

Request to annotate 1CD8 VEDIC TONE CANDRA BELOW

Shriramana Sharma, jamadagni-at-gmail-dot-com, India

2011-Jan-15, Pongal / Makara Sankranti

This is a request to add an annotation to 1CD8 VEDIC TONE CANDRA BELOW.

§1. Background

1.1. The short E/O of the Sātyamugri and Rāṇāyanīya Sāma Veda

The common perception is that Sanskrit does not have the short vowels E and O. The famous Sanskrit grammar text Siddhānta Kaumudī declares *ēcām api dvādaśa, tēṣāṃ hrasvābhāvāt* – “the vowels E O AI AU have only 12 variants (based on tone etc) as they do not have a short form”. (Ref: *saṃjñāprakaraṇa*, Siddhānta Kaumudī with Bālaṃanōramā and Tattvabōdhinī commentaries, Motilal Banarsidass Publishers, New Delhi, 1998.)

However, it is known to scholars that there are indeed some special use cases in Sanskrit where short E and O are pronounced. Patañjali, the traditional authority on Paninian grammar, says in his Mahābhāṣya while commenting on the 3rd Śiva Sūtra *ē ōṅ* (and once more later while commenting on *ēca igghrasvādēśē*, Pāṇini 1/1/48):

*nanu ca bhōś chandōgānāṃ sātyamugri-rāṇāyanīyāḥ ardham ēkāram
ardham ōkāraṃ ca adhīyate - sujātē śśvasūṅṛtē, adhvaryō ṍdribhiḥ sutam,
śukraṃ tē ṅnyad yajataṃ tē ṅnyat - iti*

This translates as “The scholars of the Sātyamugri and Rāṇāyanīya schools of the Sāma Veda pronounce half-E and half-O as in *sujātē śśvasūṅṛtē, adhvaryō ṍdribhiḥ sutam, śukraṃ tē ṅnyad yajataṃ tē ṅnyat*”. Patañjali goes on to note that such pronunciation is not found anywhere else either in common (i.e. non-Vedic) Sanskrit or Vedic Sanskrit:

naiva hi lōkē nāpyanyasmin vēdē ardha ēkāraḥ ardha ōkāro vā asti

He also notes that even in the particular case of the Sātyamugri and Rāṇāyanīya schools the short E/O are not distinct phonemes but are allophones of the short A* by his another

* I am informed that MacDonnell in his Sanskrit grammar has noted that short E/O are allophones of long E/O in Sanskrit. It is quite unfortunate that he has said so, because this leads to misunderstanding to those not natively conversant with Sanskrit that this is true. Perhaps MacDonnell speaks of the hypothesized proto-Indo-European – that I do not know and do not discuss here. But if MacDonnell indeed wishes to say that this is true of Sanskrit *today*, then it simply goes against the established ground fact of Sanskrit. While Sanskrit has not existed as a common worldly spoken language for long, its pronunciation still survives in the Vedic

statement *pārśadakṛtir ēṣā tatrabhavatām* which the commentator Kaiyaṭa explains as *gītivaśāt tathōccāraṇam ityarthah* “it is only due to considerations of chanting that this pronunciation occurs”.

This pronunciation of the Sātyamugri and Rāṇāyaniya Sāma Vedic schools is referred to even in the Ṛk Prātiśākhya and the Taittirīya Prātiśākhya.

The Ṛk Prātiśākhya refers to cases of hiatus between *ē* and *a* and *ō* and *a* as *prācyapadaṽrtti* and *pañcālapadaṽrtti* respectively (Ṛ.Pr. 2-33). It further goes on to say (at 2-81) that after the school of one Ācārya by name Śākalya Sthavira (or the “elder Śākalya”) these cases of *prācyā-* and *pañcāla-padaṽrtti-s* have their following sound (i.e. sound after hiatus *a*) alike to their preceding sound (i.e. sound before hiatus *ē* or *ō*):

prācyapañcālā upadhānibhōdayāḥ śākalyasya sthavirasya

This clearly indicates that the short A is realized in these cases as short E/O. (The “alike”ness obviously doesn’t refer to the length as well – if it did, the Prātiśākhya-kāra would merely define an ādēśa of the short A by the long E/O. As it is, the intent of the Prātiśākhya-kāra is clear, that it is only the vowel quality and not the length of the preceding vowel that is imitated by the following vowel.)

