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 svarā:

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

The pronunciation of the svarīta 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 svarīta are called pracayā and are pronounced ekaśruti (monotone, between anudātta and udātta) [1.2.39], however, the anudātta immediately preceding a svarīta 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. su-kṛta, ind. well done; su-kṛtā, n. a good deed).

With rare exceptions, a word standing alone has at most one vowel accented udātta or svarīta, 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. kārma).
(b) grave (¨) for the svarīta (e.g. vākyā).

Vowel sandhi, besides producing a new vowel sound, also blends their accents: if this blending produces a svarīta accent, it is called an independent svarīta by Western grammarians. Where this independent svarīta is within a word it is called nitya or jātya (inmate), 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 semifowel [6.1.77]; the name arises from the shortening of the time measure from that of a vowel to that of a semifowel. The svarīta accent replaces an anudātta occurring immediately after the semifowel substitution for an udātta or svarīta vowel [8.2.4] (e.g. apsū antāḥ ⇒ apsvāntāḥ).
(U or $S_1$) + A $\Rightarrow$ semivowel + $S_1$ ............................. (1)
where $U=\text{udātta}$, $S_1=\text{independent svarīta}$, and $A=\text{anudātta}$.

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

$U + A \Rightarrow S_1$ ................................. (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) **Abhinihīta** (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 praślistā (e.g. rayāḥ avānīḥ $\Rightarrow$ rayơ̄vānīḥ).

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

$S_1 - (S_1 \text{ or } U) \Rightarrow K - (S_1 \text{ or } U)$
where $K=kampa$ svarīta.

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

$U - A \Rightarrow U - S_d$ ................................. (4)
where $S_d=\text{dependent svarīta}$.

But $U - A - (U \text{ or } S) \Rightarrow U - A - (U \text{ or } S)$ ................................. (5)

These rules combine to produce a rhythm in the sound:

$A_n - U - S_d - A_e - A_e$ caused by the udātta, and

$A_n - S_1 - A_e - A_e$ caused by the independent svarīta,
where $A_n=\text{sannatarā}$, and $A_e=\text{ekasṛuti}$.

The cadence becomes more complex with the reduction of syllables separating the main accents (U and $S_1$), so as to eliminate the ekaśṛuti or even the dependent svarīta.
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 *Rigveda* (10.125.7): the verse is shown as separate words and then in *samāhāra* showing the applicable rules.

\[
\text{ahām suve pitāram asya mārdhān māma yōniḥ āpsū antāḥ samudrē, tātaḥ vi tiśthe bhūvanā ānu vīśvā utā amām dyām varṣmānā āpa sprāmī.}
\]

\[
\begin{array}{ccccccc}
(4) & (4) & (5) & (4) & (1, kampa) & (4) \\
\end{array}
\]

\[
\text{ahām suve pitāram asya mārdhān māma yōniraspāntāḥ sāmudrē, tāto vi tiśthe bhūvanānu vīśvotāmām dyām varṣmānōpā sprāmī.}
\]

\[
\begin{array}{ccccccc}
(5) & (4) & (5)(3)(5) & (5)(3^*) & (5) & (3)(4) \\
\end{array}
\]

(* 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 *samāhāra* 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) *Rigveda* has *udātta* unmarked; the *svarita* (*jātya* or *śuddha*) is marked with a vertical line above the syllable (e.g. \(\text{अ्र}\\)), 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. \(\text{अ्र}\\, \text{व्र}\\, \text{आ}\\)). 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 *Rigveda*, the accent marking in transliteration and the original *devanāgarī* is:
Aham suve pitaramasya mūrdhan mama yonirapsvantaḥ sāmudre,
tato vi tiṣṭhe bhuvaṇān viśvotāmāṁ dyāṁ varṣmanopā sprśāmi.

Ah śūvē pīṭāṁśya mūrdhan mama yonirapsvantaḥ: समुद्रे।

tatō vi tiṣṭhe bhuvaṇānū viśvotāmāṁ daṁ vāṛṣṇaṁop śṛṣṭāmī॥

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

Ah śūvē pīṭāṁśya mūrdhan mama . . .

Ah śūvē pīṭāṁśya mūrdhan mama ◯

For the Rgveda the current practice in India is, apparently, to pronounce all syllables marked with the underbar (anudātta and sannatarā) 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, svarīta, 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 svarīta; ekaśruti syllables are not marked. Special marking is used for particular accent sequences:

| U - U - S  | 1 - unmarked - 2r |
| U - U - A  | 2u - unmarked - 3 |
| A - S₁  | 3k - 2r |

Using the same passage from the Rgveda as an illustration, the marking in transsliteration and devanāgarī would be:

Ah śūvē pīṭāṁśya mūrdhanmā yonirapsvantaḥ samudre,

Aḥ śūvē pīṭāṁśya mūrdhammā yonirapsvantaḥ: समुद्रे।

tatō vi tiṣṭhe bhuvaṇānū viśvotāmāṁ daṁ vāṛṣṇaṁop śṛṣṭāmī॥
(c) Šatapatha-Brāhmaṇa uses only two accents, udāṭṭa and anudāṭṭa: a horizontal line below the syllable indicates anudāṭṭa (as in the Rgveda). The relationship to the grammatical accents described by Pāṇini is rather indirect: the anudāṭṭa marked here are the syllables before those which would be marked svarīta in the Rgveda with rule (5) not applying.

Using the sample verse from the Rgveda, the accent marking would be:

अहं सुवेन पितामह्य मूर्धन्मय योनिर्ग्यस्वः समुद्रे।
ततो वि तिष्ठे भुवनानु विष्णोतामू द्या वर्ष्णोप स्वपशामि॥

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

(d) Maitrāyaṇī-Saṃhitā marks the udāṭṭa with a vertical line above the syllable; the independent svarīta is indicated by a curve below (অ'); the dependent svarīta has a horizontal line crossing the middle of the syllable or three vertical strokes above it (অ"') or a dot below it (অ'); the anudāṭṭa is marked with a horizontal line below.

(e) Kāṭhaka-Saṃhitā marks the udāṭṭa with a vertical line above the syllable; the independent svarīta is indicated by a curve below (অ') only if an anudāṭṭa follows, otherwise by a hook below (অ); the dependent svarīta has a dot below the accented syllable (অ'); the anudāṭṭa is marked with a horizontal or vertical line below (অ অ.resources).

(f) Taṅtirīya-Saṃhitā, -Brāhmaṇa, and Āraṇyaka, and Atharva-Veda, and Vaiśeṣicayi-Saṃhitā are marked as the Rgveda, with minor differences, mainly in the marking of the svarīta before an udāṭṭa.

Works consulted:
(a) S.M. Katre, Aṣṭādhyāyī of Pāṇini, Motilal Banarsidass.
(b) Ś.C. Vasu, The Siddhānta Kaumudi, 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, ISCI I (1991), Annex G.
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