, through vegetation. Having entered the vegetation it remains a matter of course for it to reach an appropriate womb for its physical encasement.

- 3. Abhra of the text signifies a cloud-formation devoid of water, so to say, a combination of smoke, light and air, while Megha signifies the cloud proper full of water.
- 4. In the Indian tradition the sun is offered oblations in the sacrificial fire. The gods, in this view, have nothing to eat in their heavenly abode and have to be nourished through the sacrificial oblations offered by human beings.
- 5. This is significant in the context of Indian climate. The sun is supposed to draw the waters of the Indian ocean in summer through the sun's rays that fall directly upon it and collect them in the clouds, and this is a statement of a geographical fact, the phenomenon of monsoon.
- 6. Jiva is conceived to be pure intelligence conditioned by self-consciousness.
- Since consciousness is not an object of sense perception, the the journey of the soul from the thought body to the physical body is imperceptible outwardly.
- 8. What is notable here is that the self-aware intelligence or, in other terms, the individual soul can never keep an identity without a physical vehicle. So in fact the whole journey is a process of the movement from a purely ideal body to a physical one. Thus it is also a process of evolution or manifestation from the subtle to the gross. Food also is a vehicle for the self-enclosed consciousness and so is semen into which it is transformed.
- 9. The temple of love spoken of here refers metaphorically to the vagina.

# ग. विण्डोत्पत्तावायुर्वेदानुसारि निरूपणम्

(i) गभस्य वृद्धिक्रमः

द्रवत्वं प्रथमे मासि कललाख्यं प्रजायते । द्वितीये तु घनः पिण्डः पेशोषद्धनमर्बुदम् ॥२३॥ पुंस्त्रीनपुंसकानां स्युः प्रागवस्थाः क्रमादिमाः । तृतीये त्वङ्कुराः पञ्च कराङ्घ्रिशिरसो मताः ॥२४॥

woman in her proper course<sup>10</sup>, on entering the uterus, if<sup>11</sup> pure, unites with ovum: and then, being<sup>12</sup> impelled by the accumulated residual action of the individual, it begins to develop into the foetus. (19-22).

C. Genesis: The physiological viewpoint

(i) The development of the embryo: 23-41

In the first month a gelatinous substance (called kalala) comes into being; in the second a hardened mass in the form

Now, the author goes on to describe the various stages through which the embryo develops during the entire period of pregnancy and connected ed matters. From a comparative study of the monumental works of Indian medicine and surgery by Caraka and Suśruta, it appears that our

10. Literally, suddhartava means pure menstrual discharge. This refers to the suitable period of the monthly course, i. e., the particular days after the menses, considered as opportune for the union of the sperm and the ovum. But, more than that, the suddhartava of the text refers to the ideal physical fitness of a woman for conceiving a child. The test for the required purity of the blood of the menstrual flow as quoted by 'K' in that it should be of the colour, as red as the solution of lac or its spots on cloth should be capable of being washed clean. The word artava technically means the catamenial fluid.

11. The semen should also be of a certain standard. As, 'K' quotes, semen to be fit for procreating should be strong heavy, viscous, sweet and profuse.

12. According to the Hindu view of life, fertilisation of a spering and an ovum is not a mechanical process, but the soul destited to be embodied in the foetus is the intelligent force guided by its residual action (Karma), without which no conception can materialise.

सुक्ष्माः स्यूर्यगपत्तदा । अङ्गप्रत्यङ्गभागाश्च श्मश्रदन्तादीञ्जन्मानन्तरसंभवान् ।।२४।। एषा प्रकृतिरन्या तु विकृतिः संमता सताम् । चतुर्थे व्यक्तता तेषां भावानामपि जायते ॥२६॥ पंसां शौर्यादयो भावा भीरुत्वाद्यास्त् योषिताम । नपंसकानां संकीर्णा भवन्तीति प्रचक्षते ॥२७॥ विषयानभिकाङक्षति । चास्य हृदयं कूर्यादगर्भसमृद्धये ।।२८।। मातुर्मनोऽभोष्टं तां च द्विहृदयां नारीमाहुदौँहृदिनीं बुधाः। स्यूर्गर्भस्य व्यङ्गताऽऽदयः ।।२९।। अदानाहोहदानां मातूर्यद्विषयालाभस्तदार्ती जायते सुतः । स्यादर्थवान्भोगी दोहदाद्राजदर्शने ।।३०॥ अलङ्कारेष धर्मिष्ठस्तापसाश्रमे । ललितो भुजगदर्शने ।।३१।। देवतादर्शने भक्तो हिस्रो गोधाऽशने तु निद्रालुर्बली गोमांसभक्षणे । शकरक्ताक्षं लोमशं सूयते सूतम् ॥३२॥ पञ्चमे चित्तं मांसशोणितपृष्टता। प्रबुद्धं ऽस्थिस्नायुनखरकेशरोमविक्रिक्तता ।।३३।। षष्ठे चोपचितौ सप्तमे त्वङ्गपूर्णता । पाल्यन्तरितहस्ताभ्यां श्रोत्ररन्ध्रे पिधाय सः ॥३४॥ उद्विग्नो गर्भसंवासादास्ते गर्भाशयान्वितः । स्मरन्पूर्वानुभूताः स नानाजातीश्च यातनाः ।।३४।। मोक्षोपायमभिष्यायन्वर्तते ऽभ्यासतत्परः । अष्टमे त्वक्समृती स्यातामोजश्चैतच्च हुद्भवम् ॥३६॥ शुद्धमापीतरक्तं च निमित्तं जीविते मतम्। पुनरम्बां तत्प्रधावति ॥३७॥

अतो जातो ऽष्टमे मासि न जीवत्योजसोज्झितः ।

किंचित्कालमवस्थानं संस्कारात्खण्डिताङ्गवत् ।।३८।।

समयः प्रसवस्य स्यान्मासेषु नवमादिषु ।

मातू रसवहां नाडीमनुबद्धा पराऽभिधा ।।३९।।

नाभिस्थनाडी गर्भस्य मात्राहाररसावहा ।

कृताञ्जलिलंलाटे ऽसौ मातृपृष्ठमभि स्थितः ।।४०।।

अध्यास्ते संकुचद्गात्रो गर्भं दक्षिणपार्श्वगः ।

वामपार्श्वस्थिता नारी क्लीबं मध्यस्थितं मतम् ।।४१।।

of a ball<sup>1</sup>, a tendon<sup>2</sup> or an egg<sup>8</sup>, indicative of the prelimited nary stage of the male, female and a eunuch respectively. In the third month emerge the five<sup>4</sup> organic<sup>5</sup> seedlings, viz., hands, feet and the head. (23-24)

author, who is known to be a medical practitioner himself, has based this Section of his work mainly on these two authorities, though he also seems to have consulted subsequent literature on the subject. Therefore parallel references are offered here for a detailed and authoritative study

- 1. Pinda of the text corresponds to a lump which is stated by 'K' to be round. 'S' connects pinda with pest and interprets that, if the pinda, in the sense of a lump of flesh, is like a pest, then it is indicative of a male issue; and consequently further he interprets isadghana, i.e., 'slightly in a solid condition' to be indicative of a female child; and arbudam, i.e., 'like a bud of a tamarind tree' to be indicative of neutral gender. But obviously this construction does not seem to be correct, specially in the light of Susruta and Caraka.
- Peśi is not in so solid a condition as to form a lump. So it is like a muscle more or less. K.R. says, peśi is a square piece. The word peśi also means foetus shortly after conception.
- 3. Arbudam: 'K' asserts that arbudam is of the shape of a bud of tamarind tree according to the physicians. The word literally, in this context, means a long round mass, tumor like; but here, it has been used in a technical sense.
- 4. Two hands, two feet and the head, technically make the five. However, as suggested by 'K', the seedling of the head includes the neck, two eyes, two nostrils, two ears, etc. as its parts; the seedling for hands includes, shoulders, elbow, wrist fingers, wrist, etc. and the seedling for feet includes thighs, knees, legs. ankles, toes etc.
- 5. Ankura of the text literally means a sprout or a seedling but here it denotes the rudimentary stage of these organs.

Apart from the beard, teeth and the like, that grow after the birth, an imperceptible and simultaneous development takes place in all the limbs, sub-organs and their parts. This is the natural course, while anything contrary to it is considered by the wise to be unnatural. (25-26 b)

In the fourth (month) these (organs) are distinctly developed; and so also the mental states come into being, such as valour among men, timidity among women and

of the particular topics dealt with in this Section. Obviously, Śārngadeva has been not only very precise but also very brief in his presentation, as indeed he everywhere is, throughout his entire work.

In the first month the sperm as united with the ovum forms into a jelly-like substance in a liquid condition, the five elements of which, under the impact of cold, heat and wind solidify in the second month into a mass. This mass, according to our author, forms in three shapes, viz. a ball-like round shape, a tendon like oblong, and an egg like oval shape, each of which indicates respectively the masculine, feminine and the neuter gender. This is the rudimentary stage and the sex of the embryo can, on this basis, be distinguished even in the second month. This view is based on Caraka and Suśruta (cf., Śā. Sthā 4.9 10 and 3.18-19 respectively).

In the third month five protuberances appear in the solidified mass of flesh at the five places where the five organs have to be, while the minor limbs and their parts are formed in the shape of very minute papillae (cf., Caraka Śā. Sthā. 4.11 and Suśruta Śā. Sthā. 3.20).

In the fourth month all the limbs and the organs and parts thereof are fully developed. Since the viscus of the hears too is developed and

<sup>6.</sup> The process of growth is slow and uniform, that is why it is said to be imperceptible.

<sup>7.</sup> That is, the entire growth takes place as soon as the seedlings have sprouted.

<sup>8.</sup> Praktti is natural disposition or tendency, so uniform development is the natural course of growth.

Vikiti is deformation, any development that takes place contrary to the order of nature with respect to the process of growth in the viviparous animals.

<sup>10. &#</sup>x27;K' interprets the word bhāva, here, in the sense of latent tendency; obviouly, latent in the causal body and manifesting itself now in the physical body. Bhāva is a state of being, a subject in relationship with a situation.

indistinctiveness<sup>11</sup> among hermaphrodites; that is, how it is said.<sup>12</sup> (26c-27)

The heart of the embryo is a product of its mother<sup>18</sup> and so it craves for enjoyment.<sup>14</sup> Therefore the wishes of the mother should be respected<sup>15</sup> for the growth<sup>16</sup> of the foetus. (28)

the heart is considered to be the seat of consciousness, the embryo is endowed with feeling, so much so that the desire for enjoyment is awakened in it, which operates through the longing of the mother (cf., Suśruta Śa. Sthā. 3.21). Our author is suggesting that the embryo is capable of mental states such as valour and timidity. But these are taken as examples, what is important to note is that it is the fourth month itself that endows the embryo with consciousness and craving for experience.

The heart of the embryo is fashioned after the heart of the mother as the author tells subsequently (verse 45) in this Section and here too. The word heart is symbolic of the faculty of conation, of feeling and will, of emotion and desire. 'K' interprets the text to mean that the heart of the embryo as well as that of the mother heat in unison; they form a unity, analogous to that of the twins. So the enceinte is named twinhearted. The cravings of the mother and the child are related in identity

- 11. The word sankirna of the text literally, in this context, means 'petty', undeveloped, closed, i. e., devoid of manly or womanly predilections.
- 12. Obviously, the author is not sure of the scientific basis for this concept, so he attributes it to the general opinion as it was prevalent.
- 13. According to 'K' the heart of the embryo (as well as of the mother, the two being one in essence) desires, craves for particular sensations. Literally, the text reads "its heart is a product of its mother."
- 14. Vişayan of the text literally means sense objects. The embryo cannot possibly have a longing for the sense objects, for he does not perceive them. So it is the heart of the mother enjoined to that of the embryo that desires sense objects. But indeed, since the embryo is endowed with consciousness it is supposed to have longings for particular sensations which the mother can relate to particular sense objects by intuition or the suggestions of the subconscious mind.
- 15. That is, as far as possible the wishes of an enceinte should be fulfilled.
- Samiddhi of the text literally means enrichment, i. e., physical and mental growth, i. e., development.

Such a woman with two hearts (as it were) is called twin-hearted by the wise. If the wishes of pregnancy<sup>17</sup> are not respected, deformity of organs may occur in the embryo; for whatever is denied to the enceinte becomes a cause of discomfort<sup>18</sup> to it (the embryo).<sup>19</sup> (29-30b)

If the pregnancy wish<sup>20</sup> pertains to royal audience, the child<sup>21</sup> would be wealthy, reveller of enjoyments and fond of ornamentation<sup>22</sup>, if it pertains to visiting a hermitage, the child would be of righteous disposition; if it pertains to visiting a temple<sup>28</sup>, the child would be a devotee (of

and therefore the unfulfilled desires of the enceinte (pregnant woman) are likely, not only to cause mental complications in her mind, but those complexes react on the consciousness of the embryo, so much so that the nongratification of any desire for a particular sensation during gestation tends to adversely affect that particular sense organ of the child (cf., Suśruta Śā. Sthā. 3.21). The fulfilment of such desires is conducive to a healthy progeny.

There is a very close relationship between the mother and the foetus, and this relationship is not only physiological but also psychological; this latter aspect is sought to be demonstrated by detailing the effect of

- 17. Dohada of the text technically means the wishes of an enceinte, and the objects of those wishes are also called Dohada-s.
- 18. The text literally interpreted would mean 'By whatever (object of enjoyment) the mother is deprived, the child born is ill-formed by it (i. e., not properly developed with reference to that particular sense organ).
- 19. Literally translated, it is the 'son', for a male issue is generally desired.
- 20. The longings and wishes of the enceinte during the period of gestation have been named as 'pregnancy wishes', i.e., the dohada-s of the text.
- 21. Lit. the son.
- 22. K.R. translates the first line of verse 31 as—"(If she spends her time) in the hermitage of sage, (he will be) indifferent to ornaments and devoted to virtue", obviously, he construes 'alamkāreşu lalitaḥ' with 'dharmiṣṭhastāpasāśrame'. It is, however, not clear why it can be so construed.
- 23. Devatā-daršana of the text literally means a desire for being in direct communion with a deity. In view of the widespread image worship in India, obviously the desire can only pertain to visiting the deity as represented by an idol in a temple. The word daršana, in India, is used in the most profound sense of communion, as well as, 'having a look at'.

God); if it pertains to seeing a snake, the child would be violent in nature; if it pertains to eating (the flesh of) an alligator<sup>24</sup>, the child would be addicted to sleep; if it pertains to eating beef, the child would be strong, if it pertains to eating buffallo meat, the child<sup>25</sup> would have red eyes like those of a parrot and a hairy body. (30c-32)

The consciousness awakens in the fifth (month) and there is sufficient addition to flesh and blood. In the sixth (month) the bones, sinews<sup>26</sup> nails, hair on the head and the limbs<sup>27</sup> appear distinctly and there is an augmentation of energy<sup>28</sup> and complexion. In the seventh (month) the completion of organs takes place. (33-34b)

the mental conditions, desires, and longings of the enceinte during the period of gestation on the nature of the child after its birth. Much of what has been said seems to be based on Susruta with minor variations (cf., Śā. Sthā. 3. 26-34), where it is suggested towards the end of this topic that the pregnancy wishes of the enceinte are not so much due to the personal disposition of the mother, as due to the cumulative effect of the incomplete action (karma) of the child in previous lives.

In the fifth month, the thought body is revived and intelligence begins to function through the mind. In other words, there is an awakening of consciousness in terms of self-awareness. According to 'K' the inner instrument, i.e., the mind which was dormant, opens upto the movement of life, i.e., becomes sensitive. When this particular statement (33ab) is read in conjunction with verse no. 35, it becomes

- 24. The dictionary meaning of the word godhā is alligator. But K.R. has rendered it as 'wheat', which does not seem to be very significant, since wheat forms a staple food, more or less for all; and moreover it is difficult to say how he derives this meaning.
- 25. Again literally, the text would mean 'the son'.
- 26. The dictionary meaning of the word snāyu is tendon, sinew, muscle. 'K' interprets it as sūkṣma śirā. Śirā generally stands for any tubular vessel but specifically for vein: thus, he means a subtle vein Sinew is a fibrous tissue uniting muscle to bone. It seems that even 'K' means sinew by his subtle vein.
- 27. Kesa and roma are hair on the head, and all over the body, respectively. Probably we do not have separate words to indicate this difference in English.
- 28. Ojas of the text not only means physical strength but also vigour or energy in general, including splendour consequent upon a full bloom of the organism.

The embryo, with the cavities of ears covered by its hands held in-between the two thighs, being afflicted by its stay in the environment of the womb, recalls the experiences of past lives along with the torments of various types, and contemplating <sup>2</sup> the means of freedom, remains self-absorbed. (34c-36b)

Skin and memory<sup>80</sup> develop in the eighth month. Ojas<sup>81</sup> the essence of vitality, pure and of yellowish red hue,

clear that the author points out the psychological process of the revival of the thought body, the subtle vehicle that survives the death of the gross body but remains inactive till the fifth month of gestation. It is said, as it is implied in the text that, the individual soul witnesses the revival of the experiences, the torments and the unfulfilled desires of past lives and slowly gains self-awareness. Being self-aware, the self-conscious individual tired of remaining in the closed atmosphere of foetus, contemplates upon the means of release from the womb; and thus, cooperates with the mother in her mental disposition of delivering the child safely (cf., Caraka Śā. Sthā. 4.21-23 and Suśruta Śa. Sthā; 3.33-37).

Incidentally, the author also reveals the position of the embryo at this stage of the development in the womb, which, as 'K' points out, is upside down with limbs drawn in, the ear-cavities being covered by hands held in-between the two thighs.

It is worthwhile to compare this period of gestation as dealt with by Caraka and Suśruta (cf., Śā.Sthā. 4. 21-23 and 3.35-37 respectively). For the fifth month, Caraka agrees only as far as addition to flesh and blood is spoken of, and maintains that the enceinte feels languor particularly in this month According to him, this process continues in the sixth month on a greater scale. In the seventh month the foetus is complete in all the elements physical as well as psychological, and the enceinte feels greatly fatigued. Suśruta speaks of mental awakening in the fifth month and the development of the intellect in the sixth month, while in the seventh, all the organs and the suborgans of the body are fully and distinctly developed.

- 29. The line 36ab of the text has been translated with the underlying idea in view.
- 30. 'S' reads as toak śruti instead of toak smṛti which is a text variant The significance of this reading has been related above.
- 31. 'S' explains ojas as an essential element, while 'K' explains it as a bright, pithy substance which supports life.

residing in the heart<sup>82</sup> and considered to be the sustaining force of life, being unstable, fluctuates rapidly in-between the mother and the foetus; that is why the eighth month issue, being deprived of the life-force, does not survive<sup>88</sup>; and if it does for a while, it is due to the force of momentum, like a dismembered limb. (36c-38)

Thus, the author seems to have relied on these sources put together as far as the physiological details of embryology are concerned. But he has supplemented this account with the essentials of corresponding purapic tradition (cf., Srimad-bhāgavatam III. 31) as far as the psychological and the philosophical aspects of the origin and development of the life-principle are concerned.

The author has already spoken of complexion in the sixth month and of past recollections in the seventh month; thus, under the circumstance, 'K' raises the question as to why he once again speaks of the skin and memory; and then he offers to explain that, in the eighth month the skin becomes compact and thick and memory brings in the element of choice, i.e., the operation of will. However, 'S' reads 'sruti' instead of smfti. He therefore interprets that the embryo is able to listen to outside sounds, and he rather warns us not to identify 'sruti' with the sense of hearing.

In the ayurvedic system, ojas is considered to be the principle of vital warmth and action throughout the body. It is difficult to identify this life-principle in terms of modern anatomy. However, the statement of the author is well-supported by Caraka and Suśruta (cf., Śā. Sthā. 424 & 3.38 respectively). 'K' elucidates ojas as 'bright pithy, substance' which is said to be pure in so for as it is not vitiated by the impurities of the atmosphere outside the body. It is slightly of yellowish tinge on a red base, and is produced by and resides in the heart; its function is to regulate and to support the movement of the vital breath in the body. The purport of the text is that in the eighth month the life principle, i.e., the vital force that regulates the flow of the vital breath, becomes unsteady and alternately moves from the embryo. Consequently, as explained by 'K', if the child is born in the eighth month while the vital force is residing with the mother, the

The parturition<sup>84</sup> takes place after the ninth<sup>85</sup> month commences. (39 ab)

The placenta<sup>86</sup> of the foetus is joined to the lymphatic vessels<sup>87</sup> of the mother by the umbilical cord, through

child dies as soon as it is born; but if the vital force is with the child at the time of delivery, it is the mother who dies; and in case the vital force is in transit, both the mother and the child may not survive. 'K.R.' finds in this statement a probable explanation of still birth. To a possible objection that sometimes the eighth month issues are also observed to be alive for some time after their birth, the author offers an explanation: just as when a limb is cut off from the body, it keeps on throbbing for sometime due to the momentum of the breath left in it, so also the child born in the eighth month, even though devoid of the vital force in its entirety, yet lives for sometime, its organism having been vitalised by it shortly before the delivery; in other words, it lives till the momentum of the vital force lasts.

What is the normal time for the delivery of the child, is the question considered here. Delivery, according to our author, may normally take place any time after the ninth month commences. The expression navamadi in the text implies, as noted by 'K', that it may even take place in the tenth or in the eleventh month as well. This contention seems to be supported by Suśruta (cf., Śā. Sthā. 3.39) who even visualises the possibility of parturition taking place in the twelfth month in exceptional cases, beyond which he declares it to be indicative of something wrong. Caraka too seems to be of the same opinion (cf., Śā. Sthā. 4.25). He says that the ninth month would commence even after one day upon the completion of the eighth month, and that the delivery can take place normally from the ninth to the twelfth month, beyond which something wrong must be inferred. Obviously all agree as to the minimum period of gestation, which is eight completed months.

<sup>32.</sup> Produced by the heart in the sense that it resides in the heart, according to 'K'.

<sup>33.</sup> That the eighth month issue does not live, does not necessarily imply the completion of the 8th month for the child to live, but implies rather the death of either the child or the mother as explained above.

<sup>34.</sup> The delivery of the child.

<sup>35.</sup> Navamadi of the text implies literally beginning with the ninth month (from conception).

<sup>36.</sup> Placenta is defined in the dictionary as, flattened circular spongy vascular organ in higher mammals, expelled in partulical cord. Para-nadi is identified with placenta.

<sup>37.</sup> Rasavaha nada etymologically means the vein or artery carrying assimilated food.

which the essence of lymph-chyle<sup>86</sup> produced from the assimilated food of the mother enters into its organism. (39c-40b)

With hands folded<sup>40</sup> over the forehead and the limbs flexed<sup>41</sup>, the embryo stays by the mother's back. As it is believed, if it is in the right side of the womb, it is a male<sup>42</sup>, if in the left side, a female and if in the centre, a hermaphrodite. (40e-41)

Here, the process by which the foetus is nourished is described, though not in sufficient detail. The translation of this passage presents the essential fact. Literally rendered the text would read:—

"The mother's rasavahā nādī is joined to the parā-nādī that originates from the navel and carries mother's assimilated food to the foetus." Suśruta (Sā. Sthā. 3.40) reads in substance as under—"The umbilical cord (nādī) of the foetus is found to be attached to the cavity of the vein or artery of its maternal part through which the essence of lymphchyle (rasa) produced from the assimilated food of the mother, enters into its organism and fastens its growth and development (a fact which may be understood from the analogy of percolation or transudation of blood). Immediately after the completion of the process of fecundation the vessels (dhamanī) of its maternal body which carry the lymph-chyle (rasa) and run laterally and longitudinally in all directions tend to foster the foetus with their own transudation all through its continuance in the womb."

The author is describing here, the position of the embryo in the parturient's womb and the process of parturition. As regards the position of the embryo in the womb and its relationship to the sex of the child, it appears that the author is referring to a generally accepted idea as it is implied by his expression 'matam'.

#### (ii) बालकस्य जन्म

क्रियते ऽघःशिराः सूतिमारुतैः प्रबलस्ततः। निःसार्थते रुजद्गात्रो यन्त्रच्छिद्रेण बालकः ॥४२॥

## (iii) जीवस्य नित्यता (श्रनुमिता)

जातमात्रस्य तस्याथ प्रवृत्तिः स्तन्यगोचरा । प्राग्जन्मबोधसंस्कारादिति जीवस्य नित्यता ॥४३॥

### (ii) The birth of the child: 42

As it is turned upside down by the strong force of the parturition<sup>1</sup>-winds it<sup>2</sup> is ejected through the vagina, its limbs being afflicted (through the passage). (42)

### (iii) The eternity of Jiva (inferred): 43

Immediately (after the birth), the newborn baby has the tendency of sucking at the breast due to the psychological impressions of past life, and this incidentally proves the immortality of the soul. (43)

The author draws our attention to the inborn tendency of the newborn baby to suck at the mother's breast. The question is, who trains or educates and informs the baby to perform this act. It is almost instinctive and mechanical. The author therefore infers, by deduction, the habit built up in the past lives, and thereby he concludes that the death of the physical organism does not mean the total annihilation of the individual. Obviously, the thought-body is there, already spoken of by the author, to carry over mental impressions to the next life. It does not, therefore, necessarily follow for this reason, that the soul is timeless. It seems that, the author finds a spiritual substratum for psychological memory in what he calls the soul; and therefore, it is this substratum as the witness of all mental phenomenon that, he says, is

<sup>38.</sup> Rasa, in this context, means the solution of the assimilated food.

<sup>39.</sup> Reproduced from Eng. trans. by Kaviraja Kunjalal Bhishage ratna, M.R.A.S. Vol. 11, pub. Chowkhamba Sanskrit Series Office, Varanasi, India.

<sup>40.</sup> Folded in the posture of salutation.

<sup>41.</sup> The limbs are not stretched but are contracted and drawn in together, flexed.

<sup>42.</sup> The sense is implied in the text.

<sup>1.</sup> The process of parturition sets in motion the prana that pushes

<sup>2.</sup> Child as per the text.

## (iv) देहस्य पड् भावाः

भावाः स्युः षड्धास्तस्य मातृजाः पितृजास्तथा । रसजा आत्मजाः सत्त्वसंभवाः सात्म्यजास्तथा ॥४४॥ मुदवः शोणितं मेदो मन्जा प्लीहा यकृद् गुदम्। हन्नाभीत्येवमाद्यास्तु भावा मातृभवा मताः ॥४५॥ श्मश्रुलोमकचाः स्नायुसिराधमनयो नखाः। दशनाः शुक्लमित्याद्याः स्थिराः पितृसमुद्भवाः ।।४६।। शरीरोपचयो वर्णो वद्धिः स्पितर्बलं स्थितिः। इत्यादोन्रसजान्विदुः ।।४७॥ अलोलुपत्वमृत्साह इच्छा द्वेषः सुखं दुःखं धर्माधमौ च भावना। प्रयत्नो ज्ञानमायुश्चेन्द्रियाणीत्यात्मजा मताः ।।४८।। ज्ञानेन्द्रियाणि श्रवणं स्पर्शनं दर्शनं तथा। रसनं घ्राणमित्याहः पञ्च तेषां तु गोचराः ॥४९॥ शब्दः स्पर्शस्तथा रूपं रसो गन्ध इति क्रमात् । वाक्कराङच्चिगुदोपस्थानाहः कर्मेन्द्रियाणि तु ।।५०।। वचनादानगमनविसर्गरतयः क्रमात। क्रियास्तेषां.

बुद्धिरित्यन्तःकरणद्वयम् ।।५१॥ सुखं दु:खं च विषयौ विज्ञेयौ मनसः क्रिया। स्मृतिभ्रान्तिवकल्पाद्या धियो ऽध्यवसितिर्मता ।।५२॥ ब्रह्मयोनीनीन्द्रियाणि भौतिकान्यपरे सत्त्वाख्यमन्तःकरणं गुणभेदात्त्रिधा मतम् ।।५३।। सत्त्वं रजस्तम इति गुणाः सत्त्वात् सात्त्विकात् । आस्तिक्यशुद्धधर्मैकरुचिप्रभृतयो मताः ।।५४॥ सत्त्वात्त् राजसाद्भावाः कामक्रोधमदादयः। निद्राऽऽलस्यप्रमादार्तिवश्वनाद्यास्तु तामसात् ।।५५।। प्रसन्नेन्द्रियताऽऽरोग्यानालस्याद्यास्तु सात्म्यजाः ।

(iv) The six substances (bhāva-s) of the (foetal) body: 44-56b

There are six types of substances (involved) in the body (of the baby), viz., maternal2, paternal8, the serological4, the self-created5, the mental6 and the self-adap-

Delicate parts such as blood, fat, marrow, spleen, liver, anus, heart, umbilicus, etc. are considered to be of motherly origin; while the beard, hair on the body and the head, nerves, veins, arteries, nails, teeth and semen etc. of tougher stuff are of fatherly origin. (45-46)

Now, the author goes on to describe in some detail the various parts and the elements in the body of the embryo as they are contributed by six different principles that are apprehended as derived from the mother, the father, the food, the soul, the mind and the innate physiological conditions inherited by the foetus. This agrees in substance with Suśruta (cf., Śā. Sthā. 3.43 and Caraka Śā. Sthā. 3.12-20

Now, the author goes to describe in detail, though by no means exhaustively, the different parts and the principles of the body and the mind of the embryo, as they are distinctly contributed by the six substances already spoken of. The entire description seems to have been based on Susruta (Sa. Stha. 3.43) with minor differences, Caraka (Sa. Stha. 3.12, 13) deals with this subject in greater detail.

<sup>1.</sup> Bhava of the text is quite difficult to render in English appropriately, as it is used here in a very technical sense which has not been noted even by the lexicographers The word has quite different connotations e g., a mode of being, existence, disposition of mind, etc. Here it seems to be signifying the various constituent parts of the organism, classified into six substances according to the source from which they are

<sup>2.</sup> Mātīja, literally means, 'derived from the mother'.

<sup>3.</sup> Pittja, literally means, 'derived from the father'.

<sup>4.</sup> Rasaja, literally means, derived from 'rasa', i. e., serum in

Atmaja, literally means, 'pertaining to the transmigratory self',

Sattva is used in the sense of mind.

<sup>7.</sup> Satmyaja implies acquired by adaptation and habit.

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being sound, touch, vision, taste and smell respectively. (49+50) (49+50)

Speech, hands, feet, anus and the genitals are the organs of action and their functions respectively are-speaking, movement, excretion and copulation. (50c-51c)

Mind and intellect are the two internal instruments. Pain and pleasure are known to be the objects of mind, while memory, error and choice (out of alternatives) etc. are considered to be its functions, and the function of the intellect is determination. (51c-52)

tive functions. The scheme of the five sense organs and the five physical organs of action forms the common feature of most of the orthodox schools of Indian philosophy. There is a difference of opinion regarding the mind and the intellect. While some treat of both as antahkarana, i. e., the inner instrument, some consider mind to be the sixth sense organ. Here the author follows the scheme of the Vedanta philosophy and treats mind and intellect as different modifications of, what may be called, the mind-stuff or consciousness, i. e., citta. The same consciousness, when it functions as the instrument of desire, if known as manas, i.e., mind; and when it functions as the instrument of determination, it is known as buddhi, i. e., intellect. This, in principle, defines the connotation of these two terms.

The word mind, in English is used in different senses, i. e., it has a wider connotation than perhaps the word manas which has been rendered here as mind. Mind may be used as synonymous with psyche and also in the sense of will or even desire. Mind may include the intellect, will and reason and it may denote consciousness, either whole or as conscious, subconscious or unconscious. Manas stands also for the undivided antahkarana and in that case is synonymous with mind. But, here mind is that category of the psyche, that modification of consciousness which has pain and pleasure for its objects. Desire is rooted in pain and pleasure. The pursuit of pleasure and the avoidance of pain is the function of the mind.

The word intellect has a more restricted connotation than the Skt. word buddhi. Buddhi is essentially the determinative faculty of the mind. It determines the course of choice and in this sense acts as the subconscious. But since in determining the course of action it utilises the process and the fund of knowledge, it involves analysis and discursive thinking. So, the term buddhi has been rendered as intellect for the sake of convenience, or may be for want of a better word.

Physical development8, complexion, growth9, drowsiness10, strength, stability11, non-greed and enthusiasm are known to be due to the serum. (47)

Desire and aversion, pleasure and pain, virtue and vice, motive12 and intention, endeavour, intelligence18, life-span14 and the sense organs etc. are considered to be self-derived. 15 (48-49)

Hearing, touching, seeing, tasting and smelling are said to be the five perceptive organs, the objects of their functions

The rasaja elements are obviously related to the quality of nourishment, while the ātmaja factors pertain in principle to the moral quality of the mind and the character of the individual. It may not be forgotten that atman involved in the compound atmaja, refers to the transmigratory soul which is a repository of good and bad actions, moral and immoral tendencies, knowledge and ignorance etc. (cf., Caraka Śā. Sthā. 3.16 and 18 agreeing to a large extent).

Now, the author goes on to complete the picture, as it were, by relating the various instruments and physical organs with their respec-

- 8. 'S' defines upacaya as fattiness.
- 9. 'S' defines viddhi as augmentation of volume or extent.
- 10. The word supti of the text also means sleep and laziness.
- 11. Sthiti has a text variant in dhiti, i e., fortitude; but there seems to be no substantial difference in the meaning.
- 12. The word bhavana signifies a unified process of motive and intention. Intention is neatly an activity of the conscious mind, but motive may be deeply related to the subconscious and the unconscious. Bhāvanā comprehends the total process.
- 13. Jnanam of the text is quite difficult to translate. The word signifies undistorted perception. Though 'knowledge' is one of the meanings of the word, as it is understood today in the sense of accumulated experience and memory of facts, january can hardly be rendered as such. In the context in which it used, it can signify, what we understand by 'consciousness', provided it is not confused with self-consciousness. If by jnanam we understand the capacity for undistorted perception, then the word 'intelligence' used in its widest connotation, seems to be the nearest equivalent. In the Vedantic parlance, jñanam signifies witness consciouseness, i.e., the consciousness which is not a modification of mind Thus intelligence, here, has been used in the sense of pure consciousness, i.e., undelimited consciousness
- 14. Ayus literally means the period of life.
- 15. Atmaja refers to the character of the individual soul as it has developed in the countless past lives.

The organs of sense-perception have Brahman for their source, 16 while others take them to be material (in nature). (53ab)

The inner instrument called 'individual nature' 17, differentiated by the type of character, is considered to be threefold. (53 cd)

The author, according to 'S', has enumerated memory, illusion and choice as some of the functions of the intellect. Memory includes knowledge and illusion is ultimately an error of judgement or a perversion of perception. Choice as related to action has already been explained as the function of buddhi.

'S' quotes Vacaspatyam which says that the mind and the intellect (i. e., manas and buddhi) combined together make for the apparent feeling, 'I exist'. In other words, mind and intellect are responsible for 'self-consciousness'.

Here obviously the author is elucidating the principle of individual predisposition.

Anta hkarana comprising the mind (manas) and the intellect (buddhi), or in other terms, will and practical reason, operates at the conscious level in modern terms. Apart from this the individual has another instrument in terms of consciousness, that functions at a deeper level.

16. 'S' elucidates this point as under :-

"The Vedantins consider Brahman to be the cause of (the power of) the 'indriya-s' (i.e., the sense organs and the organs of action including the inner instrument) for indeed they consider Brahman to be the cause of entire appearance of the world phenomenon. Alternatively, the Sankhya-s would interpret the phrase brahmayonini in the sense that they are not material. Others, i.e., the Vaisesika-s consider these organs to be material, since they are produced from the five elements such as earth, water, etc., which are physical."

However, the elucidation of 'S' with reference to Vedanta is based on very general grounds and thus loses significance. The Sānkhya philosophy considers entire prakțti as inert; and, therefore, it is not understood how the Sānkhya-s can consider the organs to be immaterial. Actually the Sānkhya system considers purușa to be absolutely inactive. Consequently ahamkāra, i. e., the cause of self-consciousness is considered to be the cause of senses. Again in the Vedāntic view the world is an appearance of Brahman, which in its cit aspect can be considered to be the cause of sense perception.

17. Sattva, literally means—nature, essence, natural character, inborn disposition, mind and consciousness. In this context, 'S' takes it to be consciousness, as the third aspect of antalkarana, the inner instrument.

The guna-s are sattva, rajas and tamas, i.e., purity<sup>18</sup>, activity and inertia. From the mental disposition<sup>19</sup> of

According to the Sankhya system, the inner instrument is threefold comprising the mind, the intellect and consciousness as the cause of selfawareness. Sattva is defined by 'S' as svabhava, i.e., individual nature or predisposition Three types of individual dispositions are discerned here on the basis of the predominance of any one of the three guna-s. Guna is an ingredient or a constituent of praktii as spoken of in the Sankhya system of Indian philosophy. Praktti is manifestation and Purusa is the intelligent principle involved. It will not be relevant to go into the philosophical exposition of the Sankhya doctrine here, but it is perhaps necessary to point out that it visualises two states of being, viz. the one of dissolution in which the three guna-s of praktti are in equilibrium and the intelligent principle Purusa is dissociated from it; and the other of creation, when the equilibrium of the guna-s is disturbed and by their varied predominance in association with the intelligent principle Purusa, they create the phenomenon of names and forms. So, the individual nature of the individual is instrumental in the individual creation to the intelligence involved in the individual being. Thus the mind, conscious and unconscious, is conceived here as the inner instrument for the functioning of the consciousness of the individual. Therefore, the individual consciousness as associated with the predominance of any one of the three guna-s is discerned to be of three types. The three guna-s seem to represent, what in our terms, we would understand as the two opposites and the centre of their axis, the centre being the sattva.

It is interesting to compare Susruta (Śz. Sthz. 1.19) on this subject. "An absence of all-killing and hostile propensities, a judicious regimen of diet, forbearance, truthfulness, piety, a belief in God, spiritual knowledge, intellect, a good retentive memory, comprehension and the doing of good deeds irrespective of consequences are the qualities which grace the mind of a person of a sattoika temperament. Feeling of much pain and misery, a roving spirit, non-comprehension, vanity, untruthfulness, non-clemency, pride, an overwinning confidence in one's own excellence,

<sup>18.</sup> Rajas and tamas have been rendered here as activity and inertia which are not only opposite in nature but are also relative while sattva is rendered as purity being free of the extremities. There are other sets of words in which too the three guna-s are rendered into English but the essential point is that they imply the two opposites and the transcendental principle of sattva.

<sup>19.</sup> The three types of inner disposition or consciousness have one of the three guna-s as its predominant factor conditioning the entire consciousness.

purity<sup>80</sup> arise faith<sup>21</sup>, single-minded devotion to virtue etc.<sup>22</sup> from the disposition of activity arise affections such as craving, anger, arrogance, etc.; and from the disposition of inertia spring sleep<sup>28</sup>, laziness<sup>24</sup>, inattention<sup>25</sup>, anguish and deception etc. (54-55)

Clear sensibility, freedom from ill health and laziness<sup>27</sup> are contributed by self-adaptation. (56ab)

lust, anger and hilarity are the attributes which mark a mind of a rājasika cast. Despondency, stupidity, disbelief in the existence of God, impiety, stupefaction and perversity of intellect, lethargy, inaction and sleepiness are the qualities which mark a mind of a tāmasika stamp." (reproduced from Eng. tr. by K.K. Vol. II, p. 1).

'S' defines Satmya as cira-paricaya-samskara-visesah, i. e., the residual effect of long-standing association (verse 44 ante). From the account of Caraka (Sa. Stha. 3.7) it appears that the word Satmya is associated with right type of dietary habits of the parents. Thus, in all probability what is meant by satmya in this context is, the habits and disposition acquired by adaptation.

- 20. On the above basis the function of the predisposition of purity, predominated by sattvaguna is fundamentally and categorically different from that of the other two dispositions, predominated by rajas and tamas.
- 21. Astikya is defined by 'S' as belief in the existence of the other world, para-loka, while generally it is defined as belief in the testimony of Vedas being the means of valid knowledge. Thus this concept does not, in the Hindu tradition, imply belief in personal God.
- 22. Dharma involves so many varied and yet related concepts that it is almost impossible to render it into English without compromising the meaning in some respect. Here, dharma may be understood with reference to adharma. Dharma, as such is living in harmony with the nature of existence. 'S' perceives a hint at the attainment of spiritual liberation through the cultivation of purity by the use of the word 'etc.'
- 23. 'S' defines nidrā, i. e. sleep as the withdrawal of the mind from the contact of the senses with the sense objects. It therefore includes the dreamful and the dreamless states of consciousness.
- 24. 'S' defines alasva, i.e., laziness as indifference or inactivity with reference to desired objects and the means of their attainment.
- 25. 'S' defines pramada as lack of concentration or slackness in attention in a particular direction.
- 26. Arogya is freedom from disease.
- 27. Absence of laziness is indicated.

(v) देहस्य भृतात्मकता

देहो भूतात्मकस्तस्मादादत्ते तद्गुणानिमान् ।।५६॥ शब्दं श्रोत्रं सुविरतां वैविक्त्यं सूक्ष्मबोद्धताम् । बिलं च गगनाद्वायोः स्पर्शं च स्पर्शनेन्द्रियम् ॥५७॥ उत्क्षेपणमवक्षेपाकु अने प्रसारणिमतोमानि पञ्च कर्माणि, रूक्षताम् ॥५८॥ श्राणापानौ तथा व्यानसमानोदानसंज्ञकान्। नागं कुर्मं च कुकरं देवदत्तं धनञ्जयम् ॥४९॥ दशेति वायुविकृतीस्तथा गृह्णाति लाघवम्। तेषां मुख्यतमः प्राणो नाभिकन्दादधः स्थितः ॥६०॥ नासिकयोर्नाभौ चरत्यास्ये हदयपद्भजे । शब्दोच्चारणिनःश्वासोच्छासकासादिकारणम् ।।६१।। अपानस्तु गुदे मेढ्े कटीजङ्गोदरेषु च। नाभिकन्दे वङ्क्षणयोरूरुजानुनि तिष्ठति ॥६२॥ मूत्रपुरीषादिविसर्गः कर्म कीर्तितः । व्यानो ऽक्षिश्रोत्रगुल्फेषु कटचां झाणे च तिष्ठति ।।६३।। प्राणापानघृतित्यागग्रहणाद्यस्य समानो व्याप्य निखिलं शरीरं विह्निना सह ।।६४॥ द्विसप्ततिसहस्रेष नाडीरम्ध्रे ब भूक्तपोतरसान्सम्यगानयन्देहपुष्टिकृत् 118311 पादयोरास्ते हस्तयोरङ्गसन्विषु । देहोन्नयनोत्क्रमणादि प्रकीतितम् ।।६६॥ त्वगादिधातूनाश्चित्य पञ्च नागादयः स्थिताः । उद्गारादि निमेषादि क्षुतप्रभृति च क्रमात् ॥६७॥ तन्द्राप्रभृति शोफावि तेषां कर्म प्रकीतितम्।

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अग्नेस्तु लोचनं रूपं पित्तं पाकं प्रकाशताम् ॥६८॥ अमर्षं तैक्ष्ण्यमूष्माणमोजस्तैजश्च शूरताम् ।

मेधावितां तथा ऽऽदत्ते जलात्तु रसनं रसम् ।।६९।।
शैत्यं स्नेहं द्ववं स्वेदं मूत्रादि मृदुतामि ।
भूमेर्घ्राणेन्द्रियं गन्धं स्थैयं धैयं च गौरवम् ।।७०।।
शमश्रुकेशनखं दन्तानस्थ्याद्यन्यच्च कर्कशम् ।

(v) The five great elements (mahābhūta-s) and the human body: 56c-71b

The body is a composite of the (five) great elements<sup>1</sup> (mahābhūta-s) and has therefore acquired their qualities (as herein described); sound, the faculty of hearing, porosity, individuation<sup>2</sup>, intelligence<sup>3</sup> and hollowness from space; and touch, the sense organ for touch, five types of motion, viz.

The physical body is a conglomeration of the five great elements and as such it has inherited, as it were the qualities of those elements. The sense organs are naturally related to their respective objects of perception. The objects of perception are the five elements in different forms and combinations. Thus either we can speak of the five sense objects or the five elements. This is the reason why sound, for example, is separately mentioned from the faculty of hearing and touch is mentioned as distinct from the sense of touch (cf., Caraka Śā. Sthā. 1.30).

The objects such as sound etc. are known to be the sense objects, i. e. the qualities or objects of senses; and they in the body are indicative of the great elements such as ether etc. In this context it might be useful to refer to the concept of Puruşa, i. e., the individual being as found in Caraka (Śā. Sthā. 1.15), viz. (the five elements). Ether etc. with consciousness as the sixth make for the individual being. Consciousness is thus the spiritual element and the five material elements compose the body. Again Śā. Sthā. 5.4-5 states—

"The macrocosm is said to be constituted of six elements, viz., earth, water, fire, air, ether and the unmanifest 'Brahman (transcenden-

- 1. The five great elements are earth, water, fire, air and ether.
- 2. Vaiviktyam is separativeness.
- 3. What is literally meant is the capacity of subtle discernment, the ability to grasp the abstract.

upwards, downwards, contraction, linear movement and expansion from air. (56c-58d)

The ten modifications of air (breath in the body), viz. apāna, vyāna, samāna, udāna, nāga, kūrma, kṛkara, devadatta and dhanañjaya and roughness<sup>4</sup> as well as lightness<sup>6</sup> are also derived from the air. (58d-60b)

Of these (ten), prāṇa, which is the most important one, is stationed below the root of the navel, and it operates through the mouth, the nostrils, the navel and the heart,

tal reality); and these very six elements it is said, constitute the microcosm called Purusa. Of that Purusa, the earth forms the image, water forms the liquid, fire constitutes the heat, air acts as the vital breath. hollowness is caused by ether and Brahman is the inner soul etc." Compare this with Susruta (Sa. Stha. 1.20): "The properties of akasa (ether) are sound, the sense of hearing, porosity and differentiation, evolution of the veins, ligaments, etc. into their characterised species (viviktata). The properties of vayu (etherin) are touch, the skin, all functional activities of the organism, throbbing of the whole body (spandana) and lightness. The properties of teja (fire or heat) are form, the eyes, the colours, heat, illumination, digestion, anger, generation of instantaneous energy and valour. The properties of apa (water or liquid) are taste, the tongue, fluidity, heaviness, coldness, oleaginousness and semen. The properties or modifications of prthvi (the earth matter or solid) are smell, the nose, embodiment and heaviness" (reproduced from Eng. tr. by K K. Vol. II. p. 120).

Our author has dealt with this subject rather elaborately (i.e., from verse No. 56cd-7lab) giving minute details of the various pranas (vital breaths) from the science of Yoga (vide Verse Nos. 59-68ab). One is tempted to reach for the original source and reflect on the subject in proper detail; but obviously, that would be too great a divergence from the main subject of this work. It will be seen that as far as the particular qualities of the great elements manifested in the human body are concerned, the author's description is not at great variance with this account, though in some respects both are more elaborate with reference to each other.

<sup>4.</sup> Rūkṣatā, as defined by 'S' is caused by the scarcity of oily matter. Roughness is not here the opposite of smoothness.

<sup>5.</sup> Weightlessness is defined by 'S' as absence of weightfulness.

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and (thereby) causes the verbalisation of speech, the inhalation and exhalation of the breath and also sneezing and coughing. (60c-61)

Apāna<sup>6</sup> is stationed in the anal region and the genitals,<sup>7</sup> waist, legs, abdomen, the root of the navel, the groin, thighs and the knees. Its function is to discharge urine and excretion etc.<sup>8</sup> (from the body). (62-62b).

Vyāna dwells in the eyes, ears, ankles, waist and the nose, and its function is to draw in, hold and to push out breath. (63c-64b)

Samāna pervades the whole body; and running through the seventytwo thousand nerve-channels of the body accompanied by the (digestive) fire, helps to nourish it by carrying essence of lymph-chyle (rasa) of the food and drink (to the tissues) and distributing it proportionately. (64c-65)

Udāna abides in the hands, the feet and the joints of the limbs: its function being the lifting of the body upwards and breathing the last, i.e., dying, etc. 10 (66)

Residing in elements such as skin, etc.<sup>11</sup> are the five (other modifications of the vital breath) such as naga etc.<sup>12</sup>,

Prana, apana, etc. are the ten modifications of the vital breath, as it functions through the parts of the body. These functions as appropriate to each of the ten modifications are related in the following text.

6. Apana generally denotes the outgoing breath i.e. expiration; it also signifies one of the five life-winds (prana-s) in the body which goes downwards and finally goes out through the anus.

7. Literally, anus and penis as per the text.

8. Etc. according to 'S' indicates that the discharge of semen is implied.

9. Nads is any tubular vessel including arteries, veins, etc. Here the word has been used in its generic sense of a tubular channel.

10. 'Etc.' is indicative of hiccup etc. The use of the word 'etc.' is not strictly in keeping with the English idiom but because of its Sanskrit counterpart.

11. The other four being blood, flesh, fat and bones.

12. The other four being kurma, kikara, devadatta and dhananjaya.

performing the function of eructation etc. 13, winking etc., 14 sneezing etc. 15, lassitude etc. 16 and swelling respectively. (67-68b)

From fire (the body acquires) sight<sup>17</sup>, form<sup>18</sup>, bile, digestion<sup>19</sup>, lustre, wrath, sharpness, heat<sup>20</sup>, vigour, splendour, valour<sup>21</sup> and intellectuality.<sup>22</sup> (68c-69c)

Likewise, from water (it derives) the sense of taste, relish, coolness, viscidity<sup>28</sup>, fluidity, perspiration, urine etc. as well as softness: and from the earth (it acquires) the sense of smell, odour, stability, fortitude and heaviness (weight), beard, hair (on the head etc.), nails, bone and such other hard (materials). (69d-71b)

According to the ayurvedic theory, sense perception takes place because of the fact that the senses as well as the sense-objects are basically made out of the same material, and so there is a correlation in between them. The senses and their respective sense objects are related through their respective tanmatra-s. This is the reason why the object of one sense cannot be perceived through the other senses (cf., Suśruta Śa. Stha. 1-15).

- 13. Such as spitting etc. is included.
- 14. Any other functions of the eyelids.
- 15. Blowing the nose etc. is indicated.
- 16. Yawning etc. is included.
- 17. The sense of seeing is meant.
- 18. The object of the sense of seeing is implied.
- 19. The paka of the text indicates the result of the entire process of digestion, right from the undigested food to the formation of the lymph-chyle to be assimilated into the blood system.
- 20. Uşman of the text is indicative of that particular heat in the body which causes perspiration.
- 21. Valour implies fearlessness.
- 22. 'S' interprets it as the power inherent in the non-forgetfulness of the known.
- 23. The oiliness in the body. 'S' interprets it as 'sweetness of speech'.

## (vi) त्रिविधदेहानां भेदकथनम्

वातादिधातुप्रकृतिर्व्यामादिप्रकृतिस्तथा ।।७१।।
सप्तधा सात्त्विको यश्च ब्रह्मेन्द्रयमविग्रहः।
वारुणश्चाथ कौबेर आर्षो गान्धर्वविग्रहः।।७२।।
राजसः षड्विधो यश्च पेशाचो राक्षसस्तथा।
आसुरः शाकुनः सार्पः प्रेतदेहस्तथा परः।।७३।।
तामसस्त्रिविधो यश्च पशुमत्स्याङ्घ्रिपाकृतिः।
तेषां लक्ष्माणि न ब्रूमो ग्रन्थविस्तरकातराः।।७४।।

(vi) The constitution of bodies: Threefold classification: 71c-74

The constitution is according to dhātu-s such as vāta (wind) etc., and elements such as space etc. The sāttvika (constitution) is of seven types such as the bodies of Brahmā<sup>8</sup> Indra<sup>4</sup>, Yama<sup>5</sup>, Varuṇa<sup>6</sup>, Kubera<sup>7</sup>, ṛṣi<sup>8</sup> and gandharva<sup>9</sup>; the

The constitution of the physical body of creatures is considered from three different points of view, viz, the medical, the physical and the metaphysical, respectively known in Ayurveda as dosa-prakti, bhautikt-prakti and mahā-prakti. The first comprises of the three ayurvedic principles of vāta, pitta and kapha, i. e., grossly manifest as wind, bile and phlegm; the second is purely physical, comprised of the five basic elements space, zir, fire, water and earth, and the third is conceived to be threefold according to the predominance of three guṇas.

- 1. Wind etc. signifies the three humours of the body recognised as the three basic-elements of the body in the ayurvedic system of medicine. The other two are bile and phlegm.
- 2. Space or ether along with the other four elements air, fire, water and earth
- 3. The creative aspect of the Hindu trinity.
- 4. The chief of the gods of the Hindu pantheon, specially the deva-s.
- 5. God of death.
- 6. God of waters and morality.
  - 7. God of wealth.
  - 8. Sage.
  - 9. Semi-divine beings associated with music.

## (vii) देहस्य षडङ्गानि

पिण्डस्याहुः षडङ्गानि शिरः पादौ करौ तथा । मध्यं चेति

rājasika (constitution) is of seven types such as the bodies of piśāca<sup>10</sup>, rākṣasa<sup>11</sup>, asura<sup>12</sup>, śakuni<sup>18</sup>, sarpa<sup>14</sup> and preta<sup>15</sup>; and tāmasika (constitution) of three types such as the bodies of animals, fishes and trees.<sup>16</sup> Apprehending undue elaboration of the work, these are not being defined by us. (71c-74)

(vii) Six organs of human body: 75abc

The human organism<sup>1</sup> is said to be possessed of six organs

The author has referred to the first two, i. e., doṣa-prakṛti and bhautiki-prakṛti clearly (vide Verse 71cd), but has not mentioned the general category of mahā-prakṛti and has straightaway described its three divisions. This illustrates the subtlety and the extreme brevity of the aphoristic style of the author's expression, which sometimes makes understanding a laborious process

The seven types of the sāttvika and rājasika and three types of tāmasika constitutions respectively are described metaphorically through the symbolic names of Brahmā, Indra, Yama, etc. All these are in fact the types of human bodies but they have been so named as to indicate their chief characteristics, which are well-known in Āyurveda. Obviously we need not go into these details. As the author is not anxious to deal with the subject in greater detail, it will be too great a digression to define and elucidate the various individual types of bodies referred to in the text.

- 10. A malevolent being, a goblin.
- 11. A demon, an evil spirited being.
- 12. Asura is a general name for the enemies of gods.
- 13. A bird.
- 14. A snake.
- 15. Soul of a dead body; the word preta literally means that which has been sent, i.e. sent to the other world, preta-loka is the plane of consciousness on which the soul experiences the fruits of of actions done in the world during a life-time before being born anew. In order to do so the soul is provided with a subtle body.
- 16. K. R. translates anghripa as 'elephant'.
- 1. Pinda of the text refers to the body, excluding the soul, i. e., the intelligent principle.

## (viii) देहस्य प्रत्यङ्गानि

### 1. ग्रन्थकृत्प्रतिज्ञा

अथ वक्ष्यन्ते प्रत्यङ्गान्यखिलान्यपि ।।७५।।

## 2. त्वचः कलाश्च (प्रत्येकं सप्तधा)

त्वचः सप्त कलाः सप्त स्नायुश्लेष्मजरायुभिः।

छुन्नाः कोशाग्निभिः पक्वास्ता धातूनन्तरा उन्तरा ।।७६।।

(or limbs)—two feet, two hands<sup>3</sup>, the head<sup>4</sup> and the trunk. (75a-c)

(viii) Sub-organs of human body: 75c-119

1. Author's proposal to deal with the sub-organs: 75cd

Now, the sub-organs will be dealt with in their entirety. (75cd)

2. Skins and membranes: 76-78

There are seven skins and seven membranes, enclosed by fibrous tissues, mucous and membranous coverings, that ripen through the internal heat<sup>1</sup> of the tissues and act for the boundary lines to sustain in-between them the supportive

The suborgans are described by the author at length, i. e., upto verse No. 119. For the enumeration of the suborgans Susruta 5. 3-5 may be consulted.

The sevenfolds of skin from the innermost tender one to the outermost rough skin, are mentioned by Susruta (cf. 4. 3.5), though in the

2. Legs are implied in feet.

3. Arms are implied in hands.

सीममूताश्च धातूनां काष्ठ्यारोपमा मताः। आद्या मांसधरा मांसे सिरा धमनयस्तथा।।७७॥ स्नायुस्रोतांसि रोहन्ति पङ्के पङ्कजकन्दवत्। असृङ्मेदः श्लेष्मशकृत्पित्तशुक्लधराः पराः।।७८॥

tissues<sup>2</sup>, conceived on the analogy of pith. The first is māmsa-dharā (i. e., the flesh-holding one).<sup>3</sup> (76-77c)

The veins, arteries, muscles (or sinews) and the channels arise from the flesh as the bulbous root of the lotus (springs) from mire; while the other folds support the blood, fat, mucous, excrement, bile and semen. (77c-78)

reverse order. Our author begins with the innermost fold while he begins with the outermost one. The seven layers are as under:

- 1. Avabhāsinī... Horney layer
- 2. Lohita ... Stratum lucidum
- 3. Sveta ... Stratum granulosum
- 4. Tamra... Malpighian layer
- 5. Vedini ... Papillary layer
- 6. Kohini ... Recticular layer
- 7. Māmsadharā... Subcutaneous tissue and Muscles

However, Caraka speaks of only six layers, viz, udakadharā (that which holds water) and asīgdharā (that which holds blood), etc. in the order of outer to the inner. Modern medicine distinguishes only two skins, outer and inner called epidermis and dermis, the former is perceived in five layers and the latter in two layers.

For greater detail regarding the various skins and skin-diseases associated with them, Susruta 4.3 may be referred to. The seven kala-s are identified by Susruta as under (cf., Sa. Stha. 4. 4-19);

- 1. Mamsadkarā kalā ... Fascja
- 2. Raktadharā ,, ... Vascular tissue of the blood yessels, etc.
- 3. Medodharā " ... Adipose tissue
- 2. Supportive tissues are dhatu-s of the text that are detailed in the next verse.
- 3. The other skins are not mentioned by our author by name, these may be seen in the comments.
- 4. Stoia-s are the channels or canals that open outwards in the hody.

5

<sup>4.</sup> Cf, Caraka, Śā. Sthā. 7.5, who includes neck also along with the head, giving a composite expression of firogritum. In the text the head is mentioned first.

<sup>1.</sup> The expression internal heat of the tissues stands for kośagni of the text.

#### 3. धातवः

त्वगसङ्मांसमेदो ऽस्थिमज्जशुक्राणि धातवः। सप्त स्युस्तत्र चोक्ता त्वग्रक्तं जाठरविहनना ।।७९॥ पक्वाद्भवेदन्नरसादेवं रक्तादिभिः स्वस्वकोशाग्निना पक्वेर्जन्यन्ते धातवः क्रमात् ॥६०॥

#### 3. Supportive tissues: 79-80

Serum<sup>1</sup>, blood, flesh, fat, bone, marrow and semen are the seven supportive tissues. Of these the serum and the blood are produced from chyme<sup>2</sup> created by the aid of

- 4. Ślesmadhara ,, ... Synovial tissues
- 5. Purisadhara ... Separates the faecal refuse in the lower
- " ... Holds the chyme derived from food Pittadhara
- 7. Sukradhara ... Bears semen and extends throughout the

The folds of skin and the membranes (kalā-s) spoken of above in constitution are conceived on the analogy of pith, i. e., as the pith in the wood is grown layer after layer varying in strength so are they grown about each other. Another simile is also given, viz., as the lavers of cream are formed over milk heated on slow fire, so also the various folds of skin along with membranes are formed out of seven supportion tissues (dhātu-s) of the body which are detailed in the next verse,

The seven supportive tissues are spoken of as being sustained inbetween the various folds and layers of the seven skins and the seven membranes (kala-s). The first layer called mamsadhara, holds withit itself, flesh as it has already been told above. Now the author is pointing out that veins, arteries, muscles and the channels (srota-s) are all rooted in flesh as the lotus-stalk is rooted in the mire.

Srota-s are the canals in the body, nine in number such as the ears, eyes, mouth, nostrils, anus and the urethra opening outward. Females have two more, viz., the two breasts and the canal or the channel that carries the menstrual blood.

Thus the mā insadharā, i.e., the flesh-holding skin is the most important of all and having described its function, the author merely hints at

- 1. Tvak is used in the technical sense of rasa (serum).
  - 2. Chyme is the nutrient-solution made out of digested food and drink,
  - \* Ad. ed. reads शुक्लानि.

## 4. आश्याः (सप्त)

रक्तश्लेष्मामिपत्तानां पक्वस्य मरुतस्तथा।

मूत्रस्य चाश्रयाः सप्त क्रमादाशयसंज्ञकाः ॥ ६१॥

गर्भाशयो ऽष्टमः स्त्रीणां पित्तपक्वाशयान्तरे।

gastric fire; while the other (elements) are produced from blood, ripening by the internal heat of their respective Heart and the seas of heartiles one a fixe may

## 4. The receptacles (asaya-s): 81-82b

There are seven containers1 called receptacles2 for blood, phlegm, undigested food, bile, digested food, bodily wind and urine known by their respective names8. Women

the function of the Other six folds that respectively hold or support the rest of the six elements. In fact our author has synthesised the description of the skins and the membranes for the sake of brevity as it will be clear from our exposition of the subject matter, vide comments on

Way to build me shape when the Then the author goes on to explain how the seven supportive tissues are produced. He says, the skin and blood are produced directly from the essence of food and drink digested through the gastric fire, while the rest of them are produced from blood as they are ripened in the heat of their respective tissues.

The seven receptacles (nsaya-s) are identified as under:

- for blood ... Spleen and liver 2. Ślesmaśaya
- " phlegm ... Breast 3. Amāšaya
- " undigested food... Stomach 4. Pittaśaya ,, bile ... Gall bladder and pancreas
- 5. Pakvaśaya ,, digested food ... Intestines
- 6. Vatasaya ,, wind ... Lungs and colon 7. Mūtrāsaya
- ,, urine ... Urinary bladder 8. Garbhasaya " embryo ... Uterus
- 3. Internal heat of the tissues is the expression for kośagni. Kośa is that which has a capacity to retain something other than
- Cavities or viscera. Aśaya-s.
- Respective names of blood etc. to be attached to the word aśaya, e.g., raktaśaya, vataśaya, etc.

## 5. हृद्यस्य चेतनस्थानत्वम्

प्रसन्नाभ्यां कफासृग्भ्यां हृदयं पङ्काकृति ॥६२॥ सुषिरं स्यादधोवक्त्रं यकृत्प्लीहान्तरस्थितम् । एतच्च चेतनस्थानं,

have the eighth, the womb in-between the receptacles for bile and the digested food. 4 (81-82b)

### 5. Heart as the seat of intelligence: 82c-83c

The heart is hollow and in the shape of an inverted lotus situated in-between the liver and the spleen and is developed from clear blood and phlegm. This too is the abode of consciousness. (82c-83b)

These receptacles function as the containers or the vessels. Seven of these are common to males and females while women have one more, viz., uterus placed in-between the gall bladder and the intestines.

That heart as an abode or the seat of consciousness in the body is well recognised by some schools of thought of Indian philosophy. Even the upanisads proclaim that the Purusa, i. e., the soul or the spirit resides in the heart. But this can be a metaphorical expression.

The expression cetana-sthanam is difficult of being rendered into English with its philosophical implications As it is, it means the abode of sentience. 'K' has laboured hard to forbid the reader from interpreting it as the abode of Jivatman, i. e, the transmigratory soul, and he therefore interprets the conjunctive ca (and) as indicative of other places such as space etc. which also is considered to be the abode of Brahman the absolute Being. Perhaps he, being a vedantin, identifies cetand with Brahman, and therefore feels that heart should not be considered as the only abode of sentience. Therefore, he maintains that heart is the abode of the manifestation of Brahman, the absolute Being. One can, however, cut across the philosophical implications by taking into account the next verse along with this one. If so read, it is obvious that the word cetana of the text is not used here in the sense of caitanya, i. e., pure intelligence, but has been used in the sense of consciousness. But this too must be taken metaphorically for consciousness being intangible can hard ly be located anywhere in the body with justification. But nevertheles consciousness works through the brain, which is controlled by the hears

### 6. जीवस्य अवस्थात्रयम्

, तर्दास्मस्तमसा ऽऽवृते ॥६३॥

निमीलित स्विपत्यात्मा जार्गात विकसत्यिप ।

द्वेधा स्वप्नमुषुप्तिभ्यां स्वापो बाह्येन्द्रियाणि चेत् ॥६४॥

लीयन्ते हृदि जार्गात चित्तं स्वप्नस्तदोच्यते ।

मनश्चेल्लीयते प्राणे सुषुप्तः स्यात्तदा ऽऽहमनः ॥६४॥

स्वमपीतः परात्मानं स्विपत्यात्मेत्यतो मतः ।

#### 6. The three states of consciousness: 83d-86b

That (intelligent principle) being enveloped by darkness<sup>1</sup>, it (the heart-lotus) closes (upon itself) and the ātman<sup>2</sup> (the spirit) sleeps; it (ātman) awakens, while that (the heart) opens up. (83d-84b)

It seems that the whole expression is metaphorical. Heart is the centre of the physical body, and as such it is used as the symbol for the centre of consciousness, which is the ego or the soul. Man, here, is conceived to be the complex entity: spirit-soul-body. Spirit being the divine element in man, the Atman which is not different from Brahman, the absolute; the soul is the jivatman, the embodied self, subject to transmigration. The heart-lotus is the symbol of self-consciousness. Therefore, when the spirit is clouded by inertia (tamas) the heart-lotus closes its petals upon itself and the spirit, i.e., the intelligent principle ceases to operate, and is thus said to be asleep. Conversely, when inertia is dissipated, the spirit awakens into self-consciousness and the heart-lotus is opened up.

'K' interprets this in terms of Vedānta (absolutistic). He explains the phenomenon of sleep as explained in the text as follows: "The intelligent principle being enshrouded by the darkness of beginningless ignorance, when the heart-lotus closes, then the ātman, the soul (i. e., the self-conscious being, the jīva) sleeps; and when that lotus opens up, the jīva, the self-conscious being, awakens and feels 'I am'." It is notable that in this verse 'K' interprets ātman as jīva.

After giving the above interpretation, he then gives the substance in the following manner: "In the state of self-conscious existence due to

<sup>4.</sup> Cf., Suśruta Śa. Stha. 5. 7-8.

<sup>1.</sup> Prasanna, means clear in the sense of clean and pure.

<sup>1.</sup> Inertia.

<sup>2. &#</sup>x27;K' interprets it as jiva, here.

Sleep is twofold, dreamful and dreamless: when the external senses are withdrawn into the heart and the mind remains awake, it is said to be dreamful; but, if the mind is withdrawn unto  $pr\bar{a}na^3$  (the vital breath) then it (the sleep)

the beginningless ignorance with regard to the real nature of one's being, the individual obtains in the conditions of the waking state, the dreamful state and the dreamless sleep state under the respective names of viśva, taijasa and prajña.

This elucidation, enlightening as it is, is technical as well. The purport is that Life-essence or the absolute Being, in the state of individuated being lives under the influence of beginningless ignorance in the three conditions of consciousness technically called viśva, taijasa and prājña, that correspond to the waking, the dreamful and the dreamless sleeping states. Ignorance is nothing but the self-imposed limitation of personality complex, and the three states roughly correspond to the conscious, the subconscious and the unconscious mind of modern psychology.

What is the distinction between the dreamful and the dreamless sleep? Because, apart from the waking state of the consciousness, these are the two other states. The author explains that in the dreamful sleep, energy or attention is withdrawn only from the external sense, but the mind keeps awake, a part of the brain is actively functioning, i.e., the thought process keeps on going resulting in dreams. Thus, in the absence of the sense perception, the thoughts are the only objects of consciousness, and the distinction between the ideal and the actual form of objects is lost to it. That is why dreams are as real in the dreamful state as the physical world is during the waking state, and therefore one cannot be said to be more real than the other with reference to its consciousness.

The dreamless sleep is caused by the mind being dissolved, i.e., withdrawn, unto prana (vital breath). One can quite understand that in the deep sleep the mind is withdrawn, but that it is withdrawn unto prana is a paradox. The Vedanta speaks of five vestures, viz., the physical (annamayakośa), vital (pranamayakośa), mental (manomayakośa), psychic (vijnanamayakośa) and blissful (anandamayakośa). In this scheme the mind which pertains to the mental vesture is subtler than prana (vital breath). Therefore, it is not intelligible how a subtler entity can be dissolved in a grosser one, for usually the case is contrary.

#### 7. नव स्रोतांसि

## श्रवणे नयने नासे वदनं गुदशेफसी ॥६६॥

becomes dreamless or the deep sleep state of the individuated being<sup>4</sup>. (84c-85)

That the ātman<sup>5</sup> sleeps, is so believed for it dissolves itself<sup>6</sup> unto Parātman<sup>7</sup>. (86ab)

#### 7. The nine canals (srota-s): 86c-87

The embodied human beings are provided with nine canals (srota-s) for the elimination of bodily impurities, viz.,

The statement of the author can possibly be understood in the sense that even while the mind is not functioning in deep sleep, the vital breath does function, and therefore the mind can be said to dissolve in it. Or, alternatively, the dissolution of the mind may be understood in the restricted sense of self-consciousness only, which is related to sense perception and body consciousness, which may not be very satisfactory.

The phenomenon of sleep is elucidated in a few words here on the basis of semantics. The Sanskrit expression for, 'the principle of intelligence sleeps', is 'svapiti'. The author raises the question as to why the atman is said to be sleeping, and he answers—'svamapitah paratmanam', i. e., because it dissolves itself, discards its self-imposed limitations and thereby merges into the supreme Being; and this he does by explaining the meaning of the word 'svapiti', semantically.

Apart from the semantics, the idea expressed is very simple. Atman freed from the limitations of Jivatva becomes one with the Paramatman; in other words, the spirit freed from the limitations of self-consciousness is united with the supreme Deity; and this process exhibits itself, in the phenomenon of sleep. This however, signifies a temporary release.

<sup>3.</sup> It is temporarily dissolved in prana which is not the physical breath only.

<sup>4.</sup> Self-conscious living organism, i.e., jīva.

<sup>5.</sup> The principle of intelligence involved in a self-conscious being.

<sup>6.</sup> Actually what is dissolved is the limitation caused by self-consciousness.

<sup>7.</sup> The supreme Deity, the absolute Being.

बहिर्मलवहानि स्युनंब स्रोतांसि देहिनाम् । स्त्रीणां त्रीण्यधिकानि स्युः स्तनयोर्हे भगे ऽसृजः । । ५७।।

8. जालानि, कूर्चाः, मांसरज्जतः, सीवन्यश्च अस्थिस्नायुसिरामांसस्थानि जालानि षोडश । षट् कूर्चाः करयोरङ्झ्योः कन्धरायां च मेहने ।। दद।। पार्श्वयोः पृष्ठवंशस्य चतस्रो मांसरज्जवः । सीवन्यः पश्च शिरसि हे जिह्वालिङ्गयोर्मते ।। द९।।

ears, eyes, nostrils, mouth, anus and urethra; but the females have three more; two breasts (milk channels) and the one that carries off the menstrual discharge.

8. Plexuses, clusters, fleshy bands and sutures: 88-89

There are in all sixteen plexuses<sup>1</sup> situated around bones, ligaments, veins<sup>2</sup> and flesh; six clusters<sup>8</sup>—two in the hands, two in feet and one each in the neck and penis; four fleshy bands<sup>4</sup> on the two sides of the backbone; five sutures<sup>5</sup> in the head, one in the tongue and one in the genitals, (88-89)

Susruta speaks of four kinds of plexuses, i. e. jāla-s, viz. muscular, vascular, ligamentous and bony. One each of the four kinds is found about each of the wrists and the ankles. All the four kinds of plexuses intermingle and cross one another to form a network. The word jālā literally means a network and the whole body is a network of plexuses as it were (cf., Śā. Sthā. 5.11).

1. Jala-s : cf. Suśruta Śa. Stha. 5.11.

2. Sira of the text here means any tubular vessel such as vein, artery, nerve, etc.

3. Kūrca (lit. a brush), the clusters or groups may be made up of muscles, bones, vessels and ligamentous structure (cf. K. K. Bhishagratna, p. 162).

4. Mainsarajju are muscular cords originating from either side of the spinal column. These are identified by Ghanekar (cf. Vol. 2, p. 145) with Longissimus, Spinalis and Ilio-costalis.

5. Bhishagratna defines sivani as the central tendinous band which looks like a structure from which the muscles on the either side arise. Ghanekar names the sutures as, metopic suture, coronal suture, lambdoid suture, sagittal suture, squamosal suture and rephe of the scrotum and anococeygeal raphe.

## 9. अस्थीनि, तेषां सङ्ख्या भेदाश्च

चतुर्दशाष्टादश वा संमता अस्थिराश्यः।
अस्थ्नां शरीरे संख्या स्यात्षिष्टयुक्तं शतंत्रयम् ।।९०।।
वलयानि कपालानि रुचकास्तरुणानि च।
नलकानीति तान्याहुः पञ्चधा ऽस्थीनि सूरयः ।।९१।।
त्रीण्येवास्थिशतान्यत्र धन्वन्तरिरभाषत ।

9. Bones, their number and types: 90-92b

The group-units<sup>1</sup> of bones are believed to be fourteen or eighteen. The total number of bones in the body is three hundred and sixty. (90)

The sages have classified the bones into five types, viz., valaya, 2 kapāla<sup>8</sup>, rucaka<sup>4</sup>, taruṇa<sup>5</sup> and nalaka<sup>6</sup>. (91)

According to ayurveda the total number of bones in the body is three hundred and sixty; but according to the works of surgery, i. e. Susruta etc. there are only three hundred bones in the whole body (cf. Susruta Sa. Stha. 5.17, where it is said that, "One hundred and twenty bones are to be found in the four extremities, one hundred and seventeen in pelvis. sides, back, chest and abdominal region; and sixty-three are located in the neck and the regions above that.").

Susruta mentions only fourteen group-units, i. e, the collections of bones which are found in the two ankles, the two knees and the two groins, the two wrists, two elbows, two axillas, one in cranium and the other in the sacral region.

- 1. Samphata is a collection with integrity, i. e., a group working as a uuit.
- 2. Valaya type includes bones found in the palm, foot, sides, back, chest and the abdominal region.
- 3. Kapāla type includes the bones situated in the knee joints, shoulders, hips, cheeks, palate, temples and the cranium.

4. Teeth form the rucaka type.

5. Taruna type includes the bones in the nose, ears, throat and the socket of the eyes.

6. Nalaka type of bones, as their name implies, are all the remaining ones of the cylindrical shape.

cf. Suśruta Sa. Stha. 5.21 and Bhishagratna, pp. 165, 166 for further details.

## 10. अस्थिसन्धयः, तेषां सङ्ख्या भेदारच

द्वे शते त्वस्थिसन्धीनां स्यातामत्र दशोत्तरे ।।९२।।

कोरकाः प्रतरास्तुन्नाः सीवन्यः स्युरुलूखलाः।

सामुद्गा मण्डलाः शङ्कावर्ता वायसतुण्डकाः ।।९३।।

इत्यष्टघा समुद्दिष्टा मुनीन्द्रैरस्थिसन्धयः।

Dhanvantari, however, has spoken of only three hundred bones. (92b)

10. Bone joints, their number and types: 92c-94b

As pointed out by the sages, the joints are two hundred and ten in number, classified into eight types, viz. koraka<sup>1</sup>,

The other four group units of bones are—one above the sacrum, one above the chest, one at the junction of the thorax and abdomen, and one at the acromial end of the scapula (cf. Suśrutā Śā. Sthā. 5.15.16. Also see p. 163 Bhishagratna). It is notable that Suśruta concedes that other authorities count four more samghāta-s.

Obviously the joints enumerated here refer to the joints of the bones. These are divided into two classes by the modern medical science, viz., immovable, i.e., synarthrosis and movable, i.e., diarthrosis. The names of the various types such as kora etc. are indicative of the shapes they resemble, and their respective significations are elucidated in the notes. The particular joints of the body covered under each type are as under:

- 1. Koraka-joints in the fingers, wrists, ankles, knees and elbows.
- 2. Pratara-joints in the neck and the spinal columns.
- 3. Tunna-sīvani—joints found in the kapāla bones of pelvis and the forehead.
- Ulükhala or Udükhala—joints in the axilla (i.e. the shoulder
  joint, in the teeth and in the hips).
- 5. Samudga—joints in the region of the anus, vagina, shoulders and hips.
- 6. Mandala-joints around the heart, throat, eyes and kloma.
- 7. Sankhavarta-joints in the bones of the ears and nostrils.
- 8. Vayasatunda—joints on either side of the cheek bones.
- 7. An ancient authority of Indian medical science.
- 1. Koraka, lit. means hinged or lap-shaped.

#### 11. अन्यसन्धीनां संख्या

पेशीस्नायुसिरासन्धिसहस्रद्वितयं मतम् ॥९४॥

#### 12. स्नायवः

नव स्नायुशतानि स्युश्चतुर्धा स्नायवो मताः । प्रतानवत्यः सुषिराः कण्डराः पृथुलास्तथा ।।९४।।

pratara<sup>2</sup>, tunna-śīvanī<sup>3</sup>, ulūkhala<sup>4</sup>, sāmudga<sup>5</sup>, māṇḍala<sup>6</sup>, śaħkhā-varta<sup>7</sup> and vāyasatuṇḍaka<sup>8</sup>. (92c-94b)

11. The number of other joints: 94cd

The joints of muscles, sinews and veins are considered to be two thousand. (94cd)

12. Ligaments<sup>1</sup>: 95-96

There are nine hundred ligaments<sup>2</sup> classified into four

(cf. Suśruta Śā. Sthā. 5. 28-32, Bhishagratna, p. 167, Vol. II and Ghanekar, p. 168, Vol. II.)

The eight types of the joints have been classified by Ghanekar in consonance with the modern medicine as under:

Consonance wi	th the modern med	icine as under:	THE SALES OF THE S
	Kora	Pivot	
	and allegans	Saddle .	
Cala, i. e.		Condyled	Diarthrosis
movable	ALL COLUMN TO	Hinge	
	Vayasatunda	Arthrodia	
	Pratara	Enarthrosis	
	Ulūkhala or	technika iku bilan k	AT MENDENNE OF
Acala i. e.,	Udūkhala	Gomophoses	
immovable			Synarthrosis
	Tunna-stvant	Sutures	on a seek along
	Samudga	Amphiarthroses	

2. Pratara, lit. means a raft.

3. Tunna-stvant means seam-like or dove-tailed.

4. Ulukhala suggests the shape of ball and socket.

5. Samudga is like the back of the palm.

6. Mandala, lit means a circle or circular.

7. Sankhavarta indicates the involutions of a conch-shell.

8. Vayasatunda means the crow-back.

1, 2. Snayu is roughly translated as ligament in this context.

### बन्धनैंबंहुभिबंद्धा भूरिभारक्षमा भवेत्। नौरम्भसि यथा स्नायुशतबद्धा तनुस्तथा।।९६॥

groups, viz., pratānavatī<sup>8</sup> suṣirā<sup>4</sup> kaṇḍarā<sup>5</sup> and pṛthulā.<sup>6</sup> Just as (the planks of) a boat being tied together by many fastenings become strong enough to bear a huge burden (floating) on water, so also (the joints of) the body being fastened by the ligaments (becomes strong). (95-96)

The four groups of the snayu-s correspond to ligaments, sphincter muscles or valvulor bands of muscles, tendons and flattened or ribbon-shaped tendons or aponeuroses as stated by Ghanekar (Vol. II, pp. 158. 159) and Susruta (Sa. Stha. 5.38-40).

In Ayurveda the word snayu also means a muscle, obviously the number 900 includes ligaments, tendons and aponeuroses along with some of the muscles. The word generally means fibrous tissue. So the word snayu has only loosely been translated as ligament. The four types of ligaments are elucidated as under:

- 1. Pratānavatī type: The ligaments of the four extremities and their joints.
- 2. Suşirā ,, The ligaments of stomach, intestines and the bladder.
- 3. Kandara or ,, All the large ligaments.
- 4. Pthula ,, The ligaments of the chest, back, sides and head.

The function of the ligaments is explained by the analogy of a boat. The many planks by themselves cannot serve the purpose of a raft, but when they are joined together and tied to form a boat they become strong enough to carry a certain load across a river; similarly, the various parts of the body when fastened together by the ligaments render the body strong and movable. Such is the importance of the ligaments (cf. Bhishagratna, pp. 168, 169 and Susruta Sa. Stha. 5.30-36).

- 3. Pratanavati lit. means ramifying or branching.
- 4. Suşira lit. means hollow.
- 5. Kandara lit. means a cave and is suggestive of a cylindrical form; however the other name for it, viz., vitta implies a round or a ring shape.
- 6. Pithula is derived from pithu which literally means thick or broad.

### 13. पेश्यः

पन्च पेशीशतान्याहुः शरीरस्थानि सूरयः।
अधिका विशितः स्त्रीणां तत्र स्युः स्तनयोर्दश ॥९७॥
यौवने ताः प्रवर्धन्ते दश योनौ तु तत्र च।
ह्रे अन्तः प्रसृते बाह्ये ह्रे तिस्रो गर्भमार्गगाः ॥९८॥
शङ्कानाम्याकृतियोनिस्त्र्यावर्ता ऽत्र तृतीयके।
आवर्ते गर्भशय्या ऽस्ति पित्तपक्वाशयान्तरे ॥९९॥
रोहिताभिधमत्स्यस्य सदृशी तत्र पेशिका।

अ शुक्रातंवप्रवेशिन्यस्तिस्रः प्रच्छादिका मताः ॥१००॥

13. Muscles: 97-100

The sages speak of five hundred muscles in the body, while there are twenty more in case of women, i.e., ten in the two breasts that grow in youth and ten of the vagina, two spreading outwards<sup>1</sup>, two inside it and three in the vaginal canal. (97-98)

The vaginal canal is in the shape of a conch-shell with three involuted turns<sup>2</sup>, at the last of which lies the foetal

Five hundred muscles in the body along with twenty extra of women make five hundred and twenty which may be compared to five hundred and nineteen of the modern medical science. Regarding the twenty extra muscles of women, Bhishagratna writes on Suśruta (Śa. Sthā. 5. 42-43): "Females have twenty extra muscles; ten muscles are to be found about the two breasts, five in each, which attain their full growth during puberty; four muscles are present about the parturient passage; and of these (four) two are about the external and two in the internal orifices (of the vagina), three about the region of the OS, and three about the passages of the ovum and the sperm." This makes the situation clear. The last three of these are mentioned in the next two verses.

The uterus is like a muscle resembling rohita fish in shape. Suśruta (Sa. Stha. 5. 56) says that uterus resembles the mouth of the rohita fish. It seems that our author too has adopted this idea from Suśruta and if so, then 'matsyasya' of the text may better be read as matsyasya, signifying, not "of the resemblance of" but, "resembling the mouth of" the

<sup>1.</sup> These two constitute the sphincter vagina (cf. Ghanekar on Suśruta Sz. Sthz. 5 55, 56).

<sup>2.</sup> Avarta of the text literally means a whirlpool.

<sup>\*</sup> Ad. ed. reads शुक्ला o

### 14. सिराधमनिकानां सङ्ख्या

सिराधमनिकानां तु लक्षाणि नर्वावशतिः। सार्धानि स्युर्नवशती षट्पश्वाशद्युता तथा।।१०१।।

bed<sup>8</sup> resembling the fish called *vohita*<sup>4</sup> in-between the gall-bladder and the intestines. Three<sup>5</sup> (muscles) are known as the coverings (of the uterus) serving for the entrance of the ovum and the sperm. (99-100).

#### 14. The number of arteries and veins: 1 1

The number of arteries and veins (in the body) is 29, 50, 956 (101)

rohita fish. The mouth of the rohita fish is said to be narrow at the mouth and expanded at the end.

The description of the vaginal canal is compared by Ghanekar with the account given in Gray's anatomy "The vaginal canal like the shape of a conch shell is constricted at its commencement, dilated in the middle and narrowed near its uterine extremity (Ghanekar, Vol. II, p. 164 commenting on Susruta 5.55-56).

He further says that there is nothing like the whirlpools in the constitution of the vaginal canal but its inner layer of skin is marked with ridges.

The word surā denotes veins, nerves, arteries and lymphatic vessels. Our author however is dealing with the arteries separately in the subsequent few verses. Suśruta (Śā. Sthā. 7.2) straightaway speaks of seven hundred sirā-s, therefore the ten primal sirā-s are peculiar to our author who subsequently mentions that these ten branch off into seven hundred. Suśruta who also speaks of dhamanī-s, i. e., arteries later, describes forty principal sirā-s of four types viz., ten vāyu (wind)-carrying, ten pitta (bile)-carrying, ten conveying kabha (phlegm) and ten blood-carrying, which are respectively identified by Bhishagratna (Vol. II, p. 192) as nerves, veins, lymphatic vessels and arteries. Some people, however, interpret sirā-s for veins and dhamanī-s for arteries. But, one cannot really make such a sharp distinction, for the two terms are sometimes used indiscriminately.

3. Garbhāsaya, according to Ghanekar, also means uterus, but here it is the foetal cavity that is indicated.

4. Matsya-sya of the text may be read as matsya-sya-sadfit in view of the above comments.

5. These are the three remaining out of the ten spoken of above (Verse 97-98 ante).

## 15. मूलसिराः, भिन्नसिराश्च

दश मूलसिरा ओजोवाहिन्यो हृदयाश्रयाः।

ह्चङ्गुलं चाङ्गुलदलं यवं यवदलं तथा।।१०२॥

गत्वा द्रुमदलस्येव सीवन्यः प्रतता यदा।

भिद्यन्ते तास्तदा सप्त शतानि परिसंख्यया।।१०३॥

तासु जिह्वास्थिते हे हे वाग्रसज्ञानकारणे।

प्राणे गन्धवहे हे हे मेघोन्मेषकृतौ दृशोः।।१०४॥

श्रोत्रयोः शब्दवाहिन्यौ तासु हे शाङ्गिणोदिते।

15. The number of major and minor vessels of vital essence: 102-105b

There are ten primal (blood-vessels) carrying the vital essence abiding in the heart. (102 ab)

Spaced from two fingers<sup>1</sup> and a half to a barley<sup>2</sup> corn and a half, when the capillaries spread to branch off like the leaf-veins, then they number seven hundred. (102c-103)

Of these,<sup>3</sup> two veins that cause speech and two causing the perception of taste are located in the tongue; two in the nose for the perception of smell and two in the eyes causing the winking (of eyelids); and two pertain to the ears, carrying sound (waves) as declared by Dhanvantari<sup>4</sup>. (104-105b)

The ten primal-tubular vessels springing from the heart are interspaced at the length of two fingers and a half, to begin with; and gradually they branch off into narrower and finer tubular veins etc., spaced at the length of a barley and a half. Thus finally the sirā-s are counted to be seven hundred in all as mentioned by Suśruta, according to whom they spring from the navel region.

- 1. Angula is equal in length to eight barley corns. Twelve angula-s make a vitasti (a span) and twenty-four angula-s make for a hasta (a cubit).
- 2. A measure equal to one-sixth or one-eighth of angula (i. e., the finger breadth).
- 3. Perhaps, of the ten primal ones.
- 4. The divine physician considered to be the father of Indian medicine.

### 16. रसवाहिन्यो धमन्यः

रसवाहिन्यश्चतुर्विशतिरीरिताः ॥१०५॥ धमन्यो क्ल्याभिरिव केदारास्ताभिर्देही ऽभिवर्धते। एताः प्रतिष्ठिता नाम्यां चक्रनाभावरा इव ।।१०६।। दशाधस्ताच्चतस्रस्तिर्यगायताः । ऊर्ध्वगा हृदयं प्राप्ताः प्रतायन्ते पृथक्त्रिधा ।।१०७।। वातं पित्तं कफं एक्तं रसं हे हे विमुञ्जतः। शब्दं रूपं रसं गन्धं हे हे तत्रावगच्छतः ॥१०८॥ द्वे द्वे च भाषणं घोषं स्वापं बोधं च रोदनम । क्वति द्वे नरे शुक्लं स्तन्यं तु स्रवतः स्त्रियाम् ।।१०९।। अधोगता अपि त्रेधा पथक्षकवाशयस्थिताः। प्रवर्तयन्ति तत्राद्या दश वातादि पूर्ववत् ।।११०।। अन्नं भक्तं धमन्यौ हे वहतो उम्बुसमाश्रयात् । तोयं मूत्रं बलं हे हे नारीणामार्तवं त्विमे ।।१११।। विमुश्वतो द्वे स्रोतांसि द्वेस्थूलान्त्रान्विते शकृत्। स्वेदं समर्पयन्त्यष्टी.

तिरक्ष्चयो बहुधा मताः ।।११२॥

रोमकूपेषु सन्त्यासां मुखानि स्वेदमुक्तये। प्रवेशयन्ति चाम्यङ्गलेपादिप्रभवान्रसान्॥११३॥

16. The arteries carrying lymph-chyle (rasa): 105c-113

The arteries carrying lymph-chyle (rasa) are known to be twentyfour and like a field nourished by channels of water, the body (fed by them) also grows. (105c-106b)

These (arteries) are so rooted around the umbilicus<sup>1</sup> as the spokes fitted into the hub of a wheel. (106cd)

Suśrpta (Śā. Sthā. 91.92) refers to several authorities who emphasise that no arbitrary distinctions should be made between sirà-s (veins),

(Of these) ten proceed upwards, ten downwards and laterally. The upward coursing (arteries) reaching the heart ramify into three (branches) each. (Of these) two each respectively conduct wind, bile, phlegm, blood and lymphcycle (rasa); two each respectively perceive the sensations of sound, form, taste and smell, two each respectively cause the activity of speech, hearing, sleep, awakening and crying; and two go to produce semen in men and milk in women (107-109).

The down-coursing arteries<sup>8</sup> are also threefold and separately function in and around the intestines.<sup>4</sup> The first ten function with respect to wind etc. on the above lines<sup>5</sup>, two carry digested food on liquid base, two each respectively release water<sup>6</sup>, urine, semen or the ovarian discharge of women, two are channels<sup>7</sup> (srota-s) while two others attached dhamanī-s (arteriers) and srota-s (channels) since these are all modifications of the original sirā.s (tubular vessels). But, however, he does not agree with this opinion, holding that these different terms denote different functions performed by the sirā-s. However, he too admits that signification.

The up-coursing thirty dha manī-s perform the function of preserving the integrity of the organs of the upper portion of the body, i. e., above the umbilicus, such as stomach, the sides and the back of the chest, the neck, shoulders and the arms (cf. Bhishagratna, Vol. II, p. 210 on Suśruta Śā. Sthā. 9.4).

The blood vessels (dhamanī-s) sustain and maintain the integrity of the lower body, i.e., such parts as the intestines, the waist, the generative organs, the anus and the bladder.

arteries are connected to the heart (cf. Ghanekar, Vol. II. 215 and Bhishagratna, Vol. II, p. 209).

- 2. When each of the ten up-coursing arteries ramify into three, they make thirty in all.
- 3. Again the word artery is a loose translation of sirā which generally means a blood vessel.
- 4. Pakvasaya of the text obviously refers to the small intestines.
- 5. That is, two serve to carry flatus (wind), two carry bile, two phlegm, two blood and two lymph-chyle.
- 6. Toya going into the bladder becomes urine.
- 7. These two channels are not clearly related to any function. Bhishagratna, relates them to the monthly course of women (cf. Vol. II, p. 211 on Susruta Sa. Stha. 9.6).

<sup>1.</sup> This refers to the state of embryonic body during the period of gestation, since the allantoic arteries and the umbilical veins subserve the purposes of nutrition, excretion etc. reflecting the rudimentary vascular system. After the birth, the

### 17. मर्मस्थानानि

जीवस्थानानि मर्माणि शतं सप्तोत्तरं विदुः।

## 18. रोमाणि, रमश्रु केशाश्र

सार्धकोटित्रयं रोम्णां श्मश्रुकेशास्त्रिलक्षकाः ।।११४।। स्रोतःसिराश्मश्रुकेशैः सह रोम्णां तु कोटयः।

चतुःपञ्चाशदाख्याताः सप्तषष्टचा च सार्धया ॥११४॥ लक्षाणां संहितामानं,

to the large intestines discharge the faecal matter. Eight (of the arteries) exude<sup>8</sup> perspiration. (110-112c)

The lateral-coursing vessels (arteries) are considered to be countless. Their external orifices open into the pores of the skin<sup>9</sup> for exuding perspiration, and also through them are entered soothing nutrients, the effects of anointment and unguents. (113d-113)

#### 17. The vital parts (marmasthāna-s). (114ab)

The vital parts<sup>1</sup> constituting the life spots (of human organism) are known to be one hundred and seven. (114ab)

18. Hair on the body, beard and the head: 114c-116a

The hair on the body are 3,50,00,000; the hair of the beard and the head are 3,00,000. The combined total

Compare this with Suśruta (Śā, Sthā, 9.8) who speaks of four lateral-coursing dhamanī-s ramifying into thousands. The dhamanī-s are porous by themselves and they transport lymph-chyle through their pores to the entire body (cf. Suśrutā Śā. Sthā, 9.9).

- 8. According to Suśruta (as quoted above) these eight convey the perspiration to lateral-coursing veins.
- 9 Romakūpa lit. means the root(s) of the hair on the body, i.e., the pores into which the hair are rooted.
- 1. Marma is defined 'marayantiti marmani' (Dalhana), i.e. 'Those parts that (tend to) cause death; in other words, those vital parts which when injured cause the collapse of the entire organism.' The concept of marma is unique to Ayurveda. In fact there are many such concepts that can hardly be rendered into English in terms of modern anatomy.

### 19. देहस्थरसानां मानम्

जलादेरधुनोच्यते ।
दशाञ्जलि जलं ज्ञेयं रसस्याञ्जलयो नव ।।११६।।
रक्तस्याष्टौ पुरीषस्य सप्त स्युः इलेष्मणस्तु षट् ।
पित्तस्य पश्च चत्वारो मूत्रस्याञ्जलयस्त्रयः ।।११७॥
वसाया मेदसो हौ तु मज्ज्ञ एको ऽञ्जलिर्मतः ।
अर्धाञ्जलिः शिरोमज्जा श्लेष्मसारो बलं तथा ।।११८॥

number of the channels, veins, hair of the beard, on the head and on the body is 54,67,50,000. (114c-116a)

#### 19. The measure of fluids in the human body: 116b-118

Now we are to describe (the measure of) the acqueous element<sup>1</sup> (of the body). Ten añjali-s<sup>2</sup> of water, nine of lymph-chyle, eight of blood, seven of faecal matter, six of phlegm (or mucus), five of bile, four of urine, three of muscle fat, two of fat, one of bone marrow, half an añjali each of head marrow<sup>3</sup>, colloidal vital<sup>4</sup> essence and seminal fluid. (116b-119)

Srota-s ordinarily signify tubular structures in the body such as ducts, blood vessels and capillaries. This word illustrates another such concept which does not easily lend itself to be translated precisely. Our author does not write much on the marma-s and the srota-s, and therefore, the temptation to give detailed information on these topics on the basis of Susruta is well restrained.

