

[en.wikipedia.org](https://en.wikipedia.org)

Devanagari - Wikipedia

41-52 minutes

Devanagari <div>देवनागरी</div>	
<div><div><div><div><div><span></span></div><div>Chandas</div></div><div><div><span><span>अआ इई उऊ</span></span><span><span>ॐ</span></span></div></div><div><div><span><span>ऋॠ ऌॡ एऐ</span></span><span><span>ॐ</span></span></div></div><div><div><span><span>ओऔ</span></span><span><span>तत् त्वम् असि</span></span></div></div></div><div><div><div><span><span>क ख ग घ ङ च छ ज झ ञ ट</span></span></div><div><span><span>ठ ड ढ ण त थ द ध न प फ</span></span></div><div><span><span>ब भ म य र ल ळ व श ष स ह</span></span></div></div></div></div><div>Devanagari script (vowels top, consonants bottom) in <a href="#">Chandas font</a></div></div>	
Type	<a href="#">Abugida</a>
Languages	<a href="#">Aparbhamsha</a> , <a href="#">Awadhi</a> , <a href="#">Bhili</a> , <a href="#">Bhojpuri</a> , <a href="#">Bodo</a> , <a href="#">Braj Bhasha</a> , <a href="#">Chhattisgarhi</a> , <a href="#">Dogri</a> , <a href="#">Gujarati</a> , <a href="#">Haryanvi</a> , <a href="#">Hindi</a> , <a href="#">Hindustani</a> , <a href="#">Kannada</a> , <a href="#">Kashmiri</a> , <a href="#">Konkani</a> , <a href="#">Koshali Odia</a> , <a href="#">Magahi</a> , <a href="#">Maithili</a> , <a href="#">Marathi</a> , <a href="#">Marwari</a> , <a href="#">Mundari</a> , <a href="#">Newari</a> , <a href="#">Nepali</a> , <a href="#">Pāli</a> , <a href="#">Pahari</a> (various), <a href="#">Prakrit</a> , <a href="#">Punjabi</a> , <a href="#">Rajasthani</a> , <a href="#">Sadri</a> , <a href="#">Sanskrit</a> , <a href="#">Santali</a> , <a href="#">Saraiki</a> , <a href="#">Sherpa</a> and <a href="#">Sindhi</a> , <a href="#">Surjapuri</a> , <a href="#">Urdu</a> and many more
Time period	Early signs: 1st century CE, <sup><span>[1]</span></sup> modern form: 10th century CE <sup><span>[2]</span><span>[3]</span></sup>
Parent systems	<div><div><div><a href="#">Proto-Sinaitic</a><sup><span>[a]</span></sup></div><div><ul style="list-style-type: none"><li><a href="#">Brāhmī</a></li><li><a href="#">Gupta</a></li><li><a href="#">Nāgarī</a></li><li>Devanagari</li></ul></div></div></div>
Child systems	<div><div><div><a href="#">Gujarati</a></div><div><a href="#">Modī</a></div></div></div>
Sister systems	<a href="#">Nandinagari</a>
Direction	Left-to-right
<a href="#">ISO 15924</a>	Deva, 315
Unicode alias	Devanagari
<a href="#">Unicode range</a>	<a href="#">U+0900–U+097F</a> Devanagari, <a href="#">U+A8E0–U+A8FF</a> Devanagari Extended, <a href="#">U+1CD0–U+1CFF</a> Vedic Extensions
<sup>[a]</sup> The Semitic origin of the Brahmic scripts is not universally agreed upon.	
<div><div><div><div><div><span></span></div><div>This article contains <a href="#">IPA phonetic symbols</a>. Without proper <a href="#">rendering support</a>, you may see <a href="#">question marks</a>, <a href="#">boxes</a>, or <a href="#">other symbols</a> instead of <a href="#">Unicode</a> characters. For an introductory guide on IPA symbols, see <a href="#">Help:IPA</a>.</div></div></div></div></div>	

Devanāgarī
<div>अ</div>
<div><ul style="list-style-type: none"><li><a href="#">Abugida</a></li><li><a href="#">Brahmic scripts</a></li><li><a href="#">Inherent vowel</a></li></ul></div>
<div>Languages<span>[<a href="#">show</a>]</span></div>
<div><a href="#">Transliteration</a><span>[<a href="#">show</a>]</span></div>
<div><a href="#">Vowels</a> and syllabic consonants<span>[<a href="#">show</a>]</span></div>
<div><a href="#">Consonants</a><span>[<a href="#">show</a>]</span></div>
<div><a href="#">Diacritics</a>, <a href="#">punctuation</a>, symbols<span>[<a href="#">show</a>]</span></div>

<span><span></span></span> <span>Numerals</span> <span><span>[</span>show<span>]</span></span>
<div><ul style="list-style-type: none"><li>v</li><li>t</li><li>e</li></ul></div>
<span><span></span></span> <span>Brahmic scripts</span>
The Brahmic script and its descendants
<span><span></span></span> <span>Northern Brahmic</span> <span><span>[</span>show<span>]</span></span>
<span><span></span></span> <span>Southern Brahmic</span> <span><span>[</span>show<span>]</span></span>
<div><ul style="list-style-type: none"><li>v</li><li>t</li><li>e</li></ul></div>

**Devanagari** (<sup>i</sup> *DAY-va-NAH-gar-ee*; देवनागरी, <sup>i</sup> *IAST*: *Devanāgarī*, Sanskrit pronunciation: [d̪eːʋəˈnaːɡər̩i]), also called **Nagari** (*Nāgarī*, नागरी),<sup>[4]</sup> is a left-to-right <sup>i</sup> *abugida* (alphasyllabary),<sup>[5]</sup> based on the ancient <sup>i</sup> *Brāhmī script*,<sup>[1]</sup> used in the <sup>i</sup> *Indian subcontinent*. It was developed in ancient India from the 1st to the 4th century CE<sup>[1]</sup> and was in regular use by the 7th century CE.<sup>[4]</sup><sup>[6]</sup> The Devanagari script, composed of 47 primary characters including 14 vowels and 33 consonants, is the fourth most widely <sup>i</sup> *adopted writing system* in the world,<sup>[2]</sup> being used for over 120 languages.<sup>[6]</sup> The ancient Nagari script for Sanskrit had two additional consonantal characters.<sup>[9]</sup>

The <sup>i</sup> *orthography* of this script reflects the pronunciation of the language.<sup>[6]</sup> Unlike the Latin alphabet, the script has no concept of <sup>i</sup> *letter case*.<sup>[10]</sup> It is written from left to right, has a strong preference for symmetrical rounded shapes within squared outlines and is recognisable by a horizontal line that runs along the top of full letters.<sup>[9]</sup> In a cursory look, the Devanagari script appears different from other <sup>i</sup> *Indic scripts* such as <sup>i</sup> *Bengali*, <sup>i</sup> *Odia* or <sup>i</sup> *Gurmukhi*, but a closer examination reveals they are very similar except for angles and structural emphasis.<sup>[5]</sup>

