

Please fill all the sections A, B and C below. Please read Principles and Procedures Document (P & P) from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.
Please ensure you are using the latest Form from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.
See also <http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

A. Administrative

1. Title: **Proposal to Encode the Kaithi Script in Plane 1 of ISO/IEC 10646**
2. Requester's name: **Anshuman Pandey (apandey@u.washington.edu)**
3. Requester type (Member Body/Liason/Individual contribution): **Individual contribution**
4. Submission date: **October 25, 2005**
5. Requester's reference (if applicable): **N/A**
6. Choose one of the following:
 - (a) This is a complete proposal: **Yes**
 - (b) or, More information will be provided later: **No**

B. Technical - General

1. Choose one of the following:
 - (a) This proposal is for a new script (set of characters): **Yes**
 - i. Proposed name of script: **Kaithi**
 - (b) The proposal is for addition of character(s) to an existing block: **No**
 - i. Name of the existing block: **N/A**
2. Number of characters in proposal: **85**
3. Proposed category: **C - Major extinct**
4. Proposed Level of implementation (1, 2 or 3): **Level 2**
 - (a) Is a rationale provided for the choice?: **Yes**
 - i. If Yes, reference: **Indic (Brahmic) script with vowel signs**
5. Is a repertoire including character names provided?: **Yes**
 - (a) If Yes, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?: **Yes**
 - (b) Are the character shapes attached in a legible form suitable for review?: **Yes**
6. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?: **Anshuman Pandey; True Type**
 - (a) If available now, identify source(s) for the font and indicate the tools used: **Not yet available**
7. References:
 - (a) Are references (to other character sets, dictionaries, descriptive texts etc.) provided?: **Yes**
 - (b) Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?: **Yes**
8. Special encoding issues:
 - (a) Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? **Yes; see text of the proposal.**
9. Additional Information: Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see <http://www.unicode.org/Public/UNIDATA/UCD.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

Character properties, numeric information, and currency information are included.

¹Form number: N2652-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?: **No**
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)? **Yes**
 - (a) If Yes, with whom?: **Scholars**
 - i. If Yes, available relevant documents: **N/A**
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? **Yes**
 - (a) Reference: **Avadhi, Bhojpuri, Magahi, and Maithili speakers; as well as linguists, historians, legal scholars working with sources from the colonial South Asia.**
4. The context of use for the proposed characters (type of use; common or rare): **Common**
 - (a) Reference: **Court records from colonial South Asia, didactic and pedagogical materials from north India, bibles printed in north India during the 19th and early 20th century. Also, please see the text of proposal for further information.**
5. Are the proposed characters in current use by the user community?: **Yes, by scholars working in fields enumerated above**
 - (a) If Yes, where? Reference: **In India, the United States, and other localities.**
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?: **No**
 - (a) If Yes, is a rationale provided?: **N/A**
 - i. If Yes, reference: **N/A**
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? **Yes**
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? **No**
 - (a) If Yes, is a rationale for its inclusion provided?: **N/A**
 - i. If Yes, reference: **N/A**
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? **No**
 - (a) If Yes, is a rationale provided?: **N/A**
 - i. If Yes, reference: **N/A**
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character? **Yes**
 - (a) If Yes, is a rationale for its inclusion provided? **Yes**
 - i. If Yes, reference: **See text of proposal**
11. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)? **Yes**
 - (a) If Yes, is a rationale for such use provided? **Yes**
 - i. If Yes, reference: **See text of proposal**
 - (b) Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided? **Yes**
 - i. If Yes, reference: **See text of proposal**
12. Does the proposal contain characters with any special properties such as control function or similar semantics? **Yes**
 - (a) If Yes, describe in detail (include attachment if necessary): **Virama**
13. Does the proposal contain any Ideographic compatibility character(s)? **No**
 - (a) If Yes, is the equivalent corresponding unified ideographic character(s) identified? **N/A**
 - i. If Yes, reference: **N/A**

Proposal to Encode the Kaithi Script in Plane 1 of ISO/IEC 10646

Anshuman Pandey

October 25, 2005

Contents

1	Proposal for the Kaithi Script	4
2	Overview of the Kaithi Script	4
2.1	Languages Written in Kaithi	4
2.2	Styles of Kaithi	5
2.3	Classification of Kaithi for Unicode	6
3	Relationship of Kaithi to Other Scripts	6
4	Usage and Status of Kaithi	7
5	The Kaithi Script	9
5.1	Collating Order	9
5.2	Consonant conjuncts	11
5.3	Digits	12
5.4	Punctuation	12
5.4.1	Danda	12
5.4.2	Hyphenation	12
5.4.3	Abbreviation	13
5.4.4	Word and Sentence Separators	13
5.5	Fractions	13
5.6	Currency	14
5.7	Head-line	14
6	Glyph Chart	16
7	Character Names and Properties	17
8	Kaithi Specimens	19
9	Bibliography	36

I Proposal for the Kaithi Script

This is a proposal to encode the Kaithi script in the Supplementary Multilingual Plane (Plane 1) of the Universal Character Set (Unicode). The intention is to provide a standard method of writing Kaithi, as well as a means for the digital storage of Kaithi documents. A standard encoding for Kaithi is necessary for historians, linguists, and legal scholars working with Kaithi manuscripts and materials in the Avadhi, Bhojpuri, Magahi, and Maithili languages of north India.

The letters in this proposal comprise the core set of Kaithi letters. There are 85 characters in this proposal. Included in this set are fractions and a currency symbol. Symbols used for the notation of weights and measures have been excluded due to insufficient information. As additional details regarding the notation of weights and measures are identified, they will be submitted for formal review and inclusion within the Kaithi set. The letters in this proposal are sufficient for the encoding and processing of Kaithi documents.

The Kaithi script is identified in the Unicode Roadmap as part of the Supplementary Multilingual Plane (Plane 1) and is tentatively assigned to the range U+11600-1167F. This proposal will use the code-point values within the proposed range for reference to Kaithi letters.

The transliteration of Kaithi letters in this proposal follows the convention recommended in the ISO 15919 standard for the *Transliteration of Devanagari and other Indic scripts into Roman*.

The Kaithi typeface used throughout this proposal was drawn by the author of this proposal, Anshuman Pandey. The letters in the typeface are normalized forms of Kaithi letters as found in specimens printed with lead fonts as well as those that are penned by hand.

2 Overview of the Kaithi Script

The Kaithi script was widely used in north India, particularly in the former North-Western Provinces & Oudh (present-day Uttar Pradesh) and Bihar from at least the 18th century through the early 20th century. The name of the script is derived from the Sanskrit *kāyastha*, which is the name of the scribal caste in north India. Thus, *kāyasthī*, meaning “of the scribes”, or colloquially, *kāyathī*, or simply, *kaithī*.

Kaithi is a major historic script in which substantial collections of legal records, administrative accounts, census schedules, folk texts, pedagogical materials, and private letters were written and printed. Kaithi was recognized as a distinct script by the British colonial authority. In the 1880s, it was established as the official script of the law courts of Bihar. Kaithi was primarily a written script, but it entered the world of print for a brief period. The government of Bihar developed metal types for Kaithi for the printing of administrative records and for educational primers. Missionaries also developed Kaithi types for the printing of bibles.

Kaithi was the popular script of north India until well the second decade of the 20th century. The popularity of Kaithi placed it into competition with other scripts, such as Devanagari and Perso-Arabic. Its demise may be attributed to political conditions, in which Kaithi was replaced by Devanagari as the preferred script for official and literary production.

2.1 Languages Written in Kaithi

Kaithi was the traditional script for the Avadhi, Bhojpuri, and Magadhi languages, and was employed as the popular script for Maithili. At present these languages are written primarily in the Devanagari script, but “in earlier periods, varieties of Hindi were written in Kaithi and other regional scripts” (Shapiro 2003: 256).

KAITHĪ OR KĀYATHĪ ALPHABET.											
VOWELS.											
अ	a	आ	ā	इ	i	ई	ī	उ	u	ऊ	ū.
ए	ē	ऐ	ai	ओ	ō	औ	au	अं	am	अः	ah.
CONSONANTS.											
<i>Gutturals.</i>	क	ka	ख	kha	ग	ga	घ	gha			
<i>Palatals.</i>	च	cha	छ	chha	ज	ja	झ	jha			
<i>Cerebrals.</i>	ट	ṭa	ठ	ṭha	ड	ḍa	ढ	ḍha			
<i>Dentals.</i>	त	ta	थ	tha	द	da	ध	dha	न	na	
<i>Labials.</i>	प	pa	फ	ph	ब	ba	भ	bha	म	ma	
<i>Semi-Vowels.</i>	य	ya	र	ra	ल	la	व	va			
<i>Sibilants.</i>	श	śa	ष	ṣa	स	sa					
<i>Aspirate.</i>	ह	ha									

Figure 1: A table showing the characters of the Kaithi script (Grierson 1903: 12).

Avadhi is spoken by 20 million people in regions of Bihar, Madhya Pradesh, Uttar Pradesh, and Nepal. Avadhi was traditionally written in the Kaithi script. However, Devanagari has been adopted for formal use and Kaithi is reserved predominantly for informal communication (Saxena 1937: 20).

Bhojpuri is spoken by 24.5 million people in Bihar, Madhya Pradesh, Uttar Pradesh in India. Speakers are also found in Nepal and Mauritius. The script traditionally used in writing Bhojpuri is Kaithi. There is significant publication activity in Bhojpuri. However, Devanagari is used for literary and formal publications, while Kaithi is restricted to informal communication. (M. Verma 2003: 519).

Magahi is spoken by 13 million people in Bihar, Jharkhand, and West Bengal. Magahi is written typically in Kaithi and Devanagari. Kaithi, however, currently is used more for personal communications and in semi-legal transactions, whereas Devanagari is preferred for formal and literary media (S. Verma 2003: 501).

Maithili is spoken by 22 million people in Bihar and Nepal. It was recognized as an official language of India in 2004 and was added to Schedule VIII of the Constitution of India. Maithili is traditionally written in the Mithilākṣara, Kaithi, and Devanagari scripts. Brahmins used the Mithilākṣara (Maithili) script and non-Brahmins used Kaithi. Towards the turn of the twentieth century, Maithili began to be written in the Devanagari script (Yadav 2003: 484).

2.2 Styles of Kaithi

There are three identifiable styles of Kaithi: Bhojpuri, Maithili (Tirhuti), and Magahi (Magah). Grierson describes the Bhojpuri style as “the most legible;” the Maithili as “the most elegant;” and the Magah as “a mean between the two” (Grierson 1899: 4). Figure 7 compares the three regional forms of Kaithi. Excellent written specimens of these styles are provided in figure 24 (Maithili), 25 (Magahi), and Figure 26 (Bhojpuri).

The difference between the three styles may be ascribed primarily to swash attributes that are influenced by regional scribal traditions and in the variant forms of certain letters. Variant letters exist for *a* अ, *i* इ, *ka*

𑖀, *pha* 𑖁, and *la* 𑖂. The inclusion of these variants in the standard is unnecessary. Separate fonts may be produced for the regional styles and the respective variants.

2.3 Classification of Kaithi for Unicode

Specialists of regional north Indian languages provide reason to believe that Kaithi is still used for informal communication. While Kaithi may still be used in Bihar and Uttar Pradesh, it is difficult to determine the nature of such use. While information about the present use of Kaithi is inconclusive, there is sufficient information to assert that Kaithi had significant written and print traditions and a high volume of production. Therefore, this proposal identifies Kaithi as a “Category C” (major extinct) script instead of a “Category A” (contemporary) or a “Category B.1” (specialized) script.

3 Relationship of Kaithi to Other Scripts

Kaithi is related to other major north Indian scripts and is the source from which other scripts have been derived. Kaithi is most closely related to Devanagari and bears similarities to Gujarati, most notably in the shared absence of the head-line, as is already noted in *The Unicode Standard, 4.1.0* (The Unicode Consortium 2003: 236).

Kaithi is often considered a corruption or cursive form of Devanagari, however, the relationship is more appropriately characterized as one of parallel development rather than linear descent. Grierson stated that while Kaithi and Devanagari are related, Kaithi is not descended from Devanagari. Rather, “the two alphabets arose *pari passu*, from an older original still found existing in inscriptions and the like” (Grierson 1899: 3). The emergence of Kaithi and Devanagari from a common source explains the similarity between the scripts in terms of certain letter shapes, but the differences between the two scripts also highlights divergences in their development. The similarities between Kaithi owe more to reciprocal influences than to unidirectional influence.

