Proposal to Encode the Kaithi Script in ISO/IEC 10646

Anshuman Pandey University of Michigan Ann Arbor, Michigan, U.S.A. pandey@umich.edu

December 13, 2007

Contents

	Prop	posal Summary Form
1	1.1 1.2 1.3 1.4	oduction1Description1Justification for Encoding1Acknowledgments2Proposal History2
2	Cha	racters Proposed
	2.1	Characters Not Proposed
	2.2	Basis for Character Shapes
3	Tecl	nnical Features
	3.1	Name
	3.2	Classification
	3.3	Allocation
	3.4	Encoding Model
	3.5	Character Properties
	3.6	Collation
	3.7	Typology of Characters
4	Bacl	kground 13
	4.1	Origins
	4.2	Name
	4.3	Definitions
	4.4	Languages Written in the Script
	4.5	Standardization and Growth
	4.6	Decline
	4.7	Usage
5	Ortl	hography 23
	5.1	Distinguishing Features
	5.2	Vowels
	5.3	Consonants

	5.11 5.12 5.13 5.14 5.15 5.16	Nasalization Consonant-Vowel Ligatures Consonant Conjuncts Word Boundaries Sentence and Paragraph Boundaries Hyphenation Abbreviation Enumeration Nukta Ruled Lines Digits Number Forms and Unit Marks Regional Variants Typefaces	25 25 27 28 29 32 32 33 34 35 36 36 37
7	6.1 6.2 6.3 6.4 Refe	Relationship to Other Scripts Relationship to Gujarati	39 41 42 42 46
1 2 3 4 5 6 7 8	Gly Con Con Sta A co	rph chart and character names and properties for the Kaithi script. mparison of consonants of metal fonts with the digitized Kaithi font mparison of vowels of metal fonts with the digitized Kaithi font mparison of regional variants of the nasal consonant letters tistical comparison of similarity of letters across Kaithi, Gujarati, and Devanagari comparison of consonants of Kaithi, Gujarati, Devanagari, and Syloti Nagri comparison of digits of Kaithi, Gujarati, Devanagari, and Syloti Nagri	5 6 7 7 43 44 45 45

List of Figures

1	Geographic center of the Kaithi script in South Asia	15
2	Relationship of Kaithi to selected Nagari-based scripts	41
3	A comparison of the three regional forms of Kaithi	50
4	A list of Kaithi conjuncts used in the Maithili style of Kaithi	51
5	Currency, weights, and measures signs used in Kaithi	52
6	Specimen of hand-written Bhojpuri style of Kaithi	53
7	Specimen of hand-written Maithili style of Kaithi	54
8	Specimen of hand-written Magahi style of Kaithi	55
9	Excerpt from a specimen of Maithili written in the Magahi style of Kaithi	56
10	Excerpt from a specimen of Awadhi written in Kaithi	
11	Excerpt from a specimen of Bengali written in Kaithi	58
12	A specimen of Magahi printed in Kaithi type	59
13	A specimen of Maithili printed in Kaithi type	60
14	A specimen of Bhojpuri printed in Kaithi type	61
15	Table of the Kaithi script in the <i>Linguistic Survey of India</i>	62
16	Table of the Kaithi script from Eastwick	63
17	Inventory of Kaithi letters	64
18	Comparison of numerals of Kaithi and other scripts	64
19	Folios 1b and 2a from the Mahāgaṇapatistotra in Devanagari and Kaithi	65
20	Folios 1a and 4a from the <i>Mahāgaṇapatistotra</i> in Devanagari and Kaithi	66
21	Excerpt from a plaint from the district court of Patna, Bihar	67
22	Excerpt from a plaint from the district court of Bhagalpur, Bihar	68
23	Excerpt from a statement from the district court of Ranchi, Bihar	69
24	Rent receipt from the former Principality of Seraikella	70
25	Title and first pages of the Book of Genesis in Kaithi type	71
26	Title and first pages of the New Testament in Kaithi type	72
27	Entries for the 'Bihari' languages in <i>The Book of a Thousand Tongues</i>	73
28	A folio from the "Ekadala" manuscript of <i>Miragāvatī</i>	74
29	A folio from the <i>Tale of Sudama</i>	75
30	A sanad of Sher Shah Suri in Persian and Kaithi	76
31	A letter to the Supreme Civil Court of Appeals in Calcutta	77
32	Comparison of Kaithi, Gujarati, and Devanagari types from the Linguistic Survey of India	78
33	Comparison of hand-written Kaithi and Gujarati letters	79
34	Comparison of Kaithi and Devanagari	79
35	Comparison of Kaithi and Devanagari metal fonts	
36	A comparison of the Kaithi script with the Devanagari and Mahajani	81
37	Comparison of Kaithi drawn with the headstroke and Devanagari	82
38	Comparison of writing techniques in Kaithi and Devanagari	83
39	Comparison of scripts descended from proto-Bengali	84
40	Comparison of Kaithi with other scripts used for writing Hindi	85
41	Comparison of Kaithi with other Indic scripts	
42	Comparison of Kaithi with other Indic scripts	
43	A family tree of north Indic scripts showing Kaithi as a member of the Nagari family	
44	The relationship of Kaithi to other Indic scripts	

ISO/IEC JTC 1/SC 2/WG 2 PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹

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 ISO/IEC 10646
- 2. Requester's name: University of California, Berkeley Script Encoding Initiative (Universal Scripts Project); author: Anshuman Pandey (pandey@umich.edu)
- 3. Requester type (Member Body/Liaison/Individual contribution): Liaison contribution
- 4. Submission date: December 13, 2007
- 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: 71
- 3. Proposed category: C Major extinct
- 4. 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
- 5. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?: **Anshuman Pandey**; **True Type format**
 - (a) If available now, identify source(s) for the font and indicate the tools used: The letters of the digitized Kaithi font are based on normalized forms of letters of Kaithi metal fonts and, in some cases, on written forms. The font was drawn by Anshuman Pandey with Metafont and converted to True Type with FontForge.
- 6 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**
- 7. 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 proposal for additional details..
- 8. 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 and numeric information are included.

¹ Form number: N3102-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03)

C. Technical - Justification

- 1. Has this proposal for addition of character(s) been submitted before?: Yes; this proposal is a revision of "Proposal to Encode the Kaithi Script in Plane 1 of ISO/IEC 10646" (L2/05-343).
- 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.)? **No**
 - (a) If Yes, with whom?: N/A
 - 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: Awadhi, Bhojpuri, Magahi, and Maithili speakers; as well as linguists, historians, legal scholars working with sources from 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 India, pedagogical materials from north India, commercial and accounting records; religious and literary texts; bibles printed in north India during the 19th and early 20th century.
- 5. Are the proposed characters in current use by the user community?: It is difficult to ascertain if Kaithi is presently used in India. However, specialists in the fields enumerated in C.3(a) are actively using the script.
 - (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? 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

1 Introduction

This is a proposal to encode the Kaithi script in the Supplementary Multilingual Plane (Plane 1) of the Universal Character Set (ISO/IEC 10646).

1.1 Description

Kaithi is a major independent writing system that was used throughout northern India, in the region encompassing the modern states of Bihar and Uttar Pradesh. The script was also used in Mauritius, Trinidad, and other areas that were populated by north Indian diaspora communities. Kaithi was used for writing Bhojpuri, Magahi, Urdu, and several other regional languages allied with Hindi.

Kaithi is a distinct writing system with an independent scribal and printing tradition. It is related to Devanagari, Gujarati, and other major north Indic scripts in much the same way as the latter scripts are related to each other. Kaithi is considered the ancestor of Syloti Nagri, Mahajani, and other scripts. On account of its strong scribal tradition, Kaithi was used alongside Devanagari, Persian, and other scripts commonly used in northern India. Several of these biscriptural documents are preserved.

The importance of Kaithi in north Indian society can be measured by the activities for which it was employed and by the number of materials written and printed in the script. Use of Kaithi for administrative purposes is attested from at least the 16th century through the first decade of the 20th century. Kaithi was also used for routine writing, commercial transactions, correspondence, and personal records. Despite its characterization as a secular script, Kaithi was also used for writing religious and literary manuscripts.

The significance of Kaithi grew when the British governments of the Bengal Presidency (of which Bihar was a territory) and the North-Western Provinces & Oudh (hereafter, NWP&O) selected the script for use in administration and education. The first impetus of growth was the standardization of written Kaithi in 1875 by the government of NWP&O for the purpose of adapting the script for use in formal education. The second was the selection of Kaithi by the government of Bihar as the official script of the courts and administrative offices of the Bihar districts in 1880. Thereafter, Kaithi replaced the Persian script as the writing system of record in the judicial courts of Bihar. Additionally, on account of the rate of literacy in Kaithi, the governments of Bihar and NWP&O advocated Kaithi as the medium of written instruction in their primary schools.

The standardization of Kaithi was followed by the development of metal fonts and printing facilities for the script. The British government printed census schedules and accounting records in Kaithi. Private Indian publishers also printed books in Kaithi; however, printing in Kaithi was furthest developed and propagated by Western missionaries, who, recognizing the popularity of Kaithi, preferred it over Devanagari for printing translations of Christian literature in the regional languages of north India.

Kaithi remained the popular script for the languages of northern India until the early 20th century, at which time it yielded to the growing importance of Devanagari. The script was also maintained in areas outside of South Asia by the descendants of north Indian emigrants. Government gazetteers report that Kaithi was used in a few districts of Bihar through the 1960s. It is possible that Kaithi is still used today in very limited capacity in these districts and in rural areas of north India. Nevertheless, on account of the magnitude of documents in Kaithi, the script remains important to modern scholars working with such sources.

1.2 Justification for Encoding

An encoding for Kaithi in the Universal Character Set (UCS) will benefit users who require the ability to preserve, represent, and reproduce written and printed Kaithi documents in digital media. A standard encoding for Kaithi will provide users with the means to identify, store, and process Kaithi text in electronic

plain-text, not merely at the graphical presentation level. The identification of Kaithi in plain-text is required for properly distinguishing between Kaithi and other scripts in biscriptual documents.

There is active research in India and the United States on Kaithi source materials. Specialists in the United States are studying court records from Bihar written in Kaithi. Archivists of the Government of India are engaged in a project to preserve manuscripts in Kaithi. Non-specialist users are seeking to preserve personal records in the script. A digital standard for Kaithi will benefit individual researchers and preservation projects and will contribute to further study of the Kaithi script and source materials.

1.3 Acknowledgments

This project was made possible in part by a grant from the United States National Endowment for the Humanities (NEH), which funded the Universal Scripts Project (part of the Script Encoding Initiative at the University of California, Berkeley).

Digital reproductions of folios from a manuscript of the *Mahāgaṇapatistotra* (shown in Figure 19 and Figure 20) are used here with permission from the University of Pennsylvania Libraries.

A digital reproduction of a folio from a manuscript of the *Tale of Sudama* (shown in Figure 29) is used here with permission from Sam Fogg, London.

Several fonts are used in this proposal for the comparison of Kaithi with other scripts. The Devanagari font was designed by Frans Velthuis for his "devnag" package for the TEX typesetting system. The "New Surma" font for Syloti Nagri was developed by Sylheti Translation and Research (STAR). The "ItXGuj" font for Gujarati was developed by Shrikrishna Patil.

1.4 Proposal History

This proposal is a revision of the draft proposal titled "Proposal to Encode the Kaithi Script in Plane 1 of ISO/IEC 10646" (L2/05-343), submitted to the Unicode Technical Committee on October 25, 2005. It incorporates recommendations made by Michael Everson in "Towards an encoding of the Kaithi script in the SMP of the UCS" (ISO/IEC JTC1/SC2/WG2 N3014 L2/05-368) upon a review of L2/05-343.

The major differences between the draft proposal and the present revision are the addition of KAITHI LETTER NGA and KAITHI LETTER NYA; the removal of *daṇḍā*s and the word and sentence separators; and the removal of fraction and unit signs. The fraction and unit signs were proposed for separate encoding by the present author in "Proposal to Encode North Indic Number Forms in ISO/IEC 10646" (ISO/IEC JTC1/SC2/WG2 N3367 L2/07-354) and accepted by the UTC on August 9, 2007. The present version of this proposal also contains additional specimens that further demonstrate the importance of the Kaithi writing system and the significance of its scribal and printing traditions.

2 Characters Proposed

The 71 letters in this proposal comprise the core set of Kaithi letters and signs. This set is sufficient for the general encoding and processing of Kaithi documents.

Consonants There are 35 consonant letters:

_{th}	KAITHI LETTER KA	S	KAITHI LETTER DDA	વ	KAITHI LETTER BA
ખ	KAITHI LETTER KHA	Ģ	KAITHI LETTER DDDHA	প্র	KAITHI LETTER BHA
71	KAITHI LETTER GA	ઢ	KAITHI LETTER DDHA	ধ	KAITHI LETTER MA
ઘ	KAITHI LETTER GHA	Ġ	KAITHI LETTER RHA	ય	KAITHI LETTER YA
B	KAITHI LETTER NGA	Ж	KAITHI LETTER NNA	1	KAITHI LETTER RA
ય	KAITHI LETTER CA	U	KAITHI LETTER TA	9	KAITHI LETTER LA
Ø	KAITHI LETTER CHA	થ	KAITHI LETTER THA	વ઼	KAITHI LETTER VA
Ŋ	KAITHI LETTER JA	ξ	KAITHI LETTER DA	શ	KAITHI LETTER SHA
Ę	KAITHI LETTER JHA	ય	KAITHI LETTER DHA	Ŋ	KAITHI LETTER SSA
બ	KAITHI LETTER NYA	গ	KAITHI LETTER NA	સ	KAITHI LETTER SA
ડ	KAITHI LETTER TTA	Ч	KAITHI LETTER PA	۶	KAITHI LETTER HA
S	KAITHI LETTER TTHA	શ્ર	KAITHI LETTER PHA		

Vowels There are 10 independent vowels:

શ્ર	KAITHI LETTER A	E	KAITHI LETTER U	શ્રો	KAITHI LETTER O
શ્રા	KAITHI LETTER AA	ઝ	KAITHI LETTER UU	શ્રૌ	KAITHI LETTER AU
২	KAITHI LETTER I	у	KAITHI LETTER E		
६	KAITHI LETTER II	Э	KAITHI LETTER AI		

Vowel Signs There are 9 dependent vowel signs:

्र	KAITHI VOWEL SIGN AA	ુ	KAITHI VOWEL SIGN U	ै	KAITHI VOWEL SIGN AI
ि	KAITHI VOWEL SIGN I	ૂ	KAITHI VOWEL SIGN UU	ો	KAITHI VOWEL SIGN O
ી	KAITHI VOWEL SIGN II	े	KAITHI VOWEL SIGN E	ী	KAITHI VOWEL SIGN AU

Various Signs There are 5 various signs:

ំ	KAITHI SIGN CANDRABINDU	ः	KAITHI SIGN VISARGA	়	KAITHI SIGN NUKTA
ं	KAITHI SIGN ANUSVARA	0	KAITHI SIGN VIRAMA		

Digits There are 10 digits:

0	KAITHI DIGIT ZERO	8	KAITHI DIGIT FOUR	\sqsubset	KAITHI DIGIT EIGHT
٩	KAITHI DIGIT ONE	Ч	KAITHI DIGIT FIVE	۲	KAITHI DIGIT NINE
२	KAITHI DIGIT TWO	ξ	KAITHI DIGIT SIX		
3	KAITHI DIGIT THREE	૭	KAITHI DIGIT SEVEN		

Punctuation There are 2 punctuation marks:

2.1 Characters Not Proposed

The following characters are attested in printed and written Kaithi materials, but they are not proposed for consideration at present for one or more of the following reasons: (a) insufficient information regarding the characters and their properties; (b) the possibility of representing a character with another of similar or equal function; or (c) a policy recommendation made by the UTC. Space is available in the Kaithi block to accommodate the possible inclusion of these characters in the future.

LETTER VOCALIC R Two sources show the use of \bigcirc vowel sign vocalic R in Kaithi (see discussion in section 5.2). However, the sources do not indicate an independent Kaithi LETTER VOCALIC R, which would be the equivalent of $\frac{1}{12}$ U+090B DEVANAGARI LETTER VOCALIC R (r). Since an independent Kaithi LETTER VOCALIC R has not been identified, it is unclear if the dependent vowel sign should be proposed for encoding.

DANDA and DOUBLE DANDA The Unicode Standard currently recommends the use of U+0964 DEVANAGARI DANDA and U+0965 DEVANAGARI DOUBLE DANDA when these signs are to be used with other Indic scripts. The concensus is that introducing script-specific daṇḍās is similar to introducing distinct punctuation, as commas and periods, for each script. As for Indic scripts, the claim may be made for Kaithi that script-specific daṇḍās are necessary to ensure stylistic compatibility between daṇḍās and other characters. However, the UTC has stated that unless evidence is presented to warrant the encoding of script-specific daṇḍās, the recommendation is to unifying these characters with those of Devanagari. Although several specimens show distinctive Kaithi daṇḍās, they are not sufficiently distinct typologically to justify disunif-cation with Devanagari dandās. See section 5.8 for further discussion.

WORD SEPARATOR and SENTENCE SEPARATOR A previous version of this proposal suggested the encoding of two punctuation characters for delimiting word and sentence boundaries. These were — KAITHI WORD SEPARATOR and = KAITHI SENTENCE SEPARATOR. The usage and shapes of these characters is not consistent in Kaithi texts. Furthermore, existing characters in the UCS are semantically adequate for representing such punctuation, namely the U+2E37 WORD SEPARATOR MIDDLE DOT for word boundaries, U+0964 DEVANAGARI DANDA, and U+0965 DEVANAGARI DOUBLE DANDA for paragraph, sentence, and other line terminations and boundaries. See section 5.7 for further discussion.

2.2 Basis for Character Shapes

The Kaithi script proposed for encoding in the UCS is the Standard Kaithi developed by the British governments of Bihar and the NWP&O in the 19th century. The proposed script is an extension of Standard Kaithi that includes letters that are attested in manuscripts, printed books, alphabet charts, and other character inventories of the script. These lesser-used letters are KAITHI LETTER NGA, KAITHI LETTER NYA, KAITHI LETTER NNA, and KAITHI LETTER SSA (see Figure 41 and Figure 42).

The characters of the proposed Kaithi script are normalized forms of characters of the Kaithi metal font developed by George A. Grierson for use in the *Linguistic Survey of India*, which is representative of Standard Kaithi. While Grierson's fonts do not contain the rare letters mentioned above, the fonts produced by the Baptist Mission Press of Calcutta contain these letters. The forms of the rare letters are based on the forms cut by the Baptist Mission Press. Digits and punctuation are derived from forms found in manuscripts and script charts. The sources for the proposed characters are shown in Table 2 (consonants), Table 3 (vowels), and Table 4 (nasal consonants). Kaithi typefaces and regional styles are discussed further in section 5.16.

The font for the proposed Kaithi script was drawn by Anshuman Pandey. The digitized letterforms were designed to express fidelity to the appearance of Kaithi fonts used in the *Linguistic Survey of India*.

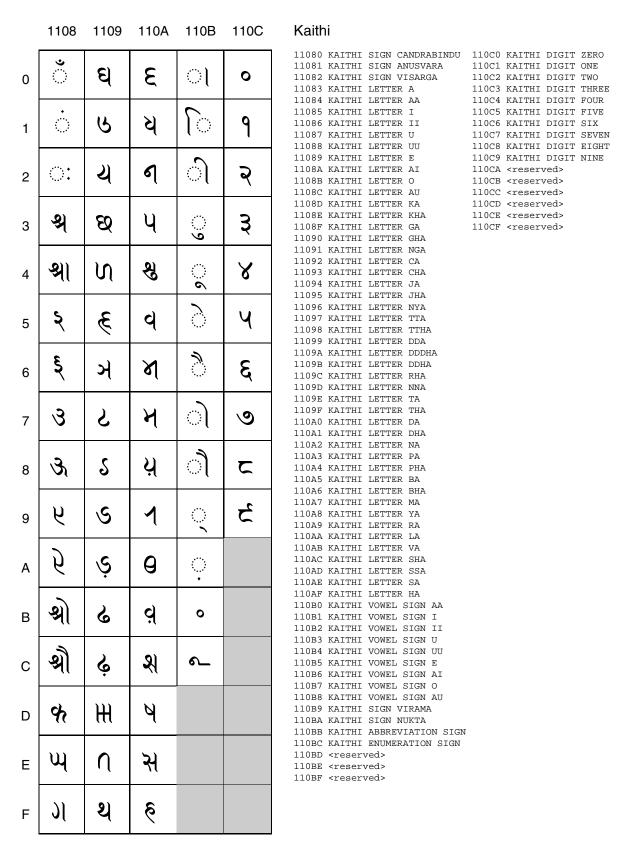


Table 1: Glyph chart and character names and properties for the Kaithi script.



Table 2: Comparison of consonant letters in Kaithi fonts used by Grierson in the *Linguistic Survey* of *India* (columns 'A' and 'B') and by the Baptist Mission Press (columns 'C' and 'D') with the digitized Kaithi font developed by Anshuman Pandey (column 'E').



Table 3: Comparison of vowel letters of Kaithi fonts used by Grierson in the *Linguistic Survey of India* (columns 'A' and 'B') and by the Baptist Mission Press (columns 'C' and 'D') with the digitized Kaithi font developed by Anshuman Pandey (column 'E'). Note: AM represents LETTER A with SIGN ANUSVARA; AH represents LETTER A with SIGN VISARGA.

	TIRHUTI	BHOJPURI	MAGAHI	
NGA	•	ઉ	σ	B
NYA	K	4	3,	બ
NNA	स्म	₹#	#	Ж

Table 4: Comparison of regional variants of the nasal consonant letters found in hand-written Kaithi with the digitzed form (column 4). Characters taken from Grierson (1899: Plate II).

3 Technical Features

3.1 Name

The name of the script in the UCS shall be Kaithi. The Latin transliteration as recommended by ISO 15919 is Kaithī. This proposal uses the name 'Kaithi' without diacritics.

3.2 Classification

Kaithi is classified as a "Category C" (major extinct) as per the criteria specified in ISO/IEC JTC 1/SC 2/WG 2 N3002.² Kaithi is historically significant and there exists a substantial body of literature written and printed in the script.

3.3 Allocation

Kaithi is currently allocated in the Supplementary Multilingual Plane (SMP) (Plane 1) of the UCS at the range U+11080..U+110CF.³ The five rows allocated for Kaithi in the SMP are sufficient for encoding the script and provide space for the inclusion of additional characters, should the need arise. The glyph chart in Table 1 shows the characters proposed for encoding.

3.4 Encoding Model

The Kaithi script is an abugida of the Brahmic type. It is written from left to right. The formation of syllables in Kaithi follows the pattern common to north Indic scripts. The encoding model for Kaithi may be based on the model implemented for Devanagari.

Consonant letters bear the inherent vowel a (KAITHI LETTER A) when unaccompanied by a vowel sign. The inherent vowel is changed by applying a vowel sign to the consonant. Vowel signs are placed above, below, and to the right of the consonant to which they are applied. The exception is KAITHI VOWEL SIGN I, which is written to the left of the consonant. The inherent vowel is suppressed by the $vir\bar{a}ma$ (KAITHI SIGN VIRAMA) to produce the bare consonant.

A sequence of consonants (in which all but the final consonant is bare) is written as a consonant conjunct, which may occur as (a) a true ligature; (b) half-forms of all consonants in the cluster except the final consonant, which assumes a full form; and (c) a sequence of full-form consonants marked with an explicit *virāma* except for the final consonant.

3.5 Character Properties

Vowels All independent vowels have the following properties:

General Category: Lo (Letter, Other)

Combining Class: 0 (Spacing, split, enclosing, reordrant, and Tibetan subjoined)

Bidirectional Class: L (Left-to-Right)

Vowel Signs The dependent vowel signs are divided into two classes based upon their spacing attributes. The first class consists of the non-spacing marks KAITHI VOWEL SIGN U, KAITHI VOWEL SIGN UU, KAITHI VOWEL SIGN E, and KAITHI VOWEL SIGN AI, which have the following properties:

¹ International Organization for Standardization, 2001; Stone, 2004. ² International Organization for Standardization, 2005: 4.

³ Unicode Roadmap Committee, 2007.

General Category: Mn (Mark, Nonspacing)

Combining Class: 0 (Spacing, split, enclosing, reordrant, and Tibetan subjoined)

Bidirectional Class: NSM (Non-Spacing Mark)

The second class consists of the spacing marks KAITHI VOWEL SIGN AA, KAITHI VOWEL SIGN I, KAITHI VOWEL SIGN O, and KAITHI VOWEL SIGN AU, which have the following properties:

General Category: Mc (Mark, Spacing Combining)

Combining Class: 0 (Spacing, split, enclosing, reordrant, and Tibetan subjoined)

Bidirectional Class: L (Left-to-Right)

Consonants All consonants have the following properties:

General Category: Lo (Letter, Other)

Combining Class: 0 (Spacing, split, enclosing, reordrant, and Tibetan subjoined)

Bidirectional Class: L (Left-to-Right)

Various Signs The KAITHI SIGN CANDRABINDU and KAITHI SIGN ANUSVARA are non-spacing marks that belong to the general category "Mn," are of combining class "0," and possess the bidirectional class value "NSM."

The KAITHI SIGN VISARGA is a spacing mark that belongs to the general category "Mc," is of combining class "0," and possesses the bidirectional class value "NSM."

The KAITHI SIGN VIRAMA is a non-spacing mark that belongs to the general category "Mn," has a combining class value of "9" (Viramas), and has the bidirectional class value "NSM."

The KAITHI SIGN NUKTA is a non-spacing mark that belongs to the general category "Mn," has a combining class value of "7" (Nuktas), and is of the bidirectional class value "NSM."