Among the languages using it – as either their only script or one of their scripts – are <sup>i</sup> *Pāli*, <sup>i</sup> *Sanskrit*, <sup>i</sup> *Hindi*,<sup>[11]</sup> <sup>i</sup> *Nepali*, <sup>i</sup> *Sherpa*, <sup>i</sup> *Prakrit*, <sup>i</sup> *Apabhramsha*, <sup>i</sup> *Awadhi*, <sup>i</sup> *Bhojpuri*, <sup>i</sup> *Brāj Bhasha*<sup>[12]</sup>, <sup>i</sup> *Chhattisgarhi*, <sup>i</sup> *Haryanvi*, <sup>i</sup> *Magahi*, <sup>i</sup> *Nagpuri*, <sup>i</sup> *Rajasthani*, <sup>i</sup> *Bhili*, <sup>i</sup> *Dogri*, <sup>i</sup> *Marathi*, <sup>i</sup> *Maithili*, <sup>i</sup> *Kashmiri*, <sup>i</sup> *Konkani*, <sup>i</sup> *Sindhi*, <sup>i</sup> *Bodo*, <sup>i</sup> *Nepalbhasa*, <sup>i</sup> *Mundari* and <sup>i</sup> *Santali*.<sup>[8]</sup> The Devanagari script is closely related to the <sup>i</sup> *Nandinagari* script commonly found in numerous ancient manuscripts of <sup>i</sup> *South India*,<sup>[13]</sup><sup>[14]</sup> and it is distantly related to a number of southeast Asian scripts.<sup>[8]</sup>

Etymology[edit]

*Devanagari* is a compound of "<sup>i</sup> *deva*" देव and "<sup>i</sup> *nāgarī*" नागरी.<sup>[4]</sup> *Deva* means "heavenly or divine" and is also one of the terms for a <sup>i</sup> *deity* in <sup>i</sup> *Hinduism*.<sup>[15]</sup> *Nagari* comes from नागरम् (*nagaram*), which means abode or city. Hence, *Devanagari* denotes *from the abode of divinity or deities*.

*Nāgarī* is the Sanskrit feminine of *Nāgara* "relating or belonging to a town or city, urban". It is a phrasing with *lipi* ("script") as *nāgarī lipi* "script relating to a city", or "spoken in city".<sup>[16]</sup>

The use of the name *devanāgarī* emerged from the older term *nāgarī*.<sup>[17]</sup> According to Fischer, Nagari emerged in the northwest Indian subcontinent around 633 CE, was fully developed by the 11th-century, and was one of the major scripts used for the Sanskrit literature.<sup>[17]</sup>

History[edit]

Devanagari is part of the <sup>i</sup> *Brahmic family* of scripts of <sup>i</sup> *India*, <sup>i</sup> *Nepal*, <sup>i</sup> *Tibet*, and <sup>i</sup> *Southeast Asia*.<sup>[18]</sup><sup>[17]</sup> Some of the earliest epigraphical evidence attesting to the developing <sup>i</sup> *Sanskrit* Nagari script in ancient India, in a form similar to Devanagari, is from the 1st to 4th century CE inscriptions discovered in <sup>i</sup> *Gujarat*.<sup>[1]</sup> It is a descendant of the 3rd century BCE <sup>i</sup> *Brahmi script* through the <sup>i</sup> *Gupta script*, along with <sup>i</sup> *Siddham* and <sup>i</sup> *Sharada*.<sup>[17]</sup> Variants of script called *Nāgarī*, recognisably close to Devanagari, are first attested from the 1st century CE <sup>i</sup> *Rudradaman* inscriptions in Sanskrit, while the modern standardised form of Devanagari was in use by about 1000 CE.<sup>[6]</sup><sup>[19]</sup> Medieval inscriptions suggest widespread diffusion of the Nagari-related scripts, with <sup>i</sup> *biscripts* presenting local script along with the adoption of Nagari scripts. For example, the mid 8th-century <sup>i</sup> *Pattadakal pillar* in <sup>i</sup> *Karnataka* has text in both <sup>i</sup> *Siddha Matrika* script, and an early <sup>i</sup> *Telugu-Kannada* script; while, the <sup>i</sup> *Kangra Jawalamukhi* inscription in <sup>i</sup> *Himachal Pradesh* is written in both <sup>i</sup> *Sharada* and Devanagari scripts.<sup>[20]</sup>

The Nagari script was in regular use by the 7th century CE, and it was fully developed by about the end of first millennium.<sup>[4]</sup><sup>[6]</sup> The use of Sanskrit in Nagari script in medieval India is attested by numerous pillar and cave temple inscriptions, including the 11th-century <sup>i</sup> *Udayagiri inscriptions* in <sup>i</sup> *Madhya Pradesh*,<sup>[21]</sup> and an inscribed brick found in <sup>i</sup> *Uttar Pradesh*, dated to be from 1217 CE, which is now held at the <sup>i</sup> *British Museum*.<sup>[22]</sup> The script's proto- and related versions have been discovered in ancient relics outside of India, such as in <sup>i</sup> *Sri Lanka*, <sup>i</sup> *Myanmar* and <sup>i</sup> *Indonesia*; while in East Asia, <sup>i</sup> *Siddha Matrika* script considered as the closest precursor to Nagari was in use by <sup>i</sup> *Buddhists*.<sup>[9]</sup><sup>[23]</sup> Nagari has been the <sup>i</sup> *primus inter pares* of the Indic scripts.<sup>[9]</sup> It has long been used traditionally by religiously educated people in <sup>i</sup> *South Asia* to record and transmit information, existing throughout the land in parallel with a wide variety of local scripts (such as <sup>i</sup> *Modi*, <sup>i</sup> *Kaithi*, and <sup>i</sup> *Mahajani*) used for administration, commerce, and other daily uses.

Sharada remained in parallel use in <sup>i</sup> *Kashmir*. An early version of Devanagari is visible in the <sup>i</sup> *Kutila inscription of Bareilly* dated to <sup>i</sup> *Vikram Samvat* 1049 (i.e. 992 CE), which demonstrates the emergence of the horizontal bar to group letters belonging to a word.<sup>[2]</sup> One of the oldest surviving Sanskrit texts from the early post-<sup>i</sup> *Maurya* period consists of 1,413 Nagari pages of a commentary by <sup>i</sup> *Patanjali*, with a composition date of about 150 BCE, the surviving copy transcribed about 14th century CE.<sup>[24]</sup>

Evolution from Brahmi to Gupta, and to Devanagari <sup>[25]</sup>																																	
	k-	kh-	g-	gh-	ñ-	c-	ch-	j-	jñ-	ñ-	ṭ-	ṭh-	ḍ-	ḍh-	n-	t-	th-	d-	dh-	n-	p-	ph-	b-	bh-	m-	y-	r-	l-	v-	ś-	ṣ-	s-	h-

