Vedic Accents

Following the rules of Pāṇini in the formation of a word from its rudimentary elements, the vowels acquire one of three basic pitch accents or *svara*:

(a) ***udātta***, raised pitch [1.2.29],
(b) ***anudātta***, not raised [1.1.30],
(c) ***svarita***, a blend of the first two [1.2.31].

The pronunciation of the *svarita* is initially *udātta* for the period of half a short vowel and *anudātta* for the rest (i.e. one and a half measures for a long vowel) [1.2.32]. In continuous speech or *saṃhitā*, all *anudātta* syllables following a *svarita* are called *pracaya* and are pronounced ***ekaśruti*** (monotone, between *anudātta* and *udātta*) [1.2.39], however, the *anudātta* immediately preceding a *svarita* or *udātta* is pronounced ***sannatara*** (lower than *anudātta*) [1.2.40]. The Vedas may also be recited entirely in *ekaśruti* (with exceptions) [1.2.36 ff.], nonetheless be aware that the accent may affect the meaning of a word, particularly a compound [6.1.223, 6.2.1] (e.g. *sú-kṛta*, ind. well done; *su-kṛtá*, n. a good deed).

With rare exceptions, a word standing alone has at most one vowel accented *udātta* or *svarita*, the rest being *anudātta* [6.1.158]. This is the basis of the Western system of marking Vedic accents in transliteration. Since most vowels are *anudātta*, this is taken as the basic or unaccented form, and the other accents are marked as:

(a) acute (´) for the *udātta* (e.g. *kárma*).
(b) grave (`) for the *svarita* (e.g. *vākyà*).

Vowel *sandhi*, besides producing a new vowel sound, also blends their accents: if this blending produces a *svarita* accent, it is called an **independent** *svarita* by Western grammarians. Where this independent *svarita* is within a word it is called *nitya* or ***jātya*** (innate), and where it arises due to the joining of words in *saṃhitā* (continuous speech) [8.2.4, 6] it is further classified according to the type of *sandhi*:

> (a) ***Kṣaipra*** (quick) when the first vowel is replaced by its semivowel [6.1.77]; the name arises from the shortening of the time measure from that of a vowel to that of a semivowel. The *svarita* accent replaces an *anudātta* occuring immediately after the semivowel substitution for an *udātta* or *svarita* vowel [8.2.4] (e.g. *apsú antáḥ* ⇒ *apsvàntáḥ*).

(U or S_i) + A $\Rightarrow$ semivowel + S_i .... (1)
where U=*udātta*, S_i=independent *svarita*, and A=*anudātta*.

(b) ***Praśliṣṭa*** (coalescence) when both vowels are replaced by a single vowel [6.1.84 ff]; the single substitute of an *anudātta* at the beginning of a word and the preceding *udātta*, becomes *svarita* optionally [8.2.6] (e.g. *ná evá* $\Rightarrow$ *nàivá*).

U + A $\Rightarrow$ S_i .... (2)

This rule applies to *sandhi* between words, whereas the general rule is that the single replacement of *udātta* and *anudātta* vowels (in either order) is *udātta* [8.2.5].

U + A or A + U $\Rightarrow$ U .... (3)

(c) ***Abhinihita*** (close contact) when a following *a* is absorbed by a final *e* or *o* [6.1.109]; the rule for the accent follows that of the *praśliṣṭa* (e.g. *rayáḥ avániḥ* $\Rightarrow$ *rayò'vániḥ*).

An independent *svarita*, when the next syllable has an *udātta* or independent *svarita* accent, is pronounced ***kampa*** (tremolo) in some traditions: this would apply in the above three examples.

S_i - (S_i or U) $\Rightarrow$ K - (S_i or U)
where K=*kampa svarita*.

In *saṃhitā* there is a further *svarita* called ***śuddha*** (simple, mere); Western grammarians name it the **dependent**, substitute, or enclitic *svarita*. An *anudātta* syllable following one that is *udātta* becomes *svarita* [8.4.66], unless it is in turn followed by an *udātta* or *svarita* [8.4.67].

U - A $\Rightarrow$ U - S_d .... (4)
where S_d= dependent *svarita*.
But U - A - (U or S) $\Rightarrow$ U - A - (U or S) .... (5)

These rules combine to produce a rhythm in the sound:
A_s - U - S_d - A_e - A_e caused by the *udātta*, and
A_s - S_i - A_e - A_e caused by the independent *svarita*,
where A_s=*sannatara*, and A_e=*ekaśruti*.
The cadence becomes more complex with the reduction of syllables separating the main accents (U and S_i), so as to eliminate the *ekaśruti* or even the dependent *svarita*.