Punctuation The KAITHI ABBREVIATION SIGN and KAITHI ENUMERATION SIGN have the following properties:

General Category: Po (Punctuation, Other)

Combining Class: 0 (Spacing, split, enclosing, reordrant, and Tibetan subjoined)

Bidirectional Class: L (Left-to-Right)

Digits All digits have the following properties:

General Category: Nd (Number, Decimal Digit)

Combining Class: 0 (Spacing, split, enclosing, reordrant, and Tibetan subjoined)

Numerical Value: {0, 1, 2, 3, 4, 5, 6, 7, 8, 9}

Bidirectional Class: L (Left-to-Right)

3.5.1 Unicode Character Database Format

The properties for Kaithi characters in the Unicode Character Database format are:

```
1108A; KAITHI LETTER AI; Lo; 0; L;;;;; N;;;;
1108B; KAITHI LETTER O; Lo; 0; L;;;;; N;;;;;
1108C; KAITHI LETTER AU; Lo; 0; L;;;;; N;;;;;
1108D; KAITHI LETTER KA; Lo; 0; L;;;;; N;;;;;
1108E; KAITHI LETTER KHA; Lo; 0; L;;;;; N;;;;
1108F; KAITHI LETTER GA; Lo; 0; L; ; ; ; ; ; ; ; ;
11090; KAITHI LETTER GHA; Lo; 0; L;;;;; N;;;;;
11091; KAITHI LETTER NGA; Lo; 0; L;;;;; N;;;;
11092; KAITHI LETTER CA; Lo; 0; L; ; ; ; ; N; ; ; ;
11093; KAITHI LETTER CHA; Lo; 0; L;;;;; N;;;;
11094; KAITHI LETTER JA; Lo; 0; L; ; ; ; ; N; ; ; ;
11095; KAITHI LETTER JHA; Lo; 0; L;;;;; N;;;;
11096; KAITHI LETTER NYA; Lo; 0; L;;;;; N;;;;
11097; KAITHI LETTER TTA; Lo; 0; L;;;;; N;;;;;
11098; KAITHI LETTER TTHA; Lo; 0; L;;;;; N;;;;
11099; KAITHI LETTER DDA; Lo; 0; L;;;;; N;;;;
1109A; KAITHI LETTER DDDHA; Lo; 0; L;;;;; N;;;;;
1109B; KAITHI LETTER DDHA; Lo; 0; L;;;;; N;;;;
1109C; KAITHI LETTER RHA; Lo; 0; L;;;;; N;;;;
1109D; KAITHI LETTER NNA; Lo; 0; L;;;;; N;;;;;
1109E; KAITHI LETTER TA; Lo; 0; L; ; ; ; ; N; ; ; ;
1109F; KAITHI LETTER THA; Lo; 0; L;;;;; N;;;;
110A0; KAITHI LETTER DA; Lo; 0; L; ; ; ; ; N; ; ; ;
110A1; KAITHI LETTER DHA; Lo; 0; L;;;; N;;;;
110A2; KAITHI LETTER NA; Lo; 0; L;;;;; N;;;;
110A3; KAITHI LETTER PA; Lo; 0; L; ; ; ; ; N; ; ; ;
110A4; KAITHI LETTER PHA; Lo; 0; L;;;;; N;;;;
110A5; KAITHI LETTER BA; Lo; 0; L;;;; N;;;;
110A6; KAITHI LETTER BHA; Lo; 0; L;;;;; N;;;;;
110A7; KAITHI LETTER MA; Lo; 0; L;;;;; N;;;;
110A8; KAITHI LETTER YA; Lo; 0; L;;;;; N;;;;
110A9; KAITHI LETTER RA; Lo; 0; L; ; ; ; ; N; ; ; ;
110AA; KAITHI LETTER LA; Lo; 0; L;;;;; N;;;;
110AB; KAITHI LETTER VA; Lo; 0; L;;;;; N;;;;;
110AC; KAITHI LETTER SHA; Lo; 0; L;;;;; N;;;;
110AD; KAITHI LETTER SSA; Lo; 0; L;;;;; N;;;;
110AE; KAITHI LETTER SA; Lo; 0; L;;;; iN;;;;;
110AF; KAITHI LETTER HA; Lo; 0; L; ; ; ; ; N; ; ; ;
110B0; KAITHI VOWEL SIGN AA; Mc; 0; L;;;;; N;;;;
110B1; KAITHI VOWEL SIGN I; Mc; 0; L;;;;; N;;;;
110B2; KAITHI VOWEL SIGN II; Mc; 0; L;;;;; N;;;;
110B3; KAITHI VOWEL SIGN U; Mn; 0; NSM; ; ; ; ; ; ; ; ;
110B4; KAITHI VOWEL SIGN UU; Mn; 0; NSM; ; ; ; ; N; ; ; ;
110B5; KAITHI VOWEL SIGN E; Mn; 0; NSM; ; ; ; ; N; ; ; ;
110B6; KAITHI VOWEL SIGN AI; Mn; 0; NSM; ; ; ; ; ; ; ; ;
110B7; KAITHI VOWEL SIGN O; Mc; 0; L;;;;; N;;;;
110B8; KAITHI VOWEL SIGN AU; Mc; 0; L;;;;; N;;;;
110B9; KAITHI SIGN VIRAMA; Mn; 9; NSM;;;;; N;;;;
110BA; KAITHI SIGN NUKTA; Mn; 7; NSM; ; ; ; ; ; ; ; ;
110BC; KAITHI ENUMERATION SIGN; Po; 0; L;;;;; N;;;;;
110BD; <reserved>
110BE; <reserved>
110BF; <reserved>
110C0; KAITHI DIGIT ZERO; Nd; 0; L; ; 0; 0; 0; N; ; ; ;
110C1; KAITHI DIGIT ONE; Nd; 0; L; ; 1; 1; 1; N; ; ; ;
110C2; KAITHI DIGIT TWO; Nd; 0; L; ; 2; 2; 2; N; ; ; ; ;
110C3; KAITHI DIGIT THREE; Nd; 0; L; ; 3; 3; 3; N; ; ; ;
110C4; KAITHI DIGIT FOUR; Nd; 0; L; ; 4; 4; 4; N; ; ; ;
110C5; KAITHI DIGIT FIVE; Nd; 0; L; ; 5; 5; 5; N; ; ; ; ;
110C6; KAITHI DIGIT SIX; Nd; 0; L; ; 6; 6; 6; N; ; ; ; ;
110C7; KAITHI DIGIT SEVEN; Nd; 0; L;; 7; 7; 7; N;;;;;
110C8; KAITHI DIGIT EIGHT; Nd; 0; L; ; 8; 8; 8; N; ; ; ; ;
110C9; KAITHI DIGIT NINE; Nd; 0; L; ; 9; 9; 9; N; ; ; ;
110CA; <reserved>
110CB; < reserved>
110CC; <reserved>
110CD; <reserved>
110CE; <reserved>
110CF; <reserved>
```

3.6 Collation

The collating order for Kaithi is dependent upon the language represented. Generally, languages written in Kaithi follow the sort order used for modern standard Hindi. Independent vowel letters are sorted before consonant letters. Charts and tables of Kaithi and other north Indic scripts are inconsistent in their placement of the signs *candrabindu*, *anusvāra*, and *visarga* with regard to the vowels. In some sources they appear at the beginning of the vowels and at the end in others. The collation pattern used in modern Hindi dictionaries places these signs at the head of the vowel order and written in combination with KAITHI LETTER A.

The preferred collating order for candrabindu, anusvāra, visarga, and independent vowels in Kaithi is:

Dependent vowel signs are sorted in the same position as their independent shape. Consonants with dependent vowels are sorted first by consonant letter and then by the vowel sign (including *candrabindu*, *anusvāra*, and *visarga*) attached to the letter:

$$\ddot{q}$$
 \dot{q} \dot{q}

The pattern for consonants is as follows:

The S KAITHI LETTER DDDHA is sorted in the same position as S KAITHI LETTER DDA, and S KAITHI LETTER RHA is sorted with S KAITHI LETTER DDHA. Cases in which the only difference between lexical forms is the unflapped and flapped retroflex stops (or nukta and non-nukta forms), eg. 4691 paḍhanā and 4691 paṭhanā, the unflapped letter is sorted first. All letters written with KAITHI SIGN NUKTA are sorted by the same principle.

In some sources, the dental nasal ¶ KAITHI LETTER NA, is used as the homorganic nasal letter in nasal-consonant conjuncts for all articulation classes except for the labial class (see Figure 40). The (KAITHI LETTER NA is never substituted for KAITHI LETTER MA. When used as a generic nasal, KAITHI LETTER NA should be sorted as a member of the class to which the accompanying consonant in the conjunct belongs (see section 5.4 for further details).

3.7 Typology of Characters

On account of their structure Kaithi consonant letters may be grouped into four typological classes:

1. Class 1: Letters with full-height descenders:

2. Class 2: Letters with short descenders at the top:

3. Class 3: Letters with rounded tops and no full-height descenders:

4. Class 4: Letters with right-facing hooked tops and no full-height descenders:

The structure of letters influences the placement of vowel signs, anusvāra, virāma, and nukta:

• For Class 1 letters, above-base and below-base vowel signs are joined to the appropriate extremes of the descender. The *anusvāra* is centered above the top extreme of the descender. The *virāma* may be connected to the descender or positioned below it.

• For Class 2 letters, above-base vowel signs are attached to the top of the descender and below-base vowel signs are centered below the letter. The *anusvāra* is positioned above the top extreme of the descender. The *virāma* is centered below the letter.

• For Class 3 letters, above-base vowel signs are attached to the center of the top curve and below-base vowel signs are centered below the letter. The *anusvāra* is centered above the letter. The *virāma* is centered below the letter.

Examples:
$$\mathfrak{g}$$
 chu; \mathfrak{g} lu; \mathfrak{h} je; $\dot{\mathsf{n}}$ taṃ; \mathfrak{g} l

• For Class 4 letters, above-base vowel signs are attached to the end of the hook and below-base vowel signs are centered below the letter. The *anusvāra* is centered above the letter. The *virāma* is centered below the letter.

Examples:
$$\xi$$
 jhu; δ the; $\dot{\epsilon}$ he; $\dot{\epsilon}$ dam; δ th

4 Background

4.1 Origins

Kaithi is traditionally associated with the scribal community, the Kayasthas, of north India and its literary practices.⁴ As such, Kaithi is regarded as a secular script used for routine purposes and differentiated from formal scripts like Devanagari, which were reserved for literary uses.

Based upon its structural characteristics and geographic distribution, Kaithi is classified among the among the eastern group of scripts used for the New Indo-Aryan languages; which also includes Bengali, Maithili, and Oriya.⁵ These scripts are descended from the Proto-Bengali or Gaudi branch of Nagari, which is derived from the Gupta script. Suniti Kumar Chatterji states 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.⁶

There is insufficient information to establish a date regarding the origin of Kaithi. It is clear that Kaithi had developed into a independent and important writing system by the 16th century, during which time it was used in the official documents of Sher Shah Suri (1486–1545), the founder of the Sur dynasty of north India. Manuscripts from the 17th century suggest that Kaithi was well-established as a medium for literary production. By this time, the script had spread beyond the clerical domain and was adapted for general usage. By the 19th century, Kaithi was recognized as an official script of British administration in Bihar and NWP&O, and metal fonts for the script were developed.

4.2 Name

The name 'Kaithi' (केशे) is derived from the Sanskrit term कायस्थ $k\bar{a}yastha$, which refers to the name of the scribal community of north India. The term $kaith\bar{\iota}$ is the colloquial rendition of $k\bar{a}yasth\bar{\iota}$ or $k\bar{a}yath\bar{\iota}$, which means "scribal" or "of the scribe." The script is also referred to as Kaithināgari. During the British period, the name was romanized as 'Kayathi'. This was later simplified to 'Kaithi' and was adopted by the Government of Bihar as the official name and Latin spelling of the script. The name Kaithi is transliterated in British books as both 'Kaithi' and 'Kaithi'.

4.3 Definitions

It is possible to establish three different meanings of 'Kaithi'.

- 1. The formal name of a historical script used in Bihar and northern India.
- 2. The name of a family of scripts used throughout northern India.
- 3. The name of a style of writing.

The Kaithi being proposed here for encoding in the UCS is (1), the formal name of a historical script used in Bihar, NWP&O, and throughout northern India.

Style of Writing Kaithi is used to refer to a style of writing, similar to the terms 'Mahājanī', 'Moḍī', and 'Laṇḍā'. These terms refer to particular styles of writing and to the formal names for distinct regional historical scripts, eg. Modi in Maharashtra, Mahajani in Rajasthan, Landa in Panjab. As terms for writing styles, these names refer to scripts used for routine purposes that were adapted for rapid writing without

⁴ Grierson, 1903b: 11. ⁵ Salomon, 2003: 69. ⁶ Chatterji, 1970 [1926]: 225. ⁷ Srivastava, 1974: 2. ⁸ P. Gupta, 1967: 31.

 $^{^9\,}$ Hoernle, 1880: 1. $^{10}\,$ Śākyavaṃśa, 1974: 64.

regard for accuracy or consistency. The terms themselves are adjectives that describe the perceived nature of the styles. As such, $kaith\bar{\iota}$ means 'scribal', $mah\bar{a}jan\bar{\iota}$ means 'mercantile', $mod\bar{\iota}$ means 'bent', $land\bar{\iota}$ means 'clipped'. Other terms such as $sarr\bar{\iota}$ 'banker' and $v\bar{\iota}$ in mercantile' are used to refer to further derivatives of these script styles.

Class of Scripts These scripts are contrasted from those that are called $n\bar{a}gar\bar{\iota}$, a term meaning 'urbane' or 'refined', which are considered more formal writing styles. Nowadays, the term Nagari is almost synonymous with Devanagari, but Nandinagari and Jainanagari are historically distinct regional scripts that were also called Nagari. The term Nagari, however, is also polysemic. Nagari also refers to the western script family that that evolved from the Gupta Brahmi script, the other two being the northern-western Sharada and the eastern Gaudi, or proto-Bengali, the ancestor of Kaithi. The scripts that descended from the Nagari script may be considered to be of the $n\bar{a}gar\bar{\iota}$ class. Therefore, since Kaithi is descended from the Nagari branch of Gupta, it is accurate to state that the $kaith\bar{\iota}$ class of scripts are a subtype of the $n\bar{a}gar\bar{\iota}$ class, or that Kaithi is a Nagari script just as Devanagari is a Nagari script. Figure 43 shows the relationship of Indic scripts depicted as a family tree, in which Kaithi and Devanagari are sibling members of the Nagari family.

4.4 Languages Written in the Script

Kaithi was the traditional script of the Bhojpuri and Magahi languages, and the popular script of the Awadhi and Maithili languages. At present, these languages are written in Devanagari. Kaithi was also used to write Urdu or the "Hindustani" *lingua franca*, although now the Perso-Arabic script is associated with Urdu.

'Bihari' Several sources refer to Kaithi as the script of the 'Bihari' language. This association is misleading since there is no 'Bihari' language or language family. The term 'Bihari' was introduced by Grierson for referring collectively to the Eastern sub-family of the Modern Indo-Aryan languages, which includes Bhojpuri, Magahi, and Maithili. Grierson wrote, "Bihārī means properly the language of Bihar' and it "occupies a middle place between Bengali and Eastern Hindī." Others continued to use the term 'Bihari.' Similarly, Hoernle wrote that Kaithi is the script of 'Eastern Hindi', a term that refers to Bhojpuri, Magahi, and Maithili. It is for this reason that Kaithi is called a 'Bihari' script; however, its geographic distribution and influence extended beyond the districts of Bihar (see section 6 for further discussion).

Awadhi Kaithi was the common script for Awadhi, which is spoken predominantly in Uttar Pradesh and also in Nepal, Madhya Pradesh, and Bihar. Historically, Awadhi was written in both Kaithi and Devanagari. The Baiswari variety of Awadhi was also written in Kaithi. By the early 20th century, Devanagari had completely replaced Kaithi as the formal script for Awadhi, it was used for informal communication through the middle of the century. A specimen of Awadhi written in Kaithi appears in Figure 10.

Bhojpuri Kaithi was the traditional script for Bhojpuri,¹⁷ which is spoken predominantly in Uttar Pradesh and Bihar, with significant speaker populations in Madhya Pradesh and in Nepal. Bhojpuri speakers are also found outisde of South Asia in Mauritius, Guyana, Trinidad, South Africa, Suriname, and Fiji; locations where the Kaithi scripts was also used.¹⁸ Presently, Devanagari is used for literary and formal activity in Bhojpuri. But, it is suggested that Kaithi is still used for informal communication.¹⁹ Ethnologue also suggests current activity.²⁰ A specimen of Bhojpuri written in Kaithi appears in Figure 6 and a printed specimen in Figure 14.

Magahi Kaithi was the traditional script of Magahi,²¹ which is spoken predominantly in Bihar, with significant populations of speakers in Jharkhand, and West Bengal. Devanagari is now preferred for formal use

Grierson, 1903b: 1. ¹² "Closely related to the Bengali script are the Gujarati and Kaithi scripts which were developed for writing the Gujarati and Bihari languages, respectively. Bihari is now written with Devanagari" (Coulmas, 1991: 190). ¹³ Hoernle, 1880: 1. ¹⁴ Grierson, 1904a: 14. ¹⁵ Hoernle, 1880: viii. ¹⁶ Saxena, 1937: 20. ¹⁷ Grierson, 1903b: 48. ¹⁸ Siegel, 1988: 17. ¹⁹ M. Verma, 2003: 519. ²⁰ Gordon, 2005. ²¹ Grierson, 1903b: 35.

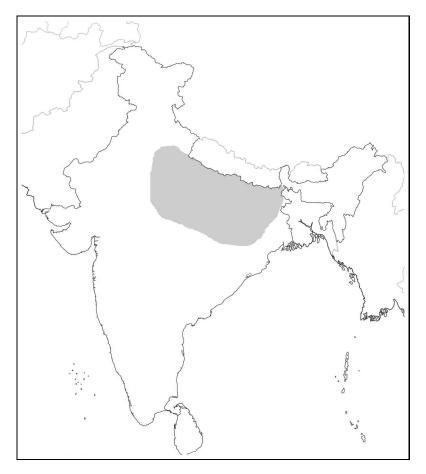


Figure 1: Geographic center of the Kaithi script in South Asia.

and literary activity, but research suggests that Kaithi may still be used for "personal communication and in semi-legal transactions." A specimen of Magahi written in Kaithi is given in Figure 8 and a printed specimen in Figure 12.

Maithili Maithili is spoken in Bihar and Nepal. In 2004, it was included in the Eighth Schedule of the Constitution of India and recognized as an official language of India. Maithili is traditionally written in the Mithilākṣara (also known as Tīrahuta script). Brahmins used the Mithilākṣara script, while Kayasthas and other communities used Kaithi.²³ Devanagari began to replace both Kaithi and the Maithili script at the turn of the twentieth century.²⁴ A specimen of Maithili written in Kaithi appears in Figure 7 and a printed specimen is given in Figure 13.

Urdu Kaithi was used for writing Urdu in the law courts of Bihar when it replaced Perso-Arabic as the official script during the 1880s. The majority of extant legal documents from Bihar from the British period are in Urdu written in Kaithi. There is a substantial number of such manuscripts, specimens of which are given in Figure 21, Figure 22, and Figure 23.

Other Languages At times languages spoken in areas bordering the Kaithi region were written in the script. Kaithi was used for writing Bengali on the border of Bihar and Bengal.²⁵ A specimen of Bengali in Kaithi appears in Figure 11. On the Western periphery in Rajasthan, the Marwari language was at times written in Kaithi; a specimen of which appears in Figure 29.

²² S. Verma, 2003: 501. ²³ Grierson, 1903b: 21. ²⁴ Yadav, 2003: 484. ²⁵ Grierson, 1903a: 7.

4.5 Standardization and Growth

The *Education Commission Report* (1884) for Bihar states that "the Persian character was much affected by the higher classes of Muhammadans and learned Hindus; but the Kaithi character was known and used in every village in Behar by Hindus and Muhammadans alike."²⁶ The popularity of Kaithi captured the attention of the British administrators of the Bengal Presidency. In 1880, Sir Ashley Eden, the Lieutenant-Governor of Bengal, issued a directive that established Kaithi as the official script of the Bihar government and ordered its exclusive use in the courts of the province.²⁷ Eden's goal was to replace the incumbent Persian script with a writing system more familiar to the population of Bihar.²⁸ By January of 1881, the use of the Persian script was forbidden and only Kaithi or Devanagari were permitted in the courts.²⁹

Eden's adoption of Kaithi as the official script of Bihar was preceded by, and built upon, earlier British efforts to promote the script, as well as the practices of pre-British governments, like that of Sher Shah Suri, who ensured that his declarations be written both in the Persian language in the Perso-Arabic script as well as in local languages in Kaithi.³⁰ The most important modern development for Kaithi occured in 1875, when J. C. Nesfield, the Director of Public Instruction for Oudh, sought to develop a standardized Kaithi script in order to enlarge its utility for administrative and instructional purposes.

The British promotion of Kaithi raised the profile of the script within years. In his preface to Edward H. Palmer's *Oriental Penmanship*, a manual for the formal scripts of north India, Frederic Pincott writes that

The derivative forms of Nâgarî,—such as the Kaithî, Mahâjanî, Moḍî, Sarrâfî, Lundî, &c., &c.,—are not illustrated in this book, in that they are either local, or confined to special classes of people, and cannot, therefore, claim sufficient importance to lead to their general adoption in official documents. It may, however, be counted on as certain that, in the course of a few years, the Kaithî character will come into much more general use than is at present the case. It has been recognized officially in the province of Bihâr, and will shortly spread to the North-West Provinces, where, indeed, it is almost universally employed by Hindûs, although it has not yet been recognized in Courts and *Kachharîs*.³¹

Within a decade, the official status conferred upon Kaithi was met with approval, as is evident from Grierson's dedication in the *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 legislation³²

4.6 Decline

The factors that generated the official recognition of Kaithi also brought it into competition with Devanagari and Perso-Arabic and ultimately to its demise. In 1880, Rudolf Hoernle wrote 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."

The decline of Kaithi is generally attributed to the socio-political conditions of pre-Independence India. In 1893, the Government of Bengal bowed to pressure from advocates of Devanagari and cancelled its earlier dictate regarding the exclusive use of Kaithi, but by 1894, the government reversed its decision and restored the official position of Kaithi on the grounds that there were insufficient numbers of professionals fluent in Devanagari, the majority of whom knew only Kaithi.³⁴ The political character of scripts in north India only increased. In the early 20th century, organizations such as the Nagari Pracharini Sabha advocated the exclusive use of Hindi in Devanagari over regional languages and scripts. Thus, the linkage of Hindi exclusively with Devanagari "is a phenomenon that owes its origins primarily to the politics and sentiments of the past century." The Nagari Pracharini Sabha was largely successful in popularizing Devanagari over

²⁶ Education Commission Report, 1884: 46–7, quoted in King (1994: 83). ²⁷ Grierson, 1899: 1. ²⁸ King, 1994: 67. ²⁹ A. P. Jha, 1976: 215. ³⁰ Srivastava, 1974: 2. ³¹ Pincott in Palmer, c.1870: v. ³² Grierson, 1899: 1. ³³ Hoernle, 1880: 2. ³⁴ A. P. Jha, 1976: 217. ³⁵ Shapiro, 2003: 257.

regional scripts including Kaithi. Kaithi continued as the official script in the courts of Bihar until at least 1913, at which time Devanagari became the preferred script owing to a momentous rise in its political and social currency.³⁶ Yet, Kaithi was so entrenched in Bihar, that the script was maintained concurrently with Devanagari. The District Gazetteer of Purnea of 1963 states that while the Devanagari script is widely used, the "Kaithi script is in vogue but declining in use."³⁷

The accuracy of Hoernle's forecast is evident in the contemporary dominance of Devanagari as the common script of Hindi and other north Indian languages. However, Grierson asserted in *A Handbook to the Kaithi Character* that "in the North-West Provinces, west of Benáras ... Hindi may fairly claim to be the vernacular of the country; but it is not, never was, and never can be, the vernacular of Bihár." A similar claim can be made for the replacement of Kaithi by Devanagari.

4.7 Usage

The significance of Kaithi is evident from an examination of the contexts in which it was employed. The standardization of Kaithi led to the development of printing in Kaithi. However, the script was used in a broad spectrum of spheres, from routine administration to the annotation of Sanskrit manuscripts and from Christian proselytization to personal correspondence. These contexts are briefly discussed below.

Typeface Development Due to its continued importance in government, Kaithi was "raised to the dignity of type in Bihar" despite it being "primarily a cursive written hand." The development of printing for Kaithi grew out of Nesfield's standardization of the script. Nesfield produced the first set of Kaithi metal fonts based on the improved and standardized script. These fonts were used to print primers for elementary levels of the vernacular schools of NWP&O. The government of Bihar also commissioned Kaithi fonts after granting it official status in 1880. Following government interest in Kaithi, private publishers began printing in the script. Rāmadīna Siṃha, the director of Khaḍgavilās Press in Bankipur, Bihar approached Grierson about Kaithi types, who commissioned Kaithi types in Calcutta through the assistance of the government. 40

Government Proclamations Kaithi appears alongside Persian text in a land grant issused by Sher Shah Suri on December 19, 1540 (see Figure 30). The Kaithi text is a transliteration of the Persian content of the *sanad* (warrant). Such documents with both Perso-Arabic and Indic scripts from the Delhi Sultanate and Mughal periods are rare; *sanad* and *farmān* (order) documents were overwhelmingly written in Persian. The use of Kaithi in the *sanad* of Sher Shah Suri indicates an official recognition of the script by his government.⁴¹

Court Records There is a substantial number of court documents in Kaithi. Figure 21, Figure 22, and Figure 23 show samples of documents submitted to the courts of Bihar. Samples of legal documents written in Kaithi, along with Roman transliteration of the documents appear in:

• 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.

Book Publishing The standardization of Kaithi in 1875 made it suitable for the printing of books. Kaithi entered the world of print through the major publishers, Khaḍgavilās Press and Munshi Naval Kishor of Lucknow. The Khaḍgavilās Press of Sāhib Prasād Siṃha in Bankipur (near Patna) began printing Hindi grammars and primary-school readers in Kaithi script in 1886. After Kaithi was established as the official script of Bihar, the Khaḍgavilās Press was the first printing house in Bihar to acquire Kaithi types and to begin printing Kaithi documents and books. Soon after, Khaḍgavilās Press began to publish Kaithi documents for the government, which ranged from agricultural and general administrative registers.⁴² In Awadh, the

³⁶ King, 1989: 192. ³⁷ Chaudhury, 1963: 136. ³⁸ Grierson, 1899: vi. ³⁹ Grierson, 1903b: 11. ⁴⁰ Siṃha, 1986: 249–250.

⁴¹ Srivastava, 1974: 2. ⁴² Simha, 1986: 249–250.

publisher of Urdu books, Munshi Naval Kishor of Lucknow, printed several professional texts and education primers in Kaithi.

Although the Kaithi printing tradition grew in strength, it did not become as influential as the Devanagari tradition. Writing on the condition of Kaithi publishing in 1893, Kellogg stated that books are printed in Kaithi, but "it is by no means as common as the Devanágarí." Hoernle corroborates Kellogg, stating that Kaithi "is used in printing as well as in writing; but owning to the preponderance of H. H. [High Hindi], which has adopted the Devanágarí, the latter is much more common in books." Although several religious and secular books were printed in Kaithi, the position of Devanagari as a formal and learned script led to the growth of printing in Devanagari. Scholars suggest that the "unavailability of typesetting for Kaithi" also led to diminished activity in Kaithi publishing.⁴⁵

Education By 1881, the standard Kaithi had being prescribed for general use in the primary and middle vernacular schools of Bihar. "In Bihar, it [Kaithi] is used for teaching the lower classes, to whom a knowledge of Dēva-nāgarī is an unnecessary luxury, the elements of a primary education." Used initially for printing elementary school primers, ⁴⁷ textbooks in standard Kaithi quickly appeared in primary and middle vernacular schools and were established for use in scribal examinations. It was known "from the commencement of education operations in Behar, that Kaithi was the popular character" of the province. As the British brought village schools of Bihar under government supervision, administrators learned that these schools taught their students to read and write in Kaithi. Therefore, Kaithi was retained in the schools of Bihar because the script "was the only one which could be employed with any hope of success, if the system of instruction was to be kept on the really broad and popular basis on which it rested."

While Bihar retained Kaithi, the government of NWP&O ultimately adopted the reverse policy. The *Report on Indigenous Education and Vernacular Schools* of 1854 shows that 77,368 primers were printed in Kaithi, while 25,151 were printed in Devanagari in the province. Even though schools in which the Kaithi script was the prescribed written medium outnumbered those in which Devanagari was used, the government enacted a policy promoting Devanagari. The prevalence of standardized Hindi (as opposed to Avadhi, Bhojpuri, etc.) in the majority of the districts of the NWP&O motivated government officials to replace Kaithi with Devanagari in scribal schools in which the vernacular language was the medium of instruction, not formal Hindi. The schools of Bihar continued to use the script until at least 1913.