Brahmi	𑀧	𑀘	𑀓	𑀕	𑀖	𑀗	𑀙	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲	𑀳	𑀴	𑀵	𑀶	𑀷	𑀸	𑀹	𑀺	𑀻	𑀼	𑀽	𑀾	𑀿
Gupta	𑂔	𑂕	𑂖	𑂗	𑂘	𑂙	𑂚	𑂛	𑂜	𑂝	𑂞	𑂟	𑂠	𑂡	𑂢	𑂣	𑂤	𑂥	𑂦	𑂧	𑂨	𑂩	𑂪	𑂫	𑂬	𑂭	𑂮	𑂯	𑂰	𑂱	𑂲	𑂳	𑂴	𑂵	𑂶	𑂷	𑂸	𑂹	𑂺	𑂻	𑂼	𑂽	𑂾	𑂿
Devanagari	क	ख	ग	घ	ङ	च	छ	ज	झ	ञ	ट	ठ	ड	ढ	ण	त	थ	द	ध	न	प	फ	ब	भ	म	य	र	ल	व	श	ष	स	ह											

East Asia[\[edit\]](#)

Under the rule of **Songtsen Gampo** of the **Tibetan Empire**, **Thonmi Sambhota** traveled to India to marry a **Nepali** princess and find a writing system suitable for the **Tibetan language**. Thus he invented the **Tibetan script**, based on the Nagari used in Kashmir. He added 6 new characters for sounds that did not exist in Sanskrit.<sup>[26]</sup>

Other scripts closely related to Nagari such as Siddham Matrkā were in use in Indonesia, Vietnam, Japan and other parts of East Asia by between 7th to 10th-century.<sup>[27][28]</sup>

Most of the southeast Asian scripts have roots in the Dravidian scripts, except for a few found in south-central regions of Java and isolated parts of southeast Asia that resemble Devanagari or its prototype. The **Kawi script** in particular is similar to the Devanagari in many respects though the morphology of the script has local changes. The earliest inscriptions in the Devanagari-like scripts are from around the 10th-century, with many more between 11th- and 14th-century.<sup>[29][30]</sup> Some of the old-Devanagari inscriptions are found in Hindu temples of Java, such as the **Prambanan temple**.<sup>[31]</sup> The Ligor and the Kalasan inscriptions of central Java, dated to the 8th-century, are also in the Nagari script of North India. According to the epigraphist and Asian Studies scholar Lawrence Briggs, these may be related to the 9th-century copper plate inscription of Devapaladeva (Bengal) which is also in early Devanagari script.<sup>[32]</sup> The term Kawi in Kawi script is a loan word from *Kavya* (poetry). According to anthropologists and Asian Studies scholars John Norman Miksic and Goh Geok Yian, the 8th-century version of early Nagari or Devanagari script was adopted in Java, **Bali (Indonesia)**, and Khmer (**Cambodia**) around 8th or 9th-century, as evidenced by the many inscriptions of this period.<sup>[33]</sup>

Letters[\[edit\]](#)

The **letter order** of Devanagari, like nearly all Brahmic scripts, is based on **phonetic** principles that consider both the **manner** and **place of articulation** of the consonants and vowels they represent. This arrangement is usually referred to as the *varṇamālā* "**garland of letters**".<sup>[34]</sup> The format of Devanagari for Sanskrit serves as the prototype for its application, with minor variations or additions, to other languages.<sup>[35]</sup>

Vowels[\[edit\]](#)

The vowels and their arrangement are:<sup>[36]</sup>

	Independent form	<span>IAST / ISO</span>	As diacritic with ष	Independent form	<span>IAST / ISO</span>	As diacritic with ष
<i>kanṭhya</i> <span>(Guttural)</span>	अ	<i>a</i>	प	आ	<i>ā</i>	पा
<i>tālavya</i> <span>(Palatal)</span>	इ	<i>i</i>	पि	ई	<i>ī</i>	पी
<i>oṣṭhya</i> <span>(Labial)</span>	उ	<i>u</i>	पु	ऊ	<i>ū</i>	पू
<i>mūrdhanya</i> <span>(Retroflex)</span>	ऋ	<i>r̥ / ṛ</i>	पृ	ॠ <sup>4</sup>	<i>r̄ / ṝ</i>	पृ
<i>dantya</i> <span>(Dental)</span>	ॠ <sup>4</sup>	<i>ṛ / ṝ</i>	पृ	ॡ <sup>4, 5</sup>	<i>ṝ / ṝ̄</i>	पृ
<i>kanṭhatālavya</i> <span>(Palatoguttural)</span>	ए	<i>e / ē</i>	पे	ऐ	<i>ai</i>	पै
<i>kanṭhoṣṭhya</i> <span>(Labioguttural)</span>	ओ	<i>o / ō</i>	पो	औ	<i>au</i>	पौ
<i>IAST</i>	अं <sup>1</sup>	<i>aṃ / aṛṇ</i>	पं	अः <sup>1</sup>	<i>aḥ</i>	पः
<i>IAST</i>	अँ / एँ <sup>7</sup>	<i>IAST / ē</i>	पँ	अं <sup>7</sup>	<i>IAST / ô</i>	पँ





Examples of Devanagari manuscripts created between 13th- and 19th-centuries

1. Arranged with the vowels are two consonantal **diacritics**, the final **nasal anusvāra** ँ *m* and the final **fricative visarga** ृ *h* (called अँ *am* and अः *ah*). **Masica (1991:146)** notes of the *anusvāra* in Sanskrit that "there is some controversy as to whether it represents a homorganic **nasal stop** [...], a **nasalised vowel**, a nasalised **semivowel**, or all these according to context". The *visarga* represents post-vocalic **voiceless glottal fricative** [h], in Sanskrit an **allophone** of *s*, or less commonly *r*, usually in word-final position. Some traditions of recitation append an echo of the **vowel** after the breath:<sup>[37]</sup> इः [ihī]. **Masica (1991:146)** considers the *visarga* along with letters ऌ *ria* and ॡ *ria* for the "largely predictable" **velar** and **palatal nasals** to be examples of "phonetic overkill in the system".
2. Another diacritic is the **candrabindu** *anunāsika* ँ औ. **Salomon (2003:76–77)** describes it as a "more emphatic form" of the *anusvāra*, "sometimes [...] used to mark a true [vowel] nasalization". In a New Indo-Aryan language such as Hindi the distinction is formal: the *candrabindu* indicates **vowel nasalisation**<sup>[38]</sup> while the *anusvār* indicates a homorganic **nasal** preceding another consonant:<sup>[39]</sup> e.g. हैंसी [hēsi] "laughter", गंगा [gəŋɡa] "the **Ganges**". When an *akshara* has a vowel diacritic above the top line, that leaves no room for the *candra* ("moon") stroke *candrabindu*, which is dispensed with in favour of the lone dot:<sup>[40]</sup> हुँ [hū] "am", but हैं [hē] "are". Some writers and typesetters dispense with the "moon" stroke altogether, using only the dot in all situations.<sup>[41]</sup>
3. The **avagraha** ॥ (usually **transliterated** with an **apostrophe**) is a Sanskrit **punctuation mark** for the **elision** of a **vowel** in **sandhi**: एकोऽयम् *eko'yam* ( ← *ekas* + *ayam*) "this one". An original **long vowel** lost to coalescence is sometimes marked with a double *avagraha*: सदःसत्ता *sadā'tmā* ( ← *sadā* + *ātmā*) "always, the self".<sup>[42]</sup> In Hindi, **Snell (2000:77)** states that its "main function is to show that a vowel is sustained in a cry or a shout": आहँस्स! *ā'tmā*!. In Madhyadeshi Languages like Bhojpuri, Awadhi, Maithili, etc. which have "quite a number of **verbal** forms [that] end in that inherent vowel",<sup>[43]</sup> the *avagraha* is used to mark the *non*-elision of word-final inherent *a*, which otherwise is a modern **orthographic** convention: बइठऽ *baiṭha* "sit" versus बइठ *baiṭh*
4. The syllabic vowels ळ (᳚), ॴ (᳚), and ॵ (᳚) are specific to Sanskrit and not included in the *varṇamālā* of other languages. The sound represented by *r* has also been lost in the modern languages, and its pronunciation now ranges from [ɾ] (Hindi) to [ɽ] (Marathi).
5. ॶ is not an actual **phoneme** of Sanskrit, but rather a graphic convention included among the vowels in order to maintain the symmetry of short–long pairs of letters.<sup>[35]</sup>
6. There are non-regular formations of ॷ *ru* and ॸ *rū*.
7. There are two more vowels in **Marathi** as well as **Konkani**, अँ and औँ, that respectively represent [æ], similar to the **RP** English pronunciation of <a> in 'act', and [ɔ], similar to the RP pronunciation of <o> in 'cot'. These vowels are sometimes used in **Hindi** too, as in डॉलर *dōlar*, "dollar".<sup>[44]</sup> IAST transliteration is not defined. In **ISO 15919**, the transliteration is ê and ô, respectively.

