

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

| | |
|--|-----------|
| Proposal Summary Form | i |
| 1 Introduction | 1 |
| 1.1 Description | 1 |
| 1.2 Justification for Encoding | 2 |
| 1.3 Acknowledgments | 2 |
| 1.4 Proposal History | 2 |
| 2 Characters Proposed | 3 |
| 2.1 Characters Not Proposed | 4 |
| 2.2 Basis for Character Shapes | 4 |
| 3 Technical Features | 8 |
| 3.1 Name | 8 |
| 3.2 Classification | 8 |
| 3.3 Allocation | 8 |
| 3.4 Encoding Model | 8 |
| 3.5 Character Properties | 8 |
| 3.6 Collation | 11 |
| 3.7 Typology of Characters | 11 |
| 4 Background | 13 |
| 4.1 Origins | 13 |
| 4.2 Name of the Script | 13 |
| 4.3 Functional Definitions of ‘Kaithi’ | 13 |
| 4.4 Languages Written in the Script | 14 |
| 4.5 Standardization and Growth | 15 |
| 4.6 Decline | 16 |
| 4.7 Usage | 17 |
| 5 Orthography | 23 |
| 5.1 Distinguishing Features | 23 |

| | | |
|----------|--|-----------|
| 5.2 | Vowels | 23 |
| 5.3 | Consonants | 23 |
| 5.4 | Nasalization | 25 |
| 5.5 | Consonant-Vowel Ligatures | 26 |
| 5.6 | Consonant Conjuncts | 27 |
| 5.7 | Word Boundaries | 29 |
| 5.8 | Sentence and Paragraph Boundaries | 30 |
| 5.9 | Hyphenation | 32 |
| 5.10 | Abbreviation | 32 |
| 5.11 | Enumeration | 34 |
| 5.12 | Nukta | 35 |
| 5.13 | Ruled Lines | 36 |
| 5.14 | Digits | 37 |
| 5.15 | Number Forms and Unit Marks | 37 |
| 5.16 | Regional Variants | 37 |
| 5.17 | Typefaces | 38 |
| 6 | Relationship to Other Scripts | 39 |
| 6.1 | Relationship to Gujarati | 39 |
| 6.2 | Relationship to Devanagari | 41 |
| 6.3 | Relationship to Syloti Nagri | 42 |
| 6.4 | Comparison of Kaithi, Gujarati, and Devanagari | 42 |
| 7 | References | 47 |

List of Tables

| | | |
|---|---|----|
| 1 | Glyph chart and character names and properties for the Kaithi script. | 5 |
| 2 | Comparison of consonants of metal fonts with the digitized Kaithi font | 6 |
| 3 | Comparison of vowels of metal fonts with the digitized Kaithi font | 7 |
| 4 | Comparison of regional variants of the nasal consonant letters | 7 |
| 5 | Statistical comparison of similarity of letters across Kaithi, Gujarati, and Devanagari | 44 |
| 6 | A comparison of consonants of Kaithi, Gujarati, Devanagari, and Syloti Nagri | 45 |
| 7 | A comparison of vowels of Kaithi, Gujarati, Devanagari, and Syloti Nagri | 46 |
| 8 | A comparison of digits of Kaithi, Gujarati, Devanagari, and Syloti Nagri | 46 |

List of Figures

| | | |
|----|---|----|
| 1 | Geographic distribution of the Kaithi script in South Asia. | 16 |
| 2 | Relationship of Kaithi to selected Nagari-based scripts | 41 |
| 3 | A comparison of the three regional forms of Kaithi | 51 |
| 4 | A list of Kaithi conjuncts used in the Maithili style of Kaithi | 52 |
| 5 | Currency, weights, and measures signs used in Kaithi | 53 |
| 6 | Specimen of hand-written Bhojpuri style of Kaithi | 54 |
| 7 | Specimen of hand-written Maithili style of Kaithi | 55 |
| 8 | Specimen of hand-written Magahi style of Kaithi | 56 |
| 9 | Excerpt from a specimen of Maithili written in the Magahi style of Kaithi | 57 |
| 10 | Excerpt from a specimen of Awadhi written in Kaithi | 58 |
| 11 | Excerpt from a specimen of Bengali written in Kaithi | 59 |
| 12 | A specimen of Magahi printed in Kaithi type | 60 |
| 13 | A specimen of Maithili printed in Kaithi type | 61 |
| 14 | A specimen of Bhojpuri printed in Kaithi type | 62 |
| 15 | Table of the Kaithi script in the <i>Linguistic Survey of India</i> | 63 |
| 16 | Table of the Kaithi script from <i>A Concise Grammar of the Hindústání Language</i> | 64 |
| 17 | Inventory of Kaithi letters from <i>Nepāla lipi-prakāśa</i> | 65 |
| 18 | Comparison of numerals of Kaithi and other scripts | 65 |
| 19 | Folios 1b and 2a from the <i>Mahāgaṇapatistotra</i> in Devanagari and Kaithi | 66 |
| 20 | Folios 1a and 4a from the <i>Mahāgaṇapatistotra</i> in Devanagari and Kaithi | 67 |
| 21 | Excerpt from a plaint from the district court of Patna, Bihar | 68 |
| 22 | Excerpt from a plaint from the district court of Bhagalpur, Bihar | 69 |
| 23 | Excerpt from a statement from the district court of Ranchi, Bihar | 70 |
| 24 | Rent receipt from the former Principality of Seraikella | 71 |
| 25 | Title and first pages of the Book of Genesis in Kaithi type | 72 |
| 26 | Title and first pages of the New Testament in Kaithi type | 73 |
| 27 | Entries for the ‘Bihari’ languages in <i>The Book of a Thousand Tongues</i> | 74 |
| 28 | A folio from the Ekaḍalā manuscript of <i>Miragāvati</i> | 75 |
| 29 | A folio from the <i>Tale of Sudama</i> | 76 |
| 30 | A <i>sanad</i> of Sher Shah Suri in Persian and Kaithi | 77 |
| 31 | A letter to the Supreme Civil Court of Appeals in Calcutta | 78 |
| 32 | Comparison of Kaithi, Gujarati, and Devanagari types from the <i>Linguistic Survey of India</i> | 79 |
| 33 | Comparison of hand-written Kaithi and Gujarati letters | 80 |
| 34 | Comparison of Kaithi and Devanagari | 80 |
| 35 | Comparison of Kaithi and Devanagari metal fonts | 81 |
| 36 | A comparison of the Kaithi script with the Devanagari and Mahajani | 82 |
| 37 | Comparison of Kaithi drawn with the headstroke and Devanagari | 83 |
| 38 | Comparison of writing techniques in Kaithi and Devanagari | 84 |
| 39 | Comparison of scripts descended from proto-Bengali | 85 |
| 40 | Comparison of Kaithi with other scripts used for writing Hindi | 86 |
| 41 | Comparison of Kaithi with other Indic scripts | 87 |
| 42 | Comparison of Kaithi with other Indic scripts | 88 |
| 43 | A family tree of north Indic scripts showing Kaithi as a member of the Nagari family | 89 |
| 44 | The relationship of Kaithi to other Indic scripts | 89 |