Kaithi is derived from Brāhmī and falls, geographically, into the eastern group of scripts used for the New Indo-Aryan languages, which include Kaithi, Bangla, Oriya, Maithili, and other scripts of Bihar (Salomon 2003: 69). Chatterji confirms this assessment, writing that,

“the old Dēva-nāgarī style of the Indian alphabet which prevailed in Northern and Western India [which is the Gupta or ‘Proto-Nāgarī’ script] from the 7th century, namely, the «Kaithī» script, came to Magadha by way of the Bhōjpuriyā tract; and this Kaithī alphabet has held the ground till now. Kaithī because of its simplicity has spread to Mithilā as well, where only the Brāhmans and other upper classes keep up the old Maithilī character (Chatterji 1926: 225).

Regarding the relationship of Kaithi to Devanagari, Rudolph Hoernle wrote that

Though it has a general resemblance to the modern Devanāgarī, there are but few of its letters, which do not exhibit some points of difference; indeed, as will be seen by a reference to the table, all the vowels, and the consonants *kh*, *ch*, *jh*, *bh*, *d*, *dh* and *r* differ entirely in the two alphabets; and the horizontal top-line is omitted by the Kaithi in all letters alike. (Hoernle 1975: 1).

He continues, adding that

Four principal types of alphabet are used in North-India; the Kaithī, the Bangālī, the Oṛiā and the Gur-mukhī. The Kaithī is the most widely spread; it is used in writing not only in Eastern, but also, slightly modified, in Western Hindūstān, Marāṭhā and Gujarāt. In G. [Gujarati] and E.H. [Eastern Hindi] it is adopted also in print. [T]here are two sub-types much in use in the area occupied by the Kaithī, to which they are the most nearly related. There are the Nāgarī or Devanāgarī and the Mahājanī or Koṭhivāl. (Hoernle 1975: 2).

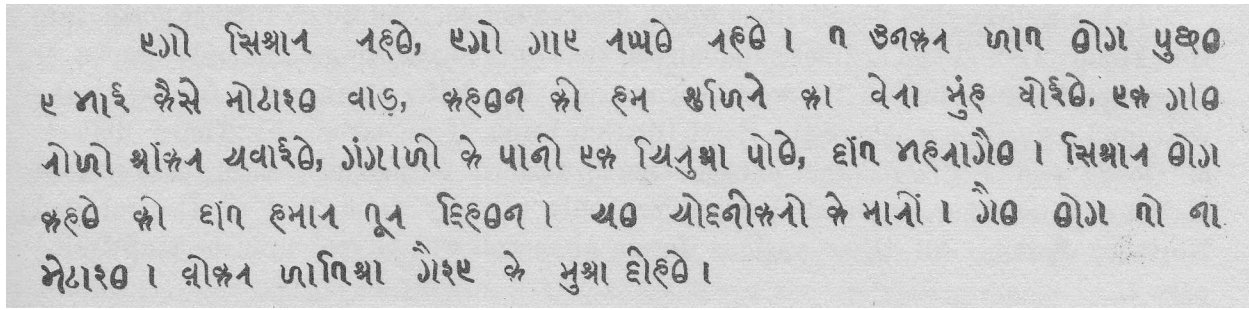


Figure 2: Kaithi type as shown in an excerpt from a Bhojpuri specimen in the *Linguistic Survey of India* (Grierson 1903: 223).

Samuel Kellogg writes that “besides the Devanāgarī, Hindī is written in three other alphabets, the *Kāyathī*, the *Mahājanī* or *Sarrāfī*, and the *Baniauṭī* (Kellogg 1893: 23). He states further that “both the *Mahājanī* and the *Baniauṭī* are derived directly from the *Kāyathī*. (Kellogg 1893: 23).

The Kaithi script is also related to the Syloti Nagri (Sylheti Nagari) script, which was recently encoded in Unicode. James Lloyd-Williams, the author of the Syloti Nagri proposal, states that Syloti Nagri is most closely related to the Magahi style of Kaithi, however the behavior of the Syloti Nagri script, as well as distinct letterforms and orthographic devices, justify its status as a distinct script, separate from Kaithi (Lloyd-Williams, et al. 2003: 6).

Figure 5.7 provides a comparison between the consonants and independent vowels of Kaithi, Gujarati, and Devanagari. The comparison indicates that while Kaithi and Gujarati have certain letterforms in common, there are letters which are unique to Kaithi.

4 Usage and Status of Kaithi

The popular status of Kaithi in north India resulted in the creation of large numbers of documents in the script. Large numbers of documents in Kaithi are extant. These documents are typically court reports completed in hand. Also, bibles, particularly the gospels, were printed in Kaithi by bible societies operating in colonial India..

The first font of Kaithi type was created by J.C. Nesfield, the Director of Public Instruction for Oudh, in 1875. Nesfield assembled samples of Kaithi writing from all of the districts of Oudh and devised a standard form of Kaithi. Nesfield’s font led to instruction in the Kaithi script in the vernacular schools of Oudh.

By 1881, textbooks in the standardized Kaithi script appeared in primary and middle vernacular schools and were initiated for the use in scribal examinations (King 1994: 65-66). Data on the number of primers and textbooks available in Kaithi is limited. Official records, such as the *Report on Indigenous Education and Vernacular Schools*, provide some statistics on the use of Kaithi in education. An edition of this report from 1854 shows that 77,368 primers were printed in the “Kāyasthī alphabet”, while 25,151 were printed in the “Nāgarī alphabet” in the North-Western Provinces & Oudh (Vedalankar 1969: 154). Schools in which the Kaithi script was the medium “outnumbered those in which the Nāgarī character was in use.” But the prevalence of Kaithi “in all but a few districts” of the North-western Provinces & Oudh probably motivated government officials “to introduce Nāgarī instead of the Kaithi character in ‘Kāyasthī’ Schools,” in which the vernacular language was the medium of instruction, not formal Hindi. (Vedalankar 1969: 152).

In 1880, Kaithi was established as the official script of the Bengal Government (Grierson 1899: 1). The

significance of this act is apparent from the dedication in Sir G.A. Grierson's *Handbook to the Kaithi Character*:

To the Honorable Sir Ashley Eden, K.C.S.I., Lieutenant-Governor of Bengal, who, by first introducing Kaithí as the sole official character of our law courts, has done more for Bihár than a decade of legislation

Sir Ashley Eden ordered the exclusive use of Kaithi or Devanagari in Bihar, which was at that time still a region of the Bengal administration. Christopher King writes that “the government intended the Nagari and Kaithi scripts to take the place of the Persian script in printed and hand-written documents respectively” (King 1994: 67). After conferring official status upon Kaithi, the government initiated the creation of a font of Kaithi type, which was based on the improved and standardized Kaithi created in Oudh by Nesfield. By 1881, the standardized Kaithi “had been prescribed for general use in the primary vernacular schools of Bihar, and had begun to appear in printed textbooks” (King 1994: 68), generally for primers for elementary school classes (Ojhā 1971 [1918]: 130). The schools and courts of Bihar continued to use the script until at least 1913 (King 1989: 192).

Kaithi was also used extensively in the Bengal Presidency for administrative activities, such as census operations. Henry Beverly, the Inspector General of Registration in Bengal, enumerated Kaithi as one of the scripts in which census schedules and forms were printed:

The various forms required for the census were, with some few exceptions, printed at the larger Government Press ... near Calcutta. These forms had to be translated into several languages to suit the different nationalities to be found in Bengal. Thus, a Bengali translation was required for Bengal Proper; Hindustani in both the Persian and Kaithi character for Behar; Oorya for Orissa; Hindee in the Nagri character for Chota Nagpore and the Sonthal Pergunnahs, and Nepalese for some parts of Darjeeling (Beverly 1874: 76).

Finally, missionaries and bible societies turned to the Kaithi script in order to print bibles because it was the script that was most commonly read in north India (see figure 27). The Kaithi script was even taught in universities in the United States, most notably at the Department of Comparative Religion at the University of Chicago, where would-be missionaries to India were required to take a course in Hindi which consisted of

[...] a careful study of the grammar of the Hindî language, both *literary* and *provincial* ; the ordinary rules of syntax ; exercises in Hindî composition and conversation ; the writing of the language in the native character (both Nâgarî and Kaithî); [...] (“Comparative Religion Notes” 1894: 293).

Grierson, who carried out extensive research on Kaithi, included both printed and hand-written specimens of the script in his *Linguistic Survey of India*. However, Grierson gave no indication of the origin of the fonts he used to typeset the specimens of Bhojpuri, Magahi, and Maithili in the Kaithi script, and it is unclear if the types in the *Linguistic Survey of India* were based on those commissioned by Nesfield or Eden, or were in fact a new set produced by Grierson.

In his grammar, Kellogg wrote that books are printed in Kaithi, “but it is by no means as common as the Devanāgarī” (Kellogg 1893: 23). Hoernle supports Kellogg's claim, stating that Kaithi “is used in printing as well as in writing; but owing to the preponderance of H. H. [High Hindi], which has adopted the Devanāgarī, the latter is much more common in books” (Hoernle 1975: 2). He continues, stating that Devanagari “will probably in course of time entirely supersede the Kaithí; perhaps not altogether an advantage, as it can be written with less rapidity and ease than its rival (Hoernle 1975: 2).

Hoernle's forecast was certainly accurate. In the mid 20th century, Devanagari began to replace Kaithi as the standard script for Hindi and its ‘dialects’. Organizations like the Nagari Pracharini Sabha (Society for the Promotion of Nagari) were influential in the spread and popularity of Devanagari. However, the linkage of Hindi exclusively with Devanagari “is a phenomenon that owes its origins primarily to the politics and sentiments of the past century” (Shapiro 2003: 257). There appears to have been a systematic program to

replace Kaithi with Devanagari, and a parallel plan of emphasizing the use of standardized Hindi.

The fundamental distinction between Kaithi and Devanagari lies in the sphere of use. Kaithi was used for official government purposes, but was relegated to informal public spheres by Devanagari. Therefore, “Devanagari is the script for whatever is sought to be published today, or has been sought to be published since the early part of the twentieth century. Part of the reason may be simply the unavailability of typesetting for Kaithi. But more importantly, Devanagari in the greater Hindi area has a more scholarly image and is perceived as the right instrument for any kind of activity that has any claim to being literary. Devanagari as the ‘metropolitan script’ script (as the name implied) has increasingly become the script of the new literatures of Bihari and other ‘regional’ languages and also replaced the earlier scripts” (S. Verma 2003: 501).

The Kaithi script, although marginalized now due to the prominence of Devanagari, was widely used throughout north India. Its status as the official script of the British administrations in the North-Western Provinces & Oudh and Bihar is evidence of its utility and use. Furthermore, its selection for the medium of written instruction in the schools of both provinces speaks to its use among a wide segment of north Indian society. Lastly, there is a vast number of documents written in the Kaithi script, as well as those documents and books printed in it.

The use of Kaithi as a distinct script for administrative and educational purposes in Bihar, and possessing printing tradition, is certainly clear.

The history and use of Kaithi justifies and necessitates the need for an independent encoding of the Kaithi script in the Universal Character Set. As a major script that was used alongside other major scripts like Devanagari and Perso-Arabic, users working with Kaithi documents require the ability to distinguish between these scripts on the basis of code-points not merely font selection or unification.

5 The Kaithi Script

The letters of the Kaithi script shown in this proposal are normalized forms of those found in specimens of both printed Kaithi and written manuscripts.

Kaithi is written from left to right. There are 33 consonant letters and 10 vowel letters, including 9 vowel signs (there is no sign for KAITHI LETTER A). Syllabic formation follows the model typical to most Brāhmī scripts. Consonant letters bear the inherent vowel *a* when unaccompanied by a vowel sign. Vowel signs are placed to the right of the consonant to which they are applied, with the exception of KAITHI VOWEL SIGN I, which is applied to the left of the consonant.