Manuals and Script Primers Several manuals and script primers for Kaithi were printed and written during the 19th century. These were produced for use in scribal schools, for British colonial administrators, and for professional scribes to assist with the reading and writing of Kaithi. A few of these manuals and primers are:

- Ambikāprasāda. 1880. Kaithī-patramālā. Translated by Ambikāprasāda from the Maktūb-i Aḥmadī (مكتوب احمدى) of Saiyid Ahmad Husain. Lucknow: Munshi Naval Kishor. A Letter-writer in the Kaithi character. 76 pages. 1st edition printed in 1880, 10th edition in 1889. Hindi in Kaithi script. This manual was intended to instruct scribes in the proper forms of writing letters and formal documents.
- Grierson, George A. 1881. *A Kayathí Handbook*. Calcutta: Thacker, Spink & Co. Second revised edition published in 1899 under the title *A Handbook to the Kaithí Character*. 61 pages. The manual contains 30 plates illustrating various styles of Kaithi writing. Rectos of most plates contain transcriptions and translations.
- Hanumānaprasāda. 1877. Kaithī varnamālā. A Kaithi reader. Lucknow. 4 pages.

⁴³ Kellogg, 1893: 23. ⁴⁴ Hoernle, 1975: 2. ⁴⁵ S. Verma, 2003: 501. ⁴⁶ Grierson, 1903b: 11. ⁴⁷ Ojhā, 1971: 130. ⁴⁸ King, 1994: 65–66. ⁴⁹ Education Commission: Report by the Bengal Provinces Committee, Calcutta, 1884: 46–7, quoted in King (1994: 83). ⁵⁰ Education Commission Report, 1884: 46–7, quoted in King (1994: 83). ⁵¹ Vedalankar, 1969: 154. ⁵² Vedalankar, 1969: 152. ⁵³ King, 1989: 192.

- Kaithī vo hindī barnamālā [कैथी वो हिन्दी बर्नमाला] ("Kaithee-Hindi Reader"). 1882. Chapra, Bihar: Nasim Saran Press. 16 pages. Hindi in Kaithi and Devanagari scripts.
- Śivanārāyaṇa. 1870. Patrahitaisini: arthāt, Kaithī acharom mem ciṭṭhī patrī likhane kī rīti sīkhanevālī pustaka. Lucknow: Munshi Naval Kishor. On writing letters, proper forms of address; intended for professional scribes. Translated into Avadhi by Pandit Śivanārāyaṇa from the Hindustani Mufīd al-Inša' (مفند الانشاء). 44 pages. Hindi in Kaithi script.

Census Schedules The popularity of Kaithi led other British administrators to employ the script in other bureaucratic endeavors, including census operations. Henry Beverly, the Inspector General of Registration in Bengal, listed 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.⁵⁴

Commercial Transactions Kaithi was used for recording commercial transactions. Receipts were the most common commercial documents written in Kaithi.⁵⁵ Figure 24 shows a form printed in Devanagari and completed in Kaithi hand writing. Several official documents are similar to this receipt.

Literary and Religious Works The use of Kaithi in administrative and legal affairs largely dissociated it from liturgical scribal practices. However, due to its ubiquity, Kaithi was adapted for writing religious and literary works. It was used both as the sole orthographic vehicle in some manuscripts and in others it served a more annotative function. Nonetheless, the presence of Kaithi and Devanagari on a single manuscript proves that Kaithi is distinct from Devanagari.

An impressive illuminated manuscript of the *Sudamacaritra*, from the *Bhāgavata Purāṇa*, is in the Marwari language written entirely in Kaithi. The manuscript is from Bikaner, Rajasthan and is dated to the early 19th century. Since the language is Marwari, one might expect the script to be the Mahajani script, which is more commonly associated with Rajasthani languages, or the Gujarati script. A comparison of the letterforms in the manuscript with Mahajani and Gujarati indicates that the script is distinctly Kaithi. The *Miragāvatī* of Qutban was originally in written in 1503 in Avadhi in the Persian script. Out of the five extant manuscripts of the Sufi romance, four are in Kaithi and one is in the Persian hand. Similarly, the 16th century *Padmāvat* of Malik Muhammad Jayasi was also originally written in Avadhi in the Persian script, but several derivative manuscripts are written in Kaithi.

Although Devanagari was the preferred script for recording Hindu religious texts, Kaithi was also used for the production of religious manuscripts. A manuscript of the *Mahāgaṇapatistotra* is remarkable for the fact that the content is written in both Devanagari and Kaithi (see Figure 19 and Figure 20). The *stotra* itself is Sanskrit written in Devanagari, but the commentary, which is also Sanskrit, is written in the Maithili style of Kaithi. Moreover, the last folio contains several annotations written in the Bhojpuri style of Kaithi. In other religious works, the sacred scribal importance of Devanagari influences Kaithi orthography. A manuscript of Jīvā Gosvāmī's *saṃkalpapatrī*, or what Mukherjee and Wright call a "testamentary document," was written in "Sanskritized Braj" in "Nagarized Kaithi." Dated to 1665, the manuscript contains instructions and other matters related to the custody of the temples and libraries of the Caitanyapanthī Gauḍīya Vaiṣṇava sect founded by Jīvā Gosvāmī in Vrindavan.

Several manuscripts of the *Rāmacaritamānasa* of Tulsī Dās are written in Kaithi. Almost 10 percent of extant 17th century manuscripts of the text are in Kaithi.⁵⁹

⁵⁴ Beverly, 1874: 76. ⁵⁵ "Kaithee and Bengla are used in the payment receipts and bills of ghat manghies, contractors and others" (J. S. Jha, 1966: ii.). ⁵⁶ Miśra, 1963: 1-6. ⁵⁷ Grierson, 1904a: 14. ⁵⁸ Mukherjee and Wright, 1979: 298. ⁵⁹ Lutgendorf, 1991: 9.

Several literary and religious manuscripts are preserved in India, England, and in the United States:

- *Mahāgaṇapatistotra* [anonymous]. [undated]. Miscellaneous *stotra* materials in the Devanagari and Kaithi scripts. Manuscript held at University of Pennsylvania (Poleman number 1876; University of Pennsylvania number 2584). Dimensions: 22.3cm × 11.9cm; 8–9 lines; *stotra* material in Kaithi script on ff.2–5. 5ff. 8.7a5 × 4.75. 8–9 lines.
- The *Sudamacaritra* ("Tale of Sudama"). 1745-6 (Samvat 1802). Bikaner. Marwari language in Kaithi script. Ink, gold and opaque water-color on paper, 43 folios, 24 lines of text per page, 42 illustration running down the outer margin of the page, 1 full-page painting (f. 1v), 19th century pasteboard binding with marbled doublures, 29cm × 19.2cm.
- The *Miragāvatī* of Qutban. Originally written in Awadhi in the Perso-Arabic script in c.1503. Of six existing manuscripts, four are in Kaithi and one in the Perso-Arabic. The manuscripts are known as the following: the Caukhambhā (origin: Benares; script: "Kaithī-nāgarī); Bhārata Kalā Bhavana (origin: Benares; script: "Kaithī"); Anūpa Saṃskṛta Pustakālaya (origin: Bikaner; script: "Kaithī-lipi"); Maner Śarīf (origin: Patna; script: Perso-Arabic); Delhi (origin: Delhi; script: Perso-Arabic); and Ekadalā (origin: Fatehpur; script: "Kaithī lipi").⁶⁰

Linguistic Studies The association of Kaithi with the languages of Bihar led Grierson to use Kaithi metal fonts for all printed specimens of Bhojpuri, Magahi, and Maithili in volume five of the monumental *Linguistic Survey of India, Volume V* (1903).

Given its exclusive use in the law courts of Bihar, Grierson published his A Handbook to the Kaithi Character (1881) in order to introduce the script to aspiring British legal specialists in India.

Grierson's work remains the most comprehensive study of Kaithi orthography and usage to date.

Government Seals Kaithi appears in official government seals. It was one of three scripts used in the official seal of the Supreme Court of Appeals in Calcutta, the other two being Persian and Bengali (see Figure 31). The use of Kaithi in an official seal suggests the prominence of the script in administration and further highlights the status of Kaithi as a script of state. One might expect such seals to contain text in Devanagari, but the absence of this script in official seals suggests that, by at least the 1850s, Devanagari had not acquired its contemporary importance.

Missionary Operations The status of Kaithi as the common script of north India made it suitable to missionaries and bible societies who hoped to proselytize in the region. Once Kaithi was standardized by the government and metal types of the script were issued, Christian missionaries developed their own Kaithi metal fonts. Several bibles were printed in Kaithi (see Figure 25 and Figure 26). The importance of Kaithi in north India, and therefore, its value to missionaries, prompted the teaching of Kaithi in western universities. Kaithi was taught in the United States, most notably in the Department of Comparative Religion at the University of Chicago, where future 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); [...] 61

There was active communication about the publication of Christian literature in India. In particular, the annual report of *The Baptist Missionary Society* provided listing of languages and scripts in which such literature appeared. Kaithi features prominently as the script preferred by the Society for publishing portions

⁶⁰ Miśra, 1963: 1–6; Gupta, 1967: 97–98. ⁶¹ "Comparative Religion Notes," 1894: 293.

of the bible in Hindi.62

A few of the bibles printed in Kaithi include:

- Baptist Missionary Society and Bible Translation Society. 1849. The Four Gospels with the Acts of the Apostles in Kaithí [Dharmagrinthake anta bhāgakā pahalā dusarā tisarā cauthā khaṇḍa, arthāta, Māthī Mārka Luka Yohanalikhitā susamvāda aura Preritoṃkī kriyākā kathana]. Printed by J. Thomas for the Society. In Hindi. 431 pages.
- Calcutta Auxiliary Bible Society. 1852. *The four Gospels and the Acts of the Apostles in Hindí in the Kaithí Script*. Printed for the Society by J. Thomas. 721 pages.
- Calcutta Auxiliary Bible Society. 1913. *The Gospel according to St. John in Bhojpuri*. [Sata dharma śāstra meṃ ke yohana racita prabu yesu maśiā muktidātā ke susamācāra]. "In Kaithi characters." 2nd ed. Translated by C. L. Robertson, Regions Beyond Missionary Union and revised by P. O. Wynd. 90 pages.
- Calcutta Auxiliary British and Foreign Bible Society. 1908. *The Gospel of St. Mark in Nagpuria*. Translated by P. Eidnaes, German Evangelical Lutheran Mission. 116 pages.
- Bible Translation Society. 1850. *The New Testament of our Lord and Saviour Jesus Christ, in the Hindi language; Kaithi character*. Translated from the Greek by the Calcutta Baptist Missionaries with Native Assistants. Printed for the society by J. Thomas, Baptist Mission Press, Calcutta. 840 pages. Devanagari version published in 1848.
- Calcutta Bible Society. 1851. The Book of Genesis and Part of Exodus [งกนก) หโ นูนกห ฆ้า เกากา หโ นูนกห หิ อำนาจันาว กห] [Utapatī kī pusataka aura jātarā 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.
- Evans, Thomas. 1883. The four Gospels in Hindi. Monghyr, Bihar: The Mission Press.

Personal Records and Correspondence Kaithi was used for maintaining family records, private correspondence, and transactional accounts. Thomas Metcalf writes that the use "of distinctive scripts such as Kayathi and Mahajuni was common practice among Indian families, many of whom, especially among the mercantile community, wished in this way to preserve their records from prying eyes of uninitiated outsiders."

Kaithi and Immigrant Communities When large numbers of Bhojpuri-speakers migrated to Trinidad, Mauritius, and elsewhere during the 19th and 20th centuries, they carried the Kaithi script with them. The present author was contacted by two individuals who trace their families' ancestory to north India and whose ancestors maintained the use of Kaithi outside of India: Mr. Nigel Ramoutar and Dr. Dipendra Sinha. Mr. Ramoutar's family migrated from eastern Uttar Pradesh to Trinidad at the turn of the 20th century. His grandparents maintained family records and personal correspondence in Kaithi, which have been preserved by his family in Trinidad. Dr. Sinha, whose family hails ancestrally from Bihar, informed the author that Kaithi was used by migrant Indian communities in Jamaica, as well. At present it is unknown exactly how prevalent the use of Kaithi was in Trinidad, Jamaica, and other locations in the Caribbean.

Immgrants brought to Mauritius manuscripts of the *Hanumāna Cālīsā* and the *Rāmacaritamānasa*. These manuscripts were in Standard Hindi written in Kaithi, and were circulated widely within the immigrant communities.⁶⁴ The use and preservation of the Kaithi script by immigrants is evidence for the popular strength of the script.

⁶² *The Journal of Sacred Literature* often published information about the progress of activity. In a section titled "Intelligence" in the fifth volume, the *Journal* reports that "From the 61st (1853) Report of the Baptist Missionary Society we learn that ... [t]he Hindooee Gospels, in the Kaithi character, have been undertaken and carried through the press to John vii., by the joint labours of Mr. Leslie and Mr. Parsons of Monghir." ⁶³ Metcalf, 1967: 673fn11. ⁶⁴ Ramyead, 1988: 24–25.

Epigraphical Records Inscriptional records in Kaithi are rare. However, the archaeology gallery at the Bharata Kala Bhavan at Banaras Hindu University reportedly holds in its collections a copper plate bearing an inscription in Sanskrit written in Kaithi.⁶⁵ The text of the inscription is a land grant by Baj Bahadur Chandradeva (fl.1090), a ruler of the Gahadavala dynasty of Kanyakubja, in modern western Uttar Pradesh. If the script truly is Kaithi, the Chandradeva inscription would be the earliest attested use of Kaithi.

Modern Scholarship In February 2006, the National Mission for Manuscripts of the Government of India held a manuscriptology and palaeography workshop at the Khuda Baksh Oriental Public Library in Patna, Bihar. The intent was to train researchers to read Kaithi and other historic north Indic scripts for the purpose of cataloguing and preserving manuscripts.⁶⁶

Bharat Kala Bhavan, Banaras Hindu University, 2001. 66 National Mission for Manuscripts, Government of India, 2005.

5 Orthography

5.1 Distinguishing Features

Two of the most distinguishing features of Kaithi are the absence of the head-stroke and the presence of 'serifs' at the terminals of vertical strokes in metal fonts.

5.2 Vowels

Use of Vowel Signs In some cases no distinction is made between KAITHI LETTER I and KAITHI LETTER II, or between KAITHI LETTER U and KAITHI LETTER UU.⁶⁷ The tendency is to use the long vowels for writing both lengths in both the independent and dependent forms. However, the distinction between short and long forms are observed in print, primarily to preserve accuracy of pronunciation. This practice generally does not affect the other vowels.

VOCALIC R The vowel sign \circ for the Kaithi equivalent of \Re U+090B DEVANAGARI LETTER VOCALIC R (r) appears in several documents. It's use typically suggests an attempt to strictly preserve the pronunciation or to represent the origin of Sanskrit loan words in regional languages. The independent vowel letter does not appear to exist in Kaithi; the consonant-vowel combination $\widehat{\ \ \ }$ ri (KAITHI LETTER RA + KAITHI VOWEL SIGN II is used as a substitute. The sign is shown in writing in the specimen below as a part of a consonant-vowel ligature (\Re) with KAITHI LETTER KA:

Devan ágari	Kayathi.	Mahájani.	English.
ऋक (निक ५	2312	rikri

The example below shows this sign used in print for transcribing the word *drsti* in Kaithi:⁶⁹

Since the independent letter for a Kaithi r has not been identified, it remains unclear whether the dependent vowel sign should be proposed for encoding.

5.3 Consonants

Sibilant Consonants In the languages of Uttar Pradesh and Bihar, there is a practice of assimilating retroflex and dental sibilants with the palatal sibilant. This is reflected in Kaithi orthography through the writing of \(\mathbb{\cappa}\) KAITHI LETTER SSA and \(\mathbb{\cappa}\) KAITHI LETTER SA as \(\mathbb{\cappa}\) KAITHI LETTER SHA. Both KAITHI LETTER SHA and KAITHI LETTER SA are found in the Kaithi specimens in the *Linguistic Survey of India*.

In a specimen of Maithili, the word *khuśī* is written with LETTER SA as *khusī*:⁷⁰

and in a specimen of Magahi it is written with LETTER SHA as khuśī:⁷¹

⁶⁷ Hoernle, 1880: 2. ⁶⁸ Grierson, 1899: Plate I. ⁶⁹ Eastwick, 1858: Plate VIII. ⁷⁰ Grierson, 1903b: 74. ⁷¹ Grierson, 1903b: 74.

In some varieties of Hindi, the retroflex sibilant sa is pronounced as the aspirated velar stop kha and is written as $\mbox{\ensuremath{W}}$ KAITHI LETTER KHA. There are, however, no standard conventions regarding such practices and the correct spelling of words with the appropriate sibilant letter rests largely with the writer's knowledge of lexical sources. For example, in Figure 3, Grierson shows the Kaithi counterpart of $\mbox{\ensuremath{W}}$ U+0937 DEVANAGARI LETTER SSA as $\mbox{\ensuremath{W}}$ KAITHI LETTER SHA, but in Figure 15, he shows $\mbox{\ensuremath{W}}$ KAITHI LETTER SSA. Although rare in Kaithi documents, KAITHI LETTER SSA is nevertheless attested and should be considered part of the character inventory. Its proposed form is based on the shape of the letter as found in Figure 15.

Nasal Consonants Letters for the velar (KAITHI LETTER NGA), palatal (KAITHI LETTER NYA), and retroflex (KAITHI LETTER NNA) nasals are attested, but rarely found in use. They appear, however, in tables of the Kaithi script and are included here for completeness (see Figure 3, Figure 4, and Figure 36).

The shapes of KAITHI LETTER NGA and KAITHI LETTER NYA slightly resemble variant forms of KAITHI LETTER I and KAITHI LETTER U, respectively. It is possible that the these two vowel letters were used to represent the rare independent forms of NGA and NYA, but it is also possible that the resemblance is more likely attributable to the close structure of the characters.

The KAITHI LETTER NNA is used frequently in the bibles published by the Calcutta Bible Society. In the following they write 1991 using the letter:

The letters BA and VA In the languages of Bihar there is no distinction between /b/ and /v/. A difference between the two sounds was made in writing by adding a dot to the letter for ba.⁷² Commonly, KAITHI LETTER BA is used for both /b/ and /v/, but in cases where phonetic accuracy is required, KAITHI LETTER VA is used to represent /v/. The following example shows a differentiation between ba and va through the use of the underdot to represent va:⁷³

The letter y_A The semi-vowel y_a is typically written y_a , although in some documents it appears as y_a . Grierson uses a form without the *nukta* to write *baniyā* "merchant":⁷⁴

However, the Kaithi font used by the Calcutta Bible Society (1851) uses the underdotted form of ya, as noted in the name $D\bar{a}y\bar{u}d$:

The difference between $\mathfrak A$ and $\mathfrak A$ is a stylistic variation, not a phonological difference that is differentiated orthographically as in the case of Bengali $\mathfrak A$ U+094F BENGALI LETTER YA and $\mathfrak A$ U+09DF BENGALI LETTER YYA. Presumably, the underdot was applied to the Kaithi ya in order to distinguish it from $\mathfrak A$ KAITHI LETTER CA.

⁷² Chatterji, 1970 [1926]: 226. ⁷³ Grierson, 1903b: 124. ⁷⁴ Grierson, 1903b: 296.

Generally, of is often written in place of थ, as in the word of it jog (from Skt. योग्य yogya) "suitable":⁷⁵

5.4 Nasalization

Anusvāra In Kaithi the *anusvāra* is used to represent true vowel nasalization. It is not used for indicating class nasals in nasal-consonant conjuncts, as is the practice in writing Hindi in Devanagari. A peculiar practice of marking nasalization is used in the bibles printed by the Calcutta Bible Society. In the example below, nasalization is marked using (A) a small open-circle and (B) a dot:

The open-circle mark (A) is ANUSVĀRA used to represent homorganic nasals, while the dot (B) is ANUSVĀRA used to indicate true vowel nasalization (a function also provided by *candrabindu*).

Candrabindu Grierson states that the *candrabindu* is generally not used for indicating nasalization in Kaithi, however he shows the use of *candrabindu* to indicate the transcription of Devanagari $\Im j\tilde{n}a$ in Kaithi:⁷⁶

Nasal-Consonant Conjuncts Nasal-consonant conjuncts are written either as ligatures with the half-form of the appropriate class nasal letter or with the full form of the nasal letter marked with an explicit $vir\bar{a}ma$. A peculiar manner for writing such ligatures is used in the printed Kaithi specimens in the Linguistic Survey of India. For nasal-consonant conjuncts that are written as ligatures, the dental nasal \P KAITHI LETTER NA, is used as the generic nasal marker for all articulation classes (see Figure 40). For example, the conjunct nta is represented appropriately as \P 0. However, the conjunct nda is represented as \P 5. Unlike the case of nta, where the dental nasal letter na is allied with the dental stop ta, in nda, the dental nasal is used to represent the the retroflex nasal na since the following consonant, na0, is a retroflex stop. In such instances, KAITHI LETTER NA should be sorted as a member of the class to which the second element of the conjunct belongs.

The form of nasal-consonant conjuncts is not uniform in Grierson. In a specimen of Magahi, Grierson uses *virāma* to write the *nḍa* conjunct:⁷⁷

and in a specimen of Maithili, he uses a ligature to represent the nda conjunct:⁷⁸

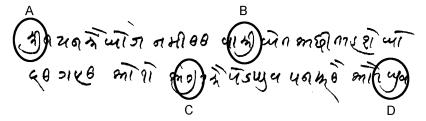
5.5 Consonant-Vowel Ligatures

In writing, syllables composed of consonants with vertical descenders at the right edge and the vowels u and \bar{u} are represented as distinct consonant and vowel sign combinations or as ligatures. The latter is often a swash technique that results from rapid writing. In such cases, the vowels i and \bar{t} may at times be written in

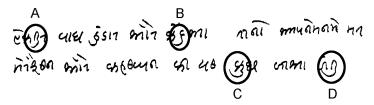
⁷⁵ Grierson, 1903b: 75. ⁷⁶ Grierson, 1899: Plate I. ⁷⁷ Grierson, 1903b: 129. ⁷⁸ Grierson, 1903b: 75.

a manner that resembles the dependent forms of u and \bar{u} . Therefore, these forms of u and \bar{u} are often curved leftward and over the consonant letter. Generally, the appropriate consonant-vowel combination is apparent from context.

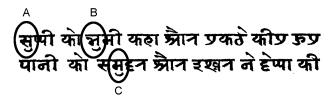
In the excerpt below, the labeled portions indicate consonant-vowel ligatures. Portions 'A' and 'B' are the syllable $k\bar{\imath} + 1 = 1$; portion 'C' is gu + 1 = 1; and 'D' is gu + 1 = 1; and 'D' is gu + 1 = 1; and 'D' is gu + 1 = 1;



In the following excerpt, portions 'A' and 'D' are the syllable tu; portion 'B' is the syllable du; and portion 'C' is the syllable ku:⁸⁰



Such consonant-vowel ligatures are found only in written documents. In written documents $\mathfrak{R} + \mathfrak{g}$ might appear as \mathfrak{R} , but in print the tendency is to use the $m\bar{a}tr\bar{a}$ form of vowels explicitly, such as \mathfrak{R} . In the Kaithi font used by the Calcutta Bible Society, the $m\bar{a}tr\bar{a}$ form of u is a shallow arc and appears structurally related to the swash form found in written documents; when the right descender merges with the vowel sign to form a left hook. In the excerpt below, portion 'A' is the syllable su, 'B' is bhu, and 'C' is mu. This shape of the u $m\bar{a}tr\bar{a}$ may have been derived from the practice of writing u as ligatures:



Other forms include $\Re + \Im$, which appear in print as \Re , but in written documents as \Re .

⁷⁹ Grierson, 1899: Plate XXVIII. ⁸⁰ Grierson, 1899: Plate XXVIII. ⁸¹ Grierson 1903b: 124.

5.6 Consonant Conjuncts

There is substantial irregularity in the writing of conjuncts in Kaithi. This is due in part to the manner in which consonant clusters are handled in the languages that Kaithi was used to represent. In spoken Awadhi, Bhojpuri, and Magahi, there is a tendency to simplify consonant clusters through metathesis, or the insertion of a vowel between two consonants. This process is reflected in Kaithi orthography. For example: Sanskrit karma (Dev. कर्म) becomes karam (Kai. ११४); Sanskrit pradeśa प्रदेश becomes pardes ५१६३; and Sanskrit snāna (Dev. सान) becomes asanān (Kai. १३११). Other practices of simplifying include: Sanskrit vyavahāra (Dev. व्यवहार) becomes beohār (Kai. १३१६); Sanskrit jñāna ज्ञान is simplified to giān शिश्री.

In instances where metathesis does not occur, the representation of the cluster as a conjunct depended upon the diligence of the scribe or in the case of printing, on the limitations of the font. Therefore, conjuncts may be written as ligatures, with half-forms, with explicit virama, or implied. For example, the conjunct mba may be written as $\forall q$ or $\forall q$ or $\forall q$. When encoding Kaithi in Unicode, conjuncts should always be written with $vir\bar{a}ma$. The conjunct mba should be expressed as

```
KAITHI LETTER MA + KAITHI VIRAMA + KAITHI LETTER BA
```

In instances where there is a requirement to encode conjuncts as they appear in a source document, then U+200C ZERO WIDTH NON-JOINER and U+200D ZERO WIDTH JOINER should be used. The sequence FQ written with a half-form of KAITHI LETTER MA is expressed explicitly in Unicode as

```
KAITHI LETTER MA + KAITHI VIRAMA + U+200D ZERO WIDTH JOINER + KAITHI LETTER BA
```

The form প্ৰ is expressed as

```
KAITHI LETTER MA + KAITHI VIRAMA + U+200C ZERO WIDTH NON-JOINER + KAITHI LETTER BA
```

In Writing At times, the scribe would write conjuncts with an explicit *virāma*, at other times he would produce the conjunct using a true conjunct form. Conjuncts, however, appear more often in Maithili documents (see Figure 4). The example below shows the two consonant conjunct *pra* in the word *pragana* marked 'A' and the three consonant conjunct with dependent vowel sign *stṛrī* in the word *distṛrīkaṭ* marked 'B':⁸²

Figure 4 shows conjuncts that may be encountered in the Maithili style of written Kaithi. Some Kaithi documents also show 'false' conjuncts, especially when the second element of the conjunct is *ra*. In the following example the word *paraganāt* is written *praganāt*:

The example below illustrates a case where a ligature is used to write the conjunct *mpu*, but not *rna* in the word *sampurna*:

In writing, doubled consonants are written only once. 83 A word like *patta* पत्त is written *pata* ৭০. 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.

⁸² Grierson, 1899: Plate X. 83 Kellogg, 1893: 23.

In Print In printed Kaithi, consonant clusters are represented both as ligatures and with *virāma*. It is unknown whether this is a reflection of actual practice or a limitation in the Kaithi fonts used for typesetting. In metal fonts, there existed a limited number of character primitives that could be used to produce conjuncts. The application of these primitives in the formation of conjuncts, however, does not appear to follow any patterns.

In some instances, consonant clusters are written using conjunct forms, as is done in the word $acch\bar{a}$, where a half form of ca is attached to the full form of cha:⁸⁴

but in another specimen, a *virāma* is used to write the cluster *cca*:⁸⁵

Another example of inconsistent use of conjuncts is shown below. The word $\mathfrak{E} \mathfrak{R} \cap dost$ is written in two ways in the *Linguistic Survey of India*. In the example below, the cluster *sta* is written with a ligature:⁸⁶

but in another specimen the conjunct is represented with a *virāma* form:⁸⁷

The example below shows the use of KAITHI LETTER SA to represent KAITHI LETTER SSA. Here is it used in a half-form to write the conjunct *sta*:⁸⁸

5.7 Word Boundaries

Although lack of punctuation is not foreign to Indic scribal traditions, in Kaithi the lack of word boundaries results from the practice of rapid writing used in courts and other administrative offices. Standardization of Kaithi began to change this. Grierson writes "it is not customary to leave any space between the words, but the Standard Kaithí, however, used in Government offices, does separate its words." The practice of marking word boundaries also depended upon the scribe; those who were detail-oriented indicated word boundaries consistently, others showed minial regard for such practices. Nonetheless, the manner of marking word boundaries changes between printed and written Kaithi.