<sup>1.</sup> The acqueous element is found (i) associated with faecal matter, (ii) in the outer skin, (iii) below the skin and (iv) exuding from hair follicles, viz., perspiration.

<sup>2.</sup> Measure equal to the cavity formed by joining one's two hands in a cup-like fashion.

<sup>3.</sup> Śiromajja of the text. Cf. Caraka Śa. Stha. 7.15, who identifies it with brain (mastiska).

<sup>4.</sup> Ślesmasara of the text.

## 20. उपसंहारः

इति प्रत्यङ्गसंक्षेपो विस्तरस्त्विह तत्त्वतः। अस्मिद्वरिचिते ऽध्यात्मिविवेके वीक्ष्यतां बुधैः।।११९।।

#### 20. Concluding remarks: 119

Such has been the brief treatment of the sub-organs. The enlightened ones interested in a detailed study may refer to our work entitled "Adhyātma-viveka". (119)

As it has been stated earlier, Śārngadeva was himself a qualified doctor and wrote another work referred to above on anatomy and medicine. But this book is probably not available today. Here he completes his treatment of human embodiment.

It has been noted (vide our comments on lante) that Saradatanaya, a contemporary of our author has quite independently and very briefly dealt with human embodiment in the context of geyasamutpatti (the creation of music). It will be interesting to take a comparative view of the manner of their treatment of the subject and to discover the difference in the point of their emphasis.

Śaradatanaya deals with the following topics in his exposition of geya-samutpatti which obviously determines his approach and relative emphasis:

"Announcement for expounding geya, music—the thirtysix elements of creation—the creation—the entry of the knowing self into the womb—the genesis of human embodiment—description of the body produced from the womb, classification of prāṇa-s, their place and function—the ten gross nādī-s of the heart—their bifurcation into 700 nādīs and so on." (cf. Bhāvaprakāśanam, pp. 180-184-Baroda Ed.)

A similar number of subjects related to human body is dealt with in conjunction with the production of sound. A list of these subjects will be given in Section three (8c-9), although much of what is said by him is also relevant to the next topic of this Section, viz., "Genesis-The Psycho-physical Viewpoint", but all the same he does not explicitly deal with the psycho-physical centres of the body.

## घ. हठयोगानुसारि निरूपग्रम्

## (i) दश्चकाणि

## 1. आधार-चक्रं कुग्डलिनी च

गुदिलङ्गान्तरे चक्रमाधाराख्यं चतुर्दलम् । परमः सहजस्तद्वदानन्दो वीरपूर्वकः ॥१२०॥ योगानन्दश्च तत्र स्यादैशानादिदले फलम् । अस्ति कुण्डिलनो ब्रह्मशक्तिराधारपङ्कजे ॥१२१॥ आब्रह्मरन्ध्रमृजुतां नोतेयममृतप्रदा ।

D. Genesis: The psychophysical viewpoint.

(i) Ten cakra-s (psychophysical centres): 120-145b

#### 1. Adhara-cakra and kundalinī: 123-122b

Situated in-between the anus and the genitals is the basic psychic centre called the foundational cycle (ādhāra-cakra), a four-petalled lotus as it were. The petals named

Six psycho-physical centres are conceived in the astral body of man by certain schools of Yoga, specially, the kundalini-yoga, the mantra-yoga, the rāja-yoga, etc. These function as the centres of consciousness at various planes and concentration and control of one or many of these centres bestows enormous psychic and occult powers. However, the aim of yoga is to train the mind to concentrate upon and penetrate through all these six psycho-physical centres and thereby to attain complete mastery over the physical and the astral body and freedom from the limitations of mind and matter.

The first centre spoken of in this verse is named muladhara, which literally means the basic support, the foundation. Here at this centre the kinetic energy is said to be asleep in a static mood and it can be aroused through meditation. The four-petalled lotus spoken of in the text is a symbolic expression used as an aid to meditation on the centre, when the slumbering energy is awakened, it rushes through the spinal cord to the next higher centre at a terrific speed, and the aspirant finds

<sup>1.</sup> Corresponding to the sacrococeygeal plexus.

isana etc.<sup>2</sup>, are invested with the fruits of supreme bliss, spontaneous happiness, heroic joy, and the divine unity respectively. (120-121)

In the centre of the foundational cycle<sup>8</sup> lies the creative<sup>4</sup> power of the supreme Being<sup>5</sup> called kundalini<sup>8</sup>, which

himself uplifted to a different plane of consciousness with a different perception and value judgement.

Here the value of concentrating separately, i. e., individually upon the four respective petals of the symbolic lotus is expressed in different kinds of bliss. This concept seems to be peculiar to Sangitaratnikara and 'K' suggests that it relates to the position of the embodied consciousness (the transmigratory soul) in this cakra at the time of birth. This will be elucidated later (vide comments on 40-141b). It is not possible, nor perhaps advisable to elucidate the whole symbolism of the kundalint-yoga here but the underlying idea can be summarised in the following way:

Letters of alphabet (i. e. Devanāgari script in this case) are inscribed on the petals of the lotuses of the various centres. The letters so assigned represent symbolically the particular mantra and the presiding deity of that mantra, and thereby are the potential sources of the power inherent in those deities. These powers can be invoked by meditation. In this general background, it may now be noted that the four petals of the foundational cycle have the letters va, sa, sa and sa assigned to them. Furthermore there are great many details regarding the colour, the predominant element etc. of the various cycles with which we need not concern ourselves here, except in a general way.

2. The names of the other three petals are agneya, nairta and vayavya. In this respect K. R. informs as under:

"From the front clock-wise are the four points, namely east, south, west and north, and four intermediate points, namely, south-east, south-west north-west, and north-east. North east is is and (the position presided by Siva). The other three points in order of the fruits described are south-east, south-west and north-west."

- 3. The adhara pankaja of the text.
- 4. Brahma-śakti of the text.
- 5. Brahman of the text.
- 6. Kundalini literally means coiled up, curved, zig-zag like a serpent; that is perhaps why Sir John Woodroffe called it the serpent Power Kumaraswmiji of Tapovana, Dharwar, describes kundalini in the following words: "Kundalini is the residual power, the power left over after the production of the body when it coils itself around the svayambhū linga that is, the conus medullaries" (cf. Chakra Vol. III, 1971, p. 112).

## 2. स्वाधिष्टान-चक्रम्

स्वाधिष्ठानं लिङ्गमूले षट्पत्रं चक्रमस्य च ॥१२२॥ पूर्वादिषु दलेष्वाहुः फलान्येतान्यनुक्रमात्। प्रश्रयः क्रूरता गर्वनाशो मूर्च्छा ततः परम्॥१२३॥ अवज्ञा स्यादिवश्वासः कामशक्तेरिदं गृहम्।

in the event of being unfolded bestows immortality. (121c-122b)

#### 2. Svādhişthāna-vakra: 122c-121b

Situated at the root of the genitals is the six-petalled lotus, the psycho-physical centre called 'self-abiding cycle'

The creative power of the supreme Being, of Brahman, the kinetic energy, the śakti of Śiva and the māyā of Brahman, the power of creating appearances, is stationed at the root of the spinal column. Ordinarily this energy lies curved into a coil (i. e., three rounds and a half) and that is why it is called kundalinī. But by concentration and meditation its coils are unfolded and in that event it rushes up the spinal cord to the upper cerebrum and reaches the mystic cerebral aperture (brahmarandhra) and this results in enlightenment, an experience of timeless being which is immortality.

Though it may be a matter of greater detail, yet in the context of this verse it may be pointed out that according to the Satcakranirūpaņa the foundational cycle is the place where the female principle represented by a triangle, the yoni known as traipura is located, and in this triangle is set the male principle represented by the svayambhū (lit. self-born) linga. Kuṇḍalinī which is the creative power of the absolute Brahman or the energy aspect of non-relational-reality, lies coiled over the svayambhū Śiva-linga (referred to above) covering the entrance to the suṣumṇā-nāḍī with her head. It is this entrance which is technically known as Brahmadvāra (lit. the doorway to the absolute).

The word svādhisthāna (etyomologically analysed as sva+adhi+sthāna, i. e., one's own seat) is variously interpreted. Some identify sva

<sup>7.</sup> Literally, 'straightened' or 'uncoiled'.

<sup>8.</sup> Literally, 'ambrosia'.

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(svādhiṣṭhāna-cakra).¹ The consequent fruits² of (concentration on) the eastern and the other petals are respectively said to be courtesy³, cruelty, freedom from pride⁴, stupor, disrespect and distrust. This is the seat of passion.⁵ (122c-124b)

with the Śwalinga, i. e., the Parā linga, the supreme one of the four symbolic linga-s of this yoga. Then the word swādhiṣṭhāna would mean abode of Śiva. But others interpret sva etymologically with reference to the kundalinī power, implying this cycle to be the abode of its own power. However, it would be rewarding if one were to have a look at the result of meditating on this cakra as given in the Satcakranirūpaņa (cf. verse 18 as translated by Sir John Woodroffe in his 'Serpent Power', p. 364).

"He who meditates upon this stainless lotus, which is named svadhisthana, is freed immediately from all his enemies such as the fault of ahamkara (ego and so forth etc."

The enemies referred to are kāma, krodha, lobha, moha, ahamkāra, i. e., desire, anger, greed, delusion and ego. It is these five that are at the root of all self-centred activity, worldliness and sin, all that turns man into a beast. Thus it is obvious that this cycle is the centre, the abode of the illusive power of māya, the kuṇḍalinī.

The six petals of the lotus bear the six letters from left to right ba, bha, ma, ya, ra, and la, with a dot above (anusvāra).

## 3. मणिपूर-चक्रम्

नाभौ दशदलं चक्कं मणिपूरकसंज्ञितम् ।।१२४।।
सुषुष्तिरत्र तृष्णा स्यादीष्या पिशुनता तथा।
लज्जा भयं घृणा मोहः कषायो ऽथ विषादिता।।१२४।।
क्रमात्पूर्वादिपत्रे तु स्याद्भानुभवनं च तत्।

#### 3. Manipūraka-cakra: 124c-126b

The ten-petalled lotus, the psychophysical centre called the 'navel cycle' (manipuraka cakra) is located around the navel. The results flowing out of (meditation on) the eastern and other petals respectively are: dreamless sleep<sup>2</sup>, craving, jealousy, fault-finding nature, bashfulness, fear, hatred, stupidity<sup>8</sup>, impropriety and dejection. This centre is the seat of a particular prana called bhānu<sup>4</sup>. (124c-126b)

Manipura or manipuraka-cakra is also called nubhi-padma, i. e., the navel lotus as it is located around the region of the root of the navel. That is why it has conveniently been named as the 'navel cycle'. The name manipura is explained in a round-about way. It is said in the Gautamiya Tantra (cf. Serpent Power, p. 119) that owing to the presence of the fiery tejas (brilliance) this centre is lustrous as a gem (mani) and so it is called manipura.

It is suggested by Sir John Woodroffe that the gross body is evolved out of the power involved in these three centres. The higher centres are concerned with mental development, i. e., the subtle body or the thought body etc. During the waking state attention is ordinarily centred on either of these three centres (cf. Serpent Power, p. 120).

The ten petals of the lotus of this cycle bear the letters da, dha, na, ta, tha, da, dha, na, pa and pha with a dot above (anusvāra).

- 1. Manipuraka of the text indicates the abdomen. This centre translated as the 'navel cycle' corresponds to the solar plexus which forms a centre of a great function of the right and the left sympathetic chains pingala and ida; with cerebro-spinal axis connected to this is the lumber plexus.
- 2. 'S' defines dreamless sleep as the cessation of all sensual and mental activity.
- Moha is defined by 'S' as a state of mind in which, even while awake one is unaware with regard to an object in the field of his normal perception.
- 4. Bhānu literally means the sun.

<sup>1.</sup> Svadhisthana literally means self-supporting. This centre corresponds to the sacral plexus in the physical body. The specific power developed through meditation on this centre is transcendence of the sex-consciousness.

<sup>2.</sup> The underlying idea seems to be that specific qualities are developed through concentration on different petals. These qualities are mental dispositions of various colours.

<sup>3.</sup> Courtesy is thus developed by meditating on the eastern petal and so on.

<sup>4.</sup> Lit. destruction of pride.

<sup>5.</sup> When kundalin is released from this centre and is pushed up in the next higher one described subsequently, control with regard to sexual power is gained.

#### 4. अनाहत-चक्रम्

हृदये ऽनाहतं चक्रं शिवस्य प्रणवाकृतेः ।।१२६।।
पूजास्थानं तदिच्छन्ति दलैद्विदशभिर्युतम् ।
लौत्यप्रणाशः प्रकटो वितर्को ऽप्यनुतापिता ।।१२७।।
आशा प्रकाशिश्चन्ता च समीहा समता ततः ।
क्रमेण दम्भो वैकल्यं विवेको ऽहंकृतिस्तथा ।।१२८।।
फलान्येतानि पूर्वादिदलस्थस्यात्मनो जगुः ।

#### 4. Anāhata-cakra: 126c-129b

In the heart is located the psycho-physical centre called the 'cycle of the unmanifest' (anāhata-cakra), with twelve petals which is considered to be the place of worshipping lord Siva in the form of Om. 2 (126-127b)

The consequences meeting the mind concentrated upon eastern and other petals respectively are freedom from fick-leness, clear thinking<sup>3</sup>, repentance, hope, light<sup>4</sup>, worry, desire

The anahata-cakra is the psycho-physical centre wherein manifests 'Śabda-brahman' a concept which can best be conveyed in English by the expression 'the absolute manifested as the inarticulate word'. This centre is said to be the seat of the embodied consciousness, i. e., the Jivātman. Anāhata nāda or Unmanifest sound is associated with this centre which is considered to be the pulse of life. It is said in the Ṣaṭcakranirū-paṇa that one who meditates on this centre becomes a master of speech and gains the power to create and to destroy. This lotus is the seat of Siva and the residence of hamsa (the Atman, cf. verse 26). Its twelve

1. Anahata of the text literally means unstruck, i. e., unmanifest.
This corresponds to cardiac plexus and controls the heart.

- 2. Om, properly written as aum is the sacred syllable of mystic value. Every vedic chant begins with Om and every mantra begins with Om. The three letters, two vowels combined into its make, 'a' and 'u' and the consonant 'm' symbolise the three phases of consciousness, viz. the waking state, the dream state and the dreamless sleep state; while, the dot given above it, the 'candrabindu' denotes the turiya, i. e., total Being. There are great many details about it but suffice it to note that the letters of Om are symbolic.
- 3. Literally, vitarka means deliberation.
- 4. 'S' defines it as 'the absence of the non-perception of form'.

## 5. विशुद्धि-चक्रम्

कण्ठे ऽस्ति भारतीस्थानं विशुद्धिः षोडशच्छदम् ।।१२९।। तत्र प्रणव उद्गीथो हुंफड् वषडथ स्वधा । स्वाहा नमो ऽमृतं सप्त स्वराः षड्जादयो विषम् ।।१३०।। इति पूर्वीदिपत्रस्थे फलान्यात्मनि षोडश ।

for warding off evil, equanimity, vanity, mental instability, discernment and will.<sup>5</sup> (127c-129b)

#### 5. Visuddhi-cakra: 129cd-131b

The psycho-physical centre with sixteen petals, called the 'cycle of purity' (visuddhi cakra) is situated in the throat-larynx and is known as the abode of Bhāratī, the goddess of learning. Contemplation on the eastern and other petals offers the following results respectively: praṇava². udgītha³,

petals bear the letters; ka, kha, ga, gha, ha, ca, cha, ja, jha, jña: ta and tha with a dot above.

This centre is situated at the base of the throat. Visuddhi-cakra is so called because the ego-soul having perceived the spirit-soul, i.e., the jīvātman, the embodied consciousness having discovered the ātman, the boundless being within, in the 'cycle of the unmanifest', the anāhata-cakra, gets 'purified'. Thus it is endowed with the power to perceive the three phases of time, viz. the past, present and future. This centre is considered to be the gateway to the final emancipation from all limitations of consciousness. The sixteen petals of the lotus have sixteen vowels (from a to ah) for their symbols with a dot above them.

Sateakranirūpana describes the results of meditating upon this centre as under (cf. verse 31 as translated by Sir John Woodroffe in (Serpent Power, p. 391):

- 5. Literally, ahanketi may be translated as ego.
- 1. Visuddhi literally means purity. This corresponds to the layryngeal plexus.
- 2. Omkāra is prefixed to every vedic chant.
- 3. Udgītha is the second part of a Sāman chant which has five parts in all, viz., prastāva, udgītha, pratihāra, upadrava and nidhāna, in serial order. Omkāra is also used in the commencement of the udgītha as we are informed by 'K'.

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ललनाऽऽख्यं घण्टिकायां चक्कं द्वादशपत्रकम् ।।१३१।।

मदो मानस्ततः स्नेहः शोकः खेदश्च लुब्धता।

संभ्रमश्चोमिः श्रद्धातोषोपरोधिताः ॥१३२॥

स्यः पूर्वादिदलेष्वित । फलानि ललनाचक्रे

humphat4, vaşat5, svadhā6, svāhā7, namah8, nectar9, the seven tones sadja<sup>10</sup> etc. and poison. (129c-131b)

#### 6. Lalanā-cakra: 101c-133b

The psychophysical centre called lalana with twelve petals is situated in the back of the neck. The consequences emerging out of (concentration upon) the eastern and the other petals respectively are-arrogance, haughtiness, affection, sorrow, 2 agony, 3 greed, disenchantment, emotional

"He who has attained complete knowledge of the Atman (Brahman) becomes, by concentrating his mind (citta) on this lotus, a great sage, eloquent and wise, and enjoys uninterrupted peace of mind. He sees the three periods and becomes the benefactor of all, free from disease and sorrow and long-lived, and like hamsa, the destroyer of endless dangers."

The lalana-cakra, though well-recognised, is not counted among the six main psycho-physical centres in the body demonstrated in such

- 4. Humphad is a non-inflectional syllable uttered while pouring an oblation into the sacrificial fire.
- 5,6,7. These too are similar syllables as humphat.
- Namah lit. salutation.
- The ambrosia.
- 10. The names of the other notes are Isabha, gandhara, madhyama, pañcama, dhaivata and nisada as we shall come across further in the text.
- 1. This word has not been translated, for it is not found worthwhile to do so in this case The word literally means a woman, a wanton woman or tongue and it seems the word cannot be significantly interpreted in any of these terms. So the word has to be accepted as a technical one.
- 'S' defines foka (sorrow) as misery caused by known factors.
- And he ('S') defines kheda (agony) as misery due to unknown causes.

#### 7. आजा-चक्रम

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चक्रमाज्ञासंज्ञं फलानि त्।।१३३॥ भ्रमध्ये त्रिदलं आविर्भावाः सत्त्वरजस्तमसां क्रमतो मताः।

excitement, the basic urge for living,4 devotion,5 satisfaction and cleverness (131c-133 b).

7. Ajñā-cakra: 133c-134

The psycho-physical centre called the 'cycle of supreme command' (ājñā cakra), having three petals is located inbetween the two eye-brows. The results of (contemplating upon) the various petals respectively are the manifestations of the three gunā-s—sattva, rajas and tamas<sup>2</sup>. (133c-134b)

standard works as Salcakranirūpana. This centre is also called kāla-cakra by some writers and is located at the root of the palate.

Ajñā-cakra is so called because it is said that the ājñā (command) of the guru, the supreme preceptor is obtained directly by contemplating in the region of this centre. (cf. Rudrayamala Ch. XXVII, V. 68 cited by Arthur Avalon in his English translation of the Satcakra-nirupana. Serpent Power, p. 395-footnote 6). This cycle is the seat of the mind. of mahat and praktti, i. e., the mindstuff (consciousness), intellect. ego and will. A successful yogi, at the time of death, establishes his vital breath in this centre and consequently abides in the timeless being after death. The two petals of this lotus bear the letters ha and hsa. This completes the garland of letters of fifty petals in all.

4. Six basic urges for life are known in the Agama-s, as quoted by 'S'.

बुभुक्षा च पिपासा च शोकमोहौ जरामृती। ऊर्मयः षडिति प्राणबुद्धिदेहेषु संस्थिताः॥

Hunger, thirst, sorrow, delusion, decay and death-these are the basic urges resident in the vital breath, the mind and the body.

- 5. Śraddhā also means faith, it is rather an attitude of reverence, faith and devotion combined with love.
- 1. Aina literally means 'command'. Concentration on this centre gives one the command of the body and the mind. One becomes the commander of one's forces. This centre corresponds to the cerebellum, identified by some with the pineal gland, the centre of the third or the spiritual eye.
- 2. These three comprehend the entire nature.

#### 8. मनश्चक्रम्

ततो उप्यस्ति मनश्चकः षड्दलं तत्फलानि तु ।।१३४।। स्वप्नो रसोपभोगश्च झाणं रूपोपलम्भनम् । स्पर्शनं शब्दबोधश्च पूर्वादिषु दलेष्विति ।।१३५।।

## 9. सोम-चक्रम्

ततो ऽपि षोडशदलं सोमचक्रमितोरितम्। दलेषु षोडशस्वस्य कलाः षोडश संस्थिताः।।१३६।।

#### 8. Manaś-cakra: (134c-135)

Even higher than that is situated the psychophysical centre called the 'cycle of the mind' (manaś-cakra), having six petals. The consequences attendant upon the eastern and other petals respectively are dreams and the palatal enjoyment, olfactory sensation and the perception of form, touch and sound. (134c-I35)

#### 9. Soma-cakra: (136-138)

Over and above that is located the psycho-physical centre called the 'cycle of the moon' (soma-cakra) with sixteen petals

Sir John Woodroffe (cf. Serpent Power, p. 155) comprehends the ajña-cakra and the manas-cakra jointly as the 'sensory motor tract' relating their functions in the following way:

"The ājñāvahā nāḍī-s, efferent or motor nerves, communicate motor impulses to the periphery from this ājñā-cakra, this centre of command over movements, and the efferent or sensory nerves of the special senses in pairs, the gandhavahā nāḍī (olfactory sensory), the rūpavahā nāḍī (optic), the śabdavahā nāḍī (auditory), the rasavahā nāḍī (gustatory), and the sparśavahā nāḍī (tactile) come from the periphery (the peripheral organs of the spacial senses) to this manaś-cakra, the sensory tract at the base of the brain. The manaś-cakra also receives the manovahā nāḍī, a generic name for the channels along which centrally initiated presentations (as in dreaming and hallucination) come to the sixth lobe of the manaś-cakra."

Soma-cakra is not included into the scheme of the six main psychophysical centres. The word soma, in this context, refers to the

कृपा क्षमाऽऽर्जवं धेर्यं वैराग्यं घृतिसंमदौ। हास्यं रोमाञ्चितचयो ध्यानाश्च स्थिरता ततः ॥१३७॥ गाम्भीर्यमुद्यमोऽच्छत्वमौदार्येकाग्रते क्रमात्। फलान्युद्यन्ति जीवस्य पूर्वादिदलगामिनः॥१३८॥

enshrining the sixteen phases (of the moon). The consequences, for the individual, attendant upon the eastern and other petals respectively are: grace<sup>3</sup>, forgiveness<sup>4</sup>, straightforwardness, forbearance, detachment, patience, cheerfulness, mirth, horripilation<sup>5</sup>, tears of fixed gaze<sup>6</sup>, stability, profundity, endeavour, purity of heart, generosity and one-pointedness. (136-138)

#### 10. सहस्रपत्र-चक्रम्

चकं सहस्रपत्रं तु ब्रह्मरन्ध्रे सुघाधरम्। तत्सुधासारधाराभिरभिवर्धयते तनुम् ॥१३९॥

#### 10. Sahasrapatra-cakra: (139)

'The thousand-petalled lotus<sup>1</sup>' (sahasrapatra) which is moon which is symbolic of a feeling of coolness when the wild fire of craving is finally extinguished by rising above the ājñā and the manas cakra-s, i. e., above the world of opposites, the world of relative perception and desire. Thus, this cycle of the moon is a symbol of coolness, as the rays of the moon are cool, refreshing and delightful, and is the source of altruistic sentiments and true spiritual consummation.

The thousand petals spoken of in this lotus are symbolic of infinity. The sahasrara, or sahasrapatra i. e., the thousand-lobed centre has brahma-

2. Soma-cakra corresponds to the middle cerebrum in the physical body and is located above the sensorium.

3. In the sense of favour 'S' defines kipa as an expectation of favour from another.

4. According to 'S' forgiveness is characterised by absence of anger despite the cause for it.

 Nicaya in the compound romanca-nicaya implies the idea of plurality.

6. Dhyanaśru is explained by 'K' as 'dhyanaj-jatam-aśru', i. e., the tears caused by concentration of the mind with open eyes.

1. Sahasrapatra-cakra Lit. the cycle of thousand petals of the text is suggestive of the metaphor of a wheel with thousand spokes. The concept is essentially of the cycle but this particular centre cannot precisely be called a psychophysical centre, since it is neither physical nor psychological as it leads the consciousness beyond the limitations of time, space and causation.

<sup>1.</sup> This comprehends consciousness. The six petals symbolise five senses of perception and (the sixth) the mind, and the fruits spoken of are the five respective perceptions and ideation, the activity of the mind. This cycle is not included in the scheme of the main six psychophysical centres and seems to be concerned with the subconscious and conscious mind.

<sup>1. &#</sup>x27;That' refers to manas-cakra.

## 11. गीतादिसिद्धौ चक्राणां साधकत्वं बाधकत्वञ्च अनाहतदले पूर्वेऽष्टमे चैकादशे तथा। द्वादशे च स्थितो जीवो गीतादेः सिद्धिमृच्छति ।।१४०।।

the source of nectar<sup>2</sup> is located in the cerebral aperture<sup>8</sup> (brahma-randhra). Spilling innumerable streams of ambrosia<sup>4</sup>, it nourishes the body. (139)

11. Meditation of cakra-s as related to the cultivation of music:

The embodied soul<sup>1</sup> established in the (contemplation of) first, eighth, eleventh and the twelfth petals of the 'cycle of the unmanifest' (anāhata-cakra) attains proficiency in music

randhra, the cerebral aperture as its location. This aperture is symbolic of void called parama vyoma or the highest ether or in other words, the subtlest space (cf. Ṣaṭcakranirūpaṇa verses 40-48). The purport is as follows:

"Within it is the full moon, without any spot whatsoever, resplendent as in a clear sky. It shakes its rays in profusion, and is moist and cool like nectar. Inside this, shines the great void which is served in secret by all the gods." (Adapted with modifications from Arthur Avalon's translation, the Serpent Power, p. 430).

So in the void, which is identified with bindu, parabindu or Isvara or called sunya is the light which is formless (cf. Todala Tantra, 6th Ullasa as cited by Arthur Avalon; Serpent Power, p. 431). Thus consciousness, when established in it, transcends time. And it is this transcendental consciousness that obviously is variously named as immortality, ambrosia, nectar and so on.

Now, first of all it may be made clear that 'K' has taken the view (vide his comments on 121 ante) that at the time of birth the embodied

2. This is obviously a metaphorical expression, for nectar when drunk bestows immortality, according to Indian mythology.

3. This is the void, the space in which is projected the entire vision of life and action.

- 4. Sudhāsāra of the text. This can be interpreted to mean the harmony of body, mind and soul resulting from immortality.
- 1. Jiva generally signifies a transmigratory soul embodied in a physical body.
- 2. The anahata, lit. means unstruck. It may once again be noted that this centre corresponds to the cardiac plexus.

चतुर्थंषष्ठदशमैर्दलेगीतादि नश्यति विशद्धेरष्टमादीनि दलान्यष्टौ श्रितानि त् ।।१४१।। दद्यगीतादिसंसिद्धिं षोडशं तद्विनाशकम । सिद्धिदे ।।१४२।। त ललनायां नाशकं प्रथमं तयं पश्वमं विदु: । च ब्रह्मरन्ध्रस्थितो जीवः सुधया संप्लुतो यथा ।।१४३।। तुष्टो गोतादिकार्याणि सप्रकर्षाणि साधयेत । चक्र रवन्येष स्थितः ॥१४४॥ जीवो गीतादिसंसिद्धिं न कदाचिदवाप्नुयात् ।

etc.<sup>3</sup>; while (by concentration on) the fourth, sixth and tenth of the petals one destroys one's capacity for music etc. (140-141b)

In the 'cycle of purity' (viśuddhi-cakra) contemplation on eight petals from the eighth onwards leads to success in musical arts etc. 5, while the sixteenth petal is destructive for this purpose. (141c-142b).

The tenth and the eleventh petals of the psycho-physical centre called *lalanā* bestow success (in the musical arts), while its first, fourth and fifth petals are known to be detrimental. (142c-143b)

The embodied soul<sup>6</sup> whose attention is focussed in the soul is fixed psychologically on one of the petals of these cycles, i.e., the psycho-physical centres in terms of attention, and according to the point of attention it gains the predisposition of character as already described in the foregoing pages. This particular verse seems to lend an indirect support to this view though if one were dogmatic, one may not yet find enough evidence for it.

- 3. Gitadi lit. means 'singing' or 'song' etc., but gita or vocal music is basic to Indian music as it has already been mentioned. Moreover, 'gita' also is used in the general sense of music, so it has been translated as such. 'S' includes instrumental music and dance as well after the concept of sangita.
- 4. Viśuddhi lit. means purity.
- 5. Gitadi lit. gita etc. implies vocal and instrumental music and dancing and may even include dance-drama
- 6. In other words the 'individual organism', which is sensitive to perception.

## (ii) ब्रह्मग्रन्थि !

आधाराद् द्वचङ्गुलादूध्वं मेहनाद् द्वचङ्गुलादधः ॥१४४॥ एकाङ्गुलं देहमध्यं तप्तजाम्बूनदप्रभम् । तत्रास्तेऽग्निशिखा तन्वी चक्रात्तस्मान्नवाङ्गुले ॥१४६॥

aperture of the upper cerebrum, being immersed in ambrosia, finds fulfilment and should therefore cultivate the musical arts with great excellence. (143c-144b)

The embodied soul<sup>11</sup> cannot in any way accomplish anything (worthwhile) in the (field of) musical arts by concentrating<sup>11</sup> on any other petals or psycho-physical centres.

(144c-145b)

#### (ii) Brahma-granthi: 145c-148

Two finger-length above the base<sup>1</sup> and two finger-breadth below the genitals<sup>2</sup> in the space of one finger-breadth is the centre of the body, shining like molten<sup>3</sup> gold. (145c-146b)

There is located a slender flame of fire at a distance of nine fingers from that centre<sup>4</sup>, and it is there that the life-

- 7. The brahma-randhra of the text.
- 8. The ambrosia of immortality, the timeless consciousness.
- The person concerned realises the goal of individual existence by attaining immortality and so has nothing more to achieve in life and is thus free to devote himself to music etc.
- 10. This includes vocal and instrumental music and dance.
- 11. The individual while at the time of birth, if interested in art should devote himself to such of the petals as are conducive; that seems to be the idea.
- 1. The base is the foundational cycle, the muladhora-cakra.
- Mehana of the text literally means penis, but even so the word is used in the general sense of sexual organ.
- 3. Tapta literally means—heated, but the author is using a simile in order to give an idea of the abstract. The flame itself is a symbolic expression for the creative power of life.
- 4. It is not clear if nine fingers is the distance from the muladhara-cakra or the centre of the body just spoken of. 'K' does not comment and 'S' offers both the alternative interpretations without a judgement. But it seems that the centre of the body should be the point of reference, for otherwise there will be no relevance for describing it.

देहस्य कन्दोऽस्त्युत्सेधायामाम्यां चतुरङ्गुलः। ब्रह्मग्रन्थिरिति प्रोक्तं तस्य नाम पुरातनेः।।१४७॥ तन्मध्ये नाभिचक्रं तु द्वादशारमवस्थितम्। लूतेव तन्तुजालस्था तत्र जीवो भ्रमत्ययम्।।१४८॥

source of the body is found, four fingers in elevation as well as in extension. This has been called 'brahma-granthi's by the ancients. (146c-147)

Right in its centre is situated the 'cycle of the umbilicus' (nābhi cakra) with twelve spokes, and like the spider caught in (its own) net, yonder there wanders the self-conscious being. (148)

## (iii) सुषुम्णा, नाड्यन्तराणि च

सुषुम्णया ब्रह्मरन्ध्रमारोहत्यवरोहित । जीवः प्राणसमारूढो रज्ज्वां कोह्लाटिको यथा ।।१४९॥

(iii) Suşumņā and other nādī-s: 149-163b

Mounted upon the vital breath<sup>1</sup>, the self-conscious entity<sup>2</sup>, through the susumnā keeps on ascending to the cerebral aperture<sup>3</sup> and descending back<sup>4</sup>, moving like a tight rope<sup>5</sup> dancer. (149)

- 5. 'This' refers to the life-source of the body.
- 6. Literally, the knot of Brahman, i. e., the root of life force.
- 7. That is, in the centre of the brahma-granthi.
- 8. The nabhi-cakra, perhaps the same as manipūraka with the difference that it has been said to have only ten petals, whereas this one is described as having twelve spokes.
- The self-conscious being is the jiva; this idea or concept is not native to European culture and therefore is foreign to English tongue; that is why it is being elucidated in different ways on different occasions.
- A metaphor is used, the rope of a dancer is compared to prana, as the dancer ascends by the rope; so the jiva ascends by prana.
- 2. That is, jiva.
- 3. This is technically known as brahma-randhra.
- 4. Descending back to the base, i.e., the foundational cycle, the muladhara.
- 5. This rope seems to be vertical rather than horizontal. Perhaps it has an allusion to the Indian rope trick. This simile can

सुष्मणां परितो नाडचः कन्दादाब्रह्मरन्ध्रतः । कन्दीकृत्य स्थिताः कन्दं शाखाभिस्तन्वते तनुम् ।।१५०॥ ताश्च मूरितरास्तासु मुख्याः प्रोक्ताश्चतुर्दश । मुष्मणेडा पिङ्गला च कृहरथ सरस्वती ।।१५१॥ गान्धारी हस्तिजिह्ना च वारुणी च यशस्विनी। विश्वीदरा शङ्किनी च ततः पूषा पयस्विनी ।।१५२।। अलम्बुसेति तत्राद्यास्तिस्रो मुख्यतमा मताः। सुषम्णा तिसृषु श्रेष्ठा वैष्णवी मुक्तिमार्गगा ।।१५३।। कन्दमध्ये स्थिता तस्या इडा सब्ये ऽथ दक्षिणे। पिङ्लेडापिङ्कलयोश्चरतश्चन्द्रभास्करौ 1188811 क्रमात्कालगतेहेंत् सूष्मणा कालशोषिणी। सरस्वती कुहुश्चास्ते सुषुम्णायास्तु पार्श्वयोः ।।१५५॥ पष्ठपूर्वस्थे गान्धारीहस्तिजिह्निके। इडायाः क्रमात्पूषायशस्विन्यौ पिङ्गलापुष्ठपूर्वयोः ।।१५६॥ विश्वोदरा मध्यदेशे स्यात्कुहहस्तिजिह्नयोः। मध्ये कृहयशस्विन्योर्शरणी संस्थिता मता।।१५७॥ पुषासरस्वतीमध्यमधिशेते पयस्विनी । गान्धारिकासरस्वत्योर्मध्ये वसति शङ्किनी ।।१५८॥

तत्रेडापिङ्गले क्रमात् ।
सन्यदक्षिणनासाऽन्तं कुहूरामेहनं पुरः ।।१५९।।
सरस्वत्यूर्ध्वमाजिह्वं गान्धार्याः पृष्ठतः स्थिता ।
आवामनेत्रमासन्यपादाङ्गुष्ठं तु संस्थिता ।।१६०।।
हस्तिजिह्वा सर्वगा तु वाष्ण्यथ यशस्विनी ।
आ ऽङगुष्ठादक्षिणाङ् व्रिस्था देहे विश्वोदरा ऽखिले ।।१६१।।

अलम्बुसा कन्दमध्ये.

शिक्ष्या सन्यकर्णान्तं पूषा त्वायाम्यनेत्रतः । पयस्विनी तु वितता दक्षिणश्रवणावि ॥१६२॥ अलम्बुसा पायुमूलमवष्टभ्य व्यवस्थिता ।

From the life-centre<sup>6</sup> to the cerebral aperture<sup>7</sup> the nadi-s<sup>6</sup>, surrounding the susumna and enmeshing the life-centre by their network, enlarge the body by developing their branches. (150)

These nādī-s are in a large number; but fourteen out of them are important, viz., suṣumṇā, piñgalā, idā, kuhū, sarasvatī, gāndhārī, hastijihvā, vāruṇī, yasasvinī, viśvodarā, sankhinī, pūṣā, payasvinī and alambusā. The first three<sup>1,0</sup> of these again are considered to be most significant. (151-153b)

From verse No. 151 to 159(a) the relative position of nadi-s is described.

also have an allegorical significance. The self-consciousness of the individual attains various levels of psychological being, which in ordinary people are never held steadily and therefore give rise to various emotions and sentiments in their behaviour. Through the practice of kundalint-yoga the mind is trained to concentrate on a particular psychophysical centre and thereby master a particular level of consciousness. But this again is a very delicate practice, which can be well compared with tight rope dancing, requiring a perfect balance between the opposites.

- 6. The life-centre is the life-source spoken of in verse No. 147 ante. It is the same as brahma granthi.
- 7. That is the brahma randhra.
- 8. Nadi-s, as already explained, are the tubular vessels. The whole body is a network of the nadi-s. But the nadi-s spoken of in this context have a special significance in the science of yoga.
- 9. Suşumnā is the name given to the central-most nadī that proceeds from the end of the spinal column and opens' into the cerebral aperture. The dormant creative energy, when awakened in the foundational cycle, rises up along this nadī.
- 10. The first three are susumna, pingala and ida. Pingala is to the right and ida to the left of susumna. Prana generally flows through these two.

lies, in between pūṣā and sarasvatī, while sankhinī exists between gāndhārī and sarasvatī and alambusā is in the midst of

ween gāndhārī and śarasvatī and alambusā is in the midst of the life-centre 18. (157-159a)

Now<sup>19</sup>, idā and pingalā (extend) upto the tips of the left and the right nostrils respectively, and kuhū to the front of the genitals.<sup>20</sup> Sarasvatī extends upto the tongue, while gāndhārī is set by the back (of the body). Hastijihvā runs from the left eye to the toes<sup>21</sup> of the left foot; while vārunī pervades the entire body; on the other hand, yaśasvinī extends from the toe<sup>22</sup> upto the right foot; while viśvodarā pervades the whole body. Śankhinī extends upto the left ear and pūṣā upto the right eye, while payasvinī is extended to the extremity of the right ear. Alambusā stands coiled around the root of the anus. (159b-163b)

Suşumnā is the supreme among these three; with Viṣṇu as its presiding deity, it leads to the pathway of liberation. It is established in the centre of the life-source<sup>11</sup> and is flanked by idā on the left and pingalā on the right. The vital breath moving through ida and pingalā is called moon<sup>12</sup> and the sun<sup>13</sup>, for they determine the movement of time<sup>14</sup>; but, suṣumṇā destroys<sup>15</sup> time. (153 c-155b)

Sarasvatī<sup>16</sup> and kuhū are on the either sides of suşumnā. Gāndhārī and hastijihvā are respectively situated behind and in front of idā; while pūṣā and yaśasvinī are similarly<sup>17</sup> situated with respect to pingalā. (155c-156)

Viśvodarā lies in the midst of kuhū and hastijihvā, and vāruņī likewise is in the midst of kuhū and yaśasvinī. Payasvinī

The psychophysical view of genesis presented by the author, pointing out the different psychophysical centres and their relation to music ends here. An analytical study of this relationship is presented in appendix II. It may, however, be observed that Śaradātanaya, a contemporary of, but somewhat anterior to Śarngadeva, provides us the rudiments of the hypothesis incorporating this relationship. He relates the seven tones to seven different places located in the body (cf. our comments on 8-9 of Section 3) right from the Brahmagranthi. These places roughly correspond to the psychophysical centres. It can, therefore, be concluded that the line of thought linking musical sound (huta nada) to the yogic experience of anahata-nada already existed in his time.

- 11. That is, the brahma-granthi in the centre of the body.
- 12. Candra of the text.
- 13. Bhaskara of the text.
- 14. Just as the sun and the moon serve as the standards for time, or just as time is measured in terms of their movement, so is time measured in terms of the movement of the vital breath through ida and pingala respectively; for it has been found by yogic observation that the breathing process goes on alternatively through the right or the left nostril for specific periods of time.
- 15. Suşumnā destroys the sense of time (kāla) for when the creative power is aroused in the foundational cycle and rises upto the thousand-petalled cerebral aperture (brahma-randhra), all duality ceases and there is only oneness in consciousness. Time is transcended in eternity.
- Cf. Arthur Avalon (John Woodroffe): The Serpent Power, pp. 113 and 114 for a detailed account of this topic in terms of modern anatomy.
- 17. That is, pūṣā is located behind and yasasvini in the front of pingala.

## ङ उपसंहारः

# नादस्य भुक्तिमुक्तिसाधकत्वम् एवंविधे तु देहे ऽस्मिन्मलसंचयसंवृते ।।१६३।। प्रसाधयन्ति धीमन्तो भुक्ति मुक्तिमुपायतः ।

E. Conclusion: The value of music for enjoyment (bhukti) and for enlightenment (mukti). (163c-168ab)

Such is the body, a heap of filth surrounded by impurities of all sorts; and yet intelligent people utilise it as a means for worldly enjoyment and for salvation (163c-164b)

The purport of the author seems to point out that the physical body is so full of impurities and is a breeding ground for disease and decay, yet intelligent people do not discard it on that account; the

18. The same as the life-source, called brahmagranthi.

19. From verse No. 159 (bcd) to 163 (ab) the extension of the respective nadi-s is described. 20. Literally, penis.

21. Angustha of the text refers to the thumb.

<sup>22.</sup> As hastijihvā runs from the left eye to the toe in the left foot, one might well expect in keeping with the law of symmetry in nature, that corresponding to it, Yasasvinī should run from the right eye to the toe in the right foot; the present description, at any rate, sounds cryptic.

तत्र स्यात्सगुणाद्ध्यानाद्भुक्तिमृक्तिस्तु निर्गुणात् ।।१६४।।
ध्यानमेकाग्रचित्तेकसाध्यं न सुकरं नृणाम् ।
तस्मादत्र सुखोपग्यं श्रीमन्नादमनाहतम् ।।१६४।।
गुरूपदिष्टमार्गेण सुनयः समुपासते ।
सो ऽपि रक्तिविहीनत्वान्न मनोरञ्जको नृणाम् ।।१६६।।
तस्मादाहतनादस्य श्रुत्यादिद्वारतो ऽखिलम् ।
गेयं वितन्वतो लोकरञ्जनं भवभञ्जनम् ।।१६७।।
उत्पत्तिमभिघास्यामस्तथा श्रुत्यादिहेतुताम् ।

The pursuit of the manifest<sup>1</sup> (saguna) leads to worldly enjoyment and the meditation of the unmanifest<sup>2</sup> (nirguna) leads to salvation. (164cd).

wise do not, due to the imperfections of the body, hate it and grow indifferent to its proper upkeep and care; on the contrary, they find in it a suitable means, not only for enjoying life in this world, but also for saving their souls in the other world as well. i.e., for gaining immortality, the final beatitude.

The author further makes it clear that Life or Divinity may be conceived either as manifest and conditioned from the individual viewpoint, i.e., delimited in time-space, or as absolute, non-dual reality from the universal point of view.

He further informs that the individual's point of view, delimited in time-space as it is, leads to worldly enjoyment. The word, 'enjoyment', i. e., bhukti is neutral and comprehends both pleasure and pain, delight and sorrow, all the pairs of opposites in feeling, knowing and willing; bhukti in fact is experience. This he calls the pursuit of the manifest, i e., conditioned reality which implies the unmanifest, the unconditioned. Meditation of the unconditioned, the unmanifest, Brahman without any attributes, without any specific conditions leads to freedom, to perfection, to spiritual emancipation.

A reference may, in this context, be invited to Bhatta Nāyaka's concept of bhoga, explaining aesthetic experience being subjectively as well as objectively true and yet free from the limitations of individuality. Thus, in his view, the effective operation of the media lies

Contemplation attainable through one-pointed concentration of attention is not conveniently within the reach of people<sup>3</sup>; therefore, under the circumstances<sup>4</sup>, the sages take resort to the easier means of worshipping the unmanifest nāda<sup>5</sup>, by the procedure laid down by the preceptors. Even that, being devoid of emotional colour<sup>6</sup>, does not interest the (common) people. (165-166)

in their efficiency to liberate the subjective self well as the object presented from the limitations of personality. From this point of view music being an auditory art, has greater advantages than other art media. Music is truly a universal language and therefore is capable of being used as a medium not only of aesthetic experience but also of spiritual experience. Indeed, music has been used as a powerful instrument for spiritual and religious awakening, specially in India. The author is stressing the point (as also in the next verse) that even though all human endeavour may culminate in the awakening of the unmanifest (anahata) nāda within, it can best be achieved through the pursuit of the manifest (āhata) nāda, i.e., through the cultivation of musical arts which cater to the individual, the social and the spiritual good of humanity at the material and the spiritual levels at the same time.

Now, it has been stated in the previous verse that devotion to the manifestation of deity or the manifest deity leads to worldly experience; while, one-pointed attention fixed upon the unmanifest, the attributeless, unconditioned Brahman leads to final emancipation. With regard to worldly experience as well, the goal ultimately is to rise above need for further experience and be free from limitations of every sort. The intelligent people as it has been said, make use of the body as a means of gaining experience as well as salvation. Experiencing the sense objects and their pursuit is open to all and is also within the reach of almost all the human beings, but salvation is attained, as far as our text is concerned, by contemplating the formless, the limitless reality; and that is not approachable by all, even though that is the accepted goal of all human existence. It is not possible for everybody to meditate upon the attributeless Brahman, because it requires one-pointed concentration of mind to be held without the aid of a visible object. It requires a code of self-discipline without any external stimulus or any other source of inspiration.

<sup>1.</sup> Literally, Brahman with attributes implying conditioned existence.

Literally, attributeless Brahman implying unconditioned Being.

<sup>3.</sup> Ordinary people are meant, i. e., the average human being.

<sup>4.</sup> Since the direct approach is beyond the reach of an average human being, in such a case.

<sup>5.</sup> Nada is primordial sound.

Rakti is the capacity to delight the mind.

Now, therefore, we shall describe the creative process of the manifest sound, which expounds through (the concept of) śruti etc.8, the entire subject matter9 of music which is the means of peoples amusement as well as of attaining

Considering these difficulties, the sages have discovered a technique of attaining liberation through the meditation of the unmanifest nada, i. e., the primordial sound which is heard inside the head if carefully listened to with an unburdened mind. This sound is produced without any contant of matter, i. e., without any friction; it is natural and spontaneous and that is why it is called anahata (unstruck).

But even this is found to be of little interest by common people because this sound is pure and untinged by emotional colour and therefore uninteresting to them. That is precisely why music becomes more useful and a treatise on the science of music necessary, so that people can easily cultivate both the ends of life, viz., experience of the world and salvation from its limitations through a pleasant and a convenient means like music which is universally approved and considered attractive.

In the preceding verse (166) the author has elucidated the insurmountable difficulties involved in approaching the formless absolute reality by one-pointed concentration of attention; and also in worshipping the unmanifest  $n\bar{a}da$  by the technique of  $n\bar{a}d\bar{a}$  nusandhāna. Therefore, the utility of music as a mass-entertainer of the people and as a means of salvation approachable by the common folks without effort is brought out by the author as the prominent characteristic feature of the manifest sound, i.e., āhata nāda; it serves as a means of enjoyment in this world and of liberation from the limitations of wordly existence which is burdened with limitations of personality and the interplay of the opposites. In short, that is how the author introduces the subject proper and justifies his attempt at expounding the science of music.

Furthermore, the manner of his exposition, he assures his readers at the very outset, is to be such as to include the elucidation of such

freedom from the limitations of existence<sup>10</sup>, and also we shall investigate into its<sup>11</sup> being the origin of *sruti* etc. (167-168b).

abstruse topics as śruti, jūti, grāma, svara, etc., comprehending the very beginnings of the perception of śruti and so on. So, henceforth we are to concern ourselves with saṅgīta-śāstra, i.e., the science of musical arts.

The word utpatti of the text generally means creation, it does not mean production. It does not necessarily involve personal will.

<sup>8.</sup> Etc. refers to other important concepts such as jāti, tāna, kūṭatāna, svara, mūrcchanā, grāma and so on.

The word geyam of the text literally means all that is worthy
of being sung, but it comprehends all music by implication,
as is obvious from the context.

<sup>10.</sup> The word existence has been used here in the sense of 'worldly life', i.e., everyday existence of an average human being which is limited by innumerable factors of environment and complicated by the interplay of the opposites, as compared to the life of full comprehension, of unlimited freedom and tranquillity.

<sup>11. &#</sup>x27;Its' refers to manifest sound.

## श्रथ तृतीयं नादस्थानश्रुतिस्वरजातिकुल-दैवतर्षिच्छन्दोरसपकरगाम्

## क. नादः

(i) नाद् ब्रह्म, तस्योपासना च चैतन्यं सर्वभूतानां विवृत्तं जगदात्मना। नादब्रह्म तदानन्दमिहतीयमुपास्महे।।१।। नादोपासनया देवा ब्रह्मविष्णुमहेक्वराः। भवन्त्युपासिता नूनं यस्मादेते तदात्मकाः।।२।।

## Section 3 Nāda, Śruti and Svara

A. Nada

(i) Nāda-brahman and its worship (upāsanā): (1-2)

We<sup>1</sup> worship Nāda-brahman, that incomparable<sup>2</sup> bliss which is immanent<sup>8</sup> in all the creatures as intelligence and

The benedictory verse is addressed appropriately to Nāda-brahman.

The author, having described the genesis and the structure of human embodiment, which is the instrument of voice production, now turns to give a detailed treatment of voice, its constituent elements and other

- 1. The use of plural is significant. 'We' includes the author and the readers, and the construction is suggestive of the expression, 'let us worship' Nada-brahman.
- 2. The bliss which is one without the second, which is incomparable, absolute, i. e., not relative. 'K' takes 'advitiyam' as directly qualifying Nada-brahman.
- 3. Caitanyam sarvabhūtānām literally means the sentience in all the creatures. It has already been explained that Nāda-brahman refers to the undifferentiated state of manifestation and as such it is all-pervading, without any limitations of individuation. Caitanya is the essence of 'being' without implying any opposite. Sentience, for example, implies inert matter as non-sentience. It is in this light that Caitanya has been translated as intelligence. Caitanya is the life-essence inherent in all the creatures.

is manifest4 in the phenomenon of this universe. (1)

Indeed, through the worship of nāda<sup>5</sup> are worshipped gods (like) Brahmā, Viṣṇu and Śiva, since essentially they are one<sup>6</sup> with it<sup>7</sup>. (2)

related matters; in the words of 'K', having dealt with the producer, the author now proposes to deal with the product.

We have already come across the concepts of nāda (I.1.1 & I.2.1-3 ante) and Brahman (I.2 4-5), and here we are confronted with the concept of Nāda brahman. The commentators explain it grammatically as 'nāda eva Brahman', i e, nāda is itself Brahman, or it may also be interpreted as 'nāda is Brahman-like'. If nāda is taken as an adjective to Brahman, then it will qualify the word Brahman, in which sense 'K' interprets nāda as an object of superimposition of Brahman which takes place due to the common character of both, viz, sentience. How is it that nāda is taken to be sentient? 'K' would say, as he actually does, that nāda is the object to which the sentience of Brahman is lent by superimposition. But, the grammatical approach is likely to be misleading; for, though nāda and Brahman are two words representing two different concepts, the word 'Nāda-brahman' is a compound word representing a single concept, viz., Brahman manifest as nāda. Thus 'nada eva Brahman' may be understood in this light.

The commentators have offered a double interpretation, i. e., from the point of view of Brahman and nada. But obviously such an endeavour does not seem to be necessary.

- 4. As intelligence and bliss, Nada-brahman is immanent in all the beings. This immanence indicates the state of non-differentiation, which is manifest in the differentiated consciousness as the universe in the relationship of the seer and the seen, the subject and the object. Moreover, nada as the primordial sound having space or ether as its base is the subtlest of all the elements and precedes them in the order of manifestation. Thus Nada-brahman is the cause of the manifest universe. 'K' rightly points out that nada is the source of sruti-s, letters and words, etc., on which is based the conduct of worldly affairs. The world and the events taking place in it are perceived in the consciousness as name and form only: there is no wonder therefore, if it (nada) is credited, erroneously though in the ultimate analysis to be the very substratum of the manifest universe. But, such an interpretation becomes unnecessary if Nadabrahman is taken to be a single concept and is not split into nada and Brahman.
- 5. Nada implies Nada-brahman in this context.
- The word 'tadātmakāb' of the text literally would mean that gods Brahma, Viṣṇu and Siva have nāda as their essence.
   'It' implies nāda.

Section 3: Nada, Śruti and Svara

(ii) देहे ध्वनेराविभावः

आत्मा विवक्षमाणोऽयं मनः प्रेरयते, मनः । देहस्थं विह्नमाहन्ति स प्रेरयति मारुतम् ।।३।। ब्रह्मग्रन्थिस्थितः सोऽथ क्रमादूर्ध्वपथे चरन् । नाभिहत्कण्ठमूर्धास्येष्वाविर्भावयति ध्वनिम् ।।४।।

(ii) The process of the manifestation of sound in the human body. (3-4)

Desirous of speech the individuated being<sup>1</sup> impels the mind, and the mind activates the battery of power<sup>2</sup> stationed in the body, which in its turn stimulates the vital force<sup>3</sup>. The vital force stationed around the root of the navel, rising upwards<sup>4</sup> gradually manifests  $n\bar{a}da^5$  in the navel, the heart, the throat, the cerebrum and the cavity of the mouth as it passes through them. (3-4)

Now, the author proceeds to describe the process of voice production (i. e., the manifestation of āhata-nāda). Desire for self-expression is the motive power that initiates the process into action. Why there is the desire for self-expression is a metaphysical question and one can probably look for its answer to the benedictory verse; but, the author is not, at the moment, concerned with that. As far as the individual, which is the medium of voice production is concerned, desire for self-expression is discerned to be the cause of speech; and therefore of singing i. e., music and even dance as it is included in the concept of Sangita.

It is notable that uptil now the word nāda was signifying unmanifest sound; but, herefrom it obviously signifies manifest sound. It has already been said that nāda is twofold, viz., unmanifest and manifest (cf. S. R. I.2.1-3 ante). Futhermore, the word is now being defined in the context of music.

1. The word atman is difficult to translate into English due to the various shades of meaning attached to it in the different schools of Indian philosophy and cultural strata of society. In the present context the word atman is used as a dimunitive for jivatma, i. e., individuated being or differentiated consciousness.

2. Vahni of the text literally means fire, but that is figurative in the present context.

3. Prana is translated as vital force.

4. The region below the navel pertains to anahata-nada, i. e., the unmanifest sound (cf 'S' on I 3-6).

5. Now, since the concept of nada has been clearly explained, it will be misleading to translate it as sound.

'K' brings out the purport as under: "nāda, which is synonymous with parā vāk, being the energy of Brahman, is inseparably close to it and therefore propitiation of nāda leads to the attainment of Brahman as one desirous of obtaining the lustre of a jewel attains the jewel along with it." The main burden of his comments is shared by two of his considerations, viz., his interpretation from the non-dualistic Vedantic point of view and his anxiety to show that devotion to nāda can also lead to the spiritual emancipation of the soul, i.e., the pursuit of music not only has economic and aesthetic value but also spiritual value, viz., makṣa, the highest endeavour (puruṣnrtha) of mankind; the argument being that scientific knowledge of śruti etc. leading to the understanding of the phenomenon of music, bestows the insight necessary for the attainment of the absolute.

Incidentally, nada may be differentiated from sound. The concept of sound is purely objective, but nada is not merely an object of the sense of hearing. The concept of nada refers to the perception in which the subject and the object is not differentiated. In other words, Nadabrahman implies the undifferentiated state of manifestation, which cannot be translated into the terms of the differentiated consciousness. This point of view can also be approached in a different way. Names generally are considered to refer to objects of perception perceived by or perceivable by a subject - thus implying a subject object relationship. But the re'erend of names may not be an object, for according to some. what we perceive is the modifications in our consciousness; we have no access to the objects except through the thought-forms of the mind. Thus names ultimately refer to forms of consciousness and therefore every word implies in its meaning not only the form perceived by the senses but also the substance which finally is consciousness. Thus the word nada also implies consciousness, for otherwise it cannot be meaningful. Accordingly, the function of the word is to awaken a particular form in the consciousness and Nada-brahman signifies undifferentiated consciousness.

Worship is an act of devotion, and the incomparable bliss of nāda is the ultimate source of all such inspiration. The gods Brahmā, Viṣṇu and Śiva in the puranic mythology represent the three aspects of the manifestation of Brahman into the phenomenon of the universe, viz., creation, preservation and destruction; the three being the part and parcel of a single movement, called Śakti or the energy or the creative power of Brahman. This energy is also called nāda or śabda, i. e., the Word, or the parā vāk as 'K' puts it. In the first stage of manifestation the energy involved in Brahman evolves into undifferentiated consciousness which is called Nāda-brahman in our text and accordingly the three gods named above are the three aspects in which the energy separates in the manifestation. Nāda-brahman is also known as Śabda-brahman.

So, essentially the gods Brahmā, Viṣṇu and Siva, being the aspects of the same deity, are one with nāda.

## (iii) पञ्चविधो नादः

## नादोऽतिसूक्ष्मः सूक्ष्मश्च पुष्टोऽपुष्टश्च कृत्रिमः । इति पञ्चाभिधा धत्ते पञ्चस्थानस्थितः क्रमात् ॥५॥

#### (iii) Fivefold nāda (5)

Stationed in these five places, nāda takes on five different names as associated with them respectively, viz., extremely subtle<sup>1</sup>, subtle<sup>2</sup>, loud<sup>3</sup>, not-so-loud<sup>4</sup> and artificial<sup>5</sup>. (5)

'S' quotes Matanga who gives slightly a different set of nomenclature, viz., subtle, very subtle, manifest, unmanifest and artificial. It is significant that our author has reversed the order of the first two; and the reason is not far to seek. Matanga says that the nada called subtle resides in the cave (i.e., the navel), very subtle in the heart, manifest in the throat, unmanifest in the the cerebrum and artificial in the mouth. It is not clear why Matanga should locate the very subtle nada in the heart; for the natural order of manifestation upto the throat is such that the lower the place the less manifest the nada must be. The progress should be from the subtlest to the gross. Accordingly our author seems to have represented the correct notion (cf. S. Raj. II. 1.1.17 which follows S R).

'S' would like us to follow the order indicated by Matanga, but he does not assign any reasons for that; neither he seems to perceive any controversy or a difference of opinion between the two authors. It may therefore be inferred that, he takes the difference of the order in question as caused by the poetic convenience and not worthy of any serious attention. That is why he innocently suggests Matanga's order to be the true one.

Incidentally, cerebrum is the highest point of nada-manifestation; and just as it (nada) is very subtle at the lowest point; so also it is difficult of perception at the highest point, being at the other extremity of the producing instrument; that is why it is characterised as 'not-so-loud' or unmanifest.

Atisūkṣma of the text.
 Sūkṣma of the text.

3. Pusta of the text is suggestive of strength, in other words that which has gained in volume.

4. Apuşta of the text.

## (iv) नाइशब्दस्य निरुक्तिः

## नकारं प्राणनामानं दकारमनलं विदुः। जातः प्राणाग्निस्योगात्तेन नादोऽभिधीयते ॥६॥

#### (iv) The derivation of nāda

It is understood<sup>1</sup> that the syllable<sup>2</sup> na (of nāda) represents the vital force and da<sup>3</sup> represents fire; thus being produced<sup>4</sup> by the interaction<sup>5</sup> of the vital force and fire it is called nāda. (6)

This verse gives the derivation of the world  $n\bar{a}da$ . In Sanskrit two types of derivations are offered, viz. (i) grammatical called vyutpatti and (ii) what may be called in English 'semantic', i. e., nirukti; and here what we are offered is a semantic derivation, which is partly related to the tantric system. 'K' points out that according to the science of tantra, every seed-syllable (bijākṣara) of a mantra has a presiding deity, and in that context the letters n and d refer to Prāṇa and Agni, i. e, the vital force and fire. The word nāda is derived grammatically by 'S' as that which is produced by the consonants n and d put together.

Thus, the word nada is significant, both grammatically and semantically and is indicative of signifying the consequence of the interaction of vital force and fire, which is the 'consciousness of sound'.

Matanga derives the word  $n\bar{a}da$  from the root nad, 'to sound' in addition to the semantic derivation given by our author who has preferred to give the latter alone as it explains the process of voice production.

<sup>5.</sup> Kitrima of the text. It is so named because sound, after being produced through the vocal chords, is modified in the mouth by the tongue, the teeth, the lips, etc., and thereby loses its natural texture.

<sup>1.</sup> If literally translated, it would read, "(they) knew", 'they' being implied in the number and the person of the verbal form used. They refer, as perceived by 'K', to tantric experts.

<sup>2.</sup> Literally, "the letter n and the letter d."

<sup>3.</sup> The idea of representation is not explicit in the text but is definitely implied in the context.

<sup>4.</sup> Produced as a consequence of the union of the vital-force and fire.

<sup>5.</sup> Literally it would read as 'union', but the union is an action.

## (v) गीतव्यवहारे त्रिधा नादः व्यवहारे त्वसौ त्रेधा हृदि मन्द्रोऽभिधीयते। कण्ठे मध्यो मूर्ध्नि तारो द्विगुणश्चोत्तरोत्तरः।।७।।

(v) The threefold nāda in music.

However, in actual practice<sup>1</sup> it<sup>2</sup> is threefold, called mandra<sup>3</sup> in the heart, madhya<sup>4</sup> in the throat, and tāra<sup>5</sup> in the head and is successively double (in pitch). (7)

The author has already spoken of a fivefold classification of nada based on the location spots in the body in verse 3 (ante). Here, he opens the verse with 'however', indicating that the threefold classification of nada into the 'low', the 'medium' and the 'high' is presented notwithstanding the earlier classification, as this one is devised from a purely practical point of view. As the commentators have pointed out, the practical point of view relates to the practice of singing etc., i. e., to musical performance; and therefore, the function of this classification is to be clearly distinguished from the earlier one, which is more or less of a theoretical value.

The same nāda, when produced from the heart is called mandra, when produced from the throat is called madhya and when produced through the head, i. e., the cerebrum, it is known as tara, and each successive nāda is double (in pitch) than the preceding one, i. e., the three aspects stand in the ratio of 1:2:4. 'K' gives another significant interpretation for this idea. According to him, if the effort involved in the articulation of sadja and the other notes of the lower register (mandra) is taken as the standard unit measure, then the effort involved in producing sadja and the other notes of the middle register is twice as much and the effort required for producing the same notes of the high register (tara) is double than that (i. e., that of the middle). That is how madhya is double the mandra and tara is double the madhya.

## ख. श्रुति

## (i) श्रुतिः, तत्सङ्ख्या च

तस्य द्वाविंशतिर्भेदाः श्रवणाच्छु तयो मताः ।
हृद्यूर्ध्वनाडीसंलग्ना नाडचो द्वाविंशतिर्मताः ।।८।।
तिरश्च्यस्तासु तावत्यः श्रुतयो मारुताहतेः ।
उच्चोच्चतरतायुक्ताः प्रभवन्त्युत्तरोत्तरम् ।।९।।
एवं कण्ठे तथा शीर्षे श्रुतिद्वीविंशतिर्मता ।

B. Śruti

#### (i) Śruti and its number (8-10b)

Nāda<sup>1</sup> is differentiated into twentytwo grades which, because of their audibility<sup>2</sup>, are known as śruti-s<sup>3</sup>. (8ab)

It is believed that, closely associated with the two upward nādī-s in the heart there are twentytwo nādī-s placed

By this time it would have been clear that the term  $n\bar{a}da$  is increasingly being used in a specific sense. Whereas  $n\bar{a}da$  signifies in the general sense, the consciousness not sound, here its meaning has been restricted to musical sound. In this sense, it has been said in the previous verse, that  $n\bar{a}da$  is of three types, with reference to the place of production in the body or the pitch, so to say. Now, such a  $n\bar{a}da$  is further distinguished into twentytwo varieties, produced by twentytwo upward  $n\bar{a}d\bar{a}$ -s each of the heart, the throat and the cerebrum.

What is important to note is that twentytwo variations, grades or intervals have been recognised in the scale. The twentytwo nadt.s,

1. In this context the author is dealing with the manifest (āhata) nāda, and therefore nāda means musical sound.

 The word 'fravanāt' of the text literally means 'on account of hearing'.

3. Sruti-s literally could be rendered as 'audibles'.

4. The word 'matah' of the text has been literally translated here as it seems to have been so used. But sometimes it is not necessarily so used, it is otherwise used in the sense of "it is known" or "it is considered."

5. 'K' interprets the word nada of the text as indicative of dual number and accordingly names them as ida and pingala, but 'S' seems to take it as singular and accordingly identifies it with susumna.

<sup>1.</sup> Vyavahāra is conduct, i. e., actual practice; in this context 'gīta', i. e., the tonal aspect of music.

<sup>2. &#</sup>x27;It' refers to nāda.

<sup>3.</sup> Mandra literally means 'low'.

<sup>4.</sup> Madhya literally means 'medium' in this context.

Tāra literally means 'high'.

obliquely, and twentytwo sruti-s successively higher and higher in pitch, are produced by the force of wind acting upon them. (8c-9)

Similarly, twentytwo śruti-s are discerned in the throat as well as in the cerebrum. (10ab)

however, have not as yet been identified in terms of modern physiology or anatomy. Nevertheless, the concept of relating twentytwo sruti-s to twentytwo nadi-s is not confined to Sarngadeva but is shared by at least one more author known to us, viz., Saradatanaya who is a contemporary of the author. He not only relates twentytwo sruti-s with twentytwo nadi-s branching off from the central nadi, viz., susumna in the region of the heart but he further relates them to the seven places of pronouncing letters of alphabet, viz., the throat, palate, lips, cerebrum and teeth either independently or from more than one place put together. Thus he goes on to relate the seven tones to these places of pronunciation assigning to them the number of nadi-s equal to the number of their sruti-s. The whole theory is illustrated in the following chart:

svara-s and varna-sthana-s

No.	ciation n	adi-s	Name of the note produced	of	Remarks
1	2	3	4	5	6
1	Throat	4	Şadja	4	Compare Sangitamaka
2	Root of the palate	3	Ŗşabha	3	randa (1.11-12) for the
3	Lips	2	Gāndhāra	2	relationship of col, 2 and 4
4	The centre of cerebrum	4	Madhyama	4 4	Being produced from
5	Teeth, throat, cere- brum, palate & lips	. 4	Pañcama		five places it is called pañcama
6	Throat & palate	3	Dhaivata	3	
7	Throat & lips	2	Nișada	2	Total no. of Stuti-s 22

K. R.' translates it as 'crosswise'. Literally it also means horizontal.

In other words, he relates not only the *iruti-s* but also the svara-s to the nadi-s. And alternatively, he also presents another theory according to which the seven svara-s (notes) are related to the seven supportive tissues (dhatu-s) in the body, viz., serum, blood, flesh, fat, bone, marrow and semen. The theory seems to rest on the contention that the internal heat (ūṣmā) of the tissues in conjunction with praṇa gives rise to the seven tones through different dhamani-s (arteries) that are associated to the particular tissues in the same number as that of the sruti-s of the particular tones which they produce. Thus the number of dhamani-s associated with the production of the seven notes through the seven supportive tissues is also twentytwo.

In this way both the theories seek to present physiological evidence to support the view that the total number of *śruti-s* is 22 only (cf. Bhāvaprakāśanam, pp. 184-188). The following detail of the topics dealt with gives an idea of the subject matter:

"The creation of nada and the letters of alphabet—the places of pronouncing the letters—22 nadi-s as related to these places—the seriatim production of nada, sruti and svara—the rise of seven notes from seven places—the svara-s and the supporting tissues 22 dhamani-s etc." The following chart shows the relation of svara-s and the supportive tissues according to the above theory.

Svara-s as related to dhātu-s (supportive tissues)

S. No.	Dhātu	Svara	No. of supporting	Location of the substratum
1	Semen	Şadja	4	Brahma-granthi (centre of the body)
2	Marrow	Ŗ <b>şabha</b>	3	Navel
3	Bone	$G$ āndh $\bar{a}$ ra	2	Heart
4	Fat	Madhyama	4	Throat
5	Flesh	Pañcam <b>a</b>	4	Root of palate
6	Blood	Dhaivata	3	Cerebrum
7	Skin	Niṣāda	2	Sahasrāra

(Chart-2)

It may be kept in mind that these tones are related to the heat (resident fire) of the above tissues and not the tissues themselves. The related dhamani-s are supposed to feed the tissues concerned and the tones produced are the modifications of nāda that is produced primarily in the suṣumṇā.

Thus it will be seen that the relation of 22 strati-s and the seven tones with the naid-s is not without a scientific basis. However, the

<sup>7.</sup> The number twentytwo is not repeated here in the text, but the expression 'of the same number' is used.

<sup>8</sup> The throat and the cerebrum are the other two places from which nāda finds voice; along with the heart these three refer to the three registers,

fundamental basis of this theory is to be found in the intimate knowledge of the kuṇḍalinī-yoga and tantra. But it is clear that the āhata-nāda (the manifest sound) is conceived here to be a modification of the nāda residing in the central-most nāḍī, viz., suṣumṇā and is manifested through the nāḍī-s that branch off from it.

This perspective affords us a greater understanding of the relevance of the entire spectrum of subjects dealt with in the Section entitled—the Human Embodiment.

The word *śruti* is derived from the root '*śru*', to hear; thus *śruti* is that which is 'heard'. In other words, fruti is the name given to that range of sound which is audible Since twentytwo such sounds are perceived in each of the three registers, it is also implied that an audible sound in order to be called a *struti* should also be capable of individual perception and recognition, and therefore of being reproduced. 'K' opines that audibility is common to tones as well as sruti-s; so, that is not sufficient to characterise it properly. He, therefore, suggests that when the sound breaks on the first stroke, it is free from resonance in the first instant. Thus according to 'K' sruti is that audible sound which is free from resonance. The point that he seems to be making is that sruti is essentially devoid of tonal colour. This view is obviously based on the distinction drawn between fruti and svara by the author (vide 24c-25b) while defining the latter. However, this characteristic of sruti that categorically distinguishes it from svara was first pointed out by Abhinavagupta, who defines svara as, 6the sound that is (produced) by the influence of the sound arising as a result of striking (a vibrating string) at a śruti-sthana (the postion of a śruti) and is (thus: essentially resonating, sweet and creamy' (Vayam tu śrutisthanabhighataprabhavasah dabrabhavito anurananatm snigdhau madhurah sabda eva svara iti vaksyamahi (cf. Abh. Bh, on N. S., G. O. S. IV, p. 11).

In this definition it be observed that when *stuti* is referred to as having a *sthāna* (a particular position in the scale) it implies a certain pitch relation and the word no longer is used in its literal sense of audible sound. This sound which is produced by striking a vibrating string at a given point is not resonating in the first instant, but is capable of creating resonance in that string. That the word *struti* had a reference to pitch relation from very early times, is indicated by an aphorism of Pāṇinī (500 B. C.), "Ekaśruti dūrāt sambuddhau" (1.2.33), i. e., a call from a distance (in vocative) is (perceived as) ekaśruti. The word ekaśruti is defined by Patañjali as the non-distinction of the tone-triad (traisvāryā) i. e., udātta, anudātta and svarita) in perception. Thus, Abhinavagupta made the distinction between the general and the particular meaning of the *sruti* both at the conceptual and the perceptual levels. Conceptually

the *fruti-s* are twentytwo as twentytwo definite positions in the scale of seven notes, but perceptually the *fruti s* are non-resonant primary manifestations of musical sound, antecedent to the production of tones. It is this sort of thinking that is abridged by Śārngadeva in his definition of svara referred to above, which Kallinātha has expounded.

In this context it is worthwhile to point out that in the history of the concept of śruti, we come across discussions regarding the number of śruti-s and one of the views is that the number of śruti-s is infinite, and in that case audibility seems to be the only characteristic of śruti. But if the number is limited then other characteristics are relevant.

'S' quotes Matanga who has discussed this topic at some length. He derives the word *śruti*, grammatically from the root *'śru'* to hear, and speaks of *śruti* as the audible sound, and therefore essentially one.

He (Matanga) further quotes Viśvavasu who declares the same one śruti to be twofold, i. e, the one pertaining to the normal tones of the scale and the other pertaining to the intervening tones (i. e., antara-gandhāra and kākalī-niṣāda, to be explained later). However, this distinction is not of any value, what is notable is that he also defines śruti as the audible sound. He (Matanga) also mentions the view according to which śruti is considered to be threefold and he describes two such schools, viz., those who base their argument on the three places of voice, i e., the three registers, and those who base their view on the threefold perceptual insensitivity (indrivavaigunya). Such insensitivity is explained in these terms: (a) that which is presented as the natural response of the organism to the situation; (b) that which is caused by the emotional imbalance of over-activity or dullness; and (c) that which is consequent upon taking improper food and drink.

Then he also points out the view according to which *śruti* is fourfold, and this view is based on the fourfold condition of the body, viz., the respective predominance of wind, bile and phlegm and the combined derangement of the three (cf. S. R. I. 2.71c ante). However, as 'K' points out, these varieties are spoken of with reference to the over-all quality of voice which includes timbre, volume and pitch-range. This classification is primarily applicable to the production of voice in the human organism.

The only classification based on the pitch of the notes, divides them into three categories (i) having 4 sruti-interval, (ii) with 3 sruti-interval and (iii) with 2 sruti-interval. As we shall have the occasion to see later, there are three notes in the first category comprising 12 sruti-s, two in the second comprising 6 sruti-s and two in the third comprising 4 sruti-s, making 22 in all in the scale of seven notes known

## (ii) चतुःसारणा

व्यक्तये कुर्महे तासां वीणाद्वन्द्वे निदर्शनम् ॥१०॥ द्वे वीणे सदृशी कार्ये यथा नादः समी भवेत् । तयोद्वीविशतिस्तन्त्र्यः प्रत्येकं, तासु चादिमा ॥११॥

#### (ii) The fourfold string movement (catuh-sāraṇā): 10c-22

For their clear<sup>1</sup> exposition we are to demonstrate them on a pair of vīṇā-s. Two vīṇā-s with twentytwo strings each, may be produced similar<sup>2</sup> in every respect to sound<sup>3</sup> alike.

as sadja-grāma. Thus, there are 9 sruti-s in this view which is attributed to the flutists who are required to provide appropriate knobs for producing all the notes by partial and full openings. Matanga also quotes Bharata to support the threefold classification of notes on which is based the ninefold sruti. The concept of 9 sruti-s is related to the triad of notes and not the heptad. Then he puts forward some other views along with Kohala who says, "some maintain twentytwo as the number of sruti-s, while others, (in view of three registers) consider it to be sixtysix, but others think it to be infinite."

We have already dealt with the view of the infinity of *śruti-s* as untenable. The number sixtysix is admitted on the ground that there is a difference in the pitch of the notes of the three registers; and therefore their *śruti-s* should also be considered to be different. However, as 'S' argues, this is not a fundamental or categorical difference as the notes of the three registers as well as their *śruti-s* are recognised to be the same. Thus the view holding twentytwo as the number of *śruti-s* hold good and Śarngadeva seems to have settled this question once for all, since after him this number is taken for granted.

To sum up, "'sruti is that audible sound which at the conceptual level is capable of being individually perceived, recognised and reproduced and at the perceptual level is free from resonance; such 'sruti's are twentytwo in number, and are the same in all the three registers." This is the twofold technical meaning of the word 'sruti apart from which, the word simply means—'that which is heard', i e., 'the audible'. The Sanskrit word 'sruti is rendered into English by some as 'microtone'.

1. The minute 'sruti intervals are not easily discernible without being systematically demonstrated; and since it is difficult to do so vocally, viņā-s are pressed into service.

2. Similar in every detail of manufacture, and the test of their similarity lies in the resulting identity of the sound produced by them.

कार्या मन्द्रतमध्वाना द्वितीयोच्चध्वनिर्मनाक। स्यान्निरन्तरता श्रुत्योर्मध्ये ध्वन्यन्तराश्चतेः ॥१२॥ अधराधरतीवास्तास्तज्जो नादः श्रतिर्मतः । वीणाद्वये स्वराः स्थाप्यास्तत्रं षड्जश्चतुःश्रतिः।।१३।। स्थाप्यस्तन्त्र्यां तुरीयायामृषभस्त्रिश्र् तिस्ततः । पञ्चमीतस्त्रतीयायां, गान्धारो द्विश्र तिस्ततः ।।१४।। अष्टमीतो द्वितीयायां, मध्यमोऽथ चतुःश्रतिः। दशमीतश्चतुर्थ्यां स्यात्पञ्चमोऽथं चतुःश्रृतिः ।।१५।। चतुर्दशीतस्तुर्यायां, घैवतस्त्रिश्र तिस्ततः । अष्टादश्यस्तृतीयायां, निषादो द्विश्रृतिस्ततः ॥१६॥ एकविश्या द्वितीयायां, वीणैकाऽत्र ध्र वा भवेत्। चलवीणा द्वितीया तू तस्यां तन्त्रीस्तू सारयेत् ।।१७१। स्वोपान्त्यतन्त्रीमानेयास्तस्यां सप्त स्वरा बुधैः। ध्रववीणास्वरेभ्योऽस्यां चलायां ते स्वरास्तदा ।।१८१। एकश्र त्यपकृष्टाः स्यूरेवमन्याऽपि सारणा। चलवीणागतौ गनी ।।१९।। श्र तिद्वयलयादस्यां रिधयोर्बिशतः ध्र ववीणोपगतयो जुतीयस्यां सारणायां विशतः सपयो रिधौ ।।२०।। निगमेष चतुर्थ्यां तु विशन्ति समपाः क्रमात । श्र तिद्वाविशतावेवं सारणानां चतुष्टयात ॥२१॥ ध्र वाश्र तिष लीनायामियत्ता ज्ञायते स्फूटम । अतः परं तू रक्तिध्नं न कार्यमपकर्षणम् ।।२२।।

The first<sup>4</sup> string may be so fixed as to produce the lowest<sup>5</sup> possible sound, and the second one in order to sound a little

4. 'K' thinks that the string fixed so as to be the nearest in the the approach of the player is the first string.

<sup>5.</sup> Here we are concerned with musical sound and not merely with sound. Therefore, the lowest possible sound implies that the string should be stretched not only to make an audible sound but to make the sound which is the lowest and also capable of resounding. As 'S' puts it, the sound thus produced should be delightful.

bit higher than that, maintaining continuity in between the two śruti-s and disallowing any intervening audible sound. Thus, the strings fixed one below the other are successively of higher and higher pitch, and the sound produced by them is known as 'śruti' (10c-13b)

To establish the notes on the two viņā-s let şadja which is of four śruti – measure, be fixed on the fourth string; ṛṣabha of three śruti-measure on the third string as counted from the fifth<sup>8</sup>; gāndhāra of two śruti-measure on the second string from the eighth<sup>9</sup>; madhyama of four śruti-measure on the fourth string from the tenth<sup>10</sup>; pañcama also of four śruti-measure on the fourth string from the fourteenth<sup>11</sup>; dhaivata of three śruti-measure on the third string from the eighteenth<sup>12</sup> and niṣāda of two śruti-measure on the second string from the twentyfirst.<sup>18</sup> (13c-17a)

Let one of these two vina-s be kept invariable and the other one as variable; and in the latter, one may move the strings. (17b-d)

In the first movement, the seven notes of the variable vina 17 have to be brought over 18 by the experts 10 to the

6. The expression 'a little bit' is explained forthwith in the text that follows immediately, i. e. to the extent that no other sound intervenes and the continuity in hearing is maintained.

7. The twentytwo strings fixed in this manner, when plucked will sound in twentytwo *sruti-s*. This number is further to be verified and proved beyond doubt. But in the meanwhile, every sound produced by these is called *sruti*.

8. The seventh string if counted from the first,

9. The ninth
10. The thirteenth "" "" ""

13. The twentieth "," ","

14. Literally, dhruva means immutable, constant.

15. Literally, cala implies adjustability in this context.

16. The precise meaning of this term is elucidated in the next verse.

17. This expression is implicit in 'tasyam' of the text which is related to 17d above.

18. This is more or less a literal translation of aneyah of the text, which has been preferred in order to preserve the underlying feeling that an experiment is being conducted; for otherwise the purport is that the notes have to be shifted from their original strings.

immediately preceding<sup>20</sup> strings; and thereby its notes are lowered by one *śruti* each with reference to those of the invariable viņā. The remaining<sup>21</sup> movements may as well be similarly carried out. (18-19b)

In the second<sup>22</sup> movement, due to the fusion<sup>23</sup> of two śruti-s the ga and ni of the variable vīṇā have been absorbed<sup>24</sup> by ri and dha respectively of the invariable vīṇā. (Similarly) in the third movement ri and dha have merged into sa and pa respectively; while in the fourth movement sa, ma and pa have fused with ni, ga and ma respectively.<sup>25</sup> (19c-21b)

The concept of *śruti* and the number of *śruti-s*, i.e., twentytwo, is not based merely on subjective experience of the nadi-s, but as clearly defined, the different *śruti-s* can be produced at will, recognised as individual entities and so demonstrated. Thus, the concept of *śruti* is objective and scientific in so far as it is demonstrable.

The procedure for this demonstration is quite simple and is said to have been attempted successfully with tangible results. This topic is dealt with in the text extending from verse no. 10c to 22 and the whole process is technically called 'catuh-sarana', which will be explained later.

However, the technique of demonstration is open to some serious objections; for example, Pt. Omkarnath Thakur points out the following difficulties in the process (cf. *Praṇavabhāratī*, pp. 64, 65 and *Saṅgītāñjalī* pt. V, p. 91):

- The experiment has to be conducted very carefully and under expert guidance.
- 20. The original strings are the 4th, 7th, 9th, 17th, 20th and 22nd; and now, the notes have to be placed respectively on the 3rd, 6th, 8th, 12th, 16th and the 21st strings.
- 21. That is, the second, third and the fourth movements may also be carried out by lowering the pitch of the notes by one 'sruti each with reference to their standard pitch in the invariable vina, and the lowering is effected by moving to the proximate strings.
- 22. Literally, in 'this' with reference to the previous line.
- 23. Laya is indicative of the loss of distinction of individuality.
- 24. Visatah lit enter, is the most appropriate expression whereby the note that merges is absorbed by the one with which it merges.
- 25. It may be borne in mind that this fusion is with reference to the invariable vina. Sa, ri, ga, ma, pa, dha, and ni, it may be noted, are the diminutive forms of the seven notes called sadja, ssabha, gandhara, madhyama, pancama, dhairata and nisada.

Thus, the exact number of sruti-s is clearly evidenced by their fusion with the twentytwo sruti-s of the invariable vina brought about by the process of fourfold string movement. The retrograde movement may not be carried beyond this s, as that would mar the beauty. (21c-22).

- (i) Though it is possible to fix 22 strings on vind, yet it is difficult to do so; and it is even more difficult to establish the different notes on them by tonal consonance.
- (ii) It has been suggested that the first string should be fixed so as to produce the lowest possible sound. This is, at best, a vague direction.
- refers to the pitch below which sound does not produce any resonance and thus ceases to be musical, the problem yet is how to fix the second string in order to sound a little bit higher than the lowest and so on. That, he says, is to be determined by ensuring that continuity in-between the two is maintained and any intervening sound is eliminated or disallowed to intrude. This leads to the question whether it is practicable not to listen to the intervening pitch-points or musical microtones. Obviously such subtle musical sounds are discernible by trained ears. Therefore, the procedure suggested by the author does not seem to be satisfactory.

Moreover, the statement that, "the sound produced by them (the 22 strings fixed by the above procedure) is known as *sruti*", is technically unsound, for *sruti*-s that are also called microtones, are very narrow pitch—relations, perceived by trained ears with great difficulty; they cannot thus be determined so easily by fixing the strings a little bit higher successively since it does not involve a definitely measured pitch. (10c-13b)

While Pt. Omkarnath Thakur suggests his own procedure for demonstrating 22 śruti-s (cf. Pranavabhāratī, pp. 65-66), Dr. K. G. D. Brihaspati suggests quite a different interpretation of the text which enables him to steer clear of some of the difficulties mentioned above

(cf. Sangitaciniamani, pp. 191, 192) the purport of which is presented as under:

- (i) The procedure of the fourfold string movement described above is a preliminary exercise to fix the strings approximately in order to establish the seven notes later on the basis of the consonance of notes without much difficulty.
- (ii) Śārngadeva has adapted this procedure from Matanga for the above purpose. The above contention is demonstrated to be true by the second line of the verse 13 (Vinadvaye svarah sthapyāstatra sadjaścatuhśrutih). He clearly states that the notes have (yet) to be established on the two strings.
- (iii) He has used the word *struti* in its primary meaning of an audible sound, and not in the technical sense, for otherwise he ought to have named the *struti-s* there and then thus rendering the fourfold string movement and the process of establishing the notes unnecessary.

Moreover he elsewhere points out that in keeping with the spirit of the age, Śārngadeva has purposefully clothed his expression in the blanket of ambiguity. This is how the subject matter has been dealt with by the modern scholars.

The śruti-s when specifically grouped, manifest the seven notes of the scale. Incidentally, the Indian theory of music does not take the octave into account as a general rule. We may have the occasion to reflect upon the thinking that has been done regarding the relationship obtained between svara (i. e., a note) and sruti. It may also be worthwhile to point out that the concept of svara is not at once identical with the concept of note, though generally the term is rendered into English as 'note' or 'tone' according to the context. The essential difference that can at once be pointed out between 'svara' and 'note' is that, whereas the pitch of the notes is fixed, that of svara-s is not absolutely fixed, though it remains invariably the same in relation to the other of the scale. An Indian performer is free to fixe his fundamental note according to his own convenience. This goes to make all the difference. Another important difference is that svara can roughly be said to signify 'duration in pitch' rather than a point. This factor will be further clarified as we proceed with the text. However in English the words 'note' and 'tone' are used with some inexplicable discrimination in this translation.

For the time being, suffice it to say that, a number of *śruti-s* in successive combination go to bring a tone into being. Now, the author concerns himself with establishing the seven notes of the scale on the

<sup>26.</sup> The inatta of the text has the sense of numerical extent.

<sup>27.</sup> Apakarşa is the lowering of the notes in pitch.

<sup>28.</sup> This refers to the fourth movement.

<sup>29.</sup> Rakti of the text literally means delightfulness which is beauty.

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strings fixed on the two vina-s. Sadja is to be established on the fourth fruti as counted from the last fruti of the preceding note, i. e, nişāda of the lower scale; and since the first string here is taken as the lowest possible sound, şadja is fixed on the fourth string. Similarly rṣabha is established on the third fruti taking the last fruti of the previous note as the zero point. Thus rṣabha is fixed on the third string as counted from the fifth (i. e., the seventh string). Similarly, other tones are also established on their respective strings. (13c-17a)

Having once established the seven notes in the two viņā-s at the fruti intervals of 4, 4+3, 7+2, 9+4, 13+4, 17+3 and 20+2, i. e., 4, 7, 9, 13, 17, 10 and 22, now the author proceeds to demonstrate the fact of these minutely preceptible intervals that go to manifest the seven standard notes, being twentytwo in number. One of the viṇā-s is kept invriable to serve as the unmodified standard for evaluating the modifications brought about by the string-movements. Four of such string movements go into action in this process which is technically known as 'catuh-sāraṇā', i. e., the fourfold string-movement. This has been described in the text extending from verses 17 to 22.

The vinā in which the fourfold string-movement takes place is cala vinā (lit movable) in the text, while the one which serves as the invariable standard is called acala-vinā (lit-immovable). Both of them, it may be pointed out, have twentytwo strings and are identical in every respect. Such vinā-s, however, are used here for experimental purposes only, and are not otherwise used for any performance. (17b-d

The fourfold string-movement has already been referred to. In this verse the author elucidates the significance of the string-movement. Although the whole picture will only be clear after going through the whole process, i. e., upto the 22nd verse, it is worthwhile to understand what is meant by 'movement'.

The seven notes of the scale have been established on definite strings on the two vina-s; now, the notes of the variable vina, in the first movement, are shifted to the strings immediately preceding their respective original strings; i. e., in other words, the movement implies the lowering of the notes in pitch by one 'sruti-interval. Similarly in the second movement the notes would be lowered by two 'sruti-intervals, in the third by three 'sruti-intervals and in the fourth by four 'sruti-intervals. Consequences of this fourfold string-movements are described in the next few verses of the text.

In the first movement, however, no note-interval is proved; for, at least two *fruti-s* are required to constitute the shortest of the note-intervals; but, nevertheless, the lowering of the pitch of the notes is

noticeable, directly as well as by reference to their standard pitch preserved by the invariable vina. Thus, this arrangement of two vina-s provides for a negative as well as a positive proof with regards to the number of *Sruti-s*, which is twentytwo. (18-19b)

Each string-movement implies lowering of notes (i. e., all the seven notes) by one *sruti* progressively, i. e., by one *sruti* in the first movement, two *sruti-s* in the second movement, three *sruti-s* in the third movement and four *sruti-s* in the fourth movement. But, since the fundamental note has no fixed pitch in this system, the lowering of the notes, allround as it is, does not affect the individuality of the notes as such; for, the *sruti-*intervals between the various notes remain the same. However, the impact of the string-movement in the variable viņa is to be studied with reference to the standard pitch of the notes set up by the invariable viņa. This is illustrated graphically by the following chart (adopted with modifications from Sangita-Cintamani of Dr. K. C. D. Brihaspati and Mrs. Sumitra Kumari).

The fourfold string-movement

cala-vīṇā sa ri ga ma pa dha ni 4th step in
2nd step in cala-viņā sa ri ga ma pa dha ni 3rd step in
lst step in † cala-vīṇā sa ri ga ma pa dha ni
Notes of * acala-បាក្ដ sa ri ga ma pa dha n
Serial No. of strings 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 2

<sup>\*</sup> Invariable oina

The effect of the fourfold string-movement on the position of notes with reference to the invariable vina and the extent to which that goes to demonstrate the number of *fruti-s* is represented briefly in the following chart:

maked his caldlang swift it has been in

<sup>†</sup> Variable vina

The effect of fourfold string-movement

No. of note-strings	4	7 9	13	17	20	22	No. of sruti-s demon- strated	Remar	out;
The original position of notes on the scale	sa	ri ga	a ma	pa	dha	ni			
lst movement								No effect	on
2nd movement		ga /			ni		4	ga and merge wit and dha	ni th ri
3rd movement	ri			dha			+6	ri and merge wit and pa	dha th sa
4th movement		ma	ра	.5*	S	a	+12	ma, pa an merge wit ma and ni	PER

(Chart 4)

Thus, it is contended that, since by this method the number of fruti-s that could be fixed with and that constitute the seven notes of the scale is found to be twentytwo only, it is evident that fruti-s are twentytwo. The purpose of this demonstration is to verify and thereby to confirm the number of fruti-s, i. e., twentytwo. The validity of this process offering rough evidence to prove the number of the fruti-s lies in the fact that in the second movement the notes ga and ni are fused with, i. e, sound similar to, the notes ri and dha, thereby proving that the note-intervals ri-ga and dha-ni are of two fruti-s each. Similarly, the fruti-s of other notes are also verified as shown in the above chart, establishing in consequence the number of fruti-s as twentytwo.

The merger of ga and ni with ri and dha in the second movement and of ri and dha with sa and pa in the third is quite intelligible. But in the fourth movement sa, ma and pa fuse with ni, ga and ma: the merger of ma and pa with ga and ma is also understandable; but the question is how does sa merge with ni, since the string for sa was tuned to produce the lowest possible tone that could be audible? The question as posed by 'K' is quite natural and if the formula for the string-movement is strictly followed, the fourth movement cannot be practically demonstrated on a vina of twentytwo strings; firstly, because there is no other string preceding the first one on which sa is placed in the third movement; and secondly, there is no lower tone possible. 'K' meets this objection by suggesting that if the lower octave (used for the saptaka)

here is repeated, the string for ni can be conceived as the one preceding the string for sa; or alternatively, the sa can be conceived to have merged with the ni of a still lower octave. However, the difficulty is not with the technique of the demonstration and only points out the limitation of the equipment.

Kumbha of the 15th century who has elaborated upon Sarngadeva informs us about the functions of the fourfold string-movement as under:

"The delimitation of the number of *stuti-s*, gradation of pitch with reference to tones and the comprehension of *kākalī* etc. (constitute) the functions of the string-movements." (S. Raj. II. 1.1.115). (19c-21b)

The net result of the fourfold string-movement is that the number of śruti-s has been verified and demonstrated to be twentytwo only. 'K' raises a hypothetical question which is adequately answered by Sarngadeva in verse 22. One can well say, "If 22 sruti-s could be obtained by four string-movements, why not carry out the fifth movement and fix the number of stuti-s at twentynine?" It is as if in anticipation of such a question that, according to 'K', the author found it necessary to forbid any further movement; for that would defile the aesthetic value of notes. Dwelling on this theme, 'K' further explains that a fifth string-movement cannot possibly be conceived, for the note-intervals are finite and are constituted by different numbers of śruti-s such as 2, 3 and 4, making them resonant, delightful and pleasing tones. Thus, the three categories of notes with 2, 3 and 4 sruti-s each have been fused in three different movements leaving no scope for any further lowering of pitch. 'S' too points out that a svara (note) is defined to be pleasing by itself and therefore, if another movement is carried out, that would disturb the constitution of individual notes which would consequently destroy their essential quality of being pleasing by themselves. Incidentally, it is the scale of sadja-grama which is the basis of calculations here; and in this scale the biggest śruti-interval is that of 4 śruti-s. (21c-22)

## ग. स्वरः

## (i) सप्त स्वराः

श्रुतिभ्यः स्युः स्वराः षड्जर्षभगान्धारमध्यमाः । पञ्जमो धैवतश्चाथ निषाद इति सप्त ते ।।२३।। तेषां संज्ञाः सरिगमपधनीत्यपरा मताः ।

#### C. Svara and its different aspects

(i) Seven svara-s (tones): 23-24b

From out of the śruti-s<sup>1</sup> arise the svara-s<sup>2</sup>; these are seven, viz., şadja, ṛṣabha, gāndhāra, madhyamu, pañcama, dhaivata,

This verse is quite important as it reflects the views of Sarngadeva regarding the relationship of *sruti* and *svara*; and that is why the English version has been rendered as close to the original text as possible, even though it has necessitated an unusual construction.

