CHAPTER-II

A SURVEY OF THE ŚĪKṢĀS OF RV, SV, & AV
II. 1.0 Šiksas of the Rgveda (RV)

Besides general šikṣas, it is essential to have some ideas about šikṣas of other Vedas. In the šikṣas of RV, the Šaiśirīyašikṣā, the Vyādišikṣā, the Svaravyaṁjanasiṃhašikṣā are the significant ones. The most important of Rgvedic šikṣā literature is the Šaiśirīyašikṣā.

II.1(i) Šaiśirīya šikṣā

It has been edited by T.P. Chowdhury and published in the Journal of Vedic studies. It's date and authorship are not known. It is attributed to ēśaiśira, one of the five important disciples of Saunka, viz., Mudgala, Gālava, Gārgya, Sañkalya and Šaiśira. It is concerned with the Šaiśirīya śākhā of the RV, with which the Rk. Prāt. is also concerned. It contains altogether 180 verses, written mostly in the anusūṭabha metre. Nowhere it quotes the Rk. Prāt. Hence it is difficult to determine which of these two works, was earlier. Most of it's verses resemble those of the Pān, Śik. For illustration of it's rules, it quotes stanzas from the RV. Some of its original contributions to phonetics are:-

i) It specifies the places where the lips should be twice separated¹ and where they should be once² separated. In su ुतaye (RV.VIII.47.1-18) bhrātuḥ putrān (RV. X.55.1), dhenuṁ somaḥ (RV. 1.91.20) pra suṣṭuti (RV. 42.14) yanmayaḥbhū etc. the lips should be twice separated. In

¹. dviroṣṭau tu vigahpyāt (One should hold apart the letters containing two labial sounds)
². sakṣidoṣṭau vigahpyāt (One should hold apart the same having one labial sound)
'yuyotu yuyuvir' (RV.V. 50.3) the lips should be once separated i.e. 'yuyotu' and 'yuyuvir' should be pronounced as 'yotu' and 'yuvir' respectively, with the elision of 'y'. This tendency of dropping one of the two consecutive labials can be traced in M.I.L.

ii) It deals with two extra varieties of pinda, viz., r + r, designated as 'vartivartula' (round like the wick) and r+y, designated as 'yoktrabandha' (binding by a rope) e.g.

a) nirytya (RV. X.186.1)

b) supitrya (RV. X.115.6)

Just as the carrier wraps the grass by a rope and binds, likewise the Vedic pinda (junction) should be uttered, being wrapped and bound by the yakāra.

(iii) It assigns four or six morās to pranava and acclaims that “He who knows it ought to be unbroken like a stream of oil and it's sound coming from below resembling the long continuous sound of the bells, is, as it were, an esoteric scholar of the Vedas”

(iv) In the enumeration of letters, it includes la (l), nāsikya (h+nasal) and raṅga, instead of the jihvāmūlīya, upadhmaniya and the pluta 1 (ɔ). The intervocalic ‘da’ and ‘dha’ are designated as duḥspraṭa (difficult to utter)

(v) It has independent view on the vowel quantity of the anusvāra.

“After a short vowel, the anusvāra as well as the short vowel

3. yathā yoktreṇa satinveṣṭya trāṇī badhmāti vāhakaḥ / evaṁ veṣṭya yakāreṇa vaidikaṁ piṇḍamuṣyaṇaḥ //
4. tailedhā samvachinnaṁ diveghghantanimūdavaṇaḥ / viṁṣiṣyeṣaṁ prauṇasyagraṁ vamastāṁ veda sa vedavita // Saisirīya śikṣā
has only $3/4$ of a mora, but after a long vowel, \textit{anusvāra} has $1/4$ of a mora and the long vowel has $1$ and $1/4$ morās”

(vi) In the junction between two mutes, the first one is ‘\textit{sāristhita}’ (restrained), not ‘\textit{śruta}’ (heard); because the first mute in the letter-junction is produced along with some faint vibration in the mouth cavity.

(vii) In the junction between a penultimate ‘h’ and ‘n’, ‘n’ should be sounded prior to ‘h’. This may be compared to metathesis in modern philology. The same rule also applies to the junction ‘s + n’. Metathesis in the junction ‘h+n’, is still found in M.I.L.

(viii) \textit{anudātta} is designated as ‘\textit{svara}’ and \textit{udātta}, as \textit{nāda}. It is a fairly complete \textit{sīkṣā}, discussing almost all the phonetic topics to be met with in other \textit{sīkṣās}.

II.1.(ii) \textit{Vyādi sīkṣā}

\textit{Vyādi}, as a teacher of phonetics is mentioned in the \textit{Ṛk. Prāt} (iii.23). His name also comes in the \textit{Mahābhāṣya}, as the author of a grammatical work consisting of a hundred thousand verses called the \textit{sāṅgrahā}.$^5$ His patronym was Dakṣāyaṇa and for this reason he is supposed to be a relative of Pāṇini or Dākṣiputra.$^6$ He is the first known teacher to have taught the various fictitious recitations of the Vedas which are described in the \textit{Vikṛtivalī} edited by Satyavrata Samaśramī with a commentary by Gangādhara Bhattacharya. Other treatises on the subject have been composed at a much later date.