5.1 Collating Order

The collating order for Kaithi follows that of Devanagari, with one distinction. Kaithi does not possess unique letters for velar and palatal nasals. Moreover, the dental nasal (𑂏) is commonly used as a generic nasal marker for all articulation classes. In such cases, the dental nasal should be sorted as a member of the class to which the second member of the conjunct belongs. For example, in the conjunct 𑂏𑂐 (-*nt*-) the dental nasal letter represents a dental nasal sound. However, in the conjunct 𑂏𑂑 (-*nd*- > -*ṇd*-) the dental nasal represents a retroflex nasal because the following consonant is a retroflex stop. See section 5.2 for further details.

CONSONANTS					
क	ka	KAITHI LETTER KA	द	da	KAITHI LETTER DA
ख	kha	KAITHI LETTER KHA	ध	dha	KAITHI LETTER DHA
ग	ga	KAITHI LETTER GA	न	na	KAITHI LETTER NA
घ	gha	KAITHI LETTER GHA	प	pa	KAITHI LETTER PA
च	ca	KAITHI LETTER CA	फ	pha	KAITHI LETTER PHA
छ	cha	KAITHI LETTER CHA	ब	ba	KAITHI LETTER BA
ज	ja	KAITHI LETTER JA	भ	bha	KAITHI LETTER BHA
झ	jha	KAITHI LETTER JHA	म	ma	KAITHI LETTER MA
ट	ṭa	KAITHI LETTER TTA	य	ya	KAITHI LETTER YA
Ṭ	ṭha	KAITHI LETTER TTHA	र	ra	KAITHI LETTER RA
ड	ḍa	KAITHI LETTER DDA	ल	la	KAITHI LETTER LA
Ḍ	ḍha	KAITHI LETTER DDHA	व	va	KAITHI LETTER VA
Ṛ	ṛa	KAITHI LETTER RDDHA	श	śa	KAITHI LETTER SHA
Ṛh	ṛha	KAITHI LETTER RHA	स	sa	KAITHI LETTER SA
ण	ṇa	KAITHI LETTER NNA	ह	ha	KAITHI LETTER HA
त	ta	KAITHI LETTER TA			
थ	tha	KAITHI LETTER THA			
VOWELS					
अ	a	KAITHI LETTER A			
आ	ā	KAITHI LETTER AA	◌	-ā	KAITHI VOWEL SIGN AA
इ	i	KAITHI LETTER I	◌ि	-i	KAITHI VOWEL SIGN I
ई	ī	KAITHI LETTER II	◌ी	-ī	KAITHI VOWEL SIGN II
उ	u	KAITHI LETTER U	◌ु	-u	KAITHI VOWEL SIGN U
ऊ	ū	KAITHI LETTER UU	◌ू	-ū	KAITHI VOWEL SIGN UU
ए	e	KAITHI LETTER E	◌े	-e	KAITHI VOWEL SIGN E
ऐ	ai	KAITHI LETTER AI	◌ै	-ai	KAITHI VOWEL SIGN AI
ओ	o	KAITHI LETTER O	◌ो	-o	KAITHI VOWEL SIGN O
औ	au	KAITHI LETTER AU	◌ौ	-au	KAITHI VOWEL SIGN AU

Figure 3: Consonant and vowel letters of the Kaithi script.

Consonant conjuncts are rare in Kaithi. Avadhi, Bhojpuri, Magahi, and Maithili have a tendency to simplify consonant clusters by metathesis. These processes are reflected in Kaithi orthography. In instances where vowel insertion does not occur, conjuncts are broken with *virāma*.

The most common simplification of consonant clusters is the introduction of an epenthetic vowel: Sanskrit *karma* (Dev. कर्म) becomes Bhojpuri *karam* (Kai. क१म); *pradeśa* प्रदेश becomes *pardes* प१देस. In other cases, anaptyxis is used: Sanskrit *snāna* (Dev. स्नान) becomes Bhojpuri *asanān* (Kai. अ१स१न१).

Clusters involving glides are modified by changing the glide to its corresponding vocalic counterpart: Sanskrit *vyavahāra* (Dev. व्यवहार) becomes Bhojpuri *beohār* (Kai. वेश्रोह॥१); Sanskrit *jñāna* ज्ञान is simplified to *giān* गिअ॥१.

In print there appears to be a tendency to use *virāma* to break conjuncts. It is unknown whether this was a reflection of actual practice or a limitation in the available types. The following examples show the use of *virāma* to break conjuncts.

1941

Also, note the use of *na* 𐎒 for conjuncts involving both dental and retroflex consonants.

- **वैकुण्ठ** *vaikunṭh* > *vaikunṭh*
- **थान्धा** *ṭhandhā* > *ṭhandhā*
- **घमान्द** *ghamanḍ* > *ghamanḍ*
- **किन्तु** *kintu*

Some Kaithi documents show 'false' conjuncts with the second consonant of the cluser is *ra*. In the example below, the word *pargana* is written textitpragana:

[illegible]


There is great irregularity and inconsistency regarding the use of conjuncts. The example below is a good example, where a ligature is used to write the conjunct *mpu*, but not *rna* in the word *sampurna*:

၇၀၃ ခုနစ် - ၁၈၇၅ ခုနစ် - ၁၈၇၆ ခုနစ် - ၁၈၇၇ ခုနစ် - ၁၈၇၈ ခုနစ်

Irregular conjunct formation in printed Kaithi is highlighted by the half-form of *sa* स as the first member of a conjunct

कस्त *kast*

In writing, doubled consonants are written only once (Kellogg 1893: 23). A word like *patta* पत्त is written *pata* पत. In print, however, *virāma* may be used to indicate gemination:


khetāpattī

The use of *virāma* in printed Kaithi, as opposed to using a single character, may arise from the intention to represent phonological accuracy in published documents.

5.3 Digits

Kaithi uses a decimal system, similar to Devanagari:

०	0	KAITHI DIGIT ZERO
१	1	KAITHI DIGIT ONE
२	2	KAITHI DIGIT TWO
३	3	KAITHI DIGIT THREE
४	4	KAITHI DIGIT FOUR
५	5	KAITHI DIGIT FIVE
६	6	KAITHI DIGIT SIX
७	7	KAITHI DIGIT SEVEN
८	8	KAITHI DIGIT EIGHT
९	9	KAITHI DIGIT NINE

5.4 Punctuation

Punctuation is not consistent in Kaithi. Grierson writes that “Kaithí has no stops except the full period” and “it is not customary to leave any space between the words,” but the “Standard Kaithí, however, used in Government offices, does separate its words” (Grierson 1899: 4). However, various forms of punctuation are used to mark word and line endings, abbreviations, and hyphenation. The following signs are included in the proposal and are discussed below:

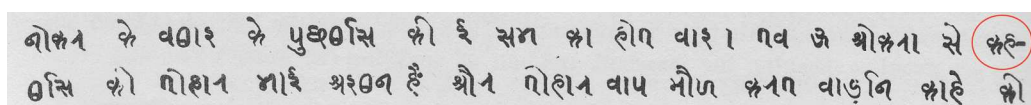
	KAITHI DANDA
	KAITHI DOUBLE DANDA
◦	KAITHI ABBREVIATION SIGN
–	KAITHI WORD SEPARATOR
+	KAITHI SENTENCE SEPARATOR

5.4.1 Danda

As with other scripts derived from Brāhmī, Kaithi uses the *daṇḍā* and double *daṇḍā* to indicate line endings. The shape and function of the Kaithi *daṇḍā* and double *daṇḍā* is similar to those of Devanagari, and are therefore to be unified with the latter. Figure 18 provides an example of the use of *daṇḍā* and double *daṇḍā* in printed texts.

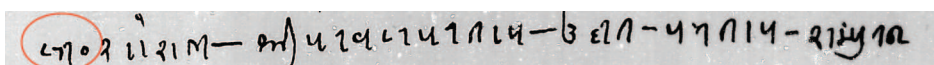
5.4.2 Hyphenation

Hyphenation at line boundaries is rare in written Kaithi, but does appear in printed documents. Proper hyphenation would occur within words at syllabic boundaries. The example below shows a hyphen occurring at a line boundary and splitting the word **करुणसि**



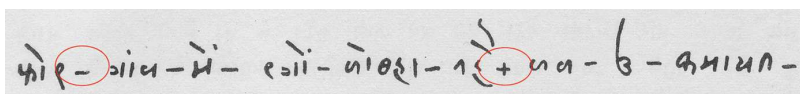
વનિયા ઠેગે જીવે તો કે ખ્યાલ કે તો ન વનિયા કે ખ્યાલ । વનિયા જીવે જીવે ગાજે વનિયા-
જીવે જીવે જીવે જીવે તો ન વનિયા ખ્યાલે । ગોટેક વુઢિયા ગાય ખપકન મેં ખપકન નહે

An abbreviation sign ◦ is commonly found in Kaithi documents. It is similar in function to the corresponding sign (U+0970) in Devanagari. The Kaithi abbreviation sign may resemble the digit zero in rapid writing, however, the two are contextually distinguishable. In hand-written Kaithi documents, this sign is used to abbreviate commonly used words, primarily at the beginning of documents. In the following example, the abbreviation sign follows the letter *la*:



5.4.4 Word and Sentence Separators

As in many scribal traditions, there is a tendency in Kaithi to write without marking word boundaries through the use of spaces. In other cases, punctuation may be introduced to identify boundaries between words and sentences. In printed Kaithi, word boundaries are generally marked by spaces and phrases are separated using the *daṇḍā* or double *daṇḍā*. The example below shows the use of – to mark word boundaries and the use of + to mark line boundaries.



The specimen in figure 23 on page 30 also shows the use of word separators in written Kaithi.

Kaithi has notations for a fractional system that was in common use throughout north India. This system is a base-16 (hexadecimal) system. The fractions are notated as follows:

✓	KAITHI FRACTION ONE SIXTEENTH	॥✓	KAITHI FRACTION NINE SIXTEENTHS
≠	KAITHI FRACTION ONE EIGHTH	॥≠	KAITHI FRACTION FIVE EIGHTHS
≠≠	KAITHI FRACTION THREE SIXTEENTHS	॥≠≠	KAITHI FRACTION ELEVEN SIXTEENTHS
	KAITHI FRACTION ONE FOURTH		KAITHI FRACTION THREE FOURTHS
1✓	KAITHI FRACTION FIVE SIXTEENTHS	✓	KAITHI FRACTION THIRTEEN SIXTEENTHS
1≠	KAITHI FRACTION SIX SIXTEENTHS	≠	KAITHI FRACTION SEVEN EIGHTHS
1≠≠	KAITHI FRACTION SEVEN SIXTEENTHS	≠≠	KAITHI FRACTION FIFTEEN SIXTEENTHS
	KAITHI FRACTION ONE HALF	१	KAITHI DIGIT ONE

13

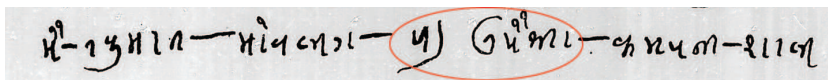
1 ānā or $\frac{1}{16}$	↵	9 ānās	↵↵
2 ānās	↵↵	10 ānās	↵↵↵
3 ānās	↵↵↵	11 ānās	↵↵↵↵
4 ānās	↵↵↵↵	12 ānās	↵↵↵↵↵
5 ānās	↵↵↵↵↵	13 ānās	↵↵↵↵↵↵
6 ānās	↵↵↵↵↵↵	14 ānās	↵↵↵↵↵↵↵
7 ānās	↵↵↵↵↵↵↵	15 ānās	↵↵↵↵↵↵↵↵
8 ānās	↵↵↵↵↵↵↵↵	One rupee	↵↵↵↵↵↵↵↵↵

Figure 4: System of notating currency in Kaithi using fractions and the *rupaya* currency symbol (Grierson 1903: 9). Compare to fractional forms given in figure 9.

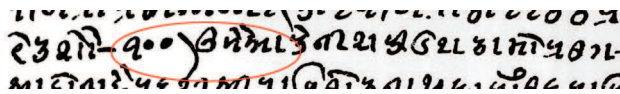
5.6 Currency

North Indian currency systems are traditionally based on the unit of the *rupayā*, or “rupee”. The rupee was historically divided into a unit of sixteen parts called the *ānā* (see figure 4). Currency notations occur frequently in Kaithi legal manuscripts.