The Taittirīya Prātiśākhya also delineates specific cases of hiatus between *ē* and *a* and *ō* and *a* by prescribing that in these cases the *a* does not get lost after *ē* and *ō* while it normally would get lost in what is called abhinihata sandhi. While this prātiśākhya doesn’t give these hiatuses any specific names as in the Ṛk Prātiśākhya, it notes (at 11-19) that after

traditions and in the devout population at large all over India traditionally preserving the readings of the Sanskrit religious/philosophical literature like the Vālmiki Rāmāyaṇa, Bhagavad Gītā etc. And this pronunciation simply does not corroborate any such statement that short E/O are allophonic with long E/O in Sanskrit. As even Dr Cardona in his 1987 article (ref 1) correctly states the opinion of the native authorities that “*a* acquires the quality of the vowel that precedes [i.e. that of *ē* or *ō*]” I entreat my readers to be disillusioned of any such misconception in this regard.

Many years back I objected to 0951 DEVANAGARI STRESS SIGN UDATTA being named so, as it is in fact is *mostly* used for the svarita and *rarely* for the udatta in the actual ground reality. (This character has been so annotated now.) I was then informed that this character was named so because MacDonnell had documented it as the svarita. As such, it is unknown why MacDonnell has misunderstood (?) these vital aspects of Sanskrit.

This footnote is an unfortunate digression entered upon only because I had to defend the statement of Patañjali regarding the short E/O being allophones of short A which is in tune with the accepted ground reality in the Vedic traditions of India and also attested to by Sanskrit scholars like Dr Cardona.

the school of “some” Ācārya-s, the *a* in these cases where it does not get lost will become similar to half of the previous vowel, obviously as *ě* or *ō*:

sa pūrvasya ardhasadṛśam ēkēṣām

While neither of these Prātiśākhya-s are specifically for the Sāma Veda, it is incumbent upon us to understand that the reference to the Ācārya Śākalya Sthavira and to “some” Ācārya-s respectively in these two Prātiśākhya-s is a reference to the Ācārya-s of the Sama Vedic Sātyamugri and/or Rāṇāyaniya schools as Patañjali has clearly stated that there is no short E/O in either normal Sanskrit or Vedic Sanskrit outside these two schools. The commentaries on the Taittirīya Prātiśākhya have also explicitly explained the reference to “some” Ācārya-s as speaking of the Sātyamugri and Rāṇāyaniya schools.

Before concluding this sub-section, I should note that these occurrences of hiatuses between *ē* and *a* and *ō* and *a* generally occur within a verse-quarter when the *a* is not followed by a *v* or *y*, as per the Paninian dictum *nāntaḥpādam avyaparē* (6/1/115).

1.2. Short O as part of nyūṅkha in some Ṛg Vedic rituals

Apart from this, there is proof that there are at least a few limited cases of independent usage of the short O in some traditional ritualistic contexts (while the same is not known so far for the short E). By “independent usage”, we mean the utterance of short O while *not* as an allophonic variation (i.e. not in the morphological position) of the short A as seen in the Sātyamugri/Rāṇāyaniya Sāma Veda.

In the 4th day of the Soma ritual, at the beginning of the Prātaranuvāka which is a chanting by the Hotṛ priest, a certain feature called nyūṅkha is seen, as prescribed by the ritual procedure-giver for the Ṛg Veda, Āśvalāyana in his Śrauta Sūtra-s (7/11):

*caturthēhani yat prātaranuvākapatipady ardharcādyōr nyūṅkhaḥ |
dviṭīyaṃ svaram ōkāraṃ udāttaṃ trimātraṃ triḥ | tasya tasya cōpariṣṭād
aparimitān pañca vā ardhauskārān anudāttān | uttamasya tu trīn | pūrvam
akṣaraṃ nihanyatē nyūṅkhyamānē |*

The key portion to notice here is the reference to “ardhauskāra” or half-ōkāra. Āśvalāyana advises to take the first mantra of the Prātaranuvāka, which is (R.V. 10/30/12):