At this point it would be useful to present a practical illustration of these accent changes that arise in continuous speech. The example is taken from the *Ṛgveda* (10.125.7): the verse is shown as separate words and then in *saṃhitā* showing the applicable rules.

ahám suve pitáram asya mūrdhán máma yóniḥ apsú antáḥ samudré,
tátaḥ ví tiṣṭhe bhúvanā ánu víśvā utá amū́m dyā́m varṣmáṇā úpa spṛśāmi.

(4) (4) (5) (4) (1, *kampa*) (4)
ahā́ṃ sùve pitáràm asya mūrdhán máma yónìrapsvàntáḥ sàmudré,

(5) (4) (5) (3) (5) (5) (3*) (5) (3) (4)
táto ví tìṣṭhe bhúvanā́nu víśvotā́mū́m dyā́m varṣmánópà spṛśāmi.

(* optionally, rule 2 could apply here and become *kampa.*)

The tradition of Western sanskritists emphasizes grammar and translation, and thus will use the form of separated words in transliteration; it is unusual to find fully accented *saṃhitā* text in transliteration: at best only the *udātta* and *jātya svarita* are marked. India, on the other hand, has an oral tradition which emphasizes pronunciation and rhythm, and thus the marking of accents in *devanāgarī* script is optimized for correct pronunciation; in fact, the written form is a much later development and has given rise to different methods of accent notation. The various traditions are discussed separately:

(a) ***Ṛgveda*** has *udātta* unmarked; the *svarita (jātya* or *śuddha*) is marked with a vertical line above the syllable (e.g. अ॑), but the *kampa* is indicated by a numeral 1 following the vowel if it is short, or the numeral 3 if it is long, and in both cases there is a vertical line above the numeral and a horizontal line below it; in the case of the long *kampa* vowel the syllable usually also has a horizontal line below it (e.g. अ१॒॑ आ॒३॒॑ आ३॒॑). The *anudātta* is marked with a horizontal bar below the syllable: this applies to all *anudātta* syllables before the first *udātta* or *svarita* in a line of verse, after which only those *anudātta* that immediately precede an *udātta* or *svarita* (i.e. *sannatara*) is marked, and the rest of the *anudātta* (i.e. *ekaśruti*) are not marked.

Using the sample verse from the *Ṛgveda*, the accent marking in transliteration and the original *devanāgarī* is:

a̱haṃ súve pi̱tarámasya mū̱rdhan mama̱ yoníra̱psva1̱ntaḥ sámudre,
tato̱ vi tíṣṭhe̱ bhuva̱nānu̱ viśvo̱tāmūṃ dyāṃ va̱rṣmanopá spṛśāmi.

अ॒हं सु॑वे पि॒तर॑मस्य मू॒र्धन्मम॒ योनि॑र॒प्स्व१॒न्तः स॑मु॒द्रे।
ततो॒ वि ति॑ष्ठे॒ भुव॒नानु॒ विश्वो॒तामूं द्यां व॒र्ष्मनोप॑ स्पृशामि॥

To illustrate the notation when a verse begins with multiple *anudātta* syllables, let the first word have no accent, thus:

> *a̱ha̱ṃ su̱ve̱ pi̱tarámasya mū̱rdhan mama̱ . . .*
>
> अ॒हं॒ सु॒वे॒ पि॒तर॑मस्य मू॒र्धन्मम॒ ॰

For the *Ṛgveda* the current practice in India is, apparently, to pronounce all syllables marked with the underbar (*anudātta* and *sannatara*) as *anudātta*, all unmarked syllables (*udātta* and *ekaśruti*) as *ekaśruti*, and syllables marked *svarita* as moving from *udātta* to *ekaśruti*.

(b) ***Sāmaveda*** accents are marked with a numeral, or numeral and letter, above the syllable: *udātta*, *svarita*, and *anudātta* are marked with the numerals 1, 2, and 3 respectively; the figure 2 is also used to indicate an *udātta* when there is no following *svarita*; *ekaśruti* syllables are not marked. Special marking is used for particular accent sequences:

U - U - S	$\Rightarrow$	1 - unmarked - 2r
U - U - A	$\Rightarrow$	2u - unmarked - 3
A - S_i	$\Rightarrow$	3k - 2r

Using the same passage from the *Ṛgveda* as an illustration, the marking in transliteration and *devanāgarī* would be:

3 1 2 3 1 2 3 2u 3 1 2 3k 2r 1 2
ahaṃ suve pitaramasya mūrdhanmama yonirapsvantaḥ samudre,
2 3 1 2 3 2 3 2 3 2 3 2 2u 3 1 2r
tato vi tiṣṭhe bhuvanānu viśvotāmūṃ dyāṃ varṣmanopa spṛśāmi.