"Sruti-s give rise to the svara-s", is a cryptic statement which affords enough scope for different interpretations. But before discussing these, it will be better to be clear about its obvious implications. As already pointed out, the svara-s arise out of śruti-s in the groups of two, three and four, but essentially in groups. As far as the śuddha svara-s, i. e., the standard notes of the şaija-grama (to be explained later) are concerned, twentytwo śruti-s in the groups of four, three and two go to constitute seven notes called sa, ri, ga, ma, pa, dha, and ni.

Now, how do *śruti-s* give rise to *svara-s* and actually what relation ship obtains between them? 'K' discusses this question thoroughly and presents the following possible interpretations:

(i) Since svara as well as sruti have the sense of hearing as the means of perception, in the absence of any perceptual distinction, there is no categorical difference between the two; which, therefore, stand in the relationship of the general and the particular (i. e, in other words, they are essentially identical).

and niṣāda. Their another accepted nomenclature<sup>3</sup> is 'sa-ri-ga-ma-pa-dha-ni'. (23-24b)

- (ii) Like the reflection of the face in the mirror, the svara-s are projected by the sruti-s, and present the relationship of appearance and Reality.
- (iii) Just as a ball of mud is said to be the material cause of an earthen pot made out of it, so also *śruti-s* form the material out of which svara-s are shaped. Thus, in this view, *śruti* and *svara* stand in the relationship of a material cause and effect.
- (iv) As milk gets transformed into curd, so also the śruti-s are transformed into svara-s.
- (v) Just as a lamp manifests by its light the objects already existing in darkness, so also the svara-s are manifested by the śruti-s.

These views may be critically examined as under:

- (i) The first view does not hold good; for svara and śruti are two different concepts related in the spirit of the supporter and the supported, and cannot as such be identical. Moreover, śruti and svara cannot be related as the general and the particular merely on account of the non-distinction in the mode of their perception, for 'non-distinction' cannot logically be confused with universality.
- (ii) The second view is still less plausible, for if the svara-s are taken to be mere appearance with reference to śruti-s, they have no reality of their own, which is not the case in practice. The svara-s are no less real than the śruti-s.
- (iii) It is contended by this view that śruti and svara are related as cause and effect. Though, svara follows śruti in the sequence of time, yet śruti cannot be considered to be the material cause of svara in the same way as a clod of mud can be said to be the material cause of the pot etc., because after the pot has come into being, the mud is no longer available to us apart from the pot. But, this does not hold good in this case; for, it will be untrue to say that apart from the svara, the śruti-s constituting the svara are not available. Since they are so available, the śruti-s cannot be taken as the material cause of the svara-s.
- 3. This is constituted in principle by the first letters of the full names and these names accordingly are their diminutive forms or abbreviated symbols.

<sup>1.</sup> From out of *sruti-s*, in the groups of four, three and two as already mentioned.

<sup>2.</sup> In other words, *sruti-s* in different combinations bring different spara-s into being. The verbal form 'syuh' is suggestive of a natural occurrence.

(iv) The fourth and the fifth views, being free of any such fault and having been supported by Matanga etc., are acceptable.

In fact it is Matanga who was first to discuss this topic in such detail and 'K' has only reproduced his views in his own words. Matanga summarises the above five views in the following verse, though he also discusses them in detail:

"With respect to *fruti-s* five views are generally held, viz., identity reflection, causation, transformation and manifestation" (Brhaddest 31).

Matanga points out the faults of the first three views, which are reproduced by 'K' and supports the last two views in general. But then finally he comes out in favour of the 'manifestation theory', as he says:

"By perception, inference and circumstantial evidence the *trutis* may be accepted as factors manifesting the svara-s" (Brhaddesi 53).

Thus, Matanga considers sruti-s to be the factors manifesting the svara-s, and Śārngadeva thinks that sruti-s give rise to the svara-s. It is obvious that both are saying the same thing in two different ways. The sruti-s, with respect to the svara-s, may therefore be taken to be the factors that in different combinations give rise to different svara-s, constitute them for a while, and so manifest them or make them perceptible.

As pointed out by 'K', Matanga has elucidated the significance of the names of the notes, which is represented briefly as under:

- (i) Sadja-is so called because:
  - (a) it is the precursor (lit. the progenitor) of the six other notes, or
  - (b) it is brought into being by six other notes for, as an integrated part of the heptad (saptaka) it is manifested by the rest of the parts together.
  - (c) alternatively, it is produced by six organs of the body, viz., the nostrils, the throat, the palate, the breast, the tongue and the teeth.
- (ii) Rsabha—is so called because it quickly appeals to (lit. arrived at) the heart, or as among the herd of cows a bull appear to be distinctly strong so also in the group of notes rsabha is strong and noticeable. It may be added that the first derivation is based on the word rsabha as grammatically derived from the root 'rs' to go; while the second is based on the literal meaning of the word, viz., bull which is taken as a symbol of strength. Alternatively, that which sounds (i.e., bellows) like a bull is rsabha.

- (iii) Gandhara—is so called because it holds musical speech. This interpretation is based on the grammatical derivation of the word gandhara, "gam dharayate-iti-gandhara". Alternatively, it is so called because it delights gandhara-s, the semi divine beings associated with music.
- (iv) Madhyama—is so called because it is in the centre of the seven notes having three on either side. This derivation is based on the literal meaning of the word madhyama, which means belonging to the centre. 'K' also gives two other alternatives which seem to be far-fetched.
- (v) Pañcama—is that which measures the extent of other notes; or it is so called because it is fifth from the fundamental note. The first view presents a grammatical derivation jointly from two roots, 'pac'—to extend and 'mi'—to measure. How it measures the extent of other notes will be made clear subsequently in the context of pramana irusi (in the appendix). According to another interpretation, Pañcama is so called because it is produced from the fifth place,
- (vi) Dhaivata—is so called because being brought about by the śruti-s of the 'posterior tone' it is to be discerned by sensitive minds. The expression 'posterior tone' representing the original 'uttarasvara' is a technical one. The musical scale is divided into two parts with madhyama in the centre and a group of three notes on either side of it. The notes of the first triad are called pūrvasvara-s, i. e., the 'anterior tones' and those of the other following triad are called uttara-svara-s 'posterior tones', and both the triads are respectively called pūrvānga and uttarānga, i. e., the anterior section and the posterior section of the heptad (saptaka).
- (vii) Nişā da—is so called because the notes of the scale come to a close with it. The word is derived from the Sanskrit root 'ni+şad' to come to a rest. Obviously, nişāda is the last note of the heptad (saptaka).

## (ii) स्वर्लचणम्

## श्रुत्यनन्तरभावी यः स्निग्धोऽनुरणनात्मकः ॥२४॥ स्वतो रञ्जयति श्रोतृचित्तं स स्वर उच्यते ।

(ii) The definition of svara (tone):

Immediately consequent upon sruti, creamy and

Now the svara is being defined. By the way, the essential difference between śruti and svara is also implied in this definition. When a string of the vinā is plucked, the very first sound produced is considered to be śruti and the very next sound following it, which is the resounding of the śruti is called svara. In other words, whereas śruti is essentially free from resonance, resonance is the essential characteristic of svara.

The other two essential characteristic features of 'svara' are softness and self-sustained delightfulness.

There is a slight difference of opinion with regards to the interpretation of this definition of svara; 'K' thinks that since the author has already established the notes on the vinā and defined their śruti-intervals, here in this context the word śruti means the fourth śruti etc., which when manifested resounds subsequently into sadja etc. In other words, by śruti is meant that particular śruti which is capable of resounds ing into a note and which is technically called svarasthāna, i. e., the seat of a note. However, it is notable that 'S' thinks that the sound produced by the first string (of the 22-stringed vinā) which is devoid of resonance is called śruti while the subsequent resounding sound is called svara.

It is interesting to compare this verse as translated by M. S. Ramaswami Aiyar in his edition of the Svaramelakalānidhi as it is borrowed verbatim by Ramamatya. He renders it as under:

- The expression "sruti-anantara-bhāvī" is specifically important for it is designed to stress on the one hand the characteristic difference between the concepts of śruti and svara, and on the other hand, their specific relation as well. Svara, in other words is a developed śruti. Since śruti here signifies the sound produced by striking a vibrating string in the first instant which is conspicuous by being free from resonance, svara signifies that very sound when it gathers vibrations of resonance and thereby becomes sonorous.
  - 2. Snigdha is defined as that (sound) which is soft and is also capable of being heard at a distance. Actually the literal meaning of the word is viscous' and is applied as such to liquids only; but here it is used figuratively. In this sense, it is a quality of musical sound. The opposite of snigdha is rūkṣa, i. e., rough or dry.

resonating<sup>8</sup>, the sound<sup>4</sup> that delights the listeners' minds by itself<sup>5</sup> is called svara<sup>6</sup>. (24c-25b)

"That is called svara, which is by itself pleasing to the ear and the mind; which permeates the sruti-s; and which is tender and harmonic."

It will be noticed that he renders the expression "srutyanantarabhāvt" as "which permeates the sruti-s". Apart from the value of this rendering from a translator's point of view, what is remarkable is the implied relationship of svara and sruti in this expression. That svara permeates the sruti-s means that, svara-s are involved in sruti-s.

- 3. Anuranana (anu+ranana lit. the 'post-sound' from ran to sound', to ring, to tinkle etc.) technically signifies the sound-vibrations of a string that are produced and that ordinarily follow the sound produced in it (by striking) in the very first instance, which is called ranana and is devoid of resonance. The term resonance (from resound, to echo, to ring, to go on sounding) is generally associated with the resounding of sympathetic strings or bodies other than that in which the original sound is produced; but anuranana differs from this concept in so far as it denotes resounding of the sound produced in the same vibrating string or body. However, for want of a better word it has been rendered as resonance.
- 4. The pronoun yah is used in the text for it.
- 5. This is the most important and distinguishing feature of svara, viz., that it should have the quality of delighting the mind of the listeners by itself, i. e., without the need for any other accompaniment or help. 'S' points out that this quality is related to the quality of softness attributed to svara.
- 6. It is notable that, whereas Matanga derives the word svara from the root raji-to shine, to appear, prefixing sva to it, Sarigadeva derives it from the root ranj-to delight. Both of these derivations are semantic explanations and do not have the precision of a grammatical authority. Even so, the difference of approach is significant. Sarngadeva seems to have been under the influence of Abhinavagupta in his interpretation, who stresses the element of resonance (anuranana) as the most distinguishing feature of the essential nature of svara (tone) in contrast with that of sruti, which he says is devoid of it. Accordingly, the beauty of a tone depends on the ratio of unresonating and resonating sound present in its production. Thus every tone has two elements, the unresonating and the resonating; if the former is greater in ratio the tone quality is the lowest, if both are equal it is medium and if the latter is greater it is the best (cf. N. S., G. O. S. Vol. IV, p. 13).

This line of thinking emphasises the element of delightfulness that essentially characterises the svara, and this is attributed mainly to the element of resonance in it. It is not therefore surpriving to find Sarngadeva defining svara as that which is delightful by itself.

Section 3: Nada, Sruti and Svara

The sruti-groups as related to the different svara-s are indicated in

śruti-groups and the svara-s (notes)

the following chart:

(iii) श्र तोनां स्वरकारणत्वम श्र तिश्चातृर्ध्यादिरस्त्वेवं स्वरकारणम् ॥२४॥ त्र्यादीनां तत्र पूर्वासां श्रुतीनां हेतुता कश्म । बुमस्तुर्यातृतीयाऽऽदिः श्रुतिः पूर्वाऽभिकाङ् क्षया ।।२६।। निर्घायंतेऽतः श्रुतयः पूर्वा अप्यत्र हेतवः।

#### (iii) Discussion regarding *śruti-s* causing the *svara*: 25c-27b

Well indeed, if such sruti-s as the fourth etc.1, are admitted to be the cause of the svara-s, how can the other sruti-s such as the third etc.2, be considered as their cause? (25c-26b).

We shall presently explain it. Such a śruti, whether fourth or third etc. 8, is determined only with reference to the preceding *śruti-s*<sup>4</sup>; therefore, they too constitute the cause of the svara-s. (26c-27b)

Now it has been established in principle that from out of sruti-s arise the svara-s, and therefore, sruti-s are conceived as the antecedent cause of the svara-s. Whatever be the difference of opinion with respect to the actual relationship between svara and sruti, there is no denying the fact that all the fruti-s go to bring about the svara-s. At the same time it is also asserted that since svara is that sound which immediately follows the śruti in the order of its resonance, it is the fourth, the third and the second sruti respectively of the three groups of four, three and two, that goes to produce the svara. If that be so, then the question is, "On what basis can the other fruti-s such as the third, the second and the first respectively of the groups of four, three and two be considered as constituting the cause of the svara-s?"

The answer is as obvious as the question is clear. The fourth or third or the second sruti can be so called only if it is preceded by three struti-s, two struti-s and one struti respectively, and not otherwise. Thus all the sruti-s of a svara are responsible for its manifestation.

- 1. 'Fourth etc' of the text refers to column 4 of the above chart while by 'etc', Nos. 2 and 3 of the same column are included.
- 2. 'Third etc' of the text refers to column 5 of the above chart, while by etc.' Nos. 2 and 3 of the same column are included.
- 3. As explained in note 1 above.
- 4. All those enumerated in columns 5 and 6 of the above chart.

S. No.	\$ ruti-group	svara-s	note-position in terms of śruti		antec	ediatel edent śruti	dent sruti-s		
1	1 2 1	3	1 4		5		6		
		Chimbre	in the	in the	in the	in the	of the svara	of the svara & the scale	
1	4-śruti interval	şadja madhyama	4th ,,	4th 13th	3rd ,,	3rd 12th 16th	23 23	2nd & 1st 11th & 10th 15th & 14th	
2	3-śruti	pañcama 1 sabha	,, 3rd	17th 7th	2nd	6th	,, ,,	5th	
Z	interval	dhaivata	"	20th	,,	19th	,,	18th	
3	2-śruti	gandhara	2nd	9th	lst	9th	7	_	
	interval	nişāda	33	22th	>>	21th	_		

(Chart 5)

## (iv) पञ्चजातिषु सप्तस्वरेषु च सनाम श्रुति-विभाजनम्

दीप्ताऽऽयता च करुणा मृदुर्मध्येति जातयः ।।२७।। श्रुतीनां पञ्च तासां च स्वरेष्वेवं व्यवस्थितिः । दीप्ताऽऽयता मृद्रमध्या षड्जे स्याद्षभे पुनः ।।२५।। संस्थिता करुणा मध्या मृदुर्गान्धारके पुनः । दीप्ताऽऽयते मध्यमे ते मृदुमध्ये च संस्थिते ।।२९।। मुद्रमध्याऽऽयताऽऽख्या च करुणा पञ्चमे स्थिता । करुणा चायता मध्या धैवते सप्तमे पुनः ॥३०॥ दीप्ता मध्येति तासां च जातीनां ब्रमहे भिदाः । तीवा रौद्री वजिकोग्नेत्युक्ता दीप्ता चतुर्विधा ।।३१।। कुमुद्धत्यायता याऽस्याः क्रोधा चाथ प्रसारिणो । संदोपनी रोहिणी च भेदाः पञ्चेति कीर्तिताः ॥३२॥ दयावती तथाऽऽलापिन्यथ प्रोक्ता मदन्तिका। मुदोर्भेदचतुष्टयम् ॥३३॥ करणामेवा त्रयस्ते

Section 3: Nada, Sruti and Svara

मन्दा च रितका प्रीतिः क्षितिर्मध्या तु षड्विधा ।

छन्दोवती रञ्जनी च मार्जनी रिक्तका तथा ।।३४।।

रम्या च क्षोभिणीत्यासामथ बूमः स्वरिक्षितम् ।

तीवाकुमुद्वतीमन्दाच्छन्दोवत्यस्तु षड्जगाः ।।३४।।

दयावती रञ्जनी च रिक्तका चर्षभे स्थिताः ।

रौद्री क्रोधा च गान्धारे विज्ञिकाऽथ प्रसारिणी ।।३६।।

प्रीतिश्च मार्जनीत्येताः श्रुतयो मध्यमाश्चिताः ।

क्षिती रक्ता च संदीपन्यालापिन्यपि पञ्चमे ।।३७।।

मदन्ती रोहिणी रम्येत्येतास्तिस्तस्तु धैवते ।

उग्रा च क्षोभिणीति द्वे निषादे वसतः श्रुती ।।३८।।

(iv) The allocation of *śruti-s* as characterised by their classes and names among the *svara-s*: 27c-38.

There are five classess of sruti-s, viz., diptā, āyatā, karuṇā, mṛdu and madhyā; their standing among the svara-s is stated to be as under (27c-28b)

Dīptā, āyatā, and madhyā are found in sadja; karuņā, and mṛdu find a place in ṛṣabha; dīptā and āyatā are located in gāndhāra and also in madhyama along with mṛdu and madhyā; mṛdu, madhyā, āyatā and karuņā are placed in pañcama, and karuṇā, āyatā and madhyā in dhaivata; while dīptā and madhyā are in niṣāda. (28c-31a)

Now, we shall speak of the subdivisions of these classes: Diptā is said to be fourfold viz., tīvrā, raudrī, vajrikā and ugrā; āyatā is known to have five varieties viz., kumudvatī krodhā, prasārinī, sandīpanī and rohinī; karunā is said to be threefold,

Twentytwo *sruti-s* have been distinguished into flve classes. The basis of this classification has not been made explicit in the text, nor have the commentators found it necessary to elucidate it. However, it seems that the different classes of *sruti-s* have something to do with the relationship of notes and the *rasa-s* or the aesthetic colours attributed

viz., dayāvatī, ālāpinī and madantikā; mīdu is fourfold, viz., mandā, ratikā, prīti and kṣiti; while madhyā is sixfold, viz., chandovatī, ranjanī, mārjanī, raktikā, ramyā and kṣobhinī. (31b-35a)

And now we shall point out their position among the svara-s:

Tīvrā, kumudvatī, mandā and chandovatī pertain to sadja; dayāvatī, ranjanī and raktikā are related to rsabha; raudrī and krodhā are in gāndhāra; vajrikā, prasārinī, prīti and mārjanī abide by madhyama; kṣiti, raktā, sandīpanī and ālāpinī are in pancama; the three madantī, rohinī and ramyā in dhaivata and the two śruti-s, ugrā and kṣobhinī dwell in niṣāda. (35b-38)

to them in the ancient theory of Indian music. This is implied in their nomenclature and elucidated as under:

- (i) Dipta, 'dazzling'; literally, illumined,
- (ii) Ayatā, 'vast'; literally, extended,
- (iii) Mydu, 'tender'; literally, soft,
- (iv) Madhya, 'moderate'; literally, medium or central, and
- (v) Karuna, 'compassion'.

The names signify tonal sequence in melodic development and are representative of emotional colour; this aspect would be more clear with the further classification of the classes, as it follows.

The distribution of *sruti*-classes among the different notes is illustrated in the following chart (No. 6), which at once elucidates the relationship of a particular note with the different *sruti*-classes and also the relationship of a particular *sruti*-class to different notes. The numbers in the squares indicate the position of a particular *sruti* in the group of *sruti*-s constituting a particular note.

śruti-classes and svaras

S.No	class names of sruti-s	şadja	rşabha	gāndh- ara	madhya- ma	pañca- ma	dhaivata	nişā da
1	dipta	1		1	1			la lana
2	ayata	2		2	2	3	2	(James)
3	karuna		1			4	1	
4	m1 du	3	3		3	1		(31, 12)
5	madhya	4	2		4	2	3	2
			(Ch	art 6)			(280	-31a)

<sup>2.</sup> It is notable that raktikā is not mentioned in the verses 35 b-38. However raktā which does not appear here is mentioned.

<sup>1.</sup> Jati literally means 'species', 'class' or 'genus'.

The five sruti-classes are further subdivided each having quite a few varieties. That means, each sruti belongs to a class which implies a class attribute common to all the sruti-s of the class and that class comprehends a few varieties implying special traits along with the class character. This specific character seems to be the association of a particular class-sruti with particular notes. For example, dipta is associated with four notes and is said to be of four varieties, ayata is associated with five notes and has five varieties and so on, as it is illustrated in the following chart (No. 7).

The chart illustrates the subdivisions of the sruti-classes, representing their class characters as distributed among the svara-s, indicating thereby their specific traits. The names in the squares pertain to the class subdivisions. The number alongside indicates the position of the stuti in the structure of the svara. The chart illustrates the subject matter of verse Nos. 35b-38 as well.

Subdivisions of śruti-classes distributed among the svara-s

Svara or note signifying specific	śruti-class names signifying general characters									
characters	dipta	dyata	mṛdu	madhya	karuna					
Şadja	tīvrā-1	kumudvatī-2	manda-3	chandovati-4						
Rşabha	* * * * * * * * * * * * * * * * * * * *		raktika-3	rañjani-2	dayāvatī-1					
Gandhara	raudri-1	krodha-2			372.7					
Madhyama	vajrikā-1	prasāriņī-2	prīti-3	marjanī-4						
Pañcama		sandīpanī-3	kşiti-1	rakta-2	alapint-4					
Dhaivata	,	rohinī-2		ramya-3	madantī-1					
Nisada	ugra-1	Alahar Varanga adam		kşobhinī-2						
		(Chart 7	)	111	1 1 1 1 1					
					(31b-35a)					

Chart No. 7 graphically illustrates the position of these particular stuti-s in the different note-intervals. The names of these stuti-s are suggestive of their aesthetical value as related to their tonal quality. Contemplating upon the value or the purpose of classification of sruti-s briefly, 'S' suggests that they are perhaps designed to arouse the feelings or the affections implied by their names. This hypothesis is quite plausible and the whole scheme of this fruti-classification needs to be scientifically investigated. (35 b-38)

## (v) स्वराणां स्थानत्रयम्

## मन्द्रमध्यताराख्यस्थानभेदात्त्रिधा मताः।

## (v) Three sthana-s (registers) of svara-s: 39ab

These (svara-s) are considered as threefold according to the different registers known as mandra, madhya and tāra, i. e., low, medium and high. (39ab)

Having dealt with the śruti-s, the śruti-classes and the development of notes out of them, the author now proceeds to demonstrate the differentiation and the classification of notes.

In the first instance the notes are classified according to their sthana i. e., the place of perceptible effort for voice-production in the human organism. It has already been pointed out by the author (verse 7 ante) that nada manifests itself in three places, viz., in the region of the heart, throat and the cerebrum. These are the three sthana-s from which notes are produced. Corresponding to these three, the notes are classified in three registers or to speak loosely, three octaves, viz., mandra, madhya and tara. Mandra represents what is known as chestvoice, madhya is throat-voice and tara is the high (head).

## (vi) द्रादश विकृतस्वराः

विकृतावस्था द्वादश प्रतिपादिताः ॥३९॥ च्यूतोऽच्यूतो द्विधा षड्जो द्विश्रुतिविकृतो भवेत्। साधारणे काकलीत्वे निषादस्य च दुश्यते ॥४०॥

#### Twelve modified notes: 39c-46b

These notes, in their modified form, are established as twelve. (39cd)

Ṣaḍja, modified by two śruti-s in two different ways is (called) lowered sadja and unmoved sadja respectively by the

<sup>1.</sup> Cyuta literally means sub-standard, fallen or lowered in pitch.

<sup>2.</sup> Acyuta is steadfast, standard and unmoved.

साधारणे श्रुति षाड्जीमृषभः संश्रितो यदा ।
चतुःश्रुतित्वमायाति तदंको विकृतो भवेत् ।।४१।।
साधारणे त्रिश्रुतिः स्यादन्तरत्वे चतुःश्रुतिः ।
गान्धार इति तद्भेदौ द्वौ निःशङ्कोन कीर्तितौ ।।४२।।
मध्यमः षड्जवद् द्वेधाऽन्तरसाधारणाश्रयात् ।
पञ्चमो मध्यमग्रामे त्रिश्रुतिः कैशिके पुनः ।।४३।।
मध्यमस्य श्रुति प्राप्य चतुःश्रुतिरिति द्विधा ।
धैवतो मध्यमग्रामे विकृतः स्याच्चतुःश्रुतिः ।।४४।।
कैशिके काकलीत्वे च निषादिस्त्रचतुःश्रुतिः ।
प्राप्नोति विकृतौ भेदौ द्वाविति द्वादश स्मृताः ।।४५॥
ते शुद्धैः सप्तिभः साधै भवन्त्येकोनीवंशितः ।

process of sādhāraņa<sup>3</sup> (overlapping) and the 'kakalisation'<sup>4</sup> of nisāda. (40)

When, in the process of sadja-sādhāraņa<sup>5</sup> (the overlapping of sadja), rsabha absorbs one śruti of sadja, it attains the

Though the notes in their original form are found to be seven only, it is said that in actual usage when their standard pitch is modified either by augmenting it or by lowering it, they are known to be twelve in all. The modified notes or the vikṛta svara-s are discussed in the following few verses. (39cd)

The modification of notes is dealt with from verse 40 to 45 and in this space the author explains how the modified notes are formed and why they number twelve.

Sadja is modified to the extent of two śruti-s in two different ways, viz. (i) by losing its note-śruti (i. e., 4th) to the advantage of rṣabha and its initial śruti (i. e. 1st) towards niṣāda, and (ii) by yielding its first two śruti-s to niṣāda. The first process is called cyuta-ṣadja-sādhāraṇa (the overlapping of lowered ṣadja) and affects the position of the note-śruti of ṣadja which is technically called cyuta-ṣadja (lowered ṣadja), and the second process is known as the kākalitva of niṣāda, by which niṣāda gains

interval<sup>6</sup> of four *śruti-s*, and that is its only modified form. (41ab)

Gāndhāra assumes two modified forms as enunciated by Sāraṅgadeva viz., with three śruti-s in the process of madhyama s-sādhārņa (the overlapping of madhyama) and with four śruti-s in the case of antaragāndhāra. (41c-42b)

the two initial *stuti-s* of *sadja* leaving its note-*struti* quite unaffected. The second process is, therefore, associated with *acquia sadja*, i.e., unlowered or unmoved *sadja*. This subject matter is dealt with in detail in Section 5 of this chapter. It may, however, be noted that the modified *sadja* has only two *struti-s* viz., the second and the third, and the third and the fourth respectively of the original four.

'S' raises an interesting question. In the case of unmoved sadja, sadja retains its sruti-note intact while yielding two initial sruti-s to nisūda; therefore, its pitch remains unaffected, how then can its tone be called modified? As it is obvious and also explained by 'S', normally sadja is at the distance of four-sruti-interval from nisūda which in its modified state is reduced to that of two-sruti-interval. Now, since the tonal value of the notes is essentially relative in this system, the reduction in the extension of sadja is adequately felt. Thus, even though the pitch remains the same, the duration and the tonal content is modified. (40)

In the process of the overlapping of sadja, its first sruti is gained by the preceding nisāda and its fourth sruti is attached by rsabha, the extent of which is extended thereby to four-sruti-interval; and this is the only modification undergone by rsabha. Rsabha is thus composed of the sruti-s numbering 4th to 7th from the first of sadja.

Just as şadja is modified in two forms viz., by the overlapping of şadja and the 'kakalisation' of nişada, so also madhyama is modified in

<sup>3.</sup> Sadharana refers to sadja-sadharana.

<sup>4.</sup> When nişāda is augmented by gaining two śruti-s of sadja, it is transformed into kākalī-niṣāda and this transformation of niṣāda is technically named as "the kakalisation of niṣāda."

<sup>5.</sup> In the text only sadharana is mentioned, but it is the sadjasadharana that is intended; it has been made explicit to avoid confusion
in the English version.

<sup>6.</sup> Catuh-śrutitva consists in having the note-interval of four śruti-s.

<sup>7.</sup> Niḥśanka of the text literally means 'free from doubts' and is an epithet of Śarngadeva.

<sup>8.</sup> Only sadharana is spoken of in the text but, obviously madhyama-sadharana is applicable here, and so it has been made explicit.

<sup>9.</sup> Antaratva consists in gandhara gaining two initial śrūti-s of madhyama which by itself remains of two-śruti-measure only. Thus, by this action, gandhara gains a medial (antara) position between standard gandhara and madhyama, and is therefore called antara-gandhara, i. e. medial gandhara. Antaratva, therefore, signifies the 'medial position' of gandhara.

Madhyama, like şadja is (modified) in two ways viz., by taking resort to the process of 'antara' and that of sadharana'. (42cd).

Pañcama is of three śruti-measure in the madhyama-grāma, while in the madhyama-sādhrāana<sup>10</sup> (the overlapping of madhyama), gaining one śruti from madhyama it extends to four śruti-s; and is thus modified in two ways. (42-44b)

Dhaivata of madhyama-grāma is modified to be of four fruti- interval. Niṣāda is modified in two ways viz., in its kaišika and kākalī forms having three and four śruti-s respectively. And so they make twelve modified forms, which along with the seven standard<sup>11</sup> notes become nineteen in all. (44c-46b).

two ways viz. (i) by yielding one *śruti* to gāndhāra and one to pañcama, an example of cyuta (lowered)-mathyama, and (ii) by affording its two initial *śruti-s* to gāndhāra, an example of acyuta (unmoved)-madhyama. The former mode is called madhyama-sādhārana (the overlapping of madhyama) and the latter is known as antara-sādhārana.

Thus, when gāndhāra is modified by the overlapping of madhyama, it gains its initial śruti and is thereby constituted of three śruti-s viz., the 8th, 9th and 10th; and when it is modified by the medial position of gāndhāra (antaratva) it appropriates two initial śruti-s of madhyama to itself and the number of its śruti-s swells to four, viz., 8th to 11th. This latter gāndhāra of four śruti-s is called antara gāndhāra. Thus gāndhāra has two modified forms, viz., sādhārana (i.e., the one consequent upon madhyama-sādhārana) and antara (i.e., antara-gāndhāra) constituted respectively by śruti-s numbering 8th to 10th and 8th to 11th from the first of ṣadja. (41-42b)

In the modification of gāndhāra, the two processes of the overlapping of madhyama and the medial position of gāndhāra have been explained with reference to gāndhāra. Now, we have to consider them from the point of view of madhyama.

Madhyama is constituted by the sruti-s numbering 10 to 13 in the unmodified series. By the process of overlapping ma lends 10th sruti to

ga and 13th sruti to pa and retains 11th and 12th sruti-s itself. In the process of the medial movement (antaratva) of gandhara ma yields 10th and 11th sruti-s to ga, and retains only 12th and 13th sruti-s. So, these are the two modified forms of madhyama, constituted respectively of 11th, and 12th, and 12th and 13th sruti-s. (42cd)

There is an obvious similarity between the modifications of sadja and madhyama as previously pointed out. With respect to the grāma-s, we are going to be informed adequately in the next Section of this chapter. For the present, it may be understood roughly that a grāma signifies a series of notes related in a certain order. Two such scales were in practice. viz., sadja-grāma, having sadja as its prominent note and madhyama-grāma, having madhyama as its prominent note. Pañcama is established on the 17th śruti in sadja-grāma and on the 16th śruti in madhyama-grāma. This is one way how the two grāma-s are distinguished from each other; of course this also affects the relative position of other notes which we shall see in due course.

Now, with this background we can follow the text. In the madhyama grāma, pañcama comprises the 14th, 15th and the 16th śruti-s, whereas in the sadja grāma, it also has the 17th śruti which is considered to be the note-śruti; and therefore, the '16-śruti' pañcama is one of the modifications of the standard pañcama. Another modification occurs by the process of the overlapping of madhyama (i. e madhyama-sādhāraṇa), when it gives up 13th śruti which is absorbed by the pañcama of madhyama grāma. The standard form of the pañcama of madhyama-grama comprises of three śruti-s only, and when it gains one śruti from madhyāma its extent widens to four śruti-s, i. e., 13th to 16th, and this constitutes another modification of pañcama. (42c-44b)

While pañsama is established on the 16th sruti in madhyama-grama, the 17th śruti which is the note-śruti of pañsama in şadja-grama is released and absorbed by dhaivata, which consequently comprises the śruti-s numbering 17 to 20 i.e., four in contrast with the standard three viz. 18 to 20 of the şadja-grama. Thus, this is the only modification of dhaivata.

Kaišika is another name for sādhāraņa. Kaišika-niṣāda which is a product of the overlapping of ṣadja when it yields its initial śruti to niṣāda, swelling it to three śruti-s in extent viz., 21st and 22nd and 1st. Similarly, niṣāda is transformed into kākalī-niṣāda when it gains two initial śruti-s of ṣadja and comprises 21st, 22nd and 1st and 2nd śruti-s. Thus niṣāda has two modified forms respectively known as kūišika-niṣāda and kākalī-niṣāda.

The twelve modified notes as related to the standard (suddha) notes can be studied at a glance from the following chart:

<sup>10.</sup> Kaisika is another name for sadharana.

<sup>11.</sup> The word suddha has to be interpreted with reference to the word viktta. Viktta, simply means modified and therefore suddha would mean unmodified. But since that is a negative expression and the general tenure of the term suddha is rather positive, it seems it would be better to render it as 'standard'.

#### Modified notes as related to standard notes in terms of śruti-s

SI.	name of svara-s (notes)	n	ndard otes t No. of śruti-s		modifiem I No. of sruti-s	forn extent	ı II		stand	fied
	1		2	. 3		4		5		6
1	şadja	1-4	4	2-3	2	3-4	2	2	4th	(i) 3rd (ii) 4th
2	<b>T</b> şabha	5-7	3	4-7	4				7th	7th
3	gāndhāra	8-9	2	8-10	2	8-11	4	2	9th	(i) 10th (ii) 11th
4	madhyama	10-13	4	11-12	2	12-13	2	2	13th	(i) 12th (ii) 13th
5	pañcama	14-17	4	13-16	4	14-16	3	2	17th	(i) 16th (ii) 16th
6	dhaivata	18-20	3	17-20	4			1	20th	20th
7	nişāda	21-22	2	21-1	3	21-2	4	2	22nd	(i) 1st (ii) 2nd

(Chart 8)

It is worthy of note in column 6 that in the case of serial nos. 1, 2, 4 and 6 the note sruti-s of the standard notes and the modified notes coincide respectively as the 4th, 7th, 13th and 20th. This phenomenon needs an explanation which is offered as follows:

- (i) Though the note-sruti of the second modification of şadja is 4th just like the standard şadja, it differs from it in so far as its note-interval from niṣāda is only of two-sruti measure as compared with four-sruti interval of the standard şadja.
- (ii) Although the note-sruti of the modified rṣabha is the same as that of the standard rṣabha viz., the 7th, its note interval is of four-śruti measure from ṣadja as against the three-śruti measure of the standard rṣabha.
- (iii) The note-śruti-s of the standard madhyama and its second modification are identical viz., the 13th but whereas the note interval of the modified form is of two śruti-s from gandhara, that of the standard form is of four śruti-s.
- (iv) Similarly, the note-sruti of standard dhaivata is identical with the note-sruti of modified dhaivata; and yet the note-interval of the modified form is four sruti-s from pancama whereas the standard note-interval is only three sruti-s.

Thus, even though the note-sruti-s in certain cases are identical the note-intervals of the standard and the modified forms being quite different, there is no room for any confusion with regard to their character. (44c-46b)

## (vii) सप्तस्वराणामुच्चारियतारः पशुपक्षिगाः मयूरचातकच्छागक्रौश्वकोकिलदर्दुराः ॥४६॥ गजश्च सप्त षड्जादीन्क्रमादुच्चारयन्त्यमी।

(vii) Production of svara-s (tones) by the birds and animals:

The seven notes commencing with sadja are produced respectively by the peacock, cātaka<sup>1</sup>, goat<sup>2</sup>, heron, cuckoo, frog and the elephant. (46c-47b)

The seven notes of the heptad<sup>3</sup> (saptaka) are perceived and utilised not only by the human beings, but also by the rest of the animal kingdom. The notes have been identified with the expressions of particular animals and birds. The author does not elaborate this theme and merely seems to have recorded a popular concept that confirms the fact that the notes actually exist in nature and are only seven. The following extract from the article of Bulwant Trimbuk, as published in the 'History of Hindu Music' (p. 11) will be found to be of great interest.

"Nature is never stingy or cruel to her children, when they serve her earnestly. The same craving after knowledge and spirit of patient enquiry which discovered to the Aryans that the high, low and middle notes had typical representatives in the animal kingdom, the same musical ear which showed them the sounds proper for repeating the lessons in the morning, noon and at other times, disclosed to them that the animals produce certain notes, and no more. They found that the peacock, ox, goat, crane, black-bird, frog and elephant uttered certain distinct notes, and that all the notes of the denizens of the forest could be put down under one or the other of those 7 heads. In this way were the seven musical notes found and fixed upon."

<sup>1.</sup> Gataka is a bird of poetic convention. It is held that this bird takes only rain-water. Kunhan Raja's note in this respect is quite interesting and is reproduced verbatim:

"Cātaka is a mythological bird supposed to have holes in the neck, and as such, unable to drink water in the ordinary way; they drink water remaining with their breast upwards when rain falls, so that the water does not leak out through the holes."

<sup>2.</sup> K. R. renders it as 'ram'.

<sup>3.</sup> Heptad is used as an equivalent of Sanskrit saptaka, which is conceived in place of the octave.

Section 3: Nada, Sruti and Svara

He also relates certain psychological states of mind, aesthetic moods with the notes and the animals as reproduced in the following table. The rasa-s or the aesthetic moods are in theory attributed to various notes by our author as well.

Notes as related to the birds and animals and the rasa-s

Sanskrit notes	English notes	Sanskrit names	English names	Types in the animal kingdom	Sentiments peculiar to
Sa	C	Shadja	$D_Q$	Peacock	Heroism wonder, terror
Ri	Ъ	Rishábha	Re	Ox or Chataka	do-
Ga	E	Gandhara	Mi	Goat	Compassion
Ma	F	Madhyama	Fa	Crane	Humour & Love
Pa	G	Panchama	Sol	Black- bird	do
Dha	A	Dhaivata	La	Frog	Disgust, Alarm
Ni	В	Nishada	Si	Elephant	Compassion
			(Chart	0)	100

(Chart 9)

Note:—Spellings and English equivalents of Sanskit words have been retained as in the original.

## (viii) वादि-संवादि-विवाद्यनुवादिभेदेन चतुर्विधाः स्वराः चतुर्विधाः स्वरा वादी संवादी च विवाद्यपि ॥४७॥ अनुवादी च वादी तु प्रयोगे बहुलः स्वरः।

(viii) Sonant, consonant, dissonant and assonant notes: 47c-51

The notes are fourfold viz, sonant, consonant, dissonant and assonant; of these, sonant is that note which in

Having defined the relative form of the notes, the author now proceeds to classify them from a different point of view, viz, on the functional basis. The Sanskrit name for sonant is vadi which literally means

- 1. Vadī, literally means speaker i. e., the note that frequently sounds.
- 2. Samvadi, literally means the corresponding note, the note that converses in tune with the sonant, with the vadi.
- 3. Vivadī, literally means the opponent, the disputant i.e., the note of discord.
- 4. Anuvadi, literally means that which sounds afterwards, which follows i.e., the note that supports the sonant.

श्रुतयो द्वादशाष्टौ वा ययोरन्तरगोचराः ॥४६॥ मिथः संवादिनौ तौ स्तो निगावन्यविवादिनौ । रिधयोरेव वा स्यातां तौ तयोर्वा रिधायि ॥४९॥ शेषाणामनुवादित्वं वादो राजाऽत्र गौयते । संवादी त्वनुसारित्वा इस्यामात्योऽभिधीयने ॥५०॥ विवादी विपरीतत्वाद्वीरैहक्तौ रिपूपमः ।

performance is most frequently used. The notes having an interval of eight or twelve *śruti-s* are mutually consonant. Ni and ga are dissonant to all other notes, or to ri and dha only, or ri and dha too are their dissonants. The rest of the notes are related as assonants. (47c-50a)

The sonant among them<sup>5</sup> is considered to be the ruler, while the consonant, being in concert with it, is called the minister; the dissonant being antagonistic is likened by the sages to an enemy, the assonant<sup>6</sup>, however, since it follows the king as well as the ministers, is like a servant. (50b-51)

speaker. The name itself is suggestive of its function viz, the one that sounds frequently, and thereby establishes the melodic pattern of raga: Generally, the sonant is also the fundamental note (the tonic), specially in the jāti and grāma-rāga-s.

'K' defines samvādī i.e., consonant as the note which, in consonance with the sonant, creates the quality of delightfulness in a rāga (a melodic structure) and helps to maintain it. 'S' raises the point that, whereas Śārngadeva has spoken of eight or twelve śruti-intervals being the necessary condition for consonance of notes, Matanga and Datula have mentioned nine or thirteen śruti-s as constituting the required interval. Now, in order to answer this question as well as to grasp the whole concept of consonance of notes, it is necessary to examine the statements of Matanga and Dattila. Matanga says:

"The notes placed at the interval of nine or thirteen stull's are mutually consonant" (as quoted by 'S').

- 5. That is, the four types of notes viz., the sonant, the consonant, the assonant and the dissonant.
- The assonant is like a servant, in so far as it has no other function except to strengthen the leading note in concordance with the consonance; it has no individuality of its own.

Nos. 11-12, p. 57).

It is important to note that Matanga lays down the condition of the notes being of identical fruti-measure, in addition to the required note-interval of nine or thirteen sruti-s. Following Matanga, Abhinaygupta elaborates the concept of samasrutikata (identity of śruti-measure) of a tone with reference to the last sruti of the preceding tone. Thus Bharata has enumerated the following pairs of consonant notes in the sadja-grama: sa-ma, sa-pa, ri-dha and ga-ni based on 9 and 13 śrutiintervals. What is notable is that he has not included the pair of ma-ni which implies a 9 śruti-interval. This is so because ma and ni being at a distance of 4 and 2 sruti s from the last sruti-s of their respective preceding notes are not identical in their sruti-measure. Thus the phenomenon of svara-samvada which is inaccurately identified as the consonance of notes, is not only an acoustical but also a melodic phenomenon. In the former case it signifies the relation of syara-s in terms of the śruti-interval obtaining in-between them and in the latter case it refers to the identity of srutimeasure constituting them. The melodic effect of this aspect of scarasamvāda is amply demonstrated by reciprocal triads formed by the consonance of notes as defined above. For example, Brihaspati points out that in case of ma-ni, which has been excluded by Bharata from the consonant pairs, 'ma-ga-ri' cannot be reciprocated by ni as 'ni-dha-pa', the reciprocal

Incidentally the minute difference between the concept of consonance in western music and samvada of Indian music is also made clear through the concept of samasrutikata.

triad would be 'sa-ni-dha' and not 'ni-dha pa'. Hence ma-ni have not been

spoken of as having samvāda" (cf. I.M. J. No. 7, p. 60 and P.L.S.: I.M. J.

Furthermore, as 'S' explains, Matanga includes the note-śruti of the note with which consonance is established in the number of śruti-s forming the interval, whereas Śārngadeva excludes it; that is why Śārngadeva speaks of eight and twelve śruti-interval and (Bharata), Matanga and Dattila add one more to state as nine and thirteen-śruti-interval. For example, take the consonance of sa-pa. The note-śruti-on sa is 4th and that of pa is 17th; and if, while measuring this interval, one counts from 4th (including it) to 16th it would make for a thirteen-śruti-interval but if the 4th is excluded, then it would make for a twelve-śruti-interval. The consonance of notes is reflected in the following chart:

Sonants and consonants

Relation
şadja-madhyama
ṣaḍja-pañcama
99
2)
23
şadja-madhyama
3,3
33

(Chart 10)

It will be clear from the above chart that even though all the notes have their own consonants in turn, yet only two relations of consonance, viz., the 8-śruti and the 12-śruti intervals are recognised; and these are respectively known as the şadja-madhyama relation and the şadja-pañcama-relation.

But what is the function of the consonance of notes in performance? 'S' explains on the authority of Matanga (obviously) that, the underlying principle is that a consonant note can replace a fundamental note (i. e. tonic) without damaging the spirit of the mode and the rāga (the melodic pattern). For example, in case of sa-pa consonance, if in a given composition sa is the fundamental note and it is substituted by pa, it would not adversely affect the value of the aesthetic potential of the melody.

It may also be noted that even though Matanga concedes the relationship of consonants only between the notes of identical or equal fruti-measures, Sarngadeva in agreement with Dattila does not mention this condition. Thus he would admit consonance between whatever notes that are placed at the distance of 8 or 12 fruti-s.

Now with regard to the dissonant notes the author presents two or three views altogether:

- (i) that ga and ni are dissonant to all other notes
- (ii) that ga and ni are dissonant to ri and dha
- (iii or/and ri and dha too are dissonant to ga and ni.

The underlying principle, however, seems to be that the notes having two *sruti* s are dissonant. This is enunciated by Matanga when

he says "Notes extending to two *sruti-s* are dissonants". The function of dissonants is defined by Matanga and elucidated by 'S' to the purport that the notes that can only disturb and destroy the melodic structure of a raga, established in the configuration of the fundamental note (tonic), the assonant and the consonant notes put together, are dissonant. Again this yardstick has to be applied through the principle of substitution i. e., if ga is substituted for ri or vice versa, then the mode and the melodic pattern of the composition are disturbed, and consequently there is loss of aesthetic effect.

The notes that are not mutually related either as consonants or as dissonants are considered to be assonants. 'S' quotes Matanga who says that notes short of one *sruti* interval are assonants. Thus, for example he says, if *sabha* is used for *sadja*, *dhaivata* for *pañcama*, *sabha* for *pañcama*, or *dhaivata* for *sadja* or vice versa, the mode of the melodic pattern is not adversely affected. 'S' adds *sabha* for *madhyama*, and *dhaivata* for *madhyama* and vice versa in this line.

But what is the function of assonants? Anuvadi literally means that which sounds after (the dominant) i.e., the note that follows or supports the sonant. Matanga also lays down that "the function of the assonant is to fortify and strengthen the sprit of the melodic pattern established by the sonant." (47c—50a)

The relationship of the four classes or functions of the notes is illustrated by a metaphor. Just as it is the king who commands in consultation with his minister, so also does the sonant function in close coordination with the consonant, and yet enjoys the supremacy of the king. The assonants are so many servants working for the sonant and the consonant, strengthening them; and the dissonant is like the enemy of the whole team. (50b—51)

## (ix) स्वराणां कुल-जाति-वर्ण-दैवतर्षि-च्छन्दोरस कथनम् गीर्वाणकुलसंभूताः षड्जगान्धरमध्यमाः। पञ्चमः पितृवंशोत्थो रिधावृषिकुलोद्भवौ ॥५२॥

(ix) Lineage, caste, colour, continent, sage, deity, metre and rasa (aesthetic delight) of the svara-s; 52-60b

Ṣadja, gāndhāra and madhyama are of divine origin<sup>1</sup>, pañcama has arisen from the lineage of manes, rṣabha and

निषादोऽसुरवंशोत्थो बाह्मणाः समपञ्चमाः रिधौ तु क्षत्त्रयौ ज्ञेयौ वैश्यजाती निगौ मतौ ।।५३।। शद्रावन्तरकाकल्यौ स्वरौ वर्णास्त्विमे क्रमात । पद्माभः पिञ्जरः स्वर्णवर्णः कृन्दप्रभोऽसितः ।।५४॥ पीतः कर्बर **इ**त्येषां जन्मभुमीरथ ब वे। जम्बूशाककुशक्रीञ्च शाल्मलीश्वेतनामस् ।।४४।। द्वीपेष पुष्करे चैते जाताः षड्जादयः क्रमात । वह्निर्वेधाः शशाङ्कश्च लक्ष्मीकान्तश्च नारदः ।।५६।। ऋषयो ददशुः पञ्च षडजादींस्तुम्बुरुर्धनी। शर्वश्रीशगणेश्वराः ।।५७।। वद्मिनब्रह्मसरस्वत्यः सहस्रांशरिति प्रोक्ताः क्रमात्षडजादिदेवताः। क्रमादनुष्ट्बगायत्त्री त्रिष्ट्प्च बृहती ततः ।। १६।। पङ क्तिरुष्टिणक्च जगतीत्याहश्छन्दांसि सादिष । सरी वीरेऽइभते रौद्रे धो बीभत्से भयानके ।।४९।। कायौ गनी तू करुणे हास्यशृङ्कारयोर्मपौ।

dhaivata are the progeny of the rsi-s² (sages), while nisāda has sprung from the demonic ancestry. (52-53a)

Ṣadja, madhyama and pañcama are brahmins<sup>8</sup>, rṣabha and dhaivata are known as belonging to the princely class<sup>4</sup>, mṣāda

We have already come across two classifications of notes; here are a few others on quite different grounds. The basis for these classifications, as it will be seen, is peculiarly historical and cultural; and there-

- Rsi is usually translated as 'seer' or a sage; that being true, in this context a tsi is the recipient of the vision of the mantra-s (i. e vedic hymns).
- Brahmin is the superior-most caste among the caste Hindus who compr se brahmanas, ksatriya-s and vaisya-s, roughly conforming to the three classes of Plato's ideal society viz., the philosophers, the rulers and warriors, traders and ploughmen. The fourth caste of sudra comprises slaves and servants of lower class. Actually, the caste system of the Hindus is based on the four functional divi ions of the human body viz., the head, the arms, the stomach and the feet.
- 4. Kşatriya, literally means the warrior (class),

<sup>1.</sup> Girvanakula, literally means the house of gods', or in fact, the con ept 'kula' is akin to the concept of commune; thus the expression implies that sa, ma and pa are descended from the community of gods.

and gāndhāra are considered to be in the merchant class, while the notes antara-gāndhāra and kākali-niṣāda are of the servant class. (53b-54a)

Their respective colours are red, pale yellow, golden yellow, sparkling white, black, plain yellow and variegated. (54b-55a)

Then I am to describe the lands<sup>10</sup> of their origin. The notes sadja etc., are respectively born in the continents of Jambū, Śāka, Kuśa, Krauñca, Śālmalī, Śveta and Puṣkara. (55b-56b)

fore, peculiarly Indian in orientation. Moreover, it is not always possible to trace the historical-cum-mythological background in which the classification and its nomenclature were significantly employed. For example, one can hardly say anything about the classification of notes based on their origin from the gods, manes, sages and demons, but one can guess with obvious justification with respect to the other classification based on caste. Incidentally these attributes go to project the individual images of the notes lending them a personality.

Sadja, madhyama and pañcama have four śruti s each, 1şabha and dhaivata have three, niṣāda and gāndhāra have two; so obviously they have been evaluated according to their śruti-value and assigned the best, the middle and the lower position among the society of svara-s (notes). However, antara and kākalī are treated as outcastes since they are not employed as the fundamental notes, and are therefore, degraded from the position of full-fledged svaratva (i.e. the capacity, to be an independent musical note). (52—54a)

There is a state of consciousness arrived at through yogic process in which colour and sound appear in a unified perception. The notes have been assigned particular colours here. These colours may be related to the particular aesthetic effects subsequently attributed to the notes or

5. Vaisya-s include traders, farmers, industrialists and the producers of every type.

6. Sudra-s are those who are not free citizens, who are in the

service of other individuals etc.

7. Padmabha is interpreted by 'S' as red; literally it means 'shining like a lotus' as rendered by 'K. R.'. However, we do have a red lotus and therefore, the interpretation of 'S' may be taken to be authentic.

8. Piñjara is defined by 'S' as slightly yellow or yellowish.

Kunda is a flower and 'K. R.' identifies it with jasmine. 'S' interprets it as brilliant and white.

10. Places of birth.

The rsi-s<sup>11</sup> (sages) who discovered the first five<sup>12</sup> notes commencing with sadja etc., respectively are Vahni<sup>18</sup>, Brahmā<sup>14</sup>, Śaśānka<sup>15</sup>, Lakṣmīkānta<sup>16</sup> and Nārada<sup>17</sup>, while dhaivata and niṣāda were discovered by Tumburū.<sup>18</sup> (56-57b)

they may even be objective facts that are subjectively perceived; but nothing can authentically be said about it, since even the commentators do not refer to the basis for this tradition. They seem to take these things as a matter of course.

The world was divided into seven dvipa-s according to the puranic geography which is mixed up with mythology. A dvipa is considered to be an independent mass of land separated from the other dvipa-s by an ocean. Thus corresponding to the seven dvipa-s seven oceans are also conceived. These days, the concept of 'dvipa' is taken as corresponding to that of 'continent', though in technical details it is not necessarily so. (54b-56b)

It will be observed that with respect to every note, or in other words, regarding all the seven notes, certain characteristics are described here, such as, the familyline, the colour, the continent of origin, the seer, the presiding deity, metre and the aesthetic effect. To a critical mind, this scheme is open to searching questions regarding the significance of these individual characteristics as attributed to the different notes. However, only a few general suggestions can be offered here with a view to provide a certain perspective in which the true significance of the scheme may be discovered.

- 11. Rsi-s are considered to be the seers who have an immediate perception of Truth or a fact.
- 12. That is, şadja, ışabha gandhara, madhyama and pañcama.
- 13. Vahni, literally means fire and alludes to Agni, the god of fire.14. Vedhas of the text refers to the creative aspect of the Divinity,
- i. e. Brahmā.
- 15. Śaśānka refers to the 'moon'.
- 16. Lakşmīkānta refers to Visou along with his consort Lakşmī.
- 17. Narada is not only a mythological figure, but also one of the authorities in the tradition of the musical arts as mentioned in the beginning of the text (cf. S. Raj, Vol. I, p. 667 for an exhaustive note).
- 18. Tumburū is similarly another authority sanctified by musical tradition. Thus Tumburū, like Nārada is a historical personality. He is described as an expert in divine music Vāyupurāna 69.47-49, a gandharva disciple of Nārada (Bhagavatapurāna, I.13.37-59) Tumburū is obviously associated with Nārada in the Purāṇa-s.

The presiding deities of sadja etc., respectively are Vahni, Brahmā, Sarasvatī<sup>19</sup>, Śiva<sup>20</sup>, Viṣṇu<sup>21</sup>, Ganeśa<sup>22</sup> and the Sun<sup>28</sup>, and the metres associated with them seriatim are anuṣṭup, gāyatrī, tṛṣṭup, bṛhatī, paḥkti, uṣṇik and jagatī. (57c-59b)

In the vedic tradition, every vedic hymn, i.e., sūkta is endowed with a seer, a presiding deity, a metre and so on; and it seems that the present characterisation of notes in the above terms is an extension of this tradition as applied to music. How far its application to music is useful, practical and valid is a question of a detailed and a deeper investigation.

Another obvious fact, as already hinted in this regard is that, all these characteristics go to raise an individual image of each note. One might well find the beginnings of the later raga imagery in the Indian music developing visual images of tonal structures expressed in line and colour in their rudiments.

'S' has observed this phenomenon from quite a different angle which is interesting and thought-provoking. He says that the allocation of the musical notes to seven different continents as the places of their origin and the association of seven seers etc. as well points out the fact that the notes were admitted to be seven only, and not nine, including, for example, the kākalī-niṣāda and the antara-gāndhāra. Thus, he raises the question, "why indeed the notes are considered to be seven as a rule?", and suggests the following explanation: The number seven as associated with the musical notes is based probably on the concept of seven supportive tissues (spoken of in the Ayurveda) of the body such as

- 19. Terms such as Vahni and Brahmā have already been explained. Sarasvatī is conceived as the goddess of learning, art and literature in the puranic symbology.
- 20,21. Siva symbolises that aspect of the Hindu trinity which is responsible for the dissolution of the creation and Vişou is the deity responsible for the state of the being in creation, i. e. sthiti (sustenance).
- 22. Ganesa, in the puranic mythology, is the son of Lord Siva and a god to be propitiated at the commencement of every religious rite, ceremony or any new social or economic undertaking.
- 23. The Sun, though grammatically correct, is yet a misleading expression, for the presiding deity called Sun, is not inert like the sun, but is the essence of the consciousness embodied by it

The following notes (24-31) are prepared on the basis of the glossary of technical words, appended to Ravi Shankar's "My Music My Life".

Ṣadja and ṛṣabha are employed in the expression of heroism<sup>24</sup>, wonder<sup>25</sup> and wrath<sup>26</sup>; similarly, dhaivata is used for abhorrence<sup>27</sup> and terror<sup>28</sup>, gāndhāra and niṣāda for

skin, blood, flesh, etc., or on the concept of the seven psycho-physical centres in the body, or as related to the seven continents. Kākalī-niṣāda and antara-gāndhāra are not taken as notes independently as they are not used as the dominant (tonic) notes. This is supported by a quotation from Dattila to this effect (cf. verses 16 and 17).

It is notable that while all other \*\( \si\_i\)-s from \*Vahni to \*Narada\* are more or less mythological, perhaps with the exception of \*Narada\* who is semi-historical, Tumburū is a historical personality and a \*gandharva\* i.e., a musician. He is said to have discovered \*dhaivata\* and \*nişāda\* (cf. a discussion on the concept of \*gāndharva\* by Sadagopan-Prem Lata-Brahaspati in the Indian Music Journal, Oct.-Nov. 1967), where it is said by Brahaspati that \*dhaivata\* was discovered by him as an overtone of \*madhyama\*. It seems that the discovery of \*dhaivata\* and \*nişāda\* attributed to him is historical. (56c-57)

The concept of devatā or the presiding deity is once again vedic in origin. It symbolises in concrete terms the abstract idea of a certain classification of human consciousness of that particular age, which was partly functional and objective in its comprehension of the creation and partly subjective, being conditioned by the time-space of the age. For example, the group of sun-gods headed by Savitz symbolise not only the sun, but in fact the brilliance that characterises the sun and the stars alike. Thus the discovery of the modern astronomy that the stars are as many and more or less powerful suns, is no revelation to those who are acquainted with the vedic symbolism. The Vedas have comprehended the truth of it in their own terms.

It is difficult to relate the application and the extension of this symbolism to the musical notes, as it has already been said, but if any significance has to be discovered, vedic symbolism must provide the key.

<sup>24.</sup> Vira is expressive of dignity, majesty and glory, courage and heroism.

<sup>25.</sup> Adbhuta is expressive of wonderment, amazement, surprise, exhilaration, and also the mixed feelings of anticipation.

<sup>26.</sup> Raudra depicts anger or excited fury.

<sup>27.</sup> Bibhatsa conveys the sentiment of hate, hostility and disgust which is usually made explicit in dramas.

<sup>28.</sup> Bhayānaka represents the sensation of fear, fright and awe. However, it is difficult to express this in music or a solo-instrument.

pathos<sup>29</sup>, and madhyama and pañcama for mirth<sup>30</sup> and conjugal love.<sup>31</sup> (59c-60b)

Similarly, the particular metres that have been associated with the notes are also vedic with the exception of anuştup which was introduced into the classical Sanskrit as well. This confirms the view that this characterisation of the tones is a form of the extension of vedic symbolism in the field of musical arts. In this context the value of its application to music needs to be assessed for proper appreciation and understanding.

In this respect 'S' informs that these particulars are used in the worship of the tones when sadja etc, are invoked by the seed-syllables spoken of by Matanga. In this invocation specially the seer (rsi), the presiding deity (i. e. devata) and the metre are utilised. 'S' gives a long quotation from Matanga, referring to the seed syllables of notes, which need not be reproduced here. This reflects the influence of Tantra on the already existing tradition of vedic origin. (57c-59b)

It is said that music is a universal language: perhaps it is so because it gives expression to the content of the heart without interference of thought, and therefore, appeals directly to the heart. Music, as understood in the context of sangita was primarily considered to be an accessory art to dramatics and therefore, specific compositions such as particular grāma-rāga-s etc., were employed in the depiction of particular sentiments, such as heroism, conjugal love, pathos and so on. Thus the theory of rasa or aesthetic delight propounded for explaining the phenomenon of literary and dramatical enjoyment was later applied to music, even while it was taken to be an art by itself. That is how various rāga-s are associated with various states of mind leading to the enjoyment of various emotions. In this background the capacity of different tones for producing or arousing particular mental states is further analysed here.

This analysis of the character of tones with reference to their capacity to express more effectively particular sentiments seems not only to be historical and traditional, but also objective and scientific in

principle. Cf. Bharata XIX. 38, 39 (K. ed.) as the basis for Saragadeva to associate particular notes with particular rasa-s. However, svara in this context refers to the tonic i. e., the first tone of the mūrcchanā and implies the mūrcchanā based on it. So in fact the rasa or the aesthetic delight associated with a particular tone is capable of being produced not by an isolated tone but by the mūrcchanā commenced by that tone. This view is supported by the implication of Bharata in the context of rasa as associated with jātis (N. S. XXIX. 12 K. ed.)

Rasa is generally rendered as aesthetic delight, but that does not elucidate the concept adequately. Rasa is that delight which is distinguished from pleasure, from sensation and sensual enjoyment in so far as it is to be derived from a state of mind free from the limitations of personal likes and dislikes. Rasa is the delight of a consciousness in which emotion is experienced as a universal affection. Rasa is not only contemplation but also a direct experience of beauty and love. The concept of rasa is well elucidated as 'brahmananda-sahodara', that is, 'delight approximating to universal love'.

The association of rasa or an aesthetic mode with the individual notes may not be directly an extension of the vedic tradition, but certainly the concept is derived from marga-sangita i. e., ancient music, and is therefore, an indirect extension of the vedic tradition. It is worthwhile to remember that the Sama-veda is, according to some, the source of musical arts.

Another point worthy of notice is that, quite in keeping with the tradition of dramaturgy, only eight of the nine rasa-s of the literary theory have been admitted as the basic aesthetic moods in music. Santa i e., 'serenity' is excluded as being impracticable for the purposes of demonstration. (59c-60b)

<sup>29.</sup> Karuna is sad, pathetic, tragic and expresses loneliness, longing and yearning for the absent lover or God.

<sup>30.</sup> Hasya is humorous and comic, happy and joyful and producing laughter.

<sup>31.</sup> Singura represents the universal creative force and embodies romantic and erotic feelings, of love between man and woman, the longing for the absent lover, and sensitivity to the beauty of nature.

# अथ चतुर्थं ग्राममूर्च्छनाक्रमतानप्रकरगाम्

#### (i) ग्रामलच्याम्

ग्रामः स्वरसमूहः स्यान्मूच्छ्नाऽऽदेः समाधयः ।

#### Section 4

#### Grāma, Mūrcchanā, Krama and Tāna

A. Grāma: 1-8

(i) The definition of grāma: lab

Grāma<sup>1</sup> is a group of tones that forms the basis of murchanā<sup>2</sup> etc. (lab)

The individual identity of the tones has been established and demonstrated in the previous Section. But, taken individually, the tones do not have any utility, obvious or hidden. So, in order to be effective the tones are organised and presented in a systematic form; and therefore, the author now comes to deal with the basic pattern of tonal organisation and the system of formal presentation related to it. In this Section he deals with grama which forms the basis of tonal organisation of the system of formal presentation consisting of such concepts as mūrcchana, the mūrcchana-series (krama) and the note-series (tana) which constitute the important features of ancient Indian music. These concepts will be elaborated in their proper context, but for the present we are concerned with the term 'grāma'.

The word grāma in Sanskrit means a village; but a village in ancient times, and even today was and is more or less a community by itself. So, when the word grāma is adapted in musical parlance, it denotes, not merely a collection of musical notes, but a group of notes

of relative tonal value organised into an integrated whole comprehending within its fold the span of a saptaka (heptad), a scale of seven notes which serves as the basis for musical compositions.

'K' elucidates that, as in every-day life grama refers to a group of people, so in musicology grama refers to a group of svara-s; but, as the word svara refers to the linguistic vowels (vedic and classical) as well as the musical notes, this definition would be too wide. Also in the ordinary connotation of 'svara' is included the threefold vedic accent, viz., udatta, anudatta and svarita. It is in order to preclude such an interpretation as it were that grama is stated to be such a group of svara-s which forms the basis of murchana etc. By etc., the author implies murchana-series, note-series (tana), ornamentation (alamkara), graces (gamaka) and the archetypes (jāti) of musical compositions such as grāma-rāga-s and so on.

'S' also offers the same elucidation but with an alternative: probably, as he apprehends, one may not understand the order of tonal value, say in terms of the pitch involved in the grāma, if it is merely taken to be a group of tones. Therefore, this general statement is conditioned in so far as the group of notes has to be so organised, the tones have to be so related to each other, as to serve as the basis for murchana etc.

'S' is obviously inspired in this view by the Sangla-samaya-sara, from which he quotes as under:

"Grāma is a group of notes having ordered śruti-s and constituting murcchana, tana, jāti and amśa."

The emphasis is on the order inherent in the arrangement of the *śruti-s*, and therefore the *svara-s*. It is this order in the tonal value of the notes which distinguishes it from an indistinct jumble of sounds. Actually this point is implied in the text as one can clearly see it, though 'K' has emphasised one aspect of it and 'S' has stressed the other. Kumbha's definition of grama seems to be the most appropriate:

"When the svara-s in consonance, having sruti-s in due order, serve as the basis of murchana etc., they are said to constitute a gruma". (S. Raj. I. 2. 3. 9-10)

That the tones of the grama should be so related as to be in consonance with each other, makes this definition more explicit, clear and precise. Also, this definition gives due importance to śruń-s apart from the svara-s.

M. S. Ramaswami Aiyar in his paper entitled, "The Question of Grama-s" (pub. J. R. A. S., 1936, p. 632) explains grama in these words:

<sup>1.</sup> Grama may be understood roughly as a basic scale, but for the sake of accuracy it has not been translated into English.

<sup>2.</sup> Murchana, though not translated in this work, like grama, may otherwise briefly be understood as modified gramic prototype scale.

## (ii) हो त्रामो (धरातले)

## तौ द्वौ धरातले तत्र स्यात्षड्जग्राम आदिमः ॥१॥ दितीयो मध्यमग्रामस्तयोर्लक्षणपुच्यते ।

#### (ii) The two grāma-s: 1c-2b

Two grāma-s are prevalent in this world<sup>1</sup>, the first is sadja-grāma and the second is madhyama-grāma; they are defined in the following terms. (1c—2b)

"A grāma was an unsingable group scale, so to speak, consisting of suddhal vikţta svara-s collected together and preserved, as such, for the purpose of selecting, from that group scale, any desired set of seven notes with a graha or srarting point which set, when sung in the natural order of ascent and descent was called mūrcchanā and which, when a harmonic individuality was established with the help of amsa, nyāsa, vādī and samvādī etc., took the name of jūti³." Thus, it would seem that the conscept of grāma is deeply involved in other concepts of the grāma-mūrcchanī system; and would therefore become more and more clear as we go on comprehending them all as a part and parcel of a single scheme.

Grāma has been defined primarily to be a group of tones: therefore, the question is, why not have seven grāma-s, one by the name of each tone?, and why only two viz., sadja-grāma and madhyama-grāma? 'K' suggests that since the tones are employed in two forms viz., the standard or unmodified and the modified, there are only two grāma-geach to serve as the basis for the former and the latter i.e., the sadja-grāma for the standard tones and the madhyama-grāma for the modified tones. However relevant this explanation may be, it can hardly be said to be adequate; there are many other factors of musical practice that make any other grāma impracticable, e.g., the principle that the tones of a grāma should be in consonance with each other, implies that the consonant tones have to be of the same sruti-measure: and this implication cannot probably be realised elsewhere as accurately as in the sadja and the madhyama-grāma-s.

#### (iii) षड्जमध्यमग्रामयोर्लेचणम् ामः पञ्चमे स्वचतुर्थश्रुतिसंस्थिते ।।२।।

# षड्जग्रामः पञ्चमे स्वचतुर्थश्रुतिसंस्थिते ।।२। स्वोपान्त्यश्रुतिसंस्थेऽस्मिन्मध्यमग्राम इष्यते ।

(iii) The definition of the şadja-grāma and the madkyama grāma: 2c—3b

Pañcama, if located on its fourth śruti makes for the sadja-grāma; but if established on the śruti immediately preceding it, makes for the madhyama-grāma. Alternatively, dhaivata of the sadja-grāma is of three srutis; while in madhyama-grāma it has four śruti-s. (2c—3b)

The author is now suggesting the means of distinguishing the sadja-grāma from the madhyama-grāma and he says that pañcama is the crucial note for this purpose. In the sadja-grāma pañcama is located on the seventeenth śruti and consequently dhaivata has three śruti-s, but in madhyama-grāma, pañcama is located on the sixteenth śruti and consequently one of the śruti-s is spared to dhaivata which sustains four śruti-s. Thus the grāma-s can be distinguished either by the position and the extent of pañcama or of dhaivata.

Incidentally, it is pointed out by 'S' that, whereas the pañcama of the sadja-grāma is unmodifiable, the pañcama of the madhyama-grāma is essentially a modified note. Even though there are other notes in sadja-grāma such as sadja etc., that too are constant, yet pañcama presents a contrast and that is why it becomes more significant.

<sup>3.</sup> As quoted by Nijenhuis in her Dattilam, p. 104.

<sup>1.</sup> Dharatale, literally means, 'on the face of the earth', i.e., in the mortal world, for gandhara-grama is said to be prevalent in the heaven or among the gods.

<sup>1.</sup> Sva the use of this possessive pronoun in the terminology of Saragadeva is quite significant; for, it excludes the sruti-s gained by the tones in their modified state. The fourth sruti of pañcama is the seventeenth sruti of the scale identified by 'K' as alapin of the karun jati (class).

<sup>2.</sup> Svopāniya—of the text literally means "its penultimate". Thus, the expression refers to the śruti immediately preceding the fourth śruti of pañcama, i.e., the third śruti, or the sixteenth of the scale, identified by 'K' as sandīpanī of the āyatā class.

<sup>3. &#</sup>x27;S' points out that the use of the indeclinable tu in the text shows that the author prefers to stick to the first distinction for distinguishing the grama-s, while he mentions the other alternative on behalf of other musicologists. Indeed the distinction of dhaivata is incidental to that of pancama:

#### (iv) गान्धारप्रामः

यद्वा धस्त्रिश्रुतिः षड्जे मध्यमे तु चतुःश्रुतिः ।।३।। रिमयोः श्रुतिमेकंकां गान्धारश्चेत्समाश्रितः। पश्चिति घो निषादस्तु घश्चीत सश्चीत श्रितः ॥४॥ गान्धारग्राममाचष्ट तदा तं नारदो मुनिः। प्रवर्तते स्वर्गलोके ग्रामोऽसौ न महीतले ।।५।।

(iv) The gandhara-grama: 4-5

If gandhara takes one śruti each from rsabha and madkyama, dhaivata takes one śruti from pañeama, and nisāda takes one sruti each from dhaivata and sadja, it becomes gandhara-grama as declared by the sage Naradai. This gramm is prevalent in the heaven2, not in this world. (4-5)

In the tradition of Bharata, which Matanga seems to follow, only two grama-s, viz., the sadja-grama and the madhyama-grama are recognized (cf. Br. D. 93). However Narada, of uncertain chronology, refers to a third grama called gandhara-grama which, our author after Matanes declares, was meant to be used exclusively by gods and not by hum beings. This grama is derived by him from the sadja-grama as described in the text and accordingly can graphically be demonstrated as under: The three grama-s

Tones with number of śruti-s Name of the grama pa/4 | dha/3 ga/2 | ma/4ri/3 sal4 Sadja-grama ri/3ni/2sa/4 pa/3 dha/4 Madhyama-grama ma/4sa/3 dha/3 ni/4pa/3 ma/3 ga/4Gandhara-grama

(Chart 11) Dhaivata takes one śruti from pañcama (of the ṣadja-grāma) and yields one stuti to nisada, retaining in effect the same number of stuti-s.

1. Narada is a very ancient name, known to Veda as the brahman and the Puranas as devarsi. He is associated with Bharata in the very first performance of drama (N. S. Kashi ed, 5.32). Bharata mentions Naradi as an authority on gandharva (N. S. Kashi ed. 32.484). At least five per sonalities are discerned by the name of Narada including the author Naradiya-sikşa and Sangita-makaranda (cf. S. Raj, Vol. I, pp. 667-668 for a detailed description). In short, Narada is an ancient authority on a usic

2. The heaven in the Hindu mythology, is the abode of gods those who accumulate merit by good deeds, are born as gods in heaven and as the merit earned by them is exhausted, they are again reborn a mortals in noble families. On the other hand, the gods are considered to be immortal, having partaken of nectar.

## (v) ग्रामत्रयस्य नामस्वराणां वे शिष्टयम

Section 4: Grama, Murcchana, Krama and Tana

प्रधानमाद्यत्वादमात्याधिक्यतस्तथा । स्यादविलोपित्वान्मध्यमस्तु पुरःसरः ॥६॥ एतत्कुलप्रसूतत्वाद् गन्धारोऽप्यग्रणीदिवि ।

(v) Justification for the three grāma-s: 6-7b

Sadja is the prime tone1, for being in the first position and also for having more ministers2 in the grāma; madhyama too is in the fore-front, because it cannot be omitted. Being a descendant of the same family, even gandhara is the prominent note in the heaven. (6-b)

Now, the question is why the three grama-s are named particularly after sadja, madhyama and gandhara, and not after any other notes such as bañcama or nisada and so on. The author explains that it is because sadja is the most prominent tone; and that for two reasons viz., it is the fundamental note and also it is in consonance with more notes than the other i.e., with pancama and madhyama; whereas other tones have only one consonant.

Madhyama is also an important note since it cannot be omitted while composing standard (suddha), hexatonic and pentatonic noteseries (tana-s). 'K' also suggests another reason. Madhyama cannot be omitted because the three notes preceding it are quite in balance with the three notes succeeding it, and have a certain consonance in between them, but madhyama being centrally situated is isolated from that sort of relationship and therefore serves as the boundary line between the two sets of notes, making itself in-omissible. 'S' quotes Dattila regarding the inomissibility of madhyama to the following effect.

"Pancama in the madhyama-grama, and dhaivata in the sadju-grama are inomissible, but however madhyama is so everywhere."

Gandhara-grama is so named because it is a descendent of the same family of gods to which sadja and madhyama belong and is thereby the prominent note in heaven, where it is said to be prevalent. 'S' quotes Matanga in support of this reasoning.

"Why indeed this particular nomenclature sadja and madhyamagrama? To explain, they have been assigned grama names because of their being extraordinary, and that is because of their being born in the family of gods." (cf. I.3.52ab ante)

1. Pradhana literally means "the chief', in other words, the most

The consonant tones have been referred to as ministers (cf. 3.50 ante).

White the trees

#### (vi) प्रामाणां देवा।

#### क्रमाद् ग्रामत्रये देवा ब्रह्मविष्णुमहेश्वराः ॥७॥

(vi) The presiding deities of the grāma-s: 7cd

The presiding deity in each of the three grāmas respectively is Brahmā, Viṣṇu and Śiva. (7cd)

#### (vii) प्रामाणां गानकालनियमः

#### हेमन्तग्रीष्मवर्षासु गातव्यास्ते यथाक्रमम् । पूर्वाह्यकाले मध्याह्ने ऽपराह्वे ऽभ्युदयार्थिभिः ।।८।।

(vii) The periods of time as related to the grāma-s: 8

They<sup>1</sup> are to be sung by those who are desirous of prosperity in the forenoon<sup>2</sup>, mid-day and in the afternoon, in the winter, summer and in the rainy season respectively. (8)

The expression "gātavyāste" is quite significant and also thoughtprovoking. The pronoun 'they' (te) obviously stands for the three
grāma-s; and therefore two interesting questions arise in this particular
context: (i) are the grāma-s meant to be sung? (ii) Is singing to be
restricted to winter in case of the şadja grāma, to summer in case of the
madhyama-grāma and to rainy season in case of the gāndhāra-grāma? and
if so, the gāndhāra-grāma cannot be used on earth as it is prevalent in the
heaven only; then how should one sing in the rainy season? Moreover,
the grāma-wise distribution of the day into three parts presents another
problem on the same lines.

The grāma-s, it is generally held, were not meant to be sung; but what is probably collectively referred to in the text by way of grāma is the various types of melodic patterns or musical forms set in the pattern of the particular grāma-s, such as jāti-s and rāga-s. It is interesting to find 'S' quoting Matanga with reference to the function of grāma.

in this context; it is said—"the purpose of grama is to regulate the organisation of svara, śruti, mūrcchanā, tāna, jāti and rāga." Obviously, these are the main factors of the ancient Indian music known as the grama-mūrcchanā-jāti system.

Thus, the expression 'they are to be sung', refers not merely to the basic scales of the grama-s, but all those melodic structures or musical forms that are set into their basic pattern.

Accordingly, the text is suggestive of another function of the three grama-s viz., their individual suitability to a particular season. The traditional six Indian seasons have been compressed into three for functional purposes; and on this basis one is led to infer that even gandhara-grama might have been prevalent sometimes in the forgotten past. All that the text implies is that the three grama-s are more suitable for the three respective seasons and the divisions for the day, but not that they are exclusively to be employed on restricted basis.

## ख. मूर्च्छनाः क्रमाश्च

#### (i) मूर्च्छनालक्षणम्

क्रमात्स्वराणां सप्तानामारोहश्चावरोहणम् । मूर्च्छनेत्युच्यते ग्रामद्वये ताः सप्त सप्त च ॥९॥

The mūrcchanā-s and krama-s: 9-26b.

(i) The definition of murcchana: 9

The ascending and the descending movement of the seven notes in successive order is called murchanā. There are seven murchanā-s in each of the two grāma-s. (9)

The concept of mūrchhanā is quite important in this system of music, and should therefore be understood quite adequately.

The word 'mūrcchanā' is derived by Matanga from the Sanskrit root mūrcch—to faint or to increase. Thus he defined mūrcchanā as: "mūrcchyate yena rago hi mūrcchanā-ityabhisañjñitā" i.e., "That by which the rāga develops is called mūrcchanā." Basically it is the movement, ascending as well as descending of the seven notes which is called mūrcchanā in the text. However, 'S' quoting Matanga in his support

<sup>1.</sup> That is, in the sadja, madhyama and gandhara-grama, in respective order.

<sup>2.</sup> The appellation Mahesvara (Maha+1svara—the great God) is used in the text.

<sup>1.</sup> That is, the three grama-s.

<sup>2.</sup> Pūrvāahņe, literally means 'in the anterior period' with reference to the middle period of the day, i. e.. the mid-day. Thus, we can also divide as forenoon, noon and afternoon.

<sup>1.</sup> That is, in this world excluding heaven.

<sup>2.</sup> That is, the sadja-grama and the madhyama- grama.

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makes it clear that it is in fact the seven notes arranged in regular order of ascent and descent which stand to be called as murchanu i.e., in other words, the action of ascent and descent, that is, the tonal movement is not to be called murchanu, as it is said by Matanga:

"The unit of seven notes in regular order of ascent and descent is known to be the referent of the word murchana by the experts of the subject."

Obviously a very subtle distinction has been made; for indeed, it is the seven notes in the ascending or the descending movement in their successive order that constitute mūrcchanā. The movement is quite inherent in the tones if they are to form a mūrcchanā. Thus, the distinction is rather formal and may be construed as helpful in placing the emphasis rightly on the tones, rather than on their movement, Ravi Shankar defines mūrcchanā as, "scale-wise progressions in descending motion from the fundamental notes." (cf. Glossary of Technical Words 'My Music, My Life').

The function of mūrcchanā is to develop, to enlarge and to spread the rāga. Obviously, it is not possible to restrict the arrangement of mūrcchanā-s to any one register, and as pointed out by 'K' in order to show their range to be co-extensive with the three registers, Matanga, speaks of mūrcchanā-s of twelve notes as well, but this seems unnecessary in view of the two grāma-s being used conjointly, covering the three registers. Kumbhā mentions Kohala and Nandikeśvara as supporting Matanga in his view, but he totally rejects it by himself as technically uncalled for (cf. S. Raj. 2.1.1. 352-357).

Thus it is settled, as per the text that there are seven mūrcchanā in each grāma.

# (ii) षड्जमध्यमयामस्थम् च्छ्रनानां संज्ञाः षड्जे तूत्तरमन्द्रा ऽऽदौ रजनी चोत्तरायता। शुद्धषड्जा मत्सरीकृदश्वक्रान्ता ऽभिरुद्गता।।१०।। मध्यमे स्यात्तु सौवीरी हारिणाश्वा ततः परम्। स्यात्कलोषनता शुद्धमध्या मार्गी च पौरवी।।११।। हृष्यकेति,

(ii) The names of the murcchana-s of the sadja and madhyama-s : 10-12a

The first in şadja-grāma is uttaramandrā which is followed by rajanī, uttarāyatā, śuddhaṣadjā, matsarīkṛtā, aśvakrāntā and

abhirudgatā. Madhyama-grāma has sauvīrī, hārināśvā, kalopanatā, suddhamadhyā, mārgī, pauravī and hṛṣyakā. (10-12a)

The names of these fourteen murchand-s seem to be quite significant and some scholars have even ventured to speculate regarding their literal signification as related to their musical content and aesthetic effect; for example, the name of the first murchand of the sadja-grama attaramandra, literally means, "the one that follows the mandra i. e., the lower (heptad)" and this exactly tallies with its tonal position, since it commences with the sadja of the middle heptad.

Now, the question (as raised by 'K') is, 'Why should the murchanns of the sadja-grāma begin with the sadja of the middle register?' i. e., why not with some other note of, say, the lower register? And 'K' explains, "that is so, because Bharata has ordained it that way," quoting him, "murchanā should be demonstrated on vīnā with the tone madhyama (madhyama svareṇa vaiṇavena murchanā-nirdesah)". And then 'K' goes on to quote Matanga in his interpretation of Bharata: "Murchanā should commence with the middle register in order to establish the lower and the higher registers (madhya-saptakena murchanā-nirdesah kāryo mandratāra-sidhyartham)."

As far as the literal meaning is concerned, Bharata has spoken of madhyama as the tone and not of madhya saptaka. However, Bharata also lays down uttaramandrā as the first mūrcchanā, "adya-hyuttaramandrā syād etc." (cf. N. S. Ka. ed. XXVIII. 27). So in fact Śārūgadevā follows the tradition of Bharata and Mataūga. Mataūga however, seems to have correctly elucidated Bharata, why uttaramandrā is taken as the first mūrcchanā.

## (iii) मूर्च्छनानामारम्भकस्वराः

, अथ तासां तु लक्षणं प्रतिपाद्यते । मध्यस्थानस्थषड्जेन मूर्च्छना ऽऽरम्यते ऽग्रिमा ।।१२।।

(iii) The tonal form of the murcchana-s: 12b-15

Their distinguishing character<sup>1</sup> is (now) being outlined.<sup>2</sup> The first murchand is commenced with the sadja of

'S' reproduces the mūrcchanā-s (in the ascending form) of the two grāma-s in accordance with the text as under:

- 1. Lakşana, literally means a characteristic mark.
- 2. Lit. 'established' by demonstration,

अधस्तनैनिषादाद्यैः षडन्या मूर्च्छनाः क्रमात् । मध्यमध्यममारम्य सौवीरी मूर्च्छना भवेत् ॥१३॥ षडन्यास्तदधोऽधःस्थस्वरानारम्य तु क्रमात् । षड्जस्थानस्थितैन्यद्यै रजन्याद्याः परे विदुः ॥१४॥ हारिणाश्वादिका गाद्यैर्मध्यमस्थानसंस्थितैः । षड्जादीन्मध्यमादीश्च तदूध्वै सारयेत्क्रमात् ॥१४॥

the middle register; and the six other mūrcchanā-s with niṣāda etc. (placed) one below another in regular order. Sauvīrī commences with the madhyama of the middle register, and the six others with the notes coming one below another in successive order. (12b-14b)

According to another version, rajant etc. are formed by nisāda etc. that are placed on sadja and hārināsvā etc.

#### Mūrcchanā-s of the two grāma-s

	Şadja-grāma	Madhyama-grāma					
No	. Name Tonal form	No	. Name	Tonal form			
1.	Uttara- sa ri ga ma pa dha ni	I.	Sauvīrī	ma pa dha ni sa ri ga			
2.	Rajant ni sa ri ga ma pa dha	2.	Harinasv	d ga ma pa dha ni sa ri			
3.	Uttarayata dha ni sa ri ga ma pa	3.		a ri ga ma pa dha ni sa			
4.	,	4.		sa ri ga ma pa dha ni			
5.	Matsari- ma pa dha ni sa ri ga	5.	Margi*	ni sa ri ga ma pa dha			
6.	Aśvakranta ga ma pa dha ni sa ri	6.	Pauravi*	dha ni sa ri ga ma pa			
7.	Abhirudgata ri ga ma pa dha ni sa	100	T. J. S. B. P. C. S. P.	A STATE OF THE RESERVE OF THE RESERV			

#### (Chart 12)

\* The tonal form of suddha-madhya, margi, pauravi and hisyaku may appear to be identical with that of uttaramandra, rajani, uttarayata and suddha-sadja respectively, due to the same tones employed; but

- 3, That is, other mnrcchana-s.
- 4. That is, from ranjant, uttarayata etc. onwards upto abhirudgata.
- 5. That is, ni dha pa backwards upto ri.
- 6. Şadja of the middle register.
- 7. That is, from harinasva, kalopanata onwards upto hrspaka.

are formed by gāndhāra etc. that are placed on madhyama; the subsequent notes sadja etc. and madhyama etc. respectively may be tuned accordingly. (14c-15)

actually it is not so, because the pañcama of the madhyama-grāma is of three sruti-s, whereas in the sadja-grāma it has four; therefore, these mūrcchanā-s, though similar in appearance, are yet different in content. Signs \_ and \_ (not used here) are respectively indicative of the lower and the higher register. (12b-14b)

Then the author describes the same phenomenon of the formation of murchana-s in quite a different way. The phenomenon remains the same, only the technique of relating it differs.

As already explained in the previous verse, by the first method the mūrcchanā-s are formed by placing their initial notes one below the other. This involves a change of range (sthāna) in the same viņā which has to be mattakokilā, that is provided with 21 strings and has the range of three registers (cf. Ab. Bh., G. O. S. Vol. IV, p. 122). By this method the mūrcchanā-s can be worked out as under, either in the range of the lower and the middle registers, or the middle or the higher registers. While in the second method explained above, the mūrcchanā-s are obtained in the same register, but every time the strings have to be tuned accordingly. Chart 13 (a & b) illustrates the first method and Chart 13 (c) illustrates the second.

#### Formation of murcchana-s of the sadja-grama

#### Method I (a)

Name of the 1 murcchana	2	3	4	5	6	7	8	9	10	11	12	13	14
Uttaramandra	-	lh.		1	1 100	1	sa	ri	ga	ma	pa	dha	ni
Rajant		0		W 25		ni	sa	ri	ga	ma	pa	dha	
Uttarayata					dha	ni			ga	ma	pa		
Suddha-sadja				pa	dha	ni	sa	ri	ga	ma			
Matsarikgt			ma	pa	dha	ni			ga				
Aśvakranta		ga	ma	pa	dha	ni	sa		100	0.0.00	Illar	rada"	
Abhirudgata	ri	ga	ma	pa	dha	ni	sa		1		1	A IDAY	

## Chart 13 (a)

- 8. That is, from ga ri backwards upto pa:
- 9. That is, sadja and the higher notes.
- 10. That is, madhyama and the higher notes.

#### Formation of murcehand-s of the sadja-grama No sur la appartue orli

Method I	(b)	
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Name of the murcchand	8	9	10	11	12	13	14	15	16	17	18	19	20 21
Uttaramandra 1	sa	ri	ga	ma	pa	dha	. (				(2007	-	1,001
Rajanī							nı	sa	ri	ga	ma	pa	dha
Uttarayata						dha	-	sa	ri	ga	ma	pa	110)
Suddha-şadja					pa	dha	ni	sa	ri	ga	ma		12.00
Matsarīkītā				ma	pa	dha	ni	sa	ri	ga			
Aśvakranta			ga	ma	pa	dha	ni	sa	ri	0			
Abhirudgat à		ŗi	ga	ma		dha	,	sa					

Chart 13 (b)

Formation of murcchana-s of the sadja-grama Method II

Name of the murcchand	-				N	lote	s an	d t	heir	śrut	i-inte	rval	ls		11
Uttaramandra	;	4	sa	3	ri	2	ga	4	ma	4	- pa	3	dha	2	ni
Rajant		2	ni	4	sa	3	ri	2	ga	4	ma	4	pa	$\frac{-}{3}$ d	ha
Uttarāyatā	:	3	dha	2	ni	4	sa	3	ri	2	ga	4	ma	- p	a
Suddha-şadja	:	4	pa	3	dha	2	ni	4	sa	3	ri	2	ga	— m	na
Matsarīkīt	:	4		4	pa	3	dha	2	ni	4	sa	3	ri	_ g	a
Asvakranta	:	2	ga	4	ma	4	pa	3	dha	2	ni	4	sa	ri	
Abhirudgatā		3				4		4	pa	3	dha	2	ni	⊸ sa 4	0
* * *		. , , , ,		1		Cha	rt 1	3 (c)	)			· ·	•		1

These illustrations clearly make out the difference between the two methods of murchand-formation. The one (I) involves change of range and therefore requires the mattakokila vina and the other is done in the same register and involves tuning of the vina according to the murchana-s. (14c-15)

## (iv) मृर्च्छना-भेदाः

चतुर्घा ताः पृथक् शुद्धाः काकलोकलितास्तथा। सान्तरास्तदद्वयोपेताः षटपञ्चाशदितीरिताः ।।१६।। श्रुतिद्वयं चेत्वड्जस्य निषादः संश्रयेत्तदा। स काकली, मध्यमस्य गान्धारस्त्वन्तरः स्वरः ॥१७॥

#### (iv) The classification of the mūrcchanā-s: 16-17

These are fourfold, viz. suddhā1 (standard), kākalī-inclusive<sup>2</sup>, antara-inclusive<sup>3</sup> and inclusive of both<sup>4</sup>; thus, they are

The murchana-s are classified on the basis of their being inclusive or exclusive of either of the two notes called kākalī and antara or both of them. First of all the author defines these two terms. He says, if nisada absorbs two sruti-s of sadia and is thus established on the 24th (22+2) or the 2nd śruti (of the next register), being in effect constituted of four śruti-s, then it is called kākalī nisāda and also merely as kākalī for the sake of convenience. Similarly, if gandhara incorporates two śruti-s of madhyama and is thereafter established on the 2nd sruti of madhyama, being constituted in effect of four sruti-s, then it is called antara-gandhara or merely as antara for the sake of convenience. Both these notes are considered to be the modified forms of nisada and gandhara respectively and are not counted as independent notes by themselves.

Now, he says there are four classes of murchana-s, viz. (i) those that are composed exclusively of the standard notes, i. e. the śuddhasvara-s, (ii) those incorporating kākalī-nisāda, (iii) those incorporating

- 1. Suddha literally means pure or natural, the term is suggestive of the fact that the murchana-s of this type are composed of tones in the standard śruti-relation i. e., 4-3-2-4-4-3-2 or 4-7-9-13-17-20-22.
- 2. Kākalī-inclusive is the one that takes kākalī-niṣāda instead of śuddha-nisada, the śruti-relation being 4-7-9-13-17-20-2 (i. e. 24) taking 2 sruti-s from the sa of the next register.
- 3. Antara inclusive is that which takes antara-gandhara instead of suddha-gandhara, the sruti-relation being 4-7-11-13-17-20-22.
- 4. The fourth type is such that it takes aniara-gandhara and kakali nisada instead of suddha ga and ni; the sruti-relation being 4-7-11-13-17-20-2 (i. e. 24).

However, the sruti relations indicated here pertain to the sadja grama; in madyama grama po will be on the 16th sruti instead of the 17th.

known to be fiftysix in all. If nisāda takes two śruti-s of sadja, it becomes kākalī, but if gāndhāra appropriates two śruti-s of madhyama it becomes antara. (16-17)

antara gandhara and (iv) those incorporating both kakali and antara. Each of the two grama-s has seven murchana-s, so both have fourteen: and then, each of the fourteen is of four types described above. Thus (14×4=56), altogether we get fiftysix murcchana-s. The four types of the murcchana-s of the sadja-grama are illustrated as under, along with their śruti-relations.

#### The four types of murcchana-s

Name of the type	sa	ri	ga	ma	pa	dha	ni	Remarks
1. Śuddhā (standard)	4	7	9	13	17	20	22	
2 Sakākalī (kākalī-inclusive)	4	7	9	13	17	20	*2 or 24	*2 śruti-s from the next register
3. Santara (antara-inclusive)	4	7	11	13	17	20	22	
4. Ubhayagatā (inclusive of both)	4	7	11	13	17	20	#2 or 24	*do

This illustrates the varieties of the first murchana only.

#### (v) मुर्च्छनासङ्ख्या-परिज्ञानोपायः

#### यस्यां यावतिथौ षड्जमध्यमौ ग्रामयोः क्रमात् । मुर्च्छना तावतिभ्येव सा निःशङ्केन कीर्तिता ।।१८।।

(v) The method of indicating the serial number of a mūrcchanā: 18

In the two grāma-s the serial number of a mūrcchanā, as pointed out by Śārngadeva<sup>1</sup>, is that which corresponds to the position of sadja or madhyama in it<sup>2</sup>. (18)

This is rather a very faithful rendering of the text which in fact implies that, since there are fourteen murchana-s in the two grama-s, seven in each, the question is how to recognise a particular murchand in terms of its being first, second, third, and so on. The author here points out that the serial number of a murcchand is indicated by the position of sadja or madhyama in it in the sad ja or madhyama grama as the case may be. For instance, in uttaramandra a murcchana of the sadjagrama 'sa ri ga ma pa dha ni' the position of the sa is first, and therefore it indicates that uttara mandra is the first murchand of the sadja-grama. Similarly sadja being the sixth note in asvakranta, it indicates it to be the sixth murchana. Also in the case of madhyama-grama, harinasva for instance has midhyama in the second position (ga ma pa dha ni sa ri) and is thereby the second mūrcchanā of the madhyama-grāma.