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 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 north India in the region that encompasses the present states of Bihar and Uttar Pradesh. The script was also used in Mauritius, Trinidad, and other areas inhabited by diaspora communities from north India. Kaithi was used for writing Bhojpuri, Magahi, Maithili, Urdu, and several other regional languages allied with Hindi. It is a Brahmi-based script related to Devanagari, Gujarati, and other major north Indic scripts in much the same way as these scripts are related to each other. Scripts such as Syloti Nagri, Mahajani, and Gujarati are considered to be descendants of Kaithi or heavily influenced by it.

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. It possessed a significant manuscript and printing tradition, and gave rise to a class of scribes who propagated the script for both official and routine purposes. The 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. It appears synchronically with Devanagari and Persian in administrative, literary, and religious manuscripts.

The prominence 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. Official support for the script first began with the standardization of written Kaithi in 1875 by the government of NWP&O for the purpose of adapting the script for use in education. The second was the selection of Kaithi by the government of Bihar as the official script of the judicial courts and administrative offices of the Bihar districts in 1880. Thereafter, Kaithi replaced the Persian script as the writing system of record in the courts of Bihar. Additionally, on account of the high rate of literacy in Kaithi among educated classes, 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 a very limited capacity in these districts and in rural areas of north India. On account of the range of activities for which it was used and the significant volume of documents produced in the script, Kaithi remains important to historians, linguists, legal specialists, and other scholars of South Asia.

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 bicultural 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 (see section 4.7). 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 *Mahāgaṇapatiṣṭotra* (shown in Figure 19 and Figure 20) were obtained with the assistance of David Nelson, South Asia Bibliographer at the University of Pennsylvania, and are used 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 T_EX 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 (ISO/IEC JTC1/SC2/WG2 N3389 L2/07-418) is a revision of the draft “Proposal to Encode the Kaithi Script in Plane 1 of ISO/IEC 10646” (L2/05-343), which was 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 present and draft proposals are the addition of KAITHI LETTER NGA and KAITHI LETTER NYA; the removal of *daṇḍās* 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. Also, the present proposal includes additional specimens that further demonstrate the significance of Kaithi’s scribal and printing traditions and the activities in which the script was used.

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:

| | | | | | |
|---|--------------------|----|---------------------|---|-------------------|
| क | KAITHI LETTER KA | ड | KAITHI LETTER DDA | ब | KAITHI LETTER BA |
| ख | KAITHI LETTER KHA | ड् | KAITHI LETTER DDDHA | भ | KAITHI LETTER BHA |
| ग | KAITHI LETTER GA | ढ | KAITHI LETTER DDHA | म | KAITHI LETTER MA |
| घ | KAITHI LETTER GHA | ढ् | KAITHI LETTER RHA | य | KAITHI LETTER YA |
| ङ | KAITHI LETTER NGA | ह | KAITHI LETTER NNA | र | KAITHI LETTER RA |
| च | KAITHI LETTER CA | ण | KAITHI LETTER TA | ल | KAITHI LETTER LA |
| छ | KAITHI LETTER CHA | थ | KAITHI LETTER THA | व | KAITHI LETTER VA |
| ज | KAITHI LETTER JA | ड | KAITHI LETTER DA | श | KAITHI LETTER SHA |
| झ | KAITHI LETTER JHA | ध | KAITHI LETTER DHA | ष | KAITHI LETTER SSA |
| ञ | KAITHI LETTER NYA | ण | KAITHI LETTER NA | स | KAITHI LETTER SA |
| ट | KAITHI LETTER TTA | प | KAITHI LETTER PA | ह | KAITHI LETTER HA |
| ठ | KAITHI LETTER TTHA | फ | KAITHI LETTER PHA | | |

Vowels There are 10 independent vowels:

| | | | | | |
|---|------------------|---|------------------|---|------------------|
| अ | KAITHI LETTER A | उ | KAITHI LETTER U | ओ | KAITHI LETTER O |
| आ | KAITHI LETTER AA | ऊ | KAITHI LETTER UU | औ | KAITHI LETTER AU |
| इ | KAITHI LETTER I | ए | KAITHI LETTER E | | |
| ई | KAITHI LETTER II | ऐ | KAITHI LETTER AI | | |

Vowel Signs There are 9 dependent vowel signs:

| | | | | | |
|----|----------------------|----|----------------------|----|----------------------|
| ◌ा | 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 | ◌् | KAITHI SIGN VIRAMA | | |

Digits There are 10 digits:

| | | | | | |
|---|--------------------|---|--------------------|---|--------------------|
| ० | KAITHI DIGIT ZERO | ४ | KAITHI DIGIT FOUR | ८ | KAITHI DIGIT EIGHT |
| १ | KAITHI DIGIT ONE | ५ | KAITHI DIGIT FIVE | ९ | KAITHI DIGIT NINE |
| २ | KAITHI DIGIT TWO | ६ | KAITHI DIGIT SIX | | |
| ३ | KAITHI DIGIT THREE | ७ | KAITHI DIGIT SEVEN | | |

Punctuation There are 2 punctuation marks:

- KAITHI ABBREVIATION SIGN ~ KAITHI ENUMERATION SIGN

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 ◌ 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 र 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 consensus 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 unify these characters with those of Devanagari. Although several specimens show distinctive Kaithi *daṇḍās*, they are not sufficiently distinct typologically to justify disunification with Devanagari *daṇḍās*. 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, which has been extended to include characters attested in manuscripts, printed books, and script charts (eg. KAITHI LETTER NGA, KAITHI LETTER NYA, KAITHI LETTER NNA, and KAITHI LETTER SSA). The proposed characters are normalized forms of those found in the Standard Kaithi metal fonts developed by George A. Grierson for use in the *Linguistic Survey of India*. Forms of letters not found in Grierson’s fonts are based on those found in the Kaithi fonts of the Baptist Mission Press of Calcutta. 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) and Table 3 (vowels). The letterforms of the digitized Kaithi font used here were drawn by Anshuman Pandey to express fidelity to the metal Kaithi font used in the *Linguistic Survey of India*.

| | 1108 | 1109 | 110A | 110B | 110C | Kaithi |
|---|------|------|------|------|------|--|
| 0 | ँ | घ | ङ | । | ० | 11080 KAITHI SIGN CANDRABINDU 11081 KAITHI SIGN ANUSVARA 11082 KAITHI SIGN VISARGA 11083 KAITHI LETTER A 11084 KAITHI LETTER AA 11085 KAITHI LETTER I 11086 KAITHI LETTER II 11087 KAITHI LETTER U 11088 KAITHI LETTER UU 11089 KAITHI LETTER E 1108A KAITHI LETTER AI 1108B KAITHI LETTER O 1108C KAITHI LETTER AU 1108D KAITHI LETTER KA 1108E KAITHI LETTER KHA 1108F KAITHI LETTER GA 11090 KAITHI LETTER GHA 11091 KAITHI LETTER NGA 11092 KAITHI LETTER CA 11093 KAITHI LETTER CHA 11094 KAITHI LETTER JA 11095 KAITHI LETTER JHA 11096 KAITHI LETTER NYA 11097 KAITHI LETTER TTA 11098 KAITHI LETTER TTHA 11099 KAITHI LETTER DDA 1109A KAITHI LETTER DDDHA 1109B KAITHI LETTER DDHA 1109C KAITHI LETTER RHA 1109D KAITHI LETTER NNA 1109E KAITHI LETTER TA 1109F KAITHI LETTER THA 110A0 KAITHI LETTER DA 110A1 KAITHI LETTER DHA 110A2 KAITHI LETTER NA 110A3 KAITHI LETTER PA 110A4 KAITHI LETTER PHA 110A5 KAITHI LETTER BA 110A6 KAITHI LETTER BHA 110A7 KAITHI LETTER MA 110A8 KAITHI LETTER YA 110A9 KAITHI LETTER RA 110AA KAITHI LETTER LA 110AB KAITHI LETTER VA 110AC KAITHI LETTER SHA 110AD KAITHI LETTER SSA 110AE KAITHI LETTER SA 110AF KAITHI LETTER HA 110B0 KAITHI VOWEL SIGN AA 110B1 KAITHI VOWEL SIGN I 110B2 KAITHI VOWEL SIGN II 110B3 KAITHI VOWEL SIGN U 110B4 KAITHI VOWEL SIGN UU 110B5 KAITHI VOWEL SIGN E 110B6 KAITHI VOWEL SIGN AI 110B7 KAITHI VOWEL SIGN O 110B8 KAITHI VOWEL SIGN AU 110B9 KAITHI SIGN VIRAMA 110BA KAITHI SIGN NUKTA 110BB KAITHI ABBREVIATION SIGN 110BC KAITHI ENUMERATION SIGN 110BD <reserved> 110BE <reserved> 110BF <reserved> |
| 1 | ं | उ | य | ि | १ | 110C0 KAITHI DIGIT ZERO 110C1 KAITHI DIGIT ONE 110C2 KAITHI DIGIT TWO 110C3 KAITHI DIGIT THREE 110C4 KAITHI DIGIT FOUR 110C5 KAITHI DIGIT FIVE 110C6 KAITHI DIGIT SIX 110C7 KAITHI DIGIT SEVEN 110C8 KAITHI DIGIT EIGHT 110C9 KAITHI DIGIT NINE 110CA <reserved> 110CB <reserved> 110CC <reserved> 110CD <reserved> 110CE <reserved> 110CF <reserved> |
| 2 | ः | य | १ | ी | २ | |
| 3 | अ | इ | उ | ॆ | ३ | |
| 4 | आ | ऀ | ँ | ॆ | ४ | |
| 5 | इ | ऀ | ँ | े | ५ | |
| 6 | ई | ऀ | ँ | ै | ६ | |
| 7 | उ | ऀ | ँ | ो | ७ | |
| 8 | ऊ | ऀ | ँ | ौ | ८ | |
| 9 | ए | ऀ | ँ | ्र | ९ | |
| A | ऐ | ऀ | ँ | ं | | |
| B | ओ | ऀ | ँ | ० | | |
| C | औ | ऀ | ँ | १ | | |
| D | क | ॥ | ५ | | | |
| E | य | ३ | ५ | | | |
| F | ग | थ | ६ | | | |

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

| | A | B | C | D | E | | A | B | C | D | E |
|-------|---|----|----|----|----|-----|---|---|---|---|---|
| KA | क | क | क | क | क | THA | थ | थ | थ | थ | थ |
| KHA | ख | ख | ख | ख | ख | DA | द | द | द | द | द |
| GA | ग | ग | ग | ग | ग | DHA | ध | ध | ध | ध | ध |
| GHA | घ | घ | घ | घ | घ | NA | न | न | न | न | न |
| NGA | — | — | — | उ | उ | PA | प | प | प | प | प |
| CA | च | च | च | च | च | PHA | फ | फ | फ | फ | फ |
| CHA | छ | छ | छ | छ | छ | BA | ब | ब | ब | ब | ब |
| JA | ज | ज | ज | ज | ज | BHA | भ | भ | भ | भ | भ |
| JHA | झ | झ | झ | झ | झ | MA | म | म | म | म | म |
| NYA | — | — | — | न | न | YA | य | य | य | य | य |
| TTA | ट | ट | ट | ट | ट | RA | र | र | र | र | र |
| TTHA | ठ | ठ | ठ | ठ | ठ | LA | ल | ल | ल | ल | ल |
| DDA | ड | ड | ड | ड | ड | VA | व | व | व | व | व |
| DDDHA | — | ड़ | ड़ | ड़ | ड़ | SHA | श | श | श | श | श |
| DDHA | ढ | ढ | ढ | ढ | ढ | SSA | ष | — | ष | ष | ष |
| RHA | — | ऱ | ऱ | ऱ | ऱ | SA | स | स | स | स | स |
| NNA | — | — | ॢ | ॢ | ॢ | HA | ह | ह | ह | ह | ह |
| TA | त | त | त | त | त | | | | | | |