३ १ २ ३ १ २ ३ २उ ३ १ २३क २र १ २
अहं सुवे पितरमस्य मूर्धन्मम योनिरप्स्वन्तः समुद्रे।
२ ३ १ २ ३ २ ३ २ ३ २ ३ २ २उ ३ १ २र
ततो वि तिष्ठे भुवनानु विश्वोतामूं द्यां वर्ष्मनोप स्पृशामि॥

(c) ***Śatapatha-Brāhmaṇa*** uses only two accents, *udātta* and *anudātta*: a horizontal line below the syllable indicates *anudātta* (as in the *Ṛgveda*). The relationship to the grammatical accents described by Pāṇini is rather indirect: the *anudātta* marked here are the syllables **before** those which would be marked *svarita* in the *Ṛgveda* with rule (5) not applying.

Using the sample verse from the *Ṛgveda*, the accent marking would be:

अह॒ं सु॒वे पित॒रमस्य मूर्धन्म॒म यो॒निर॒प्स्वन्त॒ः समु॒द्रे।
त॒तो वि॒ तिष्ठे भु॒वना॒नु वि॒श्वोतामूं द्या॒ं वर्ष्मनो॒प स्पृशामि॥

Caution: beyond this point, the information to hand is incomplete and should be treated circumspectly.

(d) ***Maitrāyaṇī-Saṃhitā*** marks the *udātta* with a vertical line above the syllable; the independent *svarita* is indicated by a curve below (अ᳕); the dependent *svarita* has a horizontal line crossing the middle of the syllable or three vertical strokes above it (अ᳛) or a dot below it (अ᳝); the *anudātta* is marked with a horizontal line below.

(e) ***Kāṭhaka-Saṃhitā*** marks the *udātta* with a vertical line above the syllable; the independent *svarita* is indicated by a curve below (अ᳕) only if an *anudātta* follows, otherwise by a hook below (अ᳙); the dependent *svarita* has a dot below the accented syllable (अ᳝); the *anudātta* is marked with a horizontal or vertical line below (अ॒ अ᳜).

(f) ***Taittirīya-Saṃhitā, -Brāhmaṇa, and -Āraṇyaka, and Atharva-Veda, and Vājasaneyi-Saṃhitā*** are marked as the *Ṛgveda*, with minor differences, mainly in the marking of the *svarita* before an *udātta*.

Works consulted:

(a) S.M. Katre, Aṣṭādhyāyī of Pāṇini, Motilal Banarsidass.
(b) Ś.C. Vasu, The Siddhānta Kaumudī, Motilal Banarsidass.
(c) A.A. Macdonell, A Vedic Grammar for Students, Appendix III.
(d) W.D. Whitney, Sanskrit Grammar, para.80–97.
(e) M. Williams, A Practical Grammar of the Skt. Lang., para.975–985.
(f) K.V. Abhyankar, A Dictionary of Sanskrit Grammar, M.S. Univ. Baroda.
(g) Bureau of Indian Standards, ISCII (1991), Annex G.
(h) The *Bhāṣika* Accentuation System, George Cardona, Studien zur Indologie und Iranistik 18 (1993): 1–40.

Notation	*udātta*	*svarita*	*anudātta*	special
Ṛgveda		अ॑ अ१॒॑ अ॒३॒॑ अ३॒॑	अ॒	
Sāmaveda	अ꣡	अ꣢	अ꣣	अ꣢꣫ अ꣢꣯ अ꣣꣬
Śatapatha		अ॒		
Maitrāyaṇī-Saṃhitā	अ॑	अ᳖ अ᳛ अ᳭	अ॒	
Kāṭhaka-Saṃhitā	अ॑	अ᳖ अ᳕ अ᳭	अ॒ अ᳔	
Taittirīya-Brāhmaṇa, -Saṃhitā, -Āraṇyaka		अ॑ अ१॒	अ॒	
Atharvaveda		अऽ अ॑ अ१॒॑ अ॒३॒॑ अ३॒॑	अ॒	
Vājasaneyi-Saṃhitā		अ॑ अ१॒॑ अ॒३॒॑ अ३॒॑	अ॒	
Taittirīya-Upaniṣad		अ॑ अ᳚	अ॒	
Śukla Yajurveda		अ᳜		
Non-Tait.° Yajurveda		अ᳘		
??? Sentence ending	अ᳟			

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Comments and corrections to: wikner@nac.ac.za.

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