The text in the circled portion of the excerpt below is *five rupayā*, where the currency is notated as ५).



The text in the circled portion of the excerpt below is *one-hundred rupayā*, where the currency is notated as १००).

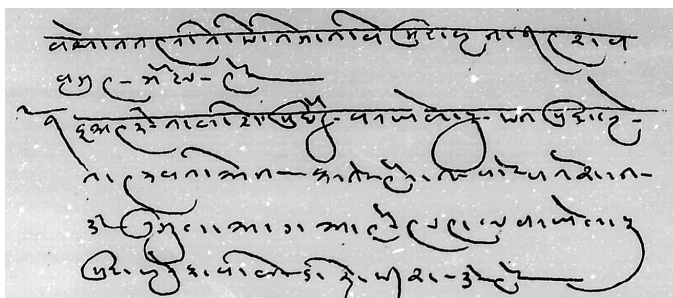


5.7 Head-line

Several Kaithi documents show Kaithi written with what appears to be a head-line, similar to that of Devanagari. The line is not a head-line, but a typographic device used for emphasis, titling, or sectioning. Grierson notes that “in many documents it is customary to rule only the first line, for show; and to leave the rest unruled, for comfort” (Grierson 1899: 4). Hoernle adds that

Sometimes a series of lines is first ruled across the page, and the letters are afterwards hung on to them. These lines must not be confounded with the top-line of the Devanāgarī, and in native writing the two are easy to distinguish (Hoernle 1975: 1f).

The following example shows the use of ruled lines for written Kaithi:



	KAI	GUJ	DEV		KAI	GUJ	DEV
<i>ka</i>	𑂀	ક	क	<i>a</i>	अ	અ	अ
<i>kha</i>	𑂁	ખ	ख	<i>ā</i>	अ।	અ।	आ
<i>ga</i>	𑂂	ગ	ग	<i>i</i>	इ	ઇ	इ
<i>gha</i>	𑂃	ઘ	घ	<i>ī</i>	ई	ઈ	ई
<i>na</i>	—	ડ	ङ	<i>u</i>	उ	ઉ	उ
<i>ca</i>	च	ચ	च	<i>ū</i>	ऊ	ઊ	ऊ
<i>cha</i>	छ	ચ	छ	<i>ṛ</i>	—	ऋ	ऋ
<i>ja</i>	ज	જ	ज	<i>e</i>	ए	એ	ए
<i>jha</i>	झ	ઝ	झ	<i>ai</i>	ऐ	ઐ	ऐ
<i>ñā</i>	—	ઞ	ञ	<i>o</i>	ओ	ઓ	ओ
<i>ṭa</i>	ट	ટ	ट	<i>au</i>	औ	ઔ	औ
<i>ṭha</i>	ठ	ઠ	ठ				
<i>ḍa</i>	ड	ઢ	ड				
<i>ṛa</i>	ड़	—	ड़				
<i>dha</i>	ढ	ढ	ढ				
<i>rha</i>	ॢ	—	ॢ				
<i>ṇa</i>	ॣ	ण	ण				
<i>ta</i>	त	ત	त				
<i>tha</i>	थ	થ	थ				
<i>da</i>	द	દ	द				
<i>dha</i>	ध	ધ	ध				
<i>na</i>	न	ન	न				
<i>pa</i>	प	પ	प				
<i>pha</i>	फ	ફ	फ				
<i>ba</i>	ब	બ	ब				
<i>bha</i>	भ	ભ	भ				
<i>ma</i>	म	મ	म				
<i>ya</i>	य	ય	य				
<i>ra</i>	र	ર	र				
<i>la</i>	ल	લ	ल				
<i>va</i>	व	વ	व				
<i>śa</i>	श	શ	श				
<i>ṣa</i>	—	ષ	ष				
<i>sa</i>	स	સ	स				
<i>ha</i>	ह	હ	ह				

Figure 5: A comparison of the Kaithi, Gujarati, and Devanagari scripts

6 Glyph Chart

	1160	1161	1162	1163	1164	1165	1166	1167
0		ॢ	ॣ	।	॥		—	०
1			॥		॥)	+	१
2	ॡ		॥	॥	॥			॥
3	ॢ	ॣ	॥					॥
4		ॣ	॥					॥
5	ॣ	ॣ	ॣ	ॣ				॥
6	ॣ	ॣ	ॣ	ॣ			०	॥
7	ॣ	ॣ	ॣ	ॣ	॥		१	॥
8	ॣ	ॣ	ॣ	ॣ	॥		२	॥
9	ॣ			ॣ			३	॥
A	ॣ	ॣ	ॣ				४	॥
B		ॣ	ॣ		॥		५	॥
C		ॣ	ॣ		॥	॥	६	॥
D		ॣ	ॣ		॥	॥	७	॥
E			ॣ	॥			८	॥
F	ॣ	ॣ	ॣ	॥		ॣ	९	॥

7 Character Names and Properties

```

11602;KAITHI SIGN ANUSVARA;Mn;0;NSM;;;;;N;;;;;
11603;KAITHI SIGN VISARGA;Mc;0;L;;;;;N;;;;;
11605;KAITHI LETTER A;Lo;0;L;;;;;N;;;;;
11606;KAITHI LETTER AA;Lo;0;L;;;;;N;;;;;
11607;KAITHI LETTER I;Lo;0;L;;;;;N;;;;;
11608;KAITHI LETTER II;Lo;0;L;;;;;N;;;;;
11609;KAITHI LETTER U;Lo;0;L;;;;;N;;;;;
1160A;KAITHI LETTER UU;Lo;0;L;;;;;N;;;;;
1160F;KAITHI LETTER E;Lo;0;L;;;;;N;;;;;
11610;KAITHI LETTER AI;Lo;0;L;;;;;N;;;;;
11613;KAITHI LETTER O;Lo;0;L;;;;;N;;;;;
11614;KAITHI LETTER AU;Lo;0;L;;;;;N;;;;;
11615;KAITHI LETTER KA;Lo;0;L;;;;;N;;;;;
11616;KAITHI LETTER KHA;Lo;0;L;;;;;N;;;;;
11617;KAITHI LETTER GA;Lo;0;L;;;;;N;;;;;
11618;KAITHI LETTER GHA;Lo;0;L;;;;;N;;;;;
1161A;KAITHI LETTER CA;Lo;0;L;;;;;N;;;;;
1161B;KAITHI LETTER CHA;Lo;0;L;;;;;N;;;;;
1161C;KAITHI LETTER JA;Lo;0;L;;;;;N;;;;;
1161D;KAITHI LETTER JHA;Lo;0;L;;;;;N;;;;;
1161F;KAITHI LETTER TTA;Lo;0;L;;;;;N;;;;;
11620;KAITHI LETTER TTHA;Lo;0;L;;;;;N;;;;;
11621;KAITHI LETTER DDA;Lo;0;L;;;;;N;;;;;
11622;KAITHI LETTER DDHA;Lo;0;L;;;;;N;;;;;
11623;KAITHI LETTER NNA;Lo;0;L;;;;;N;;;;;
11624;KAITHI LETTER TA;Lo;0;L;;;;;N;;;;;
11625;KAITHI LETTER THA;Lo;0;L;;;;;N;;;;;
11626;KAITHI LETTER DA;Lo;0;L;;;;;N;;;;;
11627;KAITHI LETTER DHA;Lo;0;L;;;;;N;;;;;
11628;KAITHI LETTER NA;Lo;0;L;;;;;N;;;;;
1162A;KAITHI LETTER PA;Lo;0;L;;;;;N;;;;;
1162B;KAITHI LETTER PHA;Lo;0;L;;;;;N;;;;;
1162C;KAITHI LETTER BA;Lo;0;L;;;;;N;;;;;
1162D;KAITHI LETTER BHA;Lo;0;L;;;;;N;;;;;
1162E;KAITHI LETTER MA;Lo;0;L;;;;;N;;;;;
1162F;KAITHI LETTER YA;Lo;0;L;;;;;N;;;;;
11630;KAITHI LETTER RA;Lo;0;L;;;;;N;;;;;
11632;KAITHI LETTER LA;Lo;0;L;;;;;N;;;;;
11635;KAITHI LETTER VA;Lo;0;L;;;;;N;;;;;
11636;KAITHI LETTER SHA;Lo;0;L;;;;;N;;;;;
11637;KAITHI LETTER SSA;Lo;0;L;;;;;N;;;;;
11638;KAITHI LETTER SA;Lo;0;L;;;;;N;;;;;
11639;KAITHI LETTER HA;Lo;0;L;;;;;N;;;;;
1163E;KAITHI VOWEL SIGN AA;Mc;0;L;;;;;N;;;;;
1163F;KAITHI VOWEL SIGN I;Mc;0;L;;;;;N;;;;;
11640;KAITHI VOWEL SIGN II;Mc;0;L;;;;;N;;;;;
11641;KAITHI VOWEL SIGN U;Mn;0;NSM;;;;;N;;;;;
11642;KAITHI VOWEL SIGN UU;Mn;0;NSM;;;;;N;;;;;
11647;KAITHI VOWEL SIGN E;Mn;0;NSM;;;;;N;;;;;
11648;KAITHI VOWEL SIGN AI;Mn;0;NSM;;;;;N;;;;;
1164B;KAITHI VOWEL SIGN O;Mc;0;L;;;;;N;;;;;
1164C;KAITHI VOWEL SIGN AU;Mc;0;L;;;;;N;;;;;
1164D;KAITHI SIGN VIRAMA;Mn;9;NSM;;;;;N;;;;;
11651;KAITHI CURRENCY SIGN RUPAYA;Sc;0;ET;;;;;N;;;;;

```

1165C;KAITHI LETTER DDDHA;Lo;0;L;11621 1163C;;;N;;;;;
 1165D;KAITHI LETTER RHA;Lo;0;L;11622 1163C;;;N;;;;;
 1165F;KAITHI LETTER YYA;Lo;0;L;1162F 1163C;;;N;;;;;
 11660;KAITHI WORD SEPARATOR;Po;0;L;;;;N;;;;;
 11661;KAITHI SENTENCE SEPARATOR;Po;0;L;;;;N;;;;;
 11664;KAITHI DANDA;Po;0;L;;;;N;;;;;
 11665;KAITHI DOUBLE DANDA;Po;0;L;;;;N;;;;;
 11666;KAITHI DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
 11667;KAITHI DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
 11668;KAITHI DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
 11669;KAITHI DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
 1166A;KAITHI DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
 1166B;KAITHI DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
 1166C;KAITHI DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
 1166D;KAITHI DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
 1166E;KAITHI DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
 1166F;KAITHI DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;
 11670;KAITHI ABBREVIATION SIGN;Po;0;L;;;;N;;;;;
 11671;KAITHI FRACTION ONE SIXTEENTH;
 11672;KAITHI FRACTION ONE EIGHTH;
 11673;KAITHI FRACTION THREE SIXTEENTHS;
 11674;KAITHI FRACTION ONE FOURTH;
 11675;KAITHI FRACTION FIVE SIXTEENTHS;
 11676;KAITHI FRACTION SIX SIXTEENTHS;
 11677;KAITHI FRACTION SEVEN SIXTEENTHS;
 11678;KAITHI FRACTION ONE HALF;
 11679;KAITHI FRACTION NINE SIXTEENTHS;
 1167A;KAITHI FRACTION FIVE EIGHTHS;
 1167B;KAITHI FRACTION ELEVEN SIXTEENTHS;
 1167C;KAITHI FRACTION THREE FOURTHS;
 1167D;KAITHI FRACTION THIRTEEN SIXTEENTHS;
 1167E;KAITHI FRACTION SEVEN EIGHTHS;
 1167F;KAITHI FRACTION FIFTEEN SIXTEENTHS;

8 Kaithi Specimens

PLATE I.											
Devanāgarī	Kayathī	Mahājani	English	Devanāgarī	Kayathī	Mahājani	English	Devanāgarī	Kayathī	Mahājani	English
अ	अ	अ	a	इ	इ	इ	i	न	न	न	n
आ	आ	आ	d	उ	उ	उ	u	प	प	प	p
इ	इ	इ	i	ए	ए	ए	e	फ	फ	फ	ph
उ	उ	उ	u	अ	अ	अ	a	ब	ब	ब	b
ई	ई	ई	ri	इ	इ	इ	i	म	म	म	bh
ऊ	ऊ	ऊ	e	ए	ए	ए	e	य	य	य	m
ऐ	ऐ	ऐ	ai	ओ	ओ	ओ	o	र	र	र	yj
औ	औ	औ	au	श	श	श	sh	ल	ल	ल	r
क	क	क	k	स	स	स	s	व	व	व	v.b
ख	ख	ख	kh	ट	ट	ट	t	श	श	श	s'
ग	ग	ग	g	थ	थ	थ	th	ष	ष	ष	sh, kh
घ	घ	घ	gh	द	द	द	d	स	स	स	s
				ध	ध	ध	dh	ह	ह	ह	h

COMBINATIONS OF VOWELS.							
Devanāgarī	Kayathī	Mahājani	English	Devanāgarī	Kayathī	Mahājani	English
अक	अक	अक	aka	ऐक	ऐक	ऐक	rikri
आका	आका	आका	akai	एके	एके	एके	eke
इकि	इकि	इकि	iki	ऐके	ऐके	ऐके	aihai
इकी	इकी	इकी	iki	ओको	ओको	ओको	oko
उकु	उकु	उकु	uku	ओको	ओको	ओको	aukau,
ऊकु	ऊकु	ऊकु	ukul				

Table showing the corresponding forms of the Devanāgarī, Kayathī, Mahājani and English alphabets.

Figure 6: A comparison of the Kaithi script with the Devanagari and Mahajani (Grierson 1899: Plate I).

PLATE II.

Table showing the Kayathī alphabet, as written by Tirhutī, Bhojpuri & Magah/ Scribes.

Tirhutī	Bhojpuri	Magah	English	Tirhutī	Bhojpuri	Magah	English
अ	म	म	a	१	३	३	n
इ	मि	मि	i	२	७	७	t
उ	३	३	u	४	४	४	th
ॠ	ॢ	ॢ	e	५	५	५	d
ॡ	ॣ	ॣ	ai	६	६	६	dh
ॢ	ॣ	ॣ	o	७	७	७	n
ॣ	ॣ	ॣ	au	८	८	८	p
क	क	क	k	९	९	९	ph
ख	ख	ख	kh	१०	१०	१०	b
ग	ग	ग	g	११	११	११	bh
घ	घ	घ	gh	१२	१२	१२	m
ङ	ङ	ङ	ṅ	१३	१३	१३	y-j
च	च	च	ch	१४	१४	१४	r
छ	छ	छ	chh	१५	१५	१५	l
ज	ज	ज	j	१६	१६	१६	v b
झ	झ	झ	jh	१७	१७	१७	s
ण	ण	ण	ṇ	१८	१८	१८	kh
त	त	त	t	१९	१९	१९	s
थ	थ	थ	th	२०	२०	२०	h
द	द	द	d				
ध	ध	ध	dh				

Figure 7: A comparison of the three regional forms of Kaithi, eg. the Tirhuti (Maithili), Magahi, and Bhojpuri. (Grierson 1899: Plate II).

* Pronounced like gy, with a nasal accent.

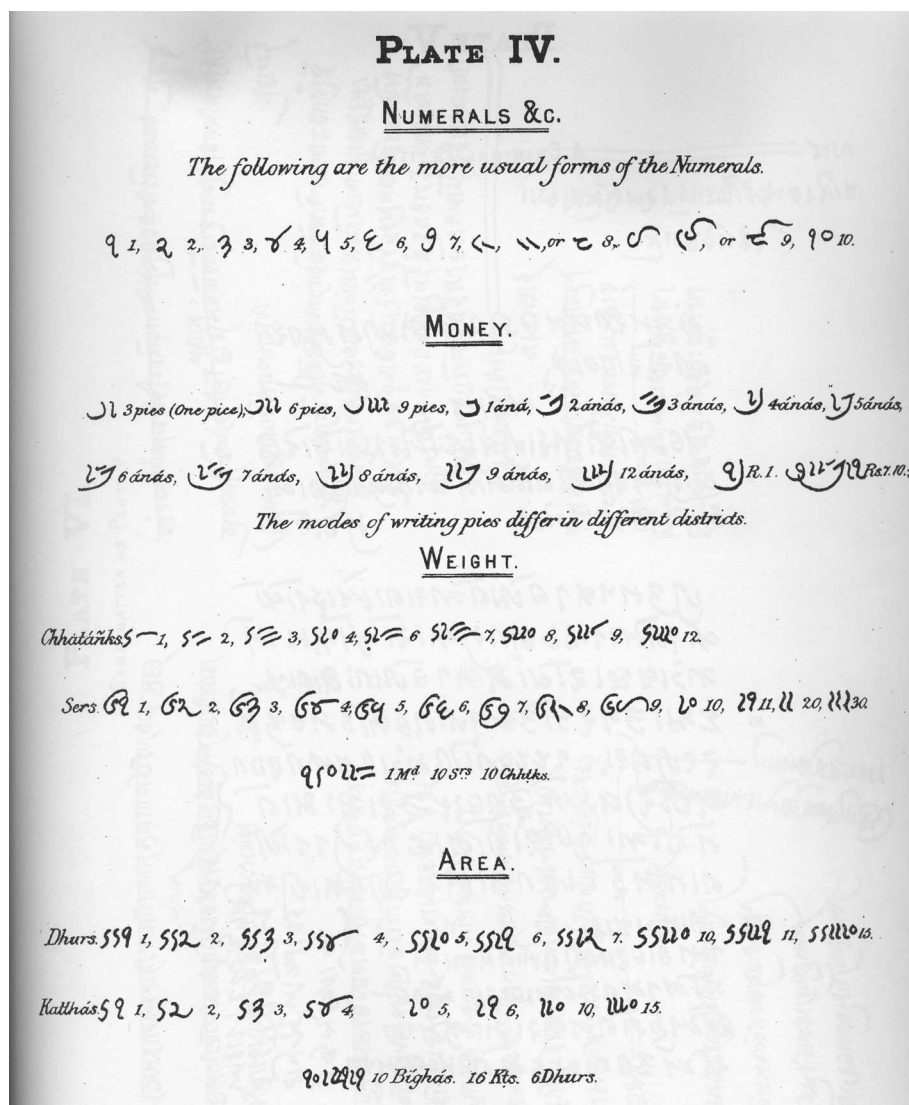


Figure 9: Currency, weights, and measures signs that appear in Kaithi documents (Grierson 1899: Plate IV)

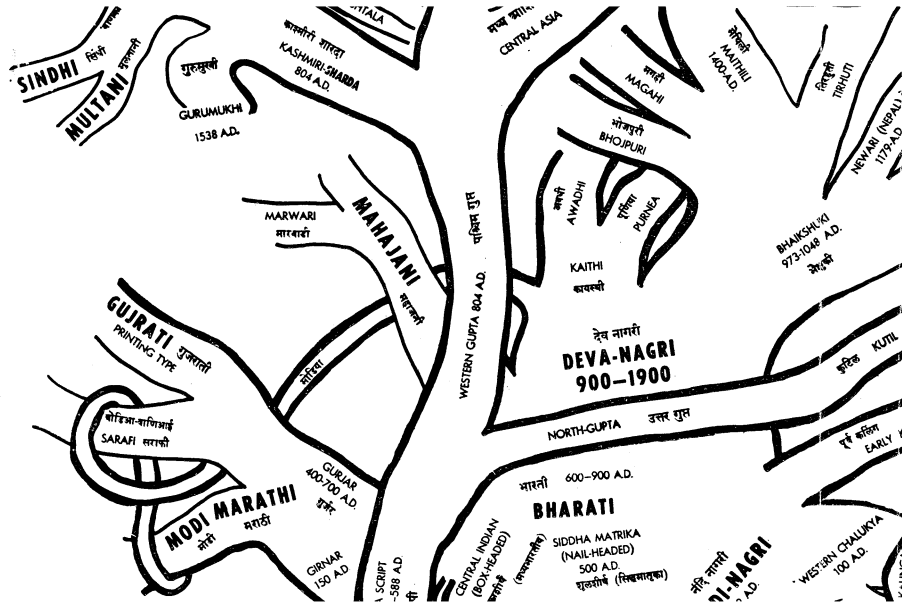


Figure 10: The position of the Kaithi script with regard to others (Naik 1971: Plate 28)

कैथी लिपि.

अ आ इ ई उ ऊ ण ण आ आ अ अ क ख ग घ ङ ञ
 श श ष ष उ ऊ ए ऐ ओ औ श्रं श्रः क ङ ग घ य ष
 ज झ ट ठ ड ढ ण न य र ध न प फ फ व भ म ष
 ण ण ट ष ष ङ ङ न य र ध न प फ फ व भ म ष
 र ल व श ष स ह का कि को कु कू के कै को कौ
 १ २ ३ ४ ५ ६ ७ ८ ९
 १ २ ३ ४ ५ ६ ७ ८ ९

Figure 11: Inventory of Kaithi letters (Ojhā 1971: Plate LXXVIII)

KATHINAGARI SCRIPT									
कैथी नागरी लिपि									
स्वर , व्यञ्जन									
VOWEL , CONSONANT									
अ आ इ ई उ ए ओ औ अं अः									
A	Ā	Ī	Ē	U	E	AI	O	ĀU	AN
क ख ग घ ङ च छ ज झ									
KA	KHA	GA	GHA		CHA	CHA	JA	JHA	
ट ठ ड ढ ण त थ द ध न									
TA	THA	DA	DHA	NA	TA	THA	DA	DHA	NA
प फ व भ म य र ल व									
PA	PHA	BA	BHA	MA		YA	RA	LA	VA
श ष स ह									
					SHA	SHA	SA	HA	

Figure 12: Inventory of Kaithi letters (Śākyavamśa 1974: 64)

Figure 13: A table from *kaithī vo hindī barnamālā* showing the Kaithi and Devanagari scripts in parallel. The Kaithi letters in this primer are drawn in conformity to the Devanagari style, most noticeable in the presence of the top-line (*kaithī vo hindī barnamālā* 1882: 2

TABLE 13.1: KAITHĪ OR KĀYATHĪ SCRIPT WITH DEVANĀGARĪ EQUIVALENTS AND TRANSLITERATIONS

Vowels												
अ	आ	a	आ	आ	ā	इ	इ	i	ई	ई	ī	
उ	उ	u	ऊ	ऊ	ū	ए	ए	e	ऐ	ऐ	ai	
ओ	ओ	o	औ	औ	au							
Consonants												
Stops												
Velar	क	k	ख	ख	kh	ग	ग	g	घ	घ	gh	
Palatal	च	c	छ	छ	ch	ज	ज	j	झ	झ	jh	
Cerebral	ट	t	ठ	ठ	ṭh	ड	ड	ḍ	ढ	ढ	ḍh	
Dental	त	t	थ	थ	th	द	द	d	ध	ध	dh	न
Labial	प	p	फ	फ	ph	ब	ब	b	भ	भ	bh	म
Semivowels												
	य	y	र	र	r	ल	ल	l	व	व	v	
Spirants												
	श	ś	ष	ष	ṣ	स	स	s	ह	ह	h	
Others												
Anusvāra	अं	am										
Visarga	अः	ah										

Figure 14: “Kaithī or Kāyathī script with Devanāgarī equivalents and transliterations” (S. Verma 2003: 502).

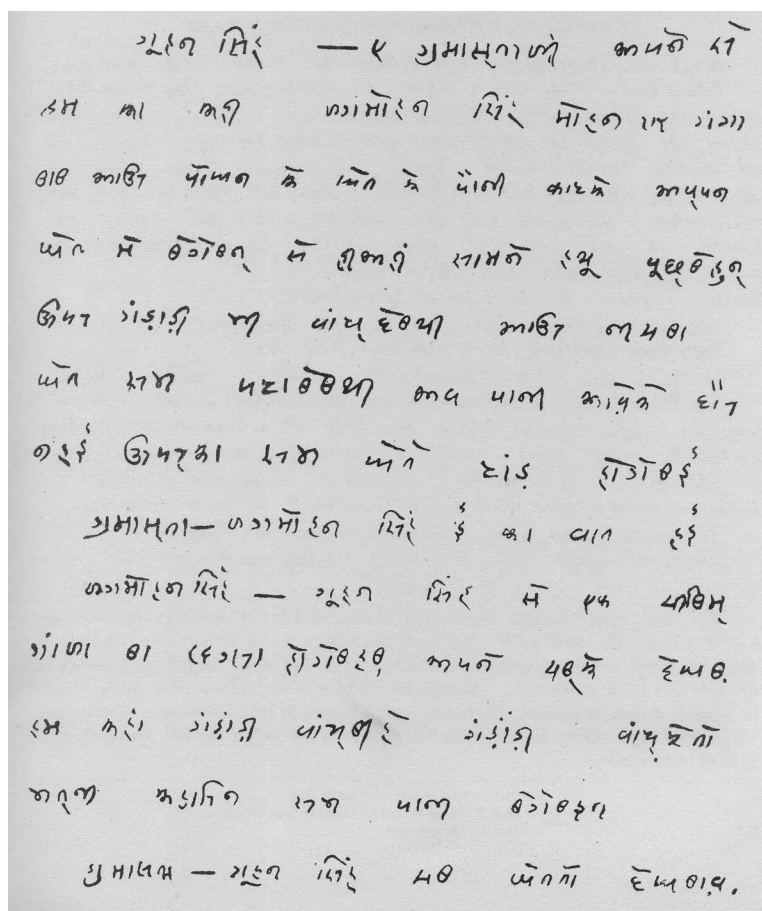


Figure 15: Excerpt from a specimen of Magahi written in Kaithi (Grierson 1903: 133).

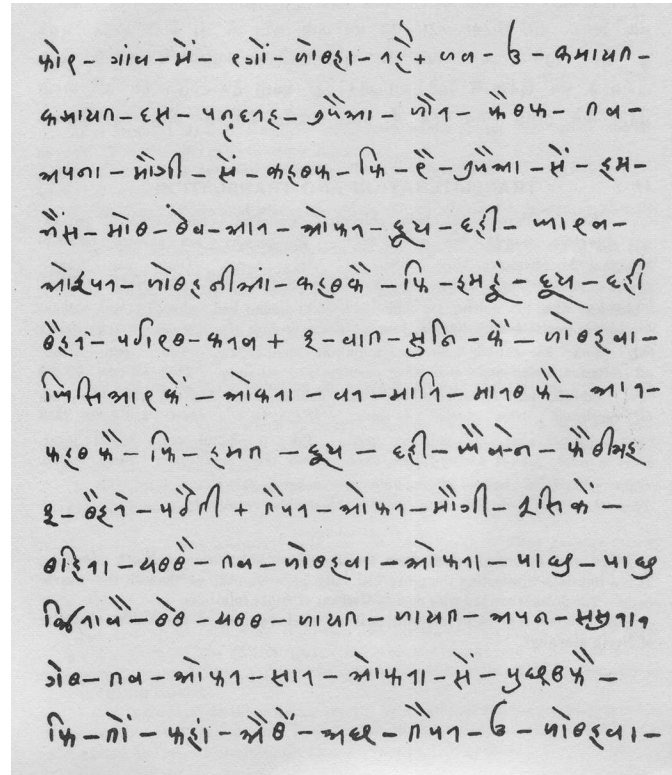


Figure 16: Excerpt from a specimen of Maithili written in the Magahi style of Kaithi (Grierson 1903: 82).

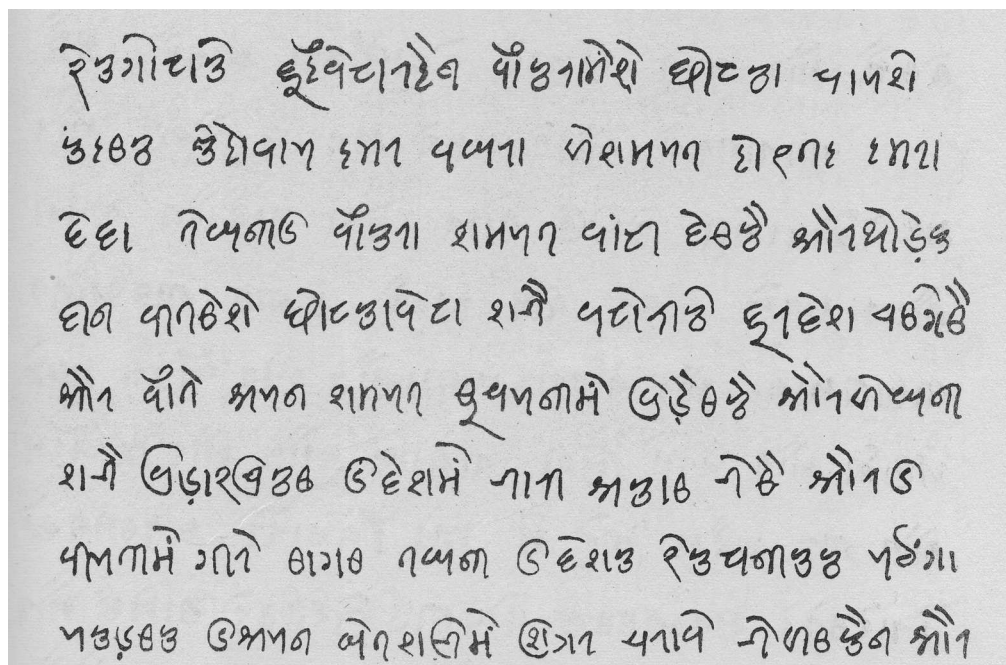


Figure 17: Excerpt from a specimen of Maithili written in the Maithili style of Kaithi (Grierson 1903: 89).

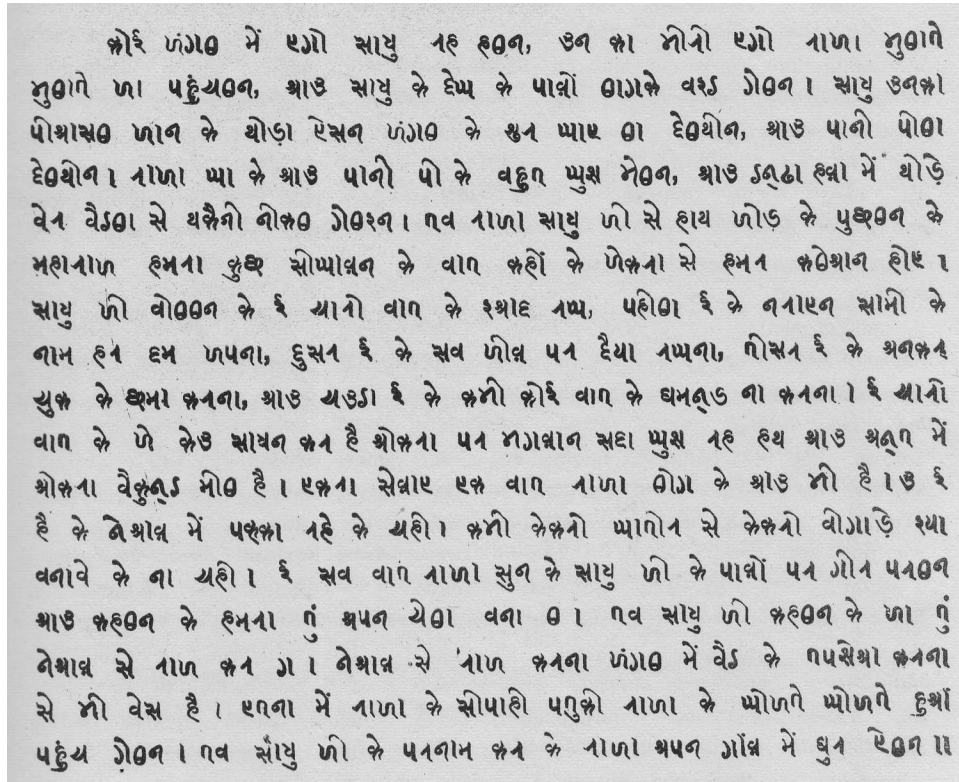


Figure 18: A specimen of Magahi printed in Kaithi type (Grierson 1903: 129).

कोई जंगल में एगो सायु नह हवन, उन का जीनी एगो नाजा मुठाते मुठाते जा
 पहुँचवन, आउ सायु के देख के पावों छागके वरु गेवन। सायु उका पीआसठ जाव के
 थोड़ा ऐसन जंगल के खुन प्याए ठा देठेवन, आउ पानी पीठा देठेवन। नाजा प्या के
 आउ पानी पी के बहुत प्युस भेठन, आउ डब्बा हवा में थोड़े वेन वैडठा से थकैनी नीकठ
 गेठवन। एव नाजा सायु जी से हाथ जोड़ के पुछवन के महानाज हमना कुछ सीप्रावन
 के वाग कहों के जेकना से हमन कवेआन होए। सायु जी वोठवन के ई यानो वाग के
 श्राद नय, पहिठा ई के ननाएन सामी के नाम हन दम जपना, हुसन ई के सब जीव
 पन दैया नयन, तीसन ई के अनकन युक्त के छमा कनना, आउ यउडा ई के कनी
 कोई वाग के घमण्ड ना कनना। ई यानो वाग के जे केउ सावन कन है ओकना पन
 गजवान सदा प्युस नह हथ आउ अन्त में ओकना वैकुण्ठ भौठ है। एकना सेवाए एक
 वाग नाजा ठोग के आउ जी है। उ ई है के बेआव में पक्का नहे के यही। कनी केकनी
 प्यातीन से केकनी बीगाड़े रया वनावे के ना यही। ई सब वाग नाजा सुन के सायु जी
 के पावों पन जीन पनवन आउ कहवन के हमना गुं अपन येठा वना ठ। एव सायु जी
 कहवन के जा गुं बेआव से नाज कन ग। बेआव से नाज कनना जंगल में वैड के नपसेआ
 कनना से जी वेस है। एतना में नाजा के सीपाही पगुकी नाजा के प्योणते प्योणते हुआ
 पहुँच गेवन। एव सायु जी के पननाम कन के नाजा अपन गोंव में घुन एठन॥

Figure 19: The text from figure 18 typeset in the digital typeface accompanying this proposal.

एगो अहिनी का दुसरे वेडा रहे। ओ में से कोठका ठाँका अपना वाप
 से कहलसि की ए वाप अब यन में जेवन हमान वयना होये जेवन वाँछि द।
 एव जे यन में वयना विठ्ठार दिहलिन। थोड़िक दिन में कोठका वेठना कुएहि
 यन वो दबलन वठोनि के पनदेस यठि गसठ। ओहिजा गार के आपन कुएहि
 यन वो दबलन छुड़ो में थुकि दिहलसि। एव कुएहि ओतार गसठ, एव ओ देस
 में वडा सूया पड़ठ एव कंगार हो गसठ एव ओहिजा के गङ्गुन कोहे गसठ।
 जे अपना येन में सूअर यनावे प्यापिन जेजठिन। जेवन वोठठा सूअर प्यापि
 नहो जेवन से पेट मने के ओकर मन जनन रहे। केह ओकरा जिल्लु ना देन रहे।
 एव ओकरा आँधी प्युठि और सोयठसि की हमना वाप कोहे केवना मजुना प्यार के
 जोअन वाँछि और हम के दाना नश्ये जूनन। अब हम अपना वाप कोहाँ गारवो
 और उन से कहवो कि, ओ वापु हम गोहान और मगावान के वडा पाप करठे वाँछो
 अब यह ठाँक नश्यो कि गोहान वेडा कहाइ हमना के अपना मजुन में जान।
 एव उठि के अपना वाप कोहे यठठिन अबहो सुठठे रहेठिन की एवे उन जन वाप
 उन के देखठिन। वापका कोह ठाँक और दौड़ के उठा ठिठठिन और यूना दिहठिन।
 एव जे वेडा वाप से कहलसि ए वाप हम मगावान और गोहान सामने पाप करठे
 वाँछो और अब हम गोहान वेडा कहावे ठाँक नश्यो। एव ओकरा वाप अपना
 वोकरा से कहलसि की नोमन गुगा ठे आब और रक्का के पहिनाब और यठ हम
 सन केहू पाइ और पोहो और नौन कनो। काहेको ई हमान वेडा मनि गसठ
 रहेठिन है और सेन जो गसठिन है, मुठा गसठ रहेठिन है सेन मिठि गसठिन है।
 और एव जे वयाव वजावे ठाँकठिन ॥

Figure 20: Excerpt from a specimen of Bhojpuri printed in Kaithi type (Grierson 1903: 202).

एक—म—म—म—म—म—म—
 १२३४—५६—७८—९०—१०१—१०२—
 १०३—१०४—१०५—१०६—१०७—१०८—
 १०९—११०—१११—११२—११३—११४—
 ११५—११६—११७—११८—११९—१२०—
 १२१—१२२—१२३—१२४—१२५—१२६—
 १२७—१२८—१२९—१३०—१३१—१३२—
 १३३—१३४—१३५—१३६—१३७—१३८—
 १३९—१४०—१४१—१४२—१४३—१४४—
 १४५—१४६—१४७—१४८—१४९—१५०—

Figure 21: Excerpt from a specimen of Bhojpuri written in Kaithi (Grierson 1903: 214).

[illegible]

Figure 22: Excerpt from a plaint from the district court of Bhagalpur, Bihar (Bihar High Court of Judicature 1939).

[illegible]

Figure 23: Excerpt from a statement from the district court of Ranchi, Bihar (Bihar High Court of Judicature 1939).

A BOND

[illegible]

Figure 24: Example of Maithili style of Kaithi (Grierson 1899: Plate X)

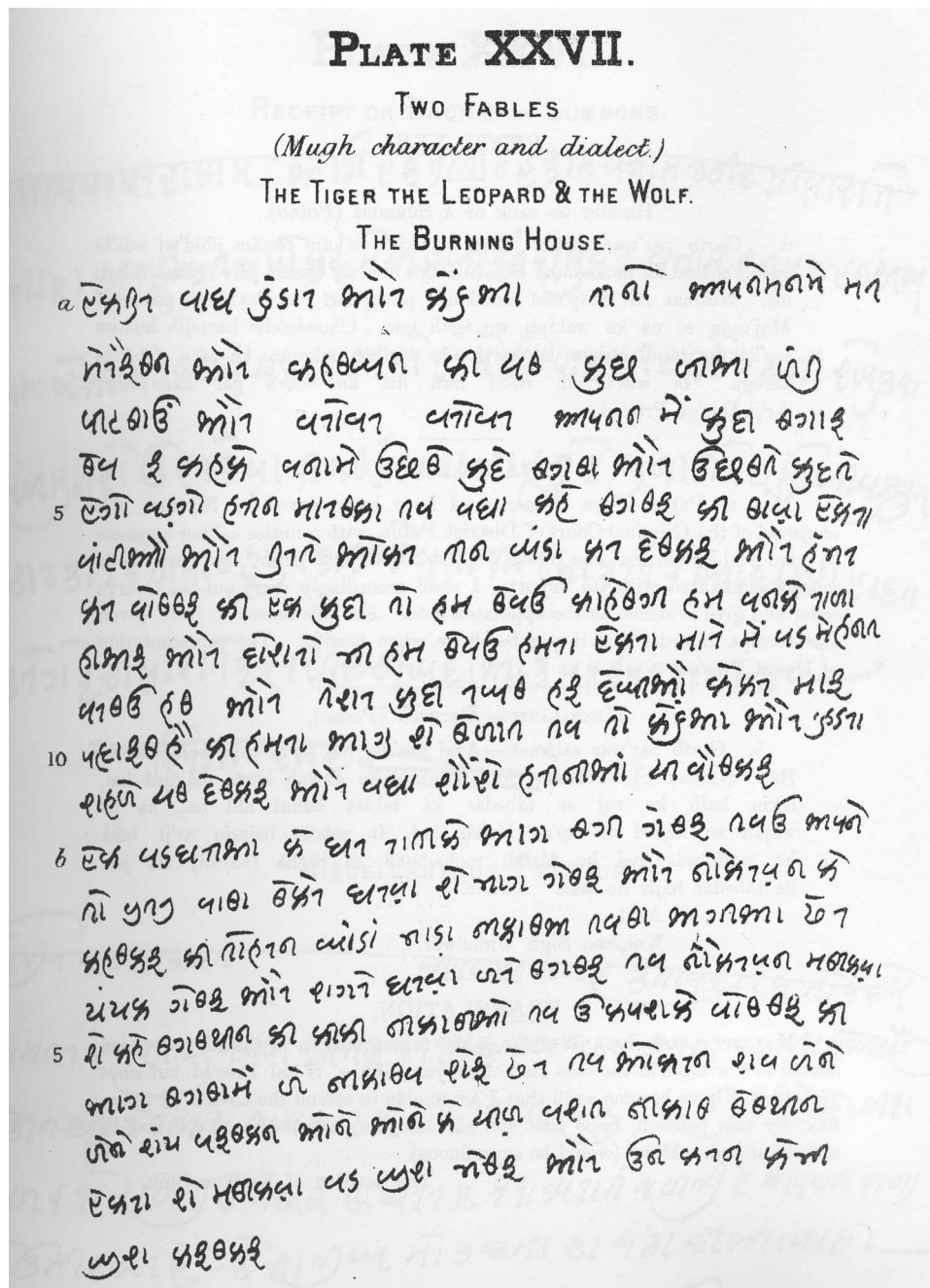


Figure 25: Example of Magahi style of Kaithi (Grierson 1899: Plate XXVII)

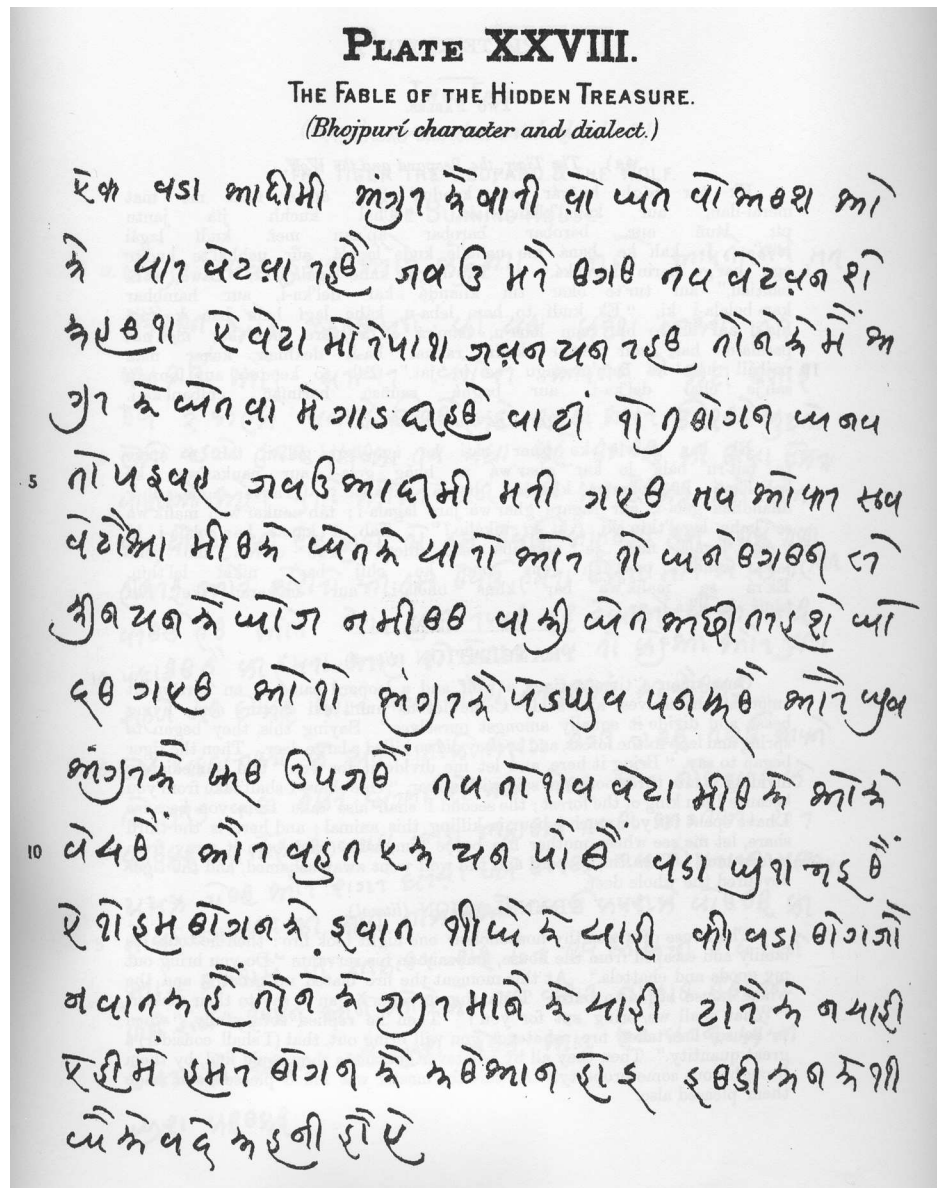


Figure 26: Example of Bhojpurī style of Kaithi (Grierson 1899: Plate XXVIII)

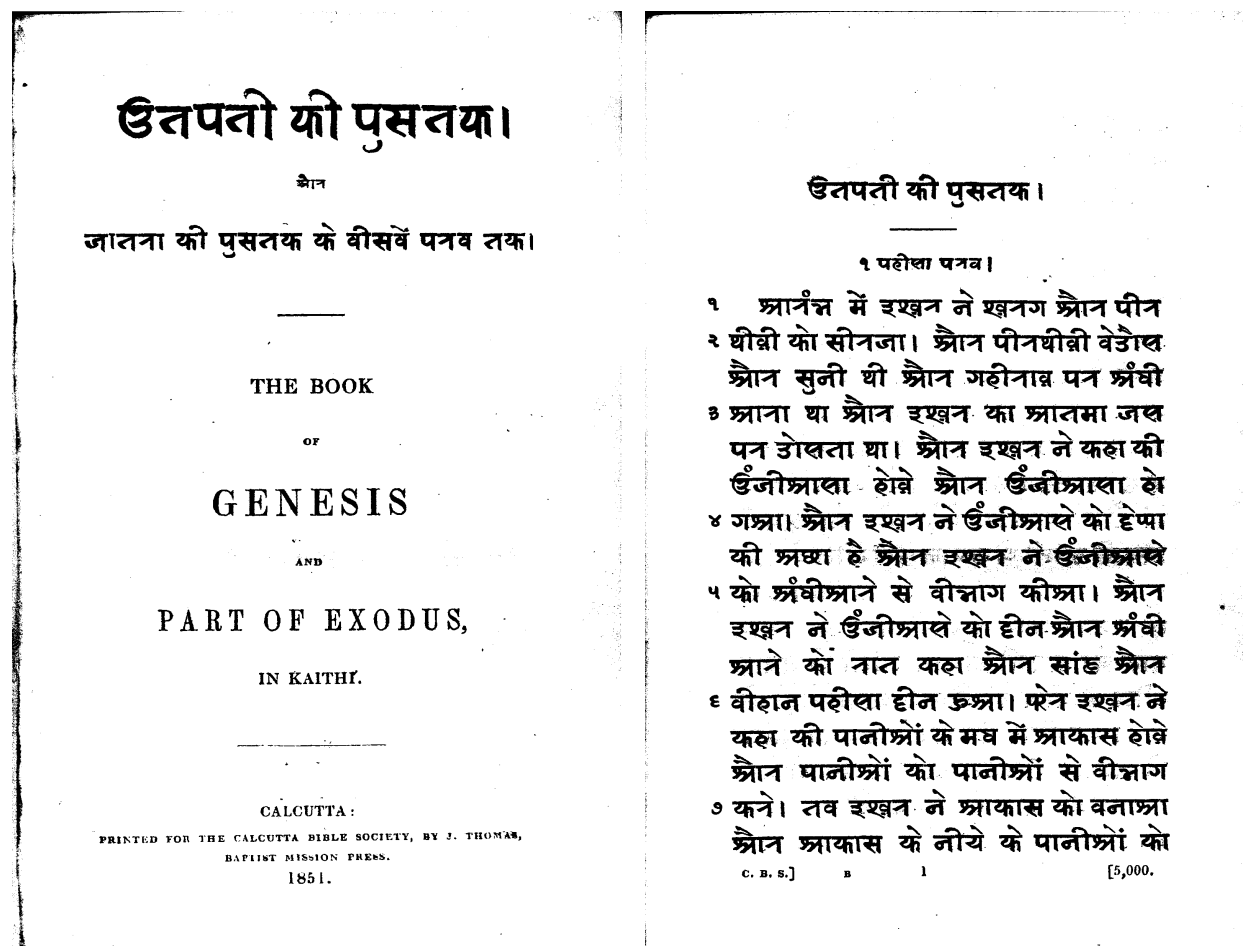


Figure 27: The title page and first page of the Book of Genesis printed in Kaithi type (Calcutta Bible Society: 1851). The Kaithi font used here resembles Devanagari in the use of the head-line, but distinct Kaithi letters can be identified.

Devanagari	Grantha	Kaithi	Maithili	Tulu	Sarada	Takari	Gurumukhi
अ	𑌵	𑌵	𑌵	𑌵	𑌵	𑌵	𑌵
आ			𑌶				
इ			𑌷				
ई	𑌸	𑌸	𑌸	𑌸	𑌸	𑌸	𑌸
उ	𑌹	𑌹	𑌹	𑌹	𑌹	𑌹	𑌹
ऊ	𑌺	𑌺	𑌺	𑌺	𑌺	𑌺	𑌺
ऋ	𑌻		𑌻	𑌻	𑌻		𑌻
ॠ	𑌼		𑌼	𑌼	𑌼		
ऌ	𑌽		𑌽	𑌽	𑌽		
ॡ	𑌾		𑌾	𑌾	𑌾		
ए	𑌿	𑌿	𑌿	𑌿	𑌿	𑌿	𑌿
ऐ	𑍀	𑍀	𑍀	𑍀	𑍀	𑍀	𑍀
ओ	𑍁	𑍁	𑍁	𑍁	𑍁	𑍁	𑍁
औ	𑍂	𑍂	𑍂	𑍂	𑍂	𑍂	𑍂
अं	𑍃	𑍃	𑍃		𑍃	𑍃	𑍃
अः		𑍄	𑍄		𑍄		𑍄
क	𑍅	𑍅	𑍅	𑍅	𑍅	𑍅	𑍅
ख	𑍆	𑍆	𑍆	𑍆	𑍆	𑍆	𑍆
ग	𑍇	𑍇	𑍇	𑍇	𑍇	𑍇	𑍇
घ	𑍈	𑍈	𑍈	𑍈	𑍈	𑍈	𑍈
ङ	𑍉		𑍉	𑍉	𑍉	𑍉	𑍉
च	𑍊	𑍊	𑍊	𑍊	𑍊	𑍊	𑍊
छ	𑍋	𑍋	𑍋	𑍋	𑍋	𑍋	𑍋
ज	𑍌	𑍌	𑍌	𑍌	𑍌	𑍌	𑍌
झ	𑍍	𑍍	𑍍	𑍍	𑍍	𑍍	𑍍
ञ	𑍎		𑍎	𑍎	𑍎		𑍎
ट	𑍇		𑍇	𑍇	𑍇		𑍇
ठ	𑍈		𑍈	𑍈	𑍈		𑍈
ड	𑍉		𑍉	𑍉	𑍉		𑍉
ढ	𑍊		𑍊	𑍊	𑍊		𑍊
ण							𑍋

Devanagari	Grantha	Kaithi	Maithili	Tulu	Sarada	Takari	Gurumukhi
ॡ	𑌾	𑌾	𑌾	𑌾	𑌾	𑌾	𑌾
ॢ	𑌿	𑌿	𑌿	𑌿	𑌿	𑌿	𑌿
ॣ	𑍀	𑍀	𑍀	𑍀	𑍀	𑍀	𑍀
।	𑍁	𑍁	𑍁	𑍁	𑍁	𑍁	𑍁
॥	𑍂	𑍂	𑍂	𑍂	𑍂	𑍂	𑍂
०							
१	𑍃	𑍃	𑍃	𑍃	𑍃	𑍃	𑍃
२	𑍄	𑍄	𑍄	𑍄	𑍄	𑍄	𑍄
३	𑍅	𑍅	𑍅	𑍅	𑍅	𑍅	𑍅
४	𑍆	𑍆	𑍆	𑍆	𑍆	𑍆	𑍆
५	𑍇	𑍇	𑍇	𑍇	𑍇	𑍇	𑍇
६	𑍈	𑍈	𑍈	𑍈	𑍈	𑍈	𑍈
७	𑍉	𑍉	𑍉	𑍉	𑍉	𑍉	𑍉
८	𑍊	𑍊	𑍊	𑍊	𑍊	𑍊	𑍊
९	𑍋	𑍋	𑍋	𑍋	𑍋	𑍋	𑍋
०							

Devanagari	Grantha	Kaithi	Maithili	Tulu	Sarada	Takari	Gurumukhi
अ							𑌵
आ							𑌶
इ	𑌸	𑌸	𑌸	𑌸	𑌸	𑌸	𑌸
ई	𑌹	𑌹	𑌹	𑌹	𑌹	𑌹	𑌹
उ	𑌺	𑌺	𑌺	𑌺	𑌺	𑌺	𑌺
ऊ	𑌻	𑌻	𑌻	𑌻	𑌻	𑌻	𑌻
ॠ	𑌼	𑌼	𑌼	𑌼	𑌼	𑌼	𑌼
ॡ	𑌽	𑌽	𑌽	𑌽	𑌽	𑌽	𑌽
ए	𑌿	𑌿	𑌿	𑌿	𑌿	𑌿	𑌿
ऐ	𑍀	𑍀	𑍀	𑍀	𑍀	𑍀	𑍀
ओ	𑍁	𑍁	𑍁	𑍁	𑍁	𑍁	𑍁
औ	𑍂	𑍂	𑍂	𑍂	𑍂	𑍂	𑍂
अं	𑍃	𑍃	𑍃		𑍃	𑍃	𑍃
अः		𑍄	𑍄		𑍄		𑍄
क	𑍅	𑍅	𑍅	𑍅	𑍅	𑍅	𑍅
ख	𑍆	𑍆	𑍆	𑍆	𑍆	𑍆	𑍆
ग	𑍇	𑍇	𑍇	𑍇	𑍇	𑍇	𑍇
घ	𑍈	𑍈	𑍈	𑍈	𑍈	𑍈	𑍈
ङ	𑍉		𑍉	𑍉	𑍉	𑍉	𑍉
च	𑍊	𑍊	𑍊	𑍊	𑍊	𑍊	𑍊
छ	𑍋	𑍋	𑍋	𑍋	𑍋	𑍋	𑍋
ज	𑍌	𑍌	𑍌	𑍌	𑍌	𑍌	𑍌
झ	𑍍	𑍍	𑍍	𑍍	𑍍	𑍍	𑍍
ञ	𑍎		𑍎	𑍎	𑍎		𑍎
ट	𑍇		𑍇	𑍇	𑍇		𑍇
ठ	𑍈		𑍈	𑍈	𑍈		𑍈
ड	𑍉		𑍉	𑍉	𑍉		𑍉
ढ	𑍊		𑍊	𑍊	𑍊		𑍊
ण							𑍋

Figure 28: Chart comparing Devanagari, Kaithi, and other scripts (Naik 1971: Table 13).

9 Bibliography

- Beverly, Henry. 1874. “On the Census of Bengal,” in *Journal of the Statistical Society of London*, vol. 37, no. 1, March 1874. London: Statistical Society of London.
- Bihar High Court of Judicature. 1939. *Selection of Hindusthani documents from the courts of Bihar*, compiled by S.K. Das. Patna, Bihar: Superintendent, Government Printing.
- Calcutta Bible Society. 1851. *The Book of Genesis and Part of Exodus* [Utapatī kī pusataka, aura, Jātārā kī pusataka ke vīsvem parava taka]. (Book of Genesis from the Old Testament translated into Hindi in the Kaithi script). Printed for the Calcutta Bible Society by J. Thomas, Baptist Mission Press, Calcutta.
- Chatterji, Suniti Kumar. 1970 [1926]. *The Origin and Development of the Bengali Language*. Part I: Introduction, Phonology. Reprint of the 1926 ed. by Calcutta University Press. London: George Allen & Unwin.
- “Comparative-Religion Notes,” in *The Biblical World*, vol. 4, no. 4, October 1894. Chicago: University of Chicago Press.
- Grierson, G.A. 1899. *A Handbook to the Kaithi Character*. 2nd rev. ed. of the title *A Kaithi Handbook*, 1881. Calcutta: Thacker, Spink & Co.
- . 1903. *Linguistic Survey of India*. Volume V. Indo-Aryan family, Eastern group. Pt. II. Specimens of the Bihārī and Oṛiyā languages.
- Hoernle, Rudolph A.F. 1975. *A Comparative Grammar of the Gaudian (Aryo-Indian) Languages*. Reprint of 1880 ed. Amsterdam: Philo Press, 1975.
- International Organization for Standardization. 2001. *ISO 15919:2001 Transliteration of Devanagari and other Indic scripts into Roman*.
- kaithī vo hindī barnamālā* (“Kaithee-Hindi Reader”). 1882. Chapra, Bihar: Nasim Saran Press. [कैथी वो हिन्दी बर्नमाला. (१८८२). छप्रा: नसीम सारन प्रेस].
- Kellogg, Samuel H. 1893. *A grammar of the Hindī language: in which are treated the High Hindī, Braj, and the Eastern Hindī of the Rāmāyan of Tulsi Dās, also the colloquial dialects of Rājputānā, Kumāon, Avadh, Rīwā, Bhojpūr, Magadha, Maithila, etc., with copious philological notes*. London: K. Paul, Trench, Trubner and Co.
- King, Christopher R. 1989. “Forging a New Linguistic Identity: The Hindi Movement in Banaras, 1868-1914.” In *Culture and Power in Banaras: Community, Performance, and Environment, 1800-1980*, edited by Sandria B. Freitag. Berkeley: University of California Press.
- . 1994. *One Language, Two Scripts: The Hindi Movement in Nineteenth Century North India*. Bombay: Oxford University Press.
- Lloyd-Williams, James; Lloyd-Williams, Sue; Constable, Peter. 2003. *Documentation in support of proposal for encoding Syloti Nagri in the BMP*. Sylheti Translation and Research.
- Naik, Bapurao S. 1971. *Typography of Devanagari*. 1st rev. ed. Bombay: Directorate of Languages, Government. of Maharashtra.
- Ojhā, Gaurīśaṅkara Hīrācanda. 1971 [1918]. *Bhāratīya prācīna lipimāla*. [The Palaeography of India]. Reprint of the rev. and enl. 2nd ed., 1918; first ed. published in 1894 under the title *Prācīna lipimālā*. New Delhi: Munshiram Manoharlal.
- Salomon, Richard. 2003. “Writing Systems of the Indo-Aryan Languages.” In *The Indo-Aryan Languages*. Edited by George Cardona and Dhanesh Jain. New York, London: Routledge.
- Saxena, Baburam. 1937. *Evolution of Awadhi: A Branch of Hindi*. Allahabad: The Indian Press.
- Śākyaavaṃśa, Hemarāja. 1974 [saṃvat 2030]. *Nepāla lipi-prakāśa*. Kaṭhamāṇḍau.
- Shapiro, Michael C. 2003. “Hindi.” In *The Indo-Aryan Languages*. Edited by George Cardona and Dhanesh Jain. New York, London: Routledge.
- The Unicode Consortium. 2003. *The Unicode Standard, Version 4.1.0*, defined by: *The Unicode Standard, Version 4.0*. Boston: Addison-Wesley.
- Vedalankar, Sharadadevi. 1969. *The Development of Hindi Prose Literature in the Early Nineteenth Cen-*

- tury (1800-1856 A.D.)*. Lokbharti Publications, Allahabad.
- Verma, Manindra K. 2003. “Bhojpuri.” In *The Indo-Aryan Languages*. Edited by George Cardona and Dhanesh Jain. New York, London: Routledge.
- Verma, Sheela. 2003. “Magahi.” In *The Indo-Aryan Languages*. Edited by George Cardona and Dhanesh Jain. New York, London: Routledge.
- Yadav, Ramawatar. 2003. “Maithili.” In *The Indo-Aryan Languages*. Edited by George Cardona and Dhanesh Jain. New York, London: Routledge.