In printed Kaithi, word boundaries are generally marked by spaces and the end of sentences are distinguished using the $dand\bar{a}$ or double $dand\bar{a}$. The example below shows the use of dashes to mark word boundaries:⁹⁰

⁸⁴ Grierson, 1903b: 253. 85 Grierson, 1903b: 75. 86 Grierson, 1903b: 75. 87 Grierson, 1903b: 125. 88 Grierson, 1903b: 126. 89 Grierson, 1899: 4. 90 Grierson, 1903b: 82.

The following example shows the use of the word separator being written at the beginning and end of a word:⁹¹

A previous version of this proposal suggested the encoding of — KAITHI WORD SEPARATOR for representing the word-boundary marker. Such a character is important for properly distinguishing word-boundary marks from dashes and other homoglyphic punctuation marks. However, the inconsistent nature of marking word boundaries in Kaithi makes it difficult to determine the appearance of a character suitable for this purpose; eg. the length of the dashes varies within a single line, and it is also difficult to determine whether the scribe intended to produce a line, or if the scribe intended to write a dot, which was produced as a dash due to the speed and direction of writing. Second, there are several dot, dot-like, and word-separator characters already encoded in the UCS which — although part of different script blocks and in some cases graphically dissimilar to the shapes found in Kaithi — are similar in semantic function. Among these existing word-boundary characters are

- U+00B7 MIDDLE DOT
- U+16EB RUNIC WORD SEPARATOR MIDDLE DOT
- U+2E37 WORD SEPARATOR MIDDLE DOT
- U+10100 AEGEAN WORD SEPARATOR LINE
- U+10101 AEGEAN WORD SEPARATOR DOT
- U+1039F UGARITIC WORD DIVIDER
- U+103D0 OLD PERSIAN WORD DIVIDER
- U+1091F PHOENICIAN WORD SEPARATOR
- U+12470 CUNEIFORM PUNCTUATION SIGN OLD ASSYRIAN WORD DIVIDER

It is not necessary to encode a Kaithi-specific word separator. Existing dash characters and the U+2E37 WORD SEPARATOR MIDDLE DOT may serve the purpose and of representing word boundaries as requirements dictate.

5.8 Sentence and Paragraph Boundaries

Characters for indicating sentence and paragraph boundaries are more common than those for word boundaries. Grierson writes that "Kaithí has no stops except the full period." But, there is no uniform convention for indicating sentence or paragraph boundaries in Kaithi. In the majority of manuscripts the text is written continuously without delimitation of sentence boundaries. Several scribes, however, employed various orthographic devices to mark such terminations.

⁹¹ Grierson, 1899: Plate XVII.

Described below are some of the characters used to separate sentences and paragraphs. It is unnecessary to encode these separately since existing characters in the UCS may be used to adequately represent them. Since the $dand\bar{a}$ was introduced in printed Kaithi to mark sentence and paragraph terminations, the the Devanagari $dand\bar{a}$ and double $dand\bar{a}$ are sufficient for representing such boundaries as requirements dictate.

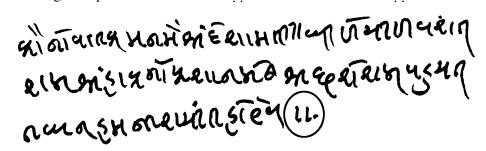
 $Dand\bar{a}$ In printed Kaithi, the $dand\bar{a}$ and double $dand\bar{a}$ are used to indicate line endings and similar terminations. The function of $dand\bar{a}$ and double $dand\bar{a}$ in Kaithi is identical to that of Devanagari and other Indic scripts.

The shapes of daṇḍā and double daṇḍā in Grierson's Kaithi and Devanagari metal fonts are distinct. The specimens below compare the forms of daṇḍā in the metal fonts used by Grierson for printing Kaithi and Devanagari in the Linguistic Survey of India:⁹²



The Kaithi forms of $dand\bar{a}$ differ structurally from the Devanagari forms. The Kaithi forms possess a serif-like feature at the extremes of the $dand\bar{a}$. The Devanagari forms do not have this feature.

The following example shows the use of $dand\bar{a}s$ in written text. The $dand\bar{a}s$ are written with serifs: 93



The following example shows the use of $dand\bar{a}$ s in printed text. These $dand\bar{a}$ s are identical to the magnified forms from the *Linguistic Survey of India* shown above: ⁹⁴

The example below shows the use of a $dand\bar{a}$ and a middle dot to indicate sentence boundaries: 95

⁹² Grierson, 1903b 93 Grierson, 1899: Plate XXX. 94 Grierson, 1903b: 253. 95 Grierson, 1899: Plate XXX.

મુ શામ-વાળ પ્રેમ અમે () માગામાં લા શાકર લકુ તકાન જ કર્યું માર્ચ દ પ્રિંગ દ્ર શ્ર થયા ખુલ પ્રતે પ્રિંગ પા છ કર્યું પેમા બ્રાંથક પ્રયુ મુશ્તા પાલ પ વર્ષા હવે () ન ના ત્ર યા ના શાકર પાલ પ વર્ષા હવે () ન ના ત્ર યા ના શાકર

The variety of conventions used for indicating sentence boundaries suggests that a generic character be used for such a purpose.

Given the direction of the current debate on the unification of *daṇḍā*s across Indic scripts, it is not necessary to separately encode Kaithi *daṇḍā*s, despite their distinct shapes. They may be unified with the Devanagari forms.

Swash Marks In addition to $dand\bar{a}$ and double $dand\bar{a}$, sentences and paragraphs are often terminated with swash-like horizontal lines. The specimens in Figure 7 and Figure 22 illustrate the manner in which the end of a paragraph is marked with two types of lines that fill the remainder of the line and extend to the margin of the text block:⁹⁶

The horizontal line used for marking the end of sentences can be adequately represented using existing dash characters. It is not necessary to encode the horizontal line termination as a separate character. The sentence-termining swash mark is similar in semantic function to several characters already encoded in the UCS:

- U+10FB GEORGIAN PARAGRAPH SEPARATOR
- U+1368 ETHIOPIC PARAGRAPH SEPARATOR
- U+2028 LINE SEPARATOR
- U+2029 PARAGRAPH SEPARATOR

More formally, in printed Kaithi, the swash marks are semantically identical to $dand\bar{a}$ and are represented as such.

Other Marks The specimen below shows the use of a cross to mark phrase boundaries, while dashes are used to separate words:⁹⁷

⁹⁶ Grierson, 1899: Plate X. ⁹⁷ Grierson, 1903b: 82.

5.9 Hyphenation

Hyphenation at line boundaries is rare in written Kaithi, but does appear in printed documents. In manuscripts, the scribe would simply break off writing anywhere in a word, and continue on the next line. If hyphenation were to be applied, it would occur within words at syllabic boundaries. The example below shows a hyphen splitting the word 9.80 at a line boundary:

An interesting example of hyphenation occurs in the example below. Here hyphenation splits a conjunct formed with *virāma* in the word *barāmhan* ৭৭। স্হণ. This example also illustrates metathesis in the consonant conjunct *hma*, which is rendered *mha*:99

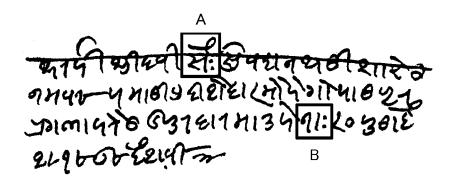
5.10 Abbreviation

Abbreviation is common in Kaithi documents, but there is no uniform method of representing such. Abbreviation is indicated by placement of a sign at the point of elision or by ligature. Given the variety of methods for writing abbreviations, it is necessary to encode a character that represents an abbreviation. A sign identical in function to U+0970 DEVANAGARI ABBREVIATION SIGN would enable such representation. The different forms of representing abbreviations as shown below could be considered graphical variants of a single character representing a single semantic function. Therefore, there is no need to encode the characters independently. They should be unified with the proposed KAITHI ABBREVIATION SIGN. The variant graphical forms and ligatures should be controlled at the font level.

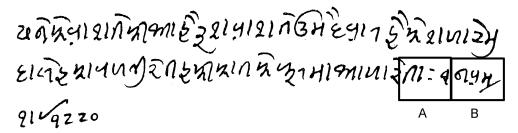
Circle The ° KAITHI ABBREVIATION SIGN is found in written documents. It is identical in function to U+0970 DEVANAGARI ABBREVIATION SIGN. The Kaithi abbreviation sign resembles the digit zero, however, the two are distinguishable through context. This sign is used to abbreviate common words and phrases, primarily at the beginning of legal documents. For example, in the following, the abbreviation Θ (1), using a variant form of Θ KAITHI LETTER LA, represents the Sanskrit *likhitam* Θ Θ Θ , meaning "it is written" and is abbreviated due to its common use as an introductory element in written statements submitted to the courts.

Colon The following shows the use of a *visarga*-like character for marking abbreviations. In the example below, portion 'A' (\Re) : se. is an abbreviation for the title $\Re \Psi$ sekh 'sheikh'; portion 'B' $\Omega: t\bar{a}$. is an abbreviation for the word $\Omega: \Omega \to t\bar{a}$.

⁹⁸ Grierson, 1903b: 202. ⁹⁹ Grierson, 1903b: 296. ¹⁰⁰ Grierson, 1899: Plate XII.



Below-Base Slash Another method of abbreviation is evidenced in the following example. A virgule-like mark is written in the portion 'B' ("ባባህ) to abbreviate the word ባባህባປ "November." The text in portion 'A' is the same form shown in the example above:¹⁰¹



Ligatures Another method, which is rare, is to indicate abbreviation through creation of ligatures. The circled portion below shows the word $mud\bar{a}$ used as an abbreviation for the word $mud\bar{a} = 1$ ($muda'\bar{a}n$):

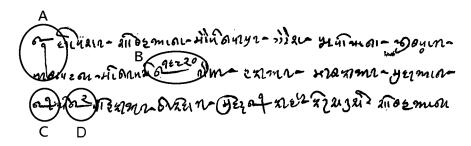
The word $mud\bar{a}$ has a wavy form of KAITHI VOWEL SIGN AA attached to KAITHI LETTER DA. This form may be encoded in plain text using KAITHI ABBREVIATION SIGN, as $\frac{1}{2}\xi$. The actual graphical representation of the syllable ξ with a wavy vowel sign should be controlled at the font level.

Although KAITHI ABBREVIATION SIGN is semantically and graphically identical to U+0970 DEVANAGARI ABBREVIATION SIGN, it is necessary to encode it separately as an element of the Kaithi script in order to correctly represent abbreviated forms that appear as ligatures.

5.11 Enumeration

The ~ KAITHI ENUMERATION SIGN is used in writing enumerated lists and numeric sequences. It is found written before, above, or below a digit or sequence of digits. It is a stylized version of ¶ KAITHI LETTER NA and is an abbreviation of *nambar*, which is the transliteration of the English word 'number'. In its basic function it is identical to Nº U+2116 NUMERO SIGN, the sign for indicating ordinal numbering in the Latin alphabet. The following specimen from a legal document illustrates the use of the enumeration sign to indicate numeric ordering in two distinct contexts:

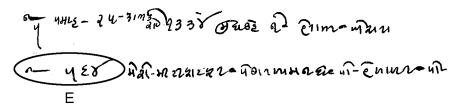
¹⁰¹ Grierson, 1899: Plate XIII.



The circled portion labeled 'A' shows the enumeration sign written above the digit. It functions here to indicate the first item in an enumerated list. Portion 'B' shows the enumeration sign written under the numerical sequence. It is used here to indicate a court-case number. Portions 'C' and 'D' are identical in function to 'B'. It appears as though the enumeration sign is written through the digit 9 in 'C', but this is most likely the result of the descending stroke of the digit, as compared with 'D'. Here the enumeration signs refer to plantiffs (HE) 19 muda 'ān') '1' and '2' in the given case.

The function of the enumeration sign in portion 'A' is different from its function in 'B', 'C', and 'D'. In the former, it is used as a label in an enumerated list. In the latter three, it is used to mark specific numerical references. Nevertheless, there is no need to encode these forms separately as they may be considered positional variants of the same sign.

The following example shows the enumeration sign written in-line before the number being marked. Portion 'E' is the Kaithi text ~4&V.



5.12 Nukta

The is Kaithi sign nukta is commonly used to distinguish q Kaithi Letter ba from q Kaithi Letter va. It is also written under u Kaithi Letter va to produce the variant form u. In some cases, the *nukta* is written below letters to represent sounds from Urdu. For example, the following specimen represents the sound of j u+0632 arabic letter zain by placing *nukta* under Kaithi Letter ja in the word 如何的

The Kaithi o Hindi barnamala also shows the use of nukta under каітні letter ja to represent u+0632 Arabic letter zain. Similar to ज u+095B devanagari letter za, каітні letter ja with nukta may also be used to transliterate is u+0630 Arabic letter thal, w u+0636 Arabic letter dad, i u+0638 Arabic letter zah, and i u+0698 Arabic letter zeh. Also used in the text is a nukta under каїтні letter ka, similar to Devanagari क u+0958 devanagari letter qa to represent u+0642 Arabic letter qaf:

¹⁰² Grierson, 1903b: 74.

(३ तीण णेशिवफ् प्रकी उद्याप्ती नीण या हि कि या फनो। फट्ह या हफनें जे फहफन ः बही

In a similar manner, the following shows the use of nukta under каітні letter кна, similar to Devanagari def u+0959 devanagari letter кнна to represent eq u+062E arabic letter кнна:

The following example shows the use of *nukta* under KAITHI LETTER PHA, similar to Devanagari फ U+095E DEVANAGARI LETTER FA to represent $\dot{\upsilon}$ U+0641 ARABIC LETTER FEH:

The forms of Kaithi letters in the *Kaithi o Hindi barnamala* appear heavily influenced by Devanagari. This influence is most evident in the use of *nukta* with Kaithi letters to indicate sounds not native to Hindi phonology. Although the *nukta* letters appear in a few Kaithi sources, they are generally not listed in inventories of Kaithi letters, and they may be considered a late innovation. Therefore, rather than reproducing the repertoire of *nukta* letters found in Kaithi documents, it is preferable to encode KAITHI SIGN NUKTA so that such letters may be created as the need arises.

Combinations of consonants and KAITHI SIGN NUKTA are to be treated as regular consonants.

5.13 Ruled Lines

Several manuscripts and books show Kaithi written and printed with a headstroke similar to that of Devanagari. The line, however, is not a headstroke, but a typographic device used for emphasis, titling, or sectioning that is not part of the actual script. Hoernle writes that "These lines must not be confounded with the headstroke of the Devanágarí, and in native writing the two are easy to distinguish¹⁰³

There are two practices regarding the use of lines. In some traditions, only the first line of a document is written on a ruled line. ¹⁰⁴ This was most likely done to assist with writing speed since aligning the heights of characters with the lines added additional efort. The other practice was to produce lines on an entire page and to hang the letters from the lines. ¹⁰⁵

The following example shows a line used only for the first line: 106

¹⁰³ Hoernle, 1975: 1fn1. 104 Grierson, 1899: 4. 105 Hoernle, 1975: 1fn1. 106 Grierson, 1899: Plate XVII.

• ज्ञानीय-त्रवा - शामान यमिष्ठहमे- बाह-ह्नाजा-त्रशाह-डी जनीहान-नवाम-श्राच-वाशान-भाषी-महिद्धा- व्या-त्रध्य-द्विण-है- ६शय-हम्नात- व्येष-जाजानीश-स्राताहे-

The following example shows the use of ruled lines for written Kaithi: 107

ग्रानी प्राथन स्वामन हैन छारे नाम ६ छन् मन दुमे ना व्यवहर्मन प्राथन प्य

Some Kaithi fonts were designed with headstroke, presumably to render similarity between Kaithi letters and Devanagari type:

सुष्पी को जुमी कहा क्रीत एक के कीए कप पानी को समुद्दत क्रीत दखत ने देपा की क्रिका है। क्रीत दखत ने कहा की जुमी

Figure 37 shows a comparison of hand-written Devanagari and Kaithi. At first glance, it appears that the Kaithi is written with the head-stroke similar to the Devanagari. Comparing the two scripts, it becomes clear that the head-stroke accompanying the Kaithi letters is actually a ruled-line, which unlike the actual head-stroke of the Devanagari letters, is not broken between individual letters.

5.14 Digits

The Kaithi digits are typologically similar to those of Devanagari. The differences lie in the style of writing the digits. Figure 5 shows variant forms of Kaithi digits. Figure 18 shows a comparison of digits of Kaithi, Devanagari, and other scripts.

5.15 Number Forms and Unit Marks

Number forms and unit marks are commonly found in Kaithi documents. Among these are fractions (eg. ~ ½6 (NORTH INDIC FRACTION ONE SIXTEENTH), || ½2 (NORTH INDIC FRACTION ONE HALF), etc.), currency (eg.) NORTH INDIC RUPEE MARK), and other marks (eg.) NORTH INDIC QUANTITY MARK). A few of these are depicted in Figure 5. These signs are important for the complete representation of Kaithi in the UCS; however, these signs are not exclusive to Kaithi. They are used across several north Indic scripts, including Devanagari, Gujarati, Gurmukhi, Mahajani, Maithili, and Modi. For this reason, the present author proposed that the number forms and unit marks be encoded independently in the UCS. The characters

¹⁰⁷ Grierson, 1899: Plate XI.

were accepted by the UTC and placed into a future block to be named "Common Indic Number Forms" (U+A830..U+A83F). 108

5.16 Regional Variants

There are three styles of Kaithi, one each associated with the Bhojpuri, Magahi, and Maithili languages. ¹⁰⁹ The three styles are compared in Figure 3. Grierson describes the Bhojpuri style as "the most legible" (Figure 6); the Maithili as "the most elegant" (Figure 7); and the Magahi as "a mean between the two" (Figure 8). ¹¹⁰ Of these, the Magahi style was adopted by the government of Bengal for official purposes in Bihar and was the basis for the development of Standard Kaithi. ¹¹¹

The differences between the three styles are due to local scribal traditions. For instance, characters of the Maithili style of Kaithi are influenced by the Maithili script. As a result, there are variant shapes of a few characters. Encoding these styles separately is unnecessary and variants should be unified with the prevailing form of the letter. The presentation distinctions of the three traditions should be considered a matter of font design and controlled at the font level.

The variant characters are:

	STANDARD	VARIANT		STANDARD	VARIANT
KAITHI LETTER A	શ્ર	M	KAITHI LETTER NYA	બ	3
KAITHI LETTER AA	ચા	MI	KAITHI LETTER PHA	શ્રુ	પૃ
KAITHI LETTER I	ঽ	3	KAITHI LETTER YA	ય	ય
KAITHI LETTER II	Ş	ş	KAITHI LETTER LA	9	લ
KAITHI LETTER KA	9 1	\mathcal{E}			

5.17 Typefaces

There are at least four sets of Kaithi metal fonts known to the present author. Two of these sets were used by George A. Grierson for printing Kaithi specimens in the *Linguistic Survey of India*. Two Kaithi metal fonts were developed by the Baptist Mission Press of Calcutta. The letters of this font share the fundamental structure of letters in Standard Kaithi, but the glyphs are cut in the style of Devanagari letters. A comparison of these four font is shown in Table 2 and Table 3.

Superficially, the fonts produced by Grierson and the Calcutta Bible Society appear substantially different. Grierson's font:

के વાસતે મેળ દેહ્0સા શ્રોઝન ર દસા હો ગરા કરો ખવન સુર્શાતશ મુસો ખાત નહાં હા છો કો કે મિલત તો હ શ્રોહો સે શ્રાપન પેઠ ખુસો સે માનત, હેમિન રહો ના શ્રો કે કેલ દેત નહા ખન શ્રો કે ચેત મરા તો હ શ્રપને મન મેં ક્રહ્0સ કો

The Calcutta Bible Society's font:

यो समान उगाला क्रीत इख्त ने हेपा की लक्ष है। सो सांह क्रीत वीहान तीसना दीन कला। क्रीत इख्त ने कहा

¹⁰⁸ Pandey, 2007. ¹⁰⁹ Grierson, 1903b: 11. ¹¹⁰ Grierson, 1899: 4. ¹¹¹ Diringer, 1968: 290.

The Hindi bibles of the Baptist missionaries in Calcutta were generally printed in Kaithi fonts bearing the headstroke. The Baptist Missionary Press cut their Kaithi fonts in a manner that made the characters resemble Devanagari letters. Other Kaithi fonts, such as those used by Grierson to print the specimens of the 'Bihari' languages in the *Linguistic Survey of India*, do not bear the headstroke.

There is also stylistic variation in Kaithi metal types, of which three have been identified by the present author. Two different fonts were used by Grierson in the *Linguistic Survey of India*, as shown in the table of Kaithi letters in Figure 15 and in the specimen of Maithili, shown in Figure 13. Another used by the Calcutta Bible Society, shown in Figure 25. Unfortunately, Grierson did not indicate the origin of the Kaithi font used to print specimens of the Bhojpuri, Magahi, and Maithili in the *Linguistic Survey of India*. It is also unclear if the types in the *Linguistic Survey of India* were based on those commissioned by Nesfield or if they were a new set produced by Grierson.

The specimen below from Hoernle's *A Comparative Grammar of the Gaudian (Aryo-Indian) Languages* shows Kaithi letters printed in contrast with Devanagari letters: 112

that there is only one sign for each of the following groups of Nágarí letters: 1) $\boxed{4}$ (properly = n) for the nasals \Im \dot{n} , \Im \bar{n} , \Im \dot{n} , \Im n; 2) $\boxed{4}$ (a combination of s and s) for the sibilants \Im s, \Im s, \Im s, \Im s, \Im s, \Im and \Im s, and \Im s, \Im \Im s

¹¹² Hoernle, 1880: 1.

6 Relationship to Other Scripts

The Kaithi script is related to Devanagari, Gujarati, Bengali, and other major north Indian scripts in much the same way as the latter scripts are related to each other. It is no more similar in typology or genealogy to any other script based on northern Brahmi as are any of the other scripts derived from the same source. Of the major scripts, Kaithi is considered to be most closely related to Gujarati and Devanagari. In the discussion below, it is shown that Kaithi is distinct from these two scripts.

While the exact origins of Kaithi are unclear, there is more information available about its descendents. Kaithi is considered to be the source from which regional north Indic scripts are derived, such as Mahajani¹¹³ and Sylheti Nagari,¹¹⁴ and quite possibly the modern Gujarati script.

Hoernle wrote that of the "four principal types of alphabet" employed in northern India — "the Kaithí, the Bangálí, the Oriá and the Gurmukhí" — "[t]he Kaithí is the most widely spread; it is used in writing not only in Eastern, but also, slightly modified, in Western Hindústán, Maráthá and Gujarát. In G. [Gujarati] and sometimes in E. H. [Eastern Hindustan] is it adopted also in print." Hoernle suggests that other scripts found in the Hindi region are derived from Kaithi: "[T]here are two sub-types much in use in the area occupied by the Kaithí, to which they are the most nearly related. There are the Nágarí or Devanágarí and the Mahájaní or Kothivál. The first is an improvement, the second a corruption of the Kaithí or of its more ancient original."

6.1 Relationship to Gujarati

The relationship of Kaithi to Gujarati and to Devanagari is best expressed within the framework of Kaithi as a class of scripts. Of the modern north Indic scripts descended from Brahmi, Kaithi bears the greatest resemblance to the Gujarati script. It is highly probable that Gujarati is descended from Kaithi. In fact, in the *Linguistic Survey of India*, Grierson writes that Kaithi "is in general use all over the north of India, from the Gujerat coast to the river Kosi" in Bihar. To be sure, Kaithi and Gujarati are the only major north Indian scripts without the distinctive headstroke common to other scripts. They are also the major 'running hands' or common scripts to be cast in metal type and used for the printing of books and other documents. It is the absence of the headstroke that is noted in *The Unicode Standard*, *Version 5.0* as the historical link between Kaithi and Gujarati:

The Gujarati script is a North Indian script closely related to Devanagari. It is most obviously distinguished from Devanagari by not having a horizontal bar for its letterforms, a characteristic of the older Kaithi script to which Gujarati is related. The Gujarati script is used to write the Gujarati language of the Gujarat state in India. 118

However, Grierson's statement that Kaithi "is in general use all over the north of India" complicates the relationship between Kaithi and Gujarati. The statement suggests that the script used in Gujarati is none other than Kaithi. To be sure, in some sources the names Kaithi and Gujarati are regarded as synonyms. *The Book of a Thousand Tongues* provides excerpts of bibles printed in the Gujarati language in the "Gujarati or Kaithi characters," but also shows specimens of the "Bihar" languages as being in the "Kaithi character." Despite the use of the same name, the actual metal types used for printing Gujarati and "Bihari" are different and are identical to the types used by Grierson for printing Gujarati and "Bihari" in the *Linguistic Survey of India*, as shown in Figure 32.

Grierson's Terminology In Grierson's descriptions of the relationship between Gujarati and other scripts, he refers to different orthographic categories represented by generic script names. For instance, in 1903, Grierson wrote that Gujarati "is based on the same original as Dēva-nāgarī, and closely resembles the ordinary

¹¹³ Kellogg, 1893: 23. 114 Lloyd-Williams, et al., 2002: 5. 115 Hoernle, 1880: 2. 116 Hoernle, 1975: 2. 117 Grierson, 1903b: 11. 118 The Unicode Consortium, 2007: 321. 119 American Bible Society, 1938: 159. 120 American Bible Society, 1938: 69.

Kaithī character employed all over Northern India." But in 1899 he wrote that the Gujarati script "corresponds to what is known as the Mahājanī script in Upper India" and to what is "known as *Vāṇiāī* or *Ṣarrāfī*" in Gujarat. It follows that Grierson equates Mahajani with Kaithi. However, the script formally known as 'Mahajani' in north India is typologically distinct from Gujarati and Kaithi, as shown in Figure 36. Grierson also writes that the "Moḍh, Gujarátí, and Kaithí alphabets … possess a great similarity of character" while Mahajani is "still a further corruption, for cursive purposes" of Devanagari. In 1904, Grierson suggested that Mahajani and Landa are more likely derived from a different ancestor found in north-western India, related more directly to Sharada than to Devanagari.