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’).

| | A | B | C | D | E | | A | B | C | D | E |
|----|---|---|---|---|---|----|----|----|----|----|----|
| A | अ | अ | अ | अ | अ | E | ए | ए | ए | ए | ए |
| AA | आ | आ | आ | आ | आ | AI | ऐ | ऐ | ऐ | ऐ | ऐ |
| I | इ | इ | इ | इ | इ | O | ओ | ओ | ओ | ओ | ओ |
| II | ई | ई | ई | ई | ई | AU | औ | औ | औ | औ | औ |
| U | उ | उ | उ | उ | उ | AM | अं | अं | अं | अं | अं |
| UU | ऊ | ऊ | ऊ | ऊ | ऊ | AH | अः | अः | — | अः | अः |

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 | NORMALIZED FORM |
|-----|---------|----------|--------|-----------------|
| NGA | ᱠ | ᱠ | ᱠ | ᱠ |
| NYA | ᱡ | ᱡ | ᱡ | ᱡ |
| NNA | ᱢ | ᱢ | ᱢ | ᱢ |

Table 4: Comparison of regional variants of the nasal consonant letters found in hand-written Kaithi with the digitized 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.¹ 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 is 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 *virāma* (KAITHI SIGN VIRAMA) to produce the bare consonant.

A sequence of consonant letters (in which all consonants except the final consonant is bare) is written as a consonant conjunct. In Kaithi consonant conjuncts are represented 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)

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

³ Unicode Roadmap Committee, 2007.

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:

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 II, 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:

```

11080;KAITHI SIGN CANDRABINDU;Mn;0;NSM;;;;;N;;;;; 110C0;KAITHI DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
11081;KAITHI SIGN ANUSVARA;Mn;0;NSM;;;;;N;;;;; 110C1;KAITHI DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
11082;KAITHI SIGN VISARGA;Mc;0;L;;;;;N;;;;; 110C2;KAITHI DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
11083;KAITHI LETTER A;Lo;0;L;;;;;N;;;;; 110C3;KAITHI DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
11084;KAITHI LETTER AA;Lo;0;L;;;;;N;;;;; 110C4;KAITHI DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
11085;KAITHI LETTER I;Lo;0;L;;;;;N;;;;; 110C5;KAITHI DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
11086;KAITHI LETTER II;Lo;0;L;;;;;N;;;;; 110C6;KAITHI DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
11087;KAITHI LETTER U;Lo;0;L;;;;;N;;;;; 110C7;KAITHI DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
11088;KAITHI LETTER UU;Lo;0;L;;;;;N;;;;; 110C8;KAITHI DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
11089;KAITHI LETTER E;Lo;0;L;;;;;N;;;;; 110C9;KAITHI DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;
1108A;KAITHI LETTER AI;Lo;0;L;;;;;N;;;;; 110CA;<reserved>
1108B;KAITHI LETTER O;Lo;0;L;;;;;N;;;;; 110CB;<reserved>
1108C;KAITHI LETTER AU;Lo;0;L;;;;;N;;;;; 110CC;<reserved>
1108D;KAITHI LETTER KA;Lo;0;L;;;;;N;;;;; 110CD;<reserved>
1108E;KAITHI LETTER KHA;Lo;0;L;;;;;N;;;;; 110CE;<reserved>
1108F;KAITHI LETTER GA;Lo;0;L;;;;;N;;;;; 110CF;<reserved>
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;;;;;N;;;;;
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;;;;;N;;;;;
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;;;;;N;;;;;
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;;;;;N;;;;;
110BB;KAITHI ABBREVIATION SIGN;Po;0;L;;;;;N;;;;;
110BC;KAITHI ENUMERATION SIGN;Po;0;L;;;;;N;;;;;
110BD;<reserved>
110BE;<reserved>
110BF;<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 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 pattern used in modern Hindi dictionaries places these signs at the head of the vowel order.

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

अँ अं अः अ आ इ ई उ ऊ ए ऐ ओ औ
 aṁ aṁ aḥ a ā i ī u ū e ai o au

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. A consonant with *virāma* is sorted last.

कँ कं कः क का कि की कु कू के कै को कौ क्
 kaṁ kaṁ kaḥ ka kā ki kī ku kū ke kai ko kau k

The pattern for consonants is as follows:

क ख ग घ ङ च छ ज झ ञ ट ठ ड ढ ढ ढ ढ ढ ढ ढ ढ
 ka kha ga gha ṅa cha cha ja jha ṅa ṭa ṭha ḍa ṛa ḍha ṛha ṇa ta
 थ द ध न प फ ब भ म य र ल व श ष स ह
 tha da dha na pa pha ba bha ma ya ra la va śa ṣa sa ha

The ॡ KAITHI LETTER DDDHA is sorted in the same position as ॠ KAITHI LETTER DDA, and ॢ KAITHI LETTER RHA is sorted with ॡ 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. पढण॑ | *paḍhanā* and पढण॑ | *paṛhanā*, 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 ण 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:

| | | | | | | | | | |
|----|-----|-----|-----|----|----|----|-----|-----|----|
| क | ख | ग | घ | च | न | ह | थ | द | ण |
| ka | kha | ga | gha | ca | ṅa | ṇa | tha | dha | ṇa |
| प | ब | भ | म | य | र | व | श | ष | स |
| pa | ba | bha | ma | ya | ra | va | śa | ṣa | sa |

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

| | | | | |
|----|----|-----|-----|-----|
| उ | ट | ढ | ड़ | झ |
| ṅa | ṭa | ḍha | ṛha | pha |

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

| | | | |
|-----|----|----|----|
| छ | ज | त | ल |
| cha | ja | ta | la |

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

| | | | | | |
|-----|-----|----|----|----|----|
| ह | ड | ड | ड़ | ह | ह |
| jha | ṭha | ḍa | ṛa | ḍa | ha |

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.

Examples: कु *ku*; चु *cu*; मु *mu*; सु *śu*; के *ke*; ने *ṇe*; रे *re*; पं *pam*; न *n*

- 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.

Examples: डु *ḍhu*; टे *ṭe*; डे *ḍe*; झे *phe*; टं *ṭam*; झ *ph*

- 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: छु *chu*; जु *ju*; जे *je*; तं *taṃ*; ल *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: हु *hu*; डे *ṭe*; हे *he*; हं *ham*; ह *h*

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 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 Bhōjpurīyā 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 Brāhmins 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.⁷ Manuscripts from the 17th century suggest that Kaithi was well-established as a medium for literary production.⁸ 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 of the Script

The name ‘Kaithi’ (कैथी) is derived from the Sanskrit कायस्थ *kāyastha*, which refers to the name of the scribal community of north India.⁹ The term *kaithī* is the colloquial rendition of *kāyasthī* or *kāyathī*, which means “scribal” or “of the scribe.” The script is also referred to as Kaithīnāgarī.¹⁰ 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 ‘Kaithī’ and ‘Kaithí’.

4.3 Functional Definitions of ‘Kaithi’

It is possible to establish three different functional definitions 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.

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.

Style of Writing Kaithi is used to refer to a style of writing, similar to the terms ‘Mahājani’, ‘Modī’, 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 regard for accuracy or consistency. The terms themselves are adjectives that describe the perceived nature of the styles. As such, *kaithī* means ‘scribal’, *mahājani* means ‘mercantile’, *modī* means ‘bent’, *laṇḍā* means ‘clipped’. Other terms such as *sarrāfi* ‘banker’ and *vāṇiāi* ‘mercantile’ are used to refer to further derivatives of these script styles.