Consonants[edit]

The table below shows the consonant letters (in combination with **inherent vowel** *a*) and their arrangement. To the right of the Devanagari letter it shows the Latin script transliteration using **International Alphabet of Sanskrit Transliteration**,<sup>[45]</sup> and the phonetic value **IPA** in **Hindi**.<sup>[46][47]</sup>

Phonetics →	sparśa (Plosive)				anunāsika (Nasal)	antastha (Approximant)	ūṣman/saṃghaṣṭrī (Fricative)				
Voicing →	aghoṣa		saghoṣa					aghoṣa	saghoṣa		
Aspiration →	alpaprāṇa		mahāprāṇa		alpaprāṇa	mahāprāṇa		alpaprāṇa		mahāprāṇa	
kaṇṭhya (Guttural)	क [k]	ख [kʰ]	ग [g]	घ [gʰ]	ङ [ŋ]						ह [h]
tālavya (Palatal)	च [c]~[tʃ]	छ [cʰ]~[tʃʰ]	ज [j]~[dʒ]	झ [jʰ]~[dʒʰ]	ञ [ɲ]	य [j]	या [j]	श [ʃ]	śa [ʃ]		
mūrdhanya (Retroflex)	ट [ɽ]	ठ [ʈ]	ड [ɖ]	ढ [ɖʰ]	ण [ɳ]	र [r]	रा [r]	ष [ʂ]	ṣa [ʂ]		
dantya (Dental)	त [t]	थ [tʰ]	द [d]	ध [dʰ]	न [n]	ल [l]	ला [l]	स [s]	sa [s]		
oṣṭhya (Labial)	प [p]	फ [pʰ]	ब [b]	भ [bʰ]	म [m]	व [v]	वा [v]				

- Rounding this out where applicable is ञ *ja* (**IPA**: [j] or [j̠]), the intervocalic **lateral flap** allophone of the **voiced retroflex stop** in **Vedic Sanskrit**, which is a **phoneme** in languages such as **Marathi**, **Konkani**, **Garhwali**, and **Rajasthani**.<sup>[48]</sup>
- Beyond the Sanskritic set, new shapes have rarely been formulated. **Masica (1991:146)** offers the following, "In any case, according to some, all possible sounds had already been described and provided for in this system, as Sanskrit was the original and perfect language. Hence it was difficult to provide for or even to conceive *other* sounds, unknown to the **phoneticians** of Sanskrit". Where foreign borrowings and internal developments did inevitably accrue and arise in New Indo-Aryan languages, they have been ignored in writing, or dealt through means such as **diacritics** and **ligatures** (ignored in recitation).
- The most prolific diacritic has been the **subscript dot** (*nuqṭā*) ृ. **Hindi** uses it for the **Persian**, **Arabic** and English sounds क *qa* [q], ख *xa* [x], ग *ga* [ɣ], ज *za* [z], छ *zha* [ʒ], and फ *fa* [f], and for the **allophonic** developments ङ *ra* [r̥] and ढ *rha* [r̥ʰ]. (Although ञ *rha* [r̥ʰ] could also exist, it is not used in Hindi.)
- **Sindhi**'s and **Saraiki**'s **implosives** are accommodated with a line attached below: ॠ [ᱠ], ॡ [ᱡ], ॢ [ᱢ], ॣ [ᱣ].
- **Aspirated sonorants** may be represented as conjuncts/ligatures with ह *ha*: ढ्ह *mha*, ढ्ह *nha*, ढ्ह *rha*, ढ्ह *vha*, ढ्ह *lha*, ढ्ह *lha*, ढ्ह *lha*, ढ्ह *rha*.
- **Masica (1991:147)** notes **Marwari** as using ढ for *ᱛ* [ᱛ] (while ढ represents [ᱛ]).

For a list of the 297 (33×9) possible Sanskrit consonant-(short) vowel **syllables** see **Āryabhata numeration**.

## Vowel diacritics[[edit](#)]

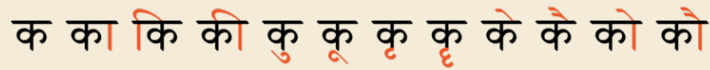


Table: Consonants with vowel diacritics. Vowels in their independent form on the left and in their corresponding dependent form (vowel sign) combined with the consonant 'k' on the right. 'ka' is without any added vowel sign, where the vowel 'a' is [inherent](#). [ISO 15919](#)<sup>[49]</sup> transliteration is on the top two rows.

ISO	a	ā	æ	ɒ	i	ī	u	ū	e	ē	ai	o	ō	au	ɾ	ṛ	ɽ	ṭ	Ṣ																			
	a	ka	ā	kā	æ	kæ	ɒ	kɒ	i	ki	ī	kī	u	ku	ū	kū	e	ke	ē	kē	ai	kai	o	ko	ō	kō	au	kau	ɾ	kr̥	ṛ	kṛ̥	ɽ	kɽ̥	ṭ	kṭ̥	Ṣ	
Devanagari	अ	क	आ	का	अ	क	ऑ	कऑ	इ	कि	ई	की	उ	कु	ऊ	कु	ए	के	ऀ	कऀ	ऐ	कै	ओ	को	औ	कौ	ऋ	कृ	ॠ	कॠ	ऌ	कौ	ॡ	कॡ	ऋ	कॠ	ॠ	कॠ

A vowel combines with a consonant in their diacritic form. For example, the vowel आ (*ā*) combines with the consonant क् (*k*) to form the syllabic letter का (*kā*), with halant removed and added vowel sign which is indicated by [diacritics](#). The vowel अ (*a*) combines with the consonant क् (*k*) to form क (*ka*) with halant removed. But, the diacritic series of क, ख, ग ... (*ka, kha, ga, gha*) is without any added vowel sign, as the vowel अ (*a*) is [inherent](#).