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5. \textit{sangrahe etat prādhānyena parikṛttitam}, \textit{Mahābhāṣya}, i.1.1
Among these, the Jatapatala by Thibaut, and the \(A\text{ṣṭavikrśivrittī}\) by Yati Madhusudana with a Bengali commentary, deserve special mention.

The \(vṛādi \ sīkṣā\) has been published in the Mysore Journal, edited by Keshav Sivaghanapathin (Bangalore). This \(sīkṣā\) is admittedly not the original \(vṛādi \ sīkṣā\), for the author says that he has composed it after consulting the following works:

1) \(Rk. Prāt\) with the commentary of \(uvaṭa\) and \(pārśada \ vīttī\).
2) \(Jatālakṣaṇa\) by Narasimha
3) \(Jatāparibhāṣā\)
4) \(Vikṛṭivālī\)
5) \(Aitareyāraṇyaka\)
6) \(Upalekha\)
7) \(Vikṛtti \ Kaumudī\)
8) \(Carāṇa \ Vṛūha \ Pariśiṣṭa\)
9) \(Jayanta \ Kārikā\)
10) \(Svarāśiromanī\)
11) \(Svarāṅkuṣa \ sīkṣā\)
12) \(Vṛṇa \ krama \ sīkṣā\)

The \(Prāt. Pra. \ Sīk.\) in its last section, also deals with the varieties of fictitious recitation. The \(vṛādi \ sīkṣā\) deals with the following subjects:

- \(jatādi vikāra\)
- \(jatāprapāna \ krama\)
- \(jatāgatakrama\)

7. \(Das \ Jatāpatala\) : herouss gigeben ubersetzet und mit Anmerkungen versehen von G. Thibaut, Leipzig, 1870.
9. For illustrations of the various \(vikṛti-pāṭhas\) vide appendix to Satvalekar's edition of the \(Rgveda \ Sr̥ṣhita\).
II.1. (iii) **Svara vyāñjana śikṣā**

It is a short treatise of about three pages. The object of the work is to show when ‘ṛ’ is a consonant and when it is a vowel. The work follows the *Rk. Prāt.* For it quotes in full two verses10 from the latter. It also uses throughout the terminology of *Rk. Prāt.*, such as various terms of sandhi, niyata, bhugna, kṣaipra etc. (*Rk. Prāt.* II.3). The work is post-Pāṇinian as it quotes Pāṇini.11 The treatise is divided into six sections:

The first section points out cases in which ‘ṛ’ of ‘ṛi’ is a consonant. In the various phases of *riphita sandhi* in which *visarga* may either be traced to ‘ṛ’ or can be changed to ‘ṛ’ (*Rk. Prāt.* IV.9). The ‘ṛ’ is a consonant e.g. “prātarindram” where ‘ṛ’ of the syllable ‘ṛi’ is a consonant. It will also be a consonant in “paripanna sandhi” (*Rk. Prāt.* IV. 5) where ‘m’ is changed into anusvāra before ‘ṛ’ or a spirant. e.g. *hotāram ratnadhātamam* (*RV.* I.i.1) where ‘ṛ’ following anusvāra is a consonant.

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11. *Rk. Prāt.* vii. 4.28 and vi. 1.168
The *sandhi* in which 'r' is pronounced with roll in the throat is *riphita* and the *sandhi* changing 'm' into *anusvāra* is known as *paripanna sandhi*. On the other hand, 'r' as a vowel cannot allow an *anusvāra* before it. e.g. *samṛṭubhiḥ*. 'r' is also a consonant before 'y'. The treatise in the third section quotes Panini according to which the final 'r' of a verb is changed into 'ri' before y.

'\textit{r}' in various forms of the numeral 'tri' is a consonant except in *ttṛyā* and *tisṛ*. The *sīkṣā* also enumerates a list of words in which 'r' is a consonant and in which it is likely to be confused with 'r' as *ripu*, *krivi krimi*, *risādas* etc.

The second section specifies cases in which 'r' is clearly a vowel—viz. after an initial group of consonants or before a consonant group, of which the last is the penultimate sound of the stem. The *sīkṣā* mentions a couple of negative conditions, which are necessary for 'r' being a vowel:

(i) 'r' should not be preceded by a *visarga* that cannot be changed into a hissing fricative.

(ii) It should not be preceded by an *anusvāra*, as already mentioned above. But it states that a hiatus or a semivowel may precede it.

Section-iii enumerates some further details of cases in which 'r' is a consonant. Thus 'r' in 'martya, marda, reṣaṇa and riṣe' is a consonant.