*āpō rēvatīḥ kṣayathā hi vasvaḥ kratuṃ ca bhadram bibhṛthāmṛtaṃ ca |
rāyaś ca stha svapatyasya patnīḥ sarasvatī tad grṇatē vayō dhāt ||*

and replace the second syllable of each half-verse (*ō* and *a*, here) by a trimoric udatta O repeated thrice. He then directly prescribes the utterance of half-ōkāra-s of an anudatta

tone after each trimoric O. This results in the a series of O sounds where many (at least 13) half-O-s occur, as Āśvalāyana himself immediately and obligingly illustrates:

tadapi nidarśanāyōdāharīṣyāmaḥ | āpo3 ǒ ǒ ǒ ǒ ǒ3 ǒ ǒ ǒ ǒ ǒ3 ǒ ǒ ǒ rēvatīḥ
kṣayathā hi vasvaḥ kratuṃ ca bhadram bibhṛthāmṛtaṃ ca | rāyo3 ǒ ǒ ǒ ǒ
ǒ3 ǒ ǒ ǒ ǒ ǒ3 ǒ ǒ ǒ śca stha svapatyasya patnīḥ sarasvatī tad grṇatē vayō
dho3māpo3 ||

Similarly, he goes on to describe the nyūnkha in a different context*, the Ājya-śāstra:

āgniṃ naḥ svavṛktibhir ityājyam | tasyōttamāvarjaṃ tr̥tīyēṣu pādeṣu
nyūnkho ninardaśca | ukto nyūnkhaḥ ||

This prescribes a nyūnkha for the third quarters of the seven verses starting with *āgniṃ naḥ svavṛktibhiḥ* (Ṛ.V. 10/021/1) on the same lines as above. Āśvalāyana illustrates this as well:

tadapi nidarśanāyōdāharīṣyāmaḥ | āgniṃ naḥ svavṛktibhiḥ | hōtāraṃ tvā
vṛṇīmahē | yajño3 ǒ ǒ ǒ ǒ ǒ3 ǒ ǒ ǒ ǒ ǒ3 ǒ ǒ ǒ ya stīrṇabarhiṣē ...

which he repeats once more later on in the same passage for other reasons.

And that is not all. Āśvalāyana immediately instructs the the Adhvaryu priest to say the Pratigara* acknowledging the Ājya-śāstra of the Hōtr̥, where there is also a nyūnkha:

ǒ3 ǒ ǒ ǒ ǒ ǒ3 ǒ ǒ ǒ ǒ ǒ3 ǒ ǒ ǒ madēthamadaivo3 ǒ ǒ ǒ3m ǒthāmōdaivo3m
ityasya pratigaraḥ |

A similar instruction is seen somewhat later (Āśv. Śrau. Sū. 8-4) where the Adhvarya utters another Pratigara acknowledging a similar chanting by the Acchāvāka priest.

In all these cases Āśvalāyana’s wording reveals a clear intent to prescribe the utterance of short O-s and this is *not* in any allophonic variation of the pre-existing sounds in the relevant verses of the Prātaranuvāka/Ājya-śāstra, to be precise: *ō*, *a*, *ā* and *i* from the words *āpō*, *rāyaś*, *yajñāya*, *vēti*, *kṛṣṇā*, *tam ā*, *bhuvad*, *tvaṃ vasūni* and *ghṛtapratīkam*.

1.3. Short O used in Gāyatra Gāna in Sāma Vedic rituals

The short O is also used in a Sāma Vedic ritualistic procedure called Gāyatra Gāna. As Sāma Gāna is a matter of enormous complexity (only to be experienced by those that learn it first hand) I myself (being a Yajur Vedic scholar) was able to comprehend this particular matter

* Surprisingly, Dr Cardona has left out the further cases of the nyūnkha in the Ājya-śāstra and the Pratigara from his 1987 article (ref 1) even though they occur in the same passage in the Āśv. Śrau. Sū. Perhaps he did not want unnecessary repetition. In that case, at least a reference to “other cases” would be indicated.

in only a very general manner from my discussions with Sama Vedic scholars (even though I had no problem in comprehending the parallel matter of the Ṛg Veda as described above).

The general idea is that a Sāma is a melody which is sung on a verse (Ṛk). A Sāma is taught (as every melody must be taught) in a particular “mother” verse (called Yōni Ṛk). The Sāma melody learnt here is of course meant to be applied to other Ṛk-s as well.