As is evident from Grierson's shifting classifications of Gujarati, generic terms should not be relied upon when determining the directionality or hierarchy of influence with regard to related scripts. Nor should formal names for historical scripts and names of script classes be conflated or considered as static. It is advisable to taken into consideration Hoernle's admission that

The general likeness of these four types [the Kaithí, the Bangálí, the Oriá and the Gurmukhí] to one another as well as to the older Kutila and Gupta is unmistakeable, though their exact relation among themselves, their origin and age are matters not as yet fully elucidated. 124

Class or Formal Name? The problem with the synonymity between Kaithi and Gujarati is determining which definition of 'Kaithi' is being refered to. Is it Kaithi, as the formal name of a historical script, or Kaithi, as class or family of script styles? Further analysis of Grierson proves that the term 'Kaithi' being used as a synonym of Gujarati is in fact Kaithi as the name of a family of scripts. Although Grierson cites the prevalence of Kaithi from Bihar to Gujarat, he states that "[t]hroughout this great tract it has of course many variations, some depending upon locality and others upon individual handwriting." Thus, 'Kaithi' is a family of scripts whose regional forms developed into distinct scripts. The differentiation of the Kaithi class into regional writing systems accounts for the relationship between modern Kaithi and Gujarati and other scripts. At home in Bihar and NWP&O, 'Kaithi' retained its name; in the eastern reaches of its geographically spread, it developed into Syloti Nagri; and in the western periphery it assumed the name associated with the language current in that region, Gujarati. Diringer concludes by stating that "Bihari Kaithi" and Gujarati "(if the latter is at all connected with the Kaithi) are essentially different." ¹²⁶

Thus from the Kaithi family of scripts descended the Gujarati, Bihari, and Syloti regional forms. It is, therefore, reasonable to articulate that the 'Kaithi' script, which Grierson refered to as being "in general use" across north India, is the eponymous source whose regional styles developed into distinct historical regional scripts in Bihar, Gujarat, and Bengal. David Diringer supports this view when he refers to the specific development of regional styles of this the Kaithi family as "Bihari Kaithi" and Gujarati. He writes that "[t]he Gujarati character is essentially the literary, refined form of the script, now represented in its cursive form by the Kaithi type." While Gujarati may be considered a script of the 'Kaithi' family or style, it is now formally known as Gujarati just as "Bihari Kaithi" is known formally as Kaithi.

But, genetic affinity is not the sole determinant of script classification and significance. Grierson writes that among this family of scripts, "Gujarátí, the most western, differs little from Kaithí, the most eastern, and a Tirhutiá *paṭwárí* finds little difficulty in reading a Gujarátí book." This reductive mutual intelligibility does not diminish the distinctiveness of a script that is determined by its cultural and sociological value. Despite the ability of Grierson's village accountant in reading the Gujarati script with equal proficiency as Kaithi, the printing tradition associated with Gujarati embodies a particular characteristic associated within

The Grierson, 1908: 338. The Grierson, 1899: 3. The Grierson, 1904b: 67. The Grierson, 1908b: 338. The Grierson, 1899: 3. The Grierson, 1904b: 67. The Grierson, 1905: 2. The Grierson, 1903b: 11. The Grierson, 1908: 289. The Grierson, 1899: 3. The Grierson, 1904b: 67. The Grierson, 1904b: 67. The Grierson, 1905: 2. The Grierson, 1903b: 11. The Grierson, 1908: 289. The Grierson, 1904b: 67. The Grierson of Grierson, 1904b: 67. The Grierson of Grierson of Grierson, 1904b: 67. The Grierson of Griers

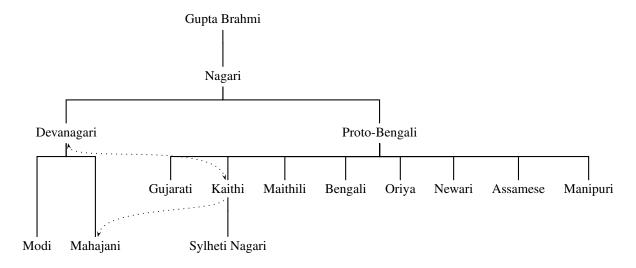


Figure 2: Relationship of Kaithi to selected Nagari-based scripts

the regional Gujarati linguistic, scribal, and print traditions.¹³¹ Although Kaithi typefaces from Bihar could be used to typeset Gujarati books, the likelihood of such is parallel to the typesetting of Panjabi books using Sharada instead of Gurmukhi.

The standardization and official recognition of a script and the subsequent adaption of the script in print technology suggests that the script is an independent writing system with a distinct typology and scribal tradition. Although it was "primarily a cursive written hand," Kaithi was "raised to the dignity of type in Bihar and Gujerat" In Gujarat, Kaithi was "elevated to the position of a national character." In Bihar, Kaithi received the same status: "[a] fount of Kaithī type is adopted by the Bengal Government for official publications in the vernacular, intended for publication in Bihar, in which this deficiency has been supplied, and books are now printed in Patna in the same type, so that gradually the written character is becoming more correct in this respect." ¹³⁴

6.2 Relationship to Devanagari

While there exists a closer relationship between Kaithi and Gujarati, many specialists associate Kaithi with Devanagari. Kaithi is often considered a corruption or cursive — parivartita rūpa¹³⁵ or ghasīṭa śailī¹³⁶ — form of Devanagari. Such characterizations are inaccurate. The relationship between the two scripts is more appropriately described as one of parallel development rather than linear descent. Grierson, the foremost authority on Kaithi, states that while Kaithi and Devanagari are related, "the two alphabets arose pari passu, from an older original still found existing in inscriptions and the like." The emergence of Kaithi and Devanagari from a common source explains the similarity of certain letter shapes, but the differences between them highlight the divergence in the development and use of the two scripts. In fact, as shown in Figure 2, Kaithi and Devanagari belong to different sub-families of Nagari.

Apart from typological differences, the fundamental distinction between Kaithi and Devanagari lies in the sphere of use. Grierson wrote that "[w]hile not so complete as the Dēva-nāgarī, for some of the rarer

A point of interest is that while Grierson's *paṭwárí* from Bihar could ably read Kaithi and Gujarati, a scribe from Vrindavan (in present-day western Uttar Pradesh) charged with copying into Devanagari the Kaithi manuscript of Jīvā Gosvāmī was unable to decipher the Kaithi (Mukherjee and Wright, 1979: 298ff4). Also, detailing his plan to travel to the Tirhut division of Bihar in 1915 for the purpose of taking up legal cases against the British government, Mahatma Gandhi, a native speaker of Gujarati, wrote in in his *The Story of My Experiments with Truth*, that "I find it difficult to understand the local dialect of Hindi, and I shall not be able to read papers written in Kaithi or Urdu." (Gandhi, 1929: 367).

132 Grierson, 1903b: 11.

133 Grierson, 1903b: 11.

134 Grierson, 1903b: 21.

135 Ojhā, 1971: 130.

136 Varmā, 1972: 170.

137 Grierson, 1899: 3.

letters are altogether wanting, it [Kaithi] bears to that alphabet much the same relation that the English current written hand does to the printed character." Grierson's description suggests that Kaithi was the regular 'cursive' script used for routine purposes, while Devanagari was the 'calligraphic' script used for formal purposes. However, this does not mean that Kaithi was simply the cursive or hand-written form of Devanagari or that Devanagari is merely the formalized print version of Kaithi. The written form of Devanagari differs from Kaithi just as the printed form of Devanagari differs from the printed form of Kaithi. Through this orthographic division of labor, Kaithi was used to record the Bhojpuri, Magahi, and Maithili languages, while the Devanagari was used for Sanskrit and the formal styles of Hindi. Therefore, Kaithi is not as 'complete' a script as Devanagari because it was adapted for use with languages that did not possess the complex phonological features of Sanskrit and as such did not demand the preservation of such features in written form.

The scripts classified within the aforementioned categories may indeed possess similar features, such as the absence of the head-stroke, but the development of specific features among these regional styles resulted in modern writing systems that are not only typologically distinct from their historical siblings, but that are also tied to region-specific literary and cultural traditions. Grierson writes that "[t]he oldest books published in the Gujarātī language were printed in the Dēva-nāgarī type" and that the introduction of Gujarati metal type "is a matter within the memory of the present generation." ¹³⁹

6.3 Relationship to Syloti Nagri

The differentiation of the Kaithi family into regional scripts explains the relationship between Kaithi and Syloti Nagri. James Lloyd-Williams, the author of the Syloti Nagri proposal, states that Syloti Nagri is "a form of Kaithi." As such, Lloyd-Williams suggests that while Gujarati may be considered the westernmost member of the Kaithi family, the distinction of the eastern-most member should go to Syloti Nagri, not the Bihari Kaithi. He writes that Syloti Nagri is most closely related to the Magahi style of Kaithi, however the features of the Syloti Nagri script, as well as distinct letterforms and orthographic devices, justify its status as an independent script separate from Kaithi. 142

6.4 Comparison of Kaithi, Gujarati, and Devanagari

The differences between the standard Kaithi, Gujarati, and Devanagari scripts are evident in the typographic tradition that developed around the scripts. The differences between them are evident through a comparison of the Kaithi and Gujarati metal fonts used in the *Linguistic Survey of India* shown in Figure 32. Table 6 and Table 7 illustrates the differences between Kaithi, Gujarati, Devanagari, and Syloti Nagri through a comparison of the digitized fonts for each script. A statistical breakdown of is given in Table 5.

These comparisons indicate that while several Kaithi, Gujarati, and Devanagari letterforms possess structural similarities, many are unique to the specific script. Apart from structure, the four scripts compared differ substantially in their representation and style. Thus, the similarities between the scripts owe more to reciprocal influences from contact than to unidirectionality.

Some letters in Kaithi and Gujarati have similar appearance, but different semantic value. For instance, \mathfrak{h} KAITHI LETTER JA resembles \mathfrak{q} U+0AB3 GUJARATI LETTER LLA. Kaithi lacks the letter for LLA. Grierson¹⁴³ shows a form of the consonant-vowel ligature for h_r as \mathfrak{E} . This ligature is identical in shape to \mathfrak{E} KAITHI LETTER JHA. This ligature would be written as $\mathfrak{E} \mathfrak{N}$ $har\bar{\iota}$ in Kaithi.

¹³⁸ Grierson, 1903b: 11. ¹³⁹ Grierson, 1903b: 11. ¹⁴⁰ Lloyd-Williams, et al., 2002: 5. ¹⁴¹ Lloyd-Williams, et al., 2002: 5.

¹⁴² Lloyd-Williams, et al., 2002: 6. ¹⁴³ Grierson, 1908: 338.

	Typologically distinct, graphically distinct	Typologically similar, graphically distinct	Typologically similar, graphically similar	Comments
Kaithi & Gujarati	KA, JA, JHA, DDHA, RHA, NNA, PHA, BA, RA, LA	KHA, NGA, CA, TA, DHA, NA, BHA, HA	GA, GHA, CHA, NYA, TTA, TTHA, DDA, DDHA, THA, DA, PA, NA, YA, VA, SHA, SSA, SA	K. lacks lla; G. lacks ddha, rha
	A, AA, I, II, UU, E, AI, O, AU	U	_	K. lacks vocalic r
Kaithi & Devanagari	KHA, JA, JHA, NNA, DA, DHA, PHA, RA, LA	KA, GA, NGA, CA, TTHA, TA, DHA, NA, BA, BHA, MA, YA, VA, HA	GHA, CHA, NYA, TTA, DDA, DDDHA, DDHA, RHA, PA,SHA, SSA, SA	K. lacks LLA
20,41148411	A, AA, I, II, O, AU	U, UU, E, AI	_	K. lacks vocalic r
Gujarari & Devanagari	KA, KHA, JA, JHA, NNA, DA, PHA, BA, LA, LLA	CA, BHA, RA, HA	GA, GHA, NGA, CHA, NYA, TTA, TTHA, DDA, DDHA, TA, THA, DHA, NA, PA, MA, YA, VA, SHA, SSA, SA	G. lacks DDDHA and RHA
	A, AA, I, II, E, AI, O, AU.	U, UU	VOCALIC R	

Table 5: Statistical comparison of similarity of letters across Kaithi, Gujarati, and Devanagari.

kha W VH VE PM da E E E T T ga J) J1 JT		KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI		KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI
ga	ka	H	ક	क	पा	tha	થ	થ	थ	₹
gha ६ ५ घ इ na ी न न त त na ७ ऽ ङ — pa Ч Ч प प प ca थ २ च त pha १ ६ ६ फ फि cha ६ ७ छ छ फ़ ba े व ० व व ja ७ १ ज ज ज ज bha ११ (म भ ज jha ६ ४ झ फ ma भ म म ११ ña भ भ भ भ म ११ fha ऽ ठ ड छ छ १० छ १० ल त gha ६ ८ ड छ छ १० छ १० ल त tha ऽ ठ ड छ छ १० छ १० ल त gha ७ ऽ ड छ छ १० छ १० ल त gha ७ ऽ ड छ छ १० छ १० ल त gha ७ ऽ ड छ छ १० छ १० ल त gha ७ ऽ ड छ छ १० छ १० छ — १० छ — १० छ — १० छ ल त gha ७ ऽ ड छ छ १० छ १० छ १० छ — १० छ — १० छ — १० छ — १० छ १० छ	kha	ખ	ખ	ख	म्प	da	3	3	द	দ্
na 以 公 宝 — pa 以 以 प	ga	3]	၂င	ग	ग्र	dha	ધ	ધ	ध	প্
ca 24 २4 च व व क एक	gha	ઘ	ધ	घ	ৰ	na	গ	ન	न	ग
cha छ छ फ ba व व व ja い ४ ज ज bha ४ ए भ भ jha ६ ५ इ ए ए ए ए प प ña भ	'nа	B	S [.]	ङ		pa	Ч	પ	प	ᅜ
ja V	ca	ય	ચ	च	ৰ	pha	શ્રુ	ફ	फ	V.
jha ६ 为 झ \bar{W} ma \bar{H} \bar{H}	cha	छ	\mathcal{C}	छ	万	ba	વ	બ	ब	ন্
ña 対 24 対 24 ゼ 2 工 2 京 ra 4 セ 7 元 7 1 2 工 7	ja	Ŋ	૪	ज	দ	bha	প্র	ભ	भ	ন্
ta ८ ट उ ए	jha	E	35	झ	W	та	મ	મ	म	স্থা
tha \$	ña	બ	ઞ	ञ		ya	ય	ય	य	
da S S ड U la — प ळ — ra S — ड — va प प व व dha ८ ८ ढ प ५ प प प प rha भ प प प प प प — na भ प प प प प —	ţа	ડ	S	ट	2	ra	1	5	र	ব
ra \$ — \$ — va २ २ व য় dha ८ ८ ८ ८ ८ ४ १<	ṭha	S	δ	ठ	ট	la	9	લ	ल	1
qha & द ढ ढ ढ ३ ३ ३ ३ १ १ प <td< td=""><td>ḍа</td><td>હ</td><td>S</td><td>ड</td><td>ড</td><td>ļа</td><td>_</td><td>Պ</td><td>ळ</td><td></td></td<>	ḍа	હ	S	ड	ড	ļа	_	Պ	ळ	
rha \$\delta\$ - \$\delta\$ - \$\sa\$ \$\delta\$ \delta\$ \delta\$ - na \mathbb{H} \mathbb{Q} \mathbf{\pi} - sa \delta\$ \delta\$ \delta\$ -	ŗa	Ģ	_	ङ्		va	વ઼	વ	व	র
na ₩ ध ण — sa २४ २४ स —	фhа	ઢ	S	ढ	ঢ	śa	શ	શ	श	श
	ŗha	ģ		ढ़	_	ṣа	Ч	Ŋ	ष	
ta N त ज म ha ह ह ज़	ņа	Ж	ણ	ण		sa	સ	સ	स	
	ta	\mathbf{Q}	ત	त	ਜ	ha	۶	ξ	ह	দ্য

Table 6: A comparison of the consonant letters of the Kaithi, Gujarati, Devanagari, and Syloti Nagri scripts

ઔ

	IN	DEPENDEN	T VOWELS			DEPE	ENDENT VO	OWEL SIGNS	
	KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI		KAITHI	GUJARATI	DEVANAGARI	SYLOTI Nagri
a	શ્ર	અ	अ	_	<i>-a</i>	_	_	_	
ā	શ્રા	અા	आ	刁	-ā	ા	ા	ा	ा
i	ঽ	ઇ	इ	ष्ट्	-i	િ	િ	ি	ी
ī	६	ઇ	ई	_	- <i>ī</i>	ી	ી	ी	
и	B	3	उ	3	-и	ુ	ૢ	ુ	્ર
ū	3,	ઊ	ऊ	_	- <i>ū</i>	્	्	ૃ	
ŗ	_	北	ऋ		- <i>ŗ</i>		ृ	ृ	
e	у	એ	ए	7	-е	े	े	े	े
ai	\mathcal{G}	એ	ऐ	গ্ন	-ai	ै	ै	ै	৾
0	શ્રો	ઓ	ओ	র	-0	ો	ો	ो	ो

Table 7: A comparison of vowel letters and signs of the Kaithi, Gujarati, Devanagari, and Syloti Nagri scripts

-au ੀ ੀ

	KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI		KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI
0	0	0	•	0	5	Ч	પ	X	Ŷ
1	9	٩	8	5	6	ξ	9	६	৬
2	२	ર	2	Ş	7	৩	9	Ø	9
3	3	3	3	9	8	۲	6	5	Ь
4	8	γ	8	8	9	۲	(-	९	৯

Table 8: A comparison of digits of the Kaithi, Gujarati, Devanagari, and Syloti Nagri scripts. Note: Syloti Nagri uses Bengali digits.

7 References

- The American Bible Society. 1938. The Book of a Thousand Tongues: Being Some Account of the Translation and Publication of All or Part of The Holy Scriptures Into More Than a Thousand Languages and Dialects With Over 1100 Examples from the Text. Edited by Eric M. North. New York and London: Harper & Brothers.
- Bharat Kala Bhavan, Banaras Hindu University. 2001. "Archaeology Gallery." http://www.bhu.ac.in/kala/gallery_archaeology.htm. Accessed August 2007.
- Beverly, Henry. 1874. "On the Census of Bengal." In *Journal of the Statistical Society of London*, vol. 37, no. 1 (March 1874), pp. 69–113. London: Statistical Society of London.
- Bible Translation Society. 1850. *The New Testament of our Lord and Saviour Jesus Christ, in the Hindi language; Kaithi character*. Translated from the Greek by the Calcutta Baptist Missionaries with Native Assistants. Printed for the Society by J. Thomas, Baptist Mission Press, Calcutta.
- 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 [૩૧૫૧૧ કો) પુસાલ શ્રી પાલન શ્રી પાલન કો પુસાલ શ્રી પાલના કો પુસાલ કો પુલ કો પુસાલ કો પુલ કો પાલ કો પુલ કો પુલ કો પુલ કો પુલ કો પુલ કો પાલ કો પુલ કો પાલ કો પુલ કો
- Chatterji, Suniti Kumar. 1970. *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.
- Chaudhury, Pranab Chandra Roy. 1963. *Bihar District Gazetteers: Purnea*. Patna: Superintendent, Secretariat Press.
- "Comparative-Religion Notes." 1894. In *The Biblical World*, vol. 4, no. 4 (October 1894), pp. 291–295. Chicago: University of Chicago Press.
- Coulmas, Florian. 1991. *The Writing Systems of the World*. Reprint of 1989 ed. Oxford, U.K.; Cambridge, MA: Basil Blackwell.
- Diringer, David. 1968. *The Alphabet: A Key to the History of Mankind*, Volume 1. 3rd ed. Completely revised with the assistance of Reinhold Regensburger. New York: Funk & Wagnall.
- Eastwick, Edward. B. 1858. A Concise Grammar of the Hindústání Language, to which are added, selections for reading. 2nd ed., enl. with a vocabulary, dialogues, twelve fac-similes of Persian and Devanagari writing, &c. by George Small. London: Bernard Quaritch.
- Everson, Michael. 2005. "Towards an encoding of the Kaithi script in the SMP of the UCS." ISO/IEC JTC1/SC2/WG2 N3014 L2/05-368. November 6, 2005. http://std.dkuug.dk/jtc1/sc2/wg2/docs/n3014.pdf.
- Gandhi, Mohandas K. 1929. *An Autobiography; The Story of My Experiments with Truth.* vol. 2. Translated from the original in Gujarati by Mahadev Haribhai Desai and Pyarelal Nair. Ahmedabad: Navajivan Press.
- Gordon, Raymond G., Jr. [ed]. 2005. *Ethnologue: Languages of the World*, Fifteenth ed. Dallas: SIL International. Online version: http://www.ethnologue.com/.
- Government of Bihar. 1954. *Memorandum to the States Reorganisation Commission*. Patna: Superintendent of Government Printing.
- Grierson, George A. 1899. *A Handbook to the Kaithi Character*. 2nd rev. ed. of the title *A Kaithi Handbook*, 1881. Calcutta: Thacker, Spink & Co.
- ——. 1903a. *The Linguistic Survey of India*. Vol. V. Indo-Aryan Family. Eastern Group. Part I. Specimens of the Bengali and Assamese languages. Calcutta: Office of the Superintendent of Government Printing, India.
- ——. 1903b. *The Linguistic Survey of India*. Vol. V. Indo-Aryan Family. Eastern Group. Part II. Specimens of the Bihārī and Oṛiyā languages. Calcutta: Office of the Superintendent of Government Printing, India.

- ——. 1904a. *The Linguistic Survey of India*. Vol. IV. Indo-Aryan Family. Mediate Group. Part I. Specimens of the Eastern Hindī Language. Calcutta: Office of the Superintendent of Government Printing, India.
- ——. 1904b. "On the Modern Indo-Aryan Alphabets of North-Western India." In *The Journal of the Asiatic Society of Great Britain and Ireland*, pp. 67–73.
- . 1908. *The Linguistic Survey of India*. Vol. IX. Indo-Aryan Family. Central Group. Part II. Specimens of Rājāsthānī and Gujarātī. Calcutta: Office of the Superintendent of Government Printing, India.
- ——. 1916. *The Linguistic Survey of India*. Vol. IX. Indo-Aryan Family. Central Group. Part I. Specimens of Western Hindī and Pañjābī. Calcutta: Office of the Superintendent of Government Printing, India.
- Gupta, Parameśvarīlāla. 1967. कुतुबन कृत मिरगावती [The Miragāvatī of Kutuban]. Vārāṇasi: Viśvavidyālaya Prakāśana.
- Hoernle, A. F. Rudolf. 1880. A Comparative Grammar of the Gaudian (Aryo-Indian) Languages: with special reference to the Eastern Hindi, preceded by a general introduction on the North-Indian vernaculars, and accompanied by a language-map, a comparative table of alphabets, and an index of subjects. London: Trübner & Co.
- International Organization for Standardization. 2001. ISO 15919:2001 Transliteration of Devanagari and other Indic scripts into Roman.
- International Organization for Standardization. 2005. "Principles and Procedures for Allocation of New Characters and Scripts." ISO/IEC JTC 1/SC 2/WG 2 N3002. October 5, 2005. http://std.dkuug.dk/JTC1/SC2/WG2/docs/n3002.pdf.
- Jalaluddin. 1978. "Some Important *Farmāns* and *Sanads* of Medieval Period in the Institutions of U. P." In. *Studies in Islam*, vol. XV, no. 1 (January 1978), pp. 40–48.
- Jensen, Hans. 1969. *Die Schrift: In Vergangenheit und Gegenwart*. Reprint der 3. Auflage. Berlin: Deutscher Verlag der Wissenschaften.
- Jha, A. P. 1976. "Political History of Bihar (1859-1912)." In *The Comprehensive History of Bihar*, vol. III, pt. I. Edited by Kali Kinkar Datta. Patna: Kashi Prasad Jayaswal Research Institute.
- Jha, J. S. 1966. *Records of Judge and Magistrate of Patna for the Years 1820-1825*. Patna: K. P. Jayaswal Research Institute.
- *The Journal of Sacred Literature*. 1853. New Series. Vol. V. No. IX, October 1853. Edited by Henry Burgess. London: Blackader and Co.
- कैथी वो हिन्दी बर्नमाला [Kaithī vo hindī barnamālā] ("Kaithee-Hindi Reader"). 1882. Chaprā, Bihāra: Nasīma Sārana Presa.
- Kellogg, Samuel H. 1893. A grammar of the Hindí language: in which are treated the High Hindí, Braj, and the Eastern Hindí of the Rámáyan of Tulsi Dás, also the colloquial dialects of Rájputáná, Kumáon, Avadh, Ríwá, Bhojpúr, Magadha, Maithila, etc., with copious philological notes. 2nd ed., rev. and enl. 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. Frietag. 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; Sue Lloyd-Williams; Peter Constable. 2002. "Documentation in support of proposal for encoding Syloti Nagri in the BMP." ISO/IEC JTC1/SC2/WG2 N2592 L2/02-387. November 1, 2002. http://std.dkuug.dk/jtc1/sc2/wg2/docs/n2592.pdf.
- Lutgendorf, Philip. 1991. *The Life of a Text: Performing the Ramcaritmanas of Tulsidas*. Berkeley: University of California Press.
- महागणपतिस्तोत्र [Mahāgaṇapatistotra] (anonymous). (undated). Miscellaneous stotra materials in the Devanagari and Kaithi scripts. Manuscript held at University of Pennsylvania (Poleman number 1876;

- University of Pennsylvania number 2584).
- Metcalf, Thomas R. 1967. "Notes on the Sources for Local History in North India." In *Journal of Asian Studies*, vol. 26, no. 4 (August, 1967), pp. 665–675.
- Miśra, Śivagopāla. 1963. कुतुबन कृत मृगावती [The Mṛgāvatī of Kutuban]. Prayāga: Hindī Sahitya Sammelan.
- Mukherjee, Tarapada; J. C. Wright. 1979. "An Early Testamentary Document in Sanskrit." In *Bulletin of the School of Oriental and African Studies*, vol. 42, no. 2, In Honour of Thomas Burrow, pp. 297–320.
- Mule, Guṇākara. 1974. भारतीय लिपियों की कहानी [The Story of Indian Scripts]. Dillī: Rājakamala Prakāśana.
- Naik, Bapurao S. 1971. *Typography of Devanagari*. 1st rev. ed. Vols. 1, 2, and 3. Bombay: Directorate of Languages, Government of Maharashtra.
- National Mission for Manuscripts, Government of India. 2005. "Manuscriptology Workshops." http://namami.nic.in/Workshops/pastworkshop7.htm. Accessed August 2007.
- Ojhā, Gaurīśankara Hīrācanda. 1971. भारतीय प्राचीन लिपिमाला [*Bhāratīya prācīna lipimālā* = The Palæography 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.
- Palmer, Edward H. c.1870. *Oriental Penmanship: Specimens of Persian Handwriting*, "illustrated with facsimilies from originals in the South Kensington Museum, to which are added illustrations of the Nagari character by Frederic Pincott." London: Sampson Low, Marston & Company.
- Pandey, Anshuman. 2007. "Proposal to Encode North Indic Number Forms in ISO/IEC 10646." ISO/IEC JTC1/SC2/WG2 N3367 L2/07-354. October 7, 2007. http://std.dkuug.dk/jtc1/sc2/wg2/docs/n3367.pdf
- Ramyead, Lutchmee Parsad. 1988. "Hindi in Mauritius: A Perspective." In *Language Transplanted: The Development of Overseas Hindi*, edited by Richard K. Barz and Jeff Siegel. Wiesbaden: Otto Harrassowitz.
- 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.
- Śākyavaṃśa, Hemarāja. 1974 [saṃvat 2030]. Nepāla lipi-prakāśa. Kathamaṇḍau.
- Shapiro, Michael C. 2003. "Hindi." In *The Indo-Aryan Languages*. Edited by George Cardona and Dhanesh Jain. New York, London: Routledge.
- Siegel, Jeff. 1988. "Introduction." In *Language Transplanted: The Development of Overseas Hindi*, edited by Richard K. Barz and Jeff Siegel. Wiesbaden: Otto Harrassowitz.
- Simha, Dhīrendranātha. 1986. आधुनिक हिन्दी के विकास में खड्गविलास प्रेस की भूमिका [The Role of the Khadgavilāsa Press in the Development of Modern Hindi]. Paṭana: Bihāra Rāṣṭrabhāṣā Pariṣad.
- Singh, A. K. 1991. *Development of Nāgarī Script*. Delhi: Parimal Publications.
- Srivastava, K. P. [ed]. 1974. *Mughal Farmans* (1540 A. D. to 1706 A. D.), vol. 1. Lucknow, uttar Pradesh State Archives.
- Stewart, Charles. 1825. *Original Persian Letters and Other Documents with Fac-Similes*. London: printed for the author by W. Nicol.
- Stone, Anthony. 2004. *Transliteration of Indic Scripts: How to use ISO 15919*. Online at http://homepage.ntlworld.com/stone-catend/trind.htm.
- The Unicode Consortium. 2007. The Unicode Standard, Version 5.0. Boston: Addison-Wesley, 2007.
- Unicode Roadmap Committee, The Unicode Consortium. 2007. "Roadmap to the SMP." Authored by Michael Everson, Rick McGowan, and Ken Whistler. Revision 5.0.5 (August 29, 2007). http://www.unicode.org/roadmaps/smp/smp-5-0-5.html.
- Vedalankar, Sharadadevi. 1969. The Development of Hindi Prose Literature in the Early Nineteenth Century (1800-1856 A.D.). Allahabad: Lokbharti Publications.
- Varmā, Śivaśankara Prasāda. 1972. देवनागरी लिपि: ऐतिहासिक तथा भाषावैज्ञानिक अध्ययन [Devanāgarī

- Script: A Historical and Linguistic Study]. Bhāgalapura: Bhāgalapura Viśvavidyālaya Prakāśana.
- 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.
- White, Alexander. 2005. *Thinking in Type: The Practical Philosophy of Typography*. New York: Allworth Press.