12. *yakāre ca riśoktau ca/
13. vii. 4.28
14. *vikrame nāpyanusvāraḥ rkāraḥ sa sphutāḥ svarāḥ/
   sanīyogāccha paraḥ pūrvaḥ samyoge vyājanopadhaḥ/
   Section-ii
and so is the ‘ṛ’ in ‘bhriyanta’ and the author quotes Pāṇini15 in this connection. In conclusion, the Śikṣā makes an interesting observation that ‘ṛ’ both in ‘ṛ’ and ‘ṛ’, when not preceded by any consonant and when followed by a consonant is a concentrated ‘ṛ’ (śaṁcito rephah).

Thus ‘ṛ’ in ‘ṛṣak’, ‘trita’ and ‘ṛśādas’, ‘ṛju’ and ‘ṛṇjaśe’ is a doubtful consonant (śaṁśīdgda vyātijana) and the author calls it concentrated ‘ṛ’. According to the author’s theory, ‘ṛ’ in the word ‘ṛṇśktī’, preceded as it is by a consonant-group is a clear vowel ṛ, but ‘ṛ’ in ‘ṛju and ṛṇjaśe’ is a concentrated r.16

II.2.0 Śikṣās of the AV

II.2.(i) Māṇḍūkī Śikṣā

It has been described by Prof. Haug and by Prof. Weber in the appendix to his essay on the Pratijñā Sūtra.17 It has been critically edited by Pandit Bhagavad Datta.18 In the treatment of subject matter it resembles the Yaj. Śik. and the Nār. Śik. It is related to the AV, for it contains a large number of quotations from that veda, which Pandit Bhagavad Datta has collected in his index. The name ‘Māṇḍūka’ occurs twice19 in the body of this treatise, and is widely known in the vedic literature.20 This Śikṣā

15. Āstādhyaś, viii. 4.28
16. jñur dijaseriti cātha ityabhvāsasandigdhaṁ......ṛmī ni ririgiti samcito rephah, ṛṣak trita iti samcito rephah; riṣyaḥ riśādasā iti samcito rephah, Section-iii
17. Über ein zum weiseen yajus gehoriges phonetisches compendium, das Pratijñāsūtra, p. 106. &
Abh and lunger der konigohen Akademy der wisenshaft zu Berlin (1871)
18. Lahore (1921)
19. “trayo madhyā nivartante maṇḍūkasya mataṁ yathā” Maṇḍu. Śik. ii.3.
“maṇḍūkena kṛtāṁ śiksāṁ viduṣāṁ buddhidipanām” Ibid, Xvi. 16
20. cp. (i) ‘dhak ca maṇḍūkā’(Paṇ.iv. 1. 119)
(ii) ‘iḥ ha smṛtaḥ brasvo maṇḍḍēkeyah’ (Aita.Ārn. lii. 1.5)
(iii) ‘maṇḍēkeyasya sarve su praśiṣṭaḥ su tathaḥ smaret’ (Ṛk.Prāt. iii.14)
(iv) ‘maṇḍēkeyam tarpayāmi’ Atharva pariśīsta. III. 4.46
consists of sixteen chapters and deals with all the important phonetic topics elaborately.

It is particularly interested in accent common to all the Vedas and seems to have further developed the teachings of När. Śīk. on accent. It says that manual gestures are invariably necessary in Rk. Yajus and sama recitations. According to this śīkṣā, the first two and last two notes of the musical scale are sung in the vedas. In several places it has closely followed the Nāradī and the Yāj. Śīk. which Bhagavad Datta has shown in his foot notes.

As regards its date, Verma is of opinion that it is later than the När. Śīk. For it contains a good deal of material common to some of the śīkṣās of the white Yajurveda- e.g. pronunciation of ‘y’ and ‘v’ in different positions, the reference to the woman of saurāṣṭra pronouncing the raṅga vowel etc. Therefore, it is either contemporary with or posterior to the Yāj. Śīk., of 10th century A.D.

II.2.(ii) Dantyōṣṭhyavidhiḥ

This is a phonetic treatise belonging to the AV. It has been critically edited by Pandit Ramagopala Sastri. The word should, in fact be Dantyōṣṭhyavidhi but the Caranavyuha (Atharvaveda Parisīṣṭa 49.4.8) and all the manuscripts of the text read it, however, as Dantyōṣṭhyavidhi. After paying homage to the venerable Atharvan, the author in the 2nd

21. hastahīnam........rgyujasāmahbir dagdhe etc. Māṇḍ. Śīk. III. 3
22. prathamavantimau caiva vartante chandasi svarabh/ trayo madhye nivartante māṇḍūkasya matam yathāl/ verse 17
23. Māṇḍ. Śīk. viii.6-7
24. Māṇḍ. Śīk. x.9
25. S.Varma, Critical Studies in the Phonetic Observations of Indian Grammarians, p.52
26. Lahore (1921)
verse points out that scholars are always left in doubt while determining whether ‘b’ is dental or labial (chandasyadhyayane prāpte viduṣāmatha dhīmatārīṇ, bakāre satīṣayo nityam auṣṭhyarīṇ dantyamiti sma ha).

Therefore, the author has attempted to fix the places where ‘b’ is to be pronounced as labial.