## Conjunct consonants[[edit](#)]



The *Jñanesvari* is a commentary on the [Bhagavad Gita](#), dated to 1290 CE. It is in Devanagari script, Marathi language.

As mentioned, successive consonants lacking a vowel in between them may physically join together as a [conjunct consonant](#) or [ligature](#). When Devanagari is used for writing languages other than Sanskrit, conjuncts are used mostly with Sanskrit words and loan words. Native words typically use the basic consonant and native speakers know to suppress the vowel when it is conventional to do so. For example, the native Hindi word *karnā* is written कर्ना (*ka-ra-nā*).<sup>[50]</sup> The government of these clusters ranges from widely to narrowly applicable rules, with special exceptions within. While standardised for the most part, there are certain variations in clustering, of which the [Unicode](#) used on this page is just one scheme. The following are a number of rules:

- 24 out of the 36 consonants contain a vertical right stroke (ख *kha*, घ *gha*, ण *ṇa* etc.). As first or middle fragments/members of a cluster, they lose that stroke. e.g. त + व = त्व *tva*, ण + ढ = ण्ढ *ṇḍha*, स + थ = स्थ *stha*. In Unicode, these consonants without their vertical stems are called half forms.<sup>[51]</sup> श *ś(a)* appears as a different, simple ribbon-shaped fragment preceding *v va*, न *na*, च *ca*, ल *la*, and र *ra*, causing these second members to be shifted down and reduced in size. Thus श्व *śva*, खन *śna*, श्य *śca* न्न *śla*, and श्र *śra*.
- र *r(a)* as a first member takes the form of a curved upward dash above the final character or its ā-diacritic. e.g. र्व *rva*, र्वā *rvā*, र्ष *rspa*, र्षā *rpā*. As a final member with क *ka* ङ *ṅa* द *da* ड *ḍa* ध *dha* ङ *ṅa* च *cha* it is two lines below the character, pointed downwards and apart. Thus ट्ट *tra* ठ्ठ *ṭhra* ड्ड *ḍra* ङ्ग *ṅra* च्छ *cchra*. Elsewhere as a final member it is a diagonal stroke extending leftwards and down. e.g. क्रय भ्रज्ज. त *ta* is shifted up to make यत्र *yatra*.
- As first members, remaining characters lacking vertical strokes such as द *d(a)* and ह *h(a)* may have their second member, reduced in size and lacking its horizontal stroke, placed underneath. क *k(a)*, छ *ch(a)*, and फ *ph(a)* shorten their right hooks and join them directly to the following member.
- The conjuncts for *kṣ* and *jñ* are not clearly derived from the letters making up their components. The conjunct for *kṣ* is क्ष (क् + ष) and for *jñ* it is ज्ञ (ज्ञ + ञ).

## Accent marks[[edit](#)]

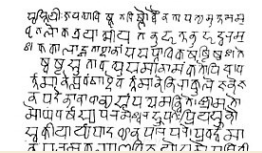
The [pitch accent](#) of [Vedic Sanskrit](#) is written with various symbols depending on [shakha](#). In the [Rigveda](#), *anudāta* is written with a bar below the line (◡), *svarita* with a stroke above the line (◌́) while *udāta* is unmarked.

Punctuation[[edit](#)]

The end of a sentence or half-verse may be marked with the "I" symbol (called a *danḍa*, meaning "bar", or called a *pūrṇa virām*, meaning "full stop/pause"). The end of a full verse may be marked with a double-*danḍa*, a "II" symbol. A comma (called an *alpa virām*, meaning "short stop/pause") is used to denote a natural pause in speech.<sup>[52][53]</sup> Other punctuation marks such as colon, semi-colon, exclamation mark, dash, and question mark are currently in use in Devanagari script, matching their use in European languages.<sup>[54]</sup>

Old forms[[edit](#)]

A few palm leaves from the Buddhist Sanskrit text *Shisyalekha* composed in 5th-century by Candragomin. *Shisyalekha* was written in Devanagari script by a Nepalese scribe in 1084 CE (above). The manuscript is in the Cambridge University library.<sup>[55]</sup>



A mid 10th-century college land grant in Devanagari inscription (Sanskrit) discovered on a buried, damaged stone in north Karnataka. Parts of the inscription are in Canarese script.<sup>[56]</sup>

The following letter variants are also in use, particularly in older texts.<sup>[57]</sup>

Letter variants	
standard	ancient
अ	𑂄
झ	𑂛
ण	𑂔
ल	𑂔

Numerals<sup>[edit]</sup>

Devanagari digits									
०	१	२	३	४	५	६	७	८	९
0	1	2	3	4	5	6	7	8	9

Fonts<sup>[edit]</sup>

A variety of Unicode fonts are in use for Devanagari. These include Akshar,<sup>[58]</sup> Annapurna,<sup>[59]</sup> Arial,<sup>[60]</sup> CDAC-Gist Surekh,<sup>[61]</sup> CDAC-Gist Yogesh,<sup>[62]</sup> Chandas,<sup>[63]</sup> Gargi,<sup>[64]</sup> Gurumaa,<sup>[65]</sup> Jaipur,<sup>[66]</sup> Jana,<sup>[67]</sup> Kalimati,<sup>[68]</sup> Kanjirowa,<sup>[69]</sup> Lohit Devanagari, Mangal,<sup>[70]</sup> Raghu,<sup>[71]</sup> Sanskrit2003,<sup>[72]</sup> Santipur OT,<sup>[73]</sup> Siddhanta, and Thyaka.<sup>[74]</sup>

The form of Devanagari fonts vary with function. According to Harvard College for Sanskrit studies:<sup>[75]</sup>

[Uttara [companion to [Chandas](#)] is the best in terms of ligatures but, because it is designed for Vedic as well, requires so much vertical space that it is not well suited for the "user interface font" (though an excellent choice for the "original field" font). Santipur OT is a beautiful font reflecting a very early [medieval era] typesetting style for Devanagari. Sanskrit 2003<sup>[75]</sup> is a good all-around font and has more ligatures than most fonts, though students will probably find the spacing of the CDAC-Gist Surekh<sup>[61]</sup> font makes for quicker comprehension and reading.

The Google Fonts project has a number of Unicode fonts for Devanagari in a variety of typefaces in serif, sans-serif, display and handwriting categories.

Transliteration<sup>[edit]</sup>

Bengali	ক + ি	→	কি
Devanagari	क + ि	→	कि
Gujarati	ક + િ	→	કિ
Gurmukhi	ਕ + ਿ	→	ਕਿ
Kannada	ಕ + ಿ	→	ಕಿ
Malayalam	ക + ി	→	കി
Oriya	କ + ି	→	କି
Tamil	க + ி	→	கி
Telugu	క + ి	→	కి

Indic scripts share common features, and along with Devanagari, all major Indic scripts have been historically used to preserve Vedic and post-Vedic Sanskrit texts.