PLATE II.

Table showing the Kayathi alphabet, as written by Tirhuti, Bhojpuri & Magah Scribes.

Tirhutí	Bhojpuri	Magah	English	Terhudi	Bhojpuri	Magah	English
क क्ष्रित कि कि कि के	からとののというできまるとののとのというとうというという	それのの シルンをままままのでというかんかん	a á i u ú e ai o au k kh gh ri ch chh jh ri t th d dh	r dange serse ten alma	#८वल त्र प्रथा भारत के किस में कि किस में	世へのひなのとなるないのでなるない。	n t th d dn p ph b bh m jr l b s kh s h

Figure 3: A comparison of the three regional forms of Kaithi, eg. the Tirhuti (Maithili), Magahi, and Bhojpuri (from Grierson, 1899: Plate II).

PLATE III.

Combinations of consonants Strong conjuncts.

\$ dg, &dd, & bdh, \$ bb, \$ bbh.

WEAK CONJUNCTS.

HHI non, 114 ny, od non, od nomod ny, od nor, od no, od no, tod mon, the mon, the my, then, the mh, 24 yy, from, if ry, of ro, of rsh, frh, od lon, od ly, oo ll, on th, devy, sor, of vv, od sn, the so, tod sv, tod sn, the sm, they, y sr, tod sv, tod sn, the sm, they, y sr, tod sv, tod sn, the sm, they, y sr, tod sv, tod sn, the sm, they, y sr, tod sv, tod sn, the sm, they, y sr, tod sv, tod sn, the sm, they, y hr, to he, to nh.

MIXED CONJUNCTS.

Hikm, Hiky, Hikr, & kl, Hik, Hikh, High Brigh, Hichy, Ghhro Hiji Mjm, Vy jg, Hgl, Ygr, Yjr, Yjr, Which, Senichh, Miy, Khiph, Hair, the nit, onth, on nith, o

* Pronounced like gy, with a nasal accent.

Figure 4: A list of Kaithi conjuncts used in the Maithili (Tirhuti) style of Kaithi. These forms rarely appear in the Magahi or Bhojpuri styles (from Grierson, 1899: Plate III).

PLATE IV.

Numerals &c.

The following are the more usual forms of the Numerals.

91, 22, 33, 84, 45, 86, 97, 6, 0,00 = 8,00 (5, or £9, 9010.

MONEY.

Il 3 pies (One pice), Il 6 pies, Ill 9 pies, I lánú, I 2 ánás, I 3 ánás, I 4 ánás, I 5 ánás, I 6 ánás, I 7 ánás, Ill 9 ánás, Ill 12 áná

Chhatáñko5-1, 5-2, 5=3, 520 4, 52=6 52=7, 520 8, 521 9, 5220 12.

Sers G 1, G2 2, G3 3, G5 4, G4 5, G6 6, G9 7, R 8, GC 9, 20 10, 29 11, 20, 20 30

9 (02) = 1 Md 10 500 10 Chills.

AREA.

Dhurs. 559 1, 552 2, 553 3, 558 4, 5510 5, 5518 6, 5512 7. 55120 10, 5518 11, 55111016.

Katthás 59 1, 52 2, 53 3, 58 4, 10 5, 18 6, 10 10, 110 15.

9012919 10 Bighás. 16 Kts. 6Dhurs.

Figure 5: Currency, weights, and measures signs that appear in Kaithi documents (from Grierson, 1899: Plate IV). These signs are proposed for inclusion in the UCS in a separate proposal.

PLATE XXVIII.

THE FABLE OF THE HIDDEN TREASURE.
(Bhojpuri character and dialect.)

रेक यडा भारीभी मंत्रुत के जानी सा प्योग पी भारश भारे के या पेट सा गर्छे जब उ भरे छग्छ गय पेट सम शो अर्छ १। ह लेटा मारेपाश जलन यन गर्छ गोने में भ अर के जान या में गाड दाहें वा हों वा मुंगे गरे जा जा गोपद्यर जविकाबासी मनी जयम मय क्रांपा स्व वेठीआ भी छमें ध्येन में थारी क्यान ही धार्व छ अछन् दन ्रीवयवर्ते प्योग नभी वि या भी प्येत काकी तार शे प्या ५० गए । भी भागात्र पडाय परामें भी भी क्लिंग्रे कि उपमि तय ग्रिशय यहा भी के क्लार्स वेस हैं क्योंन पहा एक यह पो हैं पड़ा धारा नह हैं रेश्रमगांत्रवरे इवात शीर्धे देयारी की वडा गोंगाती न यान करें गोन के जान माने के मारी टारे के नमारी एरीमं रमने बांगव के कविभाव राइ इवडीकवर्तिश ध्येके वर्षे कर्नी री ए

Figure 6: Specimen of hand-written Bhojpuri style of Kaithi (from Grierson, 1899: Plate XXVIII).

PLATE X.

मैसी मारमन का विवासी पाका पीम दिवास तो छ। सी मसी पापेशा छ। सा अभीका मी जेपासी नी अगना जी ह है। की गणस्ती सन्दास्त्र अह दानंगा वीसीविस्तिक मध्वनीथाना वैनीपर्छ है आही हममाविका नैता त्य प्रेमा उप) भेका था उसका सका र अपेका का कि नाना विता-रीका हैमोसमासीजमणधाकारीय हासीजमोक्नणमकारीजातसीज पेसाजा स्तिकारीके जोशाइयायानानान्य है निर्माणका स्तिकारी मणश्च १ ७१ वाँ सी व ही स्ट्रा ३ ६ वाँ थाना सी ना म ही से ५ १ ५ सु ही व ही सा यश्रीसी हे अ उभेका। मा ६ वानी हे का का वर्ण वा गराउ का मे का पने ६ १ हाहे नीसमामगान्यार्ट्वा तमसम्भाषाठी आहे रेट्रेमे उपीका कास करीस ब्युनेमाशीमाध्कासीन्सन्दर्ध्याठ्यो न्यद्ध्यम्स्काद्धरे भा भे कमसुध राजानी कार्य भावें में देस में कुरू शिवाबी दिखान १५१ ग्वीनाम्मादाहेडमेक्नापाअनुपाअस्व बर्धासाम्मपर्भनेसब्न्य हर्याया अगाग देगा देश पास्ते हे ध्यन्द अहमा बन रीअ नम्द अंडी पद માં કેવી કે ૧૫૩૧ ન કો કામ ભાવતા : ૧૨ મર્સ ૧૧૯ ૯ ૦ દેનની = -કાનાવ ૧૫૬ કરા ખાસેખમાં દેમ હમની ૧મો કામી મહ્યની હા રાના દાર્શ —

Figure 7: Specimen of hand-written Maithili style of Kaithi (from Grierson, 1899: Plate X).

PLATE XXVII.

Two Fables

(Mugh character and dialect)

The Tiger the Leopard & the Wolf.

The Burning House.

स्मिष्ठा पास हुंडार क्योर संहुका। मार्वा क्यपवेमवाने मन मेर्डिश कार किल्ला का यह सहर जामा जा पार गांडि क्योंन पर्नापन प्रमापन क्यापत में पुरा काराइ ह्य ३ % ६ में विश्व हिंदि हैं बराहा भोर हिंद्र हो अहते एजी बड़जी हमन भारतमा तब बंधा अहे हिंदि भी हाबा हमना पाराक्यों क्योंन उनते क्यांका तक पाड़ा का है छक्ष क्योंन हमा अन बाँछ । अहा का हम हथ अहा का हम हथ अहि । सार्व में यह महिका हा आहे आरे होराने ना हम हथि हमना समा माने में यह महिका पार्वि हिं भी हमना भाग ही है जात तथ तो सहसार भारी पहार्थि शहण यह हिन्द्र कोन यथा शोरी हमनाको या वीरुद्र हम परसमका के धार गामक कारण करण जे बहु तथह कार्य ण तेये ताला क्षेत्र स्पर्ता हा याण गुक्र भाग शुरूपत स अहम्बद्ध का गाहरण व्यांडां काडा काष्ट्राठक तथा का माना केन यापत गुरुष्ठ क्यांन कागर स्थाया वर्ग हमहत्र पत्र क्यांमायत महास्था में भट् भग्भाग सा सासा वासामामा एवं हिसपरास वामिस सा काश क्राममें जे ब्राप्ताम राई छन तथ क्राम्मन राय जेंगे जिने राम पश्चमन क्यांने क्यांने में याज परात हरामाह हेर्थान हमरा हो महायस यह प्रहा करेड क्यार उर्व अनव फ्रेंग क्षा भइ।

Figure 8: Specimen of hand-written Magahi style of Kaithi (from Grierson, 1899: Plate XXVII).

BIHARI.

MAITHILI DIALECT (SOUTHERN VARIETY).

(BEGUSARAI, NORTHERN MONGHYR.)

SPECIMEN II.

A FOLK-TALE.

4) e- sin-H- esii- 01081-13+ 00- 8- 94141-44141-EH-40E1E-3021-101- 404- 10myon - nist - i - 01504 - 14 - e - Jumi - H - 54-14- 410- da-211- 2147- 54-61- mienmisun- nio; Almi- 4:04 - 14- 543- 54- 681 851-45180-419+ 2-417-418-4- 110541-Infrance 4 - mi411 - 41 - 417- 4170 4- 2017-40 4-19- Enn - 54 - El-main - 4 das 9-057-48A+ ñ41-31141-Hisl-2han-8/311-400-10-10/01-201-201411-4149-4149 Paria - 00 - 400 - MINI - MINI - MYA - HETIA sia-na-mi41-411- m1411-H-4484 -14-11-451-20-mer-141-6-418541-

Figure 9: Excerpt from a specimen of Maithili written in the Magahi style of Kaithi (from Grierson, 1903b: 82).

EASTERN HINDI.

AWADHI DIALECT.

(DISTRICT GONDA.)

अअमले के इइ पेटवा रहे उन मां में छोरका वेर आ मापते पाप से मारिस कि हे पाप तम कां मनुश पामा परंदे प्रका पारि हैंसे तो हिनापन पुत्री ६० का नार हिस्स - कुछ हिन के पार्छ छ। टका वेटवा सव ते हैं वे परहेस पता गा नामव जाजाति वेकानकान मां उड़ाइ हिल्स - जाव सव र्प्तम जुका तो अहि रोस मां वृडा हुना प्रान्तव हो भूषात भी लागे - गपंड. परि हिस के प्रका मलह के लागा-हिन्ना स्नानि नागर्व मे प्याति । प्येते मां पहरस-G-1140 पर 4101 व्यस से अवत समारि min 12 वहत पुरम से जारि तेता - सुता प्रती केंग गता-जाय वाकी सिंद में तय करें 01011 कि तमने बाप के बत्त नीजान्त जो पाड़ मां मिला देवाम पान्त नात है

Figure 10: Specimen of Awadhi (from Grierson, 1904a: 51) written in what Grierson called "a sort of mixture of Dēva-nāgarī and Kaithī," which was "current in the District amongst the educated classes" (from Grierson, 1904a: 49)

BENGALI OR BANGA-BHĀSHĀ.

NORTHERN DIALECT, SIRIPURIA MIXED SUB-DIALECT. (EAST PURNEA DISTRICT.)

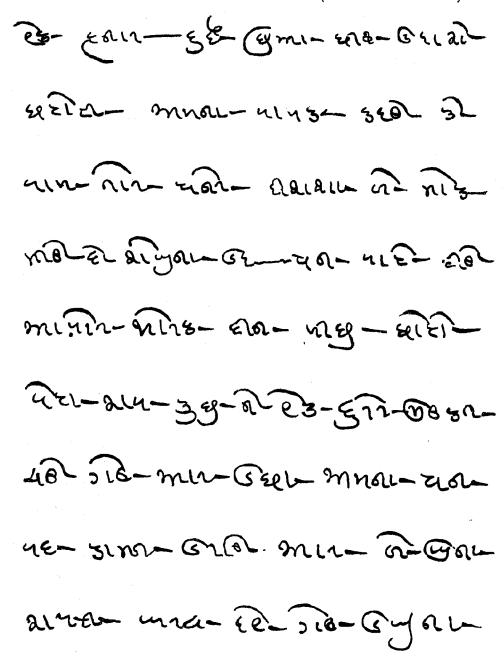


Figure 11: A specimen of the form of Bengali spoken in the Purnea region of Bihar written in the Kaithi script (from Grierson, 1903a: 140).

BIHĀRĪ.

MAGAHĪ DIALECT.

(GAYA DISTRICT.)

SPECIMEN I.

૫% શ્રાદમી જે દુ ગો વેઠા હ0થીન । ઉન્ન ફર્ફો મેં સે સ્રોડના શ્રપન વાપ સે ઋહ્0% के ए वावुंणी गोर्टन श्रीफ वंगुस में से जे हमन वधाना हो है से હમતા દેદા પવ અ શ્રપન સવ ચીખ વતુસ હનઋન્દો દુનો મેં વાંઠ દેવના હત દોવ વોષે વા પૌછક કે છોડકા વેડલા શ્રપળ સવ ચોળ વડોત સંદોત કે કોર્ર વહો કુત્ર દેસ મેં 200 ડો0ા હુર્યો ખો જે થપળ સવ પુંખો કુટ્યાઈ મેં ખીશાળ % ते है0% । श्रांड ज्व सव अशां युक्क एवं के हेस में वड़ी मानी श्रका**0 प**ड़0 શ્રાઉ શ્રીઋતા દીઋસીઋ દીષે 0010ર । एव દુર્શા જે પેડોો તદ્વરશ્રા દોંશાં ખા જે તદે 0)10 । क श्रोकता अपन वाथ में सुश्रत अतावे 0। पेडी ७ करा श्राष्ठ क सुश्रतीश्रन ને ખાય લાગ શુંસા સે શ્રપન પેઠ મને ગા ત્રી છો છ્હ્ય હવા નો સોર્ય શ્રોજના ના દે હ્વરા ખવ શ્રોઋના વુદ્ધાર 000ર વવ જલ્વઝ જે હમન વાપ જે જેગા વીજન ચાનન હથ ખીનના હંડુશામન પાષ ને દરન ખે શનના શ્રનના ને દે હથા શાઉ હન तुथे भन हो। अब डिंड के अपन वाप हीं जाएव आड डनका से कहव के ए वायुजी હ્મ પ્રગાલાય પ્રીતી શાહ પોહ્તા પ્રોતી વહા પાપ જૈંગા શાહ શ્રવ હમ પોહ્ત વેઠા ઋહાવે મુક્ત નાં હો ! તં હમતા શ્રપન હતો મખુતા નોશ્વત તથા વસ એ ૩ડ૦ શ્રાષ્ઠ શ્રપન વાપ શેંશાં ડોઇ આપની શ્રોક્ષના પદુંચે છા કુલ્ફ દુન વાક્રીય હ્વર કે શ્રીભગ વર્ષા શ્રીજગા દેષ્માલના અ દેષ્મ જે શ્રીજગા વર્ણ મોરુ 000 રા શક દક્ક ં કે શ્રીઋતા ગાંગા સે મોછાર થાંક સુધે ચાંદે છેગાંગરા પત્ર વેઠલા શ્રીઋતા સે कह0क्षर के ए वावुणी हम अ)।बाब भीती अ। जिल्ला भीती वड़ा पाप कैं। શ્રાહ હ્મ મોહ્ય વેઠા બહાવે ખુલૂત ના હો ા વાસો શ્રોસ્ત વધ્યા શ્રાન નીસ્તવન સે ઋહ્0ઋર જે પ્યુવ વેશ વેશ gon onal શાહ પ્રજ્ઞા પેઠ્દાવર્દો શાહ પ્રજ્ઞા દાય મેં શ્રેગુડો પે વૃજ્ય દેશાં શ્રાષ્ઠ ગોલ મેં ખુવા દેશાં શ્રાષ્ઠ જમત્ શે ખુવ ખાતે પોતે ખાર શ્રાષ્ઠ ખુશો ઋતી સાફે જે ર વેટા હમત મત સુભા હ0 શાહ શેન જે ખોલા હૈ ર શુા ગાઉ હ0 માહ શ્રવ શ્રેન જે મો00 દા શાંક જ સવ પ્યુંશી મયાવે 9)19ના

મોજન વહ્કા વેઠના વાય મેં હ્ઉર માઉ ખવ દુર્શા સે મા જે લગ જોનો પદ્યા વ ગોષ માઉ નાય સુન્દુકા પ્રવ પો નીઝન જે વોદા જે પુરુદ જે

Figure 12: A specimen of Magahi printed in Kaithi type (from Grierson, 1903b: 124).

BIHĀRĪ.

MAITHILĪ DIALECT (AS USED BY HINDŪS OF THE LOWER CASTES).

(DARBHANGA DISTRICT.)

ષ્ક ગોડા જે દુર વેડા તરૈજ ા છોડજા વેડા વાપ સોં જ્રેલ્મ જે વાપ સ્ત્રત િંદ્સુસા સાજ થળ દે દદા વાપ શ્રીઋત દિસ્સા થળ વાડિ દે0ઋજે ા થોને જ દિળ પત **છો**ડના વેઠા શ્રપન સંજ યન ૯૬ઠ્ઠા કે વર્ણ દૂત દેસ ચાંછ ડોઇ ! શ્રોષ સપન સજાડા યન લુક્ષન્મ મેં શ્રોહા દેવના શ્રોન્ન સત્ત યન ખપન શ્રોહા ડોવેન, શ્રોહી દેસ મેં વર્લ્યાની શ્રુપ્તાં પર્ણી ૧૫૫૧ શ્રી શ્રીફી દેસ મેં ૯૬ ગોડાલ શ્રીફી ડામ સૂગ્રન શ્રીકરા દોસ મેં છે કે મોળ પહું છે ખે દમતા વાપક શ્રોફી ડામ કરોક વોક્રત શ્રોફ્ટ ખક્રતા ખા પો જં શ્રધિ ક્ર વચે વચે છે જાા દન ૫ જાખેં નને છો । દન વાપ જ શ્રો પા ખાલ્વ ઋહ્વે ખે હન મોહત થો માગવાનુક વહ શ્રપનાય જેઇ ા હન મોહત વેઠા જહેવાન ખોગ નિફ સ્થિત્રી । ફ્રમના ગોં શ્રપના શ્રોફિ ડામ નો ઋત નાષ્યા ક સાપ્ત નાગ મન મેં ડાનિ વાપઋ શો 400 ા વાપઋ 0) પદું 40 ા છે જિન જમન શ્રત જે હિ અ શ્રીઋત વાપ દેષ્પિષ્ઠિ મમામ છે શ્રીઋતા દિસ ખાદો અલ્લે, શ્રીઋતા ગાતદીન મેં છતા के સુમ્વા 00 के का વેઠા ક્રફ0 के ખે વાપ હમ પોહ્ય માગવાન વહુ શ્રપતાય જે 0 હ n ક્રિમ વોદ્ય વેઠા ક્રહૈવા ખોગ નાફ ક્ર્લા શ્રોક્રય વાપ યાફ પત શ્રપના નોક્રય *ક્રે* ઋરુ૦ઋ ળે ખૂવ નીઋ ર નુષા ૦ા, ૯ઋતા પર્જતા, શ્રીંડી રાથ મેં દરી, પનરો સે પર્જતા દરી ા મોઠાષ્ઠ વાલ્યા છાં જંમાત ખે હમ સાજા થા પો જે મુસી જતી ા જિંદી જ ગૌ હમત વેડા મતિ જં ખી રહે 1 કે વેડા દેવા 500 સ્વ સે શ્વેત મેડ0 1 કે જાદ સજ ખુસો જત 01310 1

ખમન શેકન વહુકા વેઠા ખેનસો ઘન શ્રવે નહે, ઘનક નખદોક નાત્ર શ્રો ગાન સુન્વક ા શ્રમના નોકન સો પુશ્વકે ખે શ્રાર્ચ કો સ્થિક ખે નાત્ર ગાન ફોક્ટેકા લો સંગ કર્વકેક ખે વોરું માર્ચ શ્રાય શ્રીલ્ય નોકે ખેમાં દેવે હૈ ^{તે} વોલ્ય નાપ દે મોઠોદ્ નાલા મનવ હૈ ા વોહિ પત શ્રી વસાદ ગોઉ, શ્રાંગન નહોં 310 ા મખન શ્રોકન નાપ નાલ્ય શ્રાન શ્રોક્યા નેહોતો ક્ષ્ય 000 મેં શ્રો શ્રપના નાપ સો કર્વક ખે દેન સો હમ વોહ્ય સેના કેવિશ્રી મોર્યા કરવા સો કોનો કાળ નાદ્ય નહોં

Figure 13: A specimen of Maithili printed in Kaithi type (from Grierson, 1903b: 74).

BIHĀRĪ.

BHOJPURĪ DIALECT.

WESTERN SUB-DIALECT.

(DISTRICT AZAMGARH.)

SPECIMEN I.

(Babu Rama Smaran Lal, 1898.)

एक श्रद्यती के दू वेठा नरूठा श्री में से क्शेटका श्रपने वाप से करूठस को हुनों वेरन के आपन धन वांर हेल्वसा बहुत हिन ना बोते पालि की स्रोरका वेरा કું 90 શાપન યન વડોત કે ઋજનોં દૂત દેસ કે નિક્રા ગારા શ્રીત શ્રાપન યન ખતાવ ત્રાં મેં હું પુંકા હાઇસા ખવ કુંઇ શ્રીક્ષત થવ શ્રોતા પ્રારંભ પવ શ્રોરુ દેસ મેં વદ્દુત ક્ષાં પહુંત, શ્રો હ દાના કે મોહ્તાળ હોવે 000 ા વન જ ખા કે શ્રોહ દેસ કે एक શહ્ય **કે તહ્લરથા કે પાસ પ**દું **ગઠા ક થદની થો કે થપને ખે** ખે સૂલય ચતાવે के વાસતે મેળ દેલ્0સા શ્રોક્રત ર દસા હો ડાર0 કો ખવન સુર્શાતશા મુસો **પા**ત ત્રફ્લોં અરા ખો શ્રો જે મિલા પો અ શ્રોરા સે શ્રાપન પેટ પ્યુસી સે જાતા, હેક્તિ કરો વા શો જે જેલ દેવ નહ0ા ખવ શો જે ચેવ મક0 વો જ શ્રપને મન મેં ઝહ્0સ જો के ग ग बोक तिहा मण કુ તિ हा हमने वाप के वार्डे जेकने प्याप के वहुग हन विभ વય ખાં છા શો હમ મુખ્યન મના હર । હમ યાવ થયને વાપ ઋ હાં ખાવ થો સહવ સો ષ વાપ દમ દોહતે શાંગે શે દરક જે પાપ ઝરિંદો, ષદ ઉદ્યક્ત ગરમો કરી શ્રવ હત જે केव गोहान वेठा कहै। अपने बोक्शनहा मण्डुनिहा में से हम के समुह के नक्ष्या। रहै कह के ज उड़0 श्रो अपने वाप किहाँ शारा एव हूने नहा गर्वे श्रोक्षन वाप श्रो के દેખાં રા શ્રો જે દાદ મારા, દાઉં જે ગારા, શ્રોઋતે ગાંધે લગાં શ્રો શ્રે સુમાં મા પવ વેટીયા થયને વાપ સે ઝરું અસ છે હ વાપ રુમ મોરુંને રુજૂન થો દક્ક છે પાપ ઋર્છો, શ્રવ મોદ્યત્ર વેઠા ઋદાવે છાષ્ક્ર નરખો । છેજ્જિન વપદ્મા શ્રપને નોઋતન સે ઋદ્ધસ ક્રી ખત્રન **મધ્યા સે મધ્યા ક્ષપ**ણ કો તત્રન ઉં માં કે મોન કે પહિનાંત્રન ખા શ્રો હન के હાથ में अंગુડો ओ पैन में जूना पहिनाता ओ सब के हु आता धान जाइ ओ પ્યુસી લતો, લાદે સે લી ક દમાત વેઠા તત જે શેત બીલ0 દે, દેવાય જે શેત મિલલ દાષ્ટ્રા પત સવ જે દુ ખુસી ઋતે લાગલા

Figure 14: A specimen of Bhojpuri printed in Kaithi type (from Grierson, 1903b: 253).

KAITHĪ OR KĀYATHĪ ALPHABET.

Vowels.

મ a થા ā ર i રે દે ૩ ૫ ૭ ૫ં. પ č પે ai થો ö થો au મં am મ: ah.

CONSONANTS.

Gutturals.	शेर	ka	щ	kha	Ŋį	ga	ધ	gha		
Palatals.	ય	cha	હ	chha	ળ	ja	æ	jha		
Cerebrals.	٤	ţa	8	$th\alpha$	્હ	фa	હ	dha		
Dentals.	q	ta	થ	tha	٤	da	ધ	dha	ન	na
Labials.	ų	pa	4	ph	વ	ba	જા	bha	n	ma
Semi-Vowels.	겙.	ya	1	ra	8	la	વ	va		
Sibilants.	Ąį	8á	4	sha	ч.	8a				
Aspirate.	ę.	ha								
		_								

e a, being inherent in each consonant, is only written when initial in a word or syllable; thus, we write at ap, go tua, but u pa, a ta. The other vowels, when following a consonant, are substituted for the inherent a a, and, in this case, they take the following forms:—

Thus, the several vowel sounds, when they follow consonants, are written as follows:—

જ
$$ka$$
, જો $kar{a}$, કિ ki , જો $kar{i}$, જો ku , જો $k\hat{a}$, જો kau .

The vowel mark • is called agreed anusvār as in Dēva-nāgarī. It denotes the nasalization of a preceding vowel, and can therefore never begin a syllable. It is written over, or to the right of the preceding vowel : as, sin ams, we bah. It is used for both the anunāsik and the anusvār of Dēva-nāgarī. The mark : is called Sanskrit bisarg, and indicates a weak aspiration. It is only found in pure Sanskrit words, and even then, though occurring in the original, is commonly omitted in Hindī; as, sin duhkh written and pronounced sin dukh.

Figure 15: A table showing the characters of the Kaithi script in the *Linguistic Survey of India* (from Grierson, 1903b: 12).

THE KAITHI CHARACTER,

in which the Hindui is usually written, and many works, intended chiefly for the more illiterate classes, are now frequently printed, is here subjoined.

L. AS PRINTED.

VOWRIA.

फ्राब, जाब, इ.i, ई.ī, डिu, डिū, प्रट, प्रेंबा, फ्रो॰, फ्री का, ang, 8ah

nn	MA	ON	AN	TS.