(i) It is labial when followed by the letter ‘bh’ in a word without ‘avagraha’ e.g. bibhīṭah (AV. II.15.1) bibhratiḥ (AV.III.14.3) etc.

(ii) The following words, being accented on the first syllable are labials. e.g. bala (AV. I.35.3), bāṇaḥ (AV. VI.105.2) bepaya (AV. XII.3.13)

(iii) The following words in all cases (vibhakti) are labials: baladā (AV. IV.2.5), abalānugra (AV. III.19.7), abaladhanva (AV. III.19.7) balāsam (AV. V.22.11) and bāhu (AV. IV.2.5).

(iv) The following words have the second ‘b’ as labial: vaibāḍha (AV. III.6.2), devabandhum (AV. IV.1.7) vibaddhaḥ (AV. V.20.2), vibandhūṣu (AV. XVIII.2.57) and vibabāḍhe (AV. VIII.9.6.)

(v) The following words, accented on the first syllable are labials e.g. alābu (AV. VIII.14.14), bājaḥ (AV. VIII.6.3) and bāṇa (AV. X.2.17).

(vi) Brahma (AV. I.10.4) in all its connotations is labial.

(vii) Chubukāt (AV. II.33.1), baskaye (AV.IX.14.6), bayaḥ (AV. XX.129.15) etc., are labials when they occur at the end of a sentence.
(viii) The conjugational forms of *hibheda* (AV. IX.14.6); *bibhiduh* (AV. XX.77.6) etc. are labials.

(ix) *bale* (AV. II.29.1) is labial and so on.

II.3.0 Śiksās of Sāmaveda

II.3.(i) Narādī śiksā

The *Nār. Śik.* is one of the oldest and the most profound śiksās. The author says “I shall explain the nature of accents employed in the Sāmaveda in this short but comprehensive treatise”\(^{27}\). The author regards his work as the foremost *vedāṅga* which deserves the attention of scholars in the field of Vedic studies. Besides the treatment of musical accents, it also deals with general phonetic subjects such as doubling syllabication, varieties of the circumflex accent, *yama*, nasalisation etc. As regards the chronology of the treatise exact details are unknown, except it’s authorship which has been attributed to Nārada.\(^{28}\) Therefore it’s date should be fixed from external evidence. The *Sāringīta Ratnākara*, a treatise on music, quotes the authority of Nārada on the *gāndhāra grāma* which has been dealt with in the *Nār. Śik.* The *Sāringīta Ratnākara* also states the opinion of Nārada on the musical modulations which have been described by the *Nār. Śik.* It is probable therefore, that the author of the *Sāringīta Ratnākara*, here refers to the *Nār. Śik.* The probable date of the *Sāringīta Ratnākara*, is the thirteen century A.D. The above data indicate that the *Nār. Śik.* was written earlier than the *Sāringīta Ratnākara*.

Further, the *Nār. Śik.* quotes authorities such as Tumburu, Vāsiṣṭha

\(^{27}\) *sāmaveda tu vaśāmi svarāṇāṁ caritāṁ yathāl*
   *alpagramtāṁ prabhū tārthaṁ śravyāṁ vedaśīgamuttamam// Nār. śik., I.2.i*

\(^{28}\) *tāna-rāga-svara-grāma-mūrcchanāṁ ta laksāṇam/
pavitraṁ pāvanāṁ panyāṁ naradena prakīrtitam// Nār. śik., I.2.ii*
and Visvāvasu to state that they too, had difficulty about the nature of accentuation in the Sāmaveda. The names of these teachers are also mentioned in the Taitt.Prāt. and the Mbh. Hence it should be posterior to these two works. The Nār. Śik. has been accompanied by a commentary named ‘Śiksāvivarana’ written by Bhatta Bhaskara. This commentary is of little use because, instead of throwing some light on the subject it actually makes it more obscure.

II.3.(ii) Contribution to the study of music

Among all the śikṣās, the Nār. Śik. is singularly important for its contribution to music. Some description of its seven musical notes is found in the Mānd. śikṣā where the description being incidental to that of the three main accents appears to have been borrowed from the Nār. Śik. A few observations of this śikṣā on music are:

The knowledge of tāna (tone), rāga (mode), svara (note), grāma (gamut) and mūrchana (cadence), is sacred and purificatory. There are seven kinds of “svara”, twenty-one kinds of “mūrchana” and forty-nine kinds of “tāna”. This may be regarded as a brief and exhaustive account of the different constituents of music.