## (vi) मुर्च्छना-क्रमाः, तेषां सङ्ख्या च

प्रथमादिस्वरारम्भादेकैका सप्तधा भवेत्। तासूच्चार्यान्त्यस्वरांस्तान्पूर्वानुच्चारयेत्क्रमात् ॥१३॥ ते क्रमास्तेषु संख्या स्याद् द्वानवत्या शतत्रयम् ।

(vi) The murchana-series (krama-s) and their number:19-20b.

Each one of them¹ becomes sevenfold by commencing with the first note and so on<sup>2</sup>. In these<sup>8</sup>, the last notes having been sung, initial notes may be sung in their respective

2. Cf. Dattilam 21.

<sup>5.</sup> The short form of kākalī-niṣāda.

<sup>6.</sup> The short form of antara gandhara.

<sup>1.</sup> Niḥśanka is the appelation of Śarngadeva.

<sup>&#</sup>x27;Them' refers to the fiftysix murcchanu-s of four types described

<sup>2.</sup> That is, from the first to the seventh note.

<sup>3.&</sup>amp;4. These' refers to the seven murchand-series, formed as per

order. These<sup>4</sup> are murcehand-series (krama-s) and their number is three hundred and ninetytwo. (19-20b).

The purport is that each one of the fiftysix murchand-s spoken of above, has seven series of murchand-s of its own which are formed by commencing the murcchana with the first, the second, the third, the fourth, the fifth, the sixth and the seventh note, keeping the srati-value of the notes unaltered. Now, 'S' poses the problem that, if the murcchana is commenced with the second note and so on, how can it have seven notes in it? The text resolves the difficulty by suggesting that the last notes may be sung in the first instance and the preceding notes may be sung in their respective order. Moreover, it is notable that in this scheme the basic scale is not altered and so the murcchand does not change, what changes is the order of notes in it, and actually each murchana has seven possibilities of such a variety in the order. These series are therefore called krama-s, literally 'orders'; they are useful in the computation of kūtatāna-s (permutational note-series). The series of murcchana-s are therefore sub-varieties of the murcchana-s and are distinguished from the murcchana-s proper by the fact that they are formed only in the ascending order of notes, whereas the murcchana-s are formed in the descending order as well. For instance uttaramandra, the first mūrcchanā, of the sadja-grāma is sa ri ga ma pa dha ni : ni dha pa ma ga ri sa; but the series of this mūrcchanā are recorded as follows:

XIII A		8	9	10	11	12	13	14
lst series	:	sa	ri	ga	ma	рa	dha	ni
		14	8	9	10	11	12	13
2nd series	:	ni	sa	ri	ga	ma	pa	dha
		13	14	8	9	10	11	12
3rd series	:	dha	ni	sa	ri	ga	ma	pa
		12	13	14	8	9	10	11
4th series	:	pa	dha	ni	sa	ri	ga	ma
		11	12	13	14	8	9	10
5th series	:	ma	pa	dha	ni	sa	ri	ga
SDS. O.E.		10	11	12	13	14	8	9
6th series	:	ga	ma	pa	dha	ni	sa	ri
orad astones		9	10	11	12	13	14	8
7th series	:	ri	ga	ma	pa	dha	ni	sa

(Chart 15, adopted from K.R. with modification)

this verse; they may be understood as subvarieties of the seven murcchana-s, called krama-s in the text. The word krama is used in the sense of series in this particular context.

These series of tonal order do not stand in the descending order and are therefore called krama-s or murchanu-krama-s—i.e., murchanu-series. Since each of the fiftysix murchanu-s has seven series, the total number of such sub-varieties comes to (56 × 7=392) three hundred and ninetytwo.

These krama-s, named as murchanu-series are considered to be murchanu-s only in so far as the notes in their ascending order are placed consecutively and exhibit some sort of order in their arrangement.

Matanga, following Bharata, classifies the seven-tonal murchand-s in slightly a different way, viz. purna (complete), sadavita (hexatonic), auduvita (pentatonic) and sadharant (mixed), the first one of which incorporates all the seven notes, the second is composed of six notes, the third is formed with five notes only, while the fourth includes kakalt or and antara forms of nisada and gandhara.

Bharata has defined murchana as a group of seven notes placed in order, and he derives murchana-tana-s (also called only tana) from them by the omission of one or two notes (cf. N. S., G. O. S. IV. 32-33, p. 25). Śarngadeva too, basically follows this classification but technically he applies the term tana to all those modifications of murchana-s that are formed by the omission of one to six notes in the combinational and permutational note-series (śuddha and kūṭa tāna-s).

## (vii) मूर्च्छनानां देवताः

यक्षरक्षोनारदाब्जभवनागाश्विपाशिनः ।।२०॥ षड्जग्रामे मूर्च्छनानामेताः स्युर्देवताः क्रमात् । ब्रह्मेन्द्रवायुगन्धर्वसिद्धद्वहिणभानवः ॥२१॥ स्युरिमा मध्यमग्राममूर्च्छनादेवताः क्रमात् ।

(vii) The presiding deities of the murchana-s: 20c-22b

The presiding deities of the mūrcchanā-s of the sadja-grāma respectively are yaksa, raksa, Nārada, Brahmā,

1. That is, from the first murchana-series to the seventh series.

2. Yakşa is a class of demigods who are considered to be the guards of the treasures of Kubera, the god of wealth.

3. Rakşa is the name given to evil spirits. 'K. R.' in his note on verse 20 considers rakşa-s along with yakşa-s to be semi-celestial beings. He does not elaborate on their function.

4. Narada is a celestial figure, a sage elevated to be a divine roaming minstrel of the three worlds (i.e. the heaven being the abode of gods, the earth being the abode of mortals and the under world below the earth, being the abode of naga-s or reptiles).

5. The creative aspect of the Hindu trinity.

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naga, aśvin and Varuna; and those of the madhyama-grama respectively are Brahmā, Indra<sup>9</sup>, Vāyu<sup>10</sup>, gandharva, <sup>11</sup> siddha<sup>12</sup> Siva and sun. 18 (20c-22b)

(viii) नारदकथितानि मूर्च्छना-नामानि तासामन्यानि नामानि नारदो मुनिरब्रवीत् ॥२२॥ मुर्च्छनोत्तरवर्णा ऽऽद्या षड्जग्रामे ऽभिरुद्गता। अश्वकान्ता च सौवीरी हृष्यका चोत्तरायता।।२३।। रजनीति समाख्याता ऋषीणां सप्त मूर्च्छनाः। आप्यायनी विश्वकृता चन्द्रा हेमा कर्पीदनी ।।२४।। मैत्री चान्द्रमसी पित्र्या मध्यमे मुर्च्छना इमाः। नन्दा विशाला सुमुखो चित्रा चित्रवतो सुखा ।।२५।। आलापा चेति गान्धारग्रामे स्युः सप्त मूर्च्छनाः । ताश्च स्वर्गे प्रयोक्तव्या विशेषात्तेन नोदिताः ॥२६॥

(viii) Nārada's nomenclature for the mūrcchanā-s: 22c-26

The sage Nārada has given another nomenclature for them<sup>2</sup> viz. the first in the sadja-grāma is uttara-varņā and then3 abhirudgatā, asvakrāntā, sauvīrī, hṛṣyakā, uttarāyatā and

Nărada is a celebrated authority of ancient India and this subject is dealt with in two works ascribed to him, viz. Naradīya-siksā and Sangita-makaranda. The nomenclature ascribed to Narada in the text tallies more or less with the one given in Naradīya-ŝikṣā, but is slightly different from that of Sangita-makaranda (cf. N. Siksā 1.2.9-14

6. Naga, a class of beings inhabiting the world below the earth, who are likened to serpents.

7. Asvins are the twin brothers, the sons of the sun and the physicians of the gods.

8. A god of the vedic pantheon and puranic mythology.

The chief of the gods.

10. The god of wind.

Celestial chorister, a singer in general.

A class of demi-gods with supernatural powers, or a perfected human being.

1. Literally, it would be translated as 'said'.

"Them' refers to the seven murchana-s of each of the grama-s.

The sense of 'then' is implied in the context.

rajani; these are the seven murchana-s of the seers. In the madhyama-grāma the mūrcchanā-s are: āþyāyanī, viśvakrtā, candrā, hemā, kapardinī, maitrī and cāndramasī belonging to the manes. Nandā, visālā, sumukhī, citrā, citravatī, sukhā and ālābā are the seven marcchana-s of gandhara-grama; but they have not been spoken of in detail as they are to be employed in heaven only. (22c-26)

and S. Mak. 1.2.10-15). However, it is notable that the name uttaranarna given to the very first murchana of the sadja-grama is not found in both of them; and what is found in its place is uttara-mandra. Besides, there are a few other minor variations. That shows that Śārngadeva probably had access to a different MS. of Naradiya-śiksa.

Another notable point is the distribution of the murcchana-s of the three grāmā-s among the gods, the seers (who are human beings) and the manes. This is in keeping with the Brahminical tradition of symbolic characterisation already spoken of. It may however be mentioned that, since the seven murchand-s of the sad ja-grama only are allocated to the seers (si-s) these murchana-s only are considered to be of use in this world by the Naradiya-siksa (cf. 1.2.13-14).

#### ग. तानाः

## (i) शुद्धताननिर्माणविधिः, सङ्ख्या च

#### 1. शुद्धतानलच्णम्

तानाः स्यूर्म्च्छ्नाः शुद्धाः षाडवौडुवितीकृताः ।

- C. The tāna-s : 27-90
  - (i) The formation and the number of the suddha-tāna-s (specific combinational note-series): 27-30
  - (1) The definition of the suddha-tāna: (27ab) The śuddha¹ (standard) mūrcchanā-s, by dropping one

Tana, which has been rendered as 'note-series' is essentially a murcchana. The word tana is derived from the Sanskrit root tan to spread, to stretch, or to expand, enlarge, develop.

1. Suddha literally means pure i. e., unmodified or natural. In this context, suddha implies an ascending and descending series of seven standard notes placed in their regular order in the sadja or madhyama grama; and that is why it has been rendered here as 'standard'.

or two notes become śuddha-tāna-s² (specific combinational note-series). (27ab)

The mūrcchanā-s have been classified into four types (cf. verse 16 ante), viz. standard (śuddha, kākalī-inclusive, antara-inclusive and inclusive of both. Broadly speaking, these four types fall into two categories, viz. composed of standard notes only and composed of standard and modified notes. A tāna is formed by dropping one or two notes from any standard mūrcchanā. Thus, a śuddha-tāna is nothing but a standard mūrcchanā deprived of one or two notes.

The word suddha qualifies both the words murchand and tana, Tāna-s are also of two types suddha and kūṭa, i. e. combinational and permutational. 'K' argues that if the word suddha of the text is taken merely to qualify the word tāna, then suddha tāna-s would proceed from all the fiftysix mūrcchanā-s already described, and in that case the number of hexatonic and pentatonic tāna-s would not tally with the text; while on the other hand, if it qualifies only 'mūrcchanā' then even kūṭa i. e. permutational tāna-s would also be possible from the standard mūrcchanā-s, which is contrary to the fact. Thus it is that, suddha (standard) mūrcchanā-s when deprived of one or two notes become what is called the hexatonic and the pentatonic combinational note-series. Matanga, however, points out another difference between mūrcchanā and tāna. He says: "mūrcchanā proceeds in the ascending order, while tāna proceeds in the descending order only" So tāna, as differentiated by him, is restricted to the descending order of notes only.

#### 2. षाडवतानाः

षड्जगाः सप्त हीनाश्चेत्क्रमात्सरिपसप्तर्मेः ।।२७।। तदा ऽष्टाविशतिस्ताना मध्यमे सरिगोज्झिताः । सप्त क्रमाद्यदा तानाः स्युस्तदा त्वेकविशतिः ।।२८।। एते चैकोनपन्त्राशदुभये षाडवा मताः ।

#### (2) The hexatonic note-series: (27c-29b)

The seven (mūrcchanā-s) of the sadja-grāma, by an individual omission of sa, ri, pa and ni<sup>1</sup> in their respective turn, make twenty-eight (note-series). Similarly, the seven (mūrcchanā-s) of the madhyama-grāma, by the omission of sa, ri and ga in turn respectively form twentyone (note-series). Both of them put together, are considered to be fortynine hexatonic note-series.<sup>2</sup> (27c-29b)

Though the combinational (suddha) note-series (tāna-s) are derived from the standard (suddha) mūrcchanā-s, the latter is distinguished by the absence of modified notes, the former is distinguished not only by the absence of kākalā and antara notes, but also by the absence of any change in the regular arrangement of notes. If the note-series is set in the permutational form then it is called kūṭa-tāna i. e. permutational note-series. The note-series are formed by the omission of one or two notes. If one of the seven notes is omitted, what we get is a hexatonic note-series and if two out of the seven are omitted we get pentatonic note-series.

'K' raises the question that, "since pañcama determines the grāma, if it is omitted, how can it discharge this function?" He resolves the difficulty by pointing out that the pañcama can only be omitted in the sadja-grama; therefore, even its omission is indicative of that particular grama.

'S' explains at length how we get twentyeight note series in the sad ja-grāma and twentyone note-series in the madhyama-grāma. When the seven mūrcchanā-s of the sadja-grāma are deprived of sadja, then we get seven hexatonic note-series, likewise when deprived of ri, pa and ni respectively, we get seven other such series in each case, making twentyeight in all. Similarly, in the madhyama-grāma when the standard

<sup>2.</sup> Tāna, in the ancient terminology, is a series of five to six notes in a specific combinational order called śuddha-tāna (specific combinational note-series). Though śuddha-tāna is the full expression, when writing about it in its context, the word śuddha-is taken for granted and mere tāna is used instead. Accor dingly, the expression specific combinational note-series is also sometimes replaced by the simple term note-series (in due context). But tāna as such has to be distinguished from kūṭa-tāna (permutational note-series) to be defined presently. However, in modern music tāna, as defined by Ravi Shankar, is a musical phrase sung on vowels. syllables or words drawn out or stretched by expressive passages. (cf., Glossary of technical words, My Music My Life).

<sup>1.</sup> Saptama-literally means the seventh (note) i. e. ni.

<sup>2.</sup> That is, 'sadava-tana-s'.

murchana-s are deprived of sa, ri and ga respectively, they form into twentyone note-series. Taken together, we get forty-nine hexatonic note-series. That is how the standard murchana-s being deprived of one or two notes become combinational note-series.

An illustration of the hexatonic note-series with the omission of sa in the sadja-grama

No.	Name of the murcchand		For	m of th	ne <i>mūrco</i>	hand		
1	Uttaramandr à	x	ri	ga	ma	pa	dha	ni
2	Rajanī	ni	x	ri	ga	ma	pa	dha
3	Uttardyata	dha	ni	x	rl	ga	ma	pa
4	Suddhaşadja	pa	dha	ni	x	ri	ga	ma
5	Matsarikita	ma	pa	dha	ni	x	ri	ga
6	Aśvakranta	ga	ma	pa	dha	ni	x	ri
7	Abhirudgata	ri	ga	ma	pa	dha	ni	x
3.		(Ch	art 16	*)				

Note: -x denotes omitted sa.

\* Adopted from S. Raj. Vol. I, p. 132.

## 3. औडुवतानाः

सपाम्यां द्विश्रुतिभ्यां च रिपाभ्यां सप्त वर्जिताः ।।२९।। षड्जग्रामे पृथक्ताना एकविशतिरौडुवाः । रिधाभ्यां द्विश्रुतिभ्यां च मध्यमग्रामगास्तु ते ।।३०।। हीनाश्चतुर्वशेव स्युः पञ्चित्रशत्तु ते युताः ।

(3) The pentatonic note-series: (29c-31b)

Besides, the seven (standard mūrcchanā-s) of the sadja-grāma being deprived of sa and pa, ga and ni<sup>1</sup> and ri and pa respectively form twentyone pentatonic note-series; while those of the madhyama-grāma being short of ri and dha and ga and ni<sup>2</sup> respectively become fourteen (tāna-s): altogether, they make thirtyfive. (29c-31b)

Just as the standard murchana-s by dropping one note become hexatonic note-series, by dropping two notes they become pentatonic note-series. In sadja-grama, by the omission of sa and pa we get one set of seven pentatonic note-series, by the omission of ga and ni, another set of seven and by the omission of ri and pa the third set of seven, making twentyone in all. Similarly, in the madhyama-grama by the omission of

## 4. षाडवौडुवतान-मिलितसङ्ख्या

सर्वे चतुरशोतिः स्युमिलिताः षाडवौडुवाः ।।३१।।

## (ii) कूटताननिर्माणं, तेषां सङ्ख्या च

#### 1. कूटतानलक्षणम्

असम्पूर्णाश्च सम्पूर्णा व्युत्क्रमोच्चारितस्वराः। मूर्च्छनाः कूटतानाः स्युः,

(4) Total number of hexatonic and pentatonic combinational note series (śuddha-tāna-s): (31cd)

However, the hexatonic and the pentatonic (specific combinational) note-series make eightyfour in all. (31cd)

- (ii) The formation and the number of kūṭa (permutational) tāna-s (note series): 32-49
- (1) The definition of kūṭa-tāna (permutational) noteseries): (32 abc)

The complete or incomplete mūrcchanā-s with their notes produced in a permuted form become permutational noteseries (kūṭa-tāna-s). (32a-32c)

ri and dha we get one set of seven pentatonic series, and by the omission of ga and ni, the second set, making fourteen in all. Thus the pentatonic note-series in both the grāma-s are counted as thirtyfive and the number of both the hexatonic and the pentatonic note-series in both the grāma-s is considered to be (49+35=84) eightyfour. An illustration of a pentatonic note-series is given as under. We know that mūrcchanā is in the ascending as well as in the descending order of notes.

An illustration of the pentatonic note-series with the omission of sa and pa in the sadja-grama

No	Name of the murcchand		F	orm o	f the n	turcch	ana	2
1	Uttaramandra	x	ri	ga	ma		dha	ni
2	Rajanī	$\mathbf{n}\mathbf{i}$	x	ri	ga	ma		dha
3	Uttarayata	dha	ni	x	ri	ga	ma	
4	Śuddha-şaḍjā		dh	a ni	x	ri	ga	ma
5	Matsar1kft	ma	*	dha	ni	X	ri	ga
6	Aśvakrānta	ga	ma	#	dha	ni	x	rī
7	Abhirudgatā	ri	ga	ma		dha	ni	x

(Chart 17\*)

Note:—x denotes sa and \* denotes pa. \*Adopted from S. Raj, Vol. I, p. 136.

<sup>1 &</sup>amp; 2. Doisruti of the text literally means a bi-srutic note; ga and ni are the two notes with two sruti-s each.

A murcchana is said to be complete when it has seven notes, and it is considered incomplete when it has less than seven notes i.e. from six to one; although one note does not make a series, but that is theoretical. Actually, when one or more notes are omitted from a murcchana, it becomes a tana (as already explained in the comments on 19-20b ante), a note-series. But, here, the author is talking in terms of incomplete murcchana-s (as well) giving rise to permutational note-series, because such note-series are derived from the murcchana-series, and not because on this account, they continue to be murcchana-s. It has already been said that Bharata has used the expression murcchana-tana for hexatonic and pentatonic combinational note-series.

We have already come across the fourfold classification of murchanu-s and this is a twofold classification viz. complete and incomplete. Now, the purport of the text is that, a murchanu, whether complete or incomplete, becomes a permutational note-series if the normal order of its notes is disturbed, and in that case even a descending movement to a certain extent is no bar. It may be pointed out that ordinarily the notes of the murchanu-series (krama-s) from which the note-series are derived are in the ascending order.

#### 2. पूर्णकृटतानानां सङ्ख्या तत्सङ्ख्यामभिदध्महे ॥३२॥

पूर्णाः पञ्च सहस्राणि चत्वारिशद्युतानि तु ।
एकंकस्यां मूर्च्छनायां कूटतानाः सह क्रमैः ॥३३॥
षट्पञ्चाशन्मूर्च्छनास्थाः पूर्णाः कूटास्तु योजिताः ।
लक्षद्वयं सहस्राणि द्व्यशीतिर्द्वे शते तथा ॥३४॥
चत्वारिशच्च सङ्ख्याता

(2) The enumeration of the complete permutational noteseries: (32d-35a)

We calculate their number as follows. Including the murcchanu-series (krama-s) there are five thousand and forty (5040) complete permutational note-series in each of the

Matanga has spoken of five thousand thirtythree permutational note-series, and Śarngadeva has added the seven mūrcchānā-series to this number, for each of the fiftysix mūrcchanā-s does have seven series of its own. Dattila also does not include the seven mūrcchanā-series (krama-s) in the total number of permutational note-series, but that

mūrcchanā-s. Thus, the total number of the complete permutational note-series subsisting in the fiftysix mūrcchanā-s comes to two lakh eightytwo thousand and two hundred forty (2,82,240). (32d-35a)

makes no difference in principle. The number 5040 is arrived at in the following manner:

With 1 note the number of possible permutational series of

With 2 notes 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,				of	the note	s will be	$1 \times 1 = 1$	
With 3 ,, , , , , , , , , , , $2 \times 3 = 6$ With 4 ,, , , , , , , , $6 \times 4 = 24$ With 5 ,, , , , , , , , , , , $24 \times 5 = 120$ With 6 ,, , , , , , , , , , , , , , , , , ,	With 2 n	otes		91	29	,,	$1 \times 2 = 2$	
With 4 ,, , , , , , , , , $6 \times 4 = 24$ With 5 ,, , , , , , , $24 \times 5 = 120$ With 6 ,, , , , , , , , , , , , , , , , , ,				,,		,,	$2\times3=6$	
With 6 ,, ,, ,, 120×6= 720		21		,,	33	**	$6\times 4 = 24$	
70047 - 5046	With 5	22	,,	,,	93	,,	$24 \times 5 = 120$	
$720 \times 7 = 5040$	With 6	22	33	,,	23	,,	$120 \times 6 = 720$	
With / 55 55 55	With 7	,,	,,	,,	3,9	,,	$720 \times 7 = 5040$	

To demonstrate let us take items with 2 and 3 notes to begin with:—

1. Two-note-series : sa ri, ri sa

2. Three-note-series: sa ri ga group A with ga constant ri sa ga group B with ri constant ga sa ri ga sa ri ga ri sa group C with sa constant ga ri sa group C with sa constant

Now, it will be observed that the two-note-series is a simple one and does not involve any complicated procedure in the working out of the different permutations as in the case of the three-note-series, and much more so in all the subsequent series. The permutations in the three-note-series are so arranged that an attempt is made as a rule to keep the last note of the series constant as long as possible. This is demonstrated in the four-note-series worked out hereunder.

S. No.	Group A	Group B	Group C	Group D
1,	sa ri ga ma	sa ri ma ga	sa ga ma ri	ri ga ma sa
2.	ri sa ga ma	ri sa ma ga	ga sa ma ri	ga ri ma sa
3.	sa ga ri ma	sa ma ri ga	sa ma ga ri	ri ma ga sa
4.	ga sa ri ma	ma sa ri ga	ma sa ga ri	ma ri ga sa
5.	ri ga sa ma	ri ma sa ga	ga ma sa ri	ga ma ri sa
6,	ga ri sa ma	ma ri sa ga	ma ga sa ri	ma ga ri sa

It will be observed that on the basis of the above principle, the 24 permutations of the four-note series have been classified and arranged

in four groups in each of which the notes ma, ga, ri and sa respectively are constant, while the position of other notes keeps on changing. This gives us the clue to find out the number of possible permutations, Similarly the 120 permutations of the pentatonic series, 720 of the hexatonic series and 5040 of the complete series can be worked out easily. Another principle involved in these calculations is that the number of permutations of the preceding series denotes the number of times each note of the succeeding series can be kept constant. Thus, for example, the permutations of the two-note-series are 2, therefore in the three-note-series all the three notes can be kept constant twice, leading us to  $(2 \times 3 = 6)$  six permutations in all. Likewise, in the four-noteseries, each note can be kept constant for 6 times since the preceding three-note series has six permutations, leading us to (4 × 6 = 24) twentyfour permutations in all. That is how the pentatonics are  $5 \times 24 = 120$ . the hexatonics are  $6 \times 120 = 720$ , and the complete series are  $7 \times 720 = 5040$ .

## 3. अपूर्णकूटतान-निर्माणम्

,अथापूर्णान्प्रचक्ष्महे ।

एककान्त्यान्त्यविरहाद्भेदाः षट् षट्स्वरादयः ।।३४।। एकस्वरो ऽत्र निर्भेदो ऽप्युक्तो नष्टादिसिद्धये। क्रमा अकूटतानत्वे ऽप्युक्तास्तेषूपयोगिनः ।।३६।।

(3) The formation of the incomplete permutational note-series: (35b-36)

Now, we are to describe the imcomplete (permutational note-series). In each (of the mūrcchanā-s) six varieties are formed, viz. hexatonic¹ etc. by successively dropping the last note step by step. Although the monotone has no sub-

The incomplete permutational note-series are formed by the simple device of dropping the last note from seventh to the second; thus, by dropping the seventh we get a hexatonic tana, by dropping the sixth we get a pentatonic tana, by dropping the fifth we get a tetratonic note-series, by dropping the fourth we get a tri-tone note-series, by dropping the third we get bi-tone series and by dropping the second we get the mono-tone: these are the six varieties.

varieties, it is also counted for the working of naşţa.<sup>2</sup> The original-series (krama-s³) which are unrelated to the permutational note-series have also been included as they will be useful with regard to them. (35b-36)

The number of note-series in each of them will now be described. The terms naşṭa and uddiṣṭa will shortly be explained in their proper context, but for the time being the author has pointed out the reason for enumerating the mono-tone as a note-series even though it can have obviously, no varieties. Similarly, the krama-s or the mūrcchanā-series (precisely called here as, the original-series) too have been enumerated for technical reasons which will soon be clear.

## 4. अपूर्ण कूटतानानां सङ्ख्या

स्युः षाडवानां विशत्या सह सप्त शतानि तु । औडुवानां तु विशत्या सहितं शतमिष्यते ।।३७।। चतुःस्वराणां कूटानां चतुर्विशतिरीरिताः । त्रिस्वराः षड् द्विस्वरौ द्वावेकस्त्वेकस्वरो मतः ।।३८।।

(4) The enumeration of the different permutational note-series: 37-38

The hexatonic series formed are seven hundred and twenty<sup>1</sup>, and the pentatonic series are one hundred and

Arcika literally means relating to the Rgveda (Rc+veda). Rc is a hymn, and the hymns employed in the performance of sacrifices, it seems, were sung in the monotone, though the accent system was also there with its three accents viz., udātta (raised), anudātta (unraised) and svarita (intermediate note). 'K' also says, "Yajñaprayogeşu Icāmekasvarā-śrayatvāt, tatsambandhādārcikaḥ" i. e., hymns while they are employed in

- 2. Nașta will be explained later.
- 3. Krama in this context refers to the original (mūla) form of the mūrcchanū-s in their ascent i. e., 'sa ri ga ma pa dha ni' for uttaman drū. However, the term mūrcchanū-series applied to the 392 series spoken of vide 19-20 ab ante is not precisely applicable in the context of the calculation of permutational noteseries, the krama-s for which may consist of six to one notes each in the original order of the mūrcchanū-series concerned. Thus, the krama-s in this context have been rendered as the original series, as the author himself names them as mūla-krama-s somewhere else (verse 40 of this section).
- 1. This includes the original series (krama-s) as well.

Hexatonic, i. e., having six tones, the other varieties being pentatonic, tetra-tonic series, tritone-series, bitone-series and monotone-series.

## 5. एकस्वरादि-कूटतानचतुष्टयस्य नामानि

आर्चिको गाथिकश्चाथ सामिको ऽथ स्वरान्तरः। एकस्वरादितानानां चतुर्णामभिधा इमाः॥३९॥

twenty, the tetratonic permutational note-series are known to be twentyfour, the tritone series are six, the bitone series are two and the monotone is one, of course. (37-38)

(5) The names of the first four permutational note-series: 39

The names for the first four note-series such an monotone etc. respectively are ārcika, gāthika, sāmika and svarāntara.
(39)

the sacrifices take resort to the monotone, and so being related to them, the monotone is called arcika.

Similarly gathika, is the one that is related to gatha, i. e. nonvedic religious verse. Likewise the tritone is associated with the Samaveda: the hymns of this particular veda were sung in three tones when employ ed for sacrificial purposes. However, the Samaveda otherwise bears ample evidence that its music was based on seven notes, though we need not go into this subject in this context. But it is worthwhile to quote Swami Prajnananda who writes, "The samagana was of various types with different numbers of tone in different vedic recensions (sakha-s). and they had different methods of rendering. Usually three, four or five notes were used in the samagana-s, but in the kauthuma recension (šākhā) the sāmagāna was presented with seven vedic notes. The vedic notes were in the downward movement (avarohana-kramena), whereas the modern classical notes are used in the upward movement (arohanakramena)", (cf. Historical Development of Indian Music, pp. 46, 47). It may also be observed that the bulk of the hymns of the Samaveda are taken verbatim from the Rgveda with a view to their application in the context of certain sacrifices. It is interesting to refer to the Naradiyasiked in this context which also gives the four names exactly as in the text: "Arcikam gathikam caiva samikam ca svarantaram" (1.1.2), and then it goes on to explain as under :

"Ekantarah svaro hytkşu gathasu doyantarah svarah: Samasu tryantaram vidya detavat svarato-antaram" (1.1.3) i. e., 'The hymns of the Rigveda are to be sung with a single-space tone, those of the gatha with the double-space-tone, while those of the Samaveda with the triple-space tone; such is the scheme of tonal spacing.'

Although later in the classical period gatha represents non-vedic religious verse, from the above context and also from the following verse it seems, here it refers to the Yajur-veda. The fact that this tonal distribution is related only to those hymns that are meant to be employed in the sacrificial acts is also evidenced by the following verse of this work:

"Rk sumayajurangunt ye yajñeşu prayuñjate, avijñanaddhi lastranam teşam bhavati visvarah." (1.1.4), i.e., 'Those parts of the Rg. Yajur and the Sama-veda-s that are applied in sacrificial acts, due to the lack of scientific understanding, are recited in the wrong tone (i. e. in an improper and unprecise way).' Here, the word Yajur seems to have been used for gatha. However, in the Vedic literature the word gatha is also used in the sense of gana i. e., song Swami Prajñanananda, after giving the illustrations of its use in the Rigueda, concludes that "gatha is, giyate-iti gatha i. e., that which is sung, or is suitable for singing is gatha". (cf. Historical Development of Indian Music, pp. 46, 47).

#### 6. षाडवकूटतान-सङ्ख्या

उक्ताः शुद्धादिभेदेन निगयुक्ताश्चर्त्वावधाः। तयोरेकंकहोनास्तु द्वेधा मूलक्रमा मताः।।४०॥ षड्जाद्यौ मध्यमाद्यौ च चत्वारः स्युद्धिधा द्विधा। चतुर्धा उन्ये दशेत्यष्टाचत्वारिशदमी क्रमाः।।४१॥ सविशतिः सप्तशती प्रागुक्ता गुणिता क्रमैः। चतुर्सित्रशत्सहस्राणि षष्ट्या पञ्च शतानि च।।४२॥ इति षाडवसङ्ख्या स्यात्,

(6) The enumeration of the hexatonics :40-43a

The original series, inclusive of ga and ni have been mentioned to be fourfold viz. śuddhā (standard) etc., but if deprived of either of them, they are considered to be two-

The mūrcchanā-s such as 'sa ri ga ma pa dha ni: ni dha pa ma ga ri sa' etc. have been explained as fourfold vide verse 16 ante. The four types enumerated are the standard, the kākalī-inclusive, the antara-inclusive and the twin-inclusive (i.e. inclusive of both kākalī and antara). Corresponding mūrcchanā-series are derived from out of these, taking the seven notes in their ascending order. However, as already explained

<sup>1.</sup> The fortysix murcchand-series mentioned vide 16-17 ante.

<sup>2.</sup> That is, if either ni or ga is dropped,

**ब्रोडवकूटतान-सङ्ख्या** 

,अथ पञ्चस्वरान्बुवे ।

गाद्यौ धाद्यौ निषादाद्यौ चतुर्भेदाः षडौडुवाः ।।४३।।
अष्टावन्ये द्विधेत्येवं चत्वारिशदिमे क्रमाः ।
स्रिवंशतौ शते तैश्च गुणिते ऽष्टौ शतानि तु ।।४४।।
चत्वारि च सहस्राणि सङ्ख्या पञ्चस्वरेष्ट्विति ।

(7) The enumeration of the pentatonics: 43b-45b

Now, I am to describe the pentatonics. The six pentatonics commencing with ga dha and ni are fourfold, and the eight others are twofold; thus, these (original) series are forty in all, which when multiplied by one hundred and twenty bring the total number of the pentatonics to four thousand and eight hundred. (43b-45b)

The pentatonic permutational note-series are formed by dropping the last two notes of the  $m\bar{u}rcchan\bar{u}$ -series. In the two  $gr\bar{u}ma$ -s we have six series i. e., three in each beginning with ga, dha and ni in which naturally neither ga nor ni is dropped. So these six series are fourfold; but in the case of remaining eight series either ga or ni is dropped, and so we can have only two types. That is how the total number of pentatonic series is found to be forty, i. e.  $(6 \times 4 = 24) + (8 \times 2 = 16) = 24 + 16 = 40$ .

1. The pentatonic permutational note-series.

 These six are identified to be from the mūrcchanā-s of the two grāma-s as under.

Commencing with	The mūrcchanā-s in the grāmas							
the note	No.	adja grāma Name	No.	dhyama-grumu Name				
ga	6th	Aśvakranta	2nd	Harinasva				
dha n <b>i</b>	3rd $2nd$	Uttarāyatā Rajanī	6th 5th	Pauravī Mārgī				

(Chart 18)

(Showing pentatonic series inclusive of ga and ni)

3. 120 is the number of permutational pentatonic note-series (kū(a-tāna-s)) formed out of a given combination or original-series.

4. That is permutational pentatonic, note-series formed out of 40 pentatonic combinations or original series. The number also includes the original series (mūla-krama-s).

fold<sup>3</sup>. The four<sup>4</sup> beginning with sadja<sup>5</sup> and madhyama<sup>6</sup> are twofold each, and the other ten are fourfold; thus, these original series are forty-eight<sup>7</sup> in all. (40-41)

The seven hundred and twenty<sup>8</sup>, already enumerated, when multiplied by the original series make thirty-four thousand five hundred and sixty, which forms the total number of hexatonics<sup>9</sup>. (42-43a)

(cf. note 3 on 35b-36d), when one or more notes are dropped out of these series in their original order for making permutational note-series, these mūrcchanū-series in that modified form are called krama-s or original series. The author, now onwards, is taking into account the number of these original series in the hexatonic to monotonic series.

Now, if hexatonic note-series are to be formed out of the mūrcchanā-series, the last note may be dropped in the process, in each case. Thus we shall, in effect, have two types of note-series viz. inclusive of either kākalī or antara or exclusive of either of them.

Fourteen mūrcchanā-s have been spoken of (vide verse 15 ante) in both of the grāma-s. Out of these fourteen, two in each of the grāma-s (i.e. four) begin with sa and ma and end in ni and ga respectively. In their case only two alternate types are possible viz., suddhā (standard) and antara-inclusive, and suddha (standard) and kākalī-inclusive. The rest of the ten mūrcchanā-s will have the usual four varieties. Thus we have four hexatonic note-series, which are two-fold, making eight varieties in all, and ten hexatonic note-series that are four-fold making forty varieties in all. The total number of the original series, in this way, comes to forty-eight. (40-41)

Seven hundred twenty permutational hexatonic note-series have been enumerated (cf. verse 37 ante) for each mūrcchanā. In all forty-eight mūrcchanā-series have been counted. Thus the total number of the permutational hexatonic note-series is worked out (720 × 48 = 34560) to be thirty-four thousand five hundred and sixty.

3. Viz. in case ni is dropped, standard and antara-inclusive; and in case ga is dropped, standard and kākalī-inclusive.

. The four murcchana-series.

- 5. The first murcchanu (uttaramandru) of the sadja-gruma and the fourth murcchanu (suddhamadhvu) of the madhyama-gruma.
- 6. The fifth murchana (matsarikita) of the sadja-grama and the first (sauviri) of the madhyama-grama.

7.  $(4 \times 2 = 8) + (10 \times 4 = 40) = 8 + 40 = 48$ .

- 8. 720 permutational hexatonic note-series, formed out of a given combination.
- That is, permutational hexatonic note-series, formed out of 48 hexatonic combinations or original series. This number also includes the original-series (mulakrama-s).

Again each of the murcchanu-series has been spoken of as having one hundred and twenty permutational pentatonic note-series. We have forty murcchanu-series for pentatonics, and multiplied by one hundred and twenty, the total number of the permutational pentatonic note-series comes to four thousand eight hundred including the original murcchanu-series.

#### चतुःस्वरकूटतान-सङ्ख्या

चतुःस्वरेषु न्याद्यौ ह्यौ चतुर्धा द्वादशापरे ।।४५।। क्रमा द्विधेति द्वात्रिंशच्चतुर्विशतिताडिता । शतानि सप्ताष्टषष्टचा स्याच्चतुःस्वरसंमितिः ।।४६।।

(8) The enumeration of the tetratonics: 45c-46

Among the tetratonics<sup>1</sup>, the two commencing with ni are fourfold, while the other twelve (original) series are two-fold; these thirtytwo<sup>2</sup> when multiplied by twentyfour<sup>3</sup> make a sum-total of seven hundred and sixty-eight.<sup>4</sup> (45c-46)

Of the fourteen  $m\bar{u}rcchan\bar{u}$ -s of the two  $gr\bar{u}ma$ -s when the tetratonics or the series of four notes are derived, two of them that begin with ni (i. e. from the second of the sadja- $gr\bar{u}ma$ , rajani) and the fifth of the madhyama- $gr\bar{u}ma$   $m\bar{u}rg\bar{u}$ ), include ga as well, and therefore have four varieties. The other twelve drop either ni or ga and hence have only two types. So among the tetratonics we have  $(2 \times 4 = 8) + (12 \times 2 = 24) = 8 + 24 = 32$  (thirty-two) original series.

Twenty-four permutational note-series of the tetratonics have been enumerated for each of the original series (vide verse 38 ante). So, thirty-two multiplied by twenty-four yields seven hundred and sixty-eight tetratonic series.

#### 9. त्रिस्वरक्रूटतान-सङ्ख्या त्रस्वरेषु तु माद्यौ द्वावभेदौ दादशापरे । द्वेधा षड्विंशतिरिति क्रमास्ते षड्भिराहताः ।।४७।।

षट्पञ्चाशच्छतं च स्युः,

(9) The enumeration of the tritones: 47-48a

But among the tritones<sup>1</sup>, the two commencing with ma have no variations, while the remaining twelve are twofold: thus, these twenty-six (original) series when multiplied by six make one hundred and fifty-six<sup>2</sup> in all. (47-48a)

When the tritone permutational note-series are formed from the fourteen  $m\bar{u}rcchan\bar{u}$ -s, the last four notes are dropped in each case. In this process the two  $m\bar{u}rcchan\bar{u}$ -s of the two  $gr\bar{u}ma$ -s beginning with ma, i. e., the fifth  $(matsark_ft\bar{u})$  of the sadja- $gr\bar{u}ma$  and the first (sauviri) of the madhyama- $gr\bar{u}ma$ , when deprived of their last four notes, drop out both ni and ga, and thus can have no varieties. The other twelve series have two varieties each, for they would retain either ni or ga. That is how the original series for three tones are counted as twentysix:  $2+(12\times 2=24)=26$ .

Again, each of the original series has six tritone permutational note-series (cf. verse 38 ante). Thus, the total number of the tritone permutational note-series comes to one hundred and fiftysix (i. e.  $26 \times 6 = 156$ ).

#### 10. द्विस्वरैकस्वर-कूटतान-सङ्ख्या , द्विस्वरेषु पुनद्विधा । रिगधन्यादयो ऽष्टौ स्युः शुद्धास्तदितरे क्रमाः ॥४८॥

(10) The enumeration of the bitones and the monotones: 48b-49

Again among the bitones<sup>1</sup>, the (original) series commencing with *ri*, ga, dha and ni being twofold are eight, while

1. That is, the permutational note-series of three notes.

1. 'Bi-tone' represents the permutational note-series of two notes.

 <sup>&#</sup>x27;Tetratonic' is an abbrreviated expression for the permutational note-series of four notes.

That is, eight obtained from the two murcchanu-s beginning with ni and twentyfour from the remaining twelve murcchanus, having two varieties each.

The number of permutational note-series of four tones in each combination or original series.

That is, permutational tetratonic note-series, formed out of 32 tetratonic combinations or original series. This number also includes the original series (mūla-krama-s).

<sup>2.</sup> That is, permutational tritonic note-series, formed out of 26 tritonic combinations or original series. This number also includes the original series (mūla-krama-s).

#### द्वाविशतिस्ते तु चतुश्चत्वारिशद् द्विताडिताः । चतुर्दश ।।४९।। एकस्वरास्त्वभेदत्वान्मौला

the others are suddha (standard). These twenty-two multiplied by two become forty-four8 while the monotones having no variations are fourteen krama-s in identity with the original-series. (48b-49)

The bitone permutational note-series are formed by dropping the last five notes from the murchand-series. In this process the bitone series beginning with ri, ga, dha and ni include either ga or ni and are thereford twofold, yielding sixteen varieties in the two grama-s. The remaining six series, being devoid of both ga and ni, have no variations. Thus the bitones are twenty-two series. But each murcchand-series has two bitones so the total number of bitone permutational note-series is forty-four (i. e.  $16+6=22\times2=44$ ).

With the so-called monotone series, there is obviously no question of variation, so in identity with the fourteen murchana-s from which they are derived, they are fourteen in all.

To recapitulate, the total number of the permutational note-series enumerated hitherto is computed as under :-

(i) The complete series of seven tones each 2,82,240 vide verse No. 34 ante

200	min to be but	and of sin	tones each	34 560		49	
(iii	The hexatonic	series of six	tones each	34,300	22	23 44	23

- (iii) The pentatonic series of five tones each 4,800 ,, ,, 45 ,,
- 768 ,, ,, 46 ,, (iv) The tetratonic series
- 156 ,, ,, 48 ,, (v) The tritonic series
- (vi) The bitonic series 44 ,, ,, 49 ,,
- (vii) The monotones 14 ,, ,, 49 ,,

Total number including original series 3,22,582

2. The remaining six original series i. e., krama-s.

3. This number includes the original series as well.

Permutational note series of one note each.

5. That is because the series of murcchana-s are fourteen.

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पुनरुकाः कूटतानाः, तेषामपनये कूटतान-सङ्ख्या षडजादेः शद्धमध्याया भेदकं पञ्चमं विना। चतुःस्वरे क्रमद्वन्द्वे ऽष्टाचत्वारिंशदीरिताः ॥५०॥ तानास्त्रिस्वरयोस्त्वेते द्वादश द्विस्वरे द्वयम् । त्रिषष्टिरौत्तरमन्द्रकैः ॥४१॥ एकस्वरस्ते एक मतास्तानैन्यादिमार्गीक्रमाः पुनः । पञ्चस्वरा ये चत्वारस्तत्तानानां चतुःशती ।।५२।। अशीत्यभ्यधिका चातःस्वरी षण्णवतिर्भवेत । द्वादश त्रिस्वरद्वन्द्वे चत्वारो द्वस्वरद्वये ।।५३।। एक एकस्वरस्तानस्तेषां पञ्चशती त्वियम । त्रिनवत्या युता तानैरभिन्ना रजनीगतैः ।।४४।। धंवतादेस्त पौरन्थाश्चत्वारः षट्स्वराः क्रमात् । तत्तानानां तु साशीतिः शताष्टाविंशतिर्मता ।।११।। औडवानां चतुर्णां प्रागुक्ता सङ्ख्या चतुःस्वरौ । त्रिस्वरौ द्वस्वरावेकस्वरः प्रागुक्तसङ्ख्यकाः ।।५६॥ पञ्चविशतिसंयुक्ता चतिस्त्रशच्छती त्वियम । स्यात्तानेरौत्तरायतैः ।।५७।। तानानां सद्शाकारा इत्येकाशीतिसंयुक्तं सहस्राणां चतष्टयम्। तानानां पुनक्कानां पूर्णापूर्णैः सह क्रमैः ।।५८।। अपनीयेत चेदेषा कटतानमितिभवेत। सहस्राणि शतानि च ॥४९॥ नवत्रिशद्युतानीति,

Treatment of Syara Day And Day

note-series: 50-60

In the absence of the grama-indicative pancama of the śuddhą-madhya² commencing with sadja, forty-eight note-series of tetratones, twelve of tritones, two of bitones and one of the monotone in the two original series,8 making sixty-three in all are considered to be the repetitions of those pertaining to uttaramandrā4. (50-52a)

In margis, which commences with nisada, the four (original-series) provide four hundred and eighty pentaton

The 3,22,582 permutational series of notes just enumerated not only include the number of original-series (krama-s) but also many repetitions in-between the note-series of the two grama-s. 'K' very ably introduces this matter as under:

"Even though ni and ga in their kakalt and antara forms determine and bring about the murcchand-variation, yet while this difference in relation to other notes is quite notable, it is hardly perceptible within these notes i. e., with reference to nişāda and gāndhāra; and that is why these two (i. e. kākalī and antara) are not considered to be as good as the standard notes. Again, if as a rule, the different murcchanu-s such as rajant etc. commencing with ni etc. in the sadja-grama come into being by occupying the position of middle sadja and those in the madhyama-grand such as harina iva etc., commencing with ga etc., occur by occupying the middle madhyama of the madhyama-grama, then even where the grama indicator viz. the pañcama is omitted, because of the difference in the

2. Suddhamadhyā is the fourth murcchanā of the madhyama-grānu and runs as 'sa ri ga ma pa dha ni'.

3. The series pertaining respectively to the two types standard and antara-inclusive.

4. The first murcchana of the sadja-grama which runs as: sa riga ma pa dha ni.

5. The fifth murchana of the madhyama-grama commencing with ni and ending with dha.

These are-standard, kakali-inclusive, antra-inclusive and inclusive of kākali-antara.

note-series and ninety-six tetratonic series; the two or (original series) produce twelve tritone and four bitone note-series, which along with the one monotone altogether make five hundred and ninety-three note-series that are identical with those of rajant.8 (52-54)

Pauravio, commencing with dhaivata, with its four so (original series) is found to have two thousand eight hundred gramic position of the commencing note of the murchand, there is no question of any repetition being made in the permutational note-series proceeding from them, since their parent grama can easily be traced. But however, if as a rule, in the two grama-s the different murcchand-s are formed by placing the commencing notes one below the other them the note series of the suddha-madhya, margi and pauravi murcchand-s of the madhyama grama have a necessary correspondence with the note-series such as hexatonics etc of the uttaramandra, rajant, uttaravata etc., the murcchana-s of the sadja-grama; and thus, due to the lack of difference in the gramic position of the commencing notes and also because of the omission of pañcama there is a definite possibility of their having been repeated. Therefore, the author is now to point out such repetitions to the note-series of the madhyama-grama, in order to exclude them from the total number."

Now, this introduction to the topic of repetitions, significant as if is, obviously requires some elucidation. Two ways of forming the murcchana-s have been mentioned (verse 12-15 ante) viz. (i) by commencing the succeeding murcchana-s with their opening notes placed in the position of sadja in the sadja-grama and madhyama in the madhyamagrama and (ii) by placing their commencing notes one below the other. The commentator points out that in the first case there is no possibility of repetitions, for then the grama-distinction is preserved, but in the second case the possibility does exist. After all, the only markable difference between the two grama-s is the number of śruti-s of pañscama, the other differences being consequent upon it. The process of forming note-series is such that successively the last notes are dropped. In this process pa, which is indicative of the grama, is invariably retained in the

<sup>1.</sup> Pañcama is considered to be indicative of the grama in the sense that if it is a four-śruti pañcama it indicates the saljagrama and if it is a three-sruti pancama it indicates the madhyama-grama. Literally, the 'bhedaka' of the text mean 'discriminator' implying that it functions to distinguish between the two grama-s.

<sup>7.</sup> These are—standard and kakali-inclusive.

<sup>8.</sup> The second murcehand of the sadja-grama corresponding to the margi of the madhyama-grama.

<sup>9.</sup> Pauravi is constituted as : dha ni sa ri ga ma pa .

<sup>10.</sup> The four original series are of the four types, viz. standard, kakali-inclusive, antara-inclusive and inclusive of both kakali and antara.

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and eighty11 hexatonic note-series and the aforesaid12 number of pentatonics as well as the tetratonics 18, tritones 14 and bitones15 of its two original series along with the mono tone as already enumerated respectively. These three thousand four hundred and twenty-five 16 note-series are similar to those of uttarāyatā<sup>17</sup>. (55-57)

complete, hexatonic and the pentatonic series; and the grama-distinction can therefore be made. But in the tetratone, tritone, bitone and monotone series pa is dropped in due order, and therefore the note series of the madhyama-grama cannot be distinguished from those of the sadja-grāma. Thus, these being enumerated twice are to be listed as repetitions. This happens in the case of three murc chana-s of the madhyama-grama viz. suddhamadhya, margi and pauravi, since this gramd commences with madhyama and these three murchana-s otherwise correst pond with uttaramandra, rajant and uttarayata, the first three murcchana-s of the sadja-grama which drop the pañcama in the series of the tetratones etc. In the case of other murcchana-s obviously the problem does not arise.

Now, in the suddhamadhya we have twenty-four note-series of tetratones each in the standard and the antura-inclusive types i. e., forty-eight in all. Of the tritones similarly we have six series in each of these two types making twelve in all. In the bitones ga is dropped and therefore there is only one type and we have two series. And in the monotone series similarly we get one. They are analogous to the corresponding note-series of the sadja-grama and being indistinguishable from them are considered to be repetitions. Thus, the number of repetitions in the suddhamadhya comes to sixty-three. (50-52a)

- 11. Each of the four murchana-series has 720 hexatonic and 120 pentatonic note-series.
  - 12. This refers to the number of pentatonic note-series of margi.
  - 13 to 15. The tetratonics, the tritones and the bitones unlike the hexatonics and the pentatonics are derived only from two original series i. e., standard and kakali-inclusive. They are respectively counted as 48, 12 and 4.

16. The number 3425 is composed of the following factors:

(i)	Hexatonic per	mutatio	nal note	-series	1 418 11711	2880
	Pentatonic	22	10000	22	I Rome	480
	Tetratonic	. 22	99	93	A Charles	48
	Tritonic	23	22	23	•••	12
	Bitonic	22	1 22	23	149 200 1	1 4
(vi)	Monotone	>>	23	99	the State of the S	V .B
an a		- 193	110,000		Total:	3425

17. Uttarayata commencing with dhaivata is the third murchana of the sadja-grama and is similar in tonal constitution to paurat except for its pañcama.

Section 4: Grama, Murcchana, Krama and Tana

Thus, the total number of repeated 18 note-series comes to four thousand and eighty-one , which if discounted along with the complete20 and the incomplete21 original-series brings the proper count of the permutational note-series to three lakhs seventeen thousand nine hundred and thirty.22 (58-60a)

Margi, the fifth murchand of the madhyama-grama corresponding to raiant the second murcchand of the sadja-grama commences with ni and proceeds as "ni sa ri ga ma pa dha." When pentatonic and tetratonic note-series are formed out of it pa dha and ma pa dha are dropped respectively, leaving ni sa ri ga ma and ni sa ri ga respectively. Thus ni and ga are preserved in both, and therefore both will have four types derived from the four murcchand-series viz. standard, kakalt-inclusive, antarainclusive and inclusive of kakalt-antara. Each will have 120 and 24 note-series respectively and therefore, we get (120 × 4 = 480) + (24 × 4 = 96) = 576 in all.

Similarly, in the tritone and bitone series only ni sa ri and ni sa will remain, dropping ga as well. Therefore, only two types i. e., standard and kākalī-inclusive can be derived from the corresponding murcchand-series. And we can derive six note-series of tritones and two of bitones from each respectively, getting twelve and four i. e.  $(6 \times 2 = 12) + (2 \times 2 = 4) = 16$  in all.

In the monotone series of course there is only one possibility. Thus, we get 576+16+1=593 note-series in all.

18.	The so-called repeated note-series are those note-series of the
	madhyama-grama which cannot be distinguished from those of
	the sadja-grama because of the omission of pancama.
19.	The number 4081 is constituted as under

10 '	The	maran han	4001	-	Laboration de d			10.0	
19.	Tue	пишрег	4001	15	constituted	as	under		

	Repetitions of the note series	belonging to	A milit	
		śuddhamadhya	arrest the name	63
(ii	Repetitions of the note-series	belonging to	The State of	A TOTAL

maret (iii) Repetitions of the note-series belonging to pauravī ... 3425

Total: 4081	1 01 4	18/8/8		3
	3 20 11	0 1 1	100	

- 20. The number of complete original-series is 392.
- The number of incomplete original-series is 182-3=179
- Total number of note-series along with repetitions and the original-series is 3,22,582 Deduct repetitions and original-series ... 4,652

Balance (correct number of note-series) 3,17,930

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Now, what is important to note is that, in all these cases i. e., right from the pentatonics to the monotone pa is invariably dropped and therefore it renders these note-series incapable of being distinguished from the corresponding series of rajant in the sadja-grama. These 593 note-series are therefore taken as repetitions. (52b-54)

Pauravi is the sixth mūrcchanā of the madhyama-grāma and corresponds to uttarāyatā, the third mūrcchanā of the şadja-grāma. This mūrcchanā commences with dhaivata and ends with pañcama, and therefore even the hexatonic series eliminate pañcama in addition to the pentatonic, the tetratonic, the tritone, the bitone and the monotone series. Thus, pañcama having been omitted, it becomes impossible to distinguish these note-series from the corresponding note-series of uttarāyatā, the third mūrcchanā of the şadja-grāma. These are therefore considered to be repetitions.

The hexatonics include both ni and ga and therefore their series are of four types, each having 720 note-series. Thus we have  $(720 \times 4)$  2880 hexatonic series. Apart from these we have the same number of pentatonics i. e., 480 as in margi,

Since ga is eliminated in the tetratonic, tritone and bitone series, these are naturally derived from only two original series i. e., the standard and the  $k\bar{a}kal\bar{t}$ -inclusive which enable us to form  $(24\times2=48)$   $+(6\times2=12)+(2\times2=4)$  note-series respectively, making a total of sixty-five along with one monotone (48+12+4+1=65). All of these put together are counted to be 3425 (2880+480+48+12+4+1=3425) note-series that are found to be indistinguishable from the corresponding series of uttar ayata, the third marcchana of the salja-grāma.

'K.R.' raises an interesting problem which resolves as follows: Indeed the pañcama is said to be the grāma-indicative note, and in case pañcama is omitted from a note-series, the parent grāma cannot be distinguished. But is not dhaivata too of four 'sruti-s in the madhyama-grāma? and can it not, therefore, function as the grāma-indicator? Well, dha is of three 'sruti-s in the sadja-grāma and of four 'sruti-s in the madhyama-grāma only with reference to the respective pañcama of these grāma-s; but if the pañcama itself is omitted then dha remains invariably an interval of seven 'sruti-s from ma. Thus where pa is eliminated, even if dha is retained, it cannot function as the grāma-indicator. (59-57).

