

# Oriya BA, VA, and WA

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Original Sanskrit initial *v-*, pronounced [β] ~ [w], was lost in Oriya as the sound merged with *b-*: *visarga* became *bisarga*, for instance. The sound *-v* [w] was preserved after consonants, however, and post-consonantal *-ba* and *-va* were both retained, written with different shapes:  $\text{𑌒} \text{ dba}$  [dba] differs from  $\text{𑌑} \text{ dva}$  [dwa].

Because the initial *v-* was lost, a consonant letter distinct from *ba* was not historically preserved. A need to write initial *v-* still arose in certain contexts – particularly in Oriya transliteration of Sanskrit words. No conventional letterform was established for this: some authors who write *v-* have used the same letterform as  $\text{𑌑} \text{ ba}$ , but often the *ba* letterform is modified with a dot or circle; compare  $\text{𑌑} \text{ va}$  and  $\text{𑌑} \text{ va}$ . Other glyphs, such as  $\text{𑌑}$  and  $\text{𑌑}$ , which, in a more modern font style might be  $\text{𑌑}$ , have also been observed.

The Unicode Standard preserves the *va/ba* distinction with two different letters, U+0B2C  $\text{𑌑}$  ORIYA LETTER BA and U+0B35  $\text{𑌑}$  ORIYA LETTER VA, whose usual graphic representations in post-consonantal position are  $\text{𑌑}$  and  $\text{𑌑}$  respectively. An exception to this shaping rule occurs with U+0B2E  $\text{𑌑}$  ORIYA LETTER MA: here *ba* following *ma* looks like the glyph for *va*, although it is pronounced [b] and not [w]. Traditional Oriya text does not give a representation for the syllable *mva* (though this syllable occurs in Sanskrit).

$\text{𑌑} \text{ U+0B15 ka} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [kwa]}$   
 $\text{𑌑} \text{ U+0B17 ga} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [gwa]}$   
 $\text{𑌑} \text{ U+0B1B cha} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [tʰwa]}$   
 $\text{𑌑} \text{ U+0B1C ja} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [dʒwa]}$   
 $\text{𑌑} \text{ U+0B1F ṭa} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [ṭwa]}$   
 $\text{𑌑} \text{ U+0B21 ḍa} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [ḍwa]}$   
 $\text{𑌑} \text{ U+0B23 ṇa} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [ṇwa]}$   
 $\text{𑌑} \text{ U+0B24 ta} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [twa]}$   
 $\text{𑌑} \text{ U+0B25 tha} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [tʰwa]}$   
 $\text{𑌑} \text{ U+0B26 da} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [dwa]}$   
 $\text{𑌑} \text{ U+0B27 dha} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [dʰwa]}$   
 $\text{𑌑} \text{ U+0B28 na} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [nwa]}$   
 $\text{𑌑} \text{ U+0B32 la} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [lwa]}$   
 $\text{𑌑} \text{ U+0B36 śa} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [śwa]}$   
 $\text{𑌑} \text{ U+0B38 sa} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [swa]}$   
 $\text{𑌑} \text{ U+0B39 ha} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ [hwa]}$

But compare:

$\text{𑌑} \text{ U+0B26 da} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B2C ba} \rightarrow \text{𑌑} \text{ [dba]}$   
 $\text{𑌑} \text{ U+0B2E ma} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B2C ba} \rightarrow \text{𑌑} \text{ [mba]}$   
 $\text{𑌑} \text{ U+0B2E ma} + \text{𑌑} \text{ U+0B4D virama} + \text{𑌑} \text{ U+0B35 va} \rightarrow \text{𑌑} \text{ or } \text{𑌑} \text{ or } \text{𑌑} \text{ [mwa]}$

The extended Oriya letter U+0B71  $\text{𑌑}$  ORIYA LETTER WA is sometimes used in Perso-Arabic or English loan words for [w] at the beginning of words. It appears to have originally been devised as a ligature of  $\text{𑌑} \text{ o}$  and  $\text{𑌑} \text{ va}$ , but since ligatures of independent vowels and consonants are not normal in Oriya, this letter has been encoded as a single character which does not have a decomposition. It should *only* be used initially in words or orthographic syllables to represent the foreign consonant; as a native semivowel, *VIRAMA + VA* should be used, since that is historically accurate. Glyph variants of *wa* are  $\text{𑌑}$ ,  $\text{𑌑}$ , and  $\text{𑌑}$  – note the dot in the *-va* of the last glyph.

1 Everson Typography, [www.evertype.com](http://www.evertype.com)

2 Microsoft, [www.microsoft.com](http://www.microsoft.com)