There is a Sāma called Gāyatra Sāma. Its Yōni Ṛk is the famous Gāyatrī mantra. This Gāyatra Sāma is applied to another Ṛk *upāsmāi gāyatā naraḥ* (Ṛ.V. 9/11/1, S.V. 4/1/1) during the Bahiṣpavamāna procedure of a Soma ritual.

Now when a Sāma + Ṛk is sung in a ritual, it is divided into five parts called bhakti-s. (For more details see L2/09-372 p 16.) In this particular case, all the bhakti-s except the first have their syllables replaced by ōkāra-s. Where there is a short syllable in the Ṛk, a short O is pronounced. Where there is a long syllable in the Ṛk, either a long (dimoric) O or an extra-long (trimoric) O may be pronounced as per ritualistic prescriptions.

Thus even in this particular usage case of the Sāma Veda a short O may be found.

§2. Existing notation for these short vowels

Not all printed or written texts pertaining to the above usage cases for the short E/O distinctively mark them. The normal long vowel characters are often used, with the disambiguation being left to the student to learn from his teacher. In fact, as far as we have been able to determine, printed texts of the Āśvalāyana Śrauta Sūtra or handwritten texts of the particular prayoga-s (entires ritualistic procedures written out for convenience on the basis of the śrauta sūtra-s) of the Ṛg Vedic or Sāma Vedic Śrauta procedures (there are no printings for these) do not distinguish these short vowels from the normal long ones.

However, there *are* two attested models of distinctive notation for these short vowels, chiefly from printings of the Mahābhāṣya.

One model is to merely add the digit 1 after the E/O.

An 1855 edition of the Mahābhāṣya with Pradīpa and Uddyōta commentaries, carrying the editors’ description as *kāśyāṃ rājakīyapāṭhālayē śrīmad-bālaṅṭain-nāmaka-tadadhyakṣa-prēritaiḥ tatratyaiḥ śrī-nārāyaṇaśāstri-dēvadatta-durgādatta-śarmabhiḥ vyākaraṇa-panḍitaiḥ śrīmacaturvēdahīrānandaśarmabhiḥ alaṅkārapanḍitaiśca saṃśōdhitam*, shows on p 135 the previously quoted Mahābhāṣya passage:

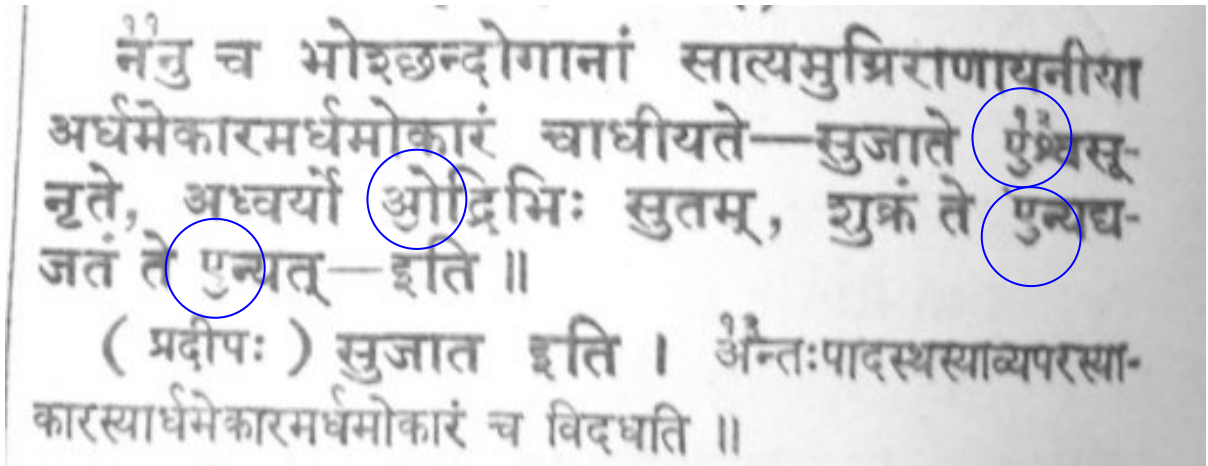
॥ भा० ॥ यदि हि तौ स्यातान्तविषयमुपदिशेत् । ननु च भोः छन्दोगानां सात्यमुग्रिराणायनीया अर्धमे-
कारमर्धमोकारञ्चाधीयते सुजाते ए१ अश्वसृते । अध्वर्यो ओ१ अद्रिभिः सुतम् । शुक्रं ते ए१ अन्यद्यजन्ते ए१
अन्यदिति च । पार्षदकृतिरेषा तत्रभवताम् । नैव हि लोके नाप्यन्यस्मिन्वेदे अर्ध एकारोऽर्ध ओकारो वास्ति ।