The complete original series have been enumerated to be 392 (i.e.  $56 \times 7 = 392$ ) since each of the 56 murchant s has seven series of its own. The number of incomplete original series such as hexatonics etc. has been found to be 182, the break-up being as under:

```
Hexatonic original series — 48 (vide verse 42 ante)

Pentatonic original series — 40 (,, ,, 45 ,,)

Tetratonic original series — 32 (,, ,, 46 ,,)

Tritonic original series — 26 (,, ,, 48 ,,)

Bitonic original series — 22 (,, ,, 49 ,,)

Monotone original series — 14 (,, ,, 49 ,,)

Total: 182 — 3=179
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But 3 monotones have been included as repeated in murchanus commencing with sa, ni and dha among the indistinguishable permutational note-series. These are, therefore, discounted here. Thus we have 322+179=571 original series to be counted as repetitions. The total number of the repeated note-series is 4081 (i.e. 63+593+3425) which along with the original series makes 4652 (i.e. 4081+571=4652).

Now the total number of the permutational note-series (i. e. kūţa-tūna-s) has already been worked out to be 3, 22,582 along with the original series and the repetitions of the note-series have now been calculated to be 4652. Therefore, the correct number of the permutational note-series would naturally be 3, 22, 582—4,652=3,17,930. The following charts illustrate the detailed figures of the topic of permutational note-series.

The number of permutational note-series

SI. No.	Description of the ori- ginal series	No. of series krama-s	No. of perm note-series series (incluse repetitions &	in ea	ach	of note-	Remarks
1.	Complete	56	5040:56×	5040	-	2,82,240	ni)
2.	Hexatonics	48	720:48×	720	1	34,560	VI V
3.	Pentatonics	40	120:40×	120	=	4,800	Sandy Astr
4.	Tetratonics	32	24:32×	24	=	768	State (All)
5.	Tritonics	26	6:26×	6	===	156	20101011
6.	Bitonics	22	2:22×	2	,==	44	WOV)
7.	Monotones	14	1:14×	1		14	Total No.
	or and	h h	original and a opinion a bosonia opinionia			the control of the control of all of the control of	of note- series 2,22,582

#### The number of repetitions

original series  392  56×7=392  krama-s  Hexatonic, penta nic, tetratonic, tonic, bitonic a monotone series pectively.  3. Repeated  63+593+3425  krama-s  description:  48+40+32+26  179  +22+11=179  nic, tetratonic, tonic, bitonic a monotone series pectively.	Sl. No.	Description of series	No. of repetitions	- if any	Remarks
conic, bitonic a monotone series pectively.  3. Repeated 63+593+3425 suddhamadhya, ma	1.		392	56×7 = 392	*i. e. mūlakramas or krama-s
	2.		1 <i>7</i> 9	48+40+32+26 +22+11=179 }	Hexatonic, pentatonic, tetratonic, tri- conic, bitonic and monotone series res- pectively.
Total number of repetitions: $392+179+4081=4652$	3.	note-series		=4081	śuddhamadhya, margi pauravi respectively 31 = 4652

#### The correct number of permutational note-series

Total number of note-series	•••	***	3,22,582
Total number of repetitions		(-	-) 4,652
		-	
Correct number of note-series	***	***	3,17,930
(Chart	19c)		

## (iv) प्रतिमृच्छंनं कूटतान-सङ्ख्याज्ञानोपायः

. ज्ञानोपायो ऽत्र कथ्यते । अङ्कानेकादिसप्तान्तानुध्वं मुध्वं लिखेत्क्रमात ॥६०॥ पूर्वेण पूर्वेण तेषु चाङ्के परे परे। एकस्वरादिसङ्ख्या स्यात्क्रमेण प्रतिमुर्च्छनम् ॥६१॥

(iv) Determining the number of permutational forms in the note-series of each murchana: 60b-61

Now, the method of determining them is herewith described: Let the numbers one to seven be written (verti-

Since the number of permutations making for the note-series enumerated above is enormous, a mathematical device has been devised to determine the number of a particular permutation of a given form cally) one over<sup>2</sup> another in consecutive order. Every succeeding8 number multiplied by the preceding4 one respectively points out the number of note-series such as monotone etc., in each murcchana. (60b-61)

in a particular series and also the particular form of a certain permutation in a particular series, given its proper number. This device is called khanda-meru, which will be explained subsequently.

Presently the author is trying to explain the method of working out the precise number of the note series or the permutational form of a particular series of notes such as monotone, bitone, tritone series and so on in each mūrcchanā.

The text directs us to write numbers commencing from one upto seven, one over the other i. e., vertically. These numbers incidentally would represent the particular note-series such as monotone, bitone, etc. Keeping in view the directions of the text the numbers would be written from the bottom to the top. 'S' too interprets the text as such.

Number of permutational forms in different note-series in each mūrcchanā

Sl. No.	Note-series	Suggested r		Nun	nber of the p	permuta- m
7	Heptatonic	7 × 72	0 :	=	5040	
•	Hexatonic	6×12	0	=	720	
6	Pentatonic	5× 2		_	120	
5				_	24	m117 (9)
4	Tetratonic		2	=	6	1.05
3	Tritonic	2 ×	1	=	2	
2	Bitonic	1×	1		1	
I	Monotone		>			TC+65 x444 62

(Chart 20a)

However, for the sake of convenience an inverted graph is presented below commencing with the monotone from the top. To apply the text, the figures in the first vertical row in column 3 be taken as the succeeding numbers and the figures of the respective previous series in column 4 may be taken as the preceding numbers.

- 2. This expression does not suggest that the numbers are not to be written serially, for that direction has explicitly been given immediately in the text, it only implies that they are not to be written horizontally as usual.
- The successive note.
- 4. The preceding resultant i. e., the number of the permutations of the previous series,

<sup>1.</sup> This refers to the permutational note-series i. e., the kūtatana-s.

#### Number of permutational forms in different note-series in each murchana

Sl. No.	Note-series	Suggested multiple cation	li- Number of the permutational form
1	Monotone	1× 1	= 1
2	Bitonic	2× 1	2
3	Tritonic	3× 2	a the sound of the
4	Tetratonic	4× 6	= 24
5	Pentatonic	5× 24	= 120
6	Hexatonic	6×120	720
7	Heptatonic or	THE PERSON NAMED OF	la la vallance alumpeate mo-
	complete	7×720	= 5040

(Chart 20b)

In other words, every successive note in a given series has as many possibilities of permutation as those of all the notes of the preceding series put together. That is how the number of the permutations of the preceding series, when multiplied by the number of notes in the successive series results in the total number of the permutations of the succeeding series.

#### (v) कूटतान-प्रस्तारः

क्रमं न्यस्य स्वरः स्थाप्यः पूर्वः पूर्वः पराद्धः । स चेदुपरि तत्पूर्वः पुरस्तूपरिवर्तिनः ।।६२।। मूलक्रमक्रमात्पृष्ठे शेषाः प्रस्तार ईदृशः ।

(v) The formation of the permutational calculus (prastāra): 62-63b

Having established the original order<sup>1</sup>, every<sup>2</sup> preceding note has to be placed below the succeeding one. If

Now, the author is explaining the procedure for forming, what may be called the 'permutational calculus' (prastara), that is, he is

- 1. 'sa ri ga ma pa dha ni' is the original order of the seven notes. The word krama which has been rendered as 'the murchana series' or sometimes as the original series has a different shade of meaning here, though essentially the connotation of the word remains the same. If it is a tetratonic series the order would be 'sa ri ga ma' for it, and so on. Thus, in this context, krama implies the original combinational order of notes of a given note-series. But for the sake of convenience we are to use the expression "original order" corresponding to the Skt. mulakrama.
- 21 The repetition of the term 'plubus in the text has been effected through this expression, since that is the import of the text.

that becomes the succeeding note, the preceding one may be advanced keeping the subsequent notes afterwards; and

describing the method of placing the notes of various types of noteseries such as complete, hexatonic etc., in a particular and progressive
sequence of notes, giving all the possible permutations of the series.
The essential formula consists in the rule that, while forming the 'permutational calculus' (prastara) the notes of the series may, in the first
instance, be placed in their original order, which may be considered to
be the first note-series. In order, further to derive the other possible
permutations the preceding note in each of the series has been placed
below the succeeding note.

The question is, 'what to do about the remaining notes'?, and the author himself explains that the notes following the succeeding note will have to be placed after the note transposed, and the notes preceding it will be placed before it in their original order. This much is the action that is to be taken.

The next series, and all the other possible series will be formed by applying the above rule to their preceding series. The application of the rule is demonstrated by the commentators as under with respect to the permutational calculus of the tetratonic series.

- (i) The first series is of the original order viz. sa ri ga ma.
- (ii) To form the series the preceding note viz. sa is to be written helow the succeeding note, viz. ri. The subsequent notes ga and ma will be written after (or in front of) ri as in the overhead line (i. e., the preceding series), and ri will naturally be placed before i. e., behind it; thus what we get is ri sa ga ma.
- (iii) To form the third series, the second series may be taken as the top. Now as per the rule, ri may be placed below sa which will result in the series sa ri ga ma, a repetition of the original order. The purpose of the permutational calculus being the forming of different

The implication derived by 'K' is that this action can be taken only once in each of the note-series of a particular sequential order.

- 3. The pronoun 'that', according to 'S', refers to the preceding note i. e., in the first step. This is the second step being explained and accordingly the preceding note of the first step becomes the succeeding note of the second step.
- 4. The subsequent notes are the ones that follow the action taking place among the preceding potes with reference to the previous note-series.

the rest (of the notes in the series) be left behind according to the original order; such is the 'permutational calculus' (prastāra). (62-63b)

permutation-series, no relationship is to be repeated. Moreover, the author has ordained that the two notes can be interposed only once in a series. Thus, ri cannot be placed below sa as that relationship is already available on the top; therefore, ri will now be related to ga, and ga will be placed before ri; ma will follow ri in accordance with the series overhead and sa will be in its own position as per the original order. Thus we shall get sa ga ri ma

- (iv) To form the fourth series sa will be placed below ga, ri and ma will follow it as per the overhead series (i. e. the third series) and ga will be placed behind sa. Thus we get ga sa ri ma.
- (v) To form the fifth series, as per the rule, ga should be placed below sa (in the fourth series), but if sa is interposed with ga what we get is sa ga ri ma, which we already have in the preceding section of this permutational calculus. So ga will be related to ri and interposed with it. The rest of the notes will follow, yielding ri ga sa ma.
- (vi) To form the sixth series ri will be placed below ga (in the fifth series) and interposed with it; the rest of the notes will follow as in the overhead series. Thus we get, garisama.

It will be observed that hitherto the position of ma is unaffected, because we have six varieties in the tritone series. We cannot form any more series without affecting the position of ma.

(vii) To get the seventh series we have to place ga below ri and interpose with it. But that will result in the series ri ga sa ma which has already been formed. Similarly ga cannot as well be related to sa, for that will result in the series ri sa ga ma which is already formed. So, ga will now be related to ma, and what we get is sa ri ma ga.

Now, we can form five other series on the above pattern, in which we shall have ga in the fourth place. And so also we can form six other series with ri in the fourth place and six more with sa in the fourth place. That is how twentyfour note-series are formed into the permutational calculus of the tetratone note-series which is presented in the following order:

- 5. Behind' the placement of the preceding note i. e., to the left of it on the paper.
- 6. Prastura is defined as the extension of the series of note-series in a particular permutational sequence, which has been explained above.

#### Permutational calculus of the tetratonic series

SI. No.	wi	th 1	ma a	ries as the	No.	wi	th g	a as	the	No.	WIL	h m	as turth	he	Sl. No.	W	itn	sa i	18
1	sa	ri	ga	ma						13									
				ma						14									
2	sa	ga	ri	ma	9	sa	ma	ri	ga	15	sa	ma	ga	ri	21	ri	ma	ga	sa
4.	ga	sa	ri	ma	10	ma	sa	ri	ga	16	ma	sa	ga	ri	22	ma	ri	ga	sa
5	ri	ga	sa	ma	11	ri	ma	sa	ga	17	ga	m	a sa	ri	23	ga	m	a ri	sa
6	ga	ri	sa	ma	12	ma	ri	sa	ga	18	ma	g	a sa	ri	2+	m	a g	a ri	sa

#### (Chart 21)

The process of formation is briefly presented in the following chart as per the rule stated in the text, and demonstrated up to seventh noteseries as explained above.

The process of formation of the permutational calculus of the tetratonic series

Sl. No. of the note-series	Notes transposed	Series obtained	Remarks
1st series*	*** *** ***	*sa ri ga ma	This being the
2nd series	sa for ri	ri sa ga ma	1st series no
3rd series	ri for ga	sa ga ri ma	series precedes
4th series	sa for ga	ga sa ri ma	it and there is
5th series	g <b>a for ri</b>	ri ga sa ma	no transposi-
6th series	ri for ga	ga ri sa ma	tion of notes.
7th series	ga for ma	sa ri ma ga	

(Chart 22 a)

If the notes are 1, 2, 3, 4 we get the following picture of the first six series:

No. of series	sa ri ga ma	Rei	marks	3	
lst series	1-2-3-4	Origin	al or	der	
2nd series	2-1-3-4	l tran	spose	d for	2
3rd series	1-3-2-4	2	"	23	3
4th series	3—1—2—4	-1	72	,,	3
5th series	2-3-1-4	3 .	"	33	2
6th series	3-2-1-4	2	,,	,,	3

(Chart 22 b)

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Thus, the method of forming the permutational calculus of noteseries has been explained in detail applying the rule to the tetratonic series for illustration. Similarly pentatonic, hexatonic and heptatonic series can also be worked out. Since this is a tedious process, a mathematical graph has been prepared to facilitate the recognition of noteseries with reference to their serial number in the sequential order and their particular order of notes.

#### (vi) खराडमेरुः

#### 1. खण्डमेरु-निर्माणम्

सप्ताद्येकान्तकोष्ठानामधो ऽधः सप्त पङ्क्तयः ॥६३॥
तास्वाद्यायामाद्यकोष्ठे लिखेदेकं परेषु खम् ।
वेद्यतानस्वरमितान्न्यस्येत्तेष्वेव लोष्टकाम् ॥६४॥
प्राक्पङ्कत्यन्त्याङ्कसंयोगमूर्ध्वाधःस्थितपङ्क्तिषु ।
शून्यादधो लिखेदेकं तं चाधो ऽधः स्वकोष्ठकान् ॥६४॥
कोष्ठसङ्ख्यागुणं न्यस्येत्खण्डमेष्र्यं मतः।

٠,	34134		19	रवरलज्ड	गररप	**	(T)
1	स	रि	गृ	म	प	्घ	नि
	8	0	0	0	0	. 0	0
		8	२	Ę	२४	.850	७२०
			8	88	४८	२४०	१४४०
				१८	७२	,3 E A	२१६०
					९६	840	२८८०
						६००	3600
							४३२०

इति खण्डमेरः

(vi) Khandamera (permutation-indicator): 63c-71

(1) The construction of the permutation-indicator: (63c-66b)

Let there be seven series of squares commencing with seven squares and ending with one, arranged one below

The text of the verses 63c to 66b describes the method of drawing the mathematical graph which is devised to indicate naşta and uddişta. Naşta is a technical name of the musical problem in which what is given is the number of the note-series in question, and what is to be found out is its tonal form giving the order of notes in it; while uddişta denotes the musical problem in which the tonal form of the note-series is given and its serial number is to be found out. This graph, called khandameru (permutation-indicator), helps to solve these two musical problems jointly known as 'naşta-uddişta'.

The permutation-indicator is drawn by placing seven series of squares having seven, six, five, four, three, two and one squares each in due order one below the other. The graph is thus formed into the following pattern.

Permutation-indicator

rermutation-indicator								
sa	ri	ga	ma	pa	dha	ni		
1	0	0	0	0	0	0		
	1	2	6	24	120	720		
		4	12	48	240	1440		
		1	18	72	360	2160		
			'	96	480	2880		
<i>Khaṇḍ</i>	ameru				600	3600		
			.,		to the same of the	4320		

(Chart 23)

1. Kostha literally means a chamber or an inner apartment, a storeroom or space surrounded by walls. Here it is used in the sense of an enclosed space which in this case is in the form of a square.

2. Only the commencing and the ending number of the squares is given. What is implied is that if the first series has seven squares, the last will have one i. e., the second will have six, the third will have five, the fourth will have four, the fifth will have three, the

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the other. Let no. 1 be written in the first square of the first series among them and let there be zero in the other squares. Pebbles, corresponding to the number of tones in the note-series in question, may be placed in those very squares. (63c-64)

The figures filled in the squares of the graph have been worked out and are based on the permutational calculus of the permutational note-series as demonstrated earlier; for example, it was observed in the tase of the tetratonic series that the twenty-four note-series were clearly divided into four groups distinguishable from each other on the basis of the notes sa ri ga ma being placed into the fourth position respectively in groups of six note-series. Similarly, the monotone series forms a group by itself, the bitone series forms two groups, so to say i e., sa-ri and ri-sa. The tritone series forms three groups viz.,

sa ri ga sa ga ri ri ga sa ri sa ga ga sa ri ga ri sa

These note-series are formed into three groups where each note remains in the third position twice. Rest of the notes, it may incidentally be observed, are placed first in their ascending order and then in their descending order. Similarly, the pentatonic series has five groups in each of which one particular note viz., pa in the 'sa ri ga ma pa' series remains in the fifth position, in the fifth group. This is done

sixth will have two, and the seventh only one, as counted from top to bottom.

3. This order will form into vertical columns of squares distinguished from top to bottom and not from bottom to top.

4. The first square, as counted from left to right in the series of squares drawn on the paper.

5. The first series is the one that has seven squares and is on the top of the graph.

6. Pebbles are movable objects and are therefore instrumental in the working process of the graph called khandameru. The graph can also be utilised even without using the pebbles, by marking the squares appropriately. But the system of pebbles adopted here has the advantage of leaving the graph unaffected and thus rendering it usable for any number of times. However, if the squares of the graph are marked instead of using the pebbles, it could be used only once. Thus, the movable pebbles make the graph durable.

. Vedya-tana is the note series the tonal form of which has to be ascertained. However, the type of the series, such as monot tone, bitone, tritone, etc. is given, and therefore the pebbles are to be placed in the squares in accordance with the number of tones constituting the particular note-series.

8. That is, in the squares of the first series of seven squares commencing from the first,

Let the sum total of the numbers of the last squares of the antecedent of the antecedent of the series be written below the zero in the subsequent series progressively in the respective squares of e.g., one (in the first instance); while in the squares below that order, let the sum be multiplied by the

from right to left to keep the notes in the ascending order in the first instance. So also the hexatonics have six groups and the heptatonic or complete note-series have seven groups.

Now, the seven squares of the first horizontal series of the permutation-indicator represent the seven notes written from left to right, while the squares taken in their vertical order represent the number of groups of note-series in their permutational calculus; e.g., the first column has one square, for the monotone series has only one group; and similarly, the second column has two squares, for the bitone series has two groups of note-series. Again the third column has three squares, and so on with the seventh having seven squares representing its seven groups. This group indication is useful for solving the problems called nasta and uddista as will be explained presently.

Now, it will be easier to see how the different figures have been filled into the different squares of the indicator graph and what their significance is. The first column square represents the monotone, series and has figure one written in it. In other words, in the first squares, of the remaining six vertical columns (from top to bottom) is placed zero since the number of groups does not become manifest at the very outset as in the monotone series; e. g., in the bitone series the two groups sa ri, and ri sa become groups only when they are two i. e., they are relative. The rest of the figures of the graph are arrived at in the following procedure.

The rule given in the text is that in the series of squares following or placed one below the other, one may write the total of the figure indicated in the last squares of the preceding series below the zero given in the overhead squares. That is to say that, if only one series of

- 9. The last squares of the series as counted from right to left.
- Antecedent one or more than one series i. e, all the preceding series.
- 11. 'Urdhvadhah-sthita-panktişu' is quite significant and points out the squares placed one below the other in the series of vertical columns, below the zero of the respective columns.
- 12. 'That' refers to the square in which the sum of the numbers of the last squares of the series formed till then is given.

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number of the square concerned<sup>18</sup> and the resultant written below that. <sup>14</sup> This is considered to be the "permutation-indicator" (khandameru). <sup>15</sup> (65-66b)

squares is preceding, then the total of the last square of that series be written in the last square (from right to left) of the succeeding series, i. e., the 2nd. If however, there are two preceding series, then the total of the last squares of both the series may be given below the zero in the third square of the second series of six notes.

However, if there are many preceding series, then the total of the figures given in their last squares may be added in the squares and given below the respective zeros in the first series. For example, in the column-square below the first zero, (1) is written, for the total given in the last square of its preceding series is one. Then, in the next square of the series below 2nd zero, we have 2 as the total of (1+1=2) the last squares of the first and the second series. Again in the next square of the series below the third zero in the fourth column, we have 6 as the total of the last numbers of the first, second and the third series (1+1+4=6). Similarly, the fourth square in the fifth column shows 24 as the total of the preceding last squares (1+1+4+18=24); and so on. That is how the figures of the second series are computed.

For computing the figures of the subsequent series (i. e., from 3rd to the 7th) another method is suggested which cuts short the above process, for it would be cumbersome if applied further; and it consists in multiplying the sum thus obtained in the squares of the second seried by the number of the respective column-squares thereunder. For example, to fill in the first square (from the left) of the 3rd (horizontall series, we have figure 2 in the 2nd series above, and this being the 2nd square from it, multiplying  $2 \times 2$  we get 4. 2 represents the sum total of the last squares of the preceding series which is here multiplied by the number of the square to be filled in. Similarly, to fill in the next square in the same series (below ma), we have the figure 6 as the sum of the last squares of the preceding series which is multiplied by 2 to yield 12. Likewise, in the 4th vertical column (below ma) the last

square of the 4th series bears the figure 18 in the graph. This is found as per the same rule, i. e., 6 is obtained in the 2nd series of the same column as the sum of the last squares of the preceding series which is multiplied by 3, being the number of the square below the series (indicative of the sum). Other figures can similarly be worked out. This process can also be understood from the following two charts:

Computation of 2nd series of the indicator (The additive process)

No. of column square in question left to right	uare in question of the preceding series		
1	1	1	1
2	1,2	1+1	2
3	1,2,3	1+1+4	6
4	1,2,3,4	1+1+4+18	24
5	1,2,3,4,5	1+1+4+18+96	120
6	1,2,3,4,5,6	1+1+4+18+96+600	720

(Chart 24)

## Computation of 3-7 series of the indicator (The process of multiplication)

No. of	Figure in	Sl. No. of the	Proce	ess of mu	ultiplication		
series	the 2nd column square	square computed vertically from below the zero	Multipli- cation	Result	No. of the column squares filled		
3rd	2	2	2×2	4	3rd		
4th	6	2	6×2	12	3rd		
-	6	3	6×3	18	4th		
5th	24	2	$24 \times 2$	48	3rd		
	24	3	$24 \times 3$	72	4th		
C.1	24	4	$24 \times 4$	96	5th		
6th	120	2	$120 \times 2$	240	3rd		
	120	3	$120\times3$	560	4th		
	120	4	$120 \times 4$	480	5th		
7th	120	5 .	120×5	600	6th		
, cH	720	2	$720 \times 2$	1440	3rd		
	720	3	720×3	2160	4th		
	720	4	$720\times4$	2880	5th		
	720	5	$720 \times 5$	3600	6th		
_	720	6	$720 \times 6$	4320	7th		

(Chart 25)

<sup>13.</sup> The square concerned is the one in which the sum arrived at is given and is to be counted vertically from top to bottom.

<sup>14.</sup> The square below the one in which the sum of the addition referred to is given i. e., the last square in the vertical series.

<sup>15.</sup> Khandameru is a mathematical graph that indicates what is known as nasta and uddista, the terms that are to be explained presently. Both nasta and uddista are finally related to the sequential extension of the note-series; thus this graph actually works as the indicator of note-series.

## क्षात्र अनुस्त्र 12. उद्दिष्ट-विधिः

स्वरान्मूलक्रमस्यान्त्यात्पूर्वं यावतिथः स्वरः।।६६॥

उद्दिष्टान्त्यस्तावतिथे कोष्ठे ऽधो लोष्टकं क्षिपेत्। लोघ्टचालनमन्त्यात्स्यात्त्यक्त्वा लब्धं क्रमो भवेत् ॥६७॥

लोष्टाकान्ताङ्कसंयोगादुद्दिष्टस्य

(2) The procedure for finding out the indicated note-series (uddista) : (66c-68b)

Let the pebble be placed in the column-square below according to the number of the last note<sup>8</sup> of the indicated note-series4 obtaining backwards6 with reference to the last note of its original order.6 The pebble movement starts

Having drafted the form of the permutation-indicator, the author now proceeds to explain its working, laying down the procedure for arriving at the solution of the two problems known as nasta and uddista. He takes the latter first for the convenience of demonstration.

Uddista literally means 'that which is indicated', and in our context it implies the note-series indicated i. e., given; for example, "ma ga savi" is a tetratonic note-series and its tonal form is given, i. e., indicated; but its serial number in the permutational calculus of the tetratonic series is not given and is to be found out. That is how the name uddista i. e., 'indicated note-series' becomes significant. The procedure for finding out the serial number of a given note-series is explained hereunder with reference to the text.

Let the given note-series be "ma ga sa ri"; its original order would be "sa ri ga ma." The last note of the indicated note-series in this case is ri which is placed 3rd from the last note ma as counted backwards in its original order. Since this is a four-tone series, the permutation-indicator would operate only for the first four columns (sa to ma).

Below the respective zero in the first series.

with the last note? and is ordered by dropping the note ascertained progressively. The number of the indicated The movement of the pebbles commences with the last note i. e, the last square which is fourth. Ri is 3rd with reference to the last note of the original order of the series. Therefore, the pebble of the fourth column? will now be placed in the third square below the zero which indicates No. 12. To take the next step, the note ascertained i. e., ri is to be dropped from the original order as well as from the indicated noteseries. So, the original order now obtained is "sa ga ma"; while the given series is "ma ga sa." Sa, now is second with reference to the ma of the original order. So the second pebble, since this series is of three notes, will now be placed in the second square of the third column, which indicates 4. In the third step sa will drop away and the original order obtained will be "ga ma;" while the given series would be "ma ga." Its ga is in the first order (i. e., next to) with reference to the ma of the original order; therefore, the third pebble will be moved to the first column below zero in the second column since this is a bitone series now. This square indicates 1. In the fourth step, even ga will drop away and what remains is the monotone-series of ma. Since in this case the original order and the indicated note-series are identical, so there will be no movement of the pebble and there is no square below the first which indicates I. Thus, the total of the squares with pebbles is 18 (12+4+1+1). So the serial number of the note-series "ma ga sa ri" is 18th in the permutational extension of the four-tone series.

This procedure is summarised in the following chart: Pebble-movement in the permutation-indicator for indicated tetratonic permutational note-series.

The indicated note-series: "ma ga sa ri"

Step no.	Original order	note of indicat-	last-note		e place o pebble		Note dropped
		ed series		Col.	Square	Figure	
			rence to	no.	no,		
			the origi-		1		1
E-2-			nal order	,	1		)
lst	sa ri ga ma	ri	3rd	4	3	12	ri
and	sa ga ma	sa.	3rd	3	3	4	sa
3rd	ga ma	ga	2nd	, 2	2	1	ga
4th	ma	ma	lst	1	1	1	
4			(61	24)	´1 ·	7	11

(Chart 24)

<sup>1.</sup> The expression 'column square' is indicative of the vertical order of the squares of the permutation-indicator,

Last note as counted from left to right. Uddista is literally the note-series indicated, and what is sought to be found out from the permutation indicator is its serial umber.

<sup>5.37</sup> That is from right to left.

<sup>6.</sup> The order of the notes in the original series.

The last note of the note-series indicated i.e., from left to right. 8. That is, in the next step the original order is restored by dropping the last note of the note-series ascertained.

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note-series would be obtained by adding up the figures (of the squares) covered by the pebbles. 10 (66c-68b)

The number of the indicated series in the permutational extension of the tetratonic permutational note-series: 12+4+1+1=18.

Thus, the formula for finding out the number of the indicated note-series can briefly be restated as under in terms of action:

- (i) Find out the relative position of the last note of the indicated note-series with reference to the last note of its original order by counting from it backwards i.e., from right to left including the last note.
- (ii) Move the pebble into the corresponding square down below according to the result obtained in (i) i.e., as many squares down below as the number of the last-note obtained in (i).
- (iii) The pebble should be moved from the last note of the series.
- (iv) Having thus ascertained the numerical value of one note, that note be dropped progressively from the original order as well as the indicated note-series and the procedure (i) to (iii) repeated till the first note.
- (v) Add up the figures of the column squares into which the pebbles have been moved and the sum total will represent the serial number of the indicated note-series in its permutational extension.

This explains the procedure of working out the problem uddista. Now, an example from a complete Permutational note-series is taken for a full demonstration, which is worked out as under in a tabular form:

- 1. Uddista (the problem), "ma ga sa ri dha ni pa" (i.e., the indicated note-series).
- 2. Original order of the series: "sa ri ga ma pa dha ni".
- Pebble movement of a complete permutational note-series.
- 4. Serial No. of the indicated note-series in the permutational extension of the complete series: total of column 3(c) i.e. (1440+0+0+12+4+1+1)=1458th.
- This is the serial number of the particular note-series in its permutational calculus which is to be ascertained.
- 10. The total of the numbers of the squares in which the pehbles are placed is the required number of the given note-series.

Sl. No. of the steps taken	of the indicate reference note order	The relative position of the last note of the indicated series with reference to the last note of the original order i.e., the original-series  The pebble movement and its significance ed				The pebble movement and its significance		
1	2(a)	2(b)	2(c)	3(a)	3(b)	3(c)	) 4(a)	4(b)
	The last note of the given series	The last note of the original or- der	Relative position of 2(a) with reference to (right to left) 2(b)	No. of column (left to right)	No. of square to which pebble is moved	The figure indicated by the occu-	The note omitted from the original order	The remaining order of notes in the original series
1	pa	ni	3rd	7th	3rd I	1440	pa	sa ri ga ma dha ni
2	ni	ni	lst	6th	no move- ment	0	ni	sa ri ga ma dha
3	dha	dha	lst	5th	-do-	0	dha	sa ri ga ma
4	ri	ma	3rd	4th	3rd	12	ri	sa ga ma
5	sa	ma	3rd	3rd	3rd	4	sa	ga ma
6	ga	ma	2nd	2nd	2nd	1	ga	ma
7	ma	ma	lst	1st	No move- ment	- 1	ma	nil

(Chart 25)

#### 3. नष्टविधिः

यैरङ्केर्निष्टसंख्या स्यान्मौलैकाङ्कसमन्वितः ।।६८॥
तेषु लोष्टं क्षिपेन्मूले लोष्टस्थानितं भवेत् ।
नष्टतानस्वरस्थानं ततो यावितथे पदे ।।६९॥
अधःक्रमादस्ति लोष्टः स्वरस्तावितथो भवेत् ।
क्रमान्तिमस्वरात्पूर्वो लब्धत्यागादि पूर्ववत् ।।७०॥

(3) The procedure for finding out the missing note-series (naşta): (63c-70)

Let the initial pebbles be placed in the respective squares, the sum total of the figures of which would constitute the number of the 'missing note-series' inclusive of the figure 1 in the first column square. The note-positions of

Naşta is the name given to the note-series, the tonal form of which is lost sight of and is required to be discovered with the help of the note-series indicator. The type of the note-series such as complete, hexatonic, pentatonic etc. indicative of the number of notes in it and its serial number in the permutational extension is given. Thus, the problem of nasta essentially consists in discovering the tonal form (i. e. the order of notes) of a given serial number of the permutational note-series lost to us. Nasta may therefore be called 'the missing note-series'.

The formula or the rule for discovering the tonal form of the given note-series implies the following procedure in terms of action:

- (i) Place the pebbles in the squares of the first horizontal series of the indicator in as many squares as there are the notes in the given series, from left to right.
- (ii) Move the pebbles into the column squares down below, so that the figures indicated by them when added make up the number of the given series.
- 1. The word 'initial' qualifying pebbles is indicative of the original position of the pebbles in the first series of the permutation indicator with the figure 1 in the left end first square and zeros in the others.
- 2. That is the squares in the vertical columns, on a pebble being placed in each of the series.
- 3. The serial number of a particular note-series obtaining in the permutational calculus.
- 4. Nasta of the text literally means 'that which is destroyed'; but the term is figuratively employed in a technical sense. Nasta refers to that note-series (tāna), the tonal form of which is lost sight of, but in respect of which the serial number and the type (i. e., monotone, bitone, hexatone, etc.) is given in order that its tonal form may be discovered with the help of the note-series indicator. Nasta, therefore, essentially refers to a note series which is lost so far as its tonal form is concerned. That is why it has been rendered into English as the 'missing note-series.'
- 5. The first square at the left end of the first series.
- 6. The expression 'note-position' refers primarily to the relative position of notes in the lost note series; and secondarily to the position of the pebbles i. e., the squares in which they

the missing note-series are to be determined from the pebble-squares, the serial number of the squares down below being indicative of the relative backward position of the

- (iii) Every column is indicative of a particular note. The serial number of the square into which the pebble is moved from the top indicates its relative position in the given series when compared to the last note of the original order. So place it accordingly.
- (iv) Drop the note ascertained from the original order as well as
  the given note-series out of view and repeat the procedure
  laid down in (i) to (iii), till the position of the first note of
  the series is discovered.
  - (v) Place the notes in their relative order, as ascertained and the 'missing note-series' is found.

Now this procedure is demonstrated with an example as follows:

- (i) Given particulars:
  - (a) Serial No. 18 of the tetratonic series.
  - (b) Note-series indicator with four column-squares.
  - (c) Original order: sa ri ga ma.
- (ii) Action:
- 1. Place the pebbles initially in the squares of the first series indicating 1 and 3 zeros.
- 2. Deduct 1, the figure of the left end square of the first series which is essentially to be taken from 18, the serial number of the series (18-1)=17. So we have to add up to 17. Therefore, take 12 from the 3rd sq. of column 4 as the next figure exceeds our requirement.
- 3. Then deduct 12 from 17 and we have 5 yet to add up. Take 4 from the 3rd square of column 3.
- 4. Then deduct 4 from 5 and we have I left to be added. I is available in square 2 of column 2. Square 1 of column I is already taken into consideration.
  - are moved to indicate the order of notes in the 'missing noteseries.' Thus, there would be as many pebbles as there are notes in the series.
  - 7. The pebble-squares are the squares in which the pebbles are initially lodged. Plural expression is used for the abstract singular of the text to bring out its actual implication.
  - 8. Down below in the vertical columns i. e., the squares into which the pebbles are moved.
  - 9. Backward order is from right to left. .. 1

respective notes with reference to the last note of the original order<sup>10</sup>; while the rule for dropping the ascertained note etc. 11 would apply as before. 12 (68c-70)

- 5. We get these numbers in the series 1-2-3-3 corresponding to the serial number of squares in the respective columns. Now relate this series to the original order "sa-ri-ga-ma". Place ri as the last note of the 'missing note-series', for it is 3rd from ma, the last note of the original series.
- 6. Drop ri and restore the original order to "sa-ga-ma" and the numbers in the series to 1-2-3. Then repeat the process.
- 7. Place sa anterior to ri in the process of finding out the 'missing note-series' as sa is 3rd from ma.
- 8. Drop sa and 3 respectively from the original order and the numerical series, and then restore them to "ga-ma" and 1-2 respectively and repeat the process.
- 9. Place ga anterior to "sa-ri" discovered through the process, for ga is 2nd to ma in the original order and corresponds to the figure 2 in the given numerical series. So we get "ga sa ri".
- 10. Drop ga from the original order and 2 from the numerical series. Now we are left with ma which corresponds to 1 of the numerical series and the left-end square of the 1st series i. e., the first column square. So put ma anterior to "ga sa ri" already obtained. We get "ma ga sa ri".
- 11. The 'lost note-series' is discovered to be "ma ga sa ri" which corresponds to its given serial number 18 in the tetratonic series.

It will be observed that wherever the original order coincides with the numerical series the note-position of the tone in question remains the same. Annual transmission of State Atlantal A

An example of a complete permutational note-series is also demonstrated in the following chart.

- (i) The problem: To find out the tonal form of the 'missing note-series' of heptatonic type bearing serial No. 1000.
- 10. The original order corresponds to the murchana-series.
  - 11. At every step as in the case of uddista, i. e., the process of the indicated note-series, the note ascertained would be dropped out of view.
  - 12. 'S' infers that 'etc.' in the text is indicative of the direction that, with the 'missing note-series' of, say five notes, the permutation indicator will have five series of square-columns, that of six notes will have six and that of seven will have seven:

(ii) The original order: "sa ri ga ma pa dha ni".

(iii) Procedure in action. Discovering the 'lost note-series' of complete permutational note-series

Sq. I	Figure	note of the	Corres ing no given s		Note	Order	1 150 0000 0000 (1)
	11111111	nal order	found		ropp- ed	of the origina series restored	320 (000 pp. 000)
(b)	(c)	(a)	Note	Posi-	(a)	(b)	del a sice elle del abedito elle 1704 manie bien de lasse del de
2	720	ni	dha	7th	dha		a 000000 dha
3	A-dan Will	ni	ma	6th	ma		a- 00000 ma dha
2	24	ni	pa	5th	pa	sa-ri-g	a- 0000 pa-ma-dha
3	12	ni	ri	4th	ri	sa-ga-i	ni 000 ri-pa-ma-dha
2	2	ni	ga	3rd	ga	sa-ni	00 ga-ri-pa-ma-dha
2	1	ni	sa	2nd	sa	ni	0 sa-ga-ri-pa-ma dha
1	1	ni	ni	Ist	ni		ni-sa-ga-ri-pa-ma-dha
500	2 3 2 2 2	2 720 3 240 2 24 3 12 2 2 1	2 720 ni 3 240 ni 2 24 ni 3 12 ni 2 2 ni 2 1 ni	Note (i)  2 720 ni dha  3 240 ni ma  2 24 ni pa  3 12 ni ri 2 2 ni ga 2 1 ni sa	Note   Position (i)   (ii)	Note   Position (i)	Note   Position

(iv) Thus the 1000th note-series is discovered to be "ni-sa-ga-ripa ma-dha" in the complete series.

\*Explanation: The computation of this column of the chart is explained as under, step by step:

(i) Deduct 1 of the first square column which is essentially to be taken 1000 - I = 999. Now we have to make up the total for 999.

(ii) Take 720 in column 7 as the next square below given 1440 which exceeds 999. Deduct 720 from 999 (999-720=279). Thus we have to add upto 279 now.

(iii) Take 240 from column 6 for the next square offers 360 which exceeds 279. Now we have (279-240 =) 39 to add up.

(iv) Similarly, take 24 from column 5 and we have (39-24=) 15 more to add up.

(v) Then take 12 from column 4 and we have (15-12 =) 3 more to add up.

(vi) Then take 2 from column 3 and we have 1 more to add.

(vii) Finally take 1 from column 2 and get the columnwise total as 720+240+24+12+2+1+1=1000.

I : 1 will and

#### 4. खगडमेरुत एकस्वरादितानानां सङ्ख्या-परिज्ञानोपायः तानस्वरमितोर्घ्वाधःपङ्क्तिगान्त्याङ्कमिश्रणात् । एकस्वरादितानानां संख्या संजायते क्रमात् । १७१।।

(4) The number of permutational note-series in each of the series as shown by the permutation-indicator: (71)

The number of note-series in monotone<sup>1</sup> etc. is computed by adding up the figures of the last column-squares<sup>2</sup>

The note-series indicator does not merely show the indicated noteseries and the 'missing note-series', but it also informs us with regard to the total number of note-series in each of the different types such as heptatonic, hexatonic, monotonic, etc.

As many notes there are in a given note-series (e. g. seven in the complete and one in the monotone series) so many end-squares of these columns will be taken into consideration and figures indicated by them when added up would in their sum-total indicate the number of note-series in that type.

The following chart shows the working of this relationship.

The number of note series in each type derived from the

permutation-indicator Name of the Column squa-Figures of the Sum total of last The final note oftype of the last column squares series the series S. No. No. of sqs. Figures ad Total in its orisquare S. No. Figure of ded ginal cols. of last indicol sq. cated order Monotone series Ist sa Bitonic 2nd ri 3rd Tritonic ga Tetratonic ,, 4 4th ma Pentatonic ,, pa 120 Hexatonic ,, 96+600 720 the authority of animal considerable Complete or ni heptatonic ,, 7 7 7th 4320 1+1+4+18 dt. ( production by an any house agential parent at a fart of a +4320 = 5040

(Chart 27)

corresponding respectively<sup>8</sup> to the notes in the series.<sup>4</sup> (71)

It will be observed that every total incorporates the total of its antecedent squares. Thus, in effect, to find out the total number of note-series of a particular type what may essentially be taken into account is the figures indicated in the squares just below the zero and

account is the figures indicated in the squares just below the zero and the last squares of the respective columns, as the squares immediately below the zero indicate the total number of the preceding series. For example, the total number of the complete permutational note-series is found to be 5040, but this figure is composed of the figures shown in the squares immediately below the zero of the 7th column as the 7th. square i. e., 720+4320=5040. So also the figure 720 is composed of

Incidentally, this shows that the zeros placed in the first squares of the columns are symbolic of the figures indicated into the last squares of the antecedent columns and are therefore identical with them. That is how the zeros become significant.

120 + 600 = 720.

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It may now be observed that the Khandameru i. e., the permutation-indicator has a three-fold function viz., (i) to find out serial number of the note-series indicated, (ii) to discover the tonal form of a given number of note-series; and (iii) to ascertain the total number of note-series in each of the seven types of permutational note-series.

## (vii) शुद्धतान-नामानि

#### 1. षड्जग्रामस्थ-षाडव-शुद्धतानाः

अथात्र शुद्धतानानां नामानि व्याहरामहे। अग्निष्टोमो ऽत्यग्निष्टोमो वाजपेयश्च षोडशी।।७२॥

पुण्डरीको 'ऽश्वमेधश्च राजसूयस्ततः परः। इति स्युः षड्जहीनानां सप्त नामान्यनुक्रमात्।।७३।।

स्विष्टकृद्बहुसौवर्णो गोसवश्च महाव्रतः । विश्वजिदब्रह्मयज्ञश्च प्राजापत्यस्तु सप्तमः ॥७

<sup>1.</sup> In each type of the permutational note-series such as monotone, bitone, hexatonic, complete, etc.

<sup>2.</sup> The squares at the bottom and of the vertical series arranged into the columns of the permutation-indicator.

<sup>3 &</sup>amp; 4. Each column is indicative of a note i. e., the first column square for sa, the second for ri and so on. So the figures of these last column-squares only have to be taken into account, the notes pertaining to which go to constitute the series in question. Series denotes the note-series.

क्रमाद्यभहीनानां तानानामभिधा इमाः। अश्वक्रान्तो रथक्रान्तो विष्णुक्रान्तस्ततः परः ॥७४॥ सर्यक्रान्तो वलभिन्नागपक्षकः। इति पञ्चमहीनानां संज्ञाः सप्त क्रमान्मताः ॥७६॥ चातर्मास्यो ऽथ संस्थाऽऽख्यः शस्त्रश्चोक्यश्चतुर्थकः । सौत्रामणी तथा चित्रा सप्तमस्तूद्भिदाह्नयः ॥७७॥ संज्ञा निषादहीनानां षाडवानामिमाः क्रमात ।

- (vii) The names of the combinational note-series: 72-90
- The hexatonic combinational note-series of the sadjagrāma: (72-78b)

Now, we give herewith the names of the combinational1 note-series. (72ab)

- 1. The names of the seven note-series devoid of sadja respectively2 are—agnistoma3, atyagnistoma, vājapeya, sodasī, pundarīka, asvamedha and rājasūya. (72c-73b)
- 2. The names of the note-series devoid of rsabha respectively are—svistakrt, bahusauvarna, gosava, mahāvrata, visvajit. brahmayajña and prajāpati. (73c-75b)
- 3. The seven names for (the note-series) omitting pañcama are respectively considered to be aśvakrānta, rathakrānta, visnukrānta, sūryakrānta, gajakrānta, valabhit and nāgapaksaka. (75c-76)
- 4. The names for the hexatonic (combinational noteseries) eliminating niṣāda respectively are cāturmāsya, saṃsthā, śāstra, uktha, sautrāmanī, citrā and udbhid. (77-78b)

Having dealt with the permutational note-series in great detail, the author now incidentally proceeds to give the names of the significant combinational note-series with a view to refer to their merit.

He takes only the hexatonic and the pentatonic note-series of both the grama-s respectively, and first he gives the names of the hexatonic series and then the pentatonic series.

1. Suddha of the text.

That is in the order of murcchand-series.

#### 2 मध्यमग्रामस्थवाडवशुद्धतानाः

सावित्रो चार्धसावित्री सर्वतोभद्रसंज्ञकः ।।७८।। आदित्यानामयनश्च गवामयननामकः । सर्पाणामयनः वष्ठः सप्तम: कौणपायनः । नामानि षड्जहीनानां तानानामिति मेनिरे ।।७९।। अग्निचिद् द्वादशाहश्चोपांशुः सोमाभिधस्ततः। अश्वप्रतिग्रहो वहिरथाम्युदयसंज्ञकः ॥८०॥ ऋषभेण विहोनानामिति नामानि मन्वते। सर्वस्वदक्षिणो दीक्षा सोमाख्यः सिमदाह्वयः ॥ ५१॥ स्वाहाकारस्तनूनपात्ततो इति गान्धारहीनानां क्रमात्संज्ञाः प्रचक्षते ॥ ८२॥

- (b) The hexatonic combinational note-series of the madhyamagrāma: (78c-82)
- 5. The names of the note-series eliminating sadja are respectively known to be-sāvitrī, ardha-sāvitrī, sarvatobhadra, ādityāyana<sup>2</sup>, gavāmayana<sup>8</sup>, sarpāyana<sup>4</sup> and kaunapāyana,<sup>5</sup> (78c-79)

  - I. The (specific) combinational note-series of the madhyama-grama. 2. The expression 'a dityanam ayanah' of the text has been rendered as adityayana for semantic considerations; but it needs an elaboration. Aditya has several meanings such as the sun, the dwarf incarnation of Visnu, god in general, and so on. But since here the plural is used we may take it etymologically in the sense of 'the sons of Aditi' i. e., the gods. Ayana too has several connotations such as the path, the way, the passage of the sun, and abode etc. of which the last one seems to be appropriate in this context. So the expression as a whole would literally mean 'the abode of gods'.
  - The expression gavāmayana similarly signifies 'the abode of
  - 4. Also the expression sarpayana is a compound rendering of sarpanamayana in the text which literally means the abode of

5. Kaunapa literally means a goblin, à demon. So, kaunapayana literally signifies the abode of demons.

This and the following names pertain to vedic sacrifices. These names pertain to the note-series of the sadja-grama.

## पड्जग्रामस्थौडुवशुद्धतानाः

इडा पुरुषमेषश्च श्येनो वज्र इषुस्ततः।
अङ्गिराः कङ्क इत्येताः सपहीनाभिधाः क्रमात् ॥६३॥
ज्येतिष्टोमस्ततो दर्शो नान्द्याख्यः पौर्णमासकः।
अश्वप्रतिग्रहो रात्रिः सौभरः सप्तमः स्मृतः।।६४॥
एता निषादगान्धारहोनानामभिधाः क्रमात्।
सौभाग्यकृच्च कारीरी शान्तिकृत्पुष्टिकृत्तथा।।६४॥
वैनतेयोच्चाटनौ च वशीकरणसंज्ञकः।
पञ्चमर्षभहोनानां तानानामभिधा इमाः॥६६॥

- 6. The names of (the note-series) devoid of rsabha are believed to be—agnicit, dvadaśāha, upāmśu, soma, aśvapratigraha, barhi and abhyudaya. (80-81b)
- 7. The names of (the note-series) devoid of gāndhārā are respectively said to be sarvasvadakṣiṇa, dīkṣā, soma, samit, svāhākāra, tanūnapāt and godohana. (81c-82)
- (c) The pentatonic combinational note-series of sadjagrama: (83-86)
- 1. The names of (the note-series)<sup>6</sup> eliminating sadja and pancama respectively are as under:

Idā, puruşamedha, syena, vajra, işu, angirā and kanka. (83)

- 2. The names of (the note-series) omitting niṣāda and gāndhāra respectively are jyotiṣṭoma, darśa, nāndī, paurṇamāsā, aśvaprati-graha and saubhara. (84-85b)
- 3. The names of the note-series leaving out pañcama and rṣabha respectively are—saubhāgyakṛt, kārīrī, śāntikṛt, puṣṭikṛt vainateya, uccāṭana and vasīkaraṇa. (85c-86)

## 4. मध्यमत्रामस्थौडुवशुद्धतानाः

त्रैलोक्यमोहनो वीरः कन्दर्पबलशातनः ॥६७॥
शङ्ख्युं गजच्छायो रौद्राख्यो विष्णुविक्रमः ।
तानानां रिधहीनानां नामान्येतान्यनुक्रमात् ॥६६॥
भैरवः कामदाख्यश्चावभृथो ऽष्टकपालकः ।
स्विष्टकृच्च वषट्कारो मोक्षदः सप्तमो मतः ॥६९॥
संज्ञा निषादगान्धारहोनानामिति संमताः ।

# (viii) शुद्धतानानां वैदिकनाम्नां तत्त्वज्ञफलम् यद्यज्ञनामा यस्तानस्तस्य तत्फलमिष्यते ॥९०॥

- (d) The pentatonic combinational note-series of the madhyama-grāma: (87-90b)
- 1. The names of the note-series eliminating rşabha and dhaivata respectively are trailokyamohana, vīra, kandarpabala-sātana, śankhacūda, gajacchāya, raudra and viṣņuvikrama. (87-88)
- 2. The names of the note-series devoid of niṣāda and gāndhāra are believed to be bhairava, kāmada, avabhṛtha, aṣṭaka-pālaka, sviṣṭakṛt, vaṣaṭkāra and mokṣada. (89-90)
- (viii) The functional purpose of the vedic names of combinational note-series: 90cd

It is believed that the note-series bearing the name of a particular vedic sacrifice is effectual in bringing about the corresponding benefit. (90cd)

2. The combinational note-series are meant.

<sup>6.</sup> These note-series pertain to the sadja-grama.

<sup>1.</sup> By the ancients, the preceding music-authorities.

<sup>3.</sup> That is, if the note-series bears the name of asvamedha sacrifice, it would bring about the benefit afforded by that sacrifice, provided it is appropriately employed.

## (ix) गान्धवें गाने च शुद्धकूटतानानामुपयोगः

गान्धर्वे मूर्च्छनास्तानाः श्रेयसे श्रुतिचोदिताः। गाने स्थानस्य लाभेन ते कूटाश्चोपयोगिनः।।९१।।

(ix) The specific use of the combinational and permutational note-series in gāndharva and gāna: 91

In the context of gāndharva<sup>4</sup>, the mārcchanā s<sup>5</sup> and the combinational note-series have been ordained in the vedic lore<sup>6</sup> for the attainment of beatitude; while in gānam<sup>7</sup>, these along with the permutational note-series are useful in obtaining sthāna<sup>8</sup>. (91)

The commentators do not offer any explanation with regard to the names of various vedic sacrifices having been attributed to the different note-series. However, it seems that it is an extension of the basic attitude of the vedic tradition towards all aspects of human activity. This attitude was responsible for the formulation of the four upaveda's (Ayurveda or Arthaśāstra, Gandharvaveda, Dhanurveda and Sthāpatyaveda), the fifth veda-s (Mahābhārata and Nāṭyaveda), the six Vedāṅga-s etc.

## श्रथ पञ्चमं साधारगाप्रकरगाम्

(i) द्विविधं साधारणं, तत्र स्वरसाधारणम् साधारणं भवेद् द्वेधा स्वरजातिविशेषणात्। स्वरसाधारणं तत्र चतुर्घा परिकीर्तितम्।।१।। काकल्यन्तरषड्जैश्च मध्यमेन विशेषणात्।

#### Section 5

#### OVERLAPPING (Sadharana)

(i) Twofold overlapping and the overlapping in noteintervals: 1-2b

Overlapping (sādhāraṇa) is twofold as it pertains to the tones (svara-s) and to jāti-s (the melodic types). Of these two, the overlapping of notes (svara-sādhāraṇa) is said to be

The concept of sadharana, as applied to music is elucidated by Bharata on the analogy of kala-sadharana i. e., the overlapping of seasons; "If one perspires by remaining in the sun and yet feels cold staying in the shade neither the winter has ended, nor (can it be said that) the spring has arrived" (N. S., G. O. S. Vol. IV. 28. 34). This is an instance of the overlapping of the winter and the spring on their borders. Thus, the concept implies the conjunction of the end portion of a prior situation and the beginning portion of the following situation, creating a new situation that partakes partly of the characteristics of both and is thereby different from both of them individually. The application of this concept to the note-intervals is to be explained presently. According to Bharata the overlapping (sadharana) means the quality of a note rising between two (consecutive) notes (Eng. Trans. M. Ghosh, N. S. Vol. II, XXIII 35, p. 13).

The jāti-sādhāraņa or the overlapping of melodic types is dealt with in Section VII; here we are concerned only with svara-sādhāraņa or the overlapping of note-intervals which is related to four notes in particular,

<sup>4.</sup> Gandharvam is the ancient name for what later came to be known as marga, when employed against the term dest (regional music) as explained by 'S'. These terms will be dealt with properly in the subsequent chapters of the text. (cf. Chapter IV 1-4).

<sup>5. &#</sup>x27;K' thinks that only standard murcchana-s are meant.

<sup>6.</sup> Śruti in this context signifies any vedic passage. 'K' includes the smrti-s also in its significance.

<sup>7.</sup> Gana is the counterpart of gandharva, later known as dessectional) music which was much more liberal and rich in variety. Since kūṭa-tāna (permutational note-series) has not been spoken of by Bharata, Śārńgadeva specificatly limits it to non-gāndharva music.

<sup>8.</sup> Sthana has been interpreted by 'K' as ādhārasruti (note-śruti of svara, whereas 'S' interprets it as sthāya (a melodic phrase). The interpretation of 'K' is relevant to mūrcchanā and suddutāna and that of 'S' to kūṭa-tāna which serves as the canvas for melodic diversity.

<sup>1.</sup> Literally, "as it is qualified by svara-s and jati-s".

Section 5: Overlapping (Sadharana)

fourfold as it is concerned with kakali (nisada) antara (gāndhāra), sadja and madhyama. (1-2b)

viz. kākali-niṣāda, antara gandhara, sadja and madhyama. Thus, sādhārana (overlapping) is fourfold as it is qualified by these four notes and is respectively called kakali-sadharana (the overlapping of kakali), antarasadharana (the overlapping of antara), sadja-sadharana (the overlapping of sadja) and madhyama-sadharana (the overlapping of madhyama).

#### (ii) काकल्यन्तरसाधारणम्

साधारणः काकली हि भवेत्षड्जनिषादयोः ॥२॥ यत्तत्साधारणं विदुः। साधारण्यमतस्तस्य गमयोरेवं साधारणं मतम् ।।३।। अन्तरस्यापि

(ii) The overlapping of kākalī and antara: 2c-3

Since the overlapping (sādhārana)1 kākali occurs between niṣāda and ṣadja, its2 overlap3 (sādhāranya) is known as overlapping (sadharana)4. The overlapping of antara is similarly conceived between gandhara and madhyama (2c-3)

In the process, technically known as the overlapping of kakali, two notes are involved, and the author is here explaining how they are affected in this process, which elsewhere has also been referred to as the kakalisation of nisada, and also why it is so called.

In the sadja-grama, nisada has two śruti-s (21st and 22nd) and sadja has four (1st-4th). It has already been explained (I. 3.40 ante) that in the kakalisation (kākalītva) of niṣāda, kākalī-niṣāda is formed by the conjunction of nisada and sadja to the extent of two śruti-s of each, i. e., 21st and 22nd śruti of nişāda and the 1st and the 2nd śruti of şadja. Thus, kakali is of four fruti-s and is situated equidistant from both nisada as well as sadja. It partakes of the characteristics of both since it is constituted by two sruti-s contributed by each and is yet different from each of them since its note-sruti is different (2nd or 24th).

2. Literally, 'as it is qualified by kakali, antara, şadja and madhyama".

1. Sadharanah qualifies kakali.

2. That is, the overlapping in the formation of kakali.

3. Sadharanya is defined by 'K' as "sadharanasya bhavah" i. e., the essence or the quality of overlapping. It implies the sense of "overlapping-ness", though such a word is not in usage.

4. Sadharanam stands for the abstract noun sadharanyam. Sit Contract Challengert P no allowed a

However, kakali-sadharana affects the two notes nisada and sadja quite differently; whereas it absorbs the note-sruti of nisada, it does not affect the note-fruti of sadja and that is one reason why it is called kakali-nisada i. e., because it affects nisada in categorically a different way in so far as it completely absorbs it.

Antara-sadharana i. e, the overlapping of antara is similarly conceived between gandhara and madhyama, affecting these two notes in the same way in the terms explained above; and consequently takes the name "antara-gandhara" on the pattern of "kakali-nisada". Thus antara is constituted of the two sruti-s (8th and 9th) of gandhara and two sruti-s (10th and 11th) of madhyama, absorbing the note-fruti of the former and leaving the note-sruti of the latter un-affected.

## (iii) काकल्यन्तर-प्रयोगविधिः

प्रयोज्यौ षड्जमुच्चार्य काकलोघेवतौ क्रमात् । मध्यममुच्चार्य प्रयुञ्जीतान्तरर्षभौ ।।४।। षडजकाकलिनौ यद्वोच्चार्य षडजं पूनर्व जेत । तत्परान्यतमं चेवं मध्यमं चान्तरस्वरम् ॥५॥ प्रयुज्य मध्यमो ग्राह्मस्तत्परान्यतमो ऽथ वा । अल्पप्रयोगः सर्वत्र काकली चान्तरः स्वर: ।।६।।

#### (iii) The application of kākalī and antara: 4-6

After singing sadja, kākalī followed by dhaivata may be employed. Likewise after singing madhyama, antara and rsabha may be used. Alternatively, having sung sadja and kākalī one may return to sadja and after that move on to any succeeding note. Similarly, after employing madhyama and antara, madhyama should be taken before resorting to any succeeding note. Everywhere the notes kakali and antara are rarely used. (4-6)

1, 3 & 4 Literally, 'pronouncing' or 'articulating'.

2. Krama implies 'due order' which, in this case, is the descen-

ding one.

<sup>5.</sup> According to 'K' the succeeding note has to be the immediately succeeding one barring the one that has to be eliminated; but 'S' thinks that any succeeding note implies any one of ri, ga, ma, pa and dha in case of the overlapping of kakali and pa, dha, ni, sa, and ri in case of the overlapping of antara i. e., all the notes subsequent to sad ja and madhyama respectively. 6. 'S' interprets it as jati-raga-s, etc.

## (iv) षड्जमध्यमसाधारणम्

निषादो यदि षड्जस्य श्रुतिमाद्यां समाश्रयेत्।
ऋषभस्त्विन्तमां प्रोक्तं षड्जसाधारणं तदा ।।७।।
मध्यमस्यापि गपयोरेवं साधारणं मतम्।
साधारणं मध्यमस्य मध्यमग्रामगं ध्रुवम्।।८।।
साधारणं केशिके ते केशाग्रवदणुत्वतः।
ते एव कैश्चिदुच्येते ग्रामसाधारणे बुधैः।।९।।

#### (iv) The overlapping of sadja and madhyama: 7-9

If niṣāda takes resort to the first śrutis of ṣadja and ṛṣabha to its last, it is called the overlapping of ṣadja. Similarly, the overlapping of madhyama is conceived in-between gāndhāra and paācama. The overlapping of madhyama is definitely restricted to madhyama-grāma. (7-8)

These two<sup>1</sup> overlappings, being subtle like the point of hair, are known as kaiśika<sup>2</sup> and are also called "the overlapping of grāma+s" by (some) scholars. (9)

The overlapping of sadja and madhyama is analogous to the modification of these two notes. The overlapping of sadja takes place when it yields its initial śruti to nisāda and its final śruti to sabha retaining its 2nd-3rd śruti-s to itself. Similarly, the overlapping of madhyama takes place when madhyama yields its first śruti to gāndhāra and its fourth śruti to pañcama, retaining only two śruti-s to itself. However, as pointed out by K, the longest śruti-interval conceived in the grāma-s is that of four

1. That is, the overlapping of sadja and the overlapping of madhyama.

 Kaiśika literally means hair-like, i. e. very fine pointed, very subtle. The word (kaiśika) is applied to sadja sadharana and madhyama-sadharana.

3. 'S' infers that since the overlapping of madhyama is limited to madhyama-grāma, the overlapping of sadja is also to be understood as applicable to sadja-grāma only. That is how he comes to justify the expression grāma-sādhārana i. e., the overlapping of grāma-s, as signifying the process to be indicative of grāma-s. However, this does not accord with the reason pointed out by 'K' for restricting the overlapping of madhyama to madhyama-grāma since sabha or nisāda do not exceed the interval of four śruti-s in the overlapping of sadja if made applicable to madhyama-grāma.

4. This, however, does not seem to be the view of the author.

So, if in the sadja-grāma the overlapping of madhyama is allowed, its pañcama will swell into a five-sruti-interval, which is undesirable. Therefore, the overlapping of madhyama is permitted only in madhyama-grāma in which pañcama has three sruti-s only.

## (v) जातिसाधारणम्

एकग्रामोद्भवास्वेकांशासु जातिषु यद्भवेत् । समानं गानमार्यास्तज्जातिसाधारणं जगुः ॥१०॥ जातिसाधारणं केचिद्रागानेव प्रचक्षते ।

#### (v) Overlapping of jati-s: 10-11b

Among the  $j\bar{a}ti$ -s of the same  $gr\bar{a}ma$  having the same tone as the fundamental note, the identical melodic presentation that obtains between them is called the overlapping of  $j\bar{a}ti$ -s by the noble ones. The overlapping of  $j\bar{a}ti$ -s is identified by some with  $r\bar{a}ga$ -s<sup>2</sup>. (10-11b)

Jūti-sādhāraņa is very briefly dealt with by Sārngadeva as well as by Bharata. 'K' thinks that it is based on varņa-sāmya, the identity in the patterns of tonal movement. 'S' cites śuddha-kaiśika-madhyama as one of the instances of jāti-sādhāraņa. Some details regarding the practice of jāti-sādhāraņa will be found in Section VII of this chapter.

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<sup>1.</sup> The earlier authors such as Bharata, Matanga and others are meant.

<sup>2. &#</sup>x27;S' cites raga suddha-kaisika-madhyama as an illustration.

# त्र्यथ षष्ठं वर्णालङ्कारप्रकरणम्

## (i) वर्णलक्ष्मणं, तद्भेदाश्च

गानक्रियोच्यते वर्णः स चतुर्धा निरूपितः।
स्थाय्यारोह्यवरोही च संचारीत्यथ लक्षणम्।।१।।
स्थित्वा स्थित्वा प्रयोगः स्यादेकस्यैव स्वरस्य यः।
स्थायी वर्णः स विज्ञेयः परावन्वर्थनामकौ।।२।।
एतत्संमिश्रणाद्वर्णः संचारी परिकर्तितः।

#### Section 6

#### VARŅĀLAŅKĀRA:

#### Tone-patterns and Embellishments

(i) The definition and classification of tone-patterns (Varna):
1-3b

Varna (tone-pattern) is the act of singing which is demonstrated to be fourfold, viz. sthāyī<sup>2</sup> (steady), ārohī<sup>3</sup>

In Section 4 the author has dealt with the permutations and combinations of tones, but in actual practice all of them are not actually employed in singing. Now, therefore, the author analyses the actual singing in the tonal patterns and melodic phrases as employed in the process of singing the musical compositions. Since in the composite concept of sangita, instrumental music and dance, i. e. vadya and nriya essentially followed the vocal i. e. gana, the terminology of the entire musical theory is centered around vocal music; that is why, varna, i. e. tonal pattern is defined in the context of singing, though it is equally applicable to the instrumental music, or dance music and so on.

(ascending), avarohi<sup>4</sup> (descending) and sañcāri<sup>5</sup> (circulatory). These are defined as follows. (1)

When the same tone is put to a halting use it is known as the steady (tone) pattern. The two subsequent patterns

Varna literally means colour, caste or a syllable. In the context of music the word is metaphorically used in the sense that the particular manner and order in which the tones are employed contributes to their musical value, and also lends colour or taste to the composition. In short, the value of tone-pattern is comparable to the colour-pattern of the visual arts. But more than that varna in the sense of 'a syllable' is applicable in musical parlance; for, as the syllables go to form a meaningful word and then a group of words goes to form a sentence which is the significant unit of language, so also tones organised into a particular fashion go to form melodic phrases, that are the units of a melodic composition. The concept of varna is as old as Bharata, since he too has spoken of these four types of tonal patterns (varna-s), (cf. N. S. Kaśi ed. 29. 24).

The classification of tone-patterns, as pointed out by 'K' is based on the predominant element viz. if in the process of singing it is the steady pattern that is predominant, then the tonal pattern will be called the 'steady'. In other words, the four types of tonal patterns are not used exclusively.

Steadiness in the steady pattern is obtained by harping on the same tone for sometime. The nature of ascending and descending patterns is well described by their names. The sameart (i. é. the circulatory pattern) is defined by Matanga (as quoted by 'K') as under:

यत्र ताने सञ्चरन्ति स्वरा अन्त्यान्त्यसंहिताः । एकैकशो द्विशो वा स सञ्चारी वर्ण उच्यते ॥

Gāna-kriyā rendered as the "act of singing" indicates the process of singing or the action of voice-production in the process of singing.

<sup>2.</sup> Sthave literally means unvarying, e. g. 'sa sa sa' or 'ri ri ri' and so on.

<sup>3.</sup> Arohi is ascending in pitch, e. g, 'sa ri ga ma pa dha ni' and

<sup>4.</sup> Avaroht is descending in pitch, e. g. 'ni dha pa ma ga ri sa' and so on.

<sup>5.</sup> Sañcārī literally means 'moving around', not having any fixed order. This is an admixture of the above three types and is illustrated in the order of such phrases as 'sa ri sa ri ga sa ni dha sa ri ga' and 'sa sa sa ni ma ma ni ma pa ni ri ri pa' etc,

<sup>6.</sup> Halting on a tone by repetition as 'sa sa sa'.

Subsequent to the steady (sthāyī) pattern as mentioned in the previous verse i. e. the ascending (arohī) and descending (avarohī) patterns.

Section 6: Varnalankara

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are signified by their names. The admixture of these (three) is known to be the circulatory pattern. (2-3b)

"When the tones move about in a note-series one by one or two at a time, or are delineated together joining the respective final notes (with the initial notes of the successive units), it is called sañcārī varņa (circulatory pattern). As in Mālavakaišika: sā sā sa ni ma ma ni ma pa ni rī rī pā pa ni pā ni pā ni dha etc." Bṛhaddeśī (p. 33) however reads as under:

यत्र गीते सञ्चरन्ति स्वराः परस्परम्न्तसंहिता । एकैकशो वा, स सञ्चारी वर्ण उच्यते ॥

Sancart varna (circulatory pattern) is said to be the one in which the tones move about, mutually joining the final notes or one by one. As in Mālavakaišika: 'sā sā sa ni pa ni pa ni sā dha rī pā pa ni ni nī'.

The two versions of the definitions of sañcārī (circulatory pattern), the one ascribed to Matanga by 'K' and the other quoted from Brhaddesi are identical to a large extent and yet they are different in their net bearing.

# (ii) अलङ्कारलच्चणं, तद्भेदिनरूपणं च (क) अलङ्कारलक्षणम्

विशिष्टं वर्णसन्दर्भमलङ्कारं प्रचक्षते ।।३।।

- (ii) The definition and classification of tonal embellishment.

  3c-64b
- (a) The definition of tonal embellishment (alankāra): 3cd

In keeping with the suggested sense of the term alankara (ornament), the original concept under this name was quite comprehensive to include almost all types of tonal embellishments; for example even kampa (tremor) was included in alankara s. However, subsequently the signification of the word alankara was restricted to "a melodic phrase-progression". The importance of ornamentation in Indian melody is well brought out by Bharata in the following verse:

Alankara<sup>1</sup> (tonal embellishment) is said to be a specific arrangement<sup>2</sup> of tone-patterns. (3cd)

श्वशिना रहितेव निशा विजलेव नदी लता विपुष्पेव। अविभूषितेव च स्त्री गीतिरलंकारहीना स्यात्।।
(N. S., G. O. S. Vol. IV 29. 45)

"Melody without ornamentation would be like a night without the moon, a river devoid of water, a creeper shorn of flowers and a lady without ornaments."

He is, however, careful also to caution against the excessive and improper use of embellishments as he says;

एभिरलंकर्तव्या गीतिर्वर्णाविरोधेन । स्थाने चालङ्कारं कुर्यान्न ह्युरिस काञ्चिकां बध्येत् ॥ (N. S., G. O. S. vol. IV p. 131)

"Melody should be embellished by these (ornamentations) without disrupting the tone-pattern (varya), for ornaments are to be put on properly so that the girdle is not tied to the breast."

Thus even though a high premium is put on the employment of tonal embellishments, yet a certain propriety is essentially to be observed. That is why Ahobala defines tonal embellishment as "the delineation of the tone-patterns in a particular order" (क्रमेण स्वरसन्दर्भमलङ्कार प्रचक्षते, (S. Pā 221).

Further, it may be observed that the tonal embellishments (alankāra-s) have been classified on the basis of the predominant tone-pattern (varṇa), as Bharata has said that their formation depends on the tone-patterns of four types (cf. N.S. 29.24). Alankāra is said to be a combination of several melodic movements. Elucidating the definition of Śārngdeva 'K' amplifies his statement to the effect that 'the particular manner of delineating the said (four types of) tone patterns in a melodic rendering is called tonal embellishment (alankāra)'.

The specificity of delineating the tone-patterns consists in the use of the prescribed kalā (i.e. phrase of an alaħkāra) and so on (वैशिष्यं च नियतकलादियुक्तस्वम्)

<sup>8.</sup> That is, these two patterns are so named that their names are descriptive of their nature and function, as it is quite obvious.

<sup>9.</sup> Sancart varna.

<sup>1.</sup> Alankāra literally means an ornament, a decorative, an aid to beauty, a device of beautification.

<sup>2. &#</sup>x27;S' interprets varṇa-sandarbham of the text as vanṇasamudāyam, i.e. a group of tone-patterns.

## गेहेशः

## (ख) स्थायिवर्णगतालंकारोद्देशः

तस्य भेदास्तु बहुवस्तत्र स्थायिगतान्बुवे ।

येषामाद्यन्तयोरेकः स्वरस्ते स्थायिवर्णगाः ॥४॥

प्रसन्नादिः प्रसन्नान्तः प्रसन्नाद्यन्तसंज्ञकः।

ततः प्रसन्नमध्यः स्यात्पञ्चमः क्रमरेचितः।।५।।

प्रस्तारो ऽथ प्रसादः स्यात्सप्तैते स्थायिनि स्थिताः ।

(b) The definition and enumeration of the embellishments of the steady tone-pattern: 4-6b

Many, indeed, are its¹ varieties, of which I shall presently speak of those pertaining to the steady tone-pattern (sthāyī-varṇa). Those (tonal-embellishments) that have the same tone in the beginning as well as in the end, pertain to the steady tone-pattern. The seven (embellishments) classified as belonging to the 'steady' (tone-pattern) are prasannādi², prasannānta³, prasannādyanta⁴, prasannamadhya⁵, kramarecita⁶, prastāra³ and prasāda⁵. (4-6b)

Sarngadeva, our author, defines and illustrates sixtythree tonal embellishments (alankāra-s) but Bharata has given only thirty-three which include many other things apart from alankāra-s as they came to be understood in Sārngadeva's time. It may be admitted that theoretically there are infinite possibilities of tonal embellishments, but it seems only 63 were in vogue in his time. It is notable that Dattila, who is thought by some to be earlier than Bharata gives only 13 embellishments and some writers subsequent to Sārngadeva (cf. Ahobala's S. Pā) enumerate even more than 63. The distinguishing characteristic feature of the tonal pattern, as pointed out in the text and interpreted by 'K' is that its different kalū-s (integral parts or phrases) commence and end with the same tone, though the repetition occurs in different registers (cf. 'K' on verses 3-8).

2. Lit. with prasanna (i. e. mandra) in the beginning.

3. Lit with prasanna in the end.

4. Lit, with prasanna in the beginning and in the end.

5. Lit, with prasanna in the centre.

6. Lit. devoid of order.

7. Lit. extension.

## (ग) मन्द्रतारलच्याम्

Section o : Varhaiankara

मन्द्रः प्रकरणे ऽत्र स्यान्मूर्च्छनाप्रथमः स्वरः ॥६॥ स एव द्विगुणस्तारः पूर्वः पूर्वो ऽथ वा भवेत् । मन्द्रः परस्ततस्तारः प्रसन्नो मृदुरित्यिष ॥७॥ मन्द्रस्तारस्तु दीप्तः स्यान्मन्द्रो बिन्दुशिरा भवेत् । अध्वरेखाशिरस्तारो लिपौ त्रिर्वचनात्प्लुतः ॥६॥

(c) The significance of the terms mandra, tara, etc.: 6c-8

In this section the word 'mandra' signifies the first tone of the mūrcchanā, and that very tone when doubled (in pitch) is (called) 'tāra'; or alternatively the tone in the preceding register becomes 'mandra' and the one in the succeeding register (becomes) 'tāra'. Mandra is also called prasanna or

Three terms viz. mandra, tāra and pluta are defined here. Mandra and tāra are presented as relative concepts, as indeed they are; and two alternative expressions have been offered to indicate their relation. Firstly, it is posited that mandra is the name given to the first note of the mūrcchanā, while the eighth note, which is double the first one (in pitch range), is called tāra. If the first tone of the mūrcchanā belongs to the lower register and is called mandra, the same tone of the middle register would be called tāra, but if the first note (mandra) of the mūrcchanā is in the middle register, then the same note of the high register would become tāra.

It is pertinent to note that the terms  $t\bar{a}r_{I}$  and mandra in this Section must not be understood as defined in verse 7 of Section 3 ante, they do not refer to the three registers as such. Obviously the middle register finds no mention in this context and therefore the terms mandra and  $t\bar{a}ra$  refer to what may be called the lower and the higher register, the two covering the concept of three registers in their relative application. This would be clear from the other alternative view put forth by the author.

Alternatively, he says, the tone of the prior register may be understood as mandra (low) and that of the posterior register may be considered tāra (high), the prior register being the one in which the commencing note of the phrase-progression (alahkāra) falls. Consequently,

<sup>1.</sup> The pronoun 'it' stands for 'alankara' of the previous verse.

<sup>8.</sup> Lit. clarity. All these are explained in the following few verses.

<sup>1.</sup> Dviguna is the eighth tone (i. e. the first of the next higher octave).

Section 6 : Varnālankāra

mrdu, and tara is also called 'dipta'. In notation, mandra is indicated by an overhead dot, tara by an overhead vertical dash and 'pluta' by the figure 3 (following the tone) 8. (6c-8)

as 'S' elucidates, if the prior tone is in the lower register (in the scheme of three registers) it is called mandra and its tara will be in the middle register, but if the prior tone is (mandra) in the middle register, the subsequent tone (tara) will be in the high register. 'S' further distinguishes this view from the first one by pointing out that, "accordingly the prior tone, in this view need not be the commencing note of the mūrechanā" (cf. S. on 3-8, p. 154).

The terms mandra and tara in their relative sense may be rendered as 'lower' and 'higher' in the technical and the specific sense in this section.

It is interesting to observe that Bharata hardly seems to speak of the three registers (saptaka-s) in terms of mandra, madhya and tara. He no doubt speaks of the three sthana-s as the places of voice production in the context of the excellences of verbal expression (pathya-guna-s) and kāku (intonation), e. g.

> त्रीणि स्थानानि-उरः कण्ठः शिरः इति... उर:शिर:कण्ठात स्वर: काकु: प्रवर्तते ॥ (N. S., G. O. S., IV. 17,106)

But the details of context in which the sound is to be produced respectively from the chest, the head and the throat show that these places of sound-production are not necessarily related in terms of pitch relations contained in the concept of registers, though pitch is naturally involved in kaku (cf N. S., G. O. S. IV, 17, 107-108).

Again the terms dipta and mandra are defined by Bharata in the context of the embellishments of pathya:

> उच्चो दीप्तश्च मन्द्रश्च नीचो द्रतविलम्बितौ। पाठ्यस्यैते ह्यलंकारा लक्षणं च निबोधत।।

(N. S., G. O. S., IV 17.113)

Ucca is defined as sirah-sthanagata (located in the head), dipta is defined as sirahsthanagatataratara (that which is located in the head and is higher).

- 2. The term pluta is taken from the terminology of Sanskrit grammar. Vowels are considered to be of three degrees, viz. hrasva (short = 1 matra), dirgha (long=2 matra-s) and pluta (prolonged = 3 matra-s). 'S' interprets 'pluta' in this context as 'thrice'.
- 3. Literally, the expression 'trirvacunath' would be rendered as 'on account of being pronounced thrice', and 'S' interprets it as स त्रिरुच्चारणीय इस्पर्ध:, i. e. "Pluta is that which is to be pronounced (or produced) thrice."

mandra is urah-sthanagata (located in the chest) and nica is urah-sthanasthamandratara (located in the chest but lower).

Thus, he has high and higher (viz. ucca and dipta) on the one hand and low and lower (mandra and nica) on the other; but he has no mean point, the middle (madhya). Consequently the terms dipta and prasanna are equated with tara and mandra only in the relative order and not in the perspective of the three registers.

Abhinavagupta also defines dipanam as tarata and prasada as mandrata and thereby relates dipti to be the acoustic phenomena involving the listener and the singer (cf. Abh. Bh. N. S., G. O. S. IV, p. 88).

Besides, the general atmosphere created by Bharata's expression with regard to pitch-relation suggests that the terminology had not as vet crystallised in his time and the two extremes of high and low pitch were recognised as a relative phenomenon without any reference to the concept of three registers though the three registers were known to Bharata. This may be compared with N. S. (G. O. S. IV 29.39) which speaks of tara, mandra and taratara as produced respectively from the throat, the chest and the head. This indicates that though the three registers were recognised, the terms in which this recognition found expression were conditioned by the tradition which supplied words only for the opposites.

## (घ) स्थायिवर्णगतालंकार-निरूपणम् 1. प्रसन्नादिः

#### प्रसन्नादिरुदीरितः । मन्द्रद्वयात्परे तारे संसंसं। (१)

- (d) The embellishments of the steady tone-pattern: 9-13
  - (1) Prasannādi

If two lower (mandra) tones are followed by one higher (tāra) tone, it is known as prasannādi<sup>1</sup>, e. g. <sup>2</sup>'sa sa sa' (9ab)

The author now defines and illustrates the sixtythree embellishments. The illustrations are given just by way of specimen and are based on uttaramandra, the first murcchana of the sadja-grama.

Bharata defines Prasannadi as:

क्रमशो दोपितो यः स्यात् प्रसन्नादिः स कथ्यते । (N. S., G. O. S. IV 29.33)

<sup>1.</sup> Literally, having prasanna (mandra or lower) in the beginning.

<sup>2.</sup> It has not been possible give tara-mandra signs in the English version.

and Dattila defines it as:

प्रसन्नं पूर्वमुच्चार्यं शनैः संदीपयेत् स्वरम् । प्रसन्नादिर्भवेदेवम् ।

Dattilam, 100

Sarngadeva has, at the very outset, taken the two terms dipta and tara as synonyms; but Ghosh and Nijenhuis render the word dipta literally as 'brilliant'. Dipta is not only bright but also stimulated; or brightened when applied to tone (svara). Accordingly, the two definitions can be rendered as under.

- (i) That which is gradually heightened is called prasannadi.
- (ii) Having sung prasanna (mandra or low) in the first instance if it is gradually heightened, it would be prasannādi.

Dattila's definition of prasannadi also makes it clear that Śārngadeva's interpretation of the term prasanna as mandra (low) is in keeping with tradition. Nijenhuis renders it literally as 'clear', which seems to be technically inadequate as it has no explicit reference to pitch value. However, it is noteworthy that the above two definitions are indicative of the fact that Bharata and Dattila did not use the words prasanna and dipta as totally dissociated from their general connotation, though the technical implication of their expression is precisely brought out by Śārngadeva. Matanga was the first to equate prasanna with mandra as he says "मन्द्रबाट्ट्न प्रसम्बन्धिक्यों i. e. the word mandra signifies the pitch (called) prasanna (lit. clear)."

It is notable in the above context that Matanga illustrates prasannadi as sa riga ma pa dha ni, which presents his interpretation of Bharata's kramaiah but does not correspond exactly with that of Sarngandeva whose pattern is followed by Kumbha (S. Raj II. 1.3.29). This indicates a process of crystallisation.

#### 2. प्रसन्तान्तः

तद्वैलोम्ये प्रसन्नान्तः,

संसंसं।(२)

(2) Prasannānta

Its<sup>2</sup> reverse is prasannānta<sup>8</sup>, e. g. 'sa sa sa' (9c).

2. The reverse of prasannādi,

3. Literally, having the lower at the end.

#### 3. प्रसन्नाचन्तः

,प्रसन्नद्वयमध्यगे ॥९॥

दीप्ते प्रसन्नाद्यन्तः स्यात्, सं सं सं । (३)

### 4. प्रसन्नमध्यः

,तारयोर्मध्यगे पुनः ।

मन्द्रे प्रसन्नमध्याख्यमलङ्कारं विदो विदुः ॥१०॥ संसंसं। (४)

## 5. क्रमरेचितः

आद्यन्तयोर्मूच्छंनाऽऽदिश्चेत्स्वरो ऽन्तद्वितीयकः । सैका कला ऽथ चेन्मध्ये स्तस्तृतीयचतुर्थकौ ।।११।।

(3) Prasannā dyanta

If the higher tone is placed in-between two lower tones, it becomes prasannādyanta<sup>4</sup>, e. g. 'sa sa sa' (9d-10a).

(4) Prasannamadhya

If, however, the lower is placed in-between the two higher tones, that embellishment is known to the experts as prasannamadhya<sup>5</sup>, e. g. 'sa sa sa' (10b-d).

(5) kramarecita

The embellishment (called) kramarecita, is described in three phrases<sup>6</sup> as follows: the first tone of the mūrcchanā, in the first phrase, is placed in the beginning as well as at the

If the arrangement of tones in the different phrases of kramarecita is observed, it will be found that there is a progressive increase in the number of tones in-between the final 'sa'. This makes the prefix krama

- 4. Literally, having the lower in the beginning and at the end.
- 5. Literally, having the lower in the middle.
- 6. Kalā means an integral part or a phrase,

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सा द्वितीया पश्चमाद्यास्त्रयो उन्तश्चेत्कला परा । एवं कलात्रयेणोक्तो उलङ्कारः क्रमरेचितः ॥१२॥ संरिसं संगमसं संपधनिसं । (५)

#### 6. प्रस्तारः

दीप्तान्तश्चेत्प्रतिकलं प्रस्तारः सो ऽभिधीयते। संरिसं संगमसं संपधनिसं। (६)

## 7. प्रसादः

तारमन्द्रविपर्यासात्तं प्रसादं प्रचक्षते ।।१३।। संरिसं संगमसं संपधनिसं । (७)

end with the second (tone) in-between, the third and the fourth (tones) are placed in-between in the second phrase; while in the third phrase the three tones commencing with pañcama are placed in-between, e. g. 'sa ri sa, sa ga ma sa, sa pa dha ni sa' (11-12).

#### (6) Prastāra

If this ends in the higher (tone) in every phrase it is called *prastāra*, e. g. 'sa ri sa, sa ga ma sa, sa pa dha ni sa' (13ab).

#### (7) Prasāda

If the order of the lower and the higher is reversed in this 10, then it is called *prasāda*, e. g. 'sa ri sa, sa ga ma sa, sa pa dha ni sa' (13cd).

to recita significant. This same is true of prastara and prasada. Thus, it would seem that the first four (i. e. 1 to 4) and the last three (i. e. 5 to 7) embellishments form two groups having a certain feature common to all the members. The first group of four is distinguished by the same note being in the beginning, in the middle and at the end, though with the difference in the placement of high and low registers.

## (ङ) आरोहिवर्णगतालंकारोद्देशः

स्यातां विस्तीर्णिनिष्कषौँ बिन्दुरम्युच्चयः परः ।
हिसतप्रेह्मिताक्षिप्तसिष्यप्रच्छादनास्तथा ।।१४।।
उद्गीतोद्वाहितौ तद्वित्त्रवर्णो वेणिरित्यमी ।
द्वादशारोहिवर्णस्थालङ्काराः परिकीर्तिताः ।।१४।।

## 1. विस्तीर्ण:

मूर्च्छनाऽऽदेः स्वराद्यत्र क्रमेणारोहणं भवेत्। स्थित्वा स्थित्वा स्वरैदीं घैंः स विस्तीर्णोऽभिघीयते।।१६।। सा री गा मा पा घा नी। (१)

## 2. निष्कर्षी, गात्रवर्णश्च

ह्रस्वैः स्वरैः स निष्कर्षो द्विद्विरुक्तैर्निरन्तरैः। सस रिरि गग मम पप घध निनि । (२)

(e) The embellishments of the ascendant tone-pattern: (14-25)

The 12 embellishments pertaining to the ascendant tone-pattern (ārohī varņa) are known as vistīrņa, niṣkarṣa, bindu, abhyuccaya, hasita, prenkhita, ākṣipta, sandhipracchādana, udgīta, udvāhita, trivarņa and veņi. 14-15

#### (1) Vistirna

Where the ascent takes place from the first note of the mūrcchanā in successive order, by notes elongated through repeated staying, it is called vistima, e. g. 'sā rī gā mā pā dhā nī.' (16)

(2) Nişkarşa and gātravarnam

If short notes are employed twice at a time without break it become niskarsa, e. g. 'sa-sa ri-ri ga-ga ma-ma pa-pa

2. It refers to the pattern of vistirna.

<sup>71&</sup>amp; 8. In-between the first tones of the murcchand placed at the beginder ning and the end of the phrase.

<sup>9. &#</sup>x27;This' refers to kramarecita.

<sup>10. &#</sup>x27;This' refers to prastara.

<sup>1.</sup> The significance of the original expression sthitva sthitva (repeating sthitva) is brought out by the word repeated, i. e. an elongated tone is analogous to a long vowel taking twice as much time as the short one. Accordingly, in notation the tones are written with long vowels. Thus after staying for twice as much time on a single tone one proceeds to the next higher tone.

त्रिश्चतुर्वा स्वरोच्वारे गात्रवर्णमिमं विदुः ॥१७॥
ससस रिरिरि गगग ममम धघध निनिनि ॥
सससस रिरिरिरि गगगग मममम पपपप धघधघ निनिनिनि ॥ (२)
निष्कर्षस्यैव भेदौ हो केविदेतौ बभाषिरे ॥

## 3. बिन्दुः

प्लुतं ह्रस्वं प्लुतं ह्रस्वं प्लुतं ह्रस्वं प्लुतं स्वरम् ।।१८।। कुर्वन्क्रमाद्यदा ऽऽरोहेत्तदा विन्दुरयं मतः। स३रि ग३म प३ध नि३।(३)

## 4. अभ्युच्चयः

एकान्तरस्वरारोहमाहुरभ्युच्चयं बुधाः ॥१९॥ सगपनि । (४)

dha-dha ni-ni'. If however, each note is pronounced thrice or four times, it<sup>8</sup> is known as gātravarṇam, e. g. 'sa-sa-sa ri-ri-ri ga-ga-ga ma-ma-ma pa-pa-pa dha-dha-dha ni-ni-ni, sa-sa-sa ri-ri-ri-ri ga-ga-ga-ga ma-ma-ma-ma pa-pa-pa-pa dha-dha-dha ni-ni-ni-ni'. These two forms, according to some are said to be the two varieties of niskarṣa. (17-18)

#### (3) Bindu

If the ascending tones are employed in the order of prolonged (pluta), short (hrasva), prolonged, short, prolonged short and prolonged, then, it is considered to be bindu e. g. 'sa3ri ga3ma pa3dha ni3.' (18c-19b)

#### (4) Abhyuccaya

An ascendant tonal movement dropping alternative tones is called abhyuccaya by the sages, e. g. 'sa ga pa ni'. (19cd)

## 5. हिसतः

यत्रैकोत्तरवृद्धाभिरावृत्तिभिरुदोरिताः । अारुह्यन्ते स्वराः प्राह हिसतं तं शिवप्रियः ॥२०॥ स रिरि गगग मममम पपपपप धधधधध निनिनिनिनिनिनिनि । (४)

## 6. प्रेङ्गितः

स्वरद्वयं समुच्चार्य पूर्वं पूर्वयुतं परम्। यदान्दोलितमारोहेत्प्रेह्मितो ऽसौ क्रमो ऽथ वा।।२१।। सरि रिग गम मप पध धनि । (६)

## <sup>7</sup>. आचिप्तः

एकान्तरं स्वरयुगं तादृक्पूर्वयुतं परम्। क्रमादारोहित यदा तदा ऽऽक्षिप्तं प्रचक्षते।।६२।। सग गप पनि। (७)

#### (5) Hasita

Wherein the tones ascend, augmented successively by an increased repetition<sup>4</sup>, it is called hasita by the devotee of Siva<sup>5</sup> e. g. 'sa ri-ri ga-ga-ga ma-ma-ma-ma pa-pa-pa-pa dha-dha dha-dha-dha ni-ni-ni-ni-ni-ni-ni'. (20)

#### (6) Prenkhita

Having sung first two tones to begin with, if one ascends with a swing by taking the succeeding tone as preceded by the previous tone<sup>6</sup>, it is called *prenkhita* or *krama* e. g. 'sa-ri ri-ga ga-ma ma-pa pa-dha dha-ni'. (21)

#### (7) Āksipta

If one ascends in successive order by a pair of tones dropping one tone in-between and initiating the succeeding

- 4. That is, each successive tone will have one more repetition, as compared to the preceding one.
- 5. Śārngadeva is the devotee of Śiva.

6. That is, in order to take the third tone one should first tale the 2nd and then the 3rd immediately followed by it.

7. That is, to form the first pair the second tone in-between the first and the third is dropped and in the second pair the fourth is dropped in-between the 3rd and the 5th.

<sup>3.</sup> It refers to the pattern of nişkarşa.

## 8. सन्धिप्रच्छाद्नः

त्रिस्वरा ऽऽद्या कला उन्ये च पूर्वपूर्वान्तिमादिमे । कले स्तस्त्रिस्वरे यत्र सन्धिप्रच्छादनस्तु सः ॥२३॥ सरिग गमप पर्धान ॥ (६)

9. उद्गीतः

यदा ऽऽद्याद्यस्त्रिरावृत्तः कलयोस्त्रिस्वरात्मनोः। तदोद्गीतः,

सससरिग मममपध । (९)

10. उद्घाहितः

,मध्यमेन तादृशोद्वाहितो मतः ।।२४॥ सरिरिरिंग मपपपध । (१०)