The seven kinds of “svaras” are: (1) śadja, (2) ṛṣabha, (3) gāndhāra, (4) madhyama, (5) pañcama, (6) dhaivata, (7) and niśāda. The three kinds of grāma are: (1) śadja (2) madhyama, and (3) gāndhāra; ‘śadja’ is born from the earth; ‘madhayama’, from the atmosphere and ‘gāndhara’ from heaven. The grāma modes depend upon svara-modes and change accordingly. Twenty tones are dependent on the ‘madhyama grāma’, fourteen on the ‘śadja grāma’ and fifteen on the ‘gāndhāra grāma’. The seven mūrchana belonging to the gods are:
The seven mūrchanās, which belong to the manes are:

1) āpyāyini
2) viśvabhītā
3) candrā
4) hēmā
5) kapardinī
6) maitrī
7) bārhatī

The seven mūrchanās, which belong to the seers are:

1) uttaramandrā, produced from sadja
2) abhirudgatā, "rśabha
3) āsvakrāntā, "gāndhāra
4) sauvirā, "madhyamā
5) hrṣyakā, "paṇcamā
6) uttarāyatā, "dhaivata
7) rajanī, "niśāda

The meaning of these terms in the present context, has not been explained either by the author or by the commentator of Nār. Śīk.

Gandharvas are fond of the seven mūrchanās belonging to the gods; yakṣas are fond of those belonging to the fathers and men are fond of the seven mūrchanās belonging to the seers. The sadja pleases the gods, rśabha the seers, gāndhāra the fathers, 'madhyama', the gandharvas, 'paṇcama', the gods, seers and the fathers; 'niśāda', the yakṣas and 'dhaivata' pleases other beings.

'Niśāda' rising from 'rśabha', obstructed by 'sadja', accompanied by 'dhaivata' and 'paṇcama', and falling into 'madhyama' is called
The exact meaning of 'sandava' has not been explained by the commentator who merely says that 'sandava' is so called because of the absence of 'gāndhāra'. Pañcama being obstructed by 'gāndhāra' accompanied by 'ṛṣabha' and 'niśāda' and falling into 'madhyama' has also been designated as 'sandava'. 'Madhyama' is so called due to the predominance of 'gāndhāra', due to the constant repetition of 'niśāda' and due to the weakness (comm. 'sakrt uccāraṇa') of 'dhaivata'.

The 'madhyama grāma' is produced when in śadja and ṛṣabha, the remaining five musical notes take refuge. In 'śadja grāma', the 'niśāda' is pronounced with slight contact of the articulator, the 'gāndhāra', with excessive contact and the 'dhaivata' with tremor. When the 'niśāda' consisting of four śrutis occurs in śadja, the intervening soft sound depending on pañcama is called kaiśika. The 'kaiśika madhyma' is a particular grāma mode; so called because kaiśika is joined with all notes starting from 'madhyama'. The soft and melodious note rising from the constant repetitions of 'pañcama' is called 'kaiśika' by Kaśyapa. The Nār. Śīk, derives 'gāndhāra' from 'Gandharva' with the nominal suffix 'a'; 'gā' indicates vocal music; 'dha', the art of music and 'ṛa' indicates instrumental music. Thus the word 'gāndhāra' exites love for music.

The Nār. Śīk, gives the etymology of the seven musical notes:

(i) The 'śadja' is so called because it is produced through the six vocal organs, viz. 1) nose, 2) glottis, 3) lungs, 4) palate, 5) tongue and teeth. It is the sound of the peacock.

(ii) The 'ṛṣabha' is so called because it resembles the bellowing sound of the bull.

(iii) The 'gāndhāra' is so called because, in it's mode of
articulation, it brings fragrance to the nose. It is the sound of the goat.

(iv) The ‘madhyama’ is so called because, in its mode of articulation, air is transformed into a deep sound (mahānāda) while reaching back the navel. It is the sound of the curlew or osprey.

(v) The ‘pañcama’ is so called because, five vocal organs are involved in its mode of articulation, viz. 1) navel, 2) lungs, 3) heart, 4) glottis, and 5) head. It is the sound of cuckoo.

(vi) The ‘dhaivata’ is so called because it suffers increase due to singing in high pitch in the pañcama coming between sadja and madhyama, (comm. sadjamadhyaagatasya pañcamasthoccagītvā) and decrease in cadence, according to the gamut, like the moon increasing in the bright fortnight and decreasing in the dark. It is the sound of the frog.

(vii) The ‘niśāda’ is so called because it affords shelter to other musical notes. Like the sun outshining stars in daytime, the ‘niśāda’ outshines the remaining musical notes. It is the sound of the elephant.

Except ‘dhaivata and niśāda’, each of the remaining five notes, has contact with five vocal organs; the ‘niśāda’ contacts all the organs of articulation and the ‘dhaivata’ though rising from the forehead, has contact with all the vocal organs. On the place of articulation of the seven notes, the Nār. Śik. futher observes:-
The “ṣāḍja” rises from the glottis, the ‘ṛṣabha’, from the head, the ‘gāṇḍhāra’, from the nose, the ‘madhyama’, from the ‘lungs, head and the glottis’, the ‘dhaivata’ from the forehead and the ‘niśāda’ from all the vocal organs. The Nār. Śīk. identifies the seven notes with the sounds of different fauna. The peacock utters ‘ṣāḍja’, the cow utters ‘ṛṣabha’ the goat (or lamb) utters ‘gāṇḍhāra’ the curlew (woodcock) utters ‘madhyama’, the cuckoo utters ‘paṇcama’ (at the vernal season; the horse (or frog) utters ‘dhaivata’ and the elephant utters ‘niśāda’.