यn k	ष्य kh	ज g	ਬ gh	3 ng	₹ h	
यch	E chh	ज j ′	ξjh	∄ i	य्रप्र	शकी
Εţ	ճ tḥ	3 d	2 qip	Жů	7 r	व sh
तिt	U th	€d	घdh	न n	ব1	सि
पp	पर ph	ब्र b	স bh	Ħ m	av	

II. AS COMMONLY WRITTEN,

the letters being suspended from a continuous top-line.

CONSONANTS. VOWELS

an	щ	71	ઘ	Ġ.	६,६		m	mi
4	ધ	كار اد	E	બ	યંડ્રે	શં	ર	ર્શ
7	2	3	6	H	1	9	36	G
מת	થ	E	घ	ન	(1/2)	क्ष	Y	D,
ч	ch.y	a	স	H	લ		mો	221

Figure 16: A table of the Kaithi script (from Eastwick, 1858: Plate I).

KAITHINAGARI SCRIPT ξ8 स्वर्, व्यञ्जन VOWEL , CONSONANT By M GE H

Figure 17: Inventory of Kaithi letters (from Śākyavaṃśa, 1974: 64)

SHA

इारदा	गुरुमुसी	केथि	बंगला	मेथिकी	उत्कल	गुजराती	देव नागरी
9 -	9 ∼ 1	~ 1	1	3	C	9-	2
	2 2	2 2	√2 ≈	2 2	2	2,	2
3 2 7 3	Q (3			W√3	M 3	3 3	343
よ 4	Š	3 8 4	3 8 4	84	8	84	8
K 4 7 10 /0 6	7 5	7.	V 45	25	35	ધુ	304 Jen wo 97
) 6	₹ w 6	سکوه	ु			S _e	E
7	7,			الم الم	5° 67	97	9
5	77 68	97 Ws W9	8 کا 8	8 🛪	8	8	3
9	6 7	е с	6	3	L. 250	う ァ \	8 2 e
20	90 10	10	30	Jo 10	Co	70 10	20

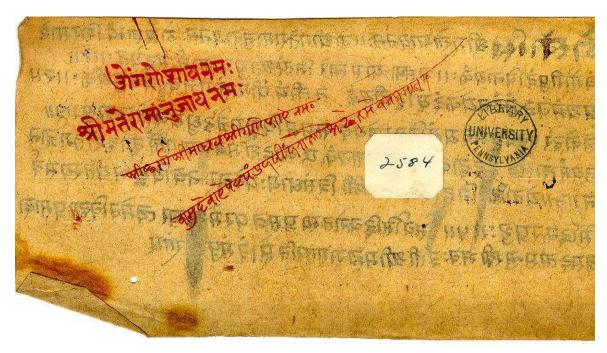
Figure 18: Comparison of numerals of Kaithi and other scripts (from Śākyavaṃśa, 1974: 76)

देशे शिक्षायायनमः । जेश्रीमतेरामानुजायनमः अप्राप्तं शिर्मादे वंगोरिषुत्रं विनायवंः । जिल्लाचा ए सारे वित्यं श्रायुक्तामार्शिद्रयेतः । । १॥ प्रथमेवक्रे वंद्रयेकदेखं दितीयवं ततीयं पीगाशं गजवा वंचनुर्थकं । । १॥ प्रथमेवक्रे वंद्रयेकदेखं दितीयवं ततीयं पीगाशं गजवा वंचनुर्थकं । । १॥ लंबोद्रं पंच्या मेन्द्रयखं विवह मेक्चः सप्तमं विद्याग्रेम आण्यति द्वादशं त्रजानि नवमंत्रालवं द्वादशं मंतु विनायवं ए कादशं गम्भ आण्यति द्वादशं त्रजानि नवमंत्रालवं द्वादशं मंतु विनायवं ए कादशं गम्भ आण्यति द्वादशं त्रजानि नवमंत्रालवं द्वादश्मामानि विसंधायः प्रवेक्यः नविद्याप्रसद् न ॥ ६॥ येत्राला विद्याप्रसद् मिद्रिकरप्रत्रे । ५॥ सर्विविद्यक्तोतस्य प्रसन्त प्रमे व्यव्यात्रस्य प्रसन्त प्रमे व्यव्यात्रस्य प्रसन्त प्रमे व्यव्यात्रस्य विस्थाप्रसद्

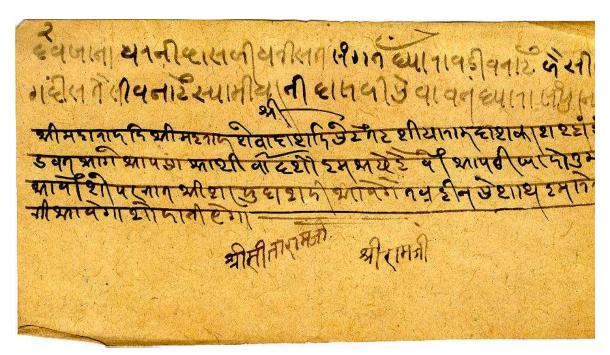
Folio 1b: Sanskrit in Devanagari script

Folio 2a: Maithili style of Kaithi

Figure 19: Folios 1b and 2a from the *Mahāgaṇapatistotra* written in Devanagari and Kaithi (continued in Figure 20). The reproductions of these folios are used with permission from the University of Pennsylvania.



Folio 1a: Invocatory text in Devanagari (lines 1-2) and Kaithi (lines 3-4).



Folio 4a: Text in Kaithi and Devanagari. This folio contains two styles of Kaithi. Lines 1 and 2 are written in the Maithili style; lines 3–7 are in the Bhojpuri style.

Figure 20: Folios 1a and 4a from the *Mahāgaṇapatistotra* written in Devanagari and Kaithi (continued from Figure 19). The reproductions of these folios are used with permission from the University of Pennsylvania.

คุ อาเนียเก- มีเอยาแดเ-มีเนิดนาหา- วารียน นูน์เนเลเ- ของเก-พอเนาสา หาอสาคา - มากา - มาอสาคา - มากา कर्यात्रे अस्ति का का कर्या कर महत्त्र की कार्य की कार कार कार ลี ฉีนทหายเก- ลแองเก- ณๆ แโล2 x32 นิโปยา mia สเลย mian หนึ่งกิ มกรานา- แบก นา ะแกล 52 แมอการีย์นา-แกเลิ เกอมกา-. 46 กลเกางน่าว มนฐา-สามมรางานสนา 1 พลเว- ภมิ (ปิสิยาทร) र् मार्थियो सम्बर (मिस्क्ट्रीस- १९ शात्रा नम या पा पारिमार 2121912 2 mm 4/24 411 11 - 211 81 82 Hi? SIII THE H'21/21 52 03 มะเอมหมา2 มาริวิทธรมเม− อาเพาง + พทมพนา แบงเชา (हिंगाम प्रामान) के पृथानियान प्राचित्र क्षाइ की पुण प्रामान्य के दे คิบนา พบามทุรทองเรามากา ผางเคาะ อเสาะ อาสาร To Del 13 of of Bhi? Enmanuine - Del 4 ser 4 2 212- Bull-2 mong my St al- 414 m m 21 11 thug 1- Her mar of म्यव श्रम- मण्डर यरियमान्त्र भागमान १२००१ प्रथम भगार द्वित्रग-मार्थहेन्द्रामा मा इकी प्रमाह- र 4-31m के प्रेड के स्थार की साम- मीया 1 4 28 มิสิ-ม กาย 22 4 อกา m ม ก ณ เกิ - En mr - เกิ पेका १०४- मी पात अर्ग आके शहा मार्ग रे में 2 यहा का शु केरामा การีชาบาราสาราราชายการเราตุ ราเพศนลาสาราชา 21 2500 41 31 4142 ar mrien42 22 mis 92

Figure 21: Excerpt from a plaint from the district court of Patna, Bihar hand-written in Kaithi (from Bihar High Court of Judicature, 1939).

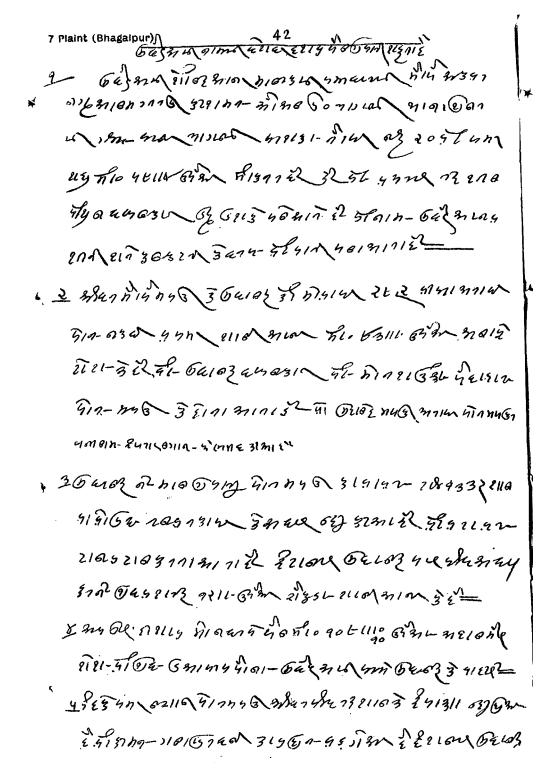


Figure 22: Excerpt from a plaint from the district court of Bhagalpur, Bihar hand-written in Kaithi (from Bihar High Court of Judicature, 1939).

22.Patta (Ranchi) เกอง เรา M- อฟานานานากเล- 3 อาก- 47 กาฯ - อานาณ и вылия — илия — и вылия — м) - ч 1 л 14 - 6 2°a121-1116-64-MM 211-2114111-4210111-级1218117171-118-4110711712-42161-4111-mg 1161 2722 - m171 - 416 6187 - m110)-42- Elung 47102- 201m5-018-40018-410-018-100 Ma-mi-41412 nma-yamer 32-y en 91- 8812 としてがらり一切にかるかれて一引をしてかれて一切を12717 HIMIN-czi 61 Ezzz-mi-214-92121 72-15/912 111-114-11-5091-0041-311を-41を-4151-4151-พา-นาาจาดเลา - กาน - อาเอ - 29 49m 1- 11 10 11 112-4>10 m m11- Mc11-671 61 2211 นโ-กเวกา-ยกางกาเยน ๆ ผมในกา-นเลา)กาก-นิ-านหาก-หางแก่ ๆ ผิงใช้ทา-สหนสายาญ mini-4-20101-21-1941-8147-8147-8min 49m1140 Hiley 4 - 47 - 411-4711814-18-18-1907 หาง - สาย - พายาน - พายานา - พายามา ยี - รุงทา

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

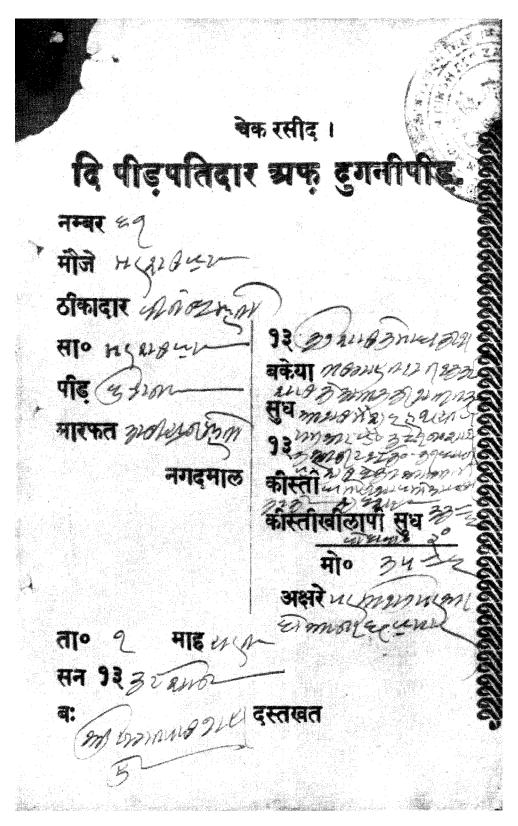


Figure 24: A rent receipt granted by the Pirpattidar of Dugni (Principality of Seraikella) written in Kaithi on a form printed in Devanagari (from Government of Bihar, 1954: plate following p.288).

71

Anshuman Pandey

एतपती की पुसतक।

क्रीन

जातना की पुसतक के वीसवें पनव तक।

THE BOOK

OF

GENESIS

AND

PART OF EXODUS,

IN KAITHI.

CALCUTTA:

PRINTED FOR THE CALCUTTA BIBLE SOCIETY, BY J. THOMAS,

BAPTIST MISSION PRESS.

1851.

उतपती की पुसतक।

१ पहीसा पत्रव।

ज्ञार्नंत्र में इखन ने खनग क्रीत पीन २ धीबी को सीनजा। क्रीन पीनधीबी वेडीख श्रीत सुनी थी श्रीत गरीताव पत श्रीवी अज्ञाना या श्रीन इखन का आतमा जल पन डोबता था। श्रीन इखन ने कहा की र्धनीक्राला होते क्रीन खँजीक्राला हो ४ गम्रा। स्नान इखन ने एँजीस्नाले की हेपा की अष्टा है क्रीन इखन ने ईंजीआपे ५ को ऋँबीक्राने से वीकाण कीक्रा। क्रीन इखन ने ईंजीजाले को हीन स्नान अंबी **जाते को तात कहा जीत सांह जीत** ६ वीठान पठीखा हीन कुछा। परेन इखन ने कहा की पानीक्रों के मध में क्राकास होते क्रीत पानीक्रों को पानीक्रों से वीनाज अकरे। तव इख्तर ने फ्राकास की बनाफ्रा श्रीत श्राकास के नीये के पानीश्रों को [5,000.

र्वतपती की प्रतक।

१ पत्रव।

श्राकास के डिपन के पानीश्रों से वीनाग कीन्ना क्रीन ऐसा हो गन्ना। क्रीन इखन ६ ने श्राकास को खनग कहा श्रीत सांह श्रीत वीहान इसना दीन कुछा। परेन इखन ने ४ कठा की ख़त्रण के तखे के पानी प्रकरी श्रसधान में प्रकरे होतें श्रीत सपी दीपाइ हेते स्नान प्रेसा हा गला। स्नान उखन ने १९ सप्पी को जभी कहा स्त्रीत प्रकरे कीए जप पानी को समहत क्रीत इखत ने हेपा की क्रमा है। क्रीन इखन ने यहा की सभी ११ घास को क्रीत सांग पात को जीन में वीज हों स्त्रीन परवर्तन पेडों को जो अपनी श्रपनी जांती के समान परें जीन के बीज न्नमी पत ज्ञाप में होतें डिगाने जीत ऐसा हो गला। स्त्रीन समीने घास स्त्रीन साम १२ पात को ऋपनी ऋपनी जांती के समान जीन में वीज हों क्रीन फ्लबंत पेड़ों की जीन या वीज एनमें होतें एनकी सांती ये समान छगान्ना न्नीत इखत ने हेपा की क्रका है। सो सांह क्रीन वीठान १३ तीसना दीन कुला। स्नान दखन ने कहा १४

Figure 25: The title, first, and second pages of the Book of Genesis printed in Kaithi type (from Calcutta Bible Society, 1851). The Kaithi font used here resembles Devanagari in the use of the headstroke, but distinct Kaithi letters can be identified.

THE

NEW TESTAMENT

OF OUR

LORD AND SAVIOUR

JESUS CHRIST,

IN THE

HIND! LANGUAGE.

KAITHI CHARACTER.

TRANSLATED FROM THE GREEK

BY

THE CALCUTTA BAPTIST MISSIONARIES,

WITH NATIVE ASSISTANTS.

CALCUTTA:

PRINTED AT THE BAPTIST MISSION PRESS, CIRCULAR ROAD, FOR THE BIBLE TRANSLATION SOCIETY, AND THE AMERICAN AND FOREIGN BIBLE SOCIETY.
1850.

वनमपुसतकका ऋँतन्नाग।

सनदात

पत्रचु बीम्ड प्योद्धके यात सुसमायात

चार

पनेनितोंकी किनियाष्ट्रींका विवना

ঙ্গীৰ

उपदेशाहिक क्री जविषद्याकाका पतन।

बूनानीय भाषासे हिन्ही भाषामें किया जता;

श्रीन

र्रेजर्पुंडदेयीय वर्षीसमाजने छपकानसे छापा ऊचा।

फलकत्ता

विन्दुस्वानी सन १४०७ झीववी सन १८५०

मधिलिपित सुसमायात।

१ पहिला पर्व ।

श्रीक्टकी वैशावित ।

१ इवनाहीमका सैतान हायह, असका सैतान यीज्य र षोष्ट: उसकी वृंशावली यही है। इवनाहीमका पत्न इसहाकः इसहाकका प्त्र याक्तः याक्तका प्त्र ग्रहा फ्री दिसके नाई। तामत्र फ्री ग्रहासे परातिस फ्रीत सातह जन्मे; इसो परातिसका पत ४ हिसर्नामाः, हिस्रोगाका प्रव फ्रानाम्, फ्रानामका प्रव फ्रामीनाह्य : फ्रामीनाह्यका प्रत नहशान् ; नह-५ शोनका पत्र सल्मान्। नाहव फ्री सल्मानसे वायस जन्मा ; नृत् फ्री बोयस से फ्रोवेट् जन्मा : फ्रोवेटका ध्यत्र विशय: विशयका स्त हायुह् नाजा: हायुह ताजा हो। द्वितियुक्ती विघवासे स्लिमान जन्मा, स्लि- मानका पुत्र निह्वियम्; निह्वियमका पुत्र प्रविद्य; **६ फ्रांबियुका पत्र फ्रांसा। फ्रांसाका पत्र यिहे।शापरहः** ब्रिहे।शापरध्या पत्र ब्रिहे।तम्: ब्रिहे।तमया सैतान ४ इसिय। इसियका प्रव योषम्; योषमका प्रव ज्ञा-१० हस्; फ्राहसका पुत्र हिस्किय। हिस्कियका पत्र मनशि: मनशिका पत्र आमोन: आमोनका पत्र ११ ग्रेशिय । फ्रीन वाविल् नजनकी जानेके समय उसी द्योशियमें सैतान यिषानिय फ्री डिसके सब जाई। १२ ब्राग्निस्को जानेके पीछे ग्रिपनियका पत्र शियस-तियसः । शियस्तियसमा पत्र सिनुवाविस् । सिनुवा-1847.]

Figure 26: The English title, Hindi title, and first page of the Hindi translation of the New Testament in Kaithi type (from Bible Translation Society, 1850). The Kaithi font used here is similar to that shown in Figure 25; it resembles Devanagari in the use of the headstroke, but distinct Kaithi letters can be identified. Note, in particular, the use of \(\mathbb{H}\) KAITHI LETTER NNA in the word \(\frac{1}{2}\frac{1}{2}\mathbb{H}\), which appears in last word of the fifth sentence on the Kaithi title page.

BICOL

94 BIHARI: Magahi dialect

97

Devanagari characters

16 ¶ Huli ta an Dios namoot na gayo sa kinaban, na itinao nia an saiyang Aking bogtong, tagnaning an siisay man na minatubod sa saiya dai mapahamak, kundi magkaigua nin buhay na dai nin katapusan.

17 Huli ta an Dios dai nagsogo kan saiyang

17 Huli ta an Dios dai nagsogo kan saiyang Aki sa kinaban na magsilot kan kinaban; kundi tagnaning an kinaban ikaligtas huli saiya.

18 An minatubod sa saiya, dai sinisilotan: an dai minatubod nasilotan na, huli ta dai nagtubod sa gñaran kan Aking bogtong nin Dios.

19 Asin ini iyo an silot, na an ilao napadigdi

19 Asin ini iyo an silot, na an ilao napadigdi sa kinaban, asin an magña tauo namoot pang labi sa diklom ki sa liwanag; huli ta an saindang magña guibo maraot.

20 Huli ta an siisay man na nagguiguibo nin maraot naoogñis sa liwanag, asin dai minadolok sa ilao, tagñaning an saiyang magña guibo dai magkasaragü.

21 Alagad an nagguiguibo nin katotoohan minadolok sa ilao, tagñaning an saiyang magña guibo mahayag, na an magña iyan nahaman sa Dios.

1928

Spoken by some 800,000 people in Bicol peninsula of Luzon and on Masbate Island in the Philippines. First publication, St. Luke's Gospel in 1898 at Madrid by the BFBS; tr. by F. D. Cayetano Lucban. New Testament, 1911; tr. largely by Juan Salazar and American Presbyterian missionaries. Bible, 1914; tr. by Julian Herras aided by the Rev. Roy Brown and the Rev. Kenneth Macdonald, of the American Presbyterian mission, with Salazar's New Testament of 1911. A corrected edition was published in 1926. After 1923 the editions were all published by the ABS. CP: ABS.

BIHARI: Bhojpuri dialect

95

Kaithi characters

काहेकी रैश्वन जग्नत से बरसक प्रेम करते जी शापक एकतरणा पुत्र देहते की जो केंद्व स्वका पर विस्तास करें से काश्व का होए वाकी शक्का जीवक पाए 1

Spoken by about 20,000,000 people in Bengal, India. First publication, St. John's Gospel in 1911 at Calcutta by the BFBS; tr. by Miss Robertson, of the Regions Beyond Missionary Union, with native assistance. Revised edition, Devanagari characters, 1934.

BIHARI: Kortha dialect 96

काई को जे कोइ परमेशर को इक्षा पर चले, सेइ इसर भाद बद्दोन श्रार माय हेक।

Devanagari characters; Mk. 3.35

Spoken by over 300,000 people in Manbhum district of Bengal, India. First publication, St. Mark's Gospel in 1895 at Pokhuria, Manbhum, India, by the Santal Mission Press; tr. by A. Campbell of the United Free Church Mission and a native Christian, Ishwar Sahai.

हो प्रधि किन्तु अपार जींदगी पावधि। का हे ता रंघर संसा र के खेतन दुवार के लखन का उश्रद् धर्मा एक अस्वा केटावे देस खन् का ये प्रति अपनी श्रोकरापरे विश्वास कर एथि उश्रद्ध नाश्च निह्न श्रीश्चित क्षियार जींदगी पाव थि। का हेवा संसारकेर दोशो करेकरे खेव रंघर स्थ्य

Spoken by over 6,000,000 people in southern Bihar, India. First publication, New Testament in 1826 at the Serampore Mission Press; tr. by the Serampore missionaries. (See No. 87) St. Mark's Gospel, BFBS at Baptist Mission Press, Calcutta, 1890; tr. by G. A. Grierson. St. Mark's Gospel, Dublin University Mission at Darjeeling, 1903; tr. by G. F. Hamilton.

BIHARI: Maithili dialect 98

हें सरगमध्य रहिन्हार हमरासभक वाय ते हिर नाम पवित्र होवे ते हर राज्य आवे ते हर मनमाणित सर्गमध्य अहन ते हन

Part of the Lord's Prayer

Spoken by at least 10,000,000 people in Tirbut, India. First publication, the Sermon on the Mount and other New Testament selections in 1865 (?) at Monghyr; tr. by John Christian, a planter.

BIHARI: Nagpuria dialect

99

Kaithi characters

ના हे कि કૈશ્લન ફુિંગ હોન્યન માટે મેર્ય ફુંગાન નન છે તે, જિલ્લાન હેલા ને હોલો દેંગ કે, જિલ્લો તે જે જે તે કે વિશ્લાસ ને ની, સે ગાય કે ફોન, મહાન થઠળ ખોલક પાવાનો

Devanagari characters

तींए परमेश्वर अपन ईश्वरके परनाम कर, श्रीर खली उकरे सेवा कर।

Mt. 4.10

Spoken in Chota Nagpur, India. First publication, St. Matthew's Gospel in 1907 by the BFBS at Calcutta; tr. by the Rev. P. Eidnaes of the German Evangelical Lutheran Mission. Editions of the other Gospels, the Acts, Romans, and Corinthians followed. One edition of St. John's Gospel in Devanagari characters, 1914. CP: BFBS.

Figure 27: Entries for the 'Bihari' languages in *The Book of a Thousand Tongues* showing specimens from bibles published in Kaithi and Devanagari type (from American Bible Society, 1938: 69). The Kaithi font used here is identical to that used in the *Linguistic Survey of India*.

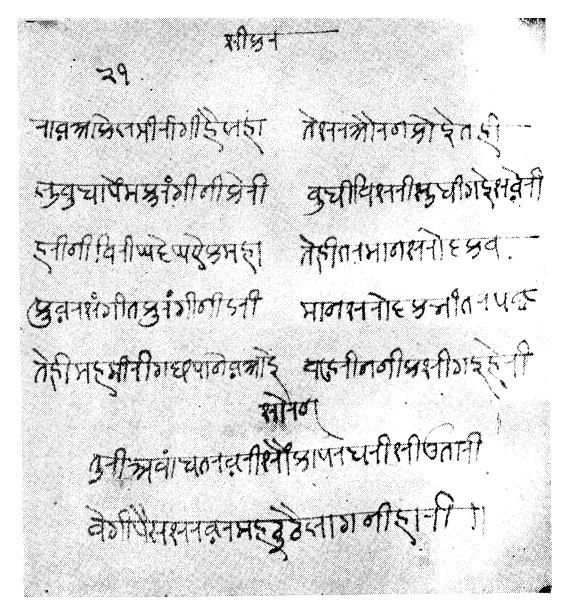


Figure 28: A folio from the "Ekaḍalā" manuscript of *Miragāvatī* c.1828 (from Miśra, 1963: plate 2).



Figure 29: A folio from the *Tale of Sudama*, India, Bikaner, 1745-6 CE, No. 9028, Sam Fogg, London. Image © Sam Fogg, London

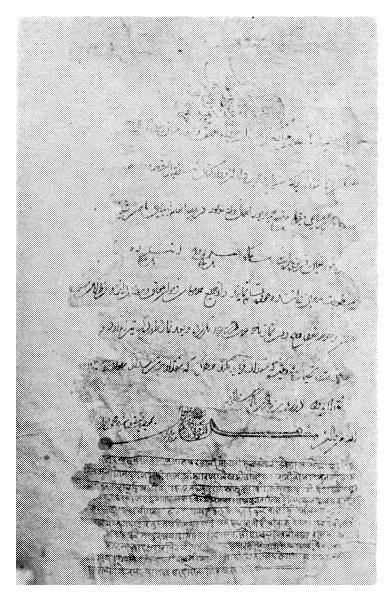


Figure 30: A *sanad* of Sher Shah Suri, dated December 19, 1540 (947 A. H.), bear the Persian text of the warrant in the Perso-Arabic and Kaithi scripts (from Jalaluddin, 1978: Plate I).