Class of Scripts These scripts are contrasted from those that are called *nāgarī*, 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 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 *nāgarī* class. Therefore, since Kaithi is descended from the Nagari branch of Gupta, it is accurate to state that the *kaithī* class of scripts are a subtype of the *nāgarī* 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 siblings within 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.”¹¹ Others continued to use the term ‘Bihari’.¹² Similarly, Hoernle wrote that Kaithi is the script of ‘Eastern Hindi’, a term that refers to Bhojpuri, Magahi, and Maithili.¹³ 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.¹⁴ The Baiswari variety of Awadhi was also written in Kaithi.¹⁵ 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.¹⁶ 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 outside 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

¹¹ 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.

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 and literary activity, but research suggests that Kaithi may still be used for “personal communication and in semi-legal transactions.”²² 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.

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 occurred 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.

¹⁹ M. Verma, 2003: 519. ²⁰ Gordon, 2005. ²¹ Grierson, 1903b: 35. ²² S. Verma, 2003: 501. ²³ Grierson, 1903b: 21. ²⁴ Yadav, 2003: 484. ²⁵ Grierson, 1903a: 7. 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.

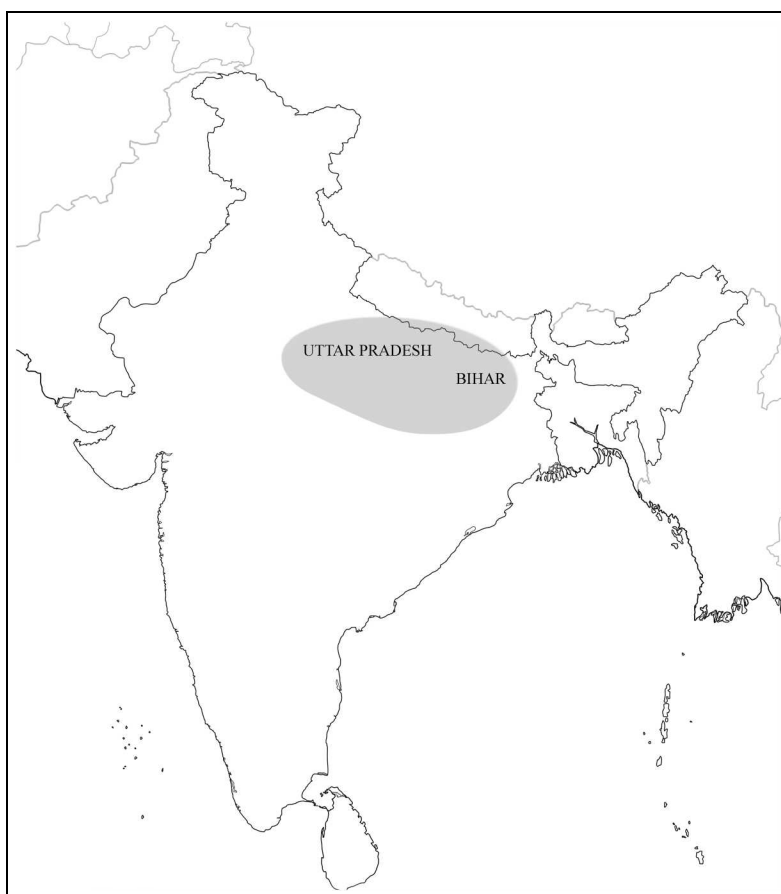


Figure 1: Geographic distribution of the Kaithi script in South Asia.

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 Nāgarī,—such as the Kaithī, Mahājanī, Modī, Sarrāfī, Lundī, &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 Kaithī 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 Kaithī as the sole official character of our law courts, has done more for Bihâr 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 proba-

³¹ Pincott in Palmer, c.1870: v. ³² Grierson, 1899: 1.

bly 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.”³³

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.”³⁵ The Nagari Pracharini Sabha was largely successful in popularizing Devanagari over 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.”³⁸ 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.”³⁹ 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 issued 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

³³ Hoernle, 1880: 2. ³⁴ A. P. Jha, 1976: 217. ³⁵ Shapiro, 2003: 257. 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.

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 BiBihar High Court of Judicature. 1939.har*, 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 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 Devanāgarī.”⁴³ Hoernle corroborates Kellogg, stating that Kaithi “is used in printing as well as in writing; but owing to the preponderance of H. H. [High Hindi], which has adopted the Devanāgarī, the latter is much more common in books.”⁴⁴ 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.”⁴⁶ 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.⁴⁸ It was known “from the commencement of education operations in Behar, that Kaithi was the popular character” of the province.⁴⁹ 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.”⁵⁰

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.⁵¹ 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.⁵² The schools of Bihar continued to use the script until at least 1913.⁵³

⁴² Siṃha, 1986: 249–250. 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.

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* (مکتوب احمدی) 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 Kayathī Handbook*. Calcutta: Thacker, Spink & Co. Second revised edition published in 1899 under the title *A Handbook to the Kaithī 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.
- *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. *Patrahitaṣini: arthāt, Kaithī acharoṃ meṃ cīṭṭhī 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 *Muḥīd al-Inṣāʾ* (مفيد 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 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.⁵⁶ Similarly, the 16th century *Padmāvat*

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.

of Malik Muhammad Jayasi was also originally written in Avadhi in the Persian script, but several derivative manuscripts are written in Kaithi.⁵⁷

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 *saṅkalpapatrī*, or what Mukherjee and Wright call a “testamentary document,” was written in “Sanskritized Braj” in “Nagarized Kaithi.”⁵⁸ 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

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 Śārīf (origin: Patna; script: Perso-Arabic); Delhi (origin: Delhi; script: Perso-Arabic); and Ekaḍalā (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 the *Linguistic Survey of India* (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.

⁵⁷ Grierson, 1904a: 14. ⁵⁸ Mukherjee and Wright, 1979: 298. ⁵⁹ Lutgendorf, 1991: 9. ⁶⁰ Miśra, 1963: 1–6; Gupta, 1967: 97–98.

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 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 Kaithî* [Dharmagrînthake anta bhāgakā pahalā dusarā tîsarā cauthā khaṇḍa, arthāta, Māthî Mārka Luka Yohanalikhîta susamvāda aura Preritoṃkî 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 Hindî in the Kaithî Script*. Printed for the Society by J. Thomas. 721 pages.
- Calcutta Auxiliary Bible Society. 1913. *The Gospel according to St. John in Bhojpuri*. [Sata dharmā śāstra meṃ ke yohana racita prabu yesu maśîā muktîdātā ke susamācāra]. “In Kaithî 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* [उत्पत्ती की पुस्तक और ७१११ की पुस्तक के वीसवें पर्व तक] [*Utapatî kî pusataka aura jâtarâ kî pusataka ke vîsveṃ 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.”⁶³