The Nār. Śīk. identifies the notes of the sāma-chanters with those of the flute: The prathama, dvītya, tṛtīya, caturtha, paṇcama, ṣaṣṭha and saptama notes of the sāma-chanters are respectively identified with the madhyama, gāṇḍhāra, ṛṣabha, ṣaḍja, dhaivata, niśāda and paṇcama notes of the flute.

It gives an interesting etymology of the word ‘gāṇḍhāra’ “gām dhūrayati sānhihitam karotiṭi gāṇḍhāraḥ”. It is called ‘gāṇḍhāra’ because it brings the cow to the spot. In this context, it states that even the wish-yielding kāmadhenu is attracted by the gāṇḍhāra note. It gives the names of different gods singing different notes; ‘ṣaḍja’ is sung by Agni; ‘ṛṣabha’ by Brahmā; ‘gāṇḍhāra’ by Soma; ‘madhyama’ by Viṣṇu; ‘paṇcama’ by Nārada and both dhaivata and niśāda, by Tumburu.

The Nār. Śīk. speaks of two kinds of lute:

1. the bodily lute (gātra viṇā) and
2. the wooden lute (dāravīṭa).

The mode of sāma-chanting should resemble the flight of the falcon in the sky. The movement of ‘śruti’ inside ‘svara’ has been compared to the movement of a fish inside water. The ‘śruti’ is latent in ‘svara’ in the
same way as the ghee is in curd, or the fire, in wood. And just as some amount of effort is necessary to produce either ghee or fire likewise, ‘śruti’ is produced with effort, from ‘svara’.

The Nār.Śik. states six merits and six demerits of ‘karṣaṇa’ (dragging). The six merits of ‘karṣaṇa’ are: 29

(1) ‘svarasarīrkrama’, modulation of two consecutive notes.
(2) ‘svarasandhi’ junction of two notes.
(3) ‘anulbaṇa’, regular measure.
(4) ‘avichinna’, continuity.
(5) ‘sama’, right proportion.
(6) ‘suksma’, subtlety.

The six demerits of karṣaṇa are:

(1) ‘anāgata’ denotes the dragging which has not commenced from the first tone.
(2) ‘atikṛanta’, transgressed dragging.
(3) ‘vicchinna’, denotes the dragging that has eliminated the first mātrā.
(4) ‘viṣamāhata’ denotes dragging with tremor.
(5) ‘tanvanta’ denotes dragging beyond three moras.
(6) ‘asthitanta’ denotes dragging below three moras.

When a musical note transgresses its own place of articulation, the sūma chanters call it ‘visvarta’, but the lute-players call it ‘virakta’.

Nisāda may be identified with ‘mandra’, the low or base tone of the voice as opposed to the ‘madhyama’ and ‘uttama’ (middle and high).

29. svarat svaram sarikamas tu svarasandhimanulbanyam/ avicchinnam samaran kuryat suksmam cchayatapopamam// I.6.17
anāgatatīkṛantan vicchinnan viṣamāhatam/ tanvanta maṣṭhitantam ca varjayet karṣañan buddhay// I.6.18
‘mandra’ takes the comparative as well as the superlative degree (i.e. mandratara, mandratama). Niṣāda has been characterized by three attributes:

1. ‘aparvata’, without any knot or joint. (comm. It is called ‘aparva’ because it is not different from ‘mandra’).
2. ‘asatijñātva’, without any designation.
3. ‘avyayatva’, indestructibility. (comm. It is indestructible because it is without number, gender and case).

Gods are delighted with ‘krusta’, men with ‘prathama’ animals with ‘dvitīya’, gandharvas (divine singers) and apsarasaś (heavenly nymphs) with ‘tṛṭṭya’, birds and manes with ‘caturthā’, devils, demons and imps with ‘mandra’, movables and immovables, with ‘atisvara’. Thus all beings in the creation are delighted with the musical notes of the sāmaveda.

The Nār. Śīk. mentions five kinds of ‘śruti’.

1. dīptā (shining)
2. āyatā (extensive)
3. karuṇā (pathetic)
4. mṛdu (soft) and
5. madhyamā (medium)

The ‘dvitīya’ without being followed by any note, gives rise to ‘madhyama’ śruti. Followed by ‘Kruṣṭa’ it gives rise to ‘diptā’ śruti. The ‘prathama’ being followed by the caturtha gives rise to ‘mṛdu’ śruti and is followed by the ‘mandra’, it gives rise to ‘diptā’ śruti which often occurs in a saman in pause. The Nār. Śik. prohibits śruti,

(i) which does not occur in pause.
(ii) which is intervocalic
(iii) which occurs in a short or long vowel and
(iv) which occurs in ‘ghuṭa’.

Probably ‘ghuṭa’30 is a designation of the palatal ‘i’ in two forms as āī and āū.

The restriction operates in five places.