pair with the preceding one<sup>8</sup>, it is called ākṣipta, e. g. 'sa-ga ga-pa pa-ni'. (22)

(8) Sandhipracchādana

Where the first phrase (kalā) consists of three tones and the other two have the last tone of their preceding phrase as their first in a group of three tones, it is (called) sandhipracchādana, e. g. 'sa-ri-ga ga-ma-pa pa-dha-ni'. (23)

(9-12) Udgīta, udvāhita, trivarņa and prthagveņī

## 11. त्रिवर्णः

अन्त्यस्य तु त्रिरावृत्तौ त्रिवणं वर्णयन्त्यमुम् । सरिगगग मपघघघ । (११)

12. पृथग्वेगाः

त्रयाणां तु त्रिरावृत्तौ पृथग्वेणिरुदीरितः ।।२५।। ससस रिरिरि गगग, ममम पपप धधध । (१२)

(च) अवरोहिवर्णगतालंकाराः

अवरोहक्रमादेते

द्वादशाप्यवरोहिणि।

(छ) सञ्चारिवर्णगतालंकारोहेशः

मन्द्रादिर्मन्द्रमध्यश्च मन्द्रान्तः स्यादतः परम् ।।२६।। प्रस्तारश्च प्रसादोऽथ व्यावृत्तस्खलितावपि । परिवर्ताक्षेपबिन्दूद्वाहितोर्मिसमास्तथा ।।२७।।

If, however, the last (third) tone bis repeated it is described as trivarna, e. g. sa-ri-ga-ga-ga, ma-pa-dha-dha-dha. (11) But, if all the three tones are repeated thrice (in the above pattern), it is called prthagveni, c. g. 'sa-sa-sa ri-ri-ri ga-ga-ga ma-ma-ma pa-pa-pa dha-dha-dha' (12). (24-25)

(f) The embellishments of the descendant tone-pattern: 26ab

These very twelve in their descending order are known as descendant embellishments. 12 (26ab)

(g) The embellishments of the circulatory (sañcārī) tonepattern: 26c-53

The twentyfive embellishments based on the circulatory tone-pattern (sañcārī varņa) are named as follows: mandrādi, mandramadhya as followed by mandrānta; prastāra, prastāda and

10. Of each phrase.

12. That is, the ascendant embellishments as described above

when ordered in the descendant movement.

<sup>8.</sup> That is, for example in the second pair the succeeding tone after dropping the 4th tone is pa which is prefixed by the 3rd ga.

<sup>9.</sup> Of each phrase.

<sup>11.</sup> Cf. verse 15 ante where it is called vent, and S. Raj. Vol. I 2.1.3. 58-59 and K. R. 103 who follow suit. However, it is notable that 'S' calls it pthagvent.

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प्रेह्म'निष्कूजितश्येनक्रमोद्धट्टितरञ्जिताः । संनिवृत्तप्रवृत्तोऽथ वेणुश्च ललितस्वरः ॥२८॥

हुङ्कारो ह्रा<mark>दमानश्च ततः स्या</mark>दवलोक्तिः । स्युः सञ्चारिण्यलङ्काराः पञ्चविंशतिरित्यमी ॥२९॥

## 1. मन्द्रादिः

त्रिस्वरा ऽद्या कलैकैकमन्द्रत्यागेन चापराः । त्रिस्वराश्चेत्कला मन्द्राद्या मन्द्रादिस्तदा भवेत् ।।३०।। सगरि रिमग गपम मधप पनिध (१)

vyāvṛtta as well as skhalita; parivarta, ākṣepa, bindu, udvāhita, ūrmi and sama; prenkha, niṣkūjita, śyena, krama, udghaṭṭita and ranjita; sannivṛtta, pravṛtta and venu; lalitasvara, hunkāra and hrādamāna followed by avalokita. (22c-29)

#### 1. Mandrādi

When the first phrase of three tones beginning with the lower<sup>1</sup> one is followed by other similar<sup>2</sup> phrases formed by dropping the lower tone one by one<sup>3</sup>, then it becomes

- 1. The word lower is used in the technical sense in this section as already explained (vide verse 6 cd—8 ante). 'S' puts the three tones in the order 1, 3, 2. i.e. sa-ga-ri and so on, but there is no indication of this order of notes in the text.
- 2. The text repeats the formation, viz. each phrase has to be of three tones and is to commence with the lower tone.
- 3. That is, in the 2nd phrase sa is dropped, in the 3rd phrase ri is dropped, in the 4th phrase ga is dropped and finally, ma is dropped. So as a rule the lower tone is progressive. It may be observed here that the definition of this tone-pattern does not explicitly seem to correspond with the given illustration. The definition only prescribes that the first tone of every phrase of three tones will be lower (mandra) but does not at the same time lay down the order of the other two tones which is left to be inferred. Since the first tone is specified to be low, the implication is that the following two tones are not to be placed in their natural order and the specification with regard to the first one would be redundant 'S' has brought out this implication clearly by elucidating that the first phrase consists of three tones in the order of first, third and second etc. obviously his interpretation is inspired by the given illustration. But Kumbha has defined this tone-pattern in very clear and explicit terms which leaves no room for ambiguity. He says

## 2. मन्द्रमध्यः

ताः कला मन्द्रमध्यान्ताः क्रमाच्चेदपरौ तदा । मन्द्रमध्यो यथा—– गसरि मरिग पगम धमप निपध । (२)

## 3. मन्द्रान्तः

मन्द्रान्तो यथा--रिगस गमरि मपग पधम धनिप । (३)

#### 4. प्र**स्तार**ः

त्याक्तान्तरं स्वरयुगं त्याक्तादारभ्यते पुनः ॥३१॥ युगं तादृक्समारोहेत्तया प्रस्तार उच्यते । सग् रिम् गप मध्यनि ॥ (४)

mandrādi<sup>4</sup>, e.g. 'sa-ga-ri ri-ma-ga ga-pa-ma ma-dha-pa pa-ni-dha.' (30)

#### 2, 3. Mandra-madhya and mandranta

In these very phrases<sup>5</sup> if the 'lower' (mandra) is placed in the midst<sup>6</sup> or at the end<sup>7</sup> (the initial phrase) being followed by others in due order, then it is called mandra-madhya or mandrānta, e. g. 'ga-sa-ri ma-ri ga, pa-ga-ma dha-ma-pa ni-pa-dha' or 'ri-ga-sa ga-ma-ri ma-pa-ga pa-dha-ma dha-ni-pa, respectively. (31ab)

#### 4. Prastāra

When a pair of tones is formed by dropping the tone in-between them and is followed by another pair similarly formed but initiated by the tone omitted (in the previous

<sup>&</sup>quot;In mandrādi there are five phrases of three tones each beginning with sa etc., while the third (tone) in each is placed in the middle (S. Raj. II 1. 3. 69). Here the order of all the three tones is explicitly laid down. Of course his definition and illustration both correspond to S. R. in substance.

Lit. having the lower tone in the beginning.
 In all the five phrases illustrated above.

<sup>6.</sup> That is, the middle tone of (1) is placed in the beginning.

<sup>7.</sup> The last (3rd) tone of (1) is placed as the 1st and the commencing tone.

Section 6: Varņālankāra

## 5. प्रसाद्ः

पूर्वः पूर्वः परस्योध्विधोवर्ती क्रियते स्वरः ।।३२।। यदा तदा प्रसादं तमाह श्रीकरणेश्वरः। सरिस रिगरि गमग मपम पधप धनिध ! (५)

## 6. उथावृत्तः

चतुःस्वरा कला तत्राद्यात्तृतीयं द्वितीयकात् ।।३३।।
तुर्यं गत्वा ऽऽदिमं गच्छेदेवमेकैकहानतः ।
चतुःस्वराः परा यत्र स व्यावृत्तः स्मृतो बुधैः ।।३४।।
सगरिमस रिमगपरि गपमधग मधपनिम । (६)

pair), and an ascent is made in this way, it is said to be prastāra, e. g. 'sa-ga ri-ma ga-pa ma-dha pa-ni'. (31c-32b)

#### 5. Prasāda

When every preceding tone precedes as well as follows the next tone, then it is prasāda as declared by Śrikaraņeśvara , e.g. 'sa-ri-sa ri-ga-ri ga-ma-ga ma-pa-ma pa-dha-pa dha-ni-dha'. (32c-33b)

#### 6. Vyāvītta

Where a phrase consisting of four tones proceeding from the first to the third, and then from the second to the fourth tone returns to the first<sup>11</sup> and is similarly followed by other phrases of four tones dropping a tone<sup>12</sup>, one by one<sup>18</sup>, it is considered by the sages to be *vyāvṛtta*, e.g. 'sa-ga-ri-ma-sa ri-ma-ga-pa-ri ga-pa-ma-dha-ga ma-dha-pa-ni-ma'. (33c-34)

8. The preceding tone of every phrase.

9. The implication is that every phrase will have three tones and the tone referred to as 'the next' will be the middle one.

10. Śārngadeva.

11. The tones are arranged in the order 1, 3, 2, 4, 1.

12. That is the second phrase will drop the first tone, the third will drop the second and the fourth will drop the third tone.

13. That is, omitting one tone progressively.

## 7 स्वलिता

कलां प्रयुज्य मन्द्रादे<mark>द्धि</mark> रुक्तोर्ध्वस<mark>्वरान्विता</mark>म् । अवरुह्येत चेदेष स्खलिताख्यस्तदा भवेत् ।।३५॥ सगरिममरिगस रिमगपपगमरि गपमधधमपग मधपनिनिपधम । (७)

## 8. परिवर्तकः

स्वरं द्वितीयमुज्झित्वा त्रिस्वरा ऽऽद्या कला यदि । त्यक्तादारभ्य तादृश्यो ऽन्यास्तदा परिवर्तकः ॥३६॥

सगम रिमप गपध मधनि । (८)

## 9. आक्षेपः

त्रिस्वराश्चेत्कलाः पूर्वपूर्वत्यागोर्ध्वसंक्रमैः । तदा ऽऽक्षेपः

## सरिग रिगम गमप मपध पधनि । (९)

#### 7. Skhalita

Employing a phrase of mandrādi<sup>14</sup> followed by the next tone<sup>15</sup> as used twice, if one descends<sup>16</sup>, then it is called skhalita, e.g. 'sa-ga-ri-ma-ma-ri-ga-sa, ri-ma-ga-pa-pa-ga-ma-ri, ga-pa-ma-dha-dha-ma-pa-ga, ma-dha-pa-ni-ni-pa-dha-ma'.(35)

#### 8. Parivartaka

If the first phrase consisting of three tones barring the second one is followed by similar<sup>17</sup> phrases starting with the omitted<sup>18</sup> tones, then it is partvartaka, e.g. sa-ga-ma ri-ma-pa ga-pa-dha ma-dha-ni (36)

#### 9. Āksepa

If the phrases of three tones progress in the ascending order, dropping the first tone of the preceding phrase, then

14. That is, 'sa-ga-ri'.

15. That is, ma after the first phrase.

16. Descends to the starting tone of the phrase.17. Similarly dropping the second tone as counted from their

8. That is, second from the first tone of the phrase.

19. This would naturally apply only to the subsequent phrases and not to the first one.

## 10. बिन्दु

अथ बिन्दुः स यत्र प्लुतमधः स्वरम् ।।३७।। कृत्वा ऽग्निवत्परं स्पृष्ट्वा ऽधः स्पर्शेनाखिलाः कलाः । स३रिस रि३गरि ग३मग म३पम प३धप ध३निध । (१०)

## 11. उद्वाहितः

कलायां त्रीन्स्वरान्गीत्वा ऽवरुह्यैकं पराः कलाः ।।३८।। यत्रैकैकोज्झिता गीतास्तद्वदुद्वाहितस्तु सः । सरिगरि रिगमग गमपम मपधप पधनिध । (११)

it is ākṣepa, e. g. 'sa-ri-ga ri-ga-ma ga-ma-pa ma-pa-dha pa-dha-ni'. (37a-c)

#### 10. Bindu

The bindu is that, in all the phrases of which, the first<sup>20</sup> tone is a prolonged<sup>21</sup> one (pluta), the second one is slightly touched like fire<sup>22</sup> and the first one taken once again, e.g. 'sa3-ri-sa ri3-ga-ri ga3-ma-ga ma3-pa-ma pa3-dha-pa dha3-ni-dha'. (37c-38b).

#### 11. Udvāhita

Having sung three tones in a phrase and descended one<sup>28</sup>, if the subsequent phrases formed similarly are sung dropping a tone one by one<sup>24</sup>, that indeed is *udvāhita*, e.g. 'sa-riga-ri ri-ga-ma-ga ga-ma-pa-ma ma-pa-dha-pa pa-dha-ni-dha'. (38c-39b)

## 12. ऊर्मिः

मूर्च्छनाऽऽदेः स्वरात्तुर्यं प्लुतीकृत्याद्यमेत्य च ।।३९।।
तुर्यगाने कलैकैकहानाद्यत्रापरास्तथा ।
स ऊमिः स्यात्
सम३सम रिप३रिप गध३गध मनि३मनि । (१२)

#### 13. सम:

स तु समः कला यत्र चतुः स्वराः ॥४०॥
तुल्यारोहावरोहैकैकहानादपरास्तथा ।
सरिगममर्गारस रिगमपपमगरि गमपध्यपमग
मपधिनिनिधपम । (१३)

#### 12. Ūrmi

Starting with the first tone of a mūrcchanā, taking a prolonged (pluta) fourth and returning to the first if (one) sings the fourth (in a phrase) with the other phrases following (similarly) by the loss of one tone successively, it would be ūrmi<sup>26</sup>, e. g. 'sa-ma3-sa-ma ri pa3-ri-pa ga-dha3-ga-dhama-ni3 ma-ni'. (39b-40c)

#### $3ma\cdot ni$

#### 13. Sama

Where the (different) phrases are (composed) of four tones each and proceed by equal ascent and descent omitting one tone by and by<sup>27</sup>, there indeed it is sama, e. g. 'sa-ri-ga-ma-ma-ga-ri-sa ri-ga-ma-pa pa-ma-ga-ri ga ma-pa-dha-dha-pa-ma ga, ma-pa-dha-ni-ni-dha-pa-ma'. (40c-41b)

<sup>20.</sup> Though adhah literally means 'below', in the technical sense adhah and parah mean the preceding and the succeeding tones respectively.

<sup>21.</sup> That is, the tone is to be sung for thrice the time taken by a single tone.

<sup>22.</sup> As one removes the hand approaching fire as soon as it comes in contact with it, so slight is the touch.

<sup>23.</sup> This would constitute the fourth tone of that phrase.

<sup>24.</sup> Dropping the initial tone of the previous phrase.

<sup>25.</sup> The lower and the initial tone of the previous phrase.

<sup>26.</sup> Literally a 'wave'.

<sup>27.</sup> The initial and the lower tone of the preceding phrase in successive phrasal order.

Section 6: Varnālankāra

## 14. 牙膏:

कला गतागतवती द्विस्य

द्विस्वरेकंकहानतः ।।४१।।

यत्रान्यास्तादृशः स स्यात्प्रेङ्कः, सरिरिस रिगगरि गममग मपपम पधधप धनिनिध । (१४)

## 15. निष्कृजितः

,निष्कूजितः पुनः ।

प्रसादस्य कलां गीत्वा तत्कलाऽऽदेस्तृतीयकम् ॥४२॥ गत्वा ऽऽद्यगानाःद्भवति, सरिसगस रिगरिमरि गमगपग मपमधम वधपनिप । (१५)

## 16. श्वेन:

,श्येनः संवादियुग्मकैः ।।४३।।

क्रमात्सरिगमाद्यैः स्यात्, सप रिघ गनि मस । (१६)

#### 14. Prenkha

Where the phrases move forward and then backward<sup>38</sup> by two tones with the subsequent<sup>20</sup> phrases forming themselves similarly by dropping a tone by and by<sup>30</sup> successively, it becomes prenkha, e.g. 'sa-ri-ri-sa ri-ga-ga-ri ga-ma-ma-ga-ma-pa-ma pa-dha dha-pa dha-ni-ni-dha.' (41c-42b)

#### 15. Niskūjita

Having sung a phrase of prasāda<sup>31</sup>, and proceeding to the third (tone) from the initial (tone), if the initial is sung, it becomes niskājita, e.g. 'sa-ri-sa-ga-sa ri-ga-ri-ma-ri ga-ma-ga-pa-ga ma-pa-ma-dha-ma pa-dha-pa-ni-pa'. (42b-43a)

#### 16. Syena

Syena is (formed) by the consonant<sup>3</sup> pairs<sup>3</sup> beginning respectively with sa, ri, ga and ma, e. g. 'sa-pa ri-dha ga-ni ma-sa'. (43b-44a)<sup>3</sup>

28. In the order of ascent and descent,

29. The phrases following the first tone.

30. Dropping the initial note of the preceding phrase.

31. Phrases of prasada may be seen vide verse No. 33 ante and embellishment No. 5 in this series.

32. The consonance in this case consists in the interval of thirteen fruti-s, known as the sadja-pañcama relation.

33. Pairs of tones.

34. Verse 43 consists of one line only.

#### 17. 新刊:

, कला द्वित्रचतुःस्वराः ।

आद्यस्वराद्यास्तिस्रः स्युद्धितीयाद्यादयस्तथा ।।४४।। यत्रासौ क्रम इत्युक्तः,

सरिसरिगसरिगम रिगरिगमरिगमप गमगमपगमपध

मपमपधमपधनि । (१७)

## 18. उद्घट्टितः

, स तूद्घट्टित उच्यते ।

यत्र स्वरद्वयं गीत्वा पञ्चमाच्चतुरः स्वरान्।।४५॥

अवरोहेत्कला गायेत्तथैकैकोज्झनात्पराः ।

सरिपमगरि रिगधवमग गमनिधवम । (१८)

#### 17. Krama

(The embellishment) in which there are three phrases consisting of two, three and four tones respectively commencing with the initial<sup>35</sup> tone and three (similar) phrases commencing with the second tone and so on<sup>36</sup>, is called *krama*, e. g. 'sa·ri-sa-ri-ga-sa-ri-ga-ma, ri-ga-ri-ga-ma-ri-ga-ma-pa, ga-ma-ga, ma-pa-ga-ma-pa-dha, ma-pa-ma-pa-dha-ni.' (44b-45a)

#### 18. Udghattita

Where (in a phrase) after singing two tones, <sup>37</sup> one descends four tones from the fifth <sup>38</sup> and sings the subsequent phrase (similarly) by dropping one <sup>39</sup> tone in each case, it is said to be *udghaṭṭita*, e. g. 'sa-ri-pa-ma-ga-ri, ri-ga-dha-pa-ma-ga-ga-ma-ni-dha-pa-ma'. (44b-46b)

35. The first tone of the murcchana.

36. Added to these two will be the three phrases commencing with the third tone and the three phrases commencing with the fourth tone.

37. Beginning with the first tone of the murcchana,

38. Fifth as counted from the initial tone of a phrase.39. The initial tone of the preceding phrase.

17

## 19. रिजनतः

हिरुक्ता यदि मन्द्रान्ता मन्द्रादेः स्युः कलास्तदा ।।४६॥ रिज्जतः, सगरिसगरिस रिमगरिमगरि गपमगपमग मधपमधपम पनिधपनिधप । (१३)

## 20. सन्निवृत्तकप्रवृत्तकः

, अथ भवेदेष संनिवृत्तप्रवृत्तकः । यत्राद्यपञ्चमौ गीत्वा तुर्यात्त्रोनवरोहति ।।४७॥ क्रमात्कला सा यत्रान्यास्तद्वदेकैकहानतः । सपमगरि रिधपमग गनिधपम । (२०)

#### 19. Ranjita

If the phrases are such that  $mandrādi^{40}$  is sung twice followed by the 'lower'<sup>41</sup> in the end, then it is  $ra\bar{n}jita$ , e. g. 'sa-ga-ri-sa-ga-ri-sa, ri-ma-ga-ri-ma-ga-ri, ga-pa-ma-ga-pa-ma-ga-ma-dha-pa-ma-dha-pa-ma, pa-ni-dha-pa-ni-dha-pa'. (46c-47a)

#### 20. Samnivṛttapravṛttaka

Where, having sung the first<sup>42</sup> and the fifth<sup>43</sup> (tones) one descends by three consecutive tones from the fourth<sup>44</sup> (tone) in the first phrase, and where other phrases are similarly framed by dropping one tone<sup>45</sup> in each, it becomes samnivettapravettaka, e. g. 'sa-pa-ma-ga-ri, ri-dha-pa-ma-ga, ga-ni-dha-pa-ma.' (47a-48b)

## 2.0 वेगा

यत्राद्यः स्याद् द्विद्वितीयचतुर्थंकतृतीयकाः ॥४८॥ सकृत्कला ऽन्याश्चेंकैकहानाद्वेणुरसौ मतः । ससरिमग रिरिगपम गगमधप ममपनिध । (२१)

## 22. ललितस्वरः

गीत्वा ऽऽद्यौ द्वौ चतुर्थं च यस्यां ताववरोहित ।।४९।। सा कला ऽन्याश्च तादृश्यो यत्रासौ लिततस्वरः । सरिमरिस रिगपगरि गमधमग मपनिपम । (२२)

## 23. हुङ्गारः

आदिमेन कला यत्र द्विस्वरा ऽऽद्या गतागतैः ।।५०॥

#### 21. Veņu

Where the (first) phrase is (formed) with the first tone<sup>46</sup> (sung) twice and then the second, fourth and the third once, and is followed by other similar phrases dropping one tone in each case, it is eonsidered to be venu, e.g. sa-sa-ri-ma-ga, ri-ri-ga-pa-ma, ga-ga-ma-dha pa, ma-ma-pa-ni-dha'. (48c-49b)

#### 22. Lalitasvara

Having sung the first two tones<sup>47</sup> followed by the fourth, if one descends by those very (two) tones<sup>48</sup> in a phrase, with the other similar<sup>49</sup> yhrases following, it is *lalitasvara*, e. g. 'sa-ri-ma-ri-sa, ri-ga-pa-ga-ri, ga-ma-dha-ma-ga, ma-pa-ni-pa-ma'. (49c-50b).

#### 23. Humhāra

Where the first phrase is of two tones followed by the initial (tone) arranged in the forward and backward order order.

<sup>40.</sup> This embellishment is based on the tonal embelishment called mandrādi illustrated vide verse 22 ante, and numbered as 6.

<sup>41.</sup> The lower tone i. e. the initial of the phrase in this case.

<sup>42.</sup> The first of the murcchana.

<sup>43.</sup> Ascending from first to the fifth tone.

<sup>44.</sup> The three tones to be counted from the fourth one; for the descent, as it is, is from the fifth.

<sup>45.</sup> The inital tone of the preceding phrase.

<sup>46.</sup> The first tone of the preceding phrase.47. The first two of the murc chana.

<sup>48.</sup> That is, the first two of the phrase.

<sup>49.</sup> The rule that the other phrases would drop the first tone of the preceding phrase, though not stated, is implied in the illustration.

<sup>50.</sup> Forward movement is ascending and backward movement is descending, sa to ri in the first phrase is as ascent and ri to sa is the descent.

Section 6 : Varnalankara

स्वरैरेकोत्तरं वृद्धेः स् हुङ्कारो निगद्यते । सरिस सरिगरिस सरिगमगरिस सरिगमपमगरिस सरिगमपथपमगरिस सरिगमपथनिथपमगरिस (२३)

## 24. हादमानः

ह्रादमाने प्रसन्नान्ता मन्द्रादेस्तु कला मताः ।।५१।। सगरिस रिमगरि गपमग मधपम पनिधप ।।२४।।

## 25. अवलोकितः

यदा ऽऽरोहे ऽवरोहे च स्वद्वितीयं परित्यजेत्। चतुःस्वरा सम्का तदा स्यादवलोकितः ॥५२॥ सगममरिस रिमपपगरि गपधधमग मधनिनपम ॥२५॥

and the subsequent phrases are (formed, by the progressive addition of one tone<sup>51</sup>, it is called humkāra, e. g. 'sa-ri-sa sa-ri-ga-ri-sa, sa-ri-ga-ma-ga-ri-sa, sa-ri-ga-ma-pa-dha-pa-ma-ga-ri-sa, sa-ri-ga-ma-pa-dha-ni-dha pa-ma-ga-ri-sa.' (50c-51b)

#### 24. Hrādamāna

In hrādamāna the phrases of Mandrādi are ended with an added 'lower' (prasanna), e. g. 'sa-ga-ri-sa, ri-ma-ga-ri-ga-pa-ma·ga, ma dha-pa-ma, pa-ni-dha-pa.' (51cd)

#### 25. Avalokita

When the four-tone phrase of sama<sup>53</sup> drops<sup>54</sup> its second tone<sup>55</sup> in the ascent as well as in the descent, then it become

51. One tone to be added to the preceding phrase before the descent begins, so that the first phrase, extending upto two tones (excluding the descending tone), the second upto three the third upto four, the fourth upto five, the fifth upto six and the sixth upto seven tones, is followed by a descent upto the intial tone in each case.

52. Lower tone, i. e. the first tone in the first phrase, second in the second phrase and so on.

53. Sama is the name of an embellishment defined and illustrated vide verse 40c-41b ante, under No. 13 of this series. The first phrase of sama for example is 'sa-ri-ga-ma-ma-ga-ri-sa.'

54. A figurative expression, the action is taken by the singer in fact.
55. The second tone of each phrase respectively in the ascent and

in the descent.

एवं सञ्चार्यलङ्कारा आरोहेण प्रदर्शिताः। एतानेवावरोहेण प्राह श्रीकरणाग्रणीः ।।५३।।

## (क) सप्तान्यलंकारोद्देशः

अन्ये ऽपि सप्तालंकारा गीतज्ञैरुपर्दाशताः । तारमन्द्रप्रसन्नश्च मन्द्रतारप्रसन्नकः । १५४॥

आवर्तकः सम्प्रदानो विधूतो ऽप्युपलोलकः। उल्लासितश्चेति तेषामधुना लक्ष्म कथ्यते।।५५।।

avalokita, e. g, 'sa-ga-ma-ma-ri-sa, ri-ma-pa-pa-ga-ri, ga-pa-dha-dha-ma-ga, ma-dha-ni-ni-pa-ma'. (52)

Thus, the circulatory embellishments (sañcārī-alankāra-s) have been demonstrated in their ascending order. These very embellishments are conceived in the descending order as well by Śārngadeva. 56 (53)

#### (h) Seven other embellishments:

Other seven embellishments have also been indicated¹ by the master musicians, viz. tāramandra-prasanna, mandratāra-prasanna², āvartaka, sampradāna, vidhūta, upalola³ and ullāsita. They are now being defined. (54-55)

Their phrases subsequent to the first<sup>4</sup>, such as second and so on, are formed by the progressive loss of one tone<sup>5</sup>.

(56 ab)

5. The initial tone of of the preceding phrase.

<sup>56.</sup> Śrikarnagrani in the text.

<sup>1.</sup> Or demostrated.

<sup>2 &</sup>amp; 3. The suffix 'ka' in the text seems to have been provided for completing the metre as it has been dropped in the illustration.

<sup>4.</sup> In the case of these seven embellishments the form of the first phrase only will be defined, while the rule for the subsequent phrases has been stated in general.

### 1. तारमन्द्रप्रसन्नः

कलास्तेषां द्वितीयाद्याः पूर्वेकैकप्रहाणतः । अष्टमस्वरपर्यन्तमारुह्याद्यं व्रजेद्यदि ।।५६।। तारभन्द्रप्रसन्नो ऽयमलङ्कारस्तदोच्यते । संरिगमपधनिसंसं ।१।

### 2. मन्द्रतारप्रसन्नः

मन्द्रादष्टममुत्प्लुत्य सप्तकस्यावरोहणे ॥५७॥ मन्द्रतारप्रशन्नाख्यमाह माहेश्वरोत्तमः । संसन्धिपमगरिसं । ।२।

## 3. आवर्तकः

## आद्यं द्वितीयमाद्यं च द्विद्विर्गीत्वा द्वितीयकम् ॥५८॥

#### 1. Tāramandra-prasanna

Having ascended upto the eighth tone, if one descends to the initial (tone), such an embellishment is called *tāramandra* prasanna<sup>6</sup>, e. g. 'sa-ri-ga-ma-pa-dha-ni-sa-sa'. (56c-57b)

#### 2. Mandratara-prasanna

Having jumped from the 'lower' (mandra) to the eighth (tone), if seven tones are (sung) in the descending order, it is said to be mandratāra-prasanna by Śārngadeva, e. g. 'sā-sa-ni-dha-pa-ma-ga-ri-sa'. (57c-58b)

#### 3. Avartaka

Where, in a phrase, one sings the initial (first), the second and the initial tone twice, each followed by the

सकृदाद्यं यत्कलायां गायेदावर्तकस्तु सः।
ससरिरिससरिस रिरिगगरिरिगरि गगममगगमग
ममपपममपम पपध्यपप्रधप ध्यतिनिध्यनिष्य।।३।

## <sup>4</sup>. सम्प्रदानः

एतस्यैव कला उन्त्यौ द्वौ स्वरौ संत्यज्य गीयते ।।५९।। यदा तदा सम्प्रदानमलंकारं विदुर्द्धाः । सस्रिरिसस रिरिगर्गारिर गगममगग ममप्पमम पप्रधपप धर्धनिनिध्ध । ।४।

## 5. विधूतः

युग्ममेकान्तरितयोस्त्यक्तादप्येवमेव चेत् ।।६०।। द्विद्धः प्रयुज्येत तदा विधूतो बुधसंमतः । सगसग रिमरिम गपगप मधमध पनिपनि । ।४।

second and the initial (tone) once, it is āvartaka<sup>8</sup>, e.g. 'sa-sa-ri-ri-sa-sa-ri-sa, ri-ri-ga-ga-ri-ri-ga-ri, ga-ga-ma-ma-ga-ga-ma-ga, ma-ma-pa-pa-ma-ma-pa-ma pa-pa-dha-dha-pa-pa-dha-dha-ni-ni-dha-dha-ni-dha'. (58c-59b)

#### 4. Sampradāna

When this very phrase is sung by dropping the last two tones, then to the experts, the embellishment is known to be sampradāna, e. g. 'sa-sa-ri-ri-sa-sa, ri-ri-ga-ga-ri-ri, ga-ga-ma-ma-ga-ga ma-ma-pa-pa-ma-ma, pa-pa-dha-dha-pa-pa, dha-dha-ni ni-dha-dha.'

(59c-60b)

#### 5. Vidhūta

When a pair of two tones, taken alternatively<sup>10</sup>, is employed twice and is followed by similar pairs of tones commencing with the omitted<sup>11</sup> tone, then it is considered

<sup>6.</sup> Since both the terms, mandra and prasanna are used in this name, the interpretation offered by Nijenhuis, 'clear in its high and low notes' may be accepted in this context. Prasanna has been rendered literally as clear however the notation may be understood as defined by the author in the very beginning the words mandra and tara being only relative.

<sup>7.</sup> Literally, the best among the devotees of Siva.

<sup>8.</sup> Literally, a whirlpool.

<sup>9.</sup> The phrase of avartaka, e. g. 'sa-sa-ri-ri-sa-sa-ri-sa,'

<sup>10 &</sup>amp; 11. In the order of 1-3, 2-4, 3-5, 4-6, 5-7.

#### 6. उपलोलः

कलायामाद्ययोर्युग्मं चेत्तृतीयद्वितीययोः ।।६१।।
द्विद्धिः प्रयुज्यते तज्ज्ञैरुपलोलस्तदोच्यते ।
सरिसरिगरिगरि रिगरिगमगमग गमगमपमपम
मपमपधपधप पधपधनिधनिध । ।६।

#### 7. उल्लासितः

हिर्गीत्वा ऽऽद्यं तृतीयं च प्रथमं च तृतीयकम् ।।६२।।
सकृद्गायेद्यत्कलायां तमुल्लासितमूचिरे ।
ससगसग रिरिमरिम गगपगप ममधमध पपनिपनि । ।७।
इति प्रसिद्धालङ्कारास्त्रिष्ठिरुदिता मया ।।६३।।
अनन्तत्वात्तु ते शास्त्रे न सामस्त्येन कीतिताः ।

by the sages to be *vidhūta*, e. g. 'sa-ga-sa-ga, ri-ma-ri-ma, ga-pa-ga-pa ma-dha-ma-dha, pa-ni-pa-ni.' (60c-61b)

#### 6. Upalola

If in a phrase, a pair of the initial tone is employed twice followed by a pair of the third and the second tones (sung) twice, it is said to be *upalola* by the experts, e. g. 'sari-sa-ri-ga-ri-ga-ri, ri-ga-ri-ga-ma-ga-ma-ga, ga-ma-ga-ma-pa-ma-pa-ma-pa-ma-pa-dha-pa-dha-pa-dha-pa-dha-ni-dha-niha.' (61c-62b)

#### 7. Ullāsita

Having sung the initial (tone) twice, if the third, the first and the third tone is employed once in succession, it is called *ullāsita*, e. g. 'sa-sa-ga-sa-ga, ri-ri-ma-ri-ma, ga-ga-pa-ga-pa, ma-ma-dha-ma-dha, pa-pa-ni-pa-ni.' (62c-63b)

Thus, sixtythree well known<sup>12</sup> embellishments have been described by me. Since they are infinite in number, they have not been exhaustively dealt with in this treatise. (63c-64b)

# (iii) अलंकाराणां प्रयोजनम् रक्तिलाभः स्वरज्ञानं वर्णाङ्गानां विचित्रता ।।६४॥ इति प्रयोजनान्याहुरलङ्कारनिरूपणे । ॥ इति प्रथमे स्वरगताध्याये षष्ठं वर्णालङ्कारप्रकरणम् ॥६॥

(iii) The object of tonal embellishments: 64c-65b

Creation of delightfulness, tonal perception<sup>1</sup> and the variety of tonal structure (varnānga) is the object<sup>2</sup> of demonstrating the embellishments.<sup>3</sup> (64c-65b)

<sup>12.</sup> Prasiddha has been rendered as well known,

<sup>1.</sup> svara-jñāna literally means knowledge of tones.

<sup>2.</sup> Prayojana is purpose, the the end in view.

<sup>3.</sup> The author is explaining the relevance of this topic of embelishments being included in the scheme of this work;

## अथ सप्तमं जातिप्रकरणम्

#### क. उपक्रमः

## (i) शुद्धा जातयः

## (क) सप्तशुद्धजातीनामुहेशः

शुद्धाः स्युर्जातयः सप्त ताः षड्जादिस्वराभिधाः । षाड्ज्यार्षभी च गान्धारी मध्यमा पञ्चमी तथा ।।१।। धैवती चाथ नैषादी,

#### Section 7

#### Jāti-s (Melodic types)

- A. Introductory: 1-28
- (i) Śuddhā (primary) jāti-s: (1-3b)
- (a) The seven śuddhā jāti-s—There are seven śuddhā¹ (primary) jāti-s² (melodic types) named after the notes ṣadja etc.,³ viz. śādjī, ārṣabhī, gāndhārī, madhyamā, pañcamī, dhaivatī and naiṣādī. (1-2a)

Now, as per the synopsis of the work, the author is going to deal with the tonal structures used for actual singing. It seems that when Bharata, whose tradition Saragadeva generally follows, set out to systematise the music of his times, he comprehended the prevalent melodies into eighteen basic melodic types which he called jati-s. The word 'jati' literally means a class, genus or an ethnic group implying an attribute or a characteristic commonly shared by the constituent members that also exhibit other individual features which distinguish them from each other.

The word jūti as applied in the context of music has been defined semantically in various ways by Matanga (as quoted by 'S') to begin

- 1. Literally, pure or unmodified.
- 2. Juli in its general connotation signifies 'genus, class or type'.
- 3. The seven notes are meant,

## (ख) शुद्धतालक्षणम्

, शुद्धतालक्ष्म कथ्यते ।

यासां नामस्वरो न्यासो ऽपन्यासो ऽशो ग्रहस्तथा ।।२।। तारन्यासविहोनास्ताः पूर्णाः शुद्धाभिधा मताः ।

(b) The definition of suddhatā: To define suddhatā<sup>4</sup>, it is stated that the jāti-s, which have their denominative<sup>5</sup> note as the final note<sup>6</sup> (nyāsa), the semi-final note<sup>7</sup> (apanyāsa), the fundamental note<sup>8</sup> (amsa) and the initial note<sup>9</sup> (graha), which do not have the final note in the high register and which are complete<sup>10</sup> are known as suddhā jāti-s. (2b-3b)

with.  $\Im ati$ -s are so called because they come into being by the collection of such factors as the śruti-s, svara-s and grāma-s, or they arise from the initial note etc., or alternatively, that which gives rise to or induces (in the listener) the enjoyment of a particular sentiment (i. e. rasa or aesthetic delight) is called  $j\bar{a}ti$ . Alternatively,  $j\bar{a}ti$ -s are so called because they are the cause of the entire phenomenon of  $r\bar{a}ga$  and so forth; or otherwise,  $j\bar{a}ti$ -s denote the various classes (i. e. castes) of human beings such as  $br\bar{a}hmana$  and so forth.

Kallinātha conjectures a few more derivations of the term jāti. Jāti-s are so called because they are duly constituted out of the proper combination of the two grāma-s; or, because they suggest a class name such as the cow among the animals. The cowness is manifest in many individual cows in a slightly modified form; and so is jāti inherent in the rāga-s and their mixed and derived forms. Jāti, thus, comprehends in its connotation certain characteristic features that are essentially

- 4. Suddhatā is derived as an abstract noun from suddha (pure) and is here used to refer to the purity of the suddha jāti-s.
- 5. Nāmasvara, i. e. the denominative note is the one by which the jāti is named.
- 6. Nyāsa or the final note is the one that forms the concluding note of a melody.
- 7. Apanyāsa or the semifinal note is the concluding note of a section (vidāri) of a melody. Accordingly, there can be more than one semifinal note in a melody.
- 8. Amisa or the fundamental note is the most prominent note and functions as the dominant as well as the tonic.
- Graha or the initial note is that with which the song is commenced.
- 10. That is, having all the seven notes.

Section 7: Jati-s (Melodic types)

common to a certain class or type of melodic structures called grama-raga-s and such other derived or associated forms. Jati-s may therefore be understood as melodic types on the basis of which were developed the other later melodic structures.

Jati-s as melodic types are recognised to be eighteen, out of which seven are called suddha and eleven are known as samsargaja vikīta. The jati-s that are named after the seven suddha svara-s (standard notes) and have one of these notes as their final note (nyāsa) after which they are named, apart from a few other factors to be described shortly, are considered to be suddha (pure) in the sense of being the primary and original types from which the rest were thought to have been derived by modification, and were on this account called vikītā (modified). (1-2a)

It may be observed that three important considerations determine the *suddhatā* of *jāti-s* (i. e. purity, originality or in other words, the r being primary or otherwise), viz.

- (i) that the note which determines their name (such as \$\overline{a}dji\$, arṣabhī, gāndhārī etc., being named after \$\overline{a}dja\$, \$\overline{c}sabha\$, \$\overline{g}andhāra\$ etc. respectively) should function as their final, semifinal, fundamental and the initial note.
- (ii) that they have their final note in the low or the middle heptad (saptaka), and
- (iii) that they are complete, i. e. employing all the seven notes.

Kallinātha points out that since the use of the final note in the high register is specifically prohibited it is to be inferred that it is ordained in the low and the middle register despite the fact that Bharata has explinitly laid down that the rule that the final note in the śuddhā jāti-s should be in the low register. He argues that if Bharata's rule is taken literally, the use of the middle sadja in case of sadji ordained by Matanga would be contradictory in practice. That is why, he seems to suggest, Śarngadeva has prescribed a negative rule. (2b-3b)

## (ii) विकृता जातयः

विकृता न्यासवर्जेंतल्लक्ष्महीना भवन्त्यम् ।।३।।
सम्पूर्णत्वग्रहांशापन्यासेष्वेकैकवर्जनात् ।
भवन्ति भेदाश्चत्वारो द्वयोस्त्यागे तु षण्मताः ।।४।।
त्यागे त्रयाणां चत्वार एकस्त्यक्ते चतुष्टये ।
भेदाः पञ्चदशैवेते षाड्ज्याः सिद्धिनिरूपिताः ।।४।।

तत्राष्टौ पूर्णताहीनाः सप्त त्वितरवर्जिताः।
द्विधा स्युः पूर्णताहीनाः षाडवौडुवभेदतः।।६।।
अतो ऽष्टावधिका आर्षभ्यादिष्वौडुवजातिषु।
अतस्त्रयोविशतिधा षट्सु प्रत्येकमीरिताः।।७।।

(ii) Vikrţā (modified) jāti-s: (3c-7)

These (śuddhā jāti-s) when devoid of their (above) characteristics<sup>1</sup>, excepting the rule for the final note, become modified (vikṛtā).<sup>2</sup> (3cd)

By the omission of completeness, the initial note, the fundamental note and the semi-final note, one by one, four varieties<sup>8</sup> are obtained<sup>4</sup>; and by dropping two (of them), they<sup>5</sup> are considered to be six. (4)

These very primary jāti-s that have been characterised as having their denominative note for the final, the semi-final, the fundamental and the initial note, having all the seven notes and having their final note in the low or the middle register, become modified (vikṛtā jāti-s) when they are deprived of these characteristics with the provision that they retain their limitations with regard to the final note.

This is interpreted by the two commentators in two different ways. 'K' seems to restrict the application of the exception with regard to the final note, to the rule pertaining to the denominative note being the final note. He is silent with respect to its employment in the middle or the low register only. However, 'S' applies the exception to the latter and not the former in which case he is silent. The two versions are presented here in their own words as under:

Kallinatha states that, of the five characteristics of the *suddhota* of *jāti-s* (viz. that the denominative note is their final, semi-final, fundamental and initial note and their completeness) leaving aside the specification with regard to the final note the modified *jāti-s* are relieved

1. The characteristics of suddhata as already described.

Now, by what principle they are modified, is to be inferred from the description of the different varieties of modified forms of the śuddhā-jāti-s that follows.

<sup>3.</sup> Of modified jati-s

<sup>4.</sup> Lit. become.

<sup>5.</sup> That is, the varieties obtained.

By the omission of three<sup>6</sup>, four (varieties) and by omitting four (of them) only one<sup>7</sup> is (obtained). These fifteen <sup>8</sup> are the only varieties of sādjī demonstrated by the noble ones. (5)

Of these, eight are devoid of completeness and seven are deprived of the other (factors)<sup>10</sup>. Those devoid of completeness are twofold being distinguished as hexatonic (sādava) and pentatonic (auduva). (6)

Thus there would be eight (varieties) more in the pentatonic jāti-s such as ārṣabhī and others; and therefore, these six<sup>11</sup> are known to have twenty-three varieties each. (7)

of the other (four) limitations. He explains this interpretation by saying that accordingly, in case of the modified jāti-s the denominative note will be the final note while other notes will be employed as semi-final, fundamental and initial notes. Thus in this way the śuddhā jāti-s become the modified jāti-s and not the associate modified (samsargaja-vikṛtā) jāti s. This arrangement, he says, helps to assign the particular modified jāti-s to the corresponding śuddbā jāti s since their final note serves as the distinguishing mark.

'S' states that these suddha jati-s deprived of the said characteristic marks excepting the final note are modified. The absence of the characteristic mark with regard to the final note implies (the non-applicability of) the rule pertaining to the final note being in the registers other than the higher one, for (he asserts) that is not necessary in the case of modified forms, and he quotes Matanga in support of his view who says, "In the suddha jati-s the final denominative note is in the lower register, but in the modifications this rule does not apply." Accordingly, he conceives two forms of the primary jati-s, viz. characterised by suddhatva (purity) and modification. However, he points out that suddhatva cannot he predicated of jati-s such as sadja-kaisiki, obviously referring to the associate modified ones.

It is not only interesting but also instructive to consult Bharata who seems to be the author of the concept of jati-s and their classification. He distinguishes jati-s primarily into two classes, viz. those that are named after their denominative note which he calls svara-jati-s and which can only be seven; and those eleven that are formed by the combination of these svara-jati-s in their modified forms, which he calls samsargaja vikṛtā (combinations of modified jāti-s).

Furthermore, he informs that the svara-jāti-s are twofold, viz. suddhā (pure) and vikītā (modified). Saddhā he defines as Sārāgadeva does (in substance) and vikītā, he says, are formed when the suddhā fatī-s are defiled with regard to one, two or more of their characteristics excepting the final note. The rule for the final note being in the lower register, he further adds, does not apply to them (cf. N. S., G. O. S. Vol. IV p. 37).

Thus Bharata explicitly states how the modification of jāti-s is effected. Since Śārnga leva is not quite explicit in this regard, even though his description of the modified forms implies the underlying principle of modification, the ambiguity of his text, which is obviously due to the brevity of his expression, can lead one to the interpretation that the modified jāti-s are formed by depriving the śuddhā jāti-s of all their characteristics excepting that of the final note. Indeed the expression etal-laksma-hīnā (devoid of the characteristics of śuddhatā) has been interpreted as such by the commentators. But in any case it is helpful to bear in mind that though only one form of modification of each of the seven śuddhā-jāti-s will correspond to this interpretation which is included among the various modifications detailed by the author subsequently, such seven modified forms have theoretically, if not practically, to be conceived because of the fact that the sansargajā-vikṛtā (associate modified) jāti-s are formed out of these.

Thus, we have svara-jāti-s classified as śuddhā and vikrţā. The vikɪtā are modified variously and manifest in two ways, viz. as the varieties of śuddhā by the application of the above rule and by the combination of such modified varieties, the former being called 'modified (vikṛtā) jāti-s' and the latter 'associate modified jāti-s' (samsargajā-vikṛtā). The vikṛtā-s are considered to be the variations of śuddhā and are not therefore counted independently. (3 cd)

Now, the author describes the technique of forming different varieties of the modified forms of *śuddhā jāti-s* such as *ṣaḍjī* and others. It is obvious from this description that in all these cases the denominative note is understood to be the final note. We are thus left with four variable factors by dropping which different varieties are obtained. If,

<sup>6.</sup> Three factors.

<sup>7.</sup> Variety.

<sup>8. 4+6+4+1=15.</sup> 

<sup>9.</sup> Fifteen varieties.

Such as the initial note, the fundamental note and the semifinal note.

<sup>11.</sup> That is, the six modified forms of the suddha jati-s excluding sadja

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for example, one of these four is ignored (in turn), we get four varieties, viz. (i) lacking in respect of completeness, and in not having the denominative note (ii) as the initial note, (iii) as the fundamental note, and (iv) as the semifinal note. However, by the omission of one or more of these factors, as pointed out by Kallinatha, what is intended is not the absence of these but the violation of suddhata. The specific characterist tics of suddha jati-s involved here are the employment of the denominative note as the initial, the fundamental and the semifinal note and completeness; what is implied by omission is not that the varieties of the modified idti-s can be formed without employing the factors such as completeness, and so on, but that there will be loss of completeness, i.e. less number of notes (five or six) will be employed and notes other than the denominative ones will be employed as the initial, the fundamental and the semifinal notes; for otherwise jati-s cannot be formed at all. Thus the term omission or its equivalents have a technical meaning.

Similarly, by dropping two factors six varieties are obtained. e.g. (i) by dropping completeness and the initial note

- (ii) by ,, and the fundamental note
- (iii) by ,, and the semifinal note
- (iv) by ,, the initial and the ...
- the fundamental and the (v) by ,,
- (vi) by " initial note 22 23

Similarly, by ignoring the observance of the definitive rule with regard to three factors, four other varieties are obtained, e. g. by dropping:

- (i) completeness, the initial and the fundamental notes
- ,, and the semifinal notes
- the fundamental and semi-final notes (iii)
- (iv) the initial, the fundamental and the semifinal notes.

However, if all the four factors are omitted there will only be one variety which will probably be the same as the modified form and our principles to illihous done is defined in verse 3 ante. (4-5)

In the case of sadji, fifteen varieties were obtained. Analysing the process of their formation it is observed that eight of them were formed due to the non-observance of the condition of completeness (sampurnated or purnatea). While seven other varieties were obtained by omitting the other factors, viz. the initial note, the fundamental note and the semifinal note in the order already demonstrated. Now, the author adds that the other factors being in their order, loss of completeness is effected in two ways, viz. by the omission of one or of two notes

and thereby creating hexatonic or pentatonic jati-s. This process leads to the formation of eight more pentatonic varieties bringing the total to twentythree (8+8+7=23). Since sadji is a hexatonic .jāti it has only fifteen varieties, but all others beginning from arsabht are hexatonic as well as pentatonic and thus have twentythree varieties each. Thus we have (15+23×6=153) one hundred and fiftythree varieties of modified inti-s in all. These are classified in the following table which has been adopted with some modifications from Pranava Bharati, p. 245. (6-7)

#### Modification of suddhā jāti-s

No.	Name of the suddha jati		Manner of modification		
		modified forms	comple-	Violation of the rule for the initial, fundamental	
1	2	3	teness 4	and the semifinal notes	
l.	Şādjī	15	8	7	
2.	Ārṣabhī	23	16	7	
3.	Gandharī	23	16	7	
4.	Madhyama	23	16	7	
5.	Pañcami	23	16	7	
6.	Dhaivatī	23	16	med for many mills	
7.	Naişādī	23	16	entry of <b>7</b> in a fill of the	
	Total No.	153	104	49	

(Chart 28)

## (iii) संसर्गजा विकृता जातयः

विकृतानां तु संसर्गाञ्जाता एकादश स्मृताः। स्यात्षड्जकंशिको षड्जोदीच्यवा षड्जमध्यमा ।। द।। गान्धारोदीच्यवा रक्तगान्धारी कैशिको तथा। मध्यमोदीच्यवा कार्मारवी गान्धारपञ्चमी ॥९॥ तथा ऽऽन्ध्री नन्दयन्तीति,

तद्धेतूनधूना ब्रवे। षाड्जीगान्धारिकायोगाज्जायते वड्जकैशिकी ।।१०।। षाङ्जिकामध्यमाभ्यां तु जायते षड्जमध्यमा। गान्धारीपश्चमीम्यां तु जाता गान्धारपश्चमी ।।११।। 18

गान्धार्यार्षभिकाभ्यां तु जातिरान्ध्री प्रजायते।

षाड्जी गान्धारिका तद्वद्वैवती मिलितास्त्विमाः ।।१२।।

षड्जोदीच्यवतीं जाति कुर्युः, कार्मारवीं पुनः।

उत्पादयन्ति नेषादीपश्चम्यार्षभिका युताः।।१३।।

नन्दयन्तीं तु गान्धारीपश्चम्यार्षभिका युताः।

गान्धारी धैवती षाड्जी मध्यमेति युतास्त्विमाः।।१४।।

गान्धारोदीच्यवां कुर्युर्मध्यमोदीच्यवां पुनः।

एता एव विना षाड्ज्या पश्चम्या सह कुर्वते।।१४।।

कुर्युस्ता रक्तगान्धारीं नैषादी च न धैवती।

अ.र्षभीं धैवतीं त्यवत्वा पश्चम्यः कैशिकी भवेत्।।१६।।

#### (iii) Samsargajā-vikṛtā (associate modified) jāti-s: (8-16)

The formations arising out of the association of the modifications are accepted to be eleven. (8ab)

They are şadja-kaisiki, şadjodicyavā, şadja-madhyamā, gān-ddhārodicyavā, raktagāndhāri, kaisikī, madhyamodicyavā, kārmaravī, gāndhāra-pañcamī, āndhrī and nandayantī. Now I shall describe their origins<sup>2</sup>. (8c-10b)

Şadja-kaisikī is formed by the combination of sādjī and gāndhārī, sadjamadhyamā arises from sādjī and madhyamā gāndhārapancamī is brought forth by gāndhārī and pancamī, āndhrī is born from gāndhārī and ārsabhī; sādjī, gāndhārī and dhaivatī jointly cause sadjodīcyavā jāti; again naisādī, pancamī and ārsa-

From the combination of the modifications of the suddha jatis, i. e., by the association of their modified forms come into being eleven (and not more) formations called associate modified (samsargaja vikṛṭa).

bhī together produce kāramāravī, while nandayantī is the combination of gāndhārī, pañcamī and ārṣabhī; gāndhārī, dhaivatī, ṣādjī and madhyamā all these associated together create gāndhārodīcyavā; these<sup>4</sup> very (jāti-s) with pañcamī in the place of ṣādjī give rise to madhyamodīcyavā, and these<sup>5</sup> with nāiṣādī in the place of dhaivatī create rakta-gāndhārī. Kaisikī is formed by five<sup>6</sup>, i. e. leaving aside ārṣabhī and dhaivatī. (10c-16)

jāti-s. The text, since it is not explicitly worded, is open to a slightly different interpretation which would read: "Eleven (forms) are known to be produced by the association (i. e. combination) of the modified jāti-s.'s And by "modified jāti-s" are implied, according to this interpretation, the varieties of the modified forms of the śuddhā jāti-s. (8ab)

## (iv) जातीनां ग्रामविभागः

चतस्रः षड्जशब्दिन्यो नैषादी धैवती तथा। आर्षभी चेति सप्तैताः षड्जग्रामस्य जातयः।।१७॥ शेषाः स्यूर्मध्यमग्रामे,

## (iv) The grāma-wise distribution of jāti-s: (17-18a)

The four having the word sadja (in their name), as also naisādī, dhaivatī and ārsabhī—these seven jāti-s pertain to the sadja-grāma and the rest of them belong to the madhyama-grāma. (17-18a)

Now, the author is here relating the grama-wise distribution of the eighteen jatis which is portrayed in the following chart along with the details of their combination:

<sup>1.</sup> Literally, "as known from the tradition" (as known to collective memory).

<sup>2</sup> Lit. 'causes'.

<sup>3.</sup> Lit. 'is born'.

<sup>4.</sup> i. e., gāndhārī, dhaivatī, madhyamā and pañcamī.

<sup>5.</sup> i. e., gāndharī. naiṣādī, madhyamā and pañcamī

<sup>6.</sup> i. e., şādjī, gāndhārī, madhyamā, pañcamī and naiṣādī.

<sup>1.</sup> Out of eighteen, seven belong to the sadjagrama.

<sup>2.</sup> The remaining eleven.

## Grama-wise distribution and combination of jati-s

S. No.	Name of jati	Grama	Combination, if any
1.	Sadji	Şadja	Šuddha
2.	Şadja-kaisikī	99	Sadji and gandhari
3.	Şadjodleyavd	97	Şadjı, gandharı and dhaivatı
4.	Şadja-madhyama	33	Şādji and madhyamā
5.	Arşabhi	"	Śuddha
6.	Dhaivati	>2	an kymasiilo
7.	Naisādi	33	ss constant of
8.	Gandhari	Madhyama	1,0040,000
9.	Madhyama	,,	13
10.	Pañcami	>>	))
11.	Gandharod icyava	**	Gandhart, dhaivatt, şādjt and madhyamā
12.	Raktagandhari	**	Gandhari, naisadi, pañcami and madhyama
13.	Kaišikī	**	Ṣādjī, gāndhārī, madhyamā pañcamī and naiṣādī
14.	Madhyamodicyavā	"	Gandhari, dhaivati, pañcami and madhyama
15.	Kārmāravi	**	Naisadi, Pancami and arsabh
16.	Gāndhārapañcamī	,,	Gandharī and pancamī
17.	Āndhrī	33	Gandhari and arşabhi
18.	Nandayanti	**	Gandhari, pansami and arşabhi

(Chart 29)

## (v) सम्पूर्ण-षाडवौडुव-जातयः

, पूर्णत्वाद्यधुनोच्यते ।
कार्मारच्यथ गान्धारपञ्चमो षड्जकैशिको ।।१८।।
मध्यमोदीच्यवेत्येता नित्यपूर्णाः प्रकीतिताः ।
षाड्जी च नन्दयन्त्यान्ध्रो गान्धारोदीच्यवेत्यम्ः ।।१९।।
सम्पूर्णषाडवाः प्राह चतस्रः काश्यपो मुनिः ।
दशावशिष्टाः सम्पूर्णषाडवौडुविता मताः ।।२०।।

(v) Complete, hexatonic and pentatonic jāti-s: (18b-20)

Now, completeness and other (characteristics) are related as under:

Kārmāravī, gāndhāra-pañcamī, şadjakaisikī and madhyamodīcyavā are considered to be always¹ complete. The four viz. şādjī, nandayantī, āndhrī and gāndhārodīcyavā are declared by Kāśyapa to be complete as well as² hexatonic. The remaining ten are accepted to be complete, hexatonic and also³ pentatonic. (18b-20)

Here the author relates the different jāti-s with regard to their being complete or otherwise. The four jāti-s described as always complete obviously do not admit of such other forms caused by the omission of one or two notes, but those that do admit such forms are also available as complete. For instance sādjī, nandayantī, āndhrī and gāndharodīcyavā are considered to be complete as well as hexatonic. So, while singing when they are employed as hexatonic, the notes omitted in each, as pointed out by 'K', respectively are ni, sa, sa and ni. So also with respect to the remaining ten, the notes to be omitted are indicated in the following table:

Completeness and otherwise of jati-s

S.No.	Name of the jati	Nature :	Notes to b Hexatonic form	e omitted Pentatoni form
1	2	3	4	5
1.	Karmaravi	Always complete	•••	
2.	Gāndhā <b>ra-pañcamī</b>	,,	***	W. Jan W. Day
3.	Şadja-kais iki	19	***	•••
	Madhyamodīcyavā	,,	***	21 - 211 - 21
	Sadji	Complete and hexatonic	Niṣāda	i meloni
6. J	Nandayant <b>i</b>	,,	Şadja	ALLEY T
	Āndhrī	3)	Sadja	
8. (	Gandharod icyava	33	Rşabha	
9.	Ārşabhī	Complete, hexa-	2,000,000	a on de vite
	·	tonic and penatoni	c Şadja	sa, pa
	Gandharī	33	Ŗṣabha	ri, dh
11. 7	Madhyama		Gandhara	ga, ni
12. 1	Pañcamī	3,5		11 18,701 011
	Dhaivat 1	"	Pañcama	39 99 ha sa
	Vaisad !	"	Z WIDGUING	pa, sa
l5. S	Sadjod īcyavā	19	Rşabha	19 95
	Sadja-madhyamā	"	Nișāda	ri, pa
17. j	Raktagāndhārī	"	R <b>ş</b> abha	nı, ga
	Kaiśiki	"	-	ri, dh
	,	(Chart 30)		99    1

1. That is, they never form any hexatonic and pentatonic varieties.

2. That is, they form complete as well as hexatonic varieties.

3. Similarly, these ten form complete, hexatonic as well as pentatonic varieties.

## (vi) जातिषु स्वरसाधारणनियमः

पञ्चमीमध्यमाषड्जमध्यमाऽऽख्यास् जातिष । स्वरसाधारणं मुनिभिभरतादिभिः ।।२१।। प्रोक्तं समपेष्वेतद्यथास्वनियमाद्भवेत् । अंशेष एतदल्पनिगास्वाहः कम्बलाश्चतरादयः ॥२२॥ अल्पद्विश्रतिके रागभाषाऽऽदाविप तन्मतम । निगयोरंशयोः षड्जमध्यमायां न तद्भवेत् ॥२३॥ विकृता एव तत्रापि स्वरसाधारणाश्रयाः ।

(vi) The rule pertaining to the overlapping of notes in certain jāti-s: 21-24b

Overlapping of notes<sup>1</sup> has been mentioned by sage Bharata and others in relation to jāti-s<sup>2</sup> called pañcamī, madhyamā and sadjamadhyamā. (21)

It<sup>3</sup> should accordingly be (applied) in relation to sa, ma and pa (employed) as fundamental notes as per their respective rule<sup>4</sup> in the jāti-s having weak (alpa) ni and ga, as declared by Kambala, Aśvatara and others. (22)

Overlapping of notes has been dealt with in Section 5 ante. Briefly it implies, in this context, the use of antara-gāndhāra and kākalī-niṣāda in some jāti-s and rāga-s, bhāṣā-s, etc. that have weak ni and ga and have sa, ma or pa as their fundamental notes. There are three, pañcamī, madhyamā and ṣadja-madhyamā. The overlapping of notes in these jāti-s is recommended by Bharata, Kambala and Aśvatara, and is to be introduced with reference to their fundamental notes sa, ma and pa according to the rules laid down in each case in Section 5 (verse 4-7) ante. 'S' elucidates this point, "overlapping of notes is to be applied in case of the fundamental notes sa, ma and pa as per the rule. How ?, so that the respective note-positions are not transgressed. In case of ṣadja being the fundamental note, it is the overlapping of ṣadja, and when

1. Svara-sādhāraņa.

4. Cf. S. R. I. 5 4-6.

This is also true of the  $r\bar{a}ga$ ,  $bh\bar{a}s\bar{a}$  and other formations with weak ni and  $ga^{5}$ ; but however, it is not applicable to ni and ga when (used) as the fundamental notes of sadja-madhyamā. Even so, only the modified  $j\bar{a}ti$ -s (can) take resort to the overlapping of notes (23a-24b).

modhyama and pañcama are the fundamental notes then it is the over-lapping of madhyama that takes place." In this context Thakur Onkarnath has made interesting observations with regard to the question of pañcama and its technical accuracy in being named as madhyama sadharana, i. e. the overlapping of madhyama. It is also observed by him that the justification for sa, ma and pa being the only notes which, when used as fundamental notes, provide for the overlapping of notes in the three jati-s lies in the fact that, they are placed at a distance of four sruti-s from their preceding notes; and it is the interval of four sruti-s that is the minimum required for the process (cf. Pranava Bhārati, p. 254).

Şadja-madhyamā has all the seven notes for its fundamental note and therefore the author makes a specific exception to the effect that the overlapping of notes cannot take place in it in case ga and ni are employed as the fundamental notes. This is in accordance with the rule that antara-gāndhāra and kākalī-niṣāda cannot become fundamental notes because of being modified (vide N. S., G. O. S. Vol. IV, p. 32).

## (vii) जातिगतांशस्वरगणना

एकांशा नन्दयन्ती च मध्यमोदीच्यवा तथा।।२४॥
गान्धारपञ्चमीत्येतास्तिस्रो द्वचंशास्तु धैवती।
गान्धारोदीच्यवा चाथ पञ्चमीत्युदिता इमाः।।२४॥
नैषाद्यार्षभिकाषड्जकैशिक्यस्त्रयंशिका मताः।
आन्ध्रोकार्मारवीषड्जोदीच्यवाश्चतुरंशिकाः ॥२६॥
पञ्चांशा रक्तगान्धारी गान्धारी मध्यमा तथा।
षाड्जीत्येताश्चतस्रः स्युः षडंशैकैव कैशिकी॥२७॥
सप्तांशा सूरिभिः षड्जमध्यमा परिकीर्तिता।
इति त्रिषिटरंशाः स्युर्जातिष्वष्टादशस्विमे॥२८॥

<sup>2.</sup> The jati-s related to the overlapping notes are three in number.

<sup>3.</sup> It refers to the overlapping of notes.

<sup>5.</sup> According to 'K' rāga includes grāma-rāga-s, uparāga-s and rāgas-s; while bhāṣā includes vibhāṣā-s and antara-bhāṣā-s as well, and 'other formations' refer to rāgānga-s, kriyānga-s and upānga-s.
6. Literally, notes having two śruti-s.

(vii) The number of fundamental notes in different jāti-s: 24c-28

The three (jāti-s) nandayantī, madhyamodīcyavā and gāndhārapañcamī have one fundamental note; dhaivatī, gāndhārodīcyavā and pañcamī are said to be having two fundamental notes; naiṣādī, ārṣabhī and ṣadja-kaiśikī are considered as having three fundamental notes; āndhrī, kārmāravī and ṣadjo-dīcyavā have four fundamental notes; the four, rakta gāndhārī, gāndhārī, madhyamā and ṣādjī have five fundamental notes; kaiśikī is the only one having six fundamental notes, while ṣadja-madhyamā, as declared by the sages, has seven fundamental notes; thus, among these eighteen jāti-s there are sixty-three fundamental notes. (24c-28).

The notes that are capable of being used as the fundamental notes in the different jati-s in consonance with the above scheme are indicated by 'K' as follows:

The fundamental notes of jati-s

S. No. Name of jati	No. of fundamental notes	The fundamental notes
1. Nandayanti	1	pa
2. Madhyamodīcyavā	1	pa
3. Gandhara-pañcami	- 1	pa
4. Dhaivatī	2	ri, dha
5. Gandharodicyava	2	sa, ma
6. Pañcamī	2	ri, pa
7. Naisadī	3	ni, ri, ga
8. Ārşabhī	3	ri, ni, dha
9. Sadjakaisikī	3	sa, ga, pa
10. Andhri	4	ri, ga, pa, ni
11. Karmaravī	4	ri, pa, dha, ni
12. Sadjodleyava	4	sa, ma, dha, ni
13. Rakta-gandhari	5	sa, ga, ma, pa, ni
14. Gandhari	5	sa, ga, ma, pa, ni
15. Madhyamā	5	sa, ri, ma, pa, dha
16. Şadjî	5	sa, ga, ma, pa, dha
17. Kaiśikī	6	sa, ga, ma, pa, dha, ni
18. Şadjamadhyama	7	sa, ri, ga, ma, pa, dha, ni
То	tal 63	
	(Chart 31)	

The total number of fundamental notes in these eighteen jati-s is sixty-three; but this is so only if complete jati-s are taken into account. 'S', quoting Matanga, points out that in the hexatonic juti-s the number of fundamental notes is reduced to forty-seven. Explaining the loss of sixteen in the process he says that, nine fundamental notes are account. ed for by the four jati-s that are always complete, viz. karmaravi (4): gāndhāra-pañcamī (1), şadjakaiśikī (3) and madhyamodīcyavā (1) and seven belong to sadja-madhyamā, sādjī, sadjodīcyavā, kaišikī and raktagāndhārī which are considered to be exceptions to this process. These exceptions are mentioned by Bharata: "The sadja madhya should have no hexatonic treatment including nişā da (lit. the seventh), and there should be no gandhara there, because of an elimination of its consonant note; and the oandhari, the rakta-gandhari and the kaisiki should have no pañcama, and the sadji should have no gandhara, and the sadjedicyava no dhaivata in their hexatonic treatment. These seven (notes) are to be discarded in connexion with the hexatonic treatment of the jati-s named, because of the elimination of their consonant notes. (N. S., XXVIII. 65-69, Eng. Trans. by M. Ghosh, Vol. II. p. 18).

Similarly, in the hexatonic jāti-s there are only thirty fundamental notes. That is, out of the remaining fortyseven, twelve are dropped in this process because they belong to jāti-s that are always complete and hexatonic, viz. ṣādjī (5), nandayantī (1), āndhrī (4) and gāndhārodīcyavā (2); and five more are left out by way of exception. And he ('S') quotes the following verse of Bharata in support of this statement: "The pentatonic treatment relates to five notes (in a grāma) and is known as being of ten kinds. Its subdivisions are thirty and have been mentioned before (N. S. XXIII 98, Eng. Trans. by M. Ghosh, Vol. II, p. 23).

## ख. जातीनां त्रयोदश्-सामान्यलक्षणानि

ग्रहांशतारमन्द्राश्च न्यासापन्यासकौ तथा। अपि संन्यासिवन्यासौ बहुत्वं चाल्पता ततः।।२९॥ एतान्यन्तरमार्गेण सह लक्ष्माणि जातिषु। षाडवौडुविते क्वापीत्येवमाहुस्त्रयोदश ।।३०॥

B. Thirteen factors characterising jāti-s: 29-57b

Thirteen characteristic features are spoken of jātis, viz. the initial note, the fundamental note, the high (pitch range) the low (pitch range), the final note, the semfinal note,

samnyāsa<sup>1</sup>, vinyāsa<sup>2</sup>, profusion, rareness, antaramārga<sup>3</sup> and the hexatonic and the pentatonic (treatment) in some. (29-30)

Bharata and Matanga have spoken of only ten characteristic features of jāti-s discounting samnyāsa, vinyāsa and antaramārga, distinctly enunciated by Sārngadeva. 'K' points out that since samnyāsa and vinyāsa refer to particular sections (vidārī-s) of compositions, they are essentially covered by the semifinal note in the older scheme. Similarly, antaramārga being dependent upon the mutual relationship of the fundamental note and the other factors, is not separately indicated there. However, he justifies an explicit and definite mention of samnyāsa and vinyāsa apart from the other ten features on the ground that they form separate parts of the composition. Similarly, he says that since antaramārga has a distinct function without which the melody cannot proceed, it deserves to be considered as an essential and distinct feature. The technical terms involved here will presently be defined and explained by the author.

#### 1 ग्रह

## गीतादिनिहितस्तत्र स्वरो ग्रह इतीरितः। तत्रांशग्रहयोरन्यतरोक्तावुभयग्रहः ।।३१।।

## 1. The initial note (graha): (31)

Of these<sup>1</sup>, the note that is placed in the very commencement of the melody<sup>2</sup> is known as graha (the initial note). Where either of the two, the initial or the fundamental note is mentioned, both are (thereby) comprehended. (31)

Now, the author goes on to define each of the thirteen characteristic features essentially found to constitute jāti-s. Of these, the initial note (graha) is defined as the note with which a melody is

commenced. It is said that, practically the initial note is the same as the fundamental note (amsa) in all jatis; and therefore the two terms are interchangeable. So, of these two where only one is mentioned, the other is invariably implied to be the same, and to be mentioned thereby. If, only the fundamental note is mentioned, that itself is to be taken as the initial note, and vice versa. Since the fundamental notes are sixty-three, the initial notes too are sixtythree. Does it mean that there is no difference between the initial and the fundamental note? The difference between the two is functional; whereas the fundamental note, as pointed out by 'S', functions merely as sonant  $(v\bar{a}di)$ , the initial note is fourfold. And moreover, being the originator of  $r\bar{a}ga$ , the fundamental note is of primary importance, whereas the initial note is of a secondary importance. This difference, theoretical as it is, will be further discerned from the definition of the fundamental note.

Graha is literally and semantically defined as the note that takes hold of the song or by which the song is initiated (lit. held).

## 2. ग्रंशः

यो रक्तिव्यञ्जको गेये यत्संवाद्यनुवादिनौ। विदार्यां बहुलौ यस्मात्तारमन्द्रव्यवस्थितिः।।३२।।

यः स्वयं यस्य संवादी चानुवादी स्वरो ऽपरः । न्यासापन्यासविन्याससंन्यासग्रहतां गतः ।।३३।।

प्रयोगे बहुलः स स्याद्वाद्यंशो योग्यतावशात् । बहुलत्वं प्रयोगेषु व्यापकं त्वंशलक्षणम् ।।३४।।

#### 2. The fundamental note (amsa): (32-34)

The note that is expressive of delightfulness in a melody<sup>1</sup> and the consonants and assonants of which are profuse in a sub-section (of the composition)<sup>2</sup>, that which determines the position of the higher and the lower pitch

<sup>1-3.</sup> Samnyāsa, vinyāsa and antaramārga have not been rendered into English, firstly because these concepts are hardly used by the author in the individual description of the jāti-s and secondly because it is not considered to be as advantageous as it is difficult. These terms are defined by the author subsequently.

<sup>4.</sup> That is, leaving aside the jati-s that are always complete such as kārmāravī and so on.

<sup>1.</sup> The thirteen characteristic features.

<sup>2.</sup> Lit. a song or in this context jati.

Geya lit. means 'worthy of singing' or, in other words, 'vocal composition' which in this system also speaks for the instrumental music.

<sup>2,</sup> Vidārī is defined as gīta-khaṇḍa, i. e. a sub-section of a melody. As 'S' elucidates, "vidārī is that which divides either the tonal content or the verbal content of a melody and is thereby twofold, viz. gīta-vidārī, i. e. a melodic divisor or a pada-vidārī, i. e. a verbal divisor." (S. R. I, p. 183).

range<sup>3</sup>, that which is its own consonant but which has another note as assonant, that which is capable of being the final note, the semifinal note, vinyāsa, samnyāsa and the initial note, that which is frequently employed in practice, and is the sonant (vādī) becomes the fundamental note (amsa) because of its efficiency<sup>4</sup>. However, in performance (prayoga), profusion<sup>5</sup> (bahulatvam) is the (most) comprehensive characteristic mark of the fundamental note. (32-34)

The word amśa literally means a constituent part and 'S' conjectures a semantic derivation saying that amśa is that which divides the jāti-rāga-s. Perhaps this is relevant to that function of the fundamental note in accordance with which the higher and the lower pitch range of a jāti is determined with reference to it.

It has been specified that the fundamental note is expressive of delightfulness in a musical composition. 'K' points out that in so far as the fundamental note is delightful as every other note (svara) intrinsically is, it is not different from the rest of them; therefore the significance of this attribute lies in the fact that the fundamental note is not only delightful by itself like every other note but is expressive of the delight inherent in the mutual relation of notes in the musical composition as a whole. This is analogous to the beauty of the meaning implied by the words in their mutual relationship in a sentence as a whole, apart and different from their individual literal meaning.

Another important function of the fundamental note, as already referred to, is to determine the range of the higher and the lower registers which will be further defined presently in a short while by the author. The terms samvadi (consonant) and anuvadi (assonant) have already been defined by the author in Section 3.

The other distinguishing features of the fundamental note indicated include the fact that it is capable of being its own consonant at times, as elucidated by 'K'. This may be observed in contra-distinction to the assonant which is necessarily to be a different note, i. e. other than

the fundamental note. And 'K' explains these two relations on the analogy of a king who sometimes may perform the functions of a minister but never of a servant. Sārngadeva's statement that occasionally the fundamental note is capable of functioning as its own consonant is notable in view of the general principle of Bharata that the consonant of the fundamental cannot be omitted. It is an indirect pointer to the existence of melodic structures in Sārngadeva's times that did not probably employ the consonants of the fundamental note at all, as can be observed in some of the current rāga-s of Hindustani music. As Bṛhaspati aptly remarks that "Rāga-s like māravā, pūriyā, gujarī and sohanī do not belong to the mūrcchanā system and therefore their fundamental note is said to be its own consonant." And to support his contention he pointedly cites Śārngadeva's definition of amśa (fundamental note) in this respect as a proof (cf. S. Chintāmani, p. 127).

The capacity of the fundamental note to function as the final and the semifinal note, the samnyāsa and vinyāsa accounts for its profusion. It is interesting to observe how Bharata defines it:

"The amsa (is that note in the song) on which its charm (raga) depends, and from which the charm proceeds, is the basis of the variation into low (mandra) and high (tara) pitches depending on the (first) five notes (pancasvarapara) and in the combination of many notes it is perceived prominently (atyartham); and moreover other strong notes may be to it in relation of consonance and assonance, and it is related to graha, apanyasa, vinyasa, samnyasa and nyasa (notes) and it lies scattered throughout the song." (N. S. XXVIII 76-78; Eng. Tr. by M. Ghosh, vol. II pp. 19, 20).

Obviously the definition of Śārngadeva is polished and more precise in describing the various functions of the fundamental note. Dattila relates the higher pitch range (tāra) as five notes rising up from the fundamental note (cf. Dattilam, 57). This subject is, however. presently being dealt with by our author.

#### 3. तारः

मध्यमे सप्तके ऽंशः स्यात्तस्मात्तारस्थितात्परान् ।
स्वरांश्चतुर आरोहेदेष ताराविधः परः ।।३४।।
अविकृत कामचारः स्यात्तारे लुप्तो ऽपि गण्यते ।
आतारषड्जमारोहो नन्दयन्त्यां प्रकीतितः ।।३६।।

<sup>3.</sup> Tara and mandra lit, high and low, in this context signify the two extremes of pitch range in which a jati is composed.

<sup>4.</sup> Yogyata (efficiency) is explained by 'K' as 'potency to delight', brought into being conjointly by the characteristic features attributed to the fundamental note as enumerated in the text (S. R. I, p. 182).

<sup>5.</sup> Bahulatvam or Bahutvam signifies frequent recurrence.

3. The higher pitch range (tāra): (35-36)

The fundamental note is (placed) in the middle heptad<sup>1</sup>, and from there<sup>2</sup> in the upper heptad, (one) may ascend upto four notes: this is the maximum limit for the higher pitch range; below that however, the movement is at discretion. In relation to the higher pitch range, the eliminated note too is taken into account.<sup>8</sup> In nandayanti the ascending movement is said to be upto the upper sadja. (35-36).

'K' elucidates that by the middle heptad, the seven notes of the middle register are indicated. The procedure for regulating the ascending movement with reference to the maximum pitch of the higher pitch-range is such that the fundamental note has to be in the middle register and one can ascend upto four notes from it in the upper register, i. e. four notes beyond the high (tara) madhyama in the madhyama-grama and beyond the high sadja in the sadja-grama. For example, as interpreted by 'K', sadja being the fundamental note in the middle heptad of the sadja-grama, its last limit for the higher pitch range will be four notes beyond the high sadja excluding it, viz. the high pañcama; but in the case of the middle madhyama being the fundamental note in the madhyama-grama, its notes beyond the high madhyama will be up to nisāda and not beyond it, i. e. four notes to be counted in this case include madhyama, the starting note. This is so because in madhyamagrama one cannot possibly go beyond the high register (as per the text), and in sadja-grāma even though beyond high pañcama we have high dhaivata and nisada, it will not be conducive to aesthetic delight to take resort to them in practice, even though one may be able to do so. But, however, Bharata has permitted the higher pitch range to be extended upto five or even seven notes beyond the fundamental note in the high register:

"The high pitch movement (taragati) depending on the first five notes, e. g. the raising of the pitch from any of the amsa (notes) should

be upto the note fourth from it, or it may be to the fifth note even, but not to any beyond it." (N. S. XXVIII 93-94; Eng. Trans. M. Ghosh Vol. II. p. 21).

It is notable that whereas Bharata provides for the ascending movement to take place from any of the fundamental notes of a jati Kallinatha, in his interpretation of Śārngadeva, specifies sadja and madhyama only in sadja-grāma and madhyama-grāma respectively. Obviously he is taking sadja and madhyama as the standard notes for sadja and madhyama-grāma for the purpose of illustrating the maximum pitch range.

It has already been mentioned that Dattila prescribes the limit of five notes beyond the fundamental note in the high register. It is obvious, however that even the scope of seven notes allowed by Bharata is not to be availed in every case.

In nandayantī which is a jāti of the madhyama-grāma and has pañcama as its fundamental note, the ascending movement is limited to the high sadja, for according to Bharata (as quoted by 'K' vide S. R. Vol I, p. 185 Adyar Ed.), in nandayantī the ascending movement must never transcend the high sadja." The practical implication of this provision is that whereas by the general rule the maximum high range of nandayantī with pañcama for its fundamental note ought to be four notes beyond pañcama, i. e. upto ri, Bharata has ordained it to be sadja² as an exception. In other words, in the case of nandayantī one can ascend only three and not four notes beyond the fundamental note.

## 4. मन्द्र

मध्यस्थानस्थितादंशादामन्द्रस्थांशमात्रजेत् । आमन्द्रन्यासमथवा तदधःस्थरिधावपि ।।३७।। एषा मन्द्रगतेः सीमा ततोऽर्वाक्कामचारिता ।

4. The lower pitch range (mandra): (37-38b)

From the fundamental note (placed) in the middle register one may descend upto the fundamental note in the lower register; or alternatively, upto the lower final note<sup>2</sup>

<sup>1.</sup> Saptaka comprehends seven notes of the scale and is analogous to the Western concept of the octave, but in order to distinguish it with respect to the number of notes it has been called 'heptad'.

<sup>2.</sup> That is, the position of the fundamental note in the high register.

<sup>3.</sup> In other words, it is counted as constituting the No. 4 despite the fact of its elimination, for the purposes of determining the higher pitch range in a jati.

<sup>4.</sup> The original Sanskrit text of Bharata also provides for the extent of the seventh note as well as an option, but that seems to have escaped the English version quoted above.

<sup>1.</sup> Lit. 'may go to' or move.

<sup>2.</sup> That is, the final note placed in the lower register.

(nyās) or even upto ri and dha below that. Such being the ultimate limitations of the descending movement, discretion operates within them. (37-38b)

It seems, as observed by Kallinatha, that the starting point in the jāti-s was the middle fundamental (note). The range of pitch in the lower register is, as a general rule fixed as from the middle fundamental (note) to the lower fundamental (note); or alternatively upto the final (note) of the lower register. Here, 'K' interprets 'nyāsa' (the final) to be the last note of the grāma, i. e. ni for the sadja-grāma and ga for the madhyama-grāma, and not as the concluding note of a song. As an exception as it were, it is laid down that in certain cases the descending movement may be carried upto the immediately preceding notes in the two grāma-s, viz. ri and dha. Kallinatha takes this option to be an alternative to the second rule and accordingly interprets nyāsa in the above sense. However, it will be worth-while to refer to Bharata who says:

"The low pitch movement is threefold as it is determined by the fundamental note, the final note or the semifinal note. There is lower (pitch) beyond the fundamental (note). In the case of conclusion both (the final and the semifinal notes) are accepted to be in order. However, in the event of gandhara being the final note, rsabha has been observed (to be the last limit)." (Quoted by Kallinatha in his commentary, S. R. Adyar, Vol. I, p. 186).

This shows that the provision of *ri* and *dha* made by Śārńgadeva cannot appropriately be taken as an (independent) alternative to the second (viz. regarding the final note) but it is given by way of an exception to it. Consequently, Kallinatha's interpretation of 'api' of the text in the sense of 'alternative' is rather far-fetched. In this regard it is better to take a view that corresponds to Bharata's statement which has no such implications.

Bṛhaspati, who takes the last provision (viz. regarding ri and dha) to be an exception to the rule pertaining to the fundamental, the final or semifinal note in the lower register marking the limit for the descending movement, illustrates his interpretation with reference to nandayantijāti which belongs to the madhyama-grāma and has gāndhāra for its final note. But as an exception the descending movement in this case is found to be touching rṣabha. (cf. Bharatakā Sangīta Siddhānta pp. 81, 82).

About at 10 - Ill I to good a

#### 5. न्यासः

गीते समाप्तिकृत्त्यास एकविशतिधा च सः ॥३८॥ षाड्ज्यादीनां तु सप्तानां न्यासः स्यान्नामकृत्स्वरः । द्वौ नामकारिणौ षड्जमध्यमायां तु तौ मतौ ॥३९॥ उदीच्यवात्रयं मान्तं निपगान्ता तु कैशिको । कार्मारवो पञ्चमान्ता गान्ताः पञ्चापराः स्मृताः ॥४०॥

#### 5. The final note: (38c-40)

The note with which a musical composition<sup>1</sup> is concluded is the final (nyāsa)<sup>2</sup> note; and that is in twenty-one (forms). (38 cd).

Of the seven (śuddhā) jāti-s such as ṣādjī and so on, their denominative note is their final (note). In Ṣadja-madhyamā the two notes designating it are considered to be

The following chart indicates the final notes of the jati-s as described in the text.

The final notes of the iati-s.

S. No. Name of jāti	Final notes	S. No. Name of jati	Final notes
<ol> <li>Şūdjī</li> <li>Ārşabhī</li> <li>Gāndhārī</li> <li>Madhyamā</li> <li>Pañcamī</li> <li>Dhaivatī</li> <li>Naiṣādī</li> <li>Ṣadja-madhyamā</li> <li>Şadjodīcyavā</li> </ol>	sa ri ga ma pa dha ni sa, ma ma.	10. Madhyamodīcyavā 11. Gāndhārodīcyavā 12. Kaišikī 13. Kārmāravī 14. Şadja-kaišikī 15. Rakta-gāndhārī 16. Gāndhāra-pañcami 17. Āndhrī 18. Nandayantī	ma ma ni, pa, ga pa ga ga ga ga

<sup>1.</sup> Gīta is interpreted by 'K' as 'in the application or practice of jāti-s'', i. e. in singing 'jāti-s. As already indicated, the term geya literally refers to vocal melody but includes instrumental compositions as well.

<sup>2.</sup> Nyāsa, as explained by 'K' is not merely the final note; it is a note that brings the song to such a conclusion that leaves no anticipation in listening. The word literally means 'that by which one gives up, or by which one is relieved.'

its final notes. The triad of udicyavā<sup>3</sup> ends with ma, while Kaišikī has ni, pa and ga for its finals. Kārmāravī ends with pañcama and the remaining five<sup>4</sup> are known to be ending with ga. (39-40)

It will be observed that of these eighteen jāti-s sādja-madhyamā has two, kaišikī has three and the rest of the sixteen have one final note each, making a total of twentyone,

#### 6. अपन्यासः

अपन्यासस्वरः स स्याद्यो विदारीसमापकः।
कार्मारव्यां च नैषाद्यामान्ध्रीमध्यमयोस्तथा ॥४१॥
आर्षभ्यां च स्वरा ये ऽंशास्ते ऽपन्यासाः प्रकीर्तिताः।
उदीच्यवानां त्रितये ऽपन्यासौ षड्जधैवतौ ॥४२॥
मध्यमो रक्तगान्धार्यां गान्धार्यां षड्जपञ्चमौ।
सिनिपाः षड्जकैशिक्यां पञ्चम्यां निरिपाः स्मृताः ॥४३॥
रिपौ गान्धारपञ्चम्यां षाड्ज्यां गान्धारपञ्चमौ।
धैवत्यां रिमधाः प्रोक्ता नन्दयन्त्यां मपौ मतौ ॥४४॥
रिवर्ज्याः षट् च कैशिक्यां सप्तापीत्यूचिरे परे।
सप्तस्वरापन्यासां तु भाषन्ते षड्जमध्यमाम् ॥४४॥
अत्र येऽंशा अपन्यासास्ते स्युरेकोनिवंशितः।
सप्तित्रशत्परे ते च षट्पञ्चाशत्तु संयुताः ॥४६॥
कैशिक्यां सप्तपक्षे तान्सप्तयञ्चाशतं विदुः।

6. The semifinal note (apanyāsa): 41-47b)

The note that concludes a sub-section of a musical composition is the semifinal note. (41ab)

In kārmāravi, naiṣādī, āndhrī, madhyamā and ārṣabhī the notes that are the fundamental notes, are known to be the semifinal notes (apanyāsa). In the triad of udīcyavā, ṣadja and dhaivata are the semifinal notes; madhyama is in the raktagāndhārī, ṣadja and pañcama are in gāndhārī, sa, ni and pa in ṣadja-kaisikī, and ni, ri and pa are known to be in pañcamī. Ri and pa in gāndhāra-pañcamī, gāndhāra and pañcama in ṣādjī and ri, ma and dha are to be in dhaivatī, (and) ma and pa are accepted in nandayantī. Leaving aside ri, the (remaining) six (notes) are in kaisikī, while even seven are told op the semificant in the seven are told of the semificant in the sem

The semifinal note according to 'S' marks the completion of subsections in a composition and in the words of Matanga (quoted by him), it presents the appearance of the conclusion of the composition.

The following chart indicates the semifinal notes of the eighteen jāti-s as described in the text.

The semifinal notes of jati-s

S. No	Name of jāti	Semifinal notes	No.	S. No	Name of jan	Semifinal notes	No.
1.	Karmaravi	ri, pa, dha, ni	4	10.	Gandhari	sa, pa	2
2. 3.	Naişādī Āndhrī	ni, ri, ga ri, ga, pa ni	3 4	11. 12.	,, J	sa, ni, pa ni, ri, pa	3
<ol> <li>4.</li> <li>5.</li> </ol>	Madhyama Ārşabhī	sa, ri, ma, pa, dha	5	13.	Gandhāra- pañcamī	ri, pa	2
6.	Sadjodicyava	ri, ni, dha sa, dha	3 2	14. 15.	Şādjī Dhaivatī	ga, pa ri, ma, dha	2
	Madhyamodīcyavā Gāndhārodīcyavā	sa, dha sa, dha	2		Nandayantī Kaiśikī	ma, pa	2
•	Rakta-gandhari		_		reassas	sa, ga, ma, pa, dha, ni, (ri)	6 or 7
_	g	ma	1	18.	Sadjama. dhyama	sa, ri, ga, ma pa, dha, ni	7

(Chart 33)

<sup>3</sup> The three udicyava-s are saljodicyava, madhyamodicyava. and gandharocdicyava.

<sup>4.</sup> The remaining five are sadja-kaišiki, rakta-gandhari, gandhara pañcami, andhri and nandayanti.

<sup>1.</sup> Vidart literally means that which divides the composition and therefore is translated as 'sub-section' to distinguish it from 'section' (dh. tu) and part (anga) used in Chap. IV (Also see note 2 to verses 32-34 ante).

<sup>2-10.</sup> Though the word apanyasa (semifinal note) is not used in the text it is implied in the context and even in the translation it has been left as 'understood' in order to avoid unnecessary repetition of the word.

some. Sadja-madhyama is said to be having seven notes as its to talmanustrate of partition with semifinal notes, (40-45).

In this context, the semi-final notes that are (identical with) the fundamental notes11 are nineteen12, others are thirtyseven, and when put together they are fiftysix. In the event of seven being (counted) in kaisiki, they18 are known to be fiftyseven in all (46-47b).

गीतस्याद्यविदारोसमाप्तिकृत् ।।४७।। अंशाविवादी संन्यासो ऽ शाविवाद्येव

## 8. विन्यासः

, विन्यासः स तु कथ्यते ।

**ऽव्रतिष्ठते ॥४८॥** विदारीभागक्षमपदप्रान्ते यो

7. Samnyāsa: (47c-48a)

Samnyāsa is the concluding note of the first sub-section1 of a musical composition with the provision that it is not a dissonant of the fundamental note. (47c-48a)

'K' interprets amsa-avivadī (not dissonant to the fundamental note) to imply that it should be a consonant to it. But the expression being negative only forbids the dissonant of the fundamental note from becoming a sainnyasa (note) and does not affirm it positively to be either

#### 8. Vinyasa: (48bd)

Similarly, vinyāsa is the note that stands at the end of a pada<sup>2</sup> forming a part of a sub-section and is not related to the fundamental note as its dissonant. (48b+d)

consonant or assonant. Obviously, therefore, it can be either of them. Indeed Matanga expresses the same view interpreting the same expression in the context of vinyasa.

Vidari is a sub-section of a musical composition, and it is divided by certain notes that conclude certain patterns of tonal movement and phrases structured upon meaningful words or syllabic units; and such a note is known as vinyasa, with the other qualifications of samnyasa. That is why Matanga considers it to be a qualified samnyasa, as he says: "This (note) itself which is samnyasa becomes vinyasa if it occurs at the close of a portion (pada); and therefore it is said to be functioning as the consonant or the assonant (note) of the fundamental (note) at the close of a pada (Quoted by 'S' in his commentary). 'K' notably points out that since all the notes excepting the dissonants can function as samnyasa and vinyasa, they have not been enumerated, their number being too great.

## अलङ्घन।त्तथा ऽभ्यासाद्वहुत्वं द्विविधं मतम् । पर्यायांशे स्थितं तच्च वादिसंवादिनोरपि ।।४९॥

### 9. Profusion (bahutva): (49)

Profusion is accepted to be twofold: by non-overstepping<sup>2</sup> and by repetition<sup>3</sup>. It abides in the co-fundamental note<sup>4</sup>, as also in the sonant and the consonant. (49)

<sup>11.</sup> Amsa is printed as aniya (nyasa) in the Adyar edition. 'S' clearly reads amsa, 'K' is silent and K. R. follows the reading of 'S' (cf. S. R. Vol. I, p. 125). This reading is further supported by S. Raj (II.1.4.94) wherein it is stated that the semifinal notes identical with the fundamental notes are nineteen. However, it is only with reference to the suddha jatithat this statement holds good. In view of further evidence in the text pertaining to the description of individual jati-s, such as arsabht etc. the reading amsa has been preferred in our text,

These are indicated in item No. 1-5 of the above chart.

<sup>&#</sup>x27;They' stands for apanyasa-s (the semifinal notes).

Obviously more than one sub-section is visualised in a jeti, As already mentioned, vidari is rendered as sub-section in order to distinguish it from section (dhatu) and part (anga) though it rather could as well mean a section.

<sup>2.</sup> Pada literally means a complete or inflected word, i. e. a meaningful word, a quarter or a line of stanza, a part, portion or division (as of a sentence) etc. Here it seems to have been used in the sense of a meaningful word or a specified syllabic unit devoid of meaning.

<sup>1.</sup> Bahutva of the text.

<sup>2.</sup> Langhanam literally means overstepping in the sense of bypassing without physically avoiding a note entirely.

<sup>3.</sup> Abhyāsa is a technical term in Sanskrit grammar, implying a single repetition. Here it has been used in an extended meaning, implying multiple repetition.

<sup>4.</sup> Paryayamsa refers to those notes that are capable of being employed as fundamental notes in the same jati.

Section 7 : Jati-s (Melodie types)

Bahutvam, i. e. profusion is defined with reference to alpatvam, i. e. rareness, and is considered as the opposite concept. Since rareness is considered to be twofold, correspondingly profusion too is accepted as such. Rareness is obtained through overstepping and by unexercised use of a particular note. Overstepping (langhanam) is defined by 'K' as 'isatsparsa', i. e. a slight touch, which is aptly explained by 'K. R.' as lightly passing over, so that it does not imply an all-out omission. Non-overstepping implies the absence of overstepping which according to 'K' means 'touching fully', probably in contrast with 'touching slightly' in the case of rareness.

Abhyāsa is defined by 'K' as repetition, which he explains to be twofold, viz. uninterrupted and frequent. Constant repetition of a note without being interrupted by others illustrates the former, and interrupted but frequent repetition the latter.

There is some difference in the interpretations of the two commentators with regard to the text of 49 cd. According to 'K' "That twofold profusion abides in the paryāyāmśa, i.e., the fundamental note other than that which is the sonant, and even in the sonant and the consonant." On the other hand, 'S' interprets: "Profusion is another name for 'sonant and consonant'. If the profusion is by non-overstepping, it is sonant and that which is by repetition is consonant." 'K. R.' thinks that probably 'S' had a different reading of the text which he reconstructs as—"paryāyo'mśe sthitam tac-ca vādi-samvādino-r-api" which he translates as—"That (profusion) abiding in the amśa will be the synonym of vādī and samvādī."

#### 10. अल्पत्वम्

अल्पत्वं च द्विधा प्रोक्तमनभ्यासाच्च लङ्कानात् । अनभ्यासस्त्वनंशेषु प्रायो लोप्येष्वपोष्यते ॥५०॥ ईषत्स्पर्शो लङ्घने स्यात्प्रायस्तल्लोप्यगोचरम् । उशन्ति तदनंशे ऽपि क्वचिद्गीतविशारदाः ॥५१॥

#### 10. Rareness (alpatva):

Rareness<sup>1</sup> is said to be twofold, viz. by the absence of repetition<sup>2</sup> and by overstepping. Absence of repetition is

(practised) with regard to the non-fundamental and is generally desired in (the case of) the eliminated (50)

Overstepping<sup>5</sup> is slightly touching and immerally observed among the eliminated notes. Musicologic sometimes, admit it<sup>6</sup> even in (the case of) non-functional notes. (51)

Alpatva (rareness) of a note is secured by reversing there cess of profusion, viz. by non-repetition and by overstepping. Non-repeat is to take (sing) only once as elucidated by 'K'. That is passed with regard to the notes other than the fundamental ones and the that are to be eliminated in the process of forming hexatonic and matatonic varieties.

## 11. अन्तरमार्गः

न्यासादिस्थानमुज्झित्वा मध्ये मध्ये ऽत्पतायुजाम् । स्वराणां या विचित्रत्वकारिण्यंशादिसंगतिः ॥१२॥ अनभ्यासैः क्वचित्क्वापि लङ्घनैरेव केवलैः । कृता सा उन्तरमार्गः स्यात्प्रायो विकृतजातिषु ॥१३॥

#### 11. Antaramārga: (52-53)

Sparing the positions of the final and other notes, taking in-between the rare notes intermittently, the oncordance that is established with the fundamental and other

<sup>1.</sup> Alpaivam of the text.

<sup>2.</sup> Abhyāsa of the text which has already been explained.

<sup>3.</sup> Notes other than the fundamental ones, i. e. the sommand the co-fundamental notes.

<sup>4.</sup> That is, the notes omitted in order to form hexatoric (sadava) and pentatonic (auduva) structures.

<sup>5.</sup> Langhanam of the text.

<sup>6. &#</sup>x27;It' stands for overstepping.

<sup>1.</sup> The positions of the final, the semifinal, the initial and the fundamental notes as well as the samnyasa and right notes,

<sup>2.</sup> Alpata-yujām svarānām literally rendered would read "of the notes served with rareness", i. e. rare notes.

<sup>4.</sup> Adi is interpreted by 'K' here as well, as referring to the initial, the semifinal and such other notes.

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notes which creates an artistic variety<sup>5</sup> sometimes by non-repetition and somewhere by overstepping only, is (called) antaramārga and is generally (found) among modified jāti-s. (52-53)

### 12. पाडवम्

षडवन्ति प्रयोगं ये स्वरास्ते षाडवा मताः। षट्स्वरं तेषु जातत्वाद्गीतं षाडवमुच्यते।।५४॥

## 13. औडुवम्

वान्ति यान्त्युडवो ऽत्रेति व्योमोक्तमुडुवं बुधैः ।
पञ्चमं तच्च भूतेषु पञ्चसंख्या तदुद्भवा ।।५५॥
औडुवी सा ऽस्ति येषां च स्वरास्ते त्वौडुवा मताः ।
ते संजाता यत्र गीते तदौडुवितमुच्यते ।।५६॥
तत्सम्बन्धादौडुवं च पश्चस्वरमिदं विदुः ।
क्रमादल्पाल्पतरते षाडवौडुवकारिणोः ।।५७॥
सम्पूर्णत्वदशायां स्तः, पञ्चम्यां तु विपर्ययः ।
वचनं विधिरप्राप्ताविहाल्पत्वबहुत्वयोः ।।५८॥
परिसंख्या द्वयोः प्राप्तावेकस्यातिशयाय यत् ।

12 &13. Hexatonic (sādava) and pentatonic (auduva) formation: (54-59 b)

The six notes that preserve a (musical) performance are accepted to be hexatones, and the song arising out of those six is called hexatonic (sādava). (54)

(Because) here, in the sky, the stars (udu-s) move about, it is called uduvam by the sages; and that is fifth among the (great) elements<sup>8</sup>; the number five derived from it<sup>2</sup> is auduvi (fiver), and (therefore) the notes of that (number) are accepted to be auduva (pentatones). When these<sup>6</sup> as such occur in a musical composition<sup>6</sup> it is said to be 'made as pentatonic' (auduvita) and this group of five notes being related to it is known<sup>8</sup> as pentatonic (auduva). (55-57b)

The author is presenting here a semantic derivation of the two terms sadava and audwa, the former signifying a musical composition or a song composed with six notes and the latter with five notes. Both the names are derived from the numbers six and five, of which the former naturally holds good and the latter is obviously laboured and seems to be far-fetched. It is said that the word auduaa (pentatonic) is finally derived from the word udu. The text of the verses 55-57b gives us this derivation in the following five stages; worked backwards:

- (i) The word derived is.....auduva (pentatonic).
- (ii) Auduva (pentatonic) is a group of five notes belonging to a song which is made pentatonic (auduvita).
- (iii) Auduvita is the name of that song which is qualified by the number five (auduvī).
- (iv) Auduvi (the number five) is derived from uduvam (sky) because it is the fifth of the five great elements.
- (v) Uduvam (sky) is so named because it is the dwelling place of udu-s (stars). (55-57b)

Hexatonic and pentatonic forms of jati-s are formed by eliminating one or two notes respectively; but these forms are possible of those jati-s that are capable of being modified through incompleteness, and most of these jati-s therefore necessarily have three forms, viz. complete, hexatonic and pentatonic. Here, the author says that the notes, which by being eliminated from the complete forms become the cause of the

<sup>5. &#</sup>x27;K' elucidates that the consonance with the fundamental note etc., becomes delightful when served by the ascending and other movements creating wonderful tonal structures with note-series and so on.

<sup>1.</sup> Avanti lit. means protect (from the root av to protect).

<sup>2.</sup> Prayoga technically means 'performance or rendering' and in this context, it pertains to a musical composition or a song. The word is otherwise applicable to all the performing arts.

<sup>3.</sup> That is, if counted in the order of dissolution, viz, earth, water, fire, air and space; but they evolve in the reverse order.

<sup>4.</sup> From the fact that the sky is the fifth element.

<sup>.</sup> The five notes called pentatones.

<sup>6.</sup> Literally, in a song.

<sup>7.</sup> Combination of five notes seems to be implied.

<sup>8. &#</sup>x27;S' says, "Known to Bharata and his successors,"

In the state of completeness, the notes causing hexatones and pentatones respectively become rare and rarer, while it is the reverse with pancami. (57c-58b)

Rareness and profusion not being obtained (in the ordinary course) the statement (obtaining them) forms a specific rule (vidhi). In case of two (possibilities) obtaining, the pre-eminence of one is by exclusive specification (parisankhyā). (58c-59b).

hexatoric and pentatonic formations, in the state of completeness (while they are not being eliminated), are respectively employed rarely and very rarely, i. e. those that are the makers of hexatoric forms (sāḍava-kārī) are characterised by rareness and those that are the makers of pentatoric forms (auḍuvakārī) are characterised by greater rareness. But in the case of pañcamī jāti this rule is applied in reverse order, the pentatone-makers being rare and the hexatone-makers being rarer. (57c-58b).