⁶¹ “Comparative Religion Notes,” 1894: 293. 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.

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' ancestry 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.

Immigrants brought manuscripts of the *Hanumāna Cālīsā* and the *Rāmacaritamānasa* to Mauritius. 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.

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

⁶⁴ Ramyeed, 1988: 24–25. ⁶⁵ 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 ृ for the Kaithi equivalent of ऋ U+090B DEVANAGARI LETTER VOCALIC R (r) appears in several sources. Its use typically suggests an attempt to 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 री ri (KAITHI LETTER RA + KAITHI VOWEL SIGN II) is used as a substitute. The sign is shown in the written specimen below as a part of a consonant-vowel ligature (रु) with KAITHI LETTER KA:⁶⁸

| <i>Devanāgarī</i> | <i>Kaithī</i> | <i>Mahājānī</i> | <i>English</i> |
|-------------------|---------------|-----------------|----------------|
| रुके | रुके | रुके | rikri |

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

पनचोकमें दृष्टि हो उपनको दृष्टि कन छति

Since the independent letter for a Kaithi r̥ 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 र् KAITHI LETTER SSA and स KAITHI LETTER SA as श 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 *khusī* is written with LETTER SA as *khusī*:⁷⁰

हरी । मोटाएँ वाष्ठा । कं मान जे हम सग पा पी के खुसी करी । क्रियेक गो

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

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

पेक्षा देही आउ गोड़ में जुना देही आउ हमरही युव पागे पीगे जाइ आउ **भुषी**

In some varieties of Hindi, the retroflex sibilant *ṣa* is pronounced as the aspirated velar stop *kha* and is written as **ਖ** 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 **ष** U+0937 DEVANAGARI LETTER SSA as **श** KAITHI LETTER SHA, but in Figure 15, he shows **ਖ** 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 **बिबल** using the letter:

पत्रेनिदोफी फिनियान्जोका **बिबल**

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

A B
हम **मज्जान** नीरी आउ गोहरा नीरी वड़ा पाप कैरी । आउ अर हम गोहर **वेरा**
भोकरा वड़का **वेरा** वाघ में हरी आउ जव हुरा से आ के बर नीरी

The letter YA The semi-vowel *ya* is typically written **य**, although in some documents it appears as **य**. Grierson uses a form without the *nukta* to write *baniyā* “merchant”:⁷⁴

रहे । राजा हंकरा करी । वाघ ठाठक मारो **बनिया** गोटे वैठ ठाठ के जाण

However, the Kaithi font used by the Calcutta Bible Society (1851) uses the underdotted form of *ya*, as noted in the name *Dāyūd*:

⁷¹ Grierson, 1903b: 74. ⁷² Chatterji, 1970 [1926]: 226. ⁷³ Grierson, 1903b: 124. ⁷⁴ Grierson, 1903b: 296.

ॐ पुत्र यिशयः; यिशयका सुत (दायुह) राजा; दायुह
राजा औ उनियकी ब्रिचवासे सुलिमान जन्मा; सुलि-

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

Generally, ण is often written in place of य, as in the word णोग jog (from Skt. योग्य *yogya*) “suitable”:⁷⁵

ॐ हम गोहन वेठा कहैवा (णोग) गहि थी। ओहन वाप यहि पर अपना गोकन के

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:

हं औन फखरंत पेड़ों को जो अपनी

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 ञ *jña* in Kaithi:⁷⁶

गुहन, यय गह्य, अगह, ङु न्ह, ङु न्ह, ङु न्ह, ङु न्ह, यय च्य, अचर, ङु न्ह, ङु न्ह, यय ज्य, अज

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 *virāma*. 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 ण 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 ण्ण. However, the conjunct *ṇḍa* is represented as ण्ण. Unlike the case of *nta*, where the dental nasal letter *na* is allied with the dental stop *ta*, in *ṇḍa*, the dental nasal is used to represent the retroflex nasal *ṇa* since the following consonant, *ḍa*, 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 *ṇḍa* conjunct:⁷⁷

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

युक्त के अर्थात् कनवा, आउ अउडा ई के कमी कौई वाण के **बमवउ** वा कनवा । ई आनी

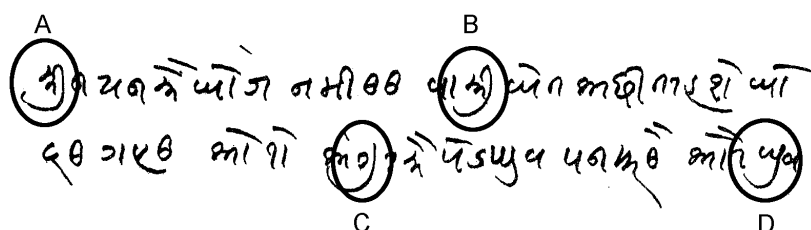
and in a specimen of Maithili, he uses a ligature to represent the *nda* conjunct:⁷⁸

समक संज्ञो पुसो कनिगहुं । ठेकिव गोहन ई वेठा पे अपन सम वन **नडोवाणी** में

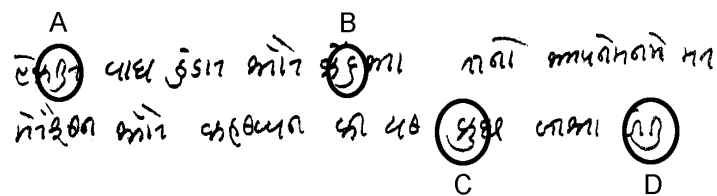
5.5 Consonant-Vowel Ligatures

In writing, syllables composed of consonants with vertical descenders at the right edge and the vowels *u* and *ū* 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 *ī* may at times be written in a manner that resembles the dependent forms of *u* and *ū*. Therefore, these forms of *u* and *ū* 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 *kī* क + ी = की; portion ‘C’ is *gu* ग + ु = गु; and ‘D’ is *khu* ख + ु = खु:⁷⁹

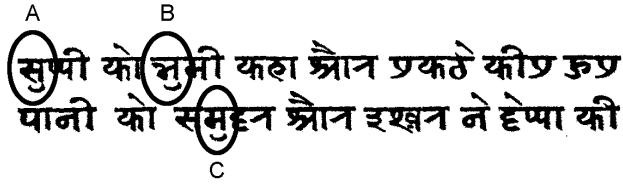


In the following excerpt, portions ‘A’ and ‘D’ are the syllable *tu*; portion ‘B’ is the syllable *du*; and portion ‘C’ is the syllable *ku*:⁸⁰

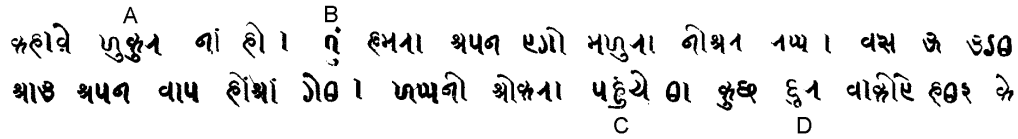


Such consonant-vowel ligatures are found only in written documents. In written documents क + ु might appear as कु, but in print the tendency is to use the *mātrā* form of vowels explicitly, such as कु. In the Kaithi font used by the Calcutta Bible Society, the *mātrā* form of *u* is a shallow arc and 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 mātrā* may have been derived from the practice of writing *u* as ligatures:

⁷⁸ Grierson, 1903b: 75. ⁷⁹ Grierson, 1899: Plate XXVIII. ⁸⁰ Grierson, 1899: Plate XXVIII.



The font used by Grierson in the *Linguistic Survey of India* has distinct *mātrā* forms for *u*. The forms of *u mātrā* in the words marked ‘A,’ ‘B,’ and ‘D’ represent the typical shape of the dependent vowel; for example *ku* क + उ as कु instead of कु. The shape of the syllable *hu* in portion ‘C’ is a ligature designed to accommodate the descending tail of *ha* with the *u mātrā*. The combination ह + उ is written as हु to avoid the appearance हु:⁸¹