(i) The palatal ‘i’ becoming ‘āī’
(ii) The palatal ‘i’ becoming ‘āū’.
(iii) The palatal ‘i’ becoming the final of a word and joined with the three sibilants-ś, ś and ṣ.
(iv) The ‘diptā’ belongs to the udāṭta, it also occurs in the svarita, ‘mṛdu’ occurs in the anudāṭta. The Nār. Śik. mentions three kinds of ‘svarāntara’.

(1) ārcika, relating to a stanza,
(2) gāthika, relating to a prose passage and
(3) sāmika, relating to a song; ‘ārcika’ is ekantara, ‘gāthika’ dvyaṭantara and ‘sāmika’ tryantara.

30. dvividhā gatiḥ padāntah sthitasandhiḥ sahoṣmaṃbhīḥ / pañcaśvetē su sthāne su vijñeyam ghuṭasyaṃjñitam// Nār. Śik., 1.7.16
The ‘prathama’ is employed in the *kaṭha, kalāpa, āhvaraka* and *taittirīya* recensions of the *KYV*. It is also employed in the *RV* and the *SV*. The āhvarakas employ the *ṛṛiṇya, prathama*, and *kruṣṭa* notes, the *taittirīyas* employ the ‘dvitiya’, ‘ṛṛiṇya’, ‘caturtha’ and ‘*mandra*’ notes. The *tāṇḍins* and *bhallavins* (i.e., in the Pañcavimśa Brāhmaṇa and the Kauthuma Śākhā of the *SV*) employ the ‘dvitiya’ and ‘prathama’ notes. The Vājasaneyins in the *Śatapatha Brāhmaṇa*, also employ the *dvitiya* and *prathama* notes.

The *Nār. Śīk.* concludes the treatment of music with the statement that a person who knows the mode of *sāma*-chanting according to the rules specified above, is fit to teach even the masters of phonetics.

**II.3.(iii) The Gautamī śikṣā**

This is otherwise known as the *samyogaśṛṅkhalaśikṣā*. The author regards this treatise to be the very soul of the *SV*. It is called ‘Śṛṅkhala’ (chain) because it fetters the *SV*. It is ascribed to Gautama, who according to the *Arṣeya Brāhmaṇa* was the first seer of the *SV*. It has made a close study of the letter junction and it states that there exists no letter junction with more than seven consonants. It refers to a *Prātiśākhya* in which junction (yu) ‘ṭṅkṣśv’ is said to occur, but no such junction can be traced in any of the extant *Prātiśākhyas*. This may suggest that it was posterior to some extinct *Prātiśākhyas*.

The letter-junction in the *Gautamī Śīkṣā*.

31. *esa sahasra varttā naṁ añvartir- vibhūṣita*
32. *samyogaśṛṅkhalaṁ nāma sāmavedamibandhanāt Gau.Śīk. 11.7*
(i) Junction of two consonants

(a) *tulya yoga:*

\[ \text{tas, atte } t + t \]
\[ \text{yannamasya } n + n \]
\[ \text{tammnye } m + m \]
\[ \text{svargalokāt } l + l \text{ etc.} \]

(b) *atulya yoga:*

\[ \text{accha } c + ch ; \]
\[ \text{śuddha } d + dh ; \]
\[ \text{varṣa } r + ś ; \]
\[ \text{vihrutam } h + r \text{ etc.} \]

(ii) Junction of three consonants:

\[ \text{akṛṣaṇam } k + k + ś \]
\[ \text{brahmma } h + m + m \]
\[ \text{dīṛggha } r + g + gh \]
\[ \text{maddhyā } d + dh + y \text{ etc.} \]

(iii) Junction of four consonants (without *yama*)

\[ \text{‘udannnyāū’ } n + n + n + y \]
\[ \text{kāṛṣṣma } r + ś + ś + m \]
\[ \text{yatstthira } t + t + s + th \]
\[ \text{appsvantara } p + p + s + v \text{ etc.} \]

(iv) Junction of four consonants (with *yama*)

\[ \text{‘aggni’ } g + g + yama + n \]
‘yajjma’ \[ j + j + yama + m \]
‘daddhnā’ \[ d + dh + yama + n \]
‘grabbhnīta’ \[ b + bh + yama + n \] etc.

(v) Junction of five consonants (without yama)

‘ayusstryaha’ \[ s + s + t + r + y \]
‘sannksnut’ \[ n + n + k + s + n \]
‘tasminntsvēta’ \[ n + n + t + s + v \]
‘visvappnya’ \[ p + p + s + n + y \]

(vi) Junction of five consonants (with yama)

‘buddhnya’ \[ d + dh + yama + n + y \]
‘duhsvappnyam’ \[ p + p + yama + n + y \]
‘mattnya’ \[ t + t + yama + n + y \]
‘sakthnya’ \[ k + th + yama + n + y \] etc.

(vii) Junction of six consonants

‘kārttsnya’ \[ r + t + t + s + n + y \]
‘sarggdhmavāha’ \[ r + g + g + dh + yama + m \]
‘dhakkmvya’ \[ k + k + yama + m + v + y \]

(viii) Junction of seven consonants

There is only one junction with seven consonants \[ yatikṣkṣvau \]
\[ ...t + t + k + ś + k + ś + v \]. Gautama has declared that there is no junction with more than seven consonants.