There are several methods of [Romanisation](#) or [transliteration](#) from Devanagari to the [Roman script](#).<sup>[76]</sup>

Hunterian system<sup>[edit]</sup>

The [Hunterian system](#) is the "*national system of romanisation in India*" and the one officially adopted by the [Government of India](#).<sup>[77][78][79]</sup>

ISO 15919<sup>[edit]</sup>

A standard transliteration convention was codified in the ISO 15919 standard of 2001. It uses diacritics to map the much larger set of Brahmic graphemes to the Latin script. The Devanagari-specific portion is nearly identical to the academic standard for Sanskrit,<sup>[80]</sup>

IAST<sup>[edit]</sup>

The [International Alphabet of Sanskrit Transliteration](#) (IAST) is the academic standard for the romanisation of Sanskrit. IAST is the de facto standard used in printed publications, like books, magazines, and electronic texts with Unicode fonts. It is based on a standard established by the *Congress of Orientalists* at [Athens](#) in 1912. The ISO 15919 standard of 2001 codified the transliteration convention to include an expanded standard for sister scripts of Devanagari.<sup>[80]</sup>

The [National Library at Kolkata romanisation](#), intended for the romanisation of all Indic scripts, is an extension of IAST.

Harvard-Kyoto[edit]

Compared to IAST, [Harvard-Kyoto](#) looks much simpler. It does not contain all the diacritic marks that IAST contains. It was designed to simplify the task of putting large amount of Sanskrit textual material into machine readable form, and the inventors stated that it reduces the effort needed in transliteration of Sanskrit texts on the keyboard.<sup>[81]</sup> This makes typing in Harvard-Kyoto much easier than IAST. Harvard-Kyoto uses [capital letters](#) that can be difficult to read in the middle of words.

ITRANS[edit]

[ITRANS](#) is a lossless transliteration scheme of Devanagari into [ASCII](#) that is widely used on [Usenet](#). It is an extension of the [Harvard-Kyoto](#) scheme. In ITRANS, the word *devanāgarī* is written "devanaagarii" or "devanAgari". ITRANS is associated with an application of the same name that enables typesetting in [Indic scripts](#). The user inputs in Roman letters and the ITRANS pre-processor translates the Roman letters into Devanagari (or other Indic languages). The latest version of [ITRANS](#) is version 5.30 released in July, 2001. It is similar to Velthuis system and was created by Avinash Chopde to help print various Indic scripts with personal computers.<sup>[81]</sup>

Velthuis[edit]

The disadvantage of the above [ASCII](#) schemes is case-sensitivity, implying that transliterated names may not be capitalised. This difficulty is avoided with the system developed in 1996 by Frans Velthuis for [TeX](#), loosely based on IAST, in which case is irrelevant.

ALA-LC Romanisation[edit]

ALA-LC<sup>[82]</sup> romanisation is a transliteration scheme approved by the Library of Congress and the American Library Association, and widely used in North American libraries. Transliteration tables are based on languages, so there is a table for Hindi,<sup>[83]</sup> one for Sanskrit and Prakrit,<sup>[84]</sup> etc.

WX[edit]

WX is a Roman transliteration scheme for Indian languages, widely used among the [natural language processing](#) community in India. It originated at [IIT Kanpur](#) for computational processing of Indian languages. The salient features of this transliteration scheme are as follows.

- Every consonant and every vowel has a single mapping into Roman. Hence it is a [prefix code](#), advantageous from computation point of view.
- Lower-case letters are used for unaspirated consonants and short vowels, while capital letters are used for aspirated consonants and long vowels. While the retroflex stops are mapped to 't, T, d, D, N', the dentals are mapped to 'w, W, x, X, n'. Hence the name 'WX', a reminder of this idiosyncratic mapping.

Encodings[edit]

ISCII[edit]

[ISCII](#) is an 8-bit encoding. The lower 128 codepoints are plain [ASCII](#), the upper 128 codepoints are ISCII-specific.

It has been designed for representing not only Devanagari but also various other [Indic scripts](#) as well as a Latin-based script with diacritic marks used for transliteration of the Indic scripts.

ISCII has largely been superseded by Unicode, which has, however, attempted to preserve the ISCII layout for its Indic language blocks.

Unicode[edit]

The Unicode Standard defines three blocks for Devanagari: Devanagari (U+0900–U+097F), Devanagari Extended (U+A8E0–U+A8FF), and Vedic Extensions (U+1CD0–U+1CFF).

<div>Devanagari<sup>[1]</sup></div> <div>Official Unicode Consortium code chart (PDF)</div>															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E
U+090x	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ
U+091x	ऐ	ऑ	ओ	औ	क	ख	ग	घ	ङ	च	छ	ज	झ	ञ	ट
U+092x	ठ	ड	ढ	ण	त	थ	द	ध	न	न्	प	फ	ब	भ	म
U+093x	२	३	४	५	६	७	८	९	०	१	२	३	४	५	६
U+094x	७	८	९	०	१	२	३	४	५	६	७	८	९	०	१
U+095x	३	४	५	६	७	८	९	०	१	२	३	४	५	६	७
U+096x	८	९	०	१	२	३	४	५	६	७	८	९	०	१	२
U+097x	३	४	५	६	७	८	९	०	१	२	३	४	५	६	७
<div>Notes</div> <div>1. <sup>^</sup> As of Unicode version 13.0</div>															
<div>Devanagari Extended<sup>[1]</sup></div> <div>Official Unicode Consortium code chart (PDF)</div>															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E
U+A8Ex	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ
U+A8Fx	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ	ॐ



Notes															
1. <sup>^</sup> As of Unicode version 13.0															
<div> <div>Vedic Extensions<sup>[1][2]</sup></div> <div>Official Unicode Consortium code chart (PDF)</div> </div>															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E F
U+1CDx	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>
U+1CEx	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>
U+1CFx	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	x	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>	<span> </span>
Notes															
1. <sup>^</sup> As of Unicode version 13.0															
2. <sup>^</sup> Grey areas indicate non-assigned code points															

Devanagari keyboard layouts[edit]

InScript layout[edit]

**InScript** is the standard **keyboard** layout for Devanagari as standardized by the Government of India. It is inbuilt in all modern major **operating systems**. **Microsoft Windows** supports the InScript layout (using the Mangal font), which can be used to input unicode Devanagari characters. InScript is also available in some touchscreen mobile phones.



Devanagari INSCRIPT bilingual keyboard layout

Typewriter[edit]

This layout was used on manual typewriters when computers were not available or were uncommon. For backward compatibility some typing tools like Indic IME still provide this layout.

Phonetic[edit]



Devanagari Phonetic Keyboard Layout

One can use **ULS** "अक्षरंतरण" (**Transliteration**) or "मराठी लिपी" (**Inscript**) typing options to search or edit **Marathi Wikipedia** articles as shown in this video clip; One can click on the 'cc' to change the subtitle languages to Marathi, English, Sanskrit, Konkani, Ahirani languages.

Such tools work on phonetic transliteration. The user writes in Roman and the **IME** automatically converts it into Devanagari. Some popular phonetic typing tools are AkruTi, **Baraha** IME and **Google IME**.

The **Mac OS X** operating system includes two different **keyboard layouts** for Devanagari: one is much like INSCRIPT/KDE Linux, the other is a phonetic layout called "Devanagari QWERTY".