Some contemporary scholars have also preferred this system, as in *Linguistic Issues in Encoding Sanskrit*, Dr Peter Scharf and Dr Malcolm Hyman, The Sanskrit Library, 2010, p 183:

280	e1	ए१	ě	e
281	e1~	ँ१	ě̃	ẽ

The above model follows the logic of the notation commonly used in Vedic texts for the pluta vowels of 3 or 4 mora-s which is to write their length in mora-s after the written forms of their long version.

The other way of denoting the short vowels is by a candra (more precisely ardhacandra) placed below. This is used in more recent printings of the Mahābhāṣya as in *Vyākaraṇa Mahābhāṣya with Pradīpa and Uddyōta*, Vol 1; reprinted 1987 by Chaukhambha Samskrit Pratisthan, Delhi; ed: Bhargava Shastri Bhikaji Joshi; ISBN 81-7084-026-0; p 112:



It is to be noted that this edition of the Mahābhāṣya is the most popular among those that desire to study it with its commentaries in the traditional Sanskrit schools of India, as it has been produced in a most commendable manner with explanatory comments (called ṭippanī-s) as footnotes, the references (pratīka-s) properly highlighted, the text segmented as ākṣēpa (objection), samādhāna (solution), pratibandī (counter-question) etc.

Using the candra this way makes it possible for the short E/O to be denoted by a single visual unit rather than by a digraph, making it easier for the eye scanning the text to identify the short vowels in question.

It is also more preferable to use the candra rather than the digit 1 in Sama Vedic texts, since in Sama Vedic notation, digits placed on the mainline denote the secondary svāra-s and the 1 intended to denote length is liable to be confounded with a secondary udatta or prathama svāra*. This is especially an important consideration since among the three use cases of the short E/O, viz: Sāma Veda Sātyamugri and Rāṇāyaniya schools, the Ṛg Vedic nyūṅkha and the Sāma Vedic Gāyatra Gāna, the Sama Vedic cases form the majority.

Some sources (ref 2) seem to suggest that the chandra to indicate short vowels E/O is (also) placed *above* its base, but actual printings we have obtained (ref 5) only indicate its placement *below*. Further, the chandra placed above is already used with E in North Indian scripts for /æ/, and its re-use for short E would cause unnecessary confusion.

Further, some scholars (Dr Peter Scharf, personal communication) opine that the chandra is nothing but an adaptation of the European breve which is used for denoting short vowels in various transcription systems. Others (as in ref 2) have merely remarked that they are a recent innovation without referring to its origin. It is also noted that the breve/chandra is also used to indicate short syllables in prosody.

However the origin of this usage may be, it is clear that the short E/O have well defined usage contexts in rare passages of Vedic Sanskrit, and that the chandra below has been attested to denote them.

§3. Request to add annotation

Based on the above evidence, it is requested to add an annotation to the existing character 1CD8 VEDIC TONE CANDRA BELOW noting the fact that it is also used, apart from its existing semantics as a svāra marker, as a length marker to indicate the short vowels E/O. The prescribed sequence for syllables involving this is then:

INDIC SYLLABLE + 1CD8 VEDIC TONE CANDRA BELOW + SVARA MARKER

Obviously, any svāra marker placed below (anudatta, as in the Ṛg Vedic nyūṅkha) would go below the candra in stacked form.

* For more on this, see N3366. More details are also available in my Grantha proposal L2/09-372 p 13 §4.4.1 #8 where the 3 on the mainline denotes the anudatta part of a kampa in Ārcika and in p 14 §4.4.2 #5 for Gāna.

Thus the recommended annotation is:

- marks independent svarita in Kathaka and Maitrayani Samhita
- marks anudatta in Shatapatha Brahmana
- may be used as length mark for short E/O, in which case svara markers may follow

where the first two points are from N3366 p 7 (top of page) and the last one is to cover the usage documented here.