It has been stated (just before this) that with regard to rareness in the state of completeness of  $j\bar{a}ti$ -s the ordinary rule is applicable to  $pa\bar{n}cam\bar{t}$  in the reverse order. The question is why such a transgression of the rule is permitted. The simple answer to it is that it is ordained by a rule, which is framed by ancient authorities. However, the author explains this exception in the light of relationship obtaining between the concepts vidhi (rule) and  $parisa\,nkhy\bar{a}$  (exclusive specification) as found in the  $M\bar{v}m\bar{a}ms\bar{a}$  system of Indian Philosophy. In order to understand the real import of the text one has to be clear about these two concepts as applied to the situation obtaining with reference to the provision of rareness and profusion in the  $pa\bar{n}cam\bar{v}$   $j\bar{a}ti$ .

Vidhi means a rule or a precept that enjoins something for the first time, while parisankhya means such specification that acts as a limitation to what is expressly mentioned.

"Let one offer twilight worship in the morning" is a religious injunction cited as an example of vidhi by 'K'. One cannot by any means know whether one should or should not perform a religious ceremony except by the injunction of a sacred book. The point is that the rule is laid down for a certain observance by an unquestionable authority.

'K. R.' cites an example for parisankhya (exclusive specification) in the statement: "the five-clawed (animals) may be eaten." Eating of meat is known by experience. This statement gives a preference to the meat of five-clawed animals. It results in prohibition of the meat of animals other than the five clawed ones.

The structure of pañcami is described subsequently (verse 73-75b) wherein it is said that sa, ga and ma are rare notes in it; and the hexatonic and pentatonic forms are respectively caused by the elimination of ga. and ni and ga. So ordinarily ni and ga being the makers of hexatonic and pentatonic forms, should, in the state of completeness, respectively be rare and rarer. Thus, of the notes that are declared to be rare, viz. sa, ga. ma, the first and the last, viz. sa and ma are not obtained in the usual process; they are given as a rule (vidhi). On the other hand, nisāda is declared to be one of the semifinal notes by Bharata (as quoted by 'K' in his commentary) and therefore to be taken profusely. So we have a contradiction in so far as the same note (nişāda in this case) cannot in the same jati be a rare as well as a frequent note. This contradiction, as observed by 'K' is sought to be removed through the distinction made between vidhi and parisankhya. Both ga and ni are given as rare notes (in the state of completeness), so in order to bring the rareness of ga into prominence, that of ni is discarded; and this is parisankhya.

## ग. जातीनां विशेषत्रच्णानि

अथ प्रत्येकमेतासां जातीनां लक्ष्म कथ्यते ॥ १९॥

## 1. षाड्जी जातिः

वाड् ज्यामंशाः स्वराः पञ्च निषादर्षभर्वाजताः ।
निलोपात्षाडवं सो ऽत्र पूर्णत्वे काकली क्वचित् ।।६०।।
सगयोः सधयोश्रात्र संगतिर्बहुलस्तु गः ।
गान्धारे ऽंशे न नेलोंपो मूर्च्छना धैवतादिका ।।६१।।
त्रिधा तालः पञ्चपाणिरत्र चैककलाऽऽदिकः ।
कमान्मार्गाश्रित्रवृत्तिदक्षिणा, गीतयः पुनः ।।६२।।
मागधी संभाविता च पृथुलेति कमादिमाः ।
नेष्कामिकश्रुवायां च प्रथमे प्रेक्षणे स्मृतः ।।६३।।
विनियोगो, द्वादशात्र कला अष्टलघुः कला ।

<sup>9.</sup> Sadava.

<sup>10.</sup> Auduva.

<sup>11&</sup>amp;12. 'K' interprets alpa and alpatara respectively as anabhyāsa (non-repetition) and langhana (overstepping).

अस्यां षाड्ज्यां षड्जो न्यासः। गान्धारपञ्चमावपन्यासी। वराटी दृश्यते। अस्याः प्रस्तारः—

- १. षाड्जी
- १. सा सा सा सा पा निध पा धनि तंभ वलला ट
- २. रो गम गा गा सा रिग धस धा न य नां बुजा धि
- ३. रिगसा रो गासासा सा सा कं
- ४. धाधानी निसंनिधपा सा सा नगसू नुप्रणय
- पू. नी घा पा धनिरी गा सा गा के लिस मुद्भ
- ६. सा धां धींन पां सा सा सा सा वं
- ७. सासागासामापा मामा सरसकृततिलक
- द. सा गा मा धनि निधंपा गा रिग पं का नुले प
- ९. गांगांगां सा सा सा सा नं
- १०. धांसारी गरिसामा मा मा प्रणमा मिका म
- ११. धानी पाधनिरी गारी सा देहें धनान
- १२. रिंग सा री गा सा सा सा सा

## [तत्र साकल्येन पदयोजना]

## [तं भवललाटनयनाम्बुजाधिकं नगसूनुप्रणयकेलिसमुद्भवम् । सरसकृततिलवःपञ्जानुलेपनं प्रणमामि कामदेहेन्धनानलम् ।।]

C. The characteristic features of the particular jāti-s: 59c-109

Now the characteristic features of each of these (jati-s) are described. (59cd)

(i) Sadji: (60-64)

In sadjī there are five fundamental notes leaving aside nisāda and rsabha. The hexatone is (formed) by the elimination of ni, which in the state of its being complete sometimes becomes kākalī. Sa and ga and sa and dha are in concert (sangati); ga is profuse. In the event of gāndhāra being the fundamental note ni cannot be eliminated, (its) mūrechanā commences with dhaivata. Here, the tāla (beat-cycle) is threefold pañcapāni which as ekakala and so on is respectively set in the citra, vṛṭṭi² and dakṣiṇi mārga·s (span) and again in māgadhī, sambhāvitā and pṛṭhulā gīti-s in due order. Its proper application (viniyoga) is known to be in the naiṣkrāmikī dhruvā

<sup>1.</sup> These are sa, ga, ma, pa, dha.

<sup>2.</sup> Here, in sādjī, the tāla is pañcapāņi (sat-pitāputraka) which is threefold, viz. ekakala, dvikala and catuskala. These are defined in Chapter V.

<sup>3.</sup> That is, in the ekakala pañcapaņi the marga to be adopted is citra, in dvikala, vītti and in oatuskala, daksiņa mārga.

<sup>4.</sup> Vartika is another name given to it.

<sup>5.</sup> That is, ekakala, dvikala and catuşkala respectively are in māgadhī, sambhāvitā and pṛthulā gīti-s.

<sup>6.</sup> It is the song of naişkrāmikī dhruvā, as composed after the melodic pattern set in the sādjī jāti which is employed in the the first act of a drama. Dhruvā is a name for a particular class of songs sung in dramatic performances. These are of five types, viz. prāvešikī, ākṣepikī, prāsādikī, antarā and naiṣkrāmikī which are used in different junctures from a technical point of view.

in the first act (of a drama). There are twelve kalā-s<sup>7</sup> of eight laghu-s<sup>8</sup> (shorts) each. (60.64b)

In this sādjī the final note is sādja, the semifinal notes are gāndhāra and pancama and varāṭī is seen (through it). Iţs prastāra<sup>9</sup> (elaboration) follows:

1.	sā Tam	sā	sā b <b>h</b> a	sā va	pā la	ni-dha la	pā	dha-ni ta
2.	rī na	ga-ma ya	gā nām	gā	sā bu	ri-ga jā	dha-sa	dha dhi
3.	ri-ga <i>kam</i>	sā	rī	g <b>ā</b>	şā	sā	sā	sā
4.	dhā na	$\frac{\mathrm{dha}}{ga}$	nī sū	ni-sa	ni-dha nu	pā pra	sā ņa	sā ya
5.	nī ke	dhā	pā li	dha-ni	rī sa	gā mu	sā	gā dbha
6.	sā vam	dhā	dha-ni	dha-pa	ā sā	sā	sā	sā
7.	sā Sa	sā ra	g <b>ā</b> <i>sa</i>	sā k <b>r</b>	mā ta	$egin{array}{c} \mathbf{p}\mathbf{ar{a}} \ ti \end{array}$	mā la	mā ka
8.	sā pañ	gā	mā	dha∙ni kā	n <b>i-dha</b> nu	pā le	gā pa	ri-ga
9.	gā nam	gā	gā	sā	sā	sā	sā	sā
10.	dhā pra	sā ņa	rī mā	ga-ri	sā mi	mā kā	mā	mā ma
11.	dhā de	nī	pā hen	dha-ni	rī dha	gā na	rī na	sā
12.	ri-ga	. sā	rī	gā 	sā	sā	sā	sā

7. Kalā is understood by Nijenhuis as 'variable time unit' which brings out the idea so well, but it being a phrase, she has not herself used it as an equivalent term. Here it seems to imply a phrase, a tonal sector structured upon a verbal unit in a definite time space.

8. 'K' points out that in the context of tāla, laghu is the measure of time taken to pronounce five short syllables. And eight such laghu-s constitute one kalā. Thus the kalā spoken of here pertains to dakṣiṇa mārga as the author himself says in verse subsequently. 'S' reads eight guru-s (longs) in place of eight laghu-s. 'K' elucidates that the prescribed form of tāla is catuṣkala. In the Vārtika mārga, i. e. in dvikala form it will have twentyfour kalā-s of four laghu-s each, while in the citra mārga, i. e. the ekakala form it will have fortyeight kalā-s of two laghu-s each (See 'K' on 111 cd. and 112 ab).

. It has not been possible to give signs for tara-mandra in the notations reproduced in the Roman script.

The author now describes (from verse 60-109) the distinguishing features of each of the eighteen jati-s separately. It would be observed from the above description that the jati songs in various forms constituted a part and parcel of the dramatic episodes and their technique of presentation and contributed in terms of musical effect to the creation of aesthetic delight (rasa). This explains their relation to rasa and also presents the perspective in which the jati-songs must be viewed.

It is notable that Sarngadeva, in addition to the jati-laksana-s (characteristic features of jati-s) also invariably mentions the commencement of the murcchana as an added essential feature. In Bharata's system it was understood that the fundamental note which is also the initial note would be the commencing note of the murcchana. So, in a wav Sarngadeva is recording a departure from that notion, and it seems that it is based on Mataiga's twelve-tone ( dvā dasa-svara ) mūrcchanā-s, a concept brought into being by such ancient authorities as Kohala and Nandikesvara (as quoted by him vide Br. D. p. 32) and elaborated by him. As each jāti has more than one fundamental note (as capable of being used), Bharata's system of seven-tone (sapta svara) mūrcchanā-s (also otherwise spoken of by Matanga ) could easily be worked on stringed instruments of the harp type, that had as many as twentyone strings. but it was not suited to the fretted instruments of the lute type with fixed note positions. It is conjectured that when such instruments appeared during the times of Matanga and others, it was found difficult to work out the seven-tone murcchana-s on them, since every time the fundamental note of a jati was changed it required a different tuning of the instruments. Therefore a system comprising notes of three registers such as two of the lower, seven of the middle and three of the higher was invented to obviate this difficulty and to obtain the structure of a raga or a bhasa, etc. within the range of twelve notes. So the very purpose of murcchana was extended to include the comprehension of the tonal structure (outline) of a raga and so on (see S. Chintamani, p. 66).

However Kallinātha seems to have identified the seven-tone mūrcchanā-s of Bharata with the twelve-tone mūrcchanā-s of Matanga quietly accepted in this context by Śārngadeva, without mentioning them as such anywhere else. But such an identification is obviously erroneous. The expression dhaivatādi of the text (i.e. commencing with dhaivata) is borrowed from Matanga and refers to the twelve-tone mūrcchanā-s innovated by him. The twelve-tone mūrcchanā-s of Matanga are illustrated as under:

#### Şadja-grama

1.	dha	ni 1	sa	ri	ga	ma	pa	dha	ni	sa	ri	ga
2.	ni	sa	ri	ga	ma	pa	dha	ni	sa	ri	ga	ma
3.	sa	ri	ga	ma	pa	dha	ni	sa	ri	ga	ma	pa
4.	ri	ga	ma	pa	dha	ni	sa	ri	ga	ma	pa	dha
5.	ga	ma	ра	dha	ni	sa	ri	ga	ma	pa	dha	ni
6.	ma	pa	dha	ni	sa	ri	ga	ma	pa	dha	ni	sa
7.	pa	dha	ni	sa	ri	ga	ma	pa	dha	ni	şa	ri

#### Madhyama-grama

1.	ni	sa	ri	ga	ma	pa	dha	nı	sa	ri	ga	ma
2,	sa	ri	ga	ma	pa	dha	ni	sa	ri	ga	ma	pa
3.	ri	ga	ma	pa	dha	ni	8a	ri	ga	ma	pa	dha
4.	ga	ma	рa	dha	ni	sa	ri	ga	ma	pa	dha	ni
5.	ma	pa	dha	ni	sa	ri	ga	ma	pa	dha	ni	sa
6.	pa	dha	ni	sa	rį	ga	ma	pa	dha	ni	sa	ri
7.	dha	ņį	sa	rį	ga	ma	pa	dha	ia	sa	ri	ga
(Cf	. Bril	aspai	$\mathbf{i}:B$	harata	ka Sa	ingīta	Siddh	ānta 1	959,	pp. 5	1, 52)	

It will be noticed that, whereas the seven-tone mūrcchanā-s are formed in descending order, these twelve-tone mūrcchanā-s are formed in ascending order in succession. Our comments on S. R. I. 4.9 may also be referred to in this context. However, the concept of twelve-tone mūcchanā-s is a significant development in the history of Indian music, since it is linked with the advent of fretted stringed instruments. But it may also be noted that it was not able to hold ground for long and was later abandoned by such writers as Kumbha. Even Śārngadeva did not find it necessary to expound it.

Technical terms with regard to the practice of Tala will be dealt with adequately in chapter V entitled Taladhyaya. (60 64b)

With respect to the final note in the \$\sid dji\$, 'K' elaborates the idea: "in the modified for m of \$\sid dji\$ despite the non-applicability of the rule (of \$\sid uddhati\) with regard to the initial note and so on, the denominative note is the final note in the \$\sid uddhat\$ as well as the modified forms." However, the statement of the text that, \$\sid uddhata\$ and \$\sid pancama\$ are the semifinal notes, applies to its modified forms only, since in the \$\sid uddhata\$ state it is \$\sid adja\$, the denominative note, that has to be the semifinal note.

The expression vara!! drśyate suggests, according to 'K', that at places sādji appears to be vara!! (rāga) and he says it happens when kākalī is employed in the modified form (of sādjī).

Prastāra, in this context is defined by 'K' as "the arrangement of notes in the (different) kalā-s". The prastāra given here pertains to the scale of standard notes in the sadja-grāma. There are, as already pointed out, twelve kalā-s with eight laghu-s each. Single notes are written with a long vowel and more than one notes with a short vowel are put together, with the same time-value. The lower register is indicated in the text by a dot (-) above and the higher register by a vertical stroke (-) above. The couplet (or the verse) represents the literary composition, the text of the song and is said to be composed by Brahmā with its syllables set to the tones distributed in the kalā-s as indicated. The purport of the verse is as under:

Obeisance to that extra eye-lotus in the forehead of Lord Siva, the product of the amorous sport of Pārvatī, the bearer of the ointment of the moist paste of unguents of the tilaka mark and the fire of the fuel of the cupid's body.

The number of notes used in it, counted from the point of view of assessing their relative profusion or rarity, is as under:

Şad <b>ja</b>	-	<b>36</b>	Pañcama		8
Rşabha		12	Dhaivata		
Gandhara	_	20	Nisada		
Madhyama	-	8	•	_	
			CITY 4		

Total: 112

This is the prastara of sadji with sadja for its fundamental note. The rasa or the aesthetic delight in all the jati-s is declared to be in accordance with the fundamental note. Other prastara-s of sadji with gandhara etc. as its fundamental notes are similarly to be conceived on this pattern.

# 2. आर्षभी जातिः

आर्षभ्यां तु त्रयो ऽ शाः स्युनिषादर्षभधैवताः ॥६४॥ द्विश्रुत्योः संगतिः शेषैर्लङ्घनं पञ्चमस्य च । षाडवं षड्जलोपेन सपलोपादिहौडुवम् ॥६४॥ मूर्च्छना पञ्चमादिश्च तालश्चच्वत्पुटो मतः । अष्टौ कला भवन्तीह विनियोगस्तु पूर्ववत् ॥६६॥ 20

अस्यामार्षभ्यामृषभो न्यासः । अंशा एवापन्यासाः । देशोमधुकयौ दृश्येते । अस्याः प्रस्तारः—

- २. आर्षभी
- री गा सा रिग मा रिम गा रिनि गुण लो चना धि
- २. री री निधनिध गा रिम मा पनि कमन न्तम म र
- ३. माधानीधा पापा सागा मजरम क्षय
- ४. नी धित री गरि सर्ध गरि री रो म जे यं
- प्र. री मा गरि सधं सस रि रिग मम प्र ण मा मि दिव्य
- ६. निघपारोरी रिप गरि सघंसा मणिद पंणा म
- ७. रिस रिस रिग रिग मा मा मा गरि ल नि के तं
- द्र. पा नि री मा गरि सधंगरि गरि भ व म मे यं

## [तत्र साकल्येन पदयोजना]

## [गुणलोचनाधिकमनन्तममरमजरमक्षयमजेयम् । प्रणमामि दिव्यमणिदर्पणामलनिकेतं भवममेयम् ।।]

(ii) Ārşabhī: 64c-66

In ārṣabhī, however<sup>1</sup>, there are three fundamental notes, viz. niṣāda, dhaivata and ṛṣabha; gāndhāra and niṣāda are in

concert<sup>2</sup> (sangati) with the rest (of the notes), and pañcama is to be overstepped<sup>3</sup>. The elimination of sadja (causes) the hexatonic (form) and that of sadja and pañcama, the pentatonic one; its mūrcchanā commences with pañcama and caccatpuţa is accepted as its tāla. It has eight kalā-s and its proper application is like that of sādjī<sup>4</sup> (lit. as before) (64c-66).

In this  $\bar{a}$   $\bar{a}$   $\bar{r}$   $\bar{s}$   $abh\bar{i}$  the final note is  $\bar{r}$   $\bar{s}$  abha, the fundamental notes are the semifinal notes, and  $des\bar{i}$  and  $madhukar\bar{i}$  are seen (in it)  $\bar{r}$ . Its  $prast\bar{a}ra^{8}$ :

	•		_					
1.	rī Gu	gā ņa	sā lo	ri-ga	mā ca	ri-ma na	gā	ri-ri dhi 9
2.	ri ka	rī ma	ni-dha na	ni-dha	ga nta	ri-ma <i>ma</i>	ma ma	pa-ni
3.	mā ma	dhā ja	nī ra	dhā ma	pā	pā	sā ksa	gā ya·
4.	nī ma	dha-ni je	τĪ	ga-ri	sa-dha	g <b>a-ri</b>	rī yam	rī
5.	rī Pra	ma ņa	ga-ri	sa-dha ma	sa-sa	ri-sa	ri-ga mi	ma-ma divya
6.	ni•dha ma	pā ņi	rī da	rī	ri-pa rpa	ga-ri ṇā	sa-dha	sā ma
7.	ri-sa la	ri sa ni	ri-ga ke	ri-ga	mā	mã	mā tam	ag-ri
8.	pā bha	nī va	rī ma	mā me	ga·ri	sa-dha	ga·ri	ag-ri yam

- 2. 'K' elucidates that each of them is separately in concert with the other notes.
- 3. 'K' takes langhana in the sense of alpatara, 'being very rare' and 'S' takes it in the sense of īşat-sparśa 'slight touch'. This is applicable only to its state of completeness.

4. That is, in the naiskramiki dhruva.

5. The one that has been described above.

6. That is, nisada, tsabha and dhaivata.

7. 'K' says ārşabhi gives the impression of deśi and madhukari when

8. The number of different notes employed can be computed from the prastara, and the prastara-s oriented by other fundamental notes of arşabhi (i. e. ni and dha) can be worked out on the above pattern.

The purport of the text is as under:

Obeisance to Bhava (Siva) having the three guna-s for his eyes, the endless, immortal, undecaying, indestructible and invincible, the pure abode of mirror-like divine jewels and the immeasurable (one).

9. 'K' reads a dikam instead of adhikam, while presenting the text of verse as a whole,

The use of the indeclinable tu, as pointed out by 'K', distinguishes the order of arşabhī from that of şādjī.

Not comed by 1 1 B

# 

८० री गा मा पथ री गा सा सा इ छ हो डो गी क क ट

流 術 術 術 術 術 所 ico

१, गा गम पा थप मा तिथ निसं

ह हे ही हु र ह जन्म पा पा पा नोगम प्रमा १

े. जिल्ला मा मा गा गा गा गा मा नीय होते. १५ इंस् निक्री

ाह्र गा सा गा कि गा कि कि .5% इ. गा इ. मी . गा म . गा इ

१४. गां सा गा गा गा गा गम गा गा

हिष्ट उड़ ल क हो उ

१४, गा पा मा मा निथ निसं निथ पनि इं

१६. मा परिग गा गा गा गा गा गा हे

[गम्लाफ्डम नर्फकाम हत]

्रितं रजनिवध्नमुखविश्रमदं निशामय वर्षे भवमुखवितासवपुश्राहममलमृदुक्रियममृतभवम् । भवमुखवितासवपुश्राहममलमृदुक्रियममृतभवम् । रजतागिरिशिखरमणिशक्तस्युश्चाहममलमृदुक्रियममृतभवम् ।।

# 3. गान्धारी जातिः

पञ्चांशा रिधवज्याः स्युगान्धायां संगतिः पुनः ।

स्यासांशाम्यां तदन्येषां धेवताद्वयं वजेत् ॥६७॥

स्यासांशाम्यां वादवीद्ववितं कमात् ।

पञ्चमः पादवहेषो निसमध्यमध्यमाः ॥६८॥

अंशा द्विपत्योद्ववितं कलाः षोडश कोतिताः ।

अंशा द्विपत्योद्ववितं स्यातालश्चन्यद्वितः मतः ॥६९॥

मुन्धुना धेवतादिः स्यातालश्चन्यद्वितं मतः ॥६९॥

िनियोगो ध्रुवागाने तृतोषप्रक्षणे भवेत्।

अस्यां गान्यायी गान्यारो न्यासः। पङ्जपञ्चमावपन्यासी। गान्यारपञ्चमदेशोवेलावत्यो दृश्यन्ते। अस्याः प्रस्तारः—

हे. गान्धारी

तं ३. गा गम गा पा थप मा निध निसं

है. गा गा सा सा नी सा गा गा गा

र ज निवध् मुख् इ. निवम् मामपरिगागागाग

ाग गग गग गग मा मा मा मा मा है हो

४. गा गम पा पा थप मा निध निस

के कि घम प्रक्रो

प्र. निध पनि मा मपरि मा गा मा सा त व मुख बिला स

ह, गासा गा गा गा गम गा गा

अ. गा गम पा पा धप मा निध मिस मू दु कि र ण

Gandharī: 67-70b (iii)

Gāndhārī has fundamental notes barring rsabha and dhaivata, and its final and fundamental notes2 are in concert (sangati) with the rest of the other notes. From dhaivata one should proceed to rsabha.3 The hexatonic and the pentatonic (forms) are (caused) by the elimination of rsabha and dhaivata respectively. Pañcama is incompatible4 with hexatones and nisāda, sadja, madhyama and pancama as fundamental notes are not conducive to pentatonic formations. (Its) kalā-s are said to be sixteen, (its) murchanu commences with dhaivata and the tāla is accepted to be caccathuta. (Its) proper application is in the dhruvā songs of the third act. (67-70b)

In this gandhari, gandhara is the final note, sadja and bañcama are the two semifinal notes, gāndhāra-pañcama, dest and velāvalī are seen. Its prastāra?:

The purport of the verse is as under;

		Se	ction 7	: Fati-s (	Melodic	types)		311
1.	gā E	gā	sā	nī	sā tam	gā	gā	gā
2.	gā. ra	ga-ma ja	pā ni	pā va	dha-pa	mā	ni-dha mu	ni-sa
3.	ni-dha vi	pa•ni	mā	ma-pa-ri bhra	gā ma	gā dam	mā	gā
4,	gā ni	g <b>a-ma</b> śa	pā ma	pā <i>ya</i>	dha-pa va	mā ro	ni-dha	ni-sa
5.	ni-dha bha <sup>8</sup>	pa-ni va	mā mu	ma-pa-ri kha	mā vi	gā lā	mā	sā sa
6.	gā va	sā <b>p</b> u	gā ścā	gā 1u	gā	ga·ma ma	gā ma	gā ·
7.	gā mŗ	ga-ma du	pā <i>ki</i>	pā ra	dha-pa ṇa	mā	ni-dha	ni-sa
8.	ni-dha ma	pa-ni mį	mā ta	ma-pa-ri bha	gā vam	gā	gā	gā
9.	rī Ra	gā ja	mā ta	pa-dha gi	rī ŗi	gā śi	sā kha	sā ra
10,	ni ma	ni ņi	ni śa	ni ka	ni la	ni śam	ni.	ni kha

Listen, O maiden with beautiful thighs!\* I bow down to this moon which presents as it were the illusion of being the face of the night appearing as a bride, which is beautiful on account of its being the embodiment of the lustre of Siva's face, which emits pure and soothing rays, which is the source of nectar, which (shines) like the crystals of the crest of a silver mountain, a conch-shell and a streak of (pearl) teeth of a beautiful damsel, and which enhances (the charm of) the noise of sportive amorous quarrels.

<sup>1.</sup> That is, sa, ga, ma, pa, ni.

<sup>2.</sup> Gandhara is its final note; so, ga or sa, ga, ma, pa, ni when any of them is the fundamental note, these two notes are in concert with notes other than these two.

<sup>&#</sup>x27;K' infers from this rule that perhaps in the state of complete! ness of gandhari, rsabha and dhaivata may be in concert.

<sup>&#</sup>x27;K' here, comments: "when pancama is the fundamental note, gandhart is naturally complete, i. e. no other forms are possible with ni, sa and ma as the fundamental notes; and hence it is only when gandhara is the fundamental note that all the three formations, viz. complete, hexatonic and pentatonic are possible."

<sup>&#</sup>x27;K. R.' rightly points out that, "this is a madhyama-grama jāti. In the madhyama-grāma pa has ri as its samvādī (consonant), and in this jati, the adava is by dropping ri. But samvadi (consonant) shall not be dropped. So there is no sadava when pa is the amsa. For the same reason, when pa is amsa there can be no auduva (pentatone) which is effected by dropping ri and dha. As for there being no auduva when the other svara-s are amsa-s it is based on the words of Bharata?" (S. R. Vol. I, Chap. I. p. 104). This observation is based on Kallinatha's comments.

Gandhara-pañcama is a grama-raga.

That is, they partly appear.

<sup>7.</sup> This represents the prastura of gundhuri with gundhura as its fundamental note.

The Adyar ed. of S. R. as well as 'K' read tava mukha (meaning 'your face') but S. Raj reads it as Bhavamukha, i. e. Siva's face. This has been taken as an error of the scribe and the reading bhavamukha has been adopted in our text for that is more

Comp. S. Raj (Vol. I, p. 211) which reads nisatamo apanudam (meaning, 'the dispeller of the darkness of night') instead of nisamaya varoru as printed in the Adyar ed. of S. R. and also followed by 'K'. The reading of S. Raj is definitely better and more befitting in the context of a prayer. Obviously both are deriving from a common source of tradition.

11.	gā.	ga-ma	pā yu	pā va	dha-pa ti	mā dan	ni-dha	ni-sa ta
12.	ni-dha pañ	pa-ni	mā kti	ma-pa-ri	gā bham	gā	gā	gā
13.	nī pra	nī ņa	pā mā	nī	gā mi	mā pra	gā na	sā ya
14.	gā ra	sā ti	g <b>ā</b> ka	gā. la	gā ha	ga-ma	gā. va	gā. nu
15.	gā dam	pā	mā	mā	ni-dha	ni-sa	ni-dha	pa-ni
16.	mā śa	pa-ri-a śi	gā	gā	gā nam	gā	gā	gā

## 4. मध्यमा जातिः

पश्चांशा मध्यमायां स्युरगान्धारनिषादकाः ॥७०॥ षड्जमध्यमबाहुल्यं गान्धारो ऽल्पो ऽत्र षाडवम् । गलोपान्निगलोपेन त्वौडुवं स्यात्कलाऽष्टकम् ।।७१।। ऋषभादिर्मूच्छना स्यात्तालश्चच्चत्पुटो मतः। विनियोगो ध्रुवागाने द्वितीयप्रेक्षणे भवेत् ।।७२।।

अस्यां मध्यमायां मध्यमो न्यासः । अंशा एवापन्यासाः । चोक्षषाडवदेश्यान्धाल्यो दृश्यन्ते । अस्याः प्रस्तारः—

- पा मा रिम गम मा मा मा मा कि रोट

- मा निध निसं निध पम पध मा मा
- नों नों री री नों री री
- मप मा मा सा सा सा ल्ल वां
- गं नी सा गा धप मा धनि
- पा सा पा निधप मा मा मा मा कि र

## तित्र साकल्येन पदयोजना

## पात भवमुर्धजाननिकरीटमणिदर्पणम । गौरीकरपल्लवाङ् गुलिसुतेजितं सुकिरणम् ।।४।।]

#### (iv) Madhyamā: (70c-72)

There are five fundamental notes in madhyama excluding gāndhāra and niṣāda; ṣadja and madhyama are profuse, gandhara is rare, hexatone is (caused) by the elimination of gāndhāra and pentatone by that of niṣāda and gāndhāra in it; it has eight kalā-s, (its) mūrcchanā commences with rsabha and the tāla is accepted to be caccatputa. (Its) proper application is in the dhruva song of the second act. (70c-72)

In this madhyama, madhyama is the final note, the very fundamental notes are the semifinal notes, and coksasadava, desī and andhālī are seen.

<sup>1.</sup> That is, sa, ri, ma, pa, dha by discretion.

<sup>2.</sup> This obviously applies to the complete forms.

That is, sa, ri, ma, pa, dha.

<sup>&#</sup>x27;K' identifies it ith suddha-sadava which is a grama-raga.

Its	prast	āra <sup>5</sup> :	L DP	12 111	In this		Vie 1	
1.	mā Pa	mā 🍴	mā	mā tu	pā d	ha-ni va	nī mū	dha-pa
				1 / 70				
2.	mā	pa-ma	mā	sā	mā	gā	rī	rī
	rdha	ja		na	na			- 1-
3.	pā	mā	ri-ma	ga-ma	mā	mā	mã	mā
	ki	ri	ţa					là.
4.	mā	ni-dha	ni-sa	ni-dha	pa-ma	pa-dha	mā	mā
	ma	ņi	da		rpa		ņam	
5.	nī	nī	rī	rī	nī	rī	rī	pā
	Gau		rī		ka	ra	pa	
6.	nī ,	ma-pa	mā	mā	sā	sā	sā	sā
	lla	van			gu	li		su
7.	gā	nī	<b>s</b> ā	gā	dha-pa	mā	dha-ni	sa
	te	,					ji	tam
8.	pā	sā	pā	ni-dha-pa	mā	mā	mā	mā
	su	ki	ra		ņam			

## 5. पञ्चमी जातिः

रिपावंशी तु पञ्चम्यां सगमाः स्वल्पका मताः । संगतिर्गच्छेत्पूर्णत्वे गान्निषादकम् ॥७३॥ रिमयोः क्रमाद्गेन निगाभ्यां च षाडवौडुवता मता। ऋषभो ऽ शस्त्वौडुवितं द्वेष्टचष्टौ च कला मताः ॥७४॥ पूर्वावतप्रेक्षणं तु तृतीयकम्।

अस्यां पञ्चम्यां पञ्चमो न्यासः। ऋषभपञ्चमनिषादा अपन्पासाः । चोक्षपञ्चमदेश्यान्धाल्यो दृश्यन्ते । अस्याः प्रस्तारः

- पञ्चमी
- पा धनि नी नी मा नी मा पा न
- गा सा सा मां मां पां पां हे
- पां पां धां नीं नी गा सा ति बा
- पा मा धा नी निध पा पा पा नं Ħ
- पा रीं रीं रीं रीं
- निंग सा सध नी नीं नी ल
- सा सा मा पा पा पा पा बि का
- धामाधानी पा पा पा पा ति म जे यं

## [तत्र साकल्येन पदयोजना]

[हरं मूर्धजाननं महेशममरपतिबाहस्तम्भनमनन्तम्। तं प्रणमामि पुरुषमुखपद्मलक्ष्मीहरमम्बिकापतिमजेयम् ॥

#### (v) Pañcamī: (73-75b)

In pañcami, rsabha and pañcama are the two fundamental notes, sadja, gāndhāra and madhyama are considered to be very

<sup>5.</sup> The purport of the song is as under:

May the mirror of the crest jewel crowning the upper (fifth) face of Siva\*, the rays emanating from which are beautiful as they are stimulated by the fingers of the graceful hands of Gauri, protect (us).

<sup>\*</sup> Comp. S. Raj Vol. I, p. 214, which reads Bhavamurddhajanayanam meaning "the upper (third) eye of Siva".

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rare<sup>1</sup>, rsabha and madhyama are in concert (sangati) and in case of completeness one may proceed from gāndhāra to niṣāda<sup>2</sup>. The hexatones and pentatones<sup>3</sup> are accepted to be (formed) by the respective elimination of gāndhāra, and niṣāda and gāndhāra. Rṣabha is not conducive to pentatonic formation when it is the fundamental note<sup>4</sup>, and eight kalā-s are accepted (in it). Its mūrcchanā etc. is like the previous one<sup>8</sup>, excepting that it is used in the third act. (73-75b)

In this pañcamī, the final note is pañcama; ṛṣabha, pañcama and niṣāda are the semifinal notes; and cokṣapañcama, deśī and andhālī are seen.

#### Its prastāra6:

1.	pā Ha	dha-ni ram <sup>7</sup>	nī mū	nī	mā. rdha	nī ja	mā	pā na
2.	gā	gā	sā	sā	mā	mā	•	pā
	nam	ma	he		sa	ma	ma	ra

1. This obviously applies to the complete formations.

2. 'K' infers that ga and ni should be brought in concert with each other and also that this should not be attempted in the hexatonic and the pentatonic forms because ga and ni-ga are respectively to be eliminated in them.

3. Şādavauduvatā is an abstract noun indicating the state of being

hexatonic and pentatonic.

4. The pentatonic forms can be obtained by the elimination of ga and ni, so in the case of 1sabha being the fundamental note, even though there is no question of its consonant being omitted, yet by the authority of muni (Matanga?), as quoted by 'K', pentatonic forms are not permitted.

5. That is, like that of madhyama, i. e. commencing in sabha. By etc., is included the caccatouta tala and the viniyoga, i. e.

its application in the dhruva song.

6. The purport of the song is as under :-

Obeisance to that Siva whose (fifth) face (emerges from) his (four) heads, the Lord of lords, the paralyser of the power of the chief of gods (Indra), the endless, the invincible, lord of Ambika who robs Vişnu of the grace of his countenance.

7. The anusvara of Haram has been supplied to make the text more intelligible. The Adyar ed. of S. R. reads Haramurdhaja etc.

Comp. Bh. Bhasya of Nanyadeva Chap. VI which reads प्रणमामि पुरुषमहमलङ्कृतिभरं etc. meaning "I bow to the Being that bears profuse ornamentation" etc. instead of तं प्रणमामि पुरुषमुखप्रालक्ष्मीहरं etc.

						15.00		
3.	pā pa	pā ti	dhā bā	nî	nī hu	nī stam	gā	sā bha
4.	pā na	mā ma	dhā nan	nī	ni-dha tam	pā	pā	pä
5.	pă pia	pā ņa	rī mā	rī	rī mi	rī pu	rī ru	rī şa
6.	mā mu	ni-ga kha	sā. pa	sa·dha dma	nf	nī la	nī	nī kşmī
7.	sā ha	sā. ra	sā mam	mā	pā bi	pā ka	pā	pā pa
8.	dhā ti	mā ma	dhā je	nī	pā yam	pā	pā	pā

## 6. धैवती जातिः 💹 🎹 📜

स्तो धैवत्यां रिधावंशौ लङ्घचावारोहिणौ सपौ ।।७४।। पलोपात्वाडवं प्रोक्तमौडुवं सपलोपतः। ऋषभादिर्मूच्छंना स्यात्तालो मार्गश्च गीतयः।।७६।।

अस्यां धैवत्यां धैवतो न्यासः । ऋषभमध्यमधैवता अपन्यासाः ।

विनियोगश्च षाड्जीवत्कला द्वादश कीर्तिताः।

चोक्षकैशिकदेशीसिंहल्यो दृश्यन्ते । अस्याः प्रस्तार :--

६. धैवती

 धाधानिधपधमामामा तरुणा मलें दु

२. धाधानिधनिसंसासासासा मणिभूषिता म

३. सघ धा पा मध धा निध धनि धा ल शिरो जं

४. सा सा रिंग रिंग सा रिंग सा सा भूज गा धि पै क प्र. धांधांनीं पांधांपांमांमां कुंडल विला स

- ६, घां घां पां मंघं घां निष्यं धांनि घां कत्रा शों भं
- ७. धा धा निसं निसं निध पा पा पा न ग सू नुल क्ष्मी
- द. रिग सा सा सा नीं नीं नीं दे हा र्घमि श्रि
- सा रिग रिग सा नीं सा धां धां त श री रं
- १०. रीं गेरिमंगं मां मां मां मां प्रणमा मि भूत
- ११. नी नी घा घा पा रिग सा रिग गी तो पहा र
- १२. पा घा सा मा घा नो घा घा परितु ष्टं

[तत्र साकल्येन पदयोजना]

[तरुणामलेन्दुमणिभूषितामलशिरोजं
भुजगाधिपैककुण्डलविलासकृतशोभम् ।
नगसूनुलक्ष्मोदेहार्धमिश्रितशरीरं
प्रणमामि भुतगीतोपहारपरितृष्टम् ।।]

(vi) Dhaivatī: (75c-77b)

In dhaivati, rsabha and dhaivata are the two fundamental notes, sadja and pañcama are to be overstepped, while in

ascent<sup>1</sup>, hexatone is said to be by the elimination of pañcama and pentatone by that of sadja and pañcama; its mūrcchanā commences with rsabha and its tāla, mūrga, gīti and its proper application (viniyoga) are like those of sādjī<sup>2</sup>. It is known to have twelve kalā-s. (75c-77b)

In this dhaivatī, the final note is dhaivata, the semifinal note is dhaivata, rṣabha and madhyama; and cokṣakaiśika, deśī and simhalī are seen.

#### Its prastāra8:

1.	dhā Ta	dhā ru	ni-dha ṇā	pa-dha	mā ma	mā len	mā	mā du
2.	dhā ma	dhā ņi	ni-dha bhū	ni-sa	sā śi	sā tā	sā	sā4 ma
3.	sa-dh <b>a</b> la	dhā śi	pā ro	ma-dha	dhā	ni-dha	dha-ni jam	dhā
4.	sā bhu	sā ja	ri-ga gā	ri-ga	sā dhi	ri-ga pai	sā	sā ka
5.	dhā kuņ	dhā	ni ḍa	pā la	dhā vi	pā lā	mā	mā sa

- 1. 'K' interprets that sa and pa are to be overstepped in the ascending pattern of tonal movement and draws the implication that, the purport is that, "in the state of completeness they have to be very rare, and thus in descent they (sa and pa) have to be rare and not very rare."
- 2. That is, "tala is threefold pañcapāṇi, which is ekakala etc, as respectively set in the citra, vārtika and dakṣṇa mārga-s and also in māgadhī, sambhāvitā and pīthulā gīti-s in due order. Its proper application is known to be in the naiṣkrāmī dhruvā in the first act."
- 3. The purport of the song is as under:

Obeisance to (the Ardhanārīśvara, Śiva) whose glistening hair is decorated by the pure jewel of the new moon, who appears beautiful by the dangling of the lone ear-ring formed by the king of serpents (Śeṣa), whose body is conjoint half and half with the graceful frame of the daughter of the mountain (Pārvatī) and who is delighted by the presentation of songs by (his) devoted creatures.

4. Cf. Kallinātha S. R. vol. I, p. 218 as well as K. R., p. 140 who omit the tāra sign upon all the sa-s of this kalā. Two of the MSS. of S. Raj. agree with this reading (see S. Raj vol. I p. 199 f. n). These signs are given in the text.

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6.	dhā kṛ	dhā ta	pā śo	ma-dha	dhā	ni-dha	dha-ni	dha
7.	dhā Na	dhā	ni-sa	ni-sa	ni-dha	pā la	pā	pā kşmī
8.	ri-ga	ga sā hā	sā	Sa			nt al	ni fri
9.	sā ta	ri-ga	ri-ga	sā	nī	sā,	dhā ram	dhā
10.	ri pra	ga-ri	ma-ga	mā	mā mi	mā bhū	mā	mā tā
11.	•	nī	dhā to	dhā	pā pa	ri-ga	sā	
12.	pā pa	dhā ri	sā. tu	mā	dha	nī ju	dhā şṭam	dha

# 7. नैषादी जातिः

नैषाद्यां निरिगा अंशा अनंशाबहुलाः स्मृताः ।।७७।।

षाडवौडुवलङ्घ्याः स्युः पूर्वावद्विनियोजनम् ।

चच्चत्पुटः षोडशात्र कला गादिश्च मूर्च्छना ।।७८।।

अस्यां नैषाद्यां निषादो न्यासः । अंशा एवापन्यासाः । चोक्षसाधारितदेशीवेलावल्यो दृश्यन्ते । अस्याः प्रस्तारः—

- ७. नेषादी
- नी नो नो मां घानी नो तं सुरवं दित
- २. पा मा सा धां नीं नीं नीं नीं महिष महा सुर
- ३. सा सागा गानी नी घानी मथन मुमा पर्ति
- ४. सां साधानी नी नी नी नी भोगयुतं

- प्र. सा सा गा गा मां मां मां मां न ग सुत का मिनी
- ६. नीं पांधांपां मां मां मां दिब्यविशेषक
- ७. रीं गांसी सी री' गांनी नी सूचक शुभ न ख
- द र्पण कं
- ९. सा सा गा सा मा मा मा मा अहि मुख म णिख चि
- १०. मां मां मां नीं धां मां मां तो ज्ञवलनू पुर
- ११. धाधानीनोरीगामां मां बाल भूजंग म
- १२. मां मां पांधांनीं नींनीं र व क लि तं
- १३. पां पां नीं नीं री री री री द्रुत म भिन्न जा मि
- १४. रीमामामारीगासासा शरणमनि दित
- १५. धामारी गासाधानी नी पा दयुगपं क
- १६. पा मा री गा नी नी नी नी ज विला सं

#### [तत्र साकल्येन पदयोजना]

## [तं सुरवन्दितमहिषमहाऽसुरमथनमुमापित भोगयुतं नगसुतकामिनोदिव्यविशेषकसूचकशुभनखदर्पणकम् । अहिमुखमणिखचितोज्ज्वलन् पुरबालभुजंगमरवक्तितं द्रुतमभित्रजामि शरणमनिन्दितपादयुगपङ्कजविलासम् ॥७॥]

(vii) Naisādī: (77c-78)

In naiṣādī, the fundamental notes are niṣāda, ṛṣabha and gāndhāra and the rest of the notes (lit. non-fundamental notes) are known (in it) to be weak¹ (lit. not profuse). The hexatone, the pentatone and the notes to be overstepped are like in the previous one², as also its proper application. (The tāla) is caccatpuṭa; it has sixteen kalā-s and its mūrcchanā begins with gāndhāra. (77c-78)

In this naişādī<sup>8</sup>, the final note is niṣāda, the very fundamental notes are the semifinal notes and cokṣasādhārita, desī and velāvalī are seen.

Its pr	astāra4	:			
1.	nï	nī	nΥ	7.0	

1.	nī	nī	nī	nī	sā	dha	- 7	
	Tam		su	ra	van	dila	nī di	nī
2.	pā ma	mā hi	sā. sa	dhā ma	ni ha	nī	nī su	tam <sup>5</sup>
3.	sā ma	sā tha	gā.	gā mu	nī mā	nī	dha pa	nī tim
4.	sā bho	sā	dhā ga	nī yu	nī tam	nī	nī	nī
5.	sā na	sā. ga	gā su	gā ta	mā kā	mā	mā mi	mā
6.	nī di	pā ·	dhā vya	pā vi	mā śe	mā	mā şa	mā ka
7.	rī sū	gā	sā ca	sā. ka	rī śu	gā bha	nī na	nī
8.	nī da	nĭ	pā rpa	dha-ni	nī kam	nī,	nI	kha nī
9.	sā A	sā hi	gā mu	sā kha	mā ma	mā ni	mā kha	mā ci
10.	mā to	mā	mā jjva	mā la	nī nū	dha	mā pu	mā ra

4. The purport of the song is as under:

I hasten to take shelter in Him, who is adored by the gods, who vanquished the great demon Mahişa, who is the lord of Umā, who is associated with serpents\*, who reflects in the mirror of his auspicious nails, the special mark of extraordinary excellence (tilaka) borne by the most beautiful maiden, the daughter of the mountain (Pārvatī), who puts on the young serpents that by their hissing sound like the anklets (as it were) shining with inlaid jewels (extracted) from the mouths of snakes, and who is endowed with the grace of the praiseworthy lotus feet.

\* Comp. S. Raj (Vol. I, p. 201) which reads उमापरिभोगेश्रुवं meaning "associated with the enjoyment of Uma's company" instead of उमाप्ति मोगश्रुवं of the Adyar ed. of S. R.

5. The anusvāra is supplied editorially to make an intelligible reading of the text which as per the Adyar ed. of S. R.

तं सुरवन्दितमहिषमहा ऽसुरमथनसुमापति भोगयुतं etc.

<sup>1.</sup> The expression "anamśābahulā" of the text is interpreted in two different ways by the two commentators. 'S' reads it as "anamśā+bahulā" which means the non-fundamental notes, viz. sa, ma, pa and dha are profuse. But 'K' points out that this reading is in contradiction with the statement of Matanga—"in the state of completeness sa, ma, pa and dha are weak, in the hexatones sa, ma and dha are weak and in the pentatones ma and dha are weak" and also author's own statement—"the non-fundamental notes are not to be repeated." He therefore reads it as "anamśā+abahulā" which has been adopted in this translation. Both the readings are grammatically possible, but the latter seems to be technically more appropriate.

<sup>2.</sup> That is, the hexatone is by the elimination of pañcama, the pentatone by that of sadja and pañcama, sa and pa are the notes to be overstepped in the ascending movement; and its proper application is like that of sadji, i.e. in the naiskrāmiki dhruvā of the first act.

<sup>3.</sup> Naisādī is the last of the seven suddhā jāti-s described here. Their actual formation in practice has been demonstrated in so far as the arrangement of notes in different kalā-s set to a definite time-measure in a particular tāla etc. has been indicated. Their modified forms are not similarly illustrated but may be worked out on this pattern.

11.	dhā	dhā	nī	nī	rī	gā	ma	mā
2.0	ba	la		bhu	ja	nga	ini:	ma
12.	mā	mā	pā	dhā	nī	nī	nī	nī
	ra	va	ka	li		tam		
13.	pā	pā	nī	nī	rī	rī	rī	rī
	dru	ta	ma	bhi	vra	jā		mi
14.	rī	mā	mā	mā	rī	gā	sā	sā
	śa	ra	ņa	ma	nin		di	ta
15.	dhā	mā	rī	gā	87	dhā	nī	nī
	pa		da	yи	ga	pan		ka
16.	pā	mā	rī	gā	nī	nī	nī 🕦	nī
	ja	vi	la	sam				

# 8. षड्जकेशिकी जातिः

अंशाः स्यः षड्जकैशिक्यां षड्जगान्धारपञ्चमाः । ऋषभे मध्यमे ऽल्पत्वं धनिषादौ मनाग्बह ।।७९।।

चच्चत्पुटः षोडशास्यां कलाः स्युविनियोजनम् । प्रावेशिक्यां ध्रवायां स्यात्प्रेक्षणे तु द्वितीयके ॥५०॥

अस्यां षड्जकैशिवयां गान्धारो न्यासः । षड्जनिषादपञ्चमा अपन्यासाः । प्रागुक्ता गान्धारपञ्चमहिन्दोलकदेशीवेलावल्यो दृश्यन्ते । अस्याः प्रस्तारः-

- पड्जकैशिकी
- १. सासा मां पांगरि मग मा मा
- २. मा मा मा मा सां सां सां सां
- धा धा पा पा धा धा रो रिम असकलश शितिल
- ४. री री नीं नीं नीं नीं नीं

- धा धा पा धनि मा मा पा पा द्विर दग ति
- ६. धा घा पा धनि घा घा पा पा निपुण म ति
- ७. सा सा सा सा सा सा सा सा म् खां
- द. धा धा पा धा धनि घा घा घा रु ह दि कां
- ९. सा सा सा रिंग सा रिंग धा धा हर मंबुदो द
- १०. मा धा पा पा धा धा नी नी धि नि ना
- ११. री री गासासां सांसां गां अ चलवर सू
- १२. घा रिसं रीं संरि रीं सां सां सां हा र्घ मि
- १३. सा सरि री सरि री सा सा सा त श री
- १४. मा मा मा मा निध पध मा मा त्र ण मा मि तम हं
- १४. नी नी पा पम पा पम पध रिग अनुपम मुखक म
- १६. गागागागागागागागा लं

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## [तत्र साकल्येन पदयोजना]

[देवमसकलशशितिलकं द्विरदर्गातं निपुणमति मुग्धमुखाम्बुरुहदिन्यकान्तिम् । हरमम्बुदोदधिनिनादमचलवरसूनुदेहार्धमिश्रितशरीरं प्रणमामि तमहमनुपममुखकमलम् ।।]

(viii) Şadjakaisikī: (79 80)

In şadjakaisikī¹ the fundamental notes would be şadja, gāndhāra and pañcama; ṛṣabha and madhyama (will be) rare² and dhaivata and niṣāda somewhat³ profuse. Caccatpuṭa will be the tāla and there will be sixteen kalā-s in it; its proper application will be in the prāvesikī dhruvā (song in the second act). (79-80)

In this şadja-kaişikī, gāndhāra is the final note, şadja, niṣāda and pañcama are the semifinal notes and gāndhāra-pañ-cama, hindolaka, deśī, velāvalī, mentioned before, are seen.

#### Its prastara4:

1.	sā De	sā	mā	pā	ga-ri	ma-ga		
2.	mā vam	mā	mā	mā	sā	sā	Sā	sā

1. Sadja-kaišiki is the first among the associate modified (vikṛtā samsargajā) jātis which the author is now going to describe.

2. Sa, ga, þa being the fundamental notes, ri, ma, dha, ni have to be weak, but of these ri and ma are provided to be rare.

3. Of the non-fundamental notes, viz. ri, ma, dha and ni, ri and ma are declared to be rare and therefore as compared to them dha ni are profuse, but as compared to the fundamental notes they are at the same time weak and therefore relatively they are said to be somewhat profuse.

4. The purport of the song is as under:

Obeisance to that Hara (Siva) who is the God that bears the imperfect moon as the tilaka mark, who has the gait of an elephant, who is of a sharp intellect, whose innocent lotus face is radiant with extraordinary lustre, who (in his speech) sounds like the clouds and the ocean, whose body is conjoint with the frame of the daughter of the mountain (Parvatt) and who bears the matchless lotus face.

\* Comp. S. Raj, Vol. I, p. 204 which reads সমূৱীৰ্দি meaning "the ocean of nectar" instead of সমসূৱীৰ্দি of S. R.

2	dhā	dhā	pā	pā	dha	dhā	The same	rī	ri-ma
5.	a	sa	ka	la	· sa	śi	10113	ti	la
4.	rī	rī	nī	nī	nī	nī	F# 130	กโ	nI
	kam					Longen		PH	可将
5.	dhā	dhā	pā	dha·n	i mā	mā		pā	pa
	dvi	ra	da	ga	tim				
6.	dhā	dhā	рā	dha-ni	d <b>h</b> ā	dhā		pa	pā
	ni	ри	ņa	ma	tim	9	113		19
7.	sā	sā	sā	sā	· sā	sā		sā	sā
	mu		gdha		mu	khām		1>	bu
8.	dhā	dhā	pā	dha	dha-ni	dhā	1.15	dhā	, dha
	ru	ha	di		vya	kān		13	tim
9.	sā	sā	sa	ri-ga	รลิ	ri-ga		dhā	dhā
	Ha	ra	mam		bu	do		THE	da
10.	mā	dhā	рā	pā	dhā	dhā		nī	nī
	dhi	ni	na		dam			157	24
11.	rī	rī	gā	sā	sā	sā		sā	gā
	а	ca	la	va	ra	sū	2.0		nu
12.	dhā	ri-sa	rI	s <b>a-ri</b>	rī	sā		sā	sā
	de		hā	à.	rdha	mi			śri
13.	sā	sa-ri	rī	sa-rī	rî	sā		sa	sā
	ta	\$a	rī		ram	3,1		111	3
14.	mā	mā	mā	mā	ni-dha	pa-dha		mā	mā
	pra	ņa	mā		mi	tama		ham	
15.	nī	nī	pā	pa-ma	pā	pa-ma	1.0	pa-dh	a ri-ga
	a	nu	þа	ma	mu	kha		ka	ma
16.	gā lam	gā	gā	gā	gā	gā	1	gā	gā

# 9. षड्जोदीच्यवा जातिः

अंशाः समिनधाः षड्जोदोच्यवायां प्रकीर्तिताः । मिथश्च संगतास्ते स्युर्मन्द्रगान्धारभूरिता ॥६१॥ षड्जर्षभौ भूरितारौ रिलोपात्षाडवं मतम् । अोडुवं रिपलोपेन धैवते ऽंशे न षाडवम् ॥६२॥

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षाड्जीवद्गीतितालादि गान्धारादिश्च मूर्च्छना । द्वितीये प्रेक्षणे गाने ध्रुवायां विनियोजनम् ।।८३।।

अस्यां षड्जोदीच्यवायां मध्यमो न्यासः । षड्जधेवतावपन्यासौ । अस्याः प्रस्तारः—

- ९. षड्जोदीच्यवा
- १. सा सा सा सा मां मां गां गां शैं ले
- २. गामापामागामामाधा शसू नु
- ३. सासामागापापानीधा शैले. शसूनु
- ४. धानीसासाधानीपामा प्रणय प्रसंग
- भू. गांसासासासासासा स विला स खेल
- ६. धाधापाधापानीधाधा न विनो दं
- सा गां गां गां गां सा सा
   अ धि क
- द्र. नीधापाधापाधाधाधा मुखें दु
- ९. सांसामागापापानीधा अधिक मुखें दु
- १०. धानी संसंधानीपामा नयनं नमा मि

११. गांसा सा सा सा सा सा गां

१२. धाधापाधामामामामा

शैलेऽक्षराभ्यां प्रथमा द्वितीया तु शसूनुना । क्षिणे व्यात्साप्तमी त्विधिकाक्षरैः ।। द्वर्ष। हितीया मुखेन्द्वना ऽष्टमी त्वस्यां षड्भिस्तैर्नवमी कला ।

## [तत्र साकल्येन पदयोजना]

[ शैलेशसूनुप्रणयप्रसङ्गसविलासखेलनविनोदम् । अधिकमुखेन्द्रनयनं नमामि देवासुरेश तव रुचिरम् ॥ ]

#### (ix) Şadjodīcyavā: (81-85b)

In sadjodicyavā the fundamental notes are said to be sadja, madhyama, nisāda and dhaivata which are mutually in concert with each other; there is a profusion of the low gāndhāra¹ and high sadja and ṛṣabha²; the hexatone is accepted to be (caused) by the elimination of ṛṣabha, and the pentatone by that of ṛṣabha and pañcama; no hexatone is (possible) with dhaivata as the fundamental note³, the gīti⁴ and tāla etc. are

- 1. Even though gāndhāra is not a fundamental note in sadjodīsvava yet it is profuse in the lower register as laid down by Bharata who says: "Sadja, rsabha and gāndhāra have to be strong" (cf. N. S, G. O. S. Ed. XXVIII 109 p. 57).
- 2. Sadja and rsabha are profuse in the higher register; for, as observed by 'K', rsabha is the maker of the hexatone and the pentatone, and therefore in the state of completeness, it is rare along with pañcama according to Matanga (as quoted by him). Thus the statement of Matanga is valid, according to 'K', with regard to the low and the middle registers, and that of Bharata (quoted in 1 above) with regard to the high register. Sada is one of the fundamental notes and is naturally profuse, but the provision with regard to its profusion in the higher register shows that it is comparatively more profuse there, than in the other two places.
- 3. Because rsabha, being its consonant, cannot be eliminated.
- 4. The Adyar ed. of S. R. reads gita, which has been changed here to giti, as for example is the case in the following sadjamadhyama. Moreover, dhruva-gana is mentioned separately in

like those of sadji, its murcchana commences with gandhara, and its proper application is in the dhruva song of the second act. (81-83)

In this sadjodicyavā, madhyama is the final note, and sadja and dhaivata are the semifinal notes.

#### Its prastāras :

10	pruseu							
1.	sā Śai	sā	sā	sā	mā le	mā	gā	gā
2.	gā śa	mā	pā sū	mā	gā	mā	mā	dhā nu
3.	sā śai	sā	mā le	gā	pā śa	pā sū	nī	dha nu
4.	dhā pra	nī ņa	sā ya	sā	dhā pra	nī san	pā	mā ga
5.	gā	sā vi	sā la	sā.	sā sa	sā khe	sā	gā la
6.	dhā na	dhā	pā no	dhā	pā	nī	dhā dam	dhā
7.	sā. A	gā	gā dhi	gā	gā ka	gā	sā	sā
8.	nī mu	dhā	pā khen	dhā	pā	dhā	dhā	dhā. du
9.	sā a	8ā dhi	mā ka	gā	pā mu	pā khen	nī	dhā du
	dhā .na	nī ya	sā nam	sā	dhā na	nī mā	pā	mā mi
11.	gā. de	82	sā Dā	sā	sā. su	sā re	sā	gā sa'
12.	dhā ta	dhā	pā ru	dha ci	mā ram	mā	mā	mā

this same verse. The reading giti is surely more significant in this context. The interpretation of 'S' also supports this view.

5. The purport of the song is as under:

O! the lord of the gods as well as the demons, I bow down to that beautiful extra (third) eye of your moonlike face which is the means of amusement in the midst of the graceful love-sports of the daughter of the mountain (Parvatt).

The first kalā is (sung) by the two syllables sai and le and the second by (the three) sa, sā and nu, while the third is by these five. Similarly, the seventh is (sung) by (the three) syllables a, dhi and ka and the eighth by (the three) mu, khen and du, while the ninth kalā is (sung) by these six together. (84-85b)

It will be observed that certain portions of the text of the song, in the above kalā-s are repeated. Here the pattern of repetition is elucidated.

The text of the first two kalā-s is repeated in the third and that of the seventh and the eighth kalā-s is repeated in the ninth kalā.

The author has given specific instructions regarding the distribution of the syllables of the song among the kalā-s in this particular case only, in view of the repeated portions.

# 10. षड्जमध्यमा जातिः

अंशाः सप्त स्वराः षड्जमध्यमायां मिथश्च ते । । दूरा। संगच्छन्ते निरत्पो ऽ शाद्गादृते वादितां विना । निलोपनिगलोपाभ्यां षाडवौडुविते मते । । दूरा। षाडवौडुवयोः स्यातां द्विश्रुती तु विरोधिनौ । गीतितालकलाऽऽदीनि षाड्जीवन्मूच्छना पुनः । । दूरा। मध्यमादिरिह ज्ञेया पूर्वावद्विनियोजनम् ।

अस्यां षड् जमध्यमायां षड् जमध्यमौ न्यासौ । सप्त स्वरा अपन्यासाः । अस्याः प्रस्तारः—

#### १०. षड् जमध्यमा

- १. मा गा सग पा धप मा निघ निम् र ज नि व धू मु स
- २. मां मां सां रिंग मंगं निध पध पा विला स लो च

- ३. मा गा री गा मा मा सा सा विकास
- ४. मा मगम मा मा निध पध पम गमम प्रविक सित कु मुद
- प्र. धा पध परि रिग मग रिग सधस सा दल फेन सं
- ६. निध सा री मगम मा मा मा मा भं
- ७. मां मां मंगमं मंधं धंपं पंधं पंमं गंमंगं का मि ज न न य न
- झा पध परि रिग मग रिग सधस ता
   ह द या भि नं दि
- ९. मा मा धनि धस धप मप पा पा नं
- १०. मां मंगमं मां निधं पंधं पंमंगं गां मां प्रण मा मि दे वं
- ११. धा पध परि रिग मग रिग सधस सा कु मु दा धि वा सि
- 77 १२. निध सा री मगम मा मा मा मा नं

[तत्र साकल्येन पदयोजना]

[रजनिवध्मुखविलासलोचनं प्रविकसितकुमुददलफेनसंनिभम्। कामिजननयनहृदयाभिनन्दिनं

प्रणमामि देवं कुमुदाधिवासिनम् ।।]

(x) Şadja-madhyamā: (85c-88b)

In sadja-madhyamā, (all) the seven notes are the fundamental notes which move in concert with each other, nisāda is rare¹ except when gāndhāra is the fundamental note³ or when it (nisāda) is the sonant³; the hexatone and the pentatone are accepted to be (caused) by the respective elimination of nisāda, and nisāda and gāndhāra; both these (ni and ga) are adverse⁴ to the hexatonic and pentatonic formations; gīti, tāla, kalā, etc. are like those of sādjī; its mūrcchanā is known to commence with madhyama, while its proper application is like that of the previous one.⁵ (85c-88b)

In this sadja-madhyamā, sadja and madhyama are the final notes, and (all) the seven notes are semifinal notes. Its prastāra<sup>6</sup>:

1.	12	_	_	dh <b>a-</b> pa dhū		ni-dha mu	
2.	mā la	รลี	ri-ga sa	ma-g <b>a</b> lo	ni-dha	pa-dha	pā ca

- 1. Nisāda is rare in the state of completeness.
- 2. Even in the state of completeness, if gāndhāra is the fundamental note, then the rarity of ni jāda which is its consonant is not desirable.
- 3. When, however, niṣāda is the vādī (sonant) it cannot at all be rare.
- 4. The two bi-srutic notes (dvisruti of the text), gāndhāra and niṣūda are not conducive to hexatonic and pentatonic formations when they are the fundamental notes, as observed by 'K' because of the very fact that they are formed by the elimination of the niṣūda and gāndhāra, and also because the same note cannot be the fundamental note as well as the note to be eliminated. Thus, the purport is that while ga and ni are the fundamental notes, there are no hexatonic and pentatonic forms. However according to the interpretation of 'S', in the case of hexatonic and pentatonic forms taking place, ni and ga are dissonant (vivādī).
- 5. That is, sadjodicyava.

6. The purport of the song is as under:

Obeisance to Lord, the presiding spirit of the white waterlily (i. e. the moon) which is, as it were, the graceful eye of the bridal face of the night, (shining) like the froth (collected) upon the petals of the white water-lily in full bloom and which is pleasing to the heart and the looks of the lovers.

- 3. mā gā rī gā mā mā sā sā sā nam
- 4. mā ma-ga-ma mā ni-dha pa-dha pa-ma ga-ma-ma prà vi ka si ta ku mu da
- 5. dha pa-dha pa-ri ri-ga ma-ga ri-ga sa-dha-sa sa ni
- 6. ni-dha sā rī ma-ga-ma mā mā mā mā
- 7. mā mā ma-ga-ma ma-dha dha-pa pa-dha pa-ma ga-ma-ga

  Ka mi ja na na ya na
- 8. dhā pa-dha pa-ri ri-ga ma-ga ri-ga sa-dha-sa sā

  hr da yā bhi nan di
- 9. mā mā dha-ni dha-sa dha-pa ma-ma pā pā nam
- 10. mā ma-ga-ma mā ni-dha pa-dha pa-ma-ga gā mā pra na mā mi de vam
- 11. dha pa-dha pa-ri ri-ga ma-ga ri-ga sa-dha-sa sā ku mu dā dhi vā si
- 12. ni-dha sā rī ma-ga-ma mā mā mā mā

## 11. गान्धारोदीच्यवा जातिः

गान्धारोदोच्यवायां तु द्वावंशौ षड्जमध्यमौ ।।८८।। रिलोपात्षाडवं ज्ञेयं पूर्णत्वे ऽंशेतराल्पता । अल्पा निधपगान्धाराः षाडवत्वे प्रकीर्तिताः ।।८९।।

रिधयोः संगतिर्ज्ञेया धैवतादिश्च मूर्च्छना। तालश्चच्चत्पुटो ज्ञेयः कलाः षोडश कीर्तिताः॥९०॥

विनियोगो ध्रुवागाने चतुर्थप्रेक्षणे मतः।

अस्यां गान्धारोदीच्यवायां मध्यमो न्यासः। षड्जधेवताव-पन्यासौ। अस्याः प्रस्तारः—-

- ११. गान्धारोदीच्यवा
  - १. सा सा पा मा पा घप पा मा सौ
- २. धा पा मा मा सा सा सा सा म्य
- ३. धानी सासामामापापा गौरी मुखां बु
- ४. नी नी नी नी नी नी नी कह दि ज्य तिल क
- प्र. मामाधानिस नी नी नी नी परिचुं बिता चि
- ६. मापामापरिगगागासासा तसुपा दं
- ७. गा मग पा पध मा धनि पा पा प्रविक सित हे म
- प्त. री गासासघनो नी धाधा कमल निभं
- ९. गारिंग सा सिन गारिंग सा सा अ ति रु चिर कां ति
- १०. सा सा सा मा मिन धिन नी नी न ख द पंणा म
- ११. मा पा मा परिंग गा ना सा सी ल निके तं
- १२. गां सां गां सा मां पां मां परिंगं म न सि ज श री र

- १३० गांमी गांसी गांगी गांसी
- १४. तीं नीं पार्धानीं गार्गा प्रणमा मिगी दी
- १५. नी' नी' धार्पा धार्पा मी पी
- १६. था पा सा सा मा मा मा मा

## [तत्र साकल्येन पदयोजना]

## [ सौम्यगौरोमुखाम्बुरुहदिन्यतिलकपरिचुम्बिताचितसुपादं प्रविकसितहेमकमलनिभम् ।

## अतिरुचिरकान्तिनखदर्पणामलनिकेतं मनसिजशरीरताडनं प्रणमामि गौरीचरणयुगमनुपमम् ।।]

#### (xi) Gandhārodīcyavā : (88c-91b)

In gāndhārodīcyavā, however, there are only two fundamental notes, viz. şadja and madhyama; the hexatone is (caused) by the elimination of rṣabha and in the state of completeness the notes other than the fundamental notes are rare, while in the case of hexatone niṣāda, dhaivata, pañcama and gāndhāra are said to be rare; rṣabha and dhaivata may be comprehended to be in concert, (and its) mūrcchanā commences with dhaivata; the tāla is known to be caccatpuṭa and the kalā-s are said to be sixteen; its proper application is accepted to be in the dhruvā song of the fourth act. (88c-91b)

In this gandharodicyava the final note is madhyama, and sadja and dhalvata are the semifinal notes.

#### Its prastāra4:

1.	sau	sā	pā	mā	pā	dha-pa	pā	mā
2.	dhā mya	pā	mā	mā	sā	sā	sā	82
3.	dhā gau	nī	sā rī	sā	mā mu	mā khām	pā	pā bu
4.	nī ru	nī ha	nī di	nī	nī vya	nī ti	nī la	nī ka
5.	mā þa	mā ri	dhā cum	ni-sa	nī bi	nī tā	nī	nī rci
6.	mā ta	pā su	mā pā	pa-ri-ga	gā dam	gā	sā	sā
7.	gā pra	ma-ga	pā ka	pa-dha si		dha-ni he	pā	pā ma
8,	rī ka	gā ma	s <b>ā</b> la	sa-dha ni		nī	dhā	dhā
9.	gā A	ri-ga ti	sā ru	sa-ni <i>ci</i>	g <b>ā</b> 7a	ri-ga kān	sā	sā ti
10.	sā na	sā kha	sā da	mā	ma-ni rpa	dha-ni ṇā	nī	nī ma
	mā la	pā ni	mā ke	pa-ri <sup>5</sup> -ga	gā tam	gā	sā	sā
12.	ma	na	gā si	sā ja	mā śa	pā rī	mā ra	pa-ri-ga
	4 000	*	_					

4. The purport of the song is as under:

22

Obeisance to the auspicious feet (of Siva) that are worshipped as they are kissed by the divine tilaka mark on the gentle lotus face of Gauri and that (caused) the destruction of the mind-born (cupid); and also to the two matchless feet of Gauri that are (resplendent) like the golden lotus in full bloom, that are the abode of pristine purity of the mirrornails that reflect fascinating lustre.

5. Ad. ed. of S. R. reads pa-ri-ga, but ri has been marked tara (high) on the basis of 'K' and K. R. for it seems their interpretation is technically sound.

<sup>1.</sup> Amsetara, i. e. other than the fundamental notes, viz. other than sa and ma, i. e., ri, ga, pa, dha, ni—these are said to be rare in the state of completeness.

<sup>2.</sup> In the hexatonic forms only ni, dha, pa and ga are said to be rare, because ri is eliminated. No pentatonic forms are possible here as ordained by Bharata. (cf. N. S. Bom. Ed. p. 450).

<sup>3.</sup> This applies to the state of completeness only, for ri is eliminated in the hexatonic forms.

Section	7	:	Fati-s	(Melodic	types

13.	gā da ta	mā	ga	sā da	gā nam	gā	nda ga	sā
14.	nī pra	nf ṇa	pā mā	dhā	nī mi	gā gau	gā	gā rī
15.	nī ca	nī ra	dhā ṇa	pā yu	dhā ga	pā ma	mā nu	pā pa
16.	dhā mam	pā	sā	sā	mā	mā	mā	mā

# 12. रक्तगान्धारी जातिः

अंशाः स्यू रक्तगान्धार्यां पञ्च धर्षभविजताः ॥९१॥

रिमितक्रम्य सगयोः कार्ये संनिधिमेलने ।

रिलोपरिधलोपाभ्यां षाडवौडुविमष्यते ॥९२॥

बहुत्वं निधयोरंशः पञ्चमो द्वेष्टि धाडवम् ।

द्विषन्त्यौडुवितं षड्जिनमपाः संगतौ सगौ ॥९३॥

पञ्चपाण्यादि षाड्जीवदृषभादिस्तु मूर्च्छना ।

तृतीयप्रेक्षणगतध्रुवायां विनियोजनम् ॥९४॥

अस्यां रक्तगान्धार्यां गान्धारो न्यासः । मध्यमोऽपन्यासः । अस्याः

#### १२. रक्तगान्धारी

प्रस्तार:\_\_

- १. पानी सासागासापानी तंबाल रजनि
- २. सांसापापामामागागा करतिलकभूष
- ३. मापाधापामापाधपमग णविभू
- ४. मामामामामामामामा ति

- प्र. वां नीं पां मंपं घां नीं पां पां
- ६. मां पां मां धींने पां पां पां पां
- ७, रीगामापापापामापा प्रणमा मिगौ री
- द. रीर्गामापापापामापा वदना रवि
- ९. पापापा<mark>णाशापापापा</mark> द
- १०. रीगासासारीगागागा प्रीतिकरं
- ११० गा गा पा धर्म धा निधं पा पा
- १२. मां पा मां पंरिंग गा ग गा गा

## [तत्र साकल्येन पदयोजना]

# [तं बालरजनिकरतिलकमूषणविभूतिम्। प्रणमामि गौरीवदनारविन्दप्रीतिकरम्।।]

## (xii) Rakta-gāndhārī: (91c-94)

In rakta-gāndhārī, the fundamental notes are five, i. e. (the notes) other than dhaivata and ṛṣabha¹; ṣadja and gāndhāra should be brought into close contact (sannidhi) and in coordination (melana) with the other notes excepting ṛṣabha²; the

1. That is, sa, ga, ma, pa and ni.

2. Here the author is talking of two different relationships of sadja and gāndhāra, viz. sannidhi and melana. 'K' defines the former as the continuity of the two notes of different laghu-kāla (i. e. duration of time in terms of laghu-s) and the latter as the continuity of two or three notes of identical laghu-kāla. The purport is that these relations should be effected.

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hexatone and the pentatone are formed by the respective elimination of rsabha, and rsabha and dhaivata; nisada and dhaivata are profuse3 and pañcama as the fundamental note does not admit the hexatone4, while sadja, nisada, madhyama and pancama (as fundamental notes) are not conducive to pentatonic formation<sup>5</sup>; sad ja and gandhara are in concert with each other, the pancapani etc. are like those of sadji and the murcchana commences with rsabha; its proper application is in the dhruvā (song) of the third act. (91c-94)

In this rakta-gandhari, gandhara is the final note and madhyama is the semifinal note. Its prastara?:

1.	pā Tam	nī	sā bā	sā	gā la	pā ja	
2.	sā ka	sā ra	pā ti	pā la	mā ka	gā	

3. Nisada and dhaivata are profuse. 'K' comments on this statement as follows. Nisada is a fundamental note and, as such, is naturally profuse, and yet if any specific mention is made about it, obviously it has been done to indicate that it is very profuse, i. e. more than can otherwise be expected in case of a fundamental note. Again dhaivata is the maker of the pentatonic form, and as such its profusion is out of question in the pentatonic forms, while in the hexatonic and complete forms as well it must ordinarily be weak. So its profusion is ordained as an exception by Bharata: "Dhaivata and nişāda will be strong" (as quoted by 'K' and N. S. Bom. Ed., pp. 449, 450) However, in the critical edition of G.O.S. the following reading is found which seems to be quite appropriate. "Dhaivata is strong here, though it becomes weak when eliminated (N. S. XXVIII 116, p. 58).

4. This is a juti of madhyama-grama in which pancama and rsabha are consonant. If pañcama be the fundamental note, rsabha cannot be eliminated, and the hexatone is formed by the elimination of ri, consequently it is not formed.

5. Similarly, sa, ni, ma and pa as fundamental notes do not tolerate the elimination of ri and dha for forming pentatone forms, which are therefore possible only with gandhara as the fundamental note.

The sannidhi and melana of sa and ga with other notes have already been spoken of; their sangati spoken of here, as observed by 'K' is between them 'a mutual relation'. It seems that in Kallinatha's view sannidhi and melana are forms of sangati.

7. The purport of the song reads as under: Obeisance to that (Siva) who is decorated by the ornament of the new moon for his tilaka mark and who is delighting to the lotus face of Gauri,

				,		,. ,		
3.	mā ņa	pā vi	dhā bhū	pā	mā	pā	dha-pa	ma-ga
4.	mā tim	mā	mā	mā	mā	mā	mā	mā
5.	dhā 0	nī	pā	m <b>ā-</b> pā	dhā	nī	ра	pā
6.	mā 0	pā	mā	dhā-ni	pā	pā	pā	pā
7.	rī <i>Pra</i>	gā ņa	mā mā	pā	pā mi	pā gau	mā	pā rī
8.	rī va	gā. da	mā nā	pā	pā ra	pā vin	mā	pā
9.	pā da	pā	pā	pā	pā	pā	pā	pā
10.	rī prī	gā	sā ti	sā ka	rī ram	gā	gā	gā
11.	gā 0	gā	рā	dha-ma	dhā	ni-dha	pā	pā <sup>8</sup>
12.	mā 0	pā	mã	pa-ri-ga	gā	gā	gā	gā

Section 7: 7ati-s (Melodic types)

# 13. कैशिकी जातिः

कैशिक्यामुषभान्ये ऽंशा निधावंशौ यदा तदा। न्यासः पञ्चम एव स्यादन्यदा द्विश्रती मतौ ॥९५॥ निगपान्न्यासान्निधयोरंशयोविदः । रिलोपरिधलोपेन षाडवौडुवितं मतम् ॥१६॥ निपबाहुल्यमंशानां संगतिमिथः । षाडवौडविते द्विष्ट: क्रमात्पञ्चमधैवतौ ।।९७॥ षाङ्जीवत्पञ्चपाण्यादि गान्धारादिस्तु मूर्च्छना । पञ्चमप्रेक्षणगतध्रु वायां विनियोजनम् ॥९८॥

<sup>8.</sup> Ad. ed. of S. R. reads pa pa which has been modified as pa pa with tara sign on the basis of 'K' and K. R. since that is technically sound.

अस्यां कैशिक्यां गान्धारपञ्चमनिषादा न्यासाः । रिवर्ज्याः षट् सप्त वा स्वरा अपन्यासाः । अस्याः प्रस्तारः—

#### १३. कैशिकी

- १. पा धनि पा धनि गा गा गा के ली हत
- २. पापामानिधनिधपापापा कामतनु
- ३. धानी संसारी री री री विभ्राम विला सं
- ४. सा सा सा री गामा मा मा तिलक युतं
- ४. मांधांनींधांमांधांमांपां मूर्धी ध्वंबा ल
- ६. गारी साधिन रीरी रीरी सो म निभं
- ७ गारी सासाधाधामामा मुखकम लं
- द. गागागामामानिधनिनीनी अस<sup>्</sup>म हा ट
- ९. गागानीनीगागागा कसरो जं
- १०. गां गां नीं नीं नीं घं पा पा हृ दि सु ख दं

POLICE

११. मा पा मा पा पा पा मा मा

१२. संक्रिमा गां निधंनि नी नी मा गांवक की की का

## [तत्र साकल्येन पदयोजना]

## [केलीहतकामतनुविश्रमविलासं तिलकयुतं मूर्घोध्वंबालसोमनिभम् । मुखकमलमसमहाटकसरोजं हृदि सुखदं प्रणमामि लोचनविशेषम् ।।]

(xiii) Kaišikī: (95-98)

In kaiśikī, excepting ṛṣabha¹, all are fundamental notes; when however, niṣāda and dhaivata are the fundamental notes, then only pañcama² is the final note, otherwise³ niṣāda and gāndhāra are accepted (as the final notes). Others, however, think that in case niṣāda and dhaivata are the fundamental notes niṣāda, gāndhāra and pañcama can be the final notes.⁴ The hexatonic and the pentatonic formations are accepted to be (caused) by the respective elimination of ṛṣabha, and ṛṣabha and dhaivata. Rṣabha is rare⁵, niṣāda and pañcama are profuse⁵ and the fundamental notes are in concert with each other. Pañcama and dhaivata are repugnant⁵ respectively to the hexatonic and the pentatonic formations. Pañcapāṇi etc.

1. That is, sa, ga, ma, pa, dha and ni.

3. That is when sa, ga, ma and pa are the fundamental notes.

- 4. Such as Matanga who says: "When dhaivata and nişt da are fundamental notes, pañçama is also a final note." Thus in this view also the special position of pañçama in relation to dha and ni as the fundamental notes, is retained in addition to ni and ga as the final notes.
- 5. That is, in the state of completeness.
- Obviously they are very profuse since they are also included in the fundamental notes.
- 7. That is, pnncama is repugnant to the formation of the hexatone and dhainata to that of the pentatone, 'K' explains that it is so because ri and pa are in consonance in the madhyamagrama. So ri cannot be eliminated while pa is the fundamental note and dha cannot be eliminated while dha is the fundamental note.

<sup>2.</sup> This is ordained by Bharata who says: "Gāndhāra and niṣāda are the final notes. When dhaivata is the fundamental note as also niṣāda, the final note is desired to be pañcama" (as quoted by 'K' and also Bom. Ed., pp. 452, 453).

are like those of sadji, the marchana commences with gandhara and the proper application is in the dhruva (song) of the fifth act. (95-98)

In this kaisiki, gāndhāra, pañcama and nīṣāda are the final notes and six notes leaving aside ṛṣabha, or even all the seven<sup>8</sup> notes, are the semifinal notes.

#### Its prastāra 9:

1.	pā Ke	dha-ni	pā lī	dha-ni	g <b>ā</b> ha	gā	gā ta	gā
2.	pā kā	pā	mā ma	ni-dha	ni-dha	pā	pa	pā
3.	dhā vi	nī	sā bhra	sā ma	rī vi	rī lā	ri	rī sam
4.	sā ti	sā. la	sā. <i>ka</i>	rī yu	gā tam	mā	mā	mā
5,	mā mū	dhā	nī rdho	dhā	mā. rdkva	dhā bā	mā	pā la
6.	gā so	rī .	sā ma	dha-ni ni	rī bham	rī	rī	rī
7.	gā Mu	rī kha	sā ka	sā ma	dhā lam	dhā	mā	mā
8.	gā a	gā. sa	gā ma	mā	mā hā	ni•dha- <b>n</b> i	nī ţa	nī
9.	gā. ka	gā. sa	nī ro	nī	gā. jam	gā	gā	gā
							-	

- 8. The alternative for the seven semifinal notes has been provided by the author in view of Bharata's statement that, "sometimes even fsabha becomes the semifinal note" (as quoted by "K" and also see N. S., G., O. S. XXVIII 138, p. 63). "K" presents another view as well according to which the expression sometimes refers to the state of completeness.
- 9. The purport of the song is as under:

Obeisance to the lotus face with the tilaka mark on the forehead resplendent with the new moon on the head, graced by the amorous perturbance that playfully destroyed the physical frame of cupid, having a special eye beautiful as the unparalleled golden lotus and bestowing comfort to the heart.

		26	cuon / : J	att-5 (1	Melodie	types)		343
10.	gā hŗ	gā di	nI <sup>10</sup>	nī kha	ni-dha dam	pā	pā	pā
11.	mā pra	pā ·	ma ma	pā	pā mi	pā lo	mā ca	mā
12.	sā na	mā vi	gā ni se	i-dha-ni	i nī şam	nī <sup>11</sup>	mā	gā

## 14. मध्यमोदीच्यवा जातिः

पञ्चमांशा सदा पूर्णा मध्यमोदीच्यवा मता।
लक्ष्म शेषं विजानोयाद् गान्धारोदीच्यवागतम् ॥९९॥
मूर्च्छना मध्यमादिः स्यात्तालश्चच्चत्पुटो मतः।
चतुर्थस्य प्रेक्षणस्य ध्रुवायां विनियोजनम् ॥१००॥
अस्यां मध्यमोदीच्यवायां मध्यमो न्यासः। अस्याः प्रस्तारः

#### १४. मध्यमोदीच्यवा

- १. पाधिन नी नी मापा नी पा दे हा धंरू प
- २. री री री गासा रिग गा गा मतिकां तिम मल
- ३, नीनी नीनीनी नीनी ममलें दुकं द
- ४. नी नी धप मानिधनिध पा पा कु मुद निभं
- ४, पापा री री री री री री चा मी करां बु
- ६. मारिंग सा सधंनीं नीं नीं हह दि व्या कांति

<sup>10 &</sup>amp; 11. S. R. reads nī but it has been modified to read as nī with the tārasign on the basis of 'K' and K. R. as it is technically sound.

- ७. मापानीसापापागागा प्रवरगणपूजि
- द. गा पां मां निधं नीं नीं सा सा तम जे यं
- ९. पांपांमां धंनि पांपांपां सुराभिष्टुतम निल
- १०. मां पां मां रिग गा गा गा म नोज व मंबु
- ११. गापामापानी नी नी नी दो दिधिन ना द
- १२, मा पा मा परिग गा गा गा म तिहा सं
- १३. गांगांगांगांमा निर्धनी'नी' शिवंशां तम सुर
- १४, नी नी धप मा निध निध पा पा च मू म थ नं
- १५. री गा सा सा मा निर्धनि नी नी
- १६. नी नी धा पा धा पा मा मा

## [तत्र साकल्येन पदयोजना]

[ देहार्धरूपमितकान्तिममलममलेन्द्रुकुन्दकुमुदिनभं चामीकराम्बुरुहदिव्यकान्तिप्रवरगणपूजितमजेयम् । सुराभिष्टुतमनिलमनोजवमम्बुदोदधिनिनादमितहासं

शिवं शान्तमसुरचमूमथनं वन्दे त्रैलोक्यनतचरणम् ॥]

(xiv) Madhyamodicyavā: (99-100)

Madhyamodīcyavā is considered always to be complete<sup>1</sup> with pañcama for its fundamental note. Its other features may be understood to be like those of gāndhārodīcyavā.<sup>2</sup> Its mūrcchanā commences with madhyama, tāla is accepted to be caccatpuṭa and its proper application is in the dhruvā of the fourth act. (99-100)

The final note, in this madhyamodicyava is madhyama.

#### Its prastāra8:

1.	pā De	dha-ni	nī ha	nî	mā rdha	pā rū	nt	pā pa
2.	rī ma	rī ti	rī kān	gā	sā ti	ri-ga ma	gā ma	gā la
8.	nī ma	nī ma	n <b>ī</b> len	nī	nī du	nī kun	nī	nī da
4.	nī ku	nī mu	dha-pa da	mā ni	ni-dha bham	ni-dha	pā	pā
5.	pā cā	"pā	rī mī	rī .	rī ka	rī	rī	rī bu
6,	mā ru	ri-ga ha	gā. di	sa-dha	nī	nī -   'vya	nī kān	nī ti
7.	mā <i>þra</i>	pā va	nī ra	sā - ga	pā ņa	pā pū	gā	gā ji

- 1. That is, no hexatonic or pentatonic forms are possible in it.
- 2. Other features imply the rareness and the profusion, the sixteen kala-s and so on—these may be understood to be the same as in gandharodicyava.
- 3. The purport of the song is as under:

Obeisance to Siva in His Ardhanārīsvara form which is extremely bright, pure and resembles (in its whiteness) the clear moon, white jasmine and the white water lily, who is worshipped by the chiefs of his troops, extremely resplendent like the golden lotus, who is invincible, is adored by the gods, has the speed of the wind and of the mind and the sound of the clouds and of the ocean and has the tumultuous laughter, who is peaceful, the vanquisher of the army of demons and whose feet are worshipped by all the three worlds.

			3/					
8.	gā	pā	ma	ni-dha	nī	nī W	sā	sā ///
110	ta	ma	je		yam	0. 10	Madlon	
9.	pā	pa	mā	dha-ni	pā	pā	pā	pā
	Su	ra	bhi	şţu	ta	ma	ni	la
10.	mā	ра	mā	ri-ga	gā	gā	gā	gā
1771)	ma	no	ja	5 6 6	va	mam	0	bu
			_				11.1	ilmuo
11.	gā	pā	mā	pā	nī	nī	nī	nī
	do		da	dhi	ni	na		da
12.	mā	pā	mā	pa-ri-ga	gā	gā	gā	gā
	ma	ti	hā		sam			No. of
13.	gā	gā	gā	gā	mā	ni•dha	nī	nī
	Śi	vam	śān		ta	ma	su	ra
14.	nī	nī	dha-pa	mā	ni-dha	ni-dha	pā	pā
	ca	mū	ma	tha	nam		n	11 //8
15.	rī	gā	sā	sā	mā	ni-dha-ni	ní	nī
10.	van	8	de		trai	lo	kya	the with
	Van		40		*****		ityu	. 8
16.	nī	nī	dhā	pā	dhā	pā	mā	mā <sup>4</sup>
	na	ta	ca	ra	nam			Co sta
								7. 3

# 15. कार्मारवी जातिः

कार्मारच्यां भवन्त्यंशा निषादरिपधैवताः।

बहवोऽन्तरमार्गत्वादनंशाः परिकीर्तिताः ।।१०१।।

गान्धारोऽत्यन्तबहुलः सर्वांशस्वरसंगतिः।

चञ्चतपुटः षोडशात्र कलाः, षड्जादिमूर्च्छना ॥१०२॥

पञ्चमस्य प्रेक्षणस्य ध्रुवायां विनियोजनम् ।

अस्यां कार्मारव्यां पञ्चमो न्यासः । अंशा एवापन्यासाः । अस्याः

प्रस्तारः-

- १५. कार्मारवी क्रिक्त क्रिक क्रिक्त क्रिक्त क्रिक्त क्रिक्त क्रिक्त क्रिक्त क्रिक्त क्रिक्त क्रिक्त क्
  - री री री री री री री री री ते स्था ण ल ल त
- २. मा गा सा गा सा नी नी नी वा मां गस क्
- ३. नीं मां नीं मां पां पां गा गा मतिते जः प्रसर
- ४. गापामापानीनीनीनी सौधां शुकां ति
- प्र. रोंगां सांनीं रोंगां रोंमां फ णिप ति मुखं
- ६. री गारी सानी धनि पापा उरोविपुल सा ग
- ७. मी पी मी तंरिंग गा गा गा गा र नि के तं
- द्र री री गासम मा मा पा पा सित पंन गेंद्र
- ९. मापामापरिगगगागा मतिकां तं
- १०. घानी पामाधानी सासा षण्मुख विनो द
- ११. मीनीनीनीनीनीनी करपल्लवां गु
- १२. मां मां धां नीं सनिनि धा पा प

<sup>4.</sup> Ad ed reads ma which has been modified to read as ma with the tara sign on the basis of the interpretation of 'K' and the surmise of K. R. which is technically sound.

१३. मा पा मा परिग गा गा गा गा गा न वि नो कि वं क्रिकार

१४. नी नी पाधिन गागागा प्रणमा मिदेव

१५. सारीं गांसानीं नीं नीं नी

१४. नी' नी धा धा पा पा पा पा

## [तत्र साकल्येन पदयोजना]

[तं स्थाणुललितवामाङ्गसक्तमितिजः-प्रसरसौधांशुकान्ति-फणिपिति-मुखमुरोविपुलसागरिनकेतं सितपन्नगेन्द्रमितकान्तम् । षण्मुखविनोदकरपल्लवाङ्गुलिविलासकीलनिवनोदं प्रणमामि देवयज्ञोपवीतकम् ।।]

(xv) Kārmāravī: (101-103b)

In kārmāravī, the fundamental notes are niṣāda, ṛṣabha, pañcama and dhaivata. Due to antaramārga the non-fundamental notes¹ are said to be profuse, gāndhāra² is very profuse and all the fundamental notes are in concert with each other. Caccatpuṭa is the tāla and there are sixteen kalā-s in it. The

murcchand commences with sadja and its proper application is in the dhruva of the fifth act. (101-103b)

Pañcama is the final note in this kārmāravī and its fundamental notes are the semifinal notes.

#### Its prastāra8:

1.	rī	rī	rī	rī	rī	rī	rī	rī
	Tam		stha		ņu	la	li	ta
2.	mā	gā	sā	gā	sā	nī	nī	nī
	va		man		ga	sa	1)	kta
3.	nī	mā	nī	mā	pā	pă	gā	gā
	ma	ti	te		jah	pra	sa .	ra
4.	gā	рā	mā	рā	nī	nī	nī	nī
	sau		dhām		śu	kān	210	ti
5.	rī	gā	sā	nī	rī	gā	rī	mā
	pha	ņi	pa	ti	mu	kham	1	-61
6.	rî	gā	rī	sā	ηī	dha-ni	pā	pā
	u	ro	vi	þи	la	sa		ga
7.	mā	рā	mā	pa-ri-ga	gā	gā	gā	gā
	ra	ni	ke	- 1	tam			

#### 3. The purport of the song reads as under:

Obeisance to that sacred thread of Lord (Siva) which is attached to the graceful left side of His and is extremely resplendent, rediating the splendour of its silvery rays. having the king of serpents (vāsuki) as its mouth (knot), which has the ocean of the vast chest (of Siva) for its abode, which is (made of) the white serpent of extraordinary brilliance and which serves for the amusement of Sanmukha, who, in his graceful play, engages his artful fingers in toying with it.

#### An alternative interpretation:

Obeisance to the hood of that king of serpents (Vāsukī), the lovely white snake, who, like the sacred thread of the Lord, as it were, is attached to the graceful left side of Siva and is extremely resplendent, radiating the splendour of its silvery rays, who has the ocean of the vast chest (of Siva) for its abode, and who amuses Ṣanmukha engaged in toying with it by the sportive movement of the fingers of his graceful hands.

\* Comp. S. Raj (Vol. I, p. 235) which reads कोपान्निकान्ति (i. e. the splendour of the fire of anger) instead of सौधांशुकान्ति of the Ad. ed. of S. R.

<sup>1.</sup> The non-fundamental notes are sa, ga, and ma, and as such they should be weak, but they are said to be profuse because of antaramarga (see verses 52-53 for the definition). 'K' raises the question, "If the fundamental as well as the other notes are characterised by profusion, what would be the distinction in between them?" and he answers, "the fundamental notes are used by way of sthayi (stable pattern of tonal movement) and other notes, even though frequently repeated are employed as sañcāri-s (circulatory). Moreover, this is provided in view of Bharata's statement, "The non-fundamental notes are always strong because of usage" (as quoted by 'K').

Because gandhura is in concert with all the notes as stated by Bharata; "Gandhura specifically moves everywhere. (i. e. among all the notes)" Cf. N. S., G. O. S. Ed. XXVIII 136, p. 62.

		(4.3)	AAX MED	DIE I NOT	10/1/2 2 110	1111970		
8.	F. CO.	rT	gā	sa-ma	mā	mā	pā	pā
	SI	ta	pan	abut at	na	gen	the obenie	dra
9(,,,,,	mā	pā	mā	pa-ri-ga	ı gā	gā	gā	gā
	ma	ti	kan		tam		and the La	
10.	dhā	nī	pā	mā	dhā	nī	sā	sā
	Şa		ņmu	kha	vi	no	2 In hh	da
11.	nī	nī	nī	nī	nī	กรี	nī I	nt
- 77	ka	ta	þа		lla	nān		gu
12.	mā	mā	dhā	nī	sa-ni-ni	dhā	pā	pā
	li	ข่	la		sa	kı		la
13.	mā	pā	mā	pa-ri-ga	gā	gā	gā	gā
	na	vi	no		dam		5.01	
14.	nī	nī	pā	dha-ni	gā	gā	gā	gā
	pra	ņa	mā		mi	de		va
15.	sā	rī	gā	sā	nī	nī	nī	nī
	ya		jño		þа	$v\bar{\imath}$		ta
16.	nĭ	nī	dhā	dhā	pā	pā	pā	pā
	kam							

## 16. गान्धारपञ्चमी जातिः

अंशो गान्धारपश्चम्यां पश्चमः, संगतिः पुनः ।।१०३।।
कर्तव्या ऽत्रापि गान्धारीपश्चम्योरिव भूरिभिः ।
चच्चत्पुटः षोडशात्र कला गादिश्च मूर्च्छना ।।१०४।।
तुर्यप्रेक्षणसम्बन्धिश्च वागाने नियोजनम् ।
अस्यां गान्धारपश्चम्यां गान्धारो न्यासः । ऋषभपश्चमावपन्यासौ ।

अस्याः प्रस्तारः—

- १६. गान्धारपञ्चमी
  - १. पा मप मध नी धप मा धा नी कां
  - २. सनिनिधापापापापापा तं

- ३ धानी सासामामा पापा वार्मेक देश
- ४. नी नी नी नी नी नी प्रें खोलमा न
- प्र. नी नी धप मा निध निध पा पा कम ल निभं
- ६ पापारी री री री री री वर सुर भिकुसुम
- ७. मा रिंग सा सध नी नी नी नी गं धा धिवा सि
- द. नी नी स्ना रिंस री री री री री री त म नो ज्ञ
- ९. नी गासा निगसा नी नी नी नी नगरा जसू नु
- १०. नीं मां नीं मां पां पां गा र तिरा गरभ स
- ११. गा पां मां पां नीं नीं नीं के ली कुच ग्र
- १२ मा पा मा परिग गा गा गा ह लीलं तं
- १३. नीं नीं पांधांनीं गा गा प्रणमा मिंदे वं
- १४. नीं नीं नीं नीं नीं नीं नीं चंद्रार्धमं डि
- १५. मां मां घां नीं सनिनि घा पा पा त विला सकी ल

#### पा मा परिंग गा गा गा गा न विनो

## तित्र साकल्येन पदयोजना

#### कान्तं वामैकदेशप्रेङ्घोलमानकमलनिभं वरसूरभिकुसूमगन्धाधि-वासितमनोज्ञनगराजसूनुरितरागरभसकेलीकुचग्रहलीलम् । चन्दार्धमण्डितविलासकीलनविनोदम् ।।] प्रणमामि

#### (xvi) Gāndhāra-pañcamī:

In gandhara-pancami, the fundamental note is pancama and like gandhari and pancami, here too, many notes have to be brought in concert with each other1; (the tāla is) caccatputa, there are sixteen kalā-s, its mūrcchanā commences with gāndhāra and its proper application is in the dhruva song related to the fourth act. (103c-105c)

In this gandhara-pancami the final note is gandhara, and rsabha and pancama are the semifinal notes.

#### Its prastāra2:

1.	pā Kān	ma∙pa	ma-dha	nī	dha-pa	mā	dhā	nī
2.		ni dhā	pā tam	pā	рā	pā	pā	pā
3.	dhā vā	nī	sā mai	sā	mā ka	mā de	pā	pā śa

<sup>1.</sup> In gandhart, the fundamental and the final notes are in concert with the rest of the notes, so here too likewise, gandhara and pañcama are deduced to be in concert with the rest, viz. sa, ri, ma, dha and ni. In pañcamt ri and ma are in concert, so may it be understood here as well.

2. The purport of the song is as under:

Obeisance to that beloved Lord who is like the swinging lotus in leaning towards his left side alone (Parvatt being seated to his left), who is sportively making love by briskly and playfully holding the breasts of the beautiful daughter of the mountain (Parvati) scented by the perfume of the most fragrant flowers and who takes delight in sporting the half moon for his embellishment.

		Se	ection 7	Fati-s (	Melodic	types)		355
4.	nī pren	nī	nī kho	nī	nī la	nī mā	nī	nī na
5.	nī ka	nī ma	dha-pa la	mā ni	ni-dha bham	ni-dha	pā	pā
6.	pā va	pā ra	rī su	rī ra	rī bhi	rī ku	rī su	rī ma
7.	mā gan	ri-ga	sā dhā	sa-dha dhi	nī	nî và	nī	nī si
8.	nī ta	nī ma	sā no	ri-sa	rī <i>jña</i>	r <b>ī</b>	rī	rī
9.	nī na	gā ga	să ră	ni-ga	sā. ja	nī sū	nī	nī <sup>8</sup>
10.	nī ra	mā ti	nī rā	mā	pā ga	pā.	gā.	gā
11.	gā ke	pā *	mā li	pā	nī ku	nī ca	nī	nī gra
12.	mā ha	pā lī	mā lam	pa-ri-ga	gā tam	gā	gā	ga
13.	nī pra	nī ņa	pā mā	dhā	nī mi	gā de	gā	gā vam
14.	nī can	nī	nī drā	nī	nī rdha	nî maņ	nī	nī di
15.	mā ta	mā vi	dhā la	nī	sa-ni-ni sa-kī	dhā la	pā	pā
16.	mā na	pā vi	mā no	pa-ri-ga	gā dam	gā	gā	gā

## 17. श्रान्ध्री जातिः

आन्ध्रचामंशा निरिगवा रिगवीनिधयोस्तया ।।१०५।। संगतिन्यांसपर्यन्तमंशानुक्रमतो षड्जलोपेन मध्यमादिस्तु मूर्च्छना ॥१०६॥ प्रकोतितः ।

<sup>3.</sup> Ad. ed. of S. R. reads ni which has been modified to read as nt with a dot above in conformity with 'K' and K. R.

अस्यामान्ध्रचां गान्धारो न्यासः । अंशा एवापन्यासाः । अस्याः प्रस्तारः—

- १७. आन्ध्रो
  - श. गारी री री री री री री री त क णें दुकु सुम
  - २. री गारी गारी री री री खित जटं
  - ३. रीरीगागारीरीमामा त्रिदिवनदीसलिल
  - ४. री गासाधनिनीं नीं नीं धौत मुखं
  - प्र. नीं री नीं रीं धींन धींन पांपां न गसू नुप्रणयं
  - ६. मां पां मां रिग गा गा गा वे द नि धि
  - ७. री री गासस मामापापा परिणा हितुहिन
  - द. मां पां मा रिग गा गा गा शेल गुहं
  - ९. घांनीं गा गा गा गा गा गा अ मृत भ वं
  - १०. पापामारिगगागागा गुणरहितं
- ११. नी नी नी नी री री री री तम विन र विश शि
- १२. री री गानी सासानी नी ज्वलन जलप वन

१३. पां पां मां रिंग या गां गां गां जा का कि का

१४. री री गां संमं मां मां पां पां शार णंत्र जा मि

१५. मां मां नीं नीं सा रोंगां पा शुभ म तिकृत निल

१६. रिंग गा गा गा गा गा गा गा यं

## [तत्र साकल्येन पदयोजना]

[तरुणेन्दुकुसुमखितजटं त्रिदिवनदीसिललधौतमुखं नगसूनुप्रणयं वेदिनिधि परिणाहितुहिनशैलगृहम् । अमृतभवं गुणरहितं तमविनरिवशिशज्वलनजलपवनगगनतनुं शरणं व्रजामि शुभमितकृतिनलयम् ।।]

(xvii) Āndhrī: (105c-107b)

In āndhrī, the fundamental notes are niṣāda, ṛṣabha, gāndhāra and pañcama; ṛṣabha and gandhāra as well as niṣāda and dhaivata are mutually in concert with each other. From the respective fundamental notes one may proceed up to the final note. The hexatone is (caused) by the elimination of ṣadja, the mūrcchanā commences with madhyama and the kalā-s,

<sup>1. &#</sup>x27;K' interprets this to be a relation of sannidhi and melana spoken of in raktagāndhārī (verse 91 ante).

<sup>2. &#</sup>x27;K' interprets amsamukramatah of the text to the following purport: Of the four fundamental notes, viz. ni, ri, ga and pa one may sing that one which is employed as such and then proceed to sing the non-fundamental or co-fundamental notes in order to come to a close with the final note. This provision is based on Bharata's statement: "Gandhara and trabha are related to each other in their movement and nisada and dhaivata as well are directed towards the final note' (as quoted by 'K', and also see Bom. Ed., p. 451 with a slight variation of the text).

the tala<sup>8</sup>, and its proper application are said to be like those of the previous one.<sup>4</sup> (105c-107b)

In this andhri, the final note is gandhara and the very fundamental notes are the semifinal notes.

#### Its prastāra5 :

	-							
1.	gā	rī	rī	rī	rī	rī	rī	rī
	Ta	ru	ņen		du	ku	su	ma
2.	rī	gā	rī	gā	rī	rī	rī	rī
	kha	ci	la	ja	ţam	114 215	707 1	33
3.	rī	rī	gā	gā	rī	rī	mā	mā
	tri	di	va	na	$d\bar{\imath}$	sa	li	la
4.	rī	gā	sā	dha•ni	nī	nī	nī	nī
	dhau		ta	mu	kham			di.
5.	nī	rī	nī	rī	dha-ni	dha-ni	pā	pā <sup>6</sup>
	na	ga	sū		nu	pra	ņa	yam
6.	mā	pā	mā	ri-ga	gā	gā	gā	gā
	ve	Sur III	da	ni	dhim		21/	
7.	rī	rī	gā	sa-sa	mā	mā	pā	pā
	pa	ıi	nd		hi	tu	hi	na
8.	mā	pā	mā	ri-ga	gā	gā	gā	gā
april 4	.śai		la	gr	ham		A Dona w	is West of
9.	dhā	กเ	g <b>ā</b>	gā	gā	gā	gā	gā
	A	mf	ta	bha	vam	mì	pret ve	be res
-								

- 3. Kalākāla is the reading of text in Ad. ed. 'K' does not comment on this portion, but 'S' seems to read kalātāla (i. e. kalā and tāla). Obviously his reading is technically better.
- 4. That is, Gandhara-pañcami.
- 5. The purport of the song is as under:

I take shelter in that (Siva) who has the earth, sun, moon fire, water, air and the sky for his body, who has placed the flower of the new moon in the locks of his hair, whose face is washed with the waters of the Ganges, who is the beloved of the daughter of the mountain (Parvati), who is the treasure house of the veda-s, who has the vast snow-capped peak for his abode, who is the source of nectar, who is devoid of all qualities ( guna-s) and in whom all wisdom abides.

6. Ad. ed. of S. R. reads pa pa which has been modified to read as pa pa with a dot above, in conformity with 'K' and K. R.

10.	pā	pā	mā	ri ga	gā	ga	gă	gā	
	gu	ņa	ra	hi	tam				
11.	nī	nī	nī	nī	rī	rī	rī	rī	
	ta	ma	va	ni	ra	vi	śa	śi	
12.	rī	rī	gā	nī	sā	sā	nī	nī	
	jva	la	na	ja	la	þа	va	na	
13.	pā	pā	mā	ri-ga	gā	gā	gā	gā	
	ga	ga	na	ta	num		17	Ü	
14.	rī	rī	gā	sa-ma	mā	mā	pā	pā	
	śa	ra	nam		vra	jā		mi	
15.	mā	mā	nī	nī	sā.	ří	gā	pā.	
	śu	bha	ma	ti	$k_{1}$	ta	ni	la	
16.	ri-ga yam	gā	gā	gā	gā	gã	gā	gā	
	11. 12. 13. 14.	gu  11. nī ta  12. rī jva  13. pā ga  14. rī śa  15. mā śu  16. ri-ga	gu na  11. nī nī ta ma  12. rī rī jva la  13. pā pā ga ga  14. rī rī śa ra  15. mā mā śu bha  16. ri-ga gā	gu     ņa     ra       11.     nī     nī     nī       ta     ma     va       12.     rī     rī     gā       jva     la     na       13.     pā     pā     mā       ga     ga     na       14.     rī     rī     gā       śa     ra     nam       15.     mā     mā     nī       śu     bha     ma       16.     ri-ga     gā     gā	gu         ņa         ra         hi           11.         nī         nī         nī         nī           12.         rī         rī         gā         nī           jva         la         na         ja           13.         pā         pā         mā         ri-ga           ga         ga         na         ta           14.         rī         rī         gā         sa-ma           sa         ra         nam            15.         mā         mā         nī         nī           su         bha         ma         ti           16.         ri-ga         gā         gā         gā	gu         ņa         ra         hi         tam           11.         nī         nī         nī         rī         rī           ta         ma         va         ni         ra           12.         rī         rī         gā         nī         sā           jva         la         na         ja         la           13.         pā         pā         mā         ri-ga         gā           ga         ga         na         ta         num           14.         rī         rī         gā         sa-ma         mā           sa         ra         nam         vra         vra           15.         mā         mā         nī         nī         sā           su         bha         ma         ti         kṛ           16.         ri-ga         gā         gā         gā         gā	gu       na       ra       hi       tam         11.       nī       nī       nī       rī       rā       vi         12.       rī       rī       gā       nī       sā       sā       sā       sā       sā       pa         13.       pā       pā       mā       ri-ga       gā       rī       num       num </td <td>gu     ṇa     ra     hi     tam       11.     nī     nī     nī     rī     rī     rī       ta     ma     va     ni     ra     vi     śa       12.     rī     rī     gā     nī     sā     sā     nī       jva     la     na     ja     la     pa     va       13.     pā     pā     mā     rī-ga     gā     gā     gā       ga     ga     na     ta     num       14.     rī     rī     gā     sa-ma     mā     mā     pā       śa     ra     nam     vra     jā       15.     mā     mā     nī     nī     sā     rī     gā       śu     bha     ma     ti     kī     ta     ni       16.     rī-ga     gā     gā     gā     gā     gā</td> <td>gu       ņa       ra       hi       tam         11.       nī       nī       nī       rī       nī       nā       nī       na       pā       pā</td>	gu     ṇa     ra     hi     tam       11.     nī     nī     nī     rī     rī     rī       ta     ma     va     ni     ra     vi     śa       12.     rī     rī     gā     nī     sā     sā     nī       jva     la     na     ja     la     pa     va       13.     pā     pā     mā     rī-ga     gā     gā     gā       ga     ga     na     ta     num       14.     rī     rī     gā     sa-ma     mā     mā     pā       śa     ra     nam     vra     jā       15.     mā     mā     nī     nī     sā     rī     gā       śu     bha     ma     ti     kī     ta     ni       16.     rī-ga     gā     gā     gā     gā     gā	gu       ņa       ra       hi       tam         11.       nī       nī       nī       rī       nī       nā       nī       na       pā       pā

## 18. नन्द्यन्ती जातिः

नन्दयन्त्यां पञ्चमो ऽंशो गान्धारस्तु ग्रहः स्मृतः ।।१०७॥

कैश्चिम् पञ्चमः प्रोक्तो ग्रहो ऽस्यां गीतवेदिभिः।

मन्द्रर्षभस्य बाहुत्यं षाडवं षड्जलोपतः ।।१०८।।

हृष्यका मूर्च्छना तालः पूर्वावद् द्विगुणाः कलाः।

विनियोगो ध्रुवागाने प्रथमप्रेक्षणे भवेत्।।१०९।।

अस्यां नन्दयन्त्यां गान्धारो न्यासः । मध्यमपश्चमावयन्यासौ । अस्याः प्रस्तारः—

- १८. नन्दयन्ती
  - १. गा गा गा पा पा धप मा सौ
  - २. घा घा घा घा नी सनिनि घा
- ३. पां पां पां पां पां पां पां म्यं

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१६. धा धा सा सा नो धा ने पा पा

रेट. सा मावा वा बा बाब मा

मा मी पा में मा गा

अ ज श्रि दः क पा

३४. मा पा मा परिया गा गा सा सा

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१६. री री गां गां मां मां मां मां मां द, गम पा पा पा मा मा मा गा fF 타 F 5 ह ल नीं पां गां भा गां गां गां मां गां ्र हा मी मा पा गा गा गा गा 4 100 क विला इ इ कि इ मि ह 11 11 11 11 11 11 11 ह. मा मा पा वाथा निष्य पा पा 110 नी ip ip ip ip if if if if थे. सा दो गा गा गा गा गा गा ह ते प ह ह स १७, रो गा मापा पम पा पा नो ,७१

ह ह म त म अ व ६ र क म ल गृ १२. नी पा नी मा नी धा पा पा हैं ह्या भी मा पा गा गा गा गा क र गि म क डी कर

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सें ६ बी भ ते जी #1 IH II IH IB Ih Ib Ih II

१६. था था तो था पा पा पा पा

- ३०. रींरींरींरींमा पाधा मा ते जो धिक सु
- ३१. नी नी नी नी घापा मा मा गतियो
- ३२. मा परिग गा गा गा गा गा नि

## [तत्र साकल्येन पदयोजना]

[सौम्यं वेदाङ्गवेदकरकमलयोनि तमोरजोविवजितं हरं
भवहरकमलगृहं शिवं शान्तं सिन्नवेशनमपूर्वं
भूषणलीलमुरगेशभोगभासुरशुभपृथुलम् ।
अचलपतिसूनुकरपङ्कामलिवलासकीलनिवनोदं
स्फटिकमणिरजतिसतनवदुक्तक्कीरोदसागरिनकाशम् ।
अजिशरःकपालपृथुभाजनं वन्दे सुखदं
हरदेहममलमधुसूदनसुतेजोऽधिकसुगितयोनिम् ।।

(xviii) Nandayantī: (107-109)

In nandayanti, the fundamental note is pañcama and the initial note is known to be gāndhāra<sup>1</sup>; but however pañcama is said to be the initial note in this by some vocal masters. There is a profusion of low rṣabha<sup>2</sup>, the hexatone is (caused) by the elimination of ṣadja, hṛṣyakā is the mūrcchanā, tāla is

1. It may be observed that even according to Bharata, as also Sārngadeva the general rule for all the jāti-s is that the fundamental note is also the initial note; this however is an exception made by Bharata himself, "in a particular jāti, gāndhāra may be used as the initial note" (as quoted by 'K').

like that of the previous one<sup>3</sup>, the kalā-s are twice as many<sup>4</sup> and its proper application is in the dhruvā (song) of the first act. (107c-109).

In this nandayantī the final note is gāndhāra and madhyama and pañcama are the semifinal notes.

#### Its prastara ::

1.	gā Sau	gā	gā	g <b>ā</b>	pā	pā	dha-p	oa i m	i //
2•	dhā O	dhā	dhā	dhā	dbā	nī	sa-ni-i	ni li dh	ā
3.	pā myam	pā	ρā	pā	pā	pā	pā	pā	.181
4.	dhā ve	nî	mā dāń	pā	gā ga	gā ve	gā	gā da	di
5.	mā ka	rī ra	gā ka	gā. ma	gā la	gā yo	gā	gā nin	311
6.	mā ta	mā mo	pā 1a	pā jv	dhā vi	ni-dha va	pā	pā	.61
7.	dhā rji	nī tam	ınā	pã	gā	gā	gā	gā	(8)
8.	ga-ma haram	pā	pā	pā	mā	mā	gā	gā	101

<sup>3.</sup> That is, like that of andhri, viz. caccatputa.

Obeisance to Hara (Siva) who is gentle, who is as it were, Brahmā in the manifestation of the Vedānga-s and the Veda-s and who is devoid of inertia and activity (tamas and rajas), the liberator of the phenomenal existence, having the lotus for His abode, benevolent, tranquil, beginningless, the promulgator of law and order, sporting with ornaments, extending in virtue by the brilliance of his sports with the chief of serpents (Vāsukī), enjoying the pure graceful play with the lotus hands of the daughter of the mountain (Pārvatī), and (obeisance) to His body which is (sparkling) like a crystal, jewel silver, a (piece of) white new cloth and the ocean of milk, which has made a vessel of the skull of the goat-headed (Dakṣa), which is brilliant like the purity of Madhusūdana (Viṣṇu) and is the cause of the highest state of being.

<sup>2.</sup> Here 'K' elucidates, "Since nandayanti is a jāti of madhyama-grāma, it is not ordinarily accessible to movement in the lower register upto sabha, yet because it is based on hisyaka mūrcchanā which commences with the low pañcama that has sabha as the only consonant note, it becomes permissible to make a profuse use of low sabha. Moreover, Bharata has also said, "There is a profusion of sabha here, and that pertains to the lower register" (as quoted by 'K').

<sup>4.</sup> That is, twice sixteen, viz. thirtytwo.

<sup>5.</sup> The purport of the song is as under :--

		_			
6.	The anusvara has	been supplied to	make	the text intelligible	

ma

mā

va

mā

ni

nī

mã

ra

dhā

kū

mā

mā

21.

22.

rī

mī

si

rī

pā

ta

gā

ka

nî

na

		Section	on 7:	Fati-s (N	lelodio	types)		365
23.	sā kşī	sā	dha-ni roda	i dha	pā sa	pā	pā	pā ga
24.	mā ra	pā ni	mā ka	p <b>a-ri-</b> ga	gā sam	gā	sā	sā
25.	rī A	rī ja	gā	gā raḥ	mā <i>ka</i>	mā pā	pā	pā la
26.	rī pr	rI thu	rī bhā	gā	mā	ri-ga <i>je</i>	mā nam	ma
27.	mā van	nī	pā de	nī.	gā su	gā kha	gā dam	gā
28.	mā ha	mā ra	pā de	pā	dhā ha	dhā-ni ma	ni-dha ma	ma la
29.	dhā ma	dhā dh <b>u</b>	s <b>ā.</b> <i>sū</i>	nī	dhā da	nī na	p <b>ā</b>	pā su
30.	rī fe	rī	rī <i>jo</i>	rī	mā dhi	pā ka	dhā	ma su
31.	nī ga	nī ti	nī yo	nī	dhā	pā	mā	mā
32,	mā	pa-ri-ga	gā nim	gā	gā	g <b>ā</b>	gā	gā*

# घ. उपसंहारः

# (i) जातिविषयकाः सामान्यनिर्देशाः

अनुक्ताविह तालः स्यात्त्रिधैवैककलाऽऽदिकः ।
मार्गाः क्रमाच्चित्रवृत्तिदक्षिणा, गीतयः पुनः ।।११०।।
मार्गधी संभाविता च पृथुलेत्युदिताः क्रमात् ।
योक्ता ऽस्माभिः कलासंख्या सा दक्षिणपथे स्थिता ।।१११।।
वार्त्तिके द्विगुणा ज्ञेया सैव चित्रे चतुर्गुणा ।
सर्वजातिषु जानीयादंशस्वरगतं रसम् ।।११२।।
दृश्यन्ते जन्यरागांशास्तज्ज्ञैर्जनकजातिषु ।

<sup>7. &#</sup>x27;K' observes that this is the last of the associate modified jati-s to have been demonstrated in the state of completeness with one of their respective fundamental notes, and their other forms with the other of their fundamental notes and so on can be worked out similarly.

<sup>8 &</sup>amp; 9. Ad. ed. of S. R. reads pā pā pā and nī which has been modified to read as pā pā pā and nī with a dot above in conformity with 'K' and K. R.

- D. Concluding Remarks: 110-115b
- (i) General remarks with regard to jati-s: (110-113b)

Wherever not specified, the tāla would be threefold viz. ekakala etc. set in the citra, vṛtti and dakṣina mārga-s and the māgadhī, sambhāvitā and pṛthulā gīti-s respectively. (110-111b)

The number of kalā-s as introduced by us, pertains to the dakṣiṇa mārga, which should be known as double in the vārtika and quadruple in the citra. (111c-112b)

The aesthetic delight (rasa) may be understood to be determined by the fundamental note<sup>2</sup> in all the jāti-s. (112cd)

The elements of the derived raga-s are traced<sup>8</sup> by the specialists among the parent jāti-s. (113ab)

The author having described the individual characteristic features of the eighteen jati-s is now offering some concluding observations on this topic.

Wherever no specific mention of tala etc. is made in the above description, the author lays down a general rule with respect to tala, marga and giti to be applied in all such cases.

The prastura-s of jāti-s have been modelled on dakṣiṇa mārga. The author is here laying down the rule for singing in the other mārga-s and gīti-s as well. If, for example, ṣādjī has twelve kalā-s of eight laghu-s each in dakṣiṇa mārga, it will have twenty-four kalā-s of four laghu-s each in vārtika and fortyeight kalā-s of two laghu-s each in citra mārga. In any case the time taken by the song is the same.

Disyante (lit. 'are seen') is interpreted by 'K' as udbhavyante which may be rendered as "are intuitively felt."

# (ii) जातिगानस्य फलश्रुतिः

ब्रह्मश्रोक्तपदैः सम्यवशागुक्ताः शङ्करस्तुतो ।।११३।। अपि ब्रह्महणं पापाज्जातयः प्रपुनन्त्यमूः। ऋचो यजूंषि सामानि क्रियन्ते नान्यथा यथा।।११४।। तथा सामसमुद्भूता जातयो वेदसंमिताः।

(ii) The esoteric value and nature of jāti-gāna: (113c-115b)

These (jāti-s), if properly sung with the verbal texts formerly composed by Brahmā in the euology of Lord Śiva (can) redeem even the sin of slaying a brahmin. (113c-114b)

As the hymns of the Rigveda, the Yajurveda and the Sāmaveda are not otherwise uttered (except according to the rules), so also the jāti-s² that have originated from the Sāmaveda are in conformity with the veda-s³ (114-115b)

The author here is trying to bring out the importance and the value of jāti songs. In the first instance he points out (vide 113ab) to their historical value from the point of musicology; and this constitutes a perceptible benefit (dīṣṭaphala), since the study and practice of jātisongs and their music is helpful in understanding the contemporary rāga-s that are derived from them. Secondly, he also points out an imperceptible benefit (adīṣṭa-phala) also, viz. its potency for accruing religious merit and for absolving one from the greatest of sins.