Any one of Unicode fonts input system is fine for Indic language Wikipedia and other wikiprojects, including Hindi, Bhojpuri, Marathi, Nepali Wikipedia. Some people use **inscript**. Majority uses either **Google phonetic transliteration** or input facility **Universal Language Selector** provided on Wikipedia. On Indic language wikiprojects Phonetic facility provided initially was java-based later supported by Narayam extension for phonetic input facility. Currently Indic language Wiki projects are supported by **Universal Language Selector (ULS)**, that offers both phonetic keyboard (Aksharantaran, Marathi: अक्षरंतरण, Hindi: लिप्यंतरण, बोलनागरी) and **InScript keyboard** (Marathi: मराठी लिपी).

The **Ubuntu Linux** operating system supports several **keyboard layouts** for Devanagari, including Harvard-Kyoto, **WX notation**, Bolanagari and phonetic. The 'remington' typing method in Ubuntu IBUS is similar to the Krutidev typing method, popular in Rajasthan. The 'itrans' method is useful for those who know English well (and the English keyboard) but not familiar with typing in Devanagari.

See also[edit]

References[edit]

Citations[edit]

1. <sup>^</sup> **Jump up to:** <sup>a</sup> <sup>b</sup> <sup>c</sup> <sup>d</sup> *Gazetteer of the Bombay Presidency* at **Google Books**, Rudradaman's inscription from 1st through 4th century CE found in Gujarat, India, Stanford University Archives, pages 30–45, particularly Devanagari inscription on Jayadaman's coins pages 33–34

2. <sup>^</sup> **Jump up to:** <sup>a</sup> <sup>b</sup> Isaac Taylor (1883), *History of the Alphabet: Aryan Alphabets, Part 2*, Kegan Paul, Trench & Co, p. 333,



- [ISBN 978-0-7661-5847-4](#), "... In the Kutila this develops into a short horizontal bar, which, in the Devanagari, becomes a continuous horizontal line ... three cardinal inscriptions of this epoch, namely, the Kutila or Bareli inscription of 992, the [Chalukya](#) or Kistna inscription of 945, and a Kawi inscription of 919 ... the Kutila inscription is of great importance in Indian epigraphy, not only from its precise date, but from its offering a definite early form of the standard Indian alphabet, the Devanagari ..."
3. <sup>^</sup> [Salomon, Richard \(1998\). Indian epigraphy: a guide to the study of inscriptions in Sanskrit, Prakrit, and the other Indo-Aryan languages. South Asia research. Oxford: Oxford University Press. pp. 39–41. \[ISBN 978-0-19-509984-3\]\(#\).](#)
  4. <sup>^</sup> [Jump up to: <sup>a</sup> <sup>b</sup> <sup>c</sup> <sup>d</sup>](#) Kathleen Kuiper (2010), The Culture of India, New York: The Rosen Publishing Group, [ISBN 978-1615301492](#), page 83
  5. <sup>^</sup> [Jump up to: <sup>a</sup> <sup>b</sup> <sup>c</sup>](#) Danesh Jain; George Cardona (26 July 2007). [The Indo-Aryan Languages](#). Routledge. p. 115. [ISBN 978-1-135-79710-2](#). "Nagari has a strong preference for symmetrical shapes, especially squared outlines and right angles [7 lines above the character grid]"
  6. <sup>^</sup> [Jump up to: <sup>a</sup> <sup>b</sup> <sup>c</sup>](#) Richard Salomon (2014), Indian Epigraphy, Oxford University Press, [ISBN 978-0195356663](#), pages 40–42
  7. <sup>^</sup> [David Templin. "Devanagari script". omniglot.com. Retrieved 5 April 2015.](#)
  8. <sup>^</sup> [Jump up to: <sup>a</sup> <sup>b</sup> <sup>c</sup> <sup>d</sup>](#) [Devanagari \(Nagari\)](#), Script Features and Description, [SIL International](#) (2013), United States
  9. <sup>^</sup> [Jump up to: <sup>a</sup> <sup>b</sup> <sup>c</sup>](#) George Cardona and Danesh Jain (2003), The Indo-Aryan Languages, Routledge, [ISBN 978-0415772945](#), pages 75–77
  10. <sup>^</sup> Akira Nakanishi, Writing systems of the World, [ISBN 978-0804816540](#), page 48
  11. <sup>^</sup> [Hindi](#), Omniglot Encyclopedia of Writing Systems and Languages
  12. <sup>^</sup> [Snell, Rupert. \(1991\). The Hindi classical tradition : a Braj Bhāṣā reader. London: School of Oriental and African studies. \[ISBN 0-7286-0175-3\]\(#\). \[OCLC 24794163\]\(#\).](#)
  13. <sup>^</sup> George Cardona and Danesh Jain (2003), The Indo-Aryan Languages, Routledge, [ISBN 978-0415772945](#), page 75
  14. <sup>^</sup> Reinhold Grünendahl (2001), South Indian Scripts in Sanskrit Manuscripts and Prints, Otto Harrassowitz Verlag, [ISBN 978-3447045049](#), pages xxii, 201–210
  15. <sup>^</sup> Monier Monier-Williams, A Sanskrit-English Dictionary" Etymologically and Philologically Arranged to cognate Indo-European Languages, Motilal Banarsidass, page 492
  16. <sup>^</sup> Monier Williams Online Dictionary, [nagara](#), Cologne Sanskrit Digital Lexicon, Germany
  17. <sup>^</sup> [Jump up to: <sup>a</sup> <sup>b</sup> <sup>c</sup> <sup>d</sup>](#) Steven Roger Fischer (2004), [A history of writing](#), Reaktion Books, [ISBN 978-1-86189-167-9](#), "(p. 110) "... an early branch of this, as of the fourth century CE, was the Gupta script, Brahmi's first main daughter. [...] The Gupta alphabet became the ancestor of most Indic scripts (usually through later Devanagari). [...] Beginning around AD 600, Gupta inspired the important Nagari, Sarada, Tibetan and Pāli scripts. Nagari, of India's northwest, first appeared around AD 633. Once fully developed in the eleventh century, Nagari had become Devanagari, or "heavenly Nagari", since it was now the main vehicle, out of several, for Sanskrit literature.""
  18. <sup>^</sup> George Cardona and Danesh Jain (2003), The Indo-Aryan Languages, Routledge, [ISBN 978-0415772945](#), pages 68–69
  19. <sup>^</sup> Krishna Chandra Sagar (1993), Foreign Influence on Ancient India, South Asia Books, [ISBN 978-8172110284](#), page 137
  20. <sup>^</sup> Richard Salomon (2014), Indian Epigraphy, Oxford University Press, [ISBN 978-0195356663](#), page 71
  21. <sup>^</sup> Michael Willis (2001), Inscriptions from Udayagiri: locating domains of devotion, patronage and power in the eleventh century, South Asian Studies, 17(1), pages 41–53
  22. <sup>^</sup> [Brick with Sanskrit inscription in Nagari script](#), 1217 CE, found in Uttar Pradesh, India (British Museum)
  23. <sup>^</sup> Wayan Ardiika (2009), Form, Macht, Differenz: Motive und Felder ethnologischen Forschens (Editors: Elfriede Hermann et al.), Universitätsverlag Göttingen, [ISBN 978-3940344809](#), pages 251–252; Quote: "Nagari script and Sanskrit language in the inscription at Blangjong suggests that Indian culture was already influencing Bali (Indonesia) by the 10th century CE."
  24. <sup>^</sup> [Michael Witzel](#) (2006), in Between the Empires : Society in India 300 BCE to 400 CE (Editor: [Patrick Olivelle](#)), Oxford University Press, [ISBN 978-0195305326](#), pages 477–480 with footnote 60; Original manuscript, dates in Saka Samvat, and uncertainties associated with it: [Mahabhasya of Patanjali](#), F Kielhorn
  25. <sup>^</sup> [Evolutionary chart](#), Journal of the Asiatic Society of Bengal Vol 7, 1838 <sup>[1]</sup>
  26. <sup>^</sup> William Woodville Rockhill, [Annual Report of the Board of Regents of the Smithsonian Institution](#), p. 671, at [Google Books](#), United States National Museum, page 671
  27. <sup>^</sup> David Quinter (2015), From Outcasts to Emperors: Shingon Ritsu and the Mañjuśrī Cult in Medieval Japan, Brill, [ISBN 978-9004293397](#), pages 63–65 with discussion on [Uṣṇīṣa Vijaya Dhāraṇī Sūtra](#)
  28. <sup>^</sup> Richard Salomon (2014), Indian Epigraphy, Oxford University Press, [ISBN 978-0195356663](#), pages 157–160
  29. <sup>^</sup> Avenir S. Teselkin (1972). [Old Javanese \(Kawi\)](#). Cornell University Press. pp. 9–14.
  30. <sup>^</sup> J. G. de Casparis (1975). [Indonesian Palaeography: A History of Writing in Indonesia from the Beginnings to c. AD 1500](#). BRILL Academic. pp. 35–43. [ISBN 90-04-04172-9](#).
  31. <sup>^</sup> Mary S. Zurbuchen (1976). [Introduction to Old Javanese Language and Literature: A Kawi Prose Anthology](#). Center for South and Southeast Asian Studies, University of Michigan. pp. xi–xii. [ISBN 978-0-89148-053-2](#).
  32. <sup>^</sup> Briggs, Lawrence Palmer (1950). "The Origin of the Sailendra Dynasty: Present Status of the Question". *Journal of the American Oriental Society*. JSTOR. **70** (2): 79–81. [doi:10.2307/595536](#). [ISSN 0003-0279](#). [JSTOR 595536](#).
  33. <sup>^</sup> John Norman Miksic; Goh Geok Yian (2016). [Ancient Southeast Asia](#). Taylor & Francis. pp. 177–179, 314–322. [ISBN 978-1-317-27904-4](#).
  34. <sup>^</sup> [Salomon \(2003:71\)](#)
  35. <sup>^</sup> [Jump up to: <sup>a</sup> <sup>b</sup>](#) [Salomon \(2003:75\)](#)
  36. <sup>^</sup> [Wikner \(1996:13, 14\)](#)
  37. <sup>^</sup> [Wikner \(1996:6\)](#)