II.3.(iv) The Lomaśī śikṣā

This śikṣā has been attributed to Garga. The Jātakapaddhatī
A COMPARATIVE STUDY OF YAJURVEDIC ŚIKSĀS enumerates a list of authorities on astronomy, among whom Garga and Romāśā have been mentioned. Again, Romāśā as the daughter of Brhaspati occurs in the Brhaddevatā (prādi sutāri romaśām nāma... brhaspatir bhāvayavyāya rajñe iii.156). The connection of Garga with the SV. may be suggested by the fact that ‘Gārgya’ said to be one of the thirteen teachers of the SV. (Carāṇa vyūha, p-47). Hence the authorship of this work has been attributed to Garga.

Some of its original contributions to phonetics are:- it speaks of the short, long and increased varieties of the vowel. The sāma chanters pronounce them with a sound resembling that of a mṛdaṅga. It gives an obscure etymology of ‘kaṭipa’. It states that in ‘kaṭipa’ the vowel is divided into two parts by the consonant. The vowel is affected in the forepart and supported in the hindpart. Therefore being afraid, it trembles, (svaro bhūtaśtu kampate). It also states that the pronunciation of long kampa should resemble the sound of bells (prayoge ghaṇṭatālavat). The colour of ‘ratiṅga’ resembles the colour of the dove (pārāvatasavarna). It states that in pronouncing ‘kiṭkidākāra’, half of ‘k’ and ‘ṭ’ should be articulated in the jaws by the tip of the tongue.

Accent in a conjunct letter belongs neither to the preceding nor to the following syllable; nor to the consonant nor to the mūtra. Hence the accent should be employed in the junction between the preceding half of the vowel and the following half of the consonant. In a pause, if the ‘madhyodātta’ and ‘antodātta’ are confused, one should regard it as ‘antodātta’ and ‘nīca’ are confused, one should regard it as ‘antodātta’ provided the suffix is accented.

The same ‘karapa’ is prescribed for a multitude of ‘u’ vowels—short, long or increased. If the long vowel occurs in the middle of this
multitude, ‘karaṇa’ is confined to the initial and the final letters, the middle ones being eliminated. If the long vowel occurs at the end of this in the initial letters, karaṇa occurs twice, being followed by ‘u’. It is to be designated as ‘ādimadhyānta’ e.g. ‘vāyo sukraḥ’. If, in the initial letters, ‘karaṇa’ occurs once, being followed by ‘u’ it is designated as ādāvantaḥ e.g. ‘vayo sukro’. If a non-conjunct letter is joined with ‘u’, there should be ‘repetition of ‘karaṇa’. The ‘karaṇa’ in consonants either joined with ‘u’ or not, should occur twice, as also in ‘au’ and ‘v’. When the labial vowels (i.e. u and au) are joined with conjuncts, there should be ‘sakṛt karaṇa’ (karaṇa occurring once). Elsewhere, there should be ‘dvīṭkaraṇa’ (karaṇa occurring twice).

In cerebralization of the dental ‘n’ and ‘s’ into n and s, sandhi is prohibited in the pause. The Lomāśī śīksā defines prāṇāta as a particular kind of accentuation in which one-fourth of a mātra is indicated on the thumb, index and the middle fingers. If this indication is made once, the accent is called ‘prāṇāta’, otherwise it is ‘nīca’. The following kinds of śruti, viz. 1) dīptā, 2) āyatī 3) utā (4) prahūmasā (5) sīvāvarā (6) mahī and (7) nityā have been enumerated.

This Śīksā describes the processes of exhalation and inhalation in the mode of sāma chant. It distinguishes between the mute d or dh and the liquid d or dh (pādapūrvā ye dakārāḥ pādāpūrvāstathaiva ca, ṇa iti caiva vijñeyā daṅkhārepyayamin vidhiḥ). It deals with the syllabication of r. If ‘r’ precedes ‘y’ or ‘v’ in the letter junction, it should belong to the preceding syllable e.g. ‘sūrya’ ‘pūrva’ etc. But if the junction takes place at the end of a stanza (virata) it should belong to the following syllable e.g. ‘taro harya’.33 It states that ‘h’ joined with ‘r’ (whether preceding or following), and with the preceding anusvāra, is doubled.
The sibilants after anusvāra are not doubled, but after semivowels, are doubled. ‘aṇu’ denotes an interval of time within which a particle in the sun’s ray becomes visible. Four such ‘aṇus’ makes a mātra. In the heart, speech has the duration of one ‘aṇu’ in the glottis, of two ‘aṇus’ in the tip of the tongue, of three ‘aṇus’ and speech released, has four ‘aṇus’ or one mātra. The Lomasī śikṣā shows the elision of consonant in words such as rāndra, svindra, accha etc.

34. yavau tu rephasamyauktau virate ca bhavedyasdi / paraṅgarā tadvijānīyātaro haryeti lakṣaṇam//