The author is particular in pointing out that by his time jāti-gāna (singing of jāti songs) had crystallised into unalterable forms, and was cast in rules no longer open to amendment. This may even suggest that jāti-gāna was already out of date in his time. That is perhaps why he sanctifies it in association with the vedic hymns as an ancient tradition.

<sup>1.</sup> That is, ekakala, dvikala and catuşkala caccatputa.

<sup>2.</sup> Such as, sa and ri as fundamental notes are said to be conducive to heroism and so on.

<sup>3.</sup> It has been mentioned in some of the jūti-s as described above, that such a rāga is seen; varātī for example is seen in sādjī. Rāgāmsa is defined by 'K' as "an integral part of another rāga." Such elements of the other rāga-s are seen or perceived in the jūti-s because they are derived from them either directly or through the grāma-rāga-s.

<sup>1.</sup> Considered to be the greatest of sins; if that can be redeemed through jāti-gāna, what else cannot be accomplished.

That is, in contravention of the rules or in the violation of their characteristic features described above.

<sup>3.</sup> The implication is that, it is sinful to sing the jati-s except in the form in which it is ordained by tradition.

It is well known that the vedic hymns are chanted strictly in accordance with the rules for pronouncing the vowels and the consonants in them and with the specific accent, and they cannot be changed in contravention of those rules. Likewise, jāti-s are also to be sung according to their rules since they are derived from the Samaveda; whatever tonal structure, tāla and literary text (pada) etc. are prescribed for them cannot be violated in jāti-gāna.

# अथाष्टमं गीतिप्रकरगाम्

# (i) कपाल-कम्बलगानानि

# (क) कपालगानानि

शुद्धजातिसमुद्भूतकपालान्यधुना बुवे । रागा जनकजातीनां तत्कपालेषु संमिताः ॥१।।

# 1. षाड्जी-कपालम्

षड्जो ग्रहो ऽंशो ऽपन्यासो गो न्यासो ऽतिबहू गनी । अल्पा रिपनिधा लङ्घ्यो रिः, कला द्वादशोदिताः ।।२।। यस्मिन्षाङ्जीकपालं तद् गदितं गीतवेदिभिः ।

# Section 8 Gīti-s

- (i) The kapāla and the kambala songs: 1-14b
- (a) The kapāla-gāna: (1-10)

Now, I am to describe the kapāla-s that have originated from the śuddhā jāti-s. The rāga-s of the parent jāti-s bear a resemblance to their respective kapāla-s (1)

#### (1) Şādjī-kapāla

Ṣādjī kapāla is declared by the experts<sup>2</sup> to be that in which the initial, the fundamental and the semifinal note is ṣadja and the final note is gāndhāra; gāndhāra and madhyama are very profuse, ṛṣabha, pañcama, niṣāda and dhaivata are rare, ṛṣabha is to be overstepped and the kalā-s are said to be twelve. (2-3b)

<sup>1. &#</sup>x27;K' interprets 'sammitāh' of text as "sadīsākārāh pratīyante", i. e. they appear to be similar in form.

<sup>2.</sup> Gitaved t literally would mean those who are the masters of vocal music, but it seems to be used in a wider sense.

Section 8 : Giti-s

# 2. आर्षभी-कपालम्

यत्रर्षभो ऽंशो ऽपन्यासो मो उन्तो गृनिपधाल्पता ॥३॥ सो ऽत्यल्पो ऽष्टकलं तत्स्यात्कपालं त्वार्षभीगतम् ।

# 3. गान्धारी-कपालम्

मध्यमो ऽ'शो ग्रहो न्यासो ऽपन्यासो धैवतो बहुः ।।४।।
यत्रात्पाः सरिगा लोपाद्रिपयोरौडुवं भवेत् ।
तद्गान्धारीकपालं स्यात्कलाऽष्टकविनिर्मितम् ।।४।।

## 4. मध्यमा-कपालम्

मध्यमो ऽंशो निरिगपाः स्वल्पा यत्र कला नव । तन्मध्यमाकपालं स्यादिति निःशङ्कसम्मतम् ॥६॥

# 5. पञ्चमो-कपालम्

ऋषभांशं सग्रहं च निधषड्जगमाल्पकम् । कपालं पश्वमीजातिजातमष्टकलं विदुः ।।७।।

## (2) Ārşabhī-kapāla

The kapāla in which the fundamental and the semifinal note is rṣabha, the final note is madhyama, and gāndhāra, niṣāda, pañcama and dhaivata are rare, ṣadja is very rare and that which has eight kalā-s is related to ārṣabhī. 3c-4b)

#### (3) Gāndhārī-kapāla

Where the fundamental, the initial, the final and the semifinal note is madhyama; dhaivata is profuse, sadja, rsabha and gāndhāra are rare, the pentatone is formed by the elimination of rsabha and pañcama, that is gāndhārī-kapāla composed of eight kalā-s. (4c-5)

## (4) Madhyamā-kapāla

In the view of Śārngadeva, the madhyamā kapāla is that which has madhyama as the fundamental note, where niṣā da, rṣabha, gāndhāra and pañcama are quite rare and where the kalā-s are nine. (6)

# 6. धेंवती-कपालम्

अत्यल्पर्षभगान्धारं पन्यासं मधभूरि च। षाड्ज्या इव कपालं तद्धैवत्याः सकलाऽष्टकम् ॥६॥

# 7. नैषादी-कपालम्

ग्रहांशन्यासषड्जं च रिगाल्पमतिभूरिभिः। निधमैरष्टकलकं स्यान्नेषादीकपालकम् ॥९।।

# 8. कपालगानफलम्

इति सप्त कपालानि ग न्यत्रह्मोदितैः पदैः । स्वरैश्च पार्वतीकान्तस्तुतौ कल्याणभाग्भवेत् ।।१०।।

#### (5) Pañcamī-kapāla

The kapāla with rṣabha as the fundamental note, ṣadja as the initial note, niṣāda, ṣadja, gāndhāra and pañcama as the rare notes and having eight kalā-s is known to be derived from pañcamī jāti. (7)

#### (6) Dhaivatī-kapāla

The kapāla with very rare rṣabha and gāndhāra, with pañcama as the final note, and with profuse madhyama and dhaivata, which is like ṣadjī (in other respects) and has eight kalā-s belongs to dhaivatī. (8)

#### (7) Naisādī-kapāla

The kapāla pertaining to naiṣādī has ṣadja for its initial, fundamental and the final note, rare ṛṣabha and gāndhāra, very profuse niṣāda, dhaivata and madhyama and eight kalā-s. (9)

#### (8) The value of kapāla-gāna

Thus, singing (these) seven kapāla songs as composed in verse and set to tune by Brahmā in the eulogy of Lord Śiva<sup>8</sup> one attains the supreme good<sup>4</sup>. (10)

- 3. Lit. the consort of Parvatī.
- 4. Kalyana lit. means good fortune, prosperity, happiness, good and so on. Incidentally, it indicates worldly prosperity and spiritual good as the reward for singing kapala songs.

## (ख) कम्बलगानम

यत्र ग्रहो इंशो इपन्यासः पञ्चमो बहुलस्तु रिः। सो न्यासो मधगान्धारास्त्वल्पास्तत्कम्बलं मतम् ।।११॥ पञ्चमीजातिसञ्जातमल्पताबहुतावशात्। स्वराणां बहवो भेदास्तस्य पूर्वेरुदीरिताः ॥१२॥ प्रीतः कम्बलगानेन कम्बलाय वरं ददौ। पुरा पुरारिरद्यापि प्रीयते तैरतः शिवः ।।१३।।

## (ग) कपालगतपदानि

कपालानां क्रमाद् ब्रूमो ब्रह्मप्रोक्तां पदावलीम्। झण्टुं झण्टुं ।।१।। खट्वाङ्गधरं ।।२।। दंष्ट्राकरालं ।।३।।

#### (b) Kambala-gāna: (11-13)

Where the initial note, the fundamental note and the semifinal note is pancama, rsabha is profuse, sadja is the final note and madhyama, dhaivata and gandhara are rare, that is accepted to be kambala. It has originated from the poncami jāti. The ancients have spoken of many of its varieties based on the rareness and the profusion of notes. (11-12)

Sometimes in the past Lord Siva, being propitiated by the kambala (song) bestowed a boon upon kambala (naga), and therefore even today, he is propitiated by them (i. e. the kambala-songs). (13)

(c) The verbal text of the kapāla songs: (14ab)

We shall now speak of the verbal text of the kapala songs as originated in due order. (14ab)

1. The sādjī-kapāla song

Jhantum jhantum? (1) khatvangadharam (2) damstrakaralam

5. Cf. S. Raj, Vol. I, p. 659 for greater information regarding

Brahmaprokta lit. 'spoken or sung by Brahma' who composed

7. Thantum is one of the suskaksara-s (syllables devoid of meaning said to have been spoken by Brahma. These meaningles

तिडित्सद्शाजिह्वं ।।४।। ही ही ही ही ही ही ही ही ।।५।। बहरूपवदनं घनघोरनादं ।।६।। ही ही ही ही ही ही ही ही ।।।।। ऊँ ऊँ ह्यां रों हों हों हों ।। नृमुण्डमण्डितम् ।।९।। हूं हूं कह कह हूं हूं ।।१०।। कृतविकटमुखम् ।।११।। नमामि देवं भैरवम् ।।१२।। इति षाडजीकपालपदानि ।।१।।

झण्टं झण्टं खटवाङ्गधरम् ।।१।। दंष्ट्राकरालम् ।।२।। तडित्स-दशजिह्नम् ।।३।। हो हो हो हो हो हो हो ।।४।। क्सम ।। १।। चर्चितगात्रम् ।। ६।। कपालहस्तम् ।। ७।। नमामि देवम ।। इत्यार्षभीकपालपदानि ।।२।।

taditsadrsajihvam (4) hau hau hau hau hau hau hau (5) bahurūbavadanam ghanaghoranādam (6) hau hau hau hau hau hau hau hau (7) ūn ūn hrān raun haun haun haun haun (8) nrmundamanditam (9) hūn hūn kaha kaha hūn hūn (10) kṛtavikaṭamukham (11) namāmi devam bhairavam.8 (12)

#### 2. The ārsabhī-kapāla song

Thantum jhantum khatvangadharam (1) damstrākarālam (2) taditsadrsajihvam (3) hau hau hau hau hau hau hau hau (4) varasurabhikusuma (5) carcitagātram (6) kapālahastam (7) namāmi devam<sup>9</sup> (8).

> syllables form a part of an ancient tradition and even Bharata mentions them at various places (cf. G. O. S. Vol. IV, pp. 107; 108, 112, 118, etc. and XXXIV. 32). All such words are recounted by Śārngadeva in Tālādhyāya (cf. S. R, Ad. ed. Vol. III, p. 129). These are also called stobhaksara-s. Onkara and h in conjunction with vowels or consonants is also included among the stobhaksara-s (cf. Brihaspati, Bharat ka Sangit Siddhanta pp. 251, 252).

8. The Sanskrit text purports as under:

Obeisance to Lord Bhairava, holding a club with a skull on the top and having terrific teeth, a tongue resembling lightning, a face with many forms and a tumultuous sound, who is decorated by human skulls and bears a terrible countenance.

9. The Sanskrit text purports as under:

Obeisance to the Lord holding a club with a skull on the top, and having terrific teeth and a tongue resembling lightning, whose body is anointed with the best of the fragrant flowers and who bears a skull in his hand.

Section 8 : Giti-s

चलत्तरङ्गः ।।१।। भङ्गुरम् ।।२।। अनेकरेणु ।।३।। पिञ्जरं सु ।।४।। रासुरैः सुसेवितं पु ।।४।। नातु जाह् न ।।६।। वीजलम् मां बिन्दुभिः ।।८।। इति गान्धारीकपालपदानि ।।३।।

जय विषमनयन ।।१।। मदनतनुदहन ।।२।। वरवृषभगमन
।।३।। त्रिपुरदहन ।।४।। नतसकलभुवन ।।४।। सितकमलवदन
।।६।। भव मे भयहरण ।।७।। भवशरणम् ।।८।। इति पञ्चमीकपालपदानि ।।४।।

3. The gāndhārī-kapāla song

Calattaranga (1) bhanguram (2) anekarenu (3) piñjaram su (4) rāsuraih susevitam pu (5) nātu jāhna (6) vījalam (7) mām bindubhih 10 (8).

4. The madhyamā-kapāla song

5. The pancami-kapala song

Jaya vişamanayana (1) madanatanudahana (2) varavışabha-

10. The Sanskrit text purports as under:

Let the water of the Ganges, tremulous with the moving waves, tawny with the innumerable particles of sand and partaken by gods as well as demons, purify me with its drops.

11. The Sanskrit text purports as under:

Obeisance to Mahadeva (the great God) who holds a spear with a skull on the top in his hand, who destroyed Tripura and who bears the crescent of the moon, whose three eyes are his tridents, who is always in the company of Uma and who is benevolent.

अग्निज्वाला ॥१॥ शिखावली ॥२॥ मांसशोणित ॥३॥ भोजिनि ॥ सर्वाहारि ॥४॥ णि निर्मांसे ॥६॥ चर्ममुण्डे ॥७॥ नमोऽस्तु ते ॥६॥ इति धैवतीकपालपदानि ॥६॥

सरसग वर्मपटम् ।।१।। भीमभुजंगमानद्वजटम् ।।२।। कह-कहहुंकृतिविकृतमुखम् ।।३।। नम तं शिवं हरमजितम् ।।४।। चण्ड-तुण्डमजेयम् ।।४।। कपालमण्डितमुकुटम् ।।६।। कामदर्पविध्वंसकरम् ।।७।। नम तं हरं परमशिवम् ।।८।। इति नैषादीकपालपदानि ।।७।। इति सप्त कपालपदानि ।।

gamana (3) tripuradahana (4) natasakalahhuvana (5) sitakamalavadana (6) bhava me bhayaharana (7) bhavasaranam<sup>12</sup> (8).

6. The dhaivatī-kapāla song

Agnijvālā (1) sikhāvalī (2) māmsasoņita (3) bhojini (4) sarvāhāri (5) ņi nirmāmse (6) carmamunde (7) namo-astu te<sup>18</sup> (8)

7. The naiṣādī-kapāla song

Sarasagajacarmapatam (1) bhīmabhujangamānaddhajatam (2) kahakahahunkṛtivikṛtamukham (3) nama tam śivam haramajitam (4) canḍatuṇḍamajeyam (5) kapālamaṇḍitamukuṭam (6) kāmadar-pavidhvamsakaram (7) nama tam haram paramaśivam² (8).

12. The Sanskrit text purports as under:

Victory, O! the three eyed one (Siva), the burner of cupid's body, the rider of the bull, the destroyer of Tripura, saluted by all the worlds, having a white lotus face, liberator from the phenomenal involvement (thou) be my shelter.

13. The Sanskrit text purports as under:

O! the fleshless Carmamunda (Durga), the incessant succession of the flames of blazing fire, the devourer of flesh and blood, the destroyer of all, salutation to you.

14. The Sanskrit text purports as under:

Make obeisance to that benevolent unconquered Hara (Siva), who is attired in a fresh elephant hide, who has braided his hair with a huge snake and has disfigured his countenance by the hunkti (nasal pronunciation) of (the sound) kaha kaha: make obeisance to that supremely benevolent Hara, who is (like) the fierce dart, invincible, bearing the crown of skulls, and the destroyer of cupid's pride.

Section 8 : Giti-s

The word kapala literally means the skull bone, a piece of a broken jar, a beggar's bowl, a cup, a jar, etc. Kallinātha explains this name with reference to the first two meanings. Technically, kapala is a modification of a suddha jati from which it is derived. It has the characteristic feature of reflecting the raga as derived from its parent jati, because it bears a close resemblance to it in form. In a way if a juli can be said to be a melodic type giving rise to many raga-s, kapala is a cross section of a particular jāti that embodies the sectional features of a particular derived raga. Therefore, kapala is explained by 'K' firstly on the analogy of a broken jar which points out to the jar. Secondly, he relates a mythical story: "Once Lord Siva, while he wandered as a mendicant, was singing in sadji etc. and he was so blissfully absorbed in it that the crescent of the moon on his forehead melted releasing nectar, drinking which the skulls (kapāla-s) of Brahmā that he was carrying fastened together in a garland around his neck came to life and began to sing along with him; that is why these songs are called kabala-s."

There are seven śuddhū jāti-s and correspondingly there are seven kapāla songs. Though the chapter is entitled 'Giti-s' in accordance with the synopsis (see Section 1) the Kapāla and the Kambala songs are dealt with to begin with.

## (ii) गीतिलक्षणं, तक्र दाश्च

वर्णाद्यलङ्कृता गानिक्रया पदलयान्विता ।।१४।।
गीतिरित्युच्यते सा च बुधैरुक्ता चतुर्विधा ।
मागधी प्रथमा ज्ञेया द्वितीया चार्धमागधी ।।१४।।
संभाविता च पृथुलेत्येतासां लक्ष्म चक्ष्महे ।

## 1. मागधी गीतिः

गीत्वा कलायामाद्यायां विलम्बितलयं पदम् ॥१६॥ द्वितीयायां मध्यलयं तत्पदान्तरसंयुतम् । सतृतीयपदे ते च तृतीयस्यां द्वृते लये ॥१७॥ इति त्रिरावृत्तपदां मागधीं जगदुर्बुधाः । (ii) The definition and classification of giti-s: 14c-25

The act of singing embellished by (various) patterns of tonal movement (varna) etc.2, and couched in verbal phrases set in musical speed (tempo) is called giti. It is said to be fourfold by the enlightened ones. The first is known to be māgadhī, the second is ardha-māgadhī, (the third is) sambhāvitā and (the fourth is) pṛthulā. We shall describe their characteristic features. (14c-16b)

#### 1. Māgadhī

Having sung a verbal phrase (pada) in the first kalā in the slow tempo, and then in the second the same along with another phrase in the middle tempo, if in the third they are sung along with the third phrase in the fast tempo, such (a gīti) that thrice repeats a verbal phrase is called māgādhī by the enlightened ones (16c-18b)

The jāti songs are meant to be sung in particular gīti-s, so the author now introduces this topic and gives first of all a general definition of gīti and then goes on to define their particular forms.

Gīti is defined primarily to be a gāna-kriyā, 'the act of singing' which is moulded and shaped through the use of particular patterns of tonal movement such as ascending, descending, stable and circulatory (i.e. ārohī, avarohī, sthāyī and sañcārī varņa-s) and is enriched

1. Gana-kriva in this context is restricted in its connotation to mean an act of singing.

2. The suffix ādi (etc.) is meant to include, according to 'K', the sixty-three alankāra-s spoken of in Section 6 ante, such as prasannādi and so on.

- 3. Pada, in this context, is a meaningful word with grammatical terminations. Thus, a pada is not only a word, since it also is qualified to indicate a relation. Pada is therefore more than a word and yet not a sentence. As such, it has been translated as a verbal phrase to distinguish it from a tonal phrase. Technically, pada signifies the verbal structure of melody.
- 4. Laya is tempo, i. e. relative musical speed.

5. This refers to the earlier teachers of the subject.

6. The second kala.

7. The phrase of the first kala.

8. That is, the phrases of the first two kala-s.

9. Viz. devam.

10. The ancient authorities of sangita-sastra.

Section 8 : Gīti-s

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mā

यथा-

 मा
 गा
 मा
 धा

 वे
 वं

 धिन
 धिन
 सिन
 धा

 वे
 वं
 कं
 दं

 रिग
 रिग
 मग
 रिस

 देवं
 कं
 वं
 दे

## 2. अर्धमागधी गीतिः

पूर्वयोः पदयोरधें चरमे द्विर्यदोदिते ।।१८।। तदा ऽर्धमागधीं प्राहुः

For example : 201) A water bound gillay and yet Managar

(i)	mā	gā	mā	dhā
Laure	De	a policy in the	vam	
(ii)	dha-ni	dha-ni	sa-ni	dhā
h la h	de	vam	ru	dram
(iii)	ri-ga	ri-ga	ma-ga	ri-sa
	devam	rudram	van	de

#### 2. Ardha-māgadhī

When the latter half of the previous phrases) is sung twice, then it is called ardha-māgadhī<sup>12</sup>. (18c-19a)

by certain tonal phrases (alankāra-s). Furthermore, such melodic activity is accompanied by literary composition and is set in rhythmic patterns of musical speed. Laya (musical speed) is known to be threefold, viz. fast tempo (druta), middle tempo (madhya) and slow tempo (vilambita), (14c-16b)

It has been said that there are four giti-s and here, the author is describing the specific characteristics of each. It may, however, be

						,	
था–	मा		री	गा	सा		
	दे		200.7	वं			
	सा		सा	घा	नी		
	वं		5	द्धं	7 777		
	पा		धा	पा	मा	5.69	
	द्रं		वं	दे	de bereat	7.0	
					द्विरावृत्तपदां	परे ।	
ाथा—							
	मा		मा	मा	मा		
	दे			वं	A. I. F. C		
	घा		सा	धा	नी		
	वे	*	वं	₹		didden's	
	4		100				
	पा		निध	मा	TO HI (STORY	(collect)	de
	ক্		द्र	व	<b>द</b>	Tor examp	
Fo	r exa	mple	110		10 2 B	db (i)	
(i	)	mā	0.677	rī	gā	sā	
A		De	Applied A		vam dhā	nī	
(ii	i)	sā vam	10.0	sā ru	dram	ta (iii)	
(iii	(i)	pā	maga.	dhā	pā	mā	
,	0	dran		van		(ty) (the	
Ot repeated	hers,	(h	(verb	al phras	es). (19D)	consist in o	
			THE RESERVE	OF THE PARTY OF TH	VALUE OF STREET, STREE	to of 17 hm, blind I morth builded it	
(i	i)	mā	Course	ma	ma	1114	
CANINE	11.10	De	olda	mist bear	vam	chiral drive time	
(i	1)	dha	org al	sa	dhā	n1	

mā

ni-dha

dram

(iii)

pā

<sup>11.</sup> That is, the pada-s of the first and the second kala-s.

<sup>12.</sup> Literally, half-way magadht.

<sup>13.</sup> Dviravrttapada, lit. "the one that has its pada-s (sung) twice."

## 3. सम्भाविता गीतिः

## संक्षेपितपदा भूरिगुरुः संभाविता मता ।।१९॥

यथा-

धा	मा	मा	रि	ग
भ		क्त्या		
री दे	गा. ,	सा वं	सा	
नी रु	धा	सा द्रं	नी	
	नी		***	
धा वं	न।	मा दे	मा	

#### 3. Sambhāvitā:

Sambhāvitā is considered to be with abridged verbal phrases (pada-s) largely (composed) of long syllables. (19cd)

For example:

(i)	dhā		mā	mā	ri ga1
(11)	Bha			ktyā	(1)
(ii)	rī . de		gā	sā	sā
(iii)		, 11	JL =	vam	(74)
(111)	n <b>i</b> ru		dhā	sā dram	ni
(iv)	dhā		nī	mā	mã
	van		12.00	de	

observed that the fourfold giti that is described here is, what is called padaśritā giti (i. e. the giti based on the verbal structure) which may be distinguished from tālāśritā giti (i. e. the giti based on tālā) and svarā-śritā-giti (i. e. the giti based on the tonal structure). The first two will be dealt with shortly in this Section and the last in Chapter II (Rāgā).

The magadha gati came into being in the province of Magadha in eastern India and is therefore called magadha as explained by 'K' on the basis of the derivation of the word given by Matanga. Magadha

## 4. पृथुला गीतिः

## भूरिलध्वक्षरपदा पृथुला संमता सताम्।

यथा-

मा	गा	री	गा
सु	₹	न	त
सा	धनि	धा	घ
ह	₹	प	द
धा	सा	धा	नी
यु	ग	लं	
पा	निधप	मा	मा
স	ण	म	त

#### 4. Prthulā:

Prthulā, according to the learned, has verbal phrases (pada-s) with many short syllables. (20ab)

For example:

(i)	mā	gā	rī	gā
	su	<b>r</b> a	na	ta
(ii)	Sā	dha-ni	dhā	dhā
	ha	ra	pa	da
(iii)	dhā	sā	dhā	ni
•	уu	g <b>a</b>	lam	11
(iv)	pā	ni-dha-pa	mā	mā
•	pra	ņа	ma	ta

and other giti-s are illustrated by the author with an example in which each kalā is supposed to be of four mātrās (units). This is elucidated below in the light of Kallinātha's commentary.

The first kalā is to be sung in the slow tempo, which indicates the rest period ratio of 4:1 with reference to the fast tempo in singing a verbal phrase (pada). In the given example the phrase devam is sung in the first kalā in two syllables, de and vam, each of which takes two unit measures (mātrā-s). In the second kalā the phrase rudram is added to the first one (viz. devam) in two syllables,

<sup>14.</sup> That is, it also admits the use of short syllables.

<sup>15.</sup> Ad. ed. of S. R. reads: riga (as two matra-s) which seems to be a misprint.

## 5. तालाश्रिता गोतयः

यथाऽक्षरे युग्मे गुर्वोः प्रथमयोर्यदा ॥२०॥ चित्रमागहिं प्रयुज्य चगणात्मकम। मात्राभिरष्टभिर्युक्तं दक्षिणे ध्रुवकाविऽऽविभिः ।।२१।। गीतिर्मागघीत्यभिघीयते । प्रयुज्यते तदा युग्मस्य च्छ्रगणार्धयतं यदा ॥२२॥ आद्याभ्यामन्तिमाभ्यां च मात्राभ्यां संप्रयुज्यते । ततः प्लुतं सार्धगणयुक्तं कृत्वा प्रयुज्यते ।।२३।। ध्र वकाऽऽदिभिरष्टाभिद्विक्तान्त्यद्वयेन तदा ऽर्धमागधी ते द्वे तद्वत्तालान्तरेष्विप ।।२४।। भरिगुरुद्विकले वातिके संभाविता पथि । भरिलघर्दक्षिणे चतुष्कले पुथला मता ।।२४।।

इति प्रथमे स्वरगताध्यायेऽष्टमं गीतिप्रकरणम् ॥६।।
इति श्रीमदनवद्य-विद्याविनोद-श्रीकरणाधिपति-श्रीसोढलदेवनन्दननि:शङ्कश्रीशार्क्वदेव-विरचिते संगीतरत्नाकरे स्वरगताध्यायः प्रथमः ।

#### 5. Gīti-s based on tāla:

Alternatively, if the initial two guru-s of the namewise (yathākṣara) caccatpuṭa¹¹ (tāla), having been employed one by one in the citra mārga¹¹, are converted into ca-gaṇa¹³ and ru and dram. Thus, the phrase devam is sung for the second time and the four syllables are sung in four mātrā-s (units). The number of notes taken in one mātrā (unit), whether one or two, is immaterial. In the third kalā the first and the second phrases are sung along with the additional third, viz. vande which is split into two syllables, van and de. Thus, the first mātrā of the third kalā is sung with the phrase devam, the second with rudram and the third and the fourth with the syllables van and de making for the phrase vande. The third kalā being in the fast

16. Yugma is caccathuta.

then being provided with eight mātrā-s (units) are employed in the dakṣiṇa mārga with dhruvakā<sup>19</sup>, etc. then the gīti is called māgadhī. (20c-22b)

When, the third laghu of the caccatputa<sup>20</sup> (tāla) is augmented by half the cha-gaṇa<sup>21</sup> and is used with the initial

tempo is the quickest in action as well as rest with reference to the first and the second. Also in the third kalā the phrase devam is sung for the third time. In this way, because in this gīti a phrase is sung for three times, it is called trirāvīttapadā. (16c-18b)

Ardha-māgadhī is obviously a modification of māgadhī. When the second half of the first two phrases respectively is repeated successively in the second and the third  $kal\bar{u}$ -s of māgadhī, it becomes ardha-māgadhī. The process of its formation is illustrated by an example according to which the first  $kal\bar{u}$  is like that of māgadhī with the phrase: Devam (de+vam); in the second  $kal\bar{u}$  the phrase is rudram (ru+vam); which is preceded by the second half of the the phrase of the first  $kal\bar{u}$ , viz. vam, reading on the whole as vam rudram. Similarly, in the third  $kal\bar{u}$  the phrase is vande (vam+de) which is preceded by the second half of phrase of the second  $kal\bar{u}$ , viz. dram, reading on the whole as dram dram dram.

However, the author quotes another opinion as well. In this view, just as māgadhī is called trirāvṛttā, i. e. the one in which a pada (phrase) is sung thrice, so ardha-māgadhī is dvirāvṛttā, i. e. the one in which the two pada-s (phrases of the 1st and the 2nd kalā-s) are sung twice. Accordingly devam is repeated in the second kalā and rudram is repeated in the third kalā. However, 'K' points out that according to Matanga, some consider the twice-repeated phrases also to be characteristic of māgadhī. (18c-19b)

Sambhāvitā is said to have abridged phrases, by which it is meant that the pada-s used are few and far between. Moreover, they consist of long syllables: a syllable is considered to be grammatically long

1st step : Dhruvaka and patita

2nd step: Dhruvaka, sarpint pataka and patita

3rd step: Dhruvakā, sarpinī, krşyā, padminī, visarjitā, vikşiptā, patākā and patitā.

<sup>17.</sup> Citramargarham seems to be the reading of the text available to 'K' as it is evident from his commentary which is supported also by the interpretation presented by 'S'. The Ad, ed. of S. R. reads citramargadi which does not grammatically fit in the verse to be adequately meaningful.

<sup>18.</sup> That is, each guru to be sung in four matra-s by the vartika marga.

<sup>19.</sup> Dhrwakā, sarpiņī, patitā, etc. are the names of the actions of hand to be explained in Chapter V. But 'K' gives, the following as pertaining to the three steps spoken of above.

<sup>20.</sup> Yathakşara is understood.

<sup>21.</sup> That means, three matra-s.

two and the last two mātrās<sup>22</sup> and if, after that, the pluta (extra long) is augmented by one and half the (said) gaṇa<sup>28</sup> and is used with the eight mātrā-s such as dhruvakā and so on<sup>24</sup>, twice repeating the last two of them<sup>25</sup>, then it is ardhamāgadhī. (22c-24c)

when it implies twice the effort necessary for pronouncing a short vowel or a consonant with it. There are quite a few conditions that determine this measure of effort which need not be related here. To understand the given example, however, in the first kalā of four mātrā-s (units) and five notes only two syllables are taken, viz. Bha, which is long in view of the succeeding conjunct and ktyā which is long by itself. The other kalā-s are similarly fashioned.

Here, it may be observed that 'S' seems to have a different reading of the portion 19b which leads him to take it as a part of the definition of sambhāvitā, rather than that of ardha māgadhī as taken in our text as well as by 'K'. Indeed the text-variant of dvirāvīttapadām pare is recorded in the foot note of the Adyar edition as dvirāvīttapadām pare which means: "the one in which a phrase (pada) is sung in the following phrase for the second time" and which is taken by 'S' to be qualifying sambhāvitā. (19cd).

Pthulā is in contrast with sanbhāvitā; whereas the latter has abridged pada-s with long syllables, the former has many pada-s with short syllables. That is perhaps why Matanga\* derives sambhāvitā as that in which the abridgement of pada-s is expected (sambhāvyate) and pthulā as that which is enlarged upon profusion of pada-s; for, pthulā literally means large or broad. (20ab).

Having described the four types of gīti as based on pada (verbal phrases), the author describes them as based on tāla; and thus, he deals with tālā śrita-gīti.

Detailed information regarding tala is to be found in the Taladhyāya, i. e. Chapter V, but here it is necessary to observe a few things. The three types of caccatputa; viz. ekakala, dvikala and catuṣkala

These<sup>26</sup> two may also similarly (be conceived) in other<sup>27</sup> tāla-s. (24c-24d)

Sambhāvitā is accepted to be with many long syllables in the dvikala (caccatputa) by the vārtika mārga and pṛthulā is with many short syllables in the catuskala (caccatputa) by the dakṣiṇa mārga. (25)

Here ends Chapter I of sangīta-ratnākara entitled "Treatment of svara" composed by Śārńgadeva who is free from doubt, the son of Śrī Soḍhaladeva, the faultless reveller of scholarship and the master treasurer.

have already been mentioned. Of these the first one is called yathakşara which corresponds in terms of unit measures (mātrās) to those indicated by its name, and that is why it is said to be namewise (yathākṣara); and its measure is two guru-s followed by a laghu and a pluta making in all, eight mātrā-s.

Laghu has already been explained as the duration of time required for pronouncing five short syllables; or, as it is alternatively expressed, the duration of time taken by the winking of eyes for five times. Two laghu-s make for one guru. Three laghu-s constitute a pluta.

The laghu is written as (1), the guru as (5), and the pluta as (5') and the last letter of caccatputah, viz. tah is pluta. So, now it will be seen that the namewise (yathākṣara) caccatputa is written SSIS' and has eight matrā-s. Matrā is another expression for laghu.

Reverting to the text, the first two guru-s have the value of two mātrā-s each and as such they should, in māgadhī, be sung in the citra mārga in the ekakala caccatpuṭa. Ca-gaṇa, as it will be described in greater detail in Chapter IV, viz. Prabandhādhyāya, is a grouping of four mātra-s. So, the second step is to enlarge upon the two initial guru-s so as to enhance their value to four mātra-s each, and thus sing the pada as dvikala by vārtika mārga. The third step is to enhance the value of each of the two initial guru-s to eight matra-s and sing by dakṣiṇa mārga in catuṣkala caccatpuṭa. Thus, the essential feature is the repetition of the initial two guru-s as required by the expression "triravṛttapadā" and so on. The second step, as described above, is implicit as pointed out by 'K'. (20c-22b)

<sup>22.</sup> The initial two are dhruvakā and sarpint and the last two are patākā and patitā.

<sup>23.</sup> That means, nine mātrā-s.

<sup>24.</sup> The eight matra-s of caccathuta, i. e. from dhruvaka to patita.

<sup>25.</sup> In order to occupy the last four (9-12) matra-s.

<sup>\*</sup> This is based on the references of 'K' in his commentary on the above text.

<sup>26.</sup> Magadhi and ardhamagadhi.

<sup>27.</sup> Such as pancapani and so on.

Ardha-māgadhī distinguishes itself from māgadhī in so far as it is more concerned with the latter part of the namewise (yathākṣara) caccatpuṭa tāla, viz. with the third laghu and the fourth pluta (extra long) out of its four mātrā-s, viz. SSIS' (guru, guru, laghu and pluta).

What is suggested is that, in order to formulate ardha-magadhi, the third matra of the yathakṣara caccatpuṭa, which is laghu, be augmented with half of cha-gaṇa, i. e. three mātrā-s; that is, its value should be increased from one laghu to four (mātrās). And then having thus increased its value to four mātrā-s it may be sung with the initial two and the last two (of the eight) mātrā-s of caccatpuṭa, viz. dhruvakā and sarpiṇī and patākā and patītā respectively. This forms the first step as it were.

In the second step the pluta that is following the laghu is required to be augmented by one and half the cha-gaṇa. Cha-gaṇa is a grouping of six mātrā-s. So, to the three mātrā-s of pluta, nine more are added, making twelve in all. Of these twelve mātrā-s, the first eight are sung with the eight mātrā-s of caccatputa in due order, and the last four by repeating the last two mātrā-s twice in due order, i. e. with patākā, patākā and patitā. This process forms ardha-māgadhī as based on tāla.

Sambhavita and pithula are conceived on the same lines except that the former is set in dvikala and the latter in the catuskala caccatputa.

This ends the Section on giti-s and also Chapter One constituting Volume I entitled the Svaragatadhyaya.

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#### APPENDIX I

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#### PARALLEL REFERENCES FROM CARAKA AND SUŚRUTA IN THE CONTEXT OF HUMAN EMBODIMENT (PIŅDOTPATTI)

Sangita ratnākara

Caraka & Suśruta

I.2.23-25 स सर्वगुणवान् गर्भत्वमापन्नः प्रथमे मासि सम्मूर्चिछतः Caraka Śā. सर्वधातकलनीकृतः खेटभूतो भवत्यव्यक्तविग्रहः Stha 4.9-11 सदसद्भताङ्गावयवः । ४।६ द्वितीये मासि धनः सम्पद्यते-पिण्डः पेश्यर्बदं वा. तत्र पिण्डः पुरुषः, स्त्री पेशी, स्रबंदं नपंसकम । ४।१० त्तीये मासि सर्वेन्द्रियाणि सर्वाङ्गावयवाश्च यौग-पद्येनाभिनिवंतंन्ते । ४।११ तत्र प्रथमे मासि कललं जायते । ३।१८ Suśruta. द्वितीये शोतोष्मानिलैरभिप्रपच्यमानानां महाभतानां Sa. Stha संघातो घनः संजायते; यदि पिण्डः पुमान्, स्त्री चेत् 3. 18-21 पेशी नप्सकं चेदबुदिमिति । ३।१९ ततीये हस्तपादशिरसां पञ्च पिण्डका निर्वर्तन्तेऽङ्ग-प्रत्यङ्गविभागश्च सूक्ष्मो भवति । ३।२० चतुर्थे सर्वाङ्गप्रत्यङ्गविभागः प्रव्यक्ततरो भवति गर्भहृदयप्रव्यक्तिभावाच्चेतना-घातुरभिव्यक्तो भवति, कस्मात् ? तत्स्थानत्वात्; तस्मादगर्भश्चतुर्थे मास्य-भिप्रायमिन्द्रियार्थेषु करोति, द्विहृदयां च नारी दौहृदिनोमाचक्षते । ३।२१

I.2.30cd-32 राजसन्दर्शने यस्या दौहृदं जायते स्त्रियाः। ibid 3.26-34 अर्थवन्तं महाभागं कुमारं सा प्रसूयते ।। ३।२६ दुकूलपट्टकौषेयभूषणादिषु दौहृदात्। अलंकारेषिणं पुत्रं लिलतं सा प्रसूयते ।। ३।२७ आश्रमे संयतात्मानं धर्मशीलं प्रसूयते । देवताप्रतिमायां तु प्रसूयते पार्षदोपमम् ।। ३।२६ दश्रंने व्यालजातीनां हिंसाशीलं प्रसूयते ।। ३।२९

गोधामांसाऽशने पुत्रं सुषुप्सुं घारणात्मकम् ।
गवां मांसे तु बिलनं सर्वक्लेशसहं तथा ।। ३।३०
माहिषे दौहदाच्छूरं रक्ताक्षं लोमसंयुतम् ।
वाराहमांसात् स्वप्नालुं शूरं संजनयेत् सुतम् ।। ३।३१
मार्गाद्विकान्तजङ्कालं सदा वनचरं सुतम् ।
समरोद्विग्नमनसं नित्यभीतं च तैत्तिरात् ।। ३।३२
अतोऽनुक्तेषु या नारी समभिष्याति दौह्वं दम् ।
शारीराचारशीलैः सा समानं जनयिष्यति ।। ३।३३
कर्मणा चोदितं जन्तोर्भवितव्यं पुनर्भवेत् ।
यथा तथा दैवयोगाद् दौहुंदं जनयेद्ष्दि ।। ३।३४

I.2.33-39ab पञ्चमे मासि गर्भस्य मांसशोणितोपचयो भवत्यिवक- Caraka, मन्येम्यो मासेम्यः, तस्मात्तदा गर्भिणी कार्श्यमापद्यते Śā. Sthā विशेषेण। ४।२१ 4.21-26

षष्ठे मासि गर्भस्य मांसशोणितोपचयो भवत्यधिक-मन्येम्यो मासेम्यः, तस्मात्तदा गर्भिणी बलवर्णहानि-मापद्यते विशेषेण । ४।२२

सप्तमे मासि गर्भः सर्वभावैराप्याय्यते, तस्मात्तदा
गिभणी सर्वाकारैः क्लान्ततमा भवति । ४।२३
अष्टमे मासि गर्भश्च मातृतो गर्भतश्च माता रसवाहिनीभिः संवाहिनीभिर्मुहुरोजः परस्परत आददाते
गर्भस्यासंपूर्णत्वात्, तस्मात्तदा गर्भिणो मुहुर्महुर्मुदायुक्ता
भवति मुहुर्मुहुश्च ग्लाना ग्लाना तथा गर्भः । तस्मात्तदा
गर्भस्य जन्म व्यापत्तिमद्भवत्योजसोऽनवस्थितत्वात्;
तं चैवमभिसमीक्ष्याष्टमं मासमगण्यमित्याचक्षते
कुश्चलाः । ४।२४

तस्मिन्नेकदिवसातिकान्तेऽपि नवमं मासमुपादाय प्रसवकार्लामत्याहुराद्वादशान्मासात्, एतावान्कालः, वैकारिकमतः परं कुक्षाववस्थानं गर्भस्य । ४।२५ एवमनयाऽऽनुपूर्व्याऽभिनिवंतते कुक्षी । ४।२६

पञ्चमे मनः प्रतिबुद्धतरं भवति । ३।३५ Suśruta, षष्ठे बुद्धः । ३।३६ Śā. Sthā.

सप्तमें सर्वाङ्गप्रत्यङ्गविभागः प्रव्यक्ततरः । ३।३७ 3. 35-39 अष्टमेऽस्थिरीभवत्योजः, तत्र जातश्चेन्न जीवेन्नि-रोजस्त्वान्नेन्न्वः तभागत्वाच्च, ततो बर्लि मासोदनमस्में दापयेत् । ३।३८ नवमदशमैकादशद्वादशानामन्यतमस्मिन् जायते, अतोऽन्यथा विकारी भवति । ३।३९

I. 2. 39 cd-मातुस्तु खलु रसवहायां नाड्यां गर्भनाभिनाड़ी ibid 3. 40
40 ab प्रतिवद्धा, साऽस्य मातुराहाररसवीर्यमभिवहति।
तेनोपस्नेहेनास्याभिवृद्धिभैवति। ग्रसंजाताङ्गप्रत्यङ्गप्रविभागमानिषेकात् प्रभृति सर्वशरीरावयवानुसारिणीनां रसवहानां तिर्यग्गतानां घमनीनामुपस्नेहो
जीवयति। ३।४०

I. 2. 44 तत्र गर्भस्य पितृजमातृजरसजात्मजसत्त्वजसात्म्यजािन ibid 3. 43 शरीरलक्षणािन व्याख्यास्यामः। गर्भस्य केशप्रमश्च-लोमास्थिनखदन्तसिरास्नायुधमनीरेतः — प्रभृतीिन स्थिराणि पितृजािन, मांसशोणितमेदोमज्जहृन्नाभिय-कृत्प्लीहान्त्रगुदप्रभृतीिन मृदूनि मातृजािन, शरीरो-पचयो बलं वर्णः स्थितिहािनिष्च रसजािन, इन्द्रियाणि ज्ञानं विज्ञानमायुः सुखदुःखादिकं चात्मजािन, सत्त्व-जान्युत्तरत्र वक्ष्यामः, वीर्यमारोग्यं बलवणौ मेघा च सात्म्यजािन। ३।४३

I.2.54-55 सात्त्विकास्तु—आनृशंस्यं संविभागरुचिता तितिक्षा ibid 1.19 सत्यं धमं आस्तिक्यं ज्ञानं बुद्धिर्मेधा स्मृतिषृं तिरनभिषङ्गश्च,
राजसास्तु—दुःखबहुलताऽटनशीलताऽधृतिरहङ्कार
आनृतिकत्वमकारुण्यं दम्भो मानो हर्षः कामः कोधश्च;
तामसास्तु—विषादित्वं नास्तिक्यमधर्मशीलता बुद्धेनिरोधोऽज्ञानं दुर्मधस्त्वमकर्मशीलता निद्रालुत्वं
चेति १।१९

I.2.56 cd. षड्घातवः समुदिता 'लोक' इति शब्दं लभन्ते; Caraka, \$ā. तद्यथा—पृथिव्यापस्तेजो वायुराकाशं ब्रह्म चाव्यक्त- Sthā. 5.4-5 मित्येत एव च षड्घातवः समुदिता 'पुरुष' इति शब्दं लभन्ते। ४।४

४।४। :।जीएम क्ला सन्तर्भ सम्बद्धाकाक्ष्म हिन्द्र स्था मिन्द्र

तथा थातुहि मांनेषु छिलमानेषु कृषित ।। ४।५ Stha 4.5 पथा हि सार: काल्डेषु छिचमानेषु द्वयते। Susruta, 5a.

श्रमाउद्यम इति । था७ नीमाथाः, पवनाश्चायः, स्याश्चायः, स्वाग्नामाभ sp 1.2. 81-82 वाताश्रयः, मिताश्रयः, श्लेष्माश्रायो, रकाश्रायः, ibid, 4.5

नित्र वंगेवाक्षित्रीमदं ग्ररीरम् । ४।११ निवद्वानि परस्परसंधिलव्हानि परस्परपरावाक्षितिन -रम्भरम नीकिथोहरमजुरम्बन्धियात, जीकिम 11. ट. bidi त्रीक्वा क्ष्मित्र नीक्षिक्ष नीक्षिक्ष निर्मात्र मिस्ति है, 11.

न्दाप्ता : जिपिष्टि इत्रह्मिहः, एक्निमविहः, दर्गक :ड्योष्टिक इ. 28-32 , bidi ाष्ट्रा वाति हे वाते हे वाता ibid, 26 piqi

। :1 नेया नमित्रकार । अवस्थान । :1 । । :1 । नेत्रस्तोमनाहोषु मण्डलाः, श्रोत्रश्रद्वारकेषु श्रहा-तुत्रसेवत्यः, हनोहभयतस्तु वापसतुण्डः, कण्ठहृदय-ष्ट्रिक :प्राप्ते ,:१४६२ :(१४६६४३०)। हिस् : महस्राप्त कथावङ्यणद्यनेवल्खलाः, अंसपीठगुद्भगनितम्बेषु मङ्ग्रीलम्विन्द्रगुरुक्यानुक्पेर्वे कोराः सन्वयः नवरत् । :रिहाञ्च एकडमण्डमण्डमिकसिक्क क्रिक्स त एते सन्धयोज्द्यियाः—कोरोल्खनसामुद्ग-

वेशीस्नायुधिराणां तु सन्विसङ्ख्या न विद्यते ॥ र्। इ.इ 1.2. 94 ab अस्टना तु सन्धयो होते केबलाः परिकोतिताः । ibid, 5. 33

गर्भश्वरया, यत्र गर्भस्तिव्ठति । थाथृश् फिन्मिपिए ए। इस्प्रिक्ति । इस् इस्त्रीप्राथि हैपर हो। इस् , छिन्नी। हो हे हे हे हिल्ल हो। ibid 98cd. अप्तपन्य चत्रासां प्रस्तेरम्पत्ता है, मुखा- ibid, 5. 51

राइंड

यथा रोहितमस्यस्य मुखं भवति रूपतः। वरियरित्वीके त्वावते गर्भश्वत्या प्रतिहेक्ता ॥ श्राथ्य ५५५-५६ 001-66 .दे , bidi । गर्हा किए । ए रिहाएटर निर्मित विवास .bidi

त्रसंस्थानां तथारूपं पर्मश्रक्षां विदुर्वेषाः ॥ शाप्रह

न्तरात्मा, यथा खलु बाह्यो विभूतिलोके ....ा धार् शिसन्तापो, बायुः प्राणो, वियच्छ्वविराणि, ब्रह्माऽ तस्य पुरवस्य पृथियो मृतिः, आपः क्लेदः, तेजोऽ

मुक्तम् । जारह -इर्कारिछव्पर्वेड् सर्मिश्वमित्रहे इंडिया मिरितब्कस्याबिङमिलः, मुक्स्य ताबहेब प्रमाण, न्ता मुत्रस्य, त्रयी वसायाः, ही मेदसः, एकि मज्जः, शोगतस्य, सप्त पुरोषस्य, परम्तेममाः, पञ्च पित्तस्य, पुनस्याहारपरिणामवातीयते रस इत्याचक्षते, अब्हो मवाप्नोति, तदुदकं दशाञ्जलिप्रमाणं, नवाञ्जलयः -इब्हर्ड्इइ्स्याम्बह्स सम्प्रमान इब्हराणमर्गहन्द त्विभित्र, यत् त्वागतरे व्यामतं लसीकाशब्दं लभ्ये, रमन्यांश्व शरीरधात्न, यत्त् सर्शरीरवर बाह्या -छीव मुन्न परीवमनुबध्नारमियान नथा मुन्न क्रि-द्योदकस्याञ्जलयः यारीर स्वान्जालप्रमाणेन यत्तत् ibid 7.16

9-4 हे सिक्यनी, शिरोगीवम्, अन्तराधिरिति षडङ्गमङ्गम् । Sa. Sthä. I.2. 75-77 तत्राषं शरीरस्याङ्गविभागः। तद्यथा—हो बाहु, Caraka,

भारी रमवतत्य तिष्ठान्त । ७१४ दुषिचिक्तस्यतमानि चेति पर् त्वचः, एताः पडङ्ग-याहीय जायन्ते पवसु कृष्णरक्तान स्थलमुलान ताम्यत्यन्ध इव च तमः प्रविश्वति, यां चाप्यधिष्ठा-जीविद्धिसम्भवाधिकाता, पक्ती तु यस्यां छित्रायां विव्हाना, चतुर्थी दद्रकुव्हसम्भवाधिव्हाना, पञ्चम्पल-द्वितीया त्वगसुग्धरा, तृतीया पिहमिक्ताससम्भवा-भूरी दे त्वनः, तद्यभा—उदक्षरा त्वग्वाह्या, ग्रेप्टि 7-4 ds 77 bidi

जिदिनी नाम, पच्डी रोहिणी नाम, सत्तमी मांसधारा ानम, वृतीया श्वेता नाम, चतुर्थी तामा नाम, पञ्चमी प्रमाणा सिध्मपयकण्डकाविष्ठाना; द्वितीया लोहिता तिष्रो प्रथमाध्वभाषिनी नाम, या सबेवणनिवभाषयति 4. 3-5 मानस्य क्षीरस्येव सन्तानिकाः सप्त त्वनो भवन्ति । ठेत. Stha bidi अर्था वस्य वस्त्रेवंत्रक् मुक्त्योगितस्याभिपन्य- Susruta,

नाम । थान

ibid 107

उर्ध्वगाः शब्दस्पर्शरूपरसगन्धप्रश्वासोच्छ्वास- ibid, 9.4 ज्मित्रशुद्धसितकथितरुदितादीन् विशेषामभिवहन्तः शरीरं घारयन्ति । तास्त्र हृदयमभिप्रपन्नास्त्रिघा जायन्ते, तास्त्रिशत् । तासां त् वातपित्तकण्ठशोणित-रसान् द्वे द्वे वहतस्ता दश शब्दरूपरसगन्धानष्टाभि र्गृह्णीते, द्वाम्यां भाषते, द्वाम्यां घोषं करोति, द्वाम्यां स्विपिति, द्वाम्यां प्रतिबुध्यते, द्वे चाश्रवाहिण्यौ, द्वे स्तन्यं स्त्रिया वहतः स्तनसंश्रिते, ते एव शुक्रं नरस्य स्तनाः सविभागा क्षाना विभाग म्यामभिवहतः, तास्त्वेतास्त्रिशत व्याख्याताः । एताभिरूध्वं नाभेरुदरपार्श्वपृष्ठोरः स्कन्धग्रीवाबाहवो धार्यन्ते याप्यन्ते च । ६।४

I.2.110-113 उध्वंगमास्तु कुर्वन्ति कर्माण्येतानि सर्वशः। ibid, 9.5-8 अघोगमास्त् वक्ष्यामि कर्म तासां यथायथम् ।। ९।५ अघोगमास्त् वातमूत्रपूरीषश्कार्तवादिन्यघो वहन्ति । तास्तु पित्ताशय ""व्याख्याताः ॥ ९।६ अघोगमास्त् कुवंन्ति कर्माण्येतानि सर्वशः। तियंगाः संप्रवक्ष्यामि कर्म चासां यथायथम् ॥ ९।७ तिर्यगानां तु चतस्णां धमनीनामेकैका शतघा सहस्रधा चोत्तरोत्तरं विभज्यन्ते तास्त्वसङ्ख्येयाः, ताभिरिदं शरीरं गवाक्षितं विबद्धमाततं च, तासां मुखानि रोमक्पप्रतिबद्धानि, यै: स्वेदमभिवहन्ति रसं चाभितप्-यन्त्यन्तर्बहिश्च, तैरेव चाम्यङ्गपरिषेकावगाहालेपन-वीर्याण्यन्तः शरीरमभिप्रतिपद्यन्ते त्वचि विपक्वानि, तेरेव च स्पर्भ सुखमसुखं वा गृह्णाति, तास्त्वेताश्च-तस्रो धमन्यः सर्वाङ्गगताः सविभागा व्याख्याताः ॥ ९।८

ibid 116 b नव स्नायुशतानि, सप्त सिराशतानि, द्वे घमनीशते, Caraka, चत्वारि पेशीशतानि, सप्तोत्तरं मर्मशतं, हे पुनः सन्वि- Śā.Sthā7.15 शते, त्रिंशत्सहस्राणि नव च शतानि पट्पश्चाशत्कानि सिराधमनीनामण्याः प्रविभज्यमानानां मुखाग्रपरिमाणं, ताविन्त चैव केशष्मश्रलोमानीत्येतद्यथावत्संख्यातं त्वक् प्रभृति दृश्यम्, अतः परं तर्क्यम्; एतद्रभयमपि न विकल्प्यते प्रकृति-भावाच्छरीरस्य । ७।१५

## APPENDIX II

### THE RELATIONSHIP OF THE PSYCHOPHYSICAL CENTRES TO MUSIC

The author has specifically mentioned the particular psychophysical centres and their particular petals that are positively or negatively related to the cultivation of musical arts. The following chart illustrates this relationship and also presents the whole picture at a glance.

Psychophysical Centres as Related to Music

S. No.	Name of Psy- chophysical Centre	No. of Petals	S. No of Petals	dant upon the	Relation to Music
(	Foundational Cycle Ádhāra-cakra)	4 all	1 2 3 4	Supreme bliss Spontaneous happiness Heroic joy Divine unity	Non-conducive
C (i	eurosci.	6	1 2 3 4 5 6	Courtesy Curiosity Cruelty Freedom from pride Stupor Disrespect and distrust	—do—
(1)	avel Cycle Manipūraka- kra	10	2 3	Dreamless sleep Graving Jealousy Fault finding	vellja-mille v sj
	n comet n hom n hom		5 6 7 8 9	nature Bashfulness Fear Hatred Stupidity Impropriety Dejection	—do—

4. Cycle of the 12 1 unmanifest (Anāhata-cakra) 2 3 4 5	Freedom from fickleness Conducive Clear thinking Non-conducive Repentance Non-conducive Hope Destructive Light Non-conducive	9 The basic urge for living 10 Devotion Conducive 11 Satisfaction 12 Cleverness Non-conducive
6 7 12 13 14 15 16 17 18 9	Worry Destructive Desire for warding off evil Non-conducive Equanimity Conducive Vanity Non-conducive Mental insta-	7. Cycle of the 3 1 Sattva (purity) (Ajñā-cakra) 2 Rajas (activity) 3 Tamas (dullness)  Non-conducive
111 12 12 12 12 12 12 12 12 12 12 12 12	bility Destructive Discernment Conducive Will Conducive	8. The cycle of 6 1 Dreams the mind 2 Palatal (Manaś-cakra) enjoyment 3 Olfactory sensation —do—
5. Cycle of purity 16 1 (Visuddhi-cakra) 2 3	Praṇava Non-conducive Udgītha ,, Humphaḍa ,, Vaṣaṭ ,,	4 Perception of form 5 Touch 6 Sound
5 6 7 8 9-15	Svadhā ,, Svāhā ,, Namah ,, Nectar Conducive The seven tones sadja etc. ,, Poison Destructive	9. Cycle of the 16 1 Grace moon (Soma-cakra)  2 Forgiveness 3 Straightfor- wardness 4 Forebearance 5 Detachment 6 Patience
6. Lalanā-cakra 12 1 2 3 4 5	Arrogance ,, Haughtiness Non-conducive Affection ,, Sorrow Destructive Agony ,,	7 Cheerfulness 8 Mirth 9 Horripilation 10 Tears of fixed gaze 11 Stability 12 Profundity
6 7 7 7	Greed Non-conducive Disenchantment ,, Emotional excitement ,,	13 Endeavour 14 Purity of heart 15 Generosity 16 One pointed- ness

Appendix II

10. Thousand 1000 Immortality Most conducive petalled Lotus (Sahsrāra-cakra)

It may be observed from the above chart that of the ten psychophysical centres mentioned, only four are said to be related to the cultivation of musical arts, wholly or partly, positively or negatively. In the terms of the chart, the centres or the petals not related to music positively or negatively are described as non-conducive. The centres or petals that are helpful in the advancement of musical arts are described as conducive and those of them that are harmful are described as destructive. This has been done in view of the author's statement (vide 144c-145b) that concentration on any other centres or petals is not helpful.

The first three centres are not related to advancement in music, probably because these centres are related to gross manifestation (cf. Sir John Woodroffe's views cited in the comments on 124c-126b ante). The next three centres viz. the cycle of the unmanifest, the cycle of purity and Lalana cakra are partly related to musical arts. These three centres are located in the heart, the throat and the back of the neck which exactly correspond (except for the last that corresponds roughly) to the situation of the three registers of human voice, viz. the heart, the throat and the head. The next three centres are related to the mind and its powers and functions, while the last one viz. Sahasrāra is the gateway to supreme bliss and immortality; and consequently, concentration on this centre is considered to be wholly beneficial to the cultivation of musical arts. Thus, six of the ten centres are non-conducive, three partly conducive and partly nonconducive and one wholly conducive.

It will be interesting to observe the fruits of concentration on particular petals as conducive and destructive in terms of the positive and the negative.

The positive and the negative fruits of concentration related to Music.

SI.	Psychophysical	No	Positi	ve fruits	No.	Negative	Total
No	o. Centre	of	of co	ncen-	of	fruits of	No. of
		peta	al t	ration			related
		anna	- Harris	THE PARTY		tration	petals
4	Cycle of the	1	Freed	lom from	4	Hope <sup>1</sup>	
	unmanifest		fickle			and linear	
	(Anāhata-cakra)			nimity	6	Worry	7/12
	1.03-07 torn; d				10	Mental	I July
	treasurated by the	12	Will	20 1900		instability	Mary
5	Cycle of purity	8	Necta	r manage			
	(Visuddhī-cakra)	9-15	Seven	Tones	16	Poison	9/16
5	Lalanā-cakra	10	Devoti	on	1 10V	Arrogance	
		11	Satisfa	ction		Sorrow	0/12
	or Aremorald a		1 10 11	in to quiny		Agony	
10	Sahsrāra	(one)	or ogging	r seed, die	ler al	2) Strategical	full

Shorn of its metaphorical framework, the whole scheme seems to suggest that for the cultivation of musical arts one should concentrate on the positive qualities and avoid paying attention to the negative qualities as shown above. This abstract makes the whole idea intelligible.

tive or the origin of dramationers, teat the phenomenon or mails and drames were three comprehended. (Consequently, each trie delicht was recognised at the outer as the distance about the contest as the distance of the contest as the distance of the contest as the distance of the contest and the anithm procession of tone on the breits of the light of the

I. Hope has been described as destructive perhaps because hope and disappointment go together.

## APPENDIX III

#### THE CONCEPT OF SRUTI AS RELATED TO SVARA\*

The concept of sruti as related to that of svara forms the very basis of understanding the grama-murcchana system, as originally propounded by Bharata, expounded by Matanga and represented by Abhinavagupta, Sarngadeva and the subsequent writers such as Kumbhā etc. It seems that historically the perception of svara is prior to that of sruti, and that the concept of sruti was necessitated by the need for an adequate apprehension, analysis and appreciation of tonal phenomenon, both for the sake of understanding and for an effective and creative endeavour. Music is as old in the history of civilization, as speech, if not older; and its significance in the development of human personality from prehistoric times is of no less importance; for, the revelation of the Vedic hymns was almost immediately accompanied with the need for their employment in the sacrificial form, giving rise to Samagana. Tracing the origin of Nat vsastra, Bharata states that the creator "extracted the pathra (verbal text) from the Rgveda, gita (music) from the Sāmaveda, abhinava (action) from the Yajurveda and Rasa (aesthetic delight) from the Atharvaveda". And it was in the perspective of the origin of dramatic arts, that the phenomenon of music and dance was first comprehended. Consequently, aesthetic delight was recognised at the outset as the distinguishing characteristic of musical sound. Therefore, when a scientific study of music was first made, prevalent practice and the natural perception of tone on the basis of delightfulness formed the primary data for investigation, systematic

यजुर्वेदादिभनयान् रसानर्थवणादिप ॥१७॥
Natya Sastra Ka shi Ed. 1,17.

formulation and adequate comprehension. It is quite in this context that Bharata's statement—"Tones (svara-s) are organised into the grāma through jāti-s and śruti-s"—becomes significant. Thus what was spontaneously perceived in the jāti-gāna was tonal movement i. e., the svara-s, which after an analytical investigation were organised into grāma on the basis of their śruti-content. So, we find that the concept of śruti was formed as a means of precisely measuring, relating or comprehending pitch relations spontaneously perceived as tones.

That the tones are spontaneously perceived is affirmed by all the musicologists right from Matanga who says, "Because it is perceptible by itself, it is called svara". Since delightfulness was already implied as the essential quality of tone, Sārngadeva, improving upon the definition, as it were, made it explicit when he said: "Immediately consequent upon sruti, creamy and resounding, the sound that delights the listener's mind by itself, is called svara." "Barton and that delights the listener's mind by itself, is called svara."

The essential fact is that whereas svara is given to spontaneous perception, sruti is intellectually conceived subsequently for organising the svara-s into a perceptible scale called grāma. This has been done on the basis of certain observable facts; but since those facts can be observed only by trained ears, the question whether this concept has any objective validity or not always keeps on hanging fire. Another reason for the controversy raised on this point is the fact that the concept is not almost as universal as the concept of tone obtaining in the various systems of music in the world today. It is obviously peculiar to Indian Music, specially the ancient Indian music; for, even in India there

<sup>\*</sup> Paper read by Dr. R. K. Shringy at the annual conference of the Madras Music Academy, Madras, Dec., 1972.

१ - जग्राह पाठ्यमृग्वेदात् सामम्यो गीतमेव च।

२ —जातिभिः श्रुतिभिष्ट्चैव स्वरा ग्रामत्वमागनाः।

N. S., K. ed. 20.5.

३ - स्वयं यो राजते यस्मात् तस्मादेष स्वरः स्मृतः।

Brhaddeśī.

हे ए—श्रुत्यनन्तरभावो यः स्निग्घोऽनुरणनात्मकः ॥२४॥ स्वतो रंजयित श्रोतृचित्तं स स्वर उच्यते ॥२५॥

are people who think that they can easily do away with the concept of *śruti* altogether and yet be able to explain the structure and the technique of modern Indian music. Strange as it might seem, *śruti* does not find any significant mention in its technical sense in the Pauranic tradition. Grāma, mūrechanā, jāti and svara etc. constitute musicological terminology for the Vāyu Purāṇa, Mārkaṇdeya Purāṇa and the Viṣṇudharmottara Purāṇa. This would suggest that there had ever been two different traditions of musicologists with reference to the concept of *śruti*—one considering it as the pivot of grāma-mūrechanā system and the other ignoring it completely.

This does not, however, mean that the concept of śruti has absolutely no relevance to Indian music today, but this view rather points out the necessity of a fresh inquiry into the true significance of the concept of śruti; and this can be done by investigating into the relationship of śruti and svara, and thereby determining the true function of śruti in the grāma system. Such an enquiry may enable us to reassess the value of the concept in its proper perspective.

Indeed, a lot of work has been done to explain and to reinterpret the relevance and validity of the concept of *śruti* in the context of Indian music, in the recent past; but, the subject is so abstruse that any attempt from a different angle can always be considered helpful. The subject is indeed multidimensional, and there are many intriguing questions challenging our attention. For example, we find that the authors of medieval India have allocated different number of *śruti-s* to the same *svara-s*; or, there is enough scope for studying the outlook of ancient writers on music such as Bharata, Dattila and Matanga etc. to formulate the right opinion regarding the *śruti-s* being equal or unequal. These questions are quite formidable and merit an independent inquiry; and moreover, all the secondary questions, such

as these, can be satisfactorily answered only when the fundamental concepts are properly understood. It is, therefore, intended here to bring out the significance of the concept of *śruti* as related to *svara* by studying its function and its relationship to *svara* as expounded in the traditional works of Indian music. We shall first try to arrive at a tentative definition of the two terms and then arrive at a conclusion by investigating their relationship.

#### 1. The concept of Sruti:

The word śruti, as it is well-known, is derived from the Sanskrit root śru, to hear, etymologically, by Matanga\* as well as Śārngadeva. "Śrāyate-iti-śruti i. e., that which is heard is śruti. Now, what is it that is heard? Does it imply that whatever is audible, musical or unmusical, is śruti? or does śruti, in whatsoever general terms it might be defined, have a particular signification? Bharata speaks of śruti in the context of the constitution of grāma; so we have to look to Matanga and Śārngadeva, to answer this question; for, even Abhinavagupta echoes Bharata when he says: "There are two grāma-s, sadja-gārma and madhyama-grāma; and twentytwo śruti-s are established here, in one tone-cycle (i. e., saptaka)". Incidentally, it may be noted that he too considers that the function of śruti is to constitute grāma.

Matanga seems to present the concept of *śruti* in a systematic way, for obviously in his time this was perhaps the burning issue in the field of musicology. He begins with the literal meaning of the term; 'Śrūyante-iti śrutayah', the śruti-s are so called because they are heard. So primarily, śruti to him, denotes sound, the object of hearing. Then he refers

Brhaddest

Sangīta-ratnākara I.3.8.

७—अय द्वी ग्रामी षड्जग्रामो मध्यमग्रामश्चेति । अत्राक्षिता द्वाविशतिश्रुतयः स्वरमण्डलसाधिताः ॥

Abhinavabhāratī, Baroda Ed. p. 15.

Y-Alain Danielou, Texts des Purana Sur la Theorie Musicale.

५—श्रवणार्थस्य घातोः किन्प्रत्यये च सुसंश्रिते । श्रुतिशब्दः प्रसाध्योऽयं शब्दज्ञः कर्मसाधनः :

६ —श्रवणात् श्रुतयो मताः

to the fact that *śruti* is either considered to be one or many, implying that it all depends on the connotation of the term; for, the word *śruti* was quite differently understood by different scholars or schoolmen as it appears from his discussion with regard to the number of *śruti-s*.

To Matanga, therefore, śruti, as undertood in its primary sense of 'the audible sound', is one only.9 And he supports his contention by quoting Viśvāvasu who says that, "because it is perceptible by the sense of hearing, sound only can be śruti.10 But Viśvāvasu does not seem to be limiting the connotation of the word sruti to its primary meaning; rather he lends it a meaning which makes the word technical in the field of musicology; for, he says that sruti is twofold according to as it is associated with the standard notes and the intervening (antara-svara-s) ones. 11 But those who consider the sruti to be threefold either on the ground of three registers or threefold perceptual insensitivity as quoted by Matanga12 do not seem to make an advance on the one śruti theory from the musicological point of view, since the first opinion makes no important distinction as the very same notes are involved in all the three registers; and the second view relates to the quality of voice i. e the timbre and not the pitch. However, the theory referred to by him, that considers sruti to be fourfold on the basis of the different physiological conditions makes some advance upon the threefold sruti view in so far as it affects the whole structure of musical sound. But yet it does not seem to depart absolutely from the primary meaning of the term śruti and therefore fails to accord distinct individuality to different śruti-s.

Appendix III

Bharata has spoken of three types of tones viz., having four sruti-s, three sruti-s, and two sruti-s, in the context of wind instruments with reference to the technique of playing upon them. 18 Presumably on this basis, some flutists, according to Matanga, consider sruti-s to be nine only. We are not presently so much concerned with the actual and true number of śruti-s as with the true significance and the actual function of śruti-s. It is obvious that to the flutists only nine sruti-s were real, for they could produce the notes of the octave with this understanding. Therefore, once again we find that sruti-s are conceived in order to produce the svara-s accurately and for obtaining their modified forms such as antara and kākalī referred to earlier in the two-sruti view. But, however, apart from the technique of the wind instruments. Bharata himself implies twentytwo śruti-s in a scale; for there are three notes with four sruti-s, two with three and two with two śruti-s each in sadjagrama.

It is interesting in this context to consider the view of Dattila whose work is believed to be earlier than Matanga and who is considered to be a close follower of Bharata. He says: "Higher and higher notes in the high (tāra-sthāna) (register) are on the vīṇā lower and lower. Thus the differences of sound are called śruti because of their auditive perceptibility. With some of these (śruti-s) one sings in all songs. Those (śruti-s), however, which have become notes will be considered here." Thus, auditive perceptibility of differences in

(कम्प्यमानार्घमुक्तास्र व्यक्तमुक्तास्तथैव च ॥) Nātyaśāstra (G. O. S.) 3.2.

८—सा चैकानेका वा। Brhaddess.

९—तत्रैकैव श्रुतिरिति । ibid.

१० —श्रवणेन्द्रियग्राह्यत्वाद् व्वनिरेव श्रुतिर्भवेत् । ibid.

११ —सा चैकापि द्विघा जेगा स्वरान्तरविभागतः ॥ ibid.

१२—केचित् स्थानत्र(य)योगात् त्रिविघां श्रुति प्रपद्यन्ते । अपरे त्विन्द्रियवैगुण्यात् त्रिविघां श्रुति मन्यन्ते । इन्द्रियवैगुण्यं च त्रिविघं सहजं दोषजमभिघातजं चेति ।

१३---दिकत्रिकचतुष्कास्तु ज्ञेया वंशगताः स्वराः।

१४—उत्तरोत्तरतारस्तु वीणायामवरोत्तरः । इति ब्वनि विशेषास्ते श्रवणाच्छ्वतिसंज्ञिता ॥९॥ तेम्य कांश्चिदुपादाय गीयन्ते सर्वगीतिषु । आन्द्रियन्ते च मे तेषु स्वरत्वमुपलम्यते ॥१०॥ Dattilam.

pitch forms the essential characteristic of the tonal perception called *śruti* by the ancients. And then it is also notable that in a given scale of notes, it is some of these very minute intervals that are recognised as *svara-s*. This view enlightens us regarding the relation of *śruti* and *svara*.

Then Matanga quotes Kohala, who is even earlier than Dattila. He affirms that sruti-s are twentytwo in number, also considered as sixtysix by some : or otherwise. they are infinite.15 Thus, as far as the difference of pitch as determined by auditive perceptibility is concerned, the one prominent view held by distinguished musicologists was that of twentytwo sruti-s; because all other views are either partially applicable or not based on pitch-value, and therefore non-musical in their orientation. The view of sixtysix śruti-s is only a projection of the former and is obviously superficial. Alternatively, if sruti is a just perceptible difference in pitch, there can hardly be any limit to such sounds. So, the view maintaining an infinity of sruti-s called for a need for a clear and precise definition of the term in the essential sense of perceptible difference in pitch. Of course sruti-s cannot be considered infinite, for the function of sruti-s is to constitute the musical scale and to determine the position of the seven tones in it; so if the sruti-s have to discharge this function. their number has to be limited; then only they can be used as units of a group.

But, how is it that the *śruti*-interval came to be perceived? i. e. in other words, does the name *śruti* correspond to an objective perception? Kumbhā, who is in a way, a commentator of Śārṅgadeva, has pointed out two different aspects of the connotation of the word *śruti*. He says, the word *śruti* can be derived from the root *śru*, either as an abstract noun referring to listening, or as a verbal noun, referring to the object of listening. In other words, *śruti* १५—द्वाविशति केदिद्वाहरन्ति(श्वतीः) श्वित्ञानविचारदक्षाः।

षट्षिटिमिन्नाः खलु केचिदासामानन्त्यमेव प्रतिपादयन्ति ॥
Brhaddest.

also denotes a perceivable difference of pitch. This was derived in the first instance in the form of the difference of pitch-value between the Pañcama of Sadja-grama and that of Madhyama-grama by Bharata.16 And this difference of auditive perception was designated by him as Pramaņa-śruti. In other words, in the perception of that difference in pitch value, he found a proof of the perceptible existence of a tonal factor that constituted tones or determined their position in the scale. Consequently, Kumbhā, echoing Abhinavagupta, points out that the function of śruti is to distinguish inbetween the grāma-s. Matanga perceives in this difference of pitch a measure of tonal content called sruti. Thus the discovery of the pramāņa śruti set the ball rolling, and it was found that all the tones were actually to be arrived at through two, three or four perceptible factors, bringing the total number of such tonal factors to twentytwo in a scale. Regarding the objective validity of the concept of śruti Dr. B. C. Deva has referred to a laboratory experiment conducted by Ellis, in England in 19th Century. The experiment proved that, "the number of rough steps of pitch which can be distinguished in an octave are about 22;"17 and also "that the difference in any sensation which can be perceived depends on the sensation already present in a person." The effect of this accumulated sensation was known to our ancients, or was taken into account in formulating the concept of śruti. Abhinavagupta calls it "Kramika-śrutijanitasamskāra-višeşa." Śārngadeva is also aware of this process, when he himself poses the question, "Indeed if such śruti-s as the fourth etc. are admitted to be the cause of svara-s how can the other sruti-s such as third etc. be considered as their cause?", to which he answers, "Such a śruti whether fourth or third etc., is determined only with reference to

Sangita-raja II. 1.1.90.

१६ अथ प्रयोजनं तावत्त्रोच्यते श्रुतिरूपणे। विभागो ग्रामयोर्यस्मादेतत् ज्ञानेन जायते ॥९०॥

<sup>90-</sup>B. C. Deva, Psycho-acoustics of Music and Speech, 1967; pp. 122-

the preceding śruti-s; therefore, they too constitute the cause of svara-s."18

Following Matanga in spirit, Śārngadeva too considers the śruti-s to be the modifications of musical sound i. e. nada.19 So, śruti for him is essentially a musical sound. We can see the crystallisation of the concept. Another evidence of this process is to be found in Sarngadeva's statement to the effect that nāda arising from the navel is differentiated through twentytwo nada-s, situated in the region of the heart, the throat and the head. It is not understood in what sense he uses the term nads. In the Avurvedic terminology, it is generally identified with veins, arteries or nerves etc. So, if by nadi-s he implies observable objects, then such twenty-two nadi-s have yet to be identified by physiology. However, if he implies some yogic meaning, then obviously it would ever remain a subjective phenomenon. What is quite apparent is an attempt at fixing the number of sruti-s at twentytwo on a tangible basis to set the controversy at rest beyond all doubt. And perhaps he did succeed in his endeavour to do so; since no subesequent writer seems to have challneged him. After him twentytwo sruti-s are almost taken for granted.

It is noteworthy that Bharata enumerates the concept of *śruti* in the context of subjects related to *vīṇā*, but not among those related to the human instrument. This implies that *śruti* is one of those subjects of musicology that can be well demonstrated and best exposed exclusively with the aid of *vīṇā*. Therefore, Śārngadeva's graphic description of twentytwo *nādī-s* in order to show the genesis of

१८—ननु श्रुतिश्चतुर्ध्यादिरस्त्वेवं स्वरकारणम् ॥२५॥ त्रयादीनां तत्र पूर्वासां श्रुतीनां हेतुतां कथम् । क्रूमस्तुर्यातृतीयाऽऽदिः श्रुतिः पूर्वाभिकाङ्क्षया ॥२६॥ निर्घार्यतेऽतः श्रुतयः पूर्वा अप्यत्र हेतवः ।

Sangīta-ratnākara I. 3. 25-27.

१९—तस्य (नादस्य) हार्विशतिभेदाः ।
ibid I. 3.8.
9९५—Natyasastra 28. 14-15 (Baroda Ed.)

śruti-s seems to highlight the Täntric influence on musicology, the seeds of which can be found even in Matanga. Tantra combined Yoga, and the concept of nāda is closely related to the philosophy of Tantra and the practice of Mantra-yoga. Probably this can explain Śārngadeva's hypothesis.

Although, as already stated, Viśvāvasu and Matanga both consider 'Dhvani' i. e., mere 'sound' to be the essential content of śruti, Śārngadeva considers nāda i. e., musical sound to be the substance. However, it is worthwhile to note that he does not consider each śruti to be a musical sound; what he implies is that, śruti-s do give rise to svara-s that are essentially delightful, resonant etc. This implication is clearly brought out by his commentator, Kallinatha while he comments on his definition of sruti viz., "Sravanāt śrutayo matah" i. e., "sruti-s are so called because of their auditive perceptibility. He says: "Auditive perceptibility is common to such extensive sounds as well as svara and tana etc., that are essentially resonant apart from sruti; so therefore, here indeed sruti signifies only the sound that is produced by the blow of wind etc. in the very first instant, which is free from resonance."10 Thus, we find that sruti is conceived as a factor of musical sound in the form of just perceptible difference of pitch, that is free from resonance. So according to Sārngadeva, as interpreted by Kallinātha, "śruti signifies a pitch value which contributes to the musicality of tone, and is yet by itself devoid of tonal colour". Now, since he recognises twentytwo such pitch values, as indeed they have been recognised by Bharata, Dattila, Matanga and Abhinavagupta before him, it is also implied that the audible musical sound free of resonance, that a śruti is, should be capable of individual perception and recognition, and therefore of being

दीर्घदीर्घस्यापि व्वनेविद्यते, तथा यत्र मारुताबाहत्यनन्तरोत्पन्नप्रवमक्षणवर्ती श्रवणमात्र-योग्यव्वनेरेव श्रुतित्वमिति ।

Sangīta-ratnākara p. 67 (Adyar Vol. I).

२०-यद्यपि श्रवणयोग्यत्वमनुरणनात्मनः स्वरतानादिरूपेण

reproduced; for otherwise they cannot be employed consciously. This leads us to the question what the significance of *sruti* is with reference to *svara*. But before one can investigate that, one must be clear about the concept of *svara*.

To sum up the deliberation regarding the concept of sruti, it may be concluded that, "sruti is that audible musical sound which is free from resonance and is capable of being individually perceived, recognised and reproduced." It also follows that there are twentytwo such sruti-s in a given scale which are the same in all the three registers.

This very conclusion is corroborated by the process of Catuhsāraṇā initiated by Bharata, reshaped by Matanga and pedantically expounded by Śārngadeva. So also Kumbhā has defined very clearly the threefold function of the fourfold string-movement called Catuh-sāraṇā. He says, "The delimitation of the number of śruti-s, graduation of pitch with reference to tones and the comprehension of kākalī etc. (constitute) the functions of the string-movements (sāraṇās).<sup>21</sup> The process need not be restated here; but it confirms, by actual demonstration, the number of śruti-s being twentytwo, and also the fact that śruti-s are musical sounds just audible.

#### 2. The concept of Svara

The concept of svara does not confront us with much difficulty; probably, because of the universal recognition of the tones, and also due to the inherent qualities that distinguish it. It has already been pointed out that the concept of svara was as naturally formulated as spontaneously it was perceptible. Dattila, as already pointed out, has said that some of the śruti-s are considered as svara-s. If this is read in consonance with Bharata's concept of three types of tones constituted by four, three and two śruti-s<sup>15</sup> we are led to

२१-श्रुतीयत्तापरिच्छेदस्तारतम्यं स्वराश्रयम् ।
काकल्यादिपरिज्ञानं सारणानां प्रयोजनम् ॥११५॥
Sangīta--raja II. 1.1.115,

think that some of the śruti-s attain the position of svara-s. Thus, although no categorical difference is conceived between śruti and svara, it yet remains to be defined in what way they are different, or perhaps they are neither categorically different nor even identical.

Sarngadeva has told in a peculiar way, how the svara-s come into being, He says, "From out of the śrutis arise the svara-s", 22 and this may be read alongwith his statement that all the śruti-s pertaining to a particular svara are responsible for its manifestation. 18

Obviously he does not imply that *śruti-s* are the cause and *svara-s* their effect: the cause having ceased giving room to the effect, and the cause preceding the effect. He seems to suggest that *svara-s* arise by the cumulative effect brought forward from the preceding *svara-s* to the 'note-*śruti*' i. e., the *śruti* that becomes the *svara*; in other words, by *samskāra-pradāna* i. e. by the inheritance of the residual effect. It is notable that *svara-s* arise out of *śruti-s* in the groups of two, three and four; but they do so only in groups, in other words, no single *śruti* can become or produce a *svara*.

In fact, Śārngadeva's statement is rather vague in so far as it does not pronounce the relationship obtaining between svara and śruti, and also because it is capable of being interpreted variously. One can roughly interpret that, as śruti-s give rise to svara-s, they are the cause; or for example, one can say that svara-s are different from śruti-s, being their product; This however involves the whole question of the nature of relationship in svara and śruti, which we shall deal with presently.

Sarngadeva defines svara, detailing its different characteristics—"Immediately consequent upon sruti, creamy and resounding, the sound that delights the listener's mind

२२-श्रुतिम्यः स्युः स्वराः

Appendix III

by itself is called svara." Resonance, softness and self-sustained deligtfulness are the essential features of svara.

It is also notable that the two commentators of Sārnigadeva harbour a difference of opinion with respect to the first character of the tone—Kallinātha thinks that in case of sadja, for example, tonality is derived from the resounding of the fourth śruti.<sup>28</sup> In other words, in the expression śrutyanantarabhāvī (immediately consequent upon the śruti) the term śruti refers to that particular śruti which is capable of resounding into note, and which is technically called svarasthāna. Simhabhūpāla, however, would consider the first śruti bereft of resonance as śruti and the fourth śruti giving a rise to resonance, a svara.<sup>24</sup>

However, the suffix 'bhāvī' in this expression is suggestive of possibility and refers to possible resounding vibrations of a śruti and therefore precludes any interpretation to the effect that every śruti can resound or be a svara. The difference of opinion between the two commentators leads us to two theories.

- (i) That svara manifests itself as the resounding vibration of the fourth śruti of şadja, and therefore svara can be said to be the effect of śruti and is therefore to be conceived as different from it.
- (ii) That the fourth sruti of sadja is itself svara, since it is capable of resounding.

To Simhabhūpāla, there are four distinguishable sounds, the first three being devoid of resonance and the fourth one being capable of it. Therefore, the resounding śruti, for him, is not quite different from svara.

So, we have two types of śruti-s, the resounding śruti-s and the unresounding śruti-s. R. Sathyanarayan in his paper entitled 'Śruti, the Scalic Foundation' identifies these two types with svaragata and antaragata śruti-s of Viśvāvasu. 25 But, it would be technically more accurate to identify the resounding śruti as svarasthāna-śruti and to refer to other śruti-s merely as śruti-s. This finding will be helpful in establishing a proper understanding of the relationship of śruti and svara.

Delightfulness indeed is related directly to resonance that brings about spontaneous perceptibility; and therefore, the tonality of the notes is primarily in resonance. Matanga derives the word svara from the Sanskrit root Rājṛ, to shine, with the prefix sva (itself), meaning that which shines by itself'26 i. e., which is spontaneously perceptible and needs no other means to manifest it. He then defines svara as delightful sound27 and cites Kohala in his support to the effect that "colourful sound is known as tone."28 So we have spontaneous perceptibility, delightfulness and resonance (i. e the overtones, the sound vibrations immediately following the note-śruti), and softness as the four essential elements, aspects, or dimensions of svara.

Now the question is, how many of these effects are shared by śruti? Spontaneous perceptibility, resonance and delightfulness are positively denied to it, while softness may be attributed to it since it has musical sound for its content. Then, how do these attributes manifest themselves, when svara-s are said to arise from śruti-s? One explanation is Sanskāra-pradāna i. e each śruti transmits its residual effect to

२३—श्रुत्यनन्तरभावी, श्रुतेश्चतुर्थूयादेर्मारुताद्याहत्युत्पन्नप्रथमन्वनेरनन्तरं भाव्याविर्भवनशीलः S. R. p. 82.

२४—श्रुत्यनन्तरेति । श्रुतेरनन्तरं भवतीति श्रुत्यनन्तरभावी । प्राथमतन्त्र्यामाहतायां यो व्यनिरनुरणनज्ञन्य उत्पद्यते स श्रुतिः, प्राथमप्रायमाहतायां यो व्यनिरनुरणनज्ञन्य उत्पद्यते स श्रुतिः, प्रायमप्रायमा यस्तु ततोऽनन्तरमनुरणनज्ञपः श्रूयते । स स्वरः ।

Ru-Sangeet Natak, Sruti the Scalic Foundation-No. 17. p. 62.

२६-राज् दीप्ताविति घातोः स्वशब्दपूर्वकस्य च।

स्वयं यो राजते यस्मात् तस्मादेश स्वरः स्मृतः । Brhaddesi.

२७—रागजनको घ्वनिः स्वरः उच्यते । ibid.

२८-ध्वनीरक्तः स्वर स्मृतः।

Appendix III

the next and the attributes of svara arise as a result of the cumulative effect of all the srutis of a note climaxed by the 'note-sruti'. Thus, we may conclude that even though no single śruti can manifest by itself the attributes of svara, they are never-the-less produced by them cumulatively. Svara is therefore neither identical with, nor different from sruti. But svara can however be identified as the sum-total effect of the sruti-s of which it is constituted; in other words, a number of srutis together produce the effect which is called svara; or otherwise, a group of śruti-s in temporal sequence manifests svara. In that sense, tonality may be conceived as inherent and latent in the srutis, which manifests itself according to the manner of their grouping, just like the atoms coming together to form into a molecule. Each sruti may thereby be considered to be charged with the power potency of tonality.

Our ancients have already considered the question of relationship between *śruti* and *svara* thoroughly; and it will be worthwhile to examine critically the views put forth by different schools.

## 3. The relation of Svara and Sruti:

Matanga relates five different views with respect to the relation of *śruti-s* to *svara-s* in the following verse:—

"Of the *śruti-s* (as related to *svara-s*) they characterise (the relation) as identity, appearance, resultant, transformation and manifestation."<sup>2</sup>

#### (i) Identity:

The contention of this view is that, since there is no need for any spacial tactile relation for perceiving the two, both *śruti* and *svara* being perceptible through the sense of hearing, they are essentially identical like the relation obtain-

ing between the genus and the species. Thus, the identity of śruti and svara, in this view, is based on the same source of perception and is illustrated through the relation of the general and the particular. Obviously, this view is absurd on the face of it, since all the objects of one and the same sense cannot be so related. Matanga rather points out that, since śruti and svara are two different concepts and are related as the supporter and the supported, the foundation and the structure, the relation of identity cannot be established. 31

#### (ii) Resultant:

If sruti and svara, being made of the same material, cannot be related in identity, then perhaps the sruti-s can be taken as the cause of svara-s, and svara as the result of sruti. This view implies a relation of cause and effect, the effect being different from the cause. Matanga illustrates the point by the analogy of a pot being produced from mud with the help of a rod. Mud is considered to be the material cause and the rod to be the efficient cause of the pot. Now, it is a well-known fact that the material cause coexists with its effect, and Matanga argues that sruti-s cannot be conceived as producing svara in this sense as srutis do not coexist with svara significant in the sense as srutis of the inference derived by Kallinātha that tonality lies in the resonance of the

३१—नानाबुद्धिप्रसाष्ट्यत्वात् स्वरश्रुत्योस्तु भिन्नता । व व्यक्तिकि एक विश्वासी अध्यक्षिण । व विश्वासी विश्वासी विश्वासी विश्वासी विश्वासी विश्वासी विश्वासी विश्वसी विश्वसी

ibid

३२ स्वराणां श्रुतिकार्यत्वमिति केचिद् वदन्ति हि ।

मृत्पिण्डदण्डकार्यत्वं घटस्येह यथा भवेत् ॥३३॥
ibid.

३३—कार्यकारणभावस्तु स्वरश्रुत्योर्न सम्भवेत् । कार्येषु विद्यमानेषु कारणस्योपलम्भणात् ॥४०॥

ibid.

२९—तादात्म्यं च विवर्तित्वं कार्यत्वं परिणामिता । अभिक्यंजकता चापि श्रुतोनां परिकथ्यते ॥३०॥ Br

note-śruti. Thus, śruti and svara cannot be related as cause and effect. (iii) Appearance

If sruti and svara cannot be related as cause and effect, it is obvious that svara is not a product at all; and yet the phenomenon of svara is there: Can we therefore say that svara is only a projected image of the śruti just as face is reflected in the mirror?34 The face reflected in the mirror is merely an appearance and has no existence of its own, being the image of the object outside the mirror; but, svara is perceptible by itself; svara therefore belongs to the same order of reality as sruti. Matanga, therefore, concludes that this view does not accord with facts; for, if a svara is taken to be a projection of sruti it cannot in any way be different from it essentially and moreover, the perception of svara would become illusory; 85 whereas it is observed in fact that svara is categorically different from śruti.

As a matter of fact the appearance theory is based on the Vivartavada of Advaita Vedanta which is concerned with explaining the fact of phenomenal world as a whole; whereas the perception of 'sruti and svara is essentially relative and empirical and cannot therefore be explained in terms of the relationship of the absolute and the relative. However, the essential feature of Vivartavada is that it explains change without admitting any modification in substance. This would accord with Sudhākara's view that the note-sruti itself becomes manifest as svara, so that svara, though appearing to be different from sruti, is yet no different from it in substance. But, Matanga seems to consider the change involved to be substantial as he contributes to the transformation theory.

(iv) Transformation :

"No doubt" says, Matanga, "Sruti-s undergo a substantial transformation in the form of svara, as milk is transformed totally to form into curds."36 Obviously, in this view, svara is considered to be essentially different from śruti. It is only the protagonists of ārambhavāda i. e. the Naivāvikas who admit the effect to be different from an inherent cause (i. e. Samavāyikāraņa) which is the same as the material cause. Others admit the effect to be different from an efficient and aggregative (samyoga) cause Here Matanga seems to be advancing the view that śruti and svara are in Samavāya relation, for samyoga, a mere aggregate of srutis, cannot produce svara, as pointed out by Kumbhā. The śruti-s have to be in a particular order of succession in order to produce a svara. Moreover, we cannot have an aggregate of śruti-s like a bundle of threads, since they always occur in a temporal sequence. The samavaya relation implies that "the effect inheres in the material cause as a quality may be said to do in a substance. The insistence that produced things are not only in time and space but also abide in dravyas is noteworthy."37 If, therefore, svara-s are conceived to be inherent in the śruti-s, they could as well be called the manifestation of śruti-s

Appendix III

#### (v) Manifestation:

Transformation implies the capacity to change, or in other words, a latent possibility. When the latent becomes active, the effect is called its manifestation. So, Matanga declares that, "the seven tones called sadja etc. are ever manifested by the sruti-s like a lamp manifesting the objects concealed in darkness."88 Thus, what is implied in this view is that the svara-s exist in their own right and are highlighted

अन्धकारस्थिता यहुत् प्रदीपेन घटादयः ॥३५॥

Brhaddest.

३४ - नराणां न मुखं यद्वद् दर्पणेषु विवर्तितम् । प्रतिभाति स्वर (स्त) द्वच्छुतिष्येव विवर्तितः ॥३२॥

३५ - यदमाणि विवर्तत्वं श्रुतीनां तदसंगतम्। विवर्तत्वे स्वराणां हि भ्रान्तिज्ञानं प्रसज्यते ॥३९॥

३६-स्वरता तत्समृहस्य स्तरामप्यसंगता ॥१३६॥

Sangīta-rāja II 1.1.136.

<sup>30-</sup>Hiryanna-The Outlines of Indian Philosophy; p. 239, (1970 ed.)

३८-षड्जादयः स्वराः सप्त व्यव्यन्ते श्रुतिभिः सदा ।

by the śruti-s. This viewpoint is however rejected by Kumbhā on the ground that it implies co-existence of the manifester and the manifest, which is in contradiction with the observed fact.

Kumbhā has discussed this relation from the point of view of almost all the schools of Indian philosophy including the Buddhists, but without going into smaller details; what is observed is that all these theories are applied to determine the relation of sruti and svara on the basis of change, for all these are the theories of causation attempting to explain the phenomenon of change. The concept of change is fundamentally twofold—one view is that reality is a flux, a perpetual change, and the other view is that reality is eternal: the former view does not in effect admit any cause-effect relation; for it holds the dissolution of one whole to be the creation of another whole, while the latter view admits this relation. The first view is held by the Buddhist and the other is held by the orthodoxy of Hindu Philosophers, in one form or another. The Buddhist view has to be rejected for it precludes the study of all relations; the Hindu view is represented by three important viewpoints viz., i) that creation implies a substantial change, ii) that creation implies transformation or manifestation of the inherent or iii) that creation represents the appearance of the real. The last of these views cannot probably be applied to explaining the relations within the empirical field. So, we are left with only two alternatives viz., that of substantial change and transformation or manifestation.

The theory of substantial change implies that *śruti-s* are evolved into *svara-s*, while that of transformation implies that *svara-s* are involved into *śruti-s*. This analysis resolves the problem. There seems to be no categorical difference in the two viewpoints that describe the same relation in different terms, from the two different ends. Therefore, the utility of bringing in these theories for explaining the relations of *svara* and *śruti* can as well be questioned. As a

matter of fact, sruti and svara are no absolute entities and both have musical sound i. e., nada as their substance. So, there is no difference as far as their substance is concerned. Therefore, it will be irrelevant to conceive of any substantial change taking place in-between them. Nada, as modified into twentytwo forms called sruti-s variously crystallises to appear as seven tones. Therefore, śruti-s arising into different groups in temporal sequence give rise to selfperceptible tones. Since śruti-s are not substantially different from svara-s, any attempt at relating them as cause and effect will be irrelevant. To understand the true significance of this relation, one must not lose sight of the fact that fundamentally we are dealing with nada. Sruti and svara are only two different forms of nada, related as the digits of the same figure, every digit contributing to the formation of the figure in a spatio-temporal sequence.

Dr. B. C. Deva's definition that, "Sruti-s are additive measures of pitch relations in music," seems to highlight the functional aspects of the relation of śruti and svara. Aspects of this relation can be defined, but no definition would perhaps be adequate; for śruti and svara are related as the constituent parts integrated by a temporal sequence into the dynamic whole, and are neither different from nor identical with each other.

<sup>89-</sup>B. C. Deva, Phycho acoustics of Music & Speech p. 121.

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बल्पप्रयोगः सर्वत्र	231	वाद्यस्वराद्यास्तिस्रः स्युः	257	इति पूर्वादिपत्रस्थे	91	ऋषभादिर्म्च्छना स्यात्	312,317
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अल्पा रिपनिषा लङ्घ्यः	369	वाद्या मांसवरा मांसे	65	इति प्रयोजनान्याहु:	265	ऋषभे मध्यमेऽल्पत्वं	324
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अशीत्यम्यधिका चातुः	195	<b>अाब्रह्मरन्घ्रमृजुतां</b>	85	इत्यष्ट्या समुद्दिष्टाः	74	एकः क्ष्मावलये	4
अश्वकान्ता च सौवीरी	178	आमन्द्रन्यासमय वा	287	इत्येकाशीतिसंयुक्तं	195	एक एकस्वरस्तानः	195
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अश्वप्रतिग्रहो रात्रिः	226	अर्चिको गाथिकश्चाथ	188	ईषत्स्पर्शी लङ्घनं स्यात्	294	एकविश्या द्वितीयायां	121
<b>अ</b> ष्टमस्वरपर्यन्तं	262.	आर्षभी चेति सप्तैताः	275	उ		एकश्रुत्यपकृष्टाः स्युः	121
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षष्टमे त्वनस्मृती स्यातां	39	आर्षम्यां च स्वरा येऽंशाः	290	उग्रा च क्षोमिणीति हे	138	एकस्वरादिसंख्या स्यात्	202
<b>अ</b> ष्टादश्यास्तृतीयायां	121	आर्षम्यां तु त्रयोऽंशाः स्युः	305	उच्चोच्चतरतायुक्ताः	115	एकस्वरास्त्वभेदत्वात्	194
अष्टावन्ये द्विघेत्येवं	191	आलापा चेति गान्धार०	178	उत्क्षेपणमवक्षेप ०	57	एकस्वरोऽत्र निर्भेदः	186
अष्टी कला भवन्तीह	305	आलिक मप्रबन्धाश्च	14	उत्पत्तिमभिधास्यामः	104	एकांशा नन्दयन्ति च	279
वसंपूर्णाश्च सम्पूर्णाः	183	आवर्त्तकः सम्प्रदानः	161	उत्पादयन्ति नैषादी०	274	एकाङ्गुलं देहमध्यं	98
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अस्ति स्वस्तिगृहं वंशः	4	आविष्करोति सङ्गीत०	7	उद्गारादि निमेषादि	57	एकैकस्यां मूच्छनायां	184
<b>अस्थिस्ना</b> युसिरामांस०	72	आशाप्रकाशिश्चन्ता च	90	उद्गीतोद्वाहितौ तद्वत्	245	एकैकान्त्यान्त्यविरहात्	186
अस्थ्नां शरीरे संख्या स्यात्	73	आसुरः शाकुनः सार्पः	62	<b>उ</b> द्दिष्टान्त्यस्तावतिथे	214	एतच्च चेतनस्थानं	68
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अस्य मूत्रपुरीषादि	57	<b>आह</b> तोऽनाहतश्चेति	23	उपर्युपरि सर्वान्यः	7	एतत्संमिश्रणाद्वर्णः	234
आ		आहुत्याऽऽप्यायितो ग्रस्त०	36	उल्लासितश्चेति तेषां	261	एतदल्पनिगास्वाहुः	278
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आतारषड्जमारोहः	285	इडा पुरुषमेघश्च	226	ऊर्घ्वं दशदशाधस्तात्	80	एता एव विना षाड्ज्या	274
आत्मनः पूर्वमाकाशः	31	इहायाः पृष्ठपूर्वस्थे	100	ऊर्घ्वंगा हृदयं प्राप्ताः	80	एता निषादगान्धार०	226
आत्मा विवक्षमाणोऽयं	111	इति गान्धारहीनानां	225	ऊर्घ्वरेखा शिरास्तारः	239	एतानेवावरोहेण	261
आदित्यानामयनश्च	225	इति त्रिरावृत्तपदां	376	湘	0.07.	एतान्यन्तरमार्गेण	281
आदिमेन कला यत्र	259	इति त्रिषष्टिरंशाः स्युः	289	ऋचो यजूंषि सामानि	367	एते चैकोनपञ्चश्चत्	181
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एवं कण्ठे तथा छीर्षे	115	र्किचित्कालमवस्थानं	40	क्रियास्तेषां मनोबुद्धिः	50	गीतिरित्युच्यते सा च	376
एवं कलात्रयेणोक्तः	244	किमन्ये यक्षग्रन्धर्व०	40	क्षिती रक्ता च संदीप॰	138	गीतेन प्रीयते देवः	11
एवं मध्यममुच्चार्यं	231	कुमुद्दत्यायता याऽस्याः	137	क्षेत्रज्ञः स्थित आकाशः	36	गीते समाप्तिकृत्न्यासः	289
एवंविघे तु देहेऽस्मिन्	103	कुर्युस्ता रक्तगाम्बारीं	274	ग ।		गीत्वा कलायामाद्यायां	376
एवं संचार्यलंकाराः	261	कुर्वन्क्रमाद्यदाऽऽरोहेत्	246	गज्झ सप्तषड्जादीन्	147	गीत्वाऽऽद्यो हो चतुर्थं च	259
एषां शेषेषु पत्रेषु	97	कुवित हे नरे शुक्लं	80	गत्वाऽऽद्यगानाद्भवति	256	गीर्वाणकुलसंभूता:	152
एषा प्रकृतिरन्या तु	39	कुलानि जातयो वर्णाः	13	गत्वा द्रुमदलस्येव	79	गुणग्रामेण यो विप्रान्	5
एषा मन्द्रगतेः सीमा	287	कुल्याभिरिव केदाराः	80	गर्भः स्यादर्थवान्भोगी	39	गुणदोषाश्च शब्दस्य	14
	407	कृतगुरुपदसेवः	7	गर्भाशयोऽष्टमः स्त्रीणां	67	गुदलिङ्गान्तरे चक्रं	85
औ 	110000	कृताञ्जलिर्ललाटे <b>ऽसौ</b>	40	गलोपान्निगलोपेन	312	गुरुलब्वादिमानं च	14
बौडुवानां चतुर्णां प्राक्	195	कृता साउन्तरमार्गः स्यात्	215	गान्धार इति तद्भेदी	142	गुरूपदिष्टमार्गेण	104
भीडुवानां तु विश्वत्या	187	कुत्वाऽग्निवत्परं स्पृष्ट्वा	254	गान्घारग्राममाचष्ट	164	गेयं वितन्वतो लोक०	104
भौडुवी साऽस्ति येषां च	296	कृपा क्षमाऽऽर्जवं घैयँ	95	गान्धारपञ्चमीत्येताः	279	गोघाऽशने तु निद्रालुः	3)
अौडुवं रिपलोपेन	327	कैशिके काकलीत्वे च	142	गान्धारिका सरस्वत्योः	100	गोपीपतिरनन्तोऽपि	11
क		कैशिक्यां सप्तपक्षे तान्	290	गान्वारी धैवती षाड्जी	274	ग्रहांशतारमन्द्रांश <u>्</u> र	281
कं धर्म विदधी नैषः	- 5	कैशिक्यामृषभान्येऽ शाः	341	गान्धारीपञ्चमीम्यां तु	274	ग्रहांशन्यासषड्जं च	371
कन्दमध्ये स्थिता तस्या	100	कैश्चित् पञ्चमः प्रोक्तः	359	गान्घारी हस्तिजिह्यां च	100	ग्रामः स्वरसमूहः स्यात्	160
कन्दीकृत्य स्थिताः कन्दं	100	कोरकाः प्रतरास्तुन्नाः	74	गान्धारेऽंशेन नेर्लोवः	299	ग्रामरागांश्चोपरागान्	13
कण्ठेऽस्ति भारतीस्थानं	91	कोष्ठसंख्यागुणं न्यस्येत्	208	गान्घारोऽत्यन्तबहुलः	348	ग्रामाश्च मूच्छंनास्तानाः	13
कण्ठे मध्यो मूर्घ्न तारः	114	क्रमं न्यस्य स्वरः स्थाप्यः	204	गान्धारोदीच्यवां कुर्युः	274	ग्रामे स्यादविलोपित्वात्	165
कपालं पञ्चमीजाति०	370	क्रमा अकूटतानत्वे	186	गान्धारोदीच्यवा चाथ	279	घ	
कपालानां क्रमाद् ब्रूमः	372	क्रमा द्विधेति द्वात्रिशत्	192	गांघारोदीच्यवायां तु	334	घ्राणे गन्धवहे हे हे	79
करुणा चायता मध्या	137	क्रमात्कला सा यत्र	258	गान्घारोदीच्यवारक्त०	373	च	Halland Marin
कत्तंव्याऽत्रापि गान्वारी	352	क्रमात्कालगतेर्हेतू	100	गान्धार्यार्षभिकास्यां तु	274	चक्रं सहस्रपत्रं तु	95
कर्मास्य देहोन्नयन॰	57	क्रमात्पूर्वादिपत्रे तु	89	गाद्यी घाद्यी निषादाद्यी	191	चच्चत्पृटः षोडशात्र	320,348,352
कलां प्रयुज्य मन्द्रादेः	253	क्रमात्पूषायशस्विन्यौ	100	गानक्रियोच्यते वर्णः	234	च च्चत्पुटः षोडशास्यां	324
कला गतागतवती	2 <b>5</b> 6	क्रमात्स्वराणां सप्तानां	167	गाने स्थानस्य लाभेन	228	चतस्रः षड्जशब्दिन्यः	375
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ix	25	gramatical	grammatical
xiv	6	succedeed	succeeded
xxvii	21	Jogadekamall	Jagadekamalla
8	19	ऽश्वत स्तथा	ऽश्वतरस्तथा
32	36	viaj	viraj
44	13	m ntal	mental
81	5	cycle	chyle
87	1	स्वाधिष्टान	स्वाधिष्ठान
113	9	world	word
125	32	fixe	fix
126	14	invriable	invariable
139	37	raktikā	ratika
146	9	7th	l 7th
39	10	8-10 2	8-10 3
149	7	Add नृपामात्यानसारित	वादनुवादी तु भृत्यवत् ॥५१॥
152	30	षड्जगन्धर	षड्जगान्धार०
165	4	गन्धारो …	
182	10	rl	गान्घारो…
221	8	ropped	ri
226	4	ज्येतिष्टोम'''	dropped
232	9	śrutis	ज्योतिष्टोम
241	34	जग्याः दोपितो	śruti
	36		दीपितो
246	2	possible give	possible to give
251		ममम घघव	मसम पपप वधव
256	9	त्याक्ता '***	त्यक्ताः "
	9	विषपिन	पधपनि
259	I	2.0	21.
***	19	vhrases	phrases
263	22	Humhara	Humkara
	6	विदुर्द्धाः	विदुर्बुधाः
268	14	the r	their
270	30	he	be
28!	19	hexatonic	pentatonic
,,	36	sem final	semifinal
# Misnei	nte of disorie	ical marks	

<sup>\*</sup> Misprints of diacritical marks are overlooked.

#### Treatment of Svara

Pege No.	Line No.	Printed as	To be read as
288	1	nyas	nyasa
297	14	auduaa	auduva
307	22	ag-ri	ga-ri
	24	ag-ri	ga-ri
310	30	ādava	şāḍava
312	11	pa-ri-a	pa-ri-ga
313	28	it-ith	it-with
339	9	शा	पा
340	13	nl	ni
346	17	री	री'
349	13	पा, "तरिंगं	पा "परिगं
	17	ग	गा
350	7	91	98
357	5	नीं नीं	नो नी
371	8	गन्य***	गायन्त्र०
375	4	सरसग चर्म •••	सरसगजचर्म ०
383	15	(ru+vam)	(ru+dram)
387	28	अलंकारेषिणं	अलंकारैषिणं 💮
403	'32	आन्द्रियन्ते च मे	आद्रियन्ते च ये
406	20	subese-	subse-
410	30	श्रुतेश्चतुर्थूयादे०	श्रुतेश्चतुर्य्यादे०
3,	32	प्रथमतन्त्रूयाम०	प्रथमतन्त्र्याम०
415	and a	Transformatton	Transformation

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