§4. Illustration of usage

सामवेदे सात्यमुग्रिराणायनीयशाखयोः –

महे नो ओद्य बोधयोषो राये दिवित्मती ।

यथा चिन्नो ओबोधयः सत्यश्रवसि वाय्ये सुजाते एश्वसूनृते ॥

अध्वर्यो ओद्रिभिः सुतं सोमं पवित्र आसृज । पुनीहीन्द्राय पातवे ॥

शुक्रं ते एन्यद् यजतं ते एन्यद् विषुरूपे अहनी द्यौरिवासि ।

(इत्यादि)

ऋग्वेदीयश्रौतप्रयोगे प्रातरनुवाके –

आपो३ओओओओओ ओ३ओओओओओ ओ३ओओओ रेवतीः क्षयथा हि वस्वः

क्रतुं च भद्रं बिभृथामृतं च । रायो३ओओओओओ ओ३ओओओओओ

ओ३ओओओओश्च स्वपत्यस्य पत्नीः सरस्वती तद् गृणते वयो धो३मापो३ ... ॥

ऋग्वेदीयश्रौतप्रयोगे आज्यशस्त्रे –

आग्निं नः स्ववृक्तिभिः । होतारं त्वा वृणीमहे । यज्ञो३ओओओओओ
ओ३ओओओओओ ओ३ओओओ य स्तीर्णबर्हिषे ... । (इत्यादि)

ऋग्वेदीयश्रौतप्रयोगे प्रतिगरे –

ओ३ओओओओओ ओ३ओओओओओ ओ३ओओओ मदेथमदैवो३ओओओ३म्
ओथामोदैवो३म् ।

अनुदात्तस्वरसंयोगे –

आपो३ओओओओओ

§5. References

1. Some neglected evidence concerning the development of the abhinihita* sandhi, Dr George Cardona, 1987, Studien zur Indologie und Iranistik, 13/14, pp 59-68
2. Short E (ardha ēkāra) and Short O (ardha ōkāra) in Sanskrit, Dr K V Abhyankar, 1957, Annals of the Bhandarkar Oriental Research Institute, vol 38, pp 154-157
3. Mahabhashya with Pradipa and Uddyota, Ed: Narayana Shastri et al, 1855, p 135
4. Linguistic Issues in Encoding Sanskrit, Dr Peter Scharf and Dr Malcolm Hyman, 2010, The Sanskrit Library, p 183
5. Vyākaraṇa Mahābhāṣya with Pradīpa and Uddyōta, Vol 1; reprinted 2000 by Chaukhambha Samskrit Pratisthan, Delhi; ed: Bhargava Shastri Bhikaji Joshi; ISBN 81-7084-026-0; p 112

* sic. I am not sure why Dr Cardona's article refers to abhinihita whereas I have *most often* heard this referred to by our native scholars and printings as abhinihata. Abhinihata derives from from abhinihanyatē which is often used in the context of svāra-s, as against abhinihita which would derive from abhinidhīyatē which mostly refers to non-nasal stops interposed between spirants and nasal consonants (abhinidhāna sparśa).

§6. Thanks

First and foremost I must pay my respects to my Vyākaraṇa Ācārya Vidvān Śrī Hittilahalli Mahābaleśvara Bhaṭ of Bangalore who taught me the Mahābhāṣya. I next thank Dr Peter Scharf for his valuable comments in the formation of this document.

Brahmashri Prabhakar Joglekar, Rig Vedic scholar, provided expert advice on the arcane Ṛg Vedic ritualistic procedures. Brahmashri Shrikrishna Shrauti did likewise for Sāma Veda. Brahmashri Tukaram Mule provided feedback from the traditional scholars of the Rāṇāyaniya Sāma Veda. Other scholars also provided valuable comments.

Dr Jean-Luc Chevillard of the CNRS, France, currently deputed to the EFEO, Pondicherry, reminded me of this rare feature of Vedic Sanskrit leading to this document. He and his colleague of the EFEO Pondicherry, Dr Sathyanarayana, kindly arranged for a copy of the ABORI article of Dr Abhyankar. He also kindly arranged for a copy of the article of Dr Cardona via his colleague Dr Eva Wilden of Hamburg. I thank all these scholars for their kindness and feedback.

-0-0-0-