Other forms include क + उ, which appear in print as कु, but in written documents as क.

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. क१म); Sanskrit *pradeśa* प्रदेश becomes *pardes* प१देस; and Sanskrit *snāna* (Dev. स्नान) becomes *asanān* (Kai. असन१न). Other practices of simplifying include: Sanskrit *vyavahāra* (Dev. व्यवहार) becomes *beohār* (Kai. वेओ१र); Sanskrit *jñāna* ज्ञान is simplified to *giān* गि१न.

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 म्ब or म्ब or म्ब. When encoding Kaithi in Unicode, conjuncts should always be written with *virāma*. 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 म्ब 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 म्ब is expressed as

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

⁸¹ Grierson 1903b: 124.

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 *ṣṭrī* in the word *diṣṭrīkaṭ* marked ‘B’:⁸²

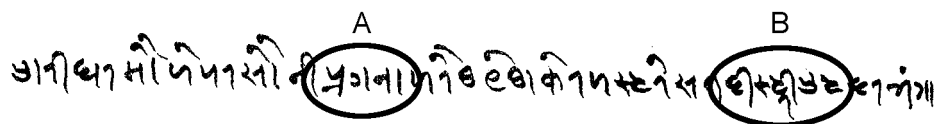
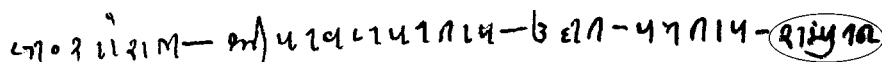


Figure 4 shows conjuncts that may be encountered in the Maithili style of written Kaithi. Some Kaithi documents also show ‘false’ conjuncts, especially when the second element of the conjunct is *ra*. In the following example the word *paraganāt* is written *praganāt*:



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* पत. 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.

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 *acchā*, where a half form of *ca* is attached to the full form of *cha*:⁸⁴

को जवन अच्चा से अच्चा कपड़ा हो जवन ठिआ के ओन के पहिनावन जा ओ उन

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

कैठ, पैओ गो ह्मना कहिओ वक्रोक व्य्यो ने प्पाए ठै देहठ जे ह्म अपना दोसा

Another example of inconsistent use of conjuncts is shown below. The word *dost* दोस्त is written in two ways in the *Linguistic Survey of India*. In the example below, the cluster *sta* is written with a ligature:⁸⁶

कैठ, पैओ गो ह्मना कहिओ वक्रोक व्य्यो ने प्पाए ठै देहठ जे ह्म अपना (दोस्त)

⁸² Grierson, 1899: Plate X. ⁸³ Kellogg, 1893: 23. ⁸⁴ Grierson, 1903b: 253. ⁸⁵ Grierson, 1903b: 75. ⁸⁶ Grierson, 1903b: 75.

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

वा देठ के अपन खान (दोखन) जाने खुशी मथौरो हठ । वाको जखसहीं गोहन ई

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

खूब आकाठ होठक, आन से वहुन (कस्त) पाए ठागठक । पखन से सेई गांन केन

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.”⁸⁹ The practice of marking word boundaries also depended upon the scribe; those who were detail-oriented indicated word boundaries consistently, others showed minimal 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 *danḍā* or double *danḍā*. The example below shows the use of dashes to mark word boundaries:⁹⁰

कजायन-दस-पहुँदा-उपैआ-जौर-कैठक-नव-
 अपना-मौजी-सं-कस्तक-फि-रै-उपैआ-सं-इम-
 नैस-मोठ-ठेव-आन-ओफन-दूय-दही-माएन-
 मोइयन-मोठ-नीआ-कस्तकै-फि-इमहुँ-दूय-दही

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

•नारदाद-गहुँक-पुनीवी-वे-ठाउठानी-गहुँके-२२-
 •शनाथन-२१-१६६६ई: गदीठिन-वे-पुनीवी-गहुँके-२१-शान-
 •पुनीवी-२१-१-अदीवी-के-पुनीवी-गहुँके-२१-शान-३२

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

⁸⁷ Grierson, 1903b: 125. ⁸⁸ Grierson, 1903b: 168 ⁸⁹ Grierson, 1899: 4. ⁹⁰ Grierson, 1903b: 82. ⁹¹ Grierson, 1899: Plate XVII.

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.

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 *daṇḍā* was introduced in printed Kaithi to mark sentence and paragraph terminations, the the Devanagari *daṇḍā* and double *daṇḍā* are sufficient for representing such boundaries as requirements dictate.

Daṇḍā In printed Kaithi, the *daṇḍā* and double *daṇḍā* are used to indicate line endings and similar terminations. The function of *daṇḍā* and double *daṇḍā* 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 *daṇḍā* differ structurally from the Devanagari forms. The Kaithi forms possess a serif-like feature at the extremes of the *daṇḍā*. The Devanagari forms do not have this feature.

⁹² Grierson, 1903b

The following example shows the use of *daṇḍās* in written text. The *daṇḍās* are written with serifs:⁹³

The following example shows the use of *daṇḍās* in printed text. These *daṇḍās* are identical to the magnified forms from the *Linguistic Survey of India* shown above.⁹⁴

The example below shows the use of a *daṇḍā* and a middle dot to indicate sentence boundaries:⁹⁵

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 *daṇḍās* across Indic scripts, it is not necessary to separately encode Kaithi *daṇḍās*, despite their distinct shapes. They may be unified with the Devanagari forms.

Swash Marks In addition to *daṇḍā* and double *daṇḍā*, 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

⁹³ Grierson, 1899: Plate XXX. ⁹⁴ Grierson, 1903b: 253. ⁹⁵ Grierson, 1899: Plate XXX. ⁹⁶ Grierson, 1899: Plate X.

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 *danḍā* 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

ॐ३१- ५३१०- ५१० ⊕ ३- ५१०- ५३१- ५३१- ५३१- ५३१-

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 क ह ० सि at a line boundary:⁹⁸

बोका के व०३ के पु०३३ की ई सग का होए वार १ व व ज बोका से क ह ० सि
० सि को गोहा न माई अ०३३ हैं औ गोहा न वाप मौज करण वा०३३ काहे को

An interesting example of hyphenation occurs in the example below. Here hyphenation splits a conjunct formed with *virāma* in the word *barāmhān* व११३३३. This example also illustrates metathesis in the consonant conjunct *hma*, which is rendered *mha*:⁹⁹

बनिया ठो क ह गो के प्यात्र कि गो न बनया के प्यात्र । बनिया क ह ० क थ ० ग ज व११३३३
० क ह ० क थ ० ग ज व११३३३ ० क ह ० क थ ० ग ज व११३३३ ० क ह ० क थ ० ग ज व११३३३

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

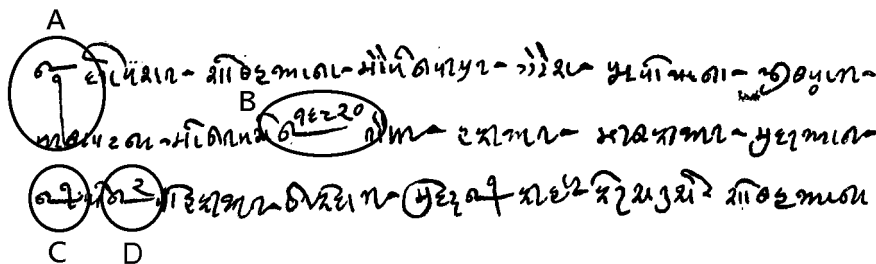
⁹⁷ Grierson, 1903b: 82. ⁹⁸ Grierson, 1903b: 202. ⁹⁹ Grierson, 1903b: 296.

The word *mudā* 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 मु॒ए।०. The actual graphical representation of the syllable ए।० 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