- 10 sur 11 16/03/2020 à 18:46

81. <sup>^</sup>  Jump up to: <sup>a</sup> <sup>b</sup> Transliteration of Devanāgarī D. Wujastyk (1996)
82. <sup>^</sup>  "LOC.gov". LOC.gov. Retrieved 13 June 2011.
83. <sup>^</sup>  "0001.eps" (PDF). Retrieved 13 June 2011.
84. <sup>^</sup>  "LOC.gov" (PDF). Retrieved 13 June 2011.

#### General sources[edit]

- Masica, Colin (1991), *The Indo-Aryan Languages*, Cambridge: Cambridge University Press, ISBN 978-0-521-29944-2.
- Snell, Rupert (2000), *Teach Yourself Beginner's Hindi Script*, Hodder & Stoughton, ISBN 978-0-07-141984-0.
- Salomon, Richard (2003), "Writing Systems of the Indo-Aryan Languages", in Cardona, George; Jain, Dhanesh (eds.), *The Indo-Aryan Languages*, Routledge, pp. 67–103, ISBN 978-0-415-77294-5.
- Verma, Sheela (2003), "Magahi", in Cardona, George; Jain, Dhanesh (eds.), *The Indo-Aryan Languages*, Routledge, pp. 498–514, ISBN 978-0-415-77294-5.
- Wikner, Charles (1996), *A Practical Sanskrit Introductory*.

#### Census and catalogues of manuscripts in Devanagari[edit]

Thousands of manuscripts of ancient and medieval era Sanskrit texts in Devanagari have been discovered since the 19th century. Major catalogues and census include:

- A Catalogue of Sanskrit Manuscripts in Private Libraries* at  Google Books, Medical Hall Press, Princeton University Archive
- A Descriptive Catalogue of the Sanskrit Manuscripts* at  Google Books, Vol 1: Upanishads, Friedrich Otto Schrader (Compiler), University of Michigan Library Archives
- A preliminary list of the Sanskrit and Prakrit manuscripts*, Vedas, Sastras, Sutras, Schools of Hindu Philosophies, Arts, Design, Music and other fields, Friedrich Otto Schrader (Compiler), (Devanagiri manuscripts are identified by Character code **De**.)
- Catalogue of the Sanskrit Manuscripts*, Part 1: Vedic Manuscripts, Harvard University Archives (mostly Devanagari)
- Catalogue of the Sanskrit Manuscripts*, Part 4: Manuscripts of Hindu schools of Philosophy and Tantra, Harvard University Archives (mostly Devanagari)
- Catalogue of the Sanskrit Manuscripts*, Part 5: Manuscripts of Medicine, Astronomy and Mathematics, Architecture and Technical Science Literature, Julius Eggeling (Compiler), Harvard University Archives (mostly Devanagari)
- Catalogue of the Sanskrit Manuscripts* at  Google Books, Part 6: Poetic, Epic and Purana Literature, Harvard University Archives (mostly Devanagari)
- David Pingree (1970–1981), Census of the Exact Sciences in Sanskrit: Volumes 1 through 5,  American Philosophical Society, Manuscripts in various Indic scripts including Devanagari

#### External links[edit]

- Devnagari Unicode Legacy Font Converters
- Digital Nagari fonts, University of Chicago
- Devanagari in different fonts, Wazu, Japan (Alternate collection:  Luc Devroye's comprehensive Indic Fonts, McGill University)
- Gazetteer of the Bombay Presidency*, p. 30, at  Google Books, Rudradaman's inscription in Sanskrit Nagari script from 1st through 4th century CE (coins and epigraphy), found in Gujarat, India, pages 30–45
- Numerals and Text in Devanagari*, 9th century temple in Gwalior Madhya Pradesh, India, Current Science
- Maurer, Walter H. (1976). "On the Name Devanāgarī". *Journal of the American Oriental Society*. **96** (1): 101–104. doi:10.2307/599893. JSTOR 599893.