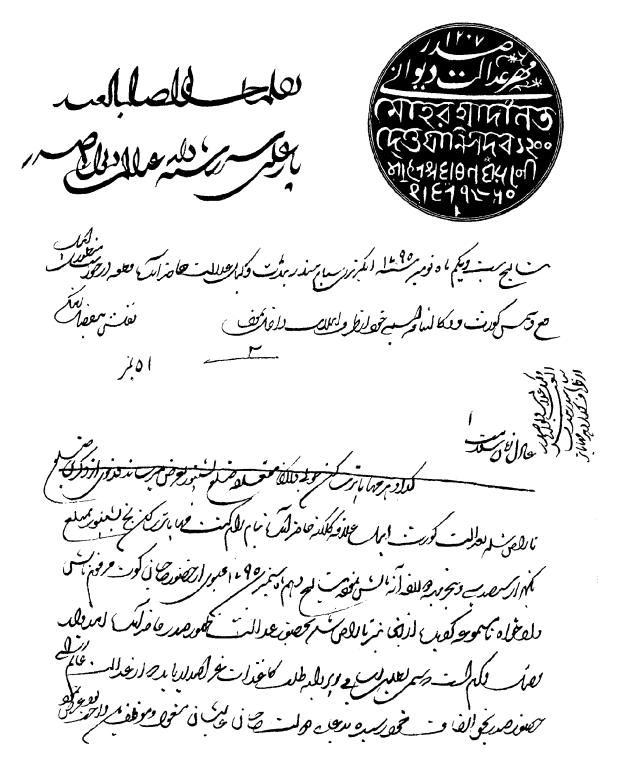


Figure 31: A letter to the Supreme Civil Court of Appeals in Calcutta. The letter is written in the high Persian idiom and śikastā style common in courts of law. The seal at the top contains text in the Perso-Arabic (first two lines), Bengali (middle two lines), and Kaithi (bottom two lines) scripts. The Kaithi text reads "الاجماعة الإجامة الإجامة

एक शहमी के हु जी वेटा हिंगीन । डनक्र्हें में से छोटका अपन वाप से कहाक के ए वावुणी गोहन जीफ वगुस में से जे हमन वष्पना हो है से हमना हे हा गव क अपन सब जीज वगुस डनक्र्हों हुनों में बांट हे छका देन होन बोगे ना पौछक के छोटका वेटला अपन सब जीज बटीन सटीन के कोई बड़ी हुने हैं में बांट हे छका देन सड़ी हुने हैं से अठा जी हुआं जो के अपन सब पुंजी कुआ हो में जी आन कन हे छका आड अक्ता शिक जो हि छाउत्र । गव हुआं के एजी नह सह शें बड़ी मानी अका पड़ पड़ि छाउत्र । गव हुआं के एजी नह सह शें अड़ के सुअनी अन के प्राप्त से अपन पेट मने छा छी छोड़िक हो आड़ के सुअनी अन के प्राप्त से अपन पेट मने छा छी छोड़िक हो आड़ के सुअनी अन के प्राप्त से अपन पेट मने छा छी छोड़िक ही वाकी कोई अक्ता ना हे हु हु । जब अक्ता से अपन पेट पने छा के हि छोड़ ने हु हु वाकी कोई अक्ता ना हे हु हु । जब अक्ता बु हु ए छाउत्र गव कह छक्त के हुनन वाप के के जी वीकन

એક માથુસને બે દાકરા હતા. અને તેઓમાંના નાનાએ ભાપને કહ્યું કે, ભાપ, સંપતના પહોંચતા ભાગ મને આપ, ને તેણે તેઓને પુંજ વહેંચી આપી. અને યાંડા દહાડા પછી નાના 'દાકરા સઘળું એક હું કરીને વેગળા દેશમાં ગયા, ને ત્યાં રંગ બાગે પાતાના સંપત હડાવા નાખા. અને તેણે બધું ખરચી નાખ્યું, ત્યાર પછી તે દેશમાં માટા દુકાળ પડયા, ને તેને તેગી પડવા લાગી. અને તે જઈને તે દેશના વતનીઓમાંના એકને ત્યાં રહ્યા, ને તેણે પોતાના ખેતરમાં લુંડાને ચારવા સાર તેને માકલ્યા. અને જે શિંગા લુંડા ખાતા હતાં તેમાંથી પાતાનું પેટુ લરવાને તેના ઈચ્છા હતી, ને કોઈએ તેને આપ્યું નહીં. અને તે સાવચીત થયા ત્યારે તેણે કહ્યું કે, મારા ભાષના કેટલા મજીરાને પુષ્કળ રાટલા છે, પણ હું તો ભૂખે વિનાશ પાયું છું. અને હવે તારા દીકરા કહેવાવા હું યાંગ્ય નથી, મને તારા મજીરામાંના એકના જેવા ગથુ. અને તે હઠીને પોતાના ભાષની પાસે ગયા, તે તેને કહ્યું આવી, તે તે દાડીને તેની કોટ વળગ્યા, ને તેને ચુંબન કપાયું. અને દીકરાએ તેને કહ્યું કે, ભાષ, મેં આકાશ સામા તથા તારી આગળ પાય કપીયું છે, ને હવે તારા દીકરા કહેવાવા હું યાંગ્ય નથી, મને તારા મજીરામાંના એકના જેવા ગથ્યુ. અને તે હઠીને તેની કોટ વળગ્યા, ને તેને ચુંબન કપાયું. અને દીકરાએ તેને કહ્યું કે, ભાષ, મેં આકાશ સામા તથા તારી આગળ પાય કપીયું છે, ને હવે તારા દીકરા કહેવાવા હુ યાંગ્ય નથી. પણ બાપે પોતાના દાસને કહ્યું કે, હત્તમ વસ્ત્ર લઈ આવા, ને એને પહેરાવા, ને એને હાયે વીડી ધાલો, ને પગમાં જેડા પહેરાવા. અને પાળેલા વાછરડાને લાવીને કાપા, ને આપણે ખાઈને આનંદ કરીએ. કેમ કે આ મારા દાકોને સુઓ હતો

किसी मानुस के दो बेटे थे। उन में में लहुरे बेटे ने बाप से कहा है बाप आप के धन में जो मेरा बखरा हो उसको मुर्भ दे दीजिये। तब उसने अपना धन उनमें बाँट दिया। बहुत दिन नहीं बीते, कि लहुरा बेटा सब कुछ बटोर टूर देस चला गया और वहां लुचपन में दिन बितावते अपना धन उड़ा दिया। जब वह सब कुछ उड़ा चुका तब उस देस में अकाल पड़ा और वह बंगाल हो गया। तब वह उस देस की किसी भले मानुस की यहाँ जाकर रहने लगा जिसने उसको अपने खेत में सूअर चराने को भेजा। और वह चाहता था, कि मैं अपना पेट उन छीमियों से भह जिन्हें सूअर खाते हैं पर कोई उसको कुछ नहीं देता था। तब उसको चेत हुआ और कहने

Figure 32: Comparison of Kaithi (from Grierson, 1903b: 124), Gujarati (from Grierson, 1908: 365), and Devanagari (from Grierson, 1916: 95) types from the *Linguistic Survey of India*.

Figure 33: Comparison of hand-written Kaithi (from Ojhā, 1971: Plate LXXVIII) and Gujarati letters (from Ojhā, 1971: Plate LXXIX).

Vowels															
અ	Γ	a		ચા	आ	ā		٤	इ	i		Ş	ई ऐ	i	-
૩ ૩ શ્રો ઝ		и		ઝ શ્રો	ऊ	\bar{u}		ų	ए	e		الم الم	ऐ	4	ıi
શ્રી ઝં	ो	0		શ્રો	औ	аи						•			
Consonant	S														
Stops															
Velar	άş	क	k	щ	ख	kh	ગ	ग	g	ધ	घ	gh			
Palatal	ય	च	c	ધ્ય	छ	ch	Ń	ত	j	æ	झ	jh			
Cerebral	ટ	ਟ	ţ	ه	ਰ	ţh	Ç	ड	d	ಡ	ढ	дh			
Dental	વ	त	t	થ	थ	th	٤	द	d	ધ	ध	dh	ન	न	n
Labial	ч	ч	p	4	फ	ph	4	অ	b	જા	भ	bh	n	म	m
Semivowel	s														
	ય્ર	य	y	1	₹	r	θ	ਲ	1	4	ਕ	ν			
Spirants															
	গ	श	Ś	뼥	ষ	ķ	સ	स	S	હ	ह	h			
Others															
Anusvāra	કાં	अं	am												
Visarga	શ્ર:	अ:	ah												

Figure 34: Comparison of Kaithi and Devanagari (from S. Verma, 2003: 502).

KAITHI

YOWELS.

क्षाव, जाā, द्वां, र्हा, डिu, डिu, प्रट, प्रेंबां, क्षेत्र) ang, Sah

CONSONANTS.

या k	ष kh	गg	ਬ _{gh}	3 ng	₹ h	
यch	T chh	ज j '	Æjh	স i	य प्र	शकी
Εţ	ճ tḥ	3 d	2 qip	Шů	7 r	व sh
तिt	थ th	€d	घdh	न n	ব1	सि
पp	पर ph	ब्र b	न्न bh	Ħm	av	

DEVANAGARI

VOWELS.

Short, अ इ उ ऋ ल ए ओ 'anuswāra. Long, आ ई उ ऋ लू ऐ ओ : visarga.

CONSONANTS.

	Ha	ırd.	So	ft.	Nasals.	Sibilants.	Semi- vowels, &c.
Gutturals .	क	ख	ग	च	ङ		ह
Palatals	च	इ	ত্র	य	ञ	श	य
Cerebrals .	ट	ठ	उ	ढ	ण	ष	र
Dentals	त	थ	द	ध	न	स	ल
Labials	प	দ	ब	भ	भ		व

Figure 35: Comparison of Kaithi and Devanagari metal fonts used in Eastwick (1858). Both the Kaithi and Devanagari fonts are produced with the top-line, but the distinctiveness of both scripts is evident.

PLATE I.

Deva nág or i		Mahájani	English	Devand gari.		Mahdjani	English:	Deva- noigari	Kayathi	Mahájani	English!
য	શ્ર	S.	a	3.	G	<u>ښ</u>	n	र्न	ৰ	0	n
ग्रा ।	ઝાં ા	3,5	ά	च	4	九	ch	प	ч.	20	p
दू १	30	र्र	$\dot{\nu}$	8	છ	છ	chh	T h	ઝુ	3	ph
द्वे ी		શ	ΐ	ज	9	3	j	व	9	cu	8
S &	60		u	祈	હ	Œ	jh	म	1	e	bh
510	3	6	u	স	ઝ	3	'n	म	H	32	m
我と		2	ri	3	દ	2	ţ	य	ч	63	yj
र दे	3) g 3	67	e	ठ	8	્ડ	th	र	1	2	r
\$ 2	3	6	ai	3	3	2	d	ल	6	S	ľ
ग्रो	श्री भ	Q.	0	T	6	79	đh	व	4	ce	v.b
初十	A (K	g	au	सा	1	3,11	ņ	श	21	रट	s '
क	क्षे	3	k	त	9	10	t	य	अ	20	sh,kh
ख	બ	ಜಲ	kh	घ	थ	مى	th	स	स	20	s
ग	11	22	g	दं	4	ઇ	d	ਨ	5	3	h
द्य	ધ	EC	gh	घ	Ħ	EL	dh				

COMBINATIONS OF VOWELS.

Devanágari	Kayathi'.	Mahajani	English!	Devan ágari	Kayathi'.	Mahájani'.	English.
ग्र क	भ्रक्ष	33	aka	ऋक	निकेश	2312	rikri
ग्राका .	श्रा काया	2333	áká	ए क	e 3 के	63	eke
) (शकी व	232	iki	ऐके	श्रेके उ	536	aikai
द्विकी े	इस की	દક્ર	iki	ग्रोको	श्रीओं की	433	oko
उकु	८ ते के	(3)	uku	ग्रीकी	એ) હો	1636	aukau,
	उ रू कर		ilkii.		G D		

Table showing the corresponding forms of the Devandgari, Kayathi, Mahajani and English alphabets.

Figure 36: A comparison of the Kaithi script with the Devanagari and Mahajani (from Grierson, 1899: Plate I).

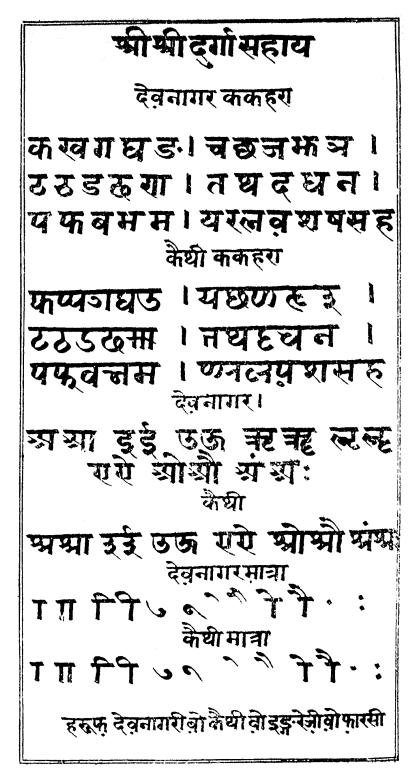


Figure 37: A table from *Kaithī vo hindī barnamālā*, a Kaithi script primer, showing the Kaithi and Devanagari scripts in parallel. The Kaithi letters in this primer are drawn in conformity to the Devanagari style, which is most noticeable in the presence of the headstroke. Note the difference in the headstroke in Devanagari and Kaithi (from *Kaithī vo hindī barnamālā*, 1882: 2).

तीतः क-त-म कलम	पानीपी श्रीटन है। चरों के शब्द फाल्म फलम फाम जम्म													
तीतः क-ल-म कलम	पारेकेशब्द फालाम फलम फामाल एमल													
क-ल-म कलम	फ ज म फलम फ म ज एमस													
क आ ल काल	फ भा न फान													
त इ न तीन	त इंन तीन													
म-फ-ल मूल	म-७-टा मृल													
न ए स तेस	त में ज तेज													
ल त श्रा स्ता	जनाम्मा जना													
द फ शा दफा	ह पर्मा ह पा													
म र ई मरी	स न च इ मनी													
	Tel													
	कामूलहै। एक वो दो-													
	प्रवाङ्गे । कालकेहा य -													
सेवच। इसदफ़ेमें														
11	ताम्दाहै। ऐक्सोहोतीन													
	ते। काटनके राषशेवय।													
इशह्युमें केष्ट्राहै॥														
पार अंड	त्रों के शब्द													

Figure 38: Comparison of writing techniques in Kaithi and Devanagari (from $Kaith\bar{\iota}\ vo\ hind\bar{\iota}\ barnam\bar{\iota}\bar{\iota}$, 1882: 8).

Lautwert	Proto- Bengäli 11. Jahrh.	Bengāli	Orissisch (Oṛiyā)	Gujarātī	Kaithi	Manipurī 	Lautwert	Proto- Bengāli 11. Jahrh.	Bengāli	Orissisch (Oriyā)	Gujarātī	Kaithī	Manipuri
$\frac{a}{a}$	ਸ	ত্য	খ্ৰ	ય્પ	যা		ņa	η	ণ	ଣ	ણ	 HI	ſ₹
i	M C	इ	\mathcal{E}	ઇ	4	•	ta	_	ত	ຄ	d d	$\hat{\cap}$	24
u	3	উ	ର	G	ا		tha	ય	થ	ч	ય	4	エ
e	9	এ	4	એ	0		da	ਫ	न	ଦ	٤	ني	1
o	3	હ	G	ઓ	211		dha	à	ধ	ય	ધ	4	忑
$ar{a}$		আ	211	ખા	201		na	ন	a	ନ	ન	า	E
ka	क	ক	Si	8	413	220	pa	य	প	ឧ	પ	4	ПП
kha	શ્ય	থ	84	щ	બ	压	pha	घ्	ফ	ξť	X	RY	Ε
ga	স	গ্	บ	ગ	اد	M	ba	ৰ	ব	B	щ	þ	8
gha	द्य	ঘ	ପ୍ପ	ધ્	4	रू	bha		ভ	ଭ	ભ	n	N
$\dot{n}a$		C	\mathcal{F}		b	سر	ma	য	ম	Я	4	4	HE
$\check{c}a$	व	Б	၇	ય	4	Ħ	ya	घ	য়	Ŋ	ય		ス
$\check{c}ha$	あ	ছ	Ð	છ	α	देन े	ra	ਰ	র	Ω	ર	7	₽₹
$\check{g}a$	쟞	জ	Si	8	ิบุ	ढ	la	ল	ল	R	(1	P	7
$\check{g}ha$		₹	જ	거	4	ट्ट	va	ৰ	ব	ඉ	વ	9	F
$\tilde{n}a$	B	ঞ	G			V	$\acute{s}a$	ध	×	81	११		ठठ
ţa		ট	3	ک	ረ	301	sa	Я	ষ	8	d		a
tha		ð	0	9	ర	田	sa	স	স্	3	સ	H	لم
da	ड	ড	ଣ	5	J	~	ha	इ	হ	ફ	V	द	6
$\dot{q}ha$	7	ī	ଚ	ઢ	ઢ	M	i						

Figure 39: Comparison of scripts descended from proto-Bengali (from Jensen, 1969: 370).

!	TABLE I.—HIN	DI ALPHABETS	3.		TABLI	E I. (CONCLUDED)	-HINDI ALPHA	ABETS.
Nágarí	Káyathí.	Mahajani.	Baniauțí.	-	Någari.	Káyathí.	Mahájaní.	Baniauți.
स्ता । स्त्रा । स्त्रेप्र ३	ल्ला म् विकास	6 6	m 6 6		ट ड ड उ	ट ठ उ ढ त	2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	32092
あっ セン マラ 前	新 3	\$ \$ \$m	8 2 12 18		ন ঘ হ ঘ ম	तत य इ चिम न	V & & & & & & & & & & & & & & & & & & &	0 & 23 80
नी ने ज ज ज	की भे प्र स म	37 14 27	3 us		ਧ ਯ ਕ ਮ ਸ	प फ् व न म	2 m d e 20	u mg e x
ਬ ਲ	ब न न	क हैं। ज	હડ હદ યા		य र ल व	ਧ ਮ ਸ ਲ ਕ	9 7 5 7 8	60 24
क ज भ न	হ ল ভ ন	છ છ દ્રા	દ્ય <i>પ્ર</i> જ		श छ म ङ	प्र प्र स र	Sus = =	5 us 5

Figure 40: Comparison of Kaithi with other scripts used for writing Hindi (from Kellogg, 1893: 26–27).

नागरी	कैथी	गुजराती	मोड़ी	बंगला	उड़िया	नागरी	क्रैथी	गुजराती	मोड़ी	ंबंगला	उड़िया	न्सरी	कैथी	गुजराती	मोंड़ी	बंगला	उड़िया
ਅ	m	અ	હા	অ	ય	ৰূ	4,3	ક	н	क	ନ	G	ч	ч	น	প	่อ
आ	mı	ચ્યા	บ	আ	211	ख	ખ	ખ	બ	খ	ଖ	फ	47	₹	બ	ফ	ଫ
কা	ፋነ	έl	kd	কা	କା	ग)	ગ	ગ	গ	ଗ	ब	a	ખ	น	ব	ବ
3	ş	ઇ	મ	ই	Q	घ	લં	ધ	ખ	ঘ	ଘ	ਮ	ท	ભ	મ	ভ	ର
कि		ક્રિ	W	किं	କ	<u>ਤ</u>	ß	ઙ૽	ઝ .	ঙ	છ	P	н	મ	н	ম	Я
ξ		ઈ	ช	ঈ	ର	ਚ	4,4	ચ	-১	Б	ଚ	a	ч	ય	೮	য়	র্
की	4)	કી	બી	কী	କୀ	छ	æ	છ	w	চ্	ð	₹	4	ર	J	3	ର
3	ઉ	ઉ	ิส	উ	ଉ	ज	Ŋ	જ	9	জ	ଜ	त	લ ક	н	R	ল	୍ଲ
कु	45	કું	OH	₹	କୁ	ਮ ਨ	٤	ઝ	H	ঝ	ଝ	ਰ	a	a	u	ব	ବ
3		ଔ	ត	E	છ	ञ	H	ઞ	ઞ	AB	6	য়া	21	श	21	2004	61
কু		ģ	ભ	5	କ୍	2	ડ	ટ	ó	ह	ठे	8		ø	ㅂ	\$	Ø
秜		*5	ब्रॉ	ঝ	દર	ठ	8	š	é	र्ठ	0	ਸ		સ	U	ਸ	શ
कृ		કૃ એ	य	₹	କୃ	ਤ	5	ડ	3	ড	ଡ	ह	ક	હ	ษ	হ	ତ୍
₹ V	ע	3	હો	এ	4	ढ	မ	ઢ	ઢ	उ			\$		3	ড়	ତ
के	के	કે	મે	কে	କେ	ण	H	યુ	હા	ণ	ଣ	ढ	ب		3	ট	9
Ů	પે	ઐ	क्र	ঐ	4	त	n	ત	1	ত	ତ	∞		ળ	do		ଳ
कै	कै	કે	ਮੋ	टेक	କୈ	য	થ	થ	พ	থ	2	ध	! ક્ય	क्ष	ટન	ক্ষ	S
ओ	ના	ઓ	થ્રો	છ	ઉ	ढ	۵	ૄ	k	দ	ଦ	੍ਰੀ ਜ	>धं	સ	£-4	T	
को	4)	કો	<i>ખે</i>	কো	କୋ	E4	ય	ધ	ย	ধ	ีย					য	ี่ผ
औ	m)	241	añ E	છે	(3)	इच्चे	ન	٦ ا	7	ন	ิภ						
कौ	की	કો	थ्र	কৌ	କୋ		***************************************					No. State of the				}	

Figure 41: Comparison of Kaithi with other Indic scripts (from Mule, 1974: 163–165).

Devanagari	Grantha	Kaithi	Maithili	Talu	Sarada	Takari	Gurumukhi	Devanagari	Grantha	Kaithi	Maithili	Tulu	Sarada	Takari	Gurumukbi		Devanagari	Grantha	Kaithi	Maithili	Tulu	Sarada	Takari	Gurumukhi
ऋ	FF)	R	ज	≃ಲು	짓	क	M	ट	4	5	5	5	U	5	5]	_		.,					
-ग्र			ग्र					ठ	0	8	8	0	0	8	5		ज							म
双			अ					ड	ಬ	ঙ	2	N	<u>5</u>	3	ઢ		फ्							ઢ
ग्रा	₽5	웨	>J]	750	∙म्र	र्क	M	ढ	ಬ	بخ	7	w	I.	20	ध		का	J	का	কা	മ്പ	क	ર્જ	ਕ।
ग्रा			ग्र					ण	ब्ब	H	А.	en	~	a	8		कि	र्सुः)	(ch	कि	തി	(ab	Be	বি
इ	ව	ક્	5	ബ_	ડ	G	R	ए।			m						की	र्स	की	की	തി	की	જિ	वी
ई	۰IT۰	w	3	ണ്ട	j	G	ਈ	त	த	7	ত	W	J	3	ਤ		₹	ঞ	લુ	Bolbs	B	\$	ર્ભ	ਕ
उ	ഉ	ઉ	نعي	೭	3	ઉ	₿	य	w	થ	२	LO	ਬ	Ŋ	멱		কু	ණුම	र्वू	कु	മു	र्क	βÃ	ם
35	<u>ව</u> ණ	ંગ	Š	್ಘ	ऊ	G	ਊ	द	ध	မှ	দ	3	I	IJ	ਦ		के	යෙත	के	600	୩ଘ	के	४ ई	बे
त्रह	ස		स	જ	τ		て・-	ध	E	ય	A	W	υ	IJ	Ū			கே	कै	क	୩୩ ଦ୍ରୀ	å₽	หรื	वे
兆	23	i	H.	8	C			न	Œ	٦	I	Μ	ጘ	ک	ਨ		की	சோ	को	6की	9007	å₿	906	ਕੋ
ऌ	রেড		ત	೯	7			प	વ	¥	শ	J	ч	и	7			ക്കേറ	की	को	୩ ଦ୍ୱା	ãã	₩.	ਕੋ
ल्	ଗଅଞ୍ଚ		ત્	ത്ര			4,40	फ	ഖ	ર્ય	IS.	2.9	হ	ઢ	ਫ		कं					ab .	906	ਕੇ
ए	ച്ച	у.	0	39	Ø	2	€	फ		4			·				कः					а Б :		ਕਾਂ
ऐ	ମହାଣ	(2)	3	ರ್ವ	Ŕ	2	ฑ้	ब	ബ	q	व	ബ	ਰ	Žį.	ਬ		क्र				(a)			
ऋो	2	શ્રો	3	લ	Ŋ	Ê	6	भ	હ	x	19	س	3	3	ਭ		কু				ලි			
ऋौ	હવા	શ્રી	3	લ્વેળ	U	芴	ก	म	8	×	ਸ	2	મ	n	ਮ		ক্ট				روى			
ऋं	Д.	શ્રં	j		ग्र	ぴ	ਅ	य	Ш	4	U	(P)	य	u.	ज		ক্				(O)			
ग्रः		욋:	эJ:		지:		M,	र	го	7	व	6	₹	3	ਰ		8	8 5	१	δ		3	െ	9
₹	க	পা	₹	ଜ	क	96	ਕ	ल	(2)	q	त	ಲ	त	ਨ	ਲ		૨	2_	1	ર		3	3	2
रव	വ	Щ	~√	ายา	ш	ਖ	Я	व	ญ	白	त	ิข	a	85	ਵ	L	3	巾	3	3		Ü	ਬ	3
ग	চ	11	18	Ŋ,	ं ग	ग	বা	श	UU	श	n	છ	म	হ্য	F.		8	₽	8	8		エ	8	8
घ	வ	ઘ	ε <u>1</u> .	w	ਅ	w	યા	য়			N						4	<u>G</u>	Ч	a		٠,٧	Ŋ	4
ड.	ති		હ	nd	U	र	্ম ই	ष	ညှေ	ᅜ	$\overline{\mathcal{B}}$	N a b	অ	233)	埳		Ę	Tri	٤	5		2	थ	ξ
च	ହା	a	ð	21	h	J.	ਚ	स	อง	स	IJ	m	ਮ	ক	ਸ		৩	্বা	9	7		1	<u>-</u>	2
क्	2D	83	Ţ	200	, Z	3-8	ढ	ह	ഇ	ह	ह	S	ζ,	3	ਹ		C	भ	<u> </u>	X		3	5	र स्
ज	න	N	5	ണ	पु	. 31	ਜ	ळ	മ			هر					ے	Fo	7,	7		9	6	8
झ	IFU	E	11	ಹಿ	M	3	핓	रव							걙		•		1	<u> </u>		0	°	9
त्र	13		33	ஹ	ाम	NS*	8	ग							त्रा					<u> </u>		<u> </u>	<u></u>	

Figure 42: Comparison of Kaithi with other Indic scripts (from Naik, 1971: Table 13).

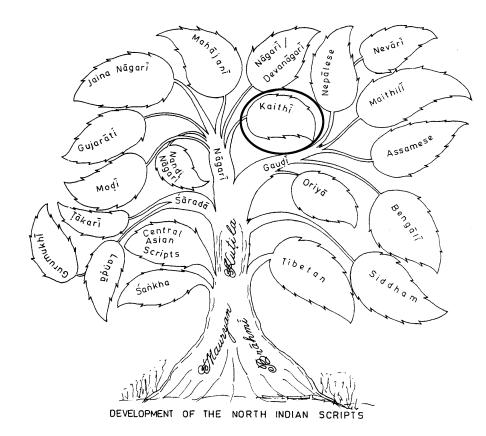


Figure 43: A family tree of north Indic scripts showing Kaithi as a member of the Nagari family (from Singh, 1991: 16).

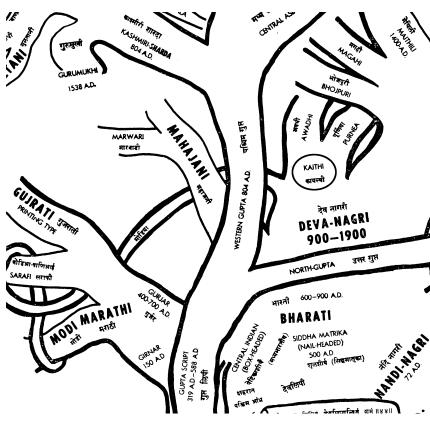


Figure 44: The relationship of Kaithi to other Indic scripts (from Naik, 1971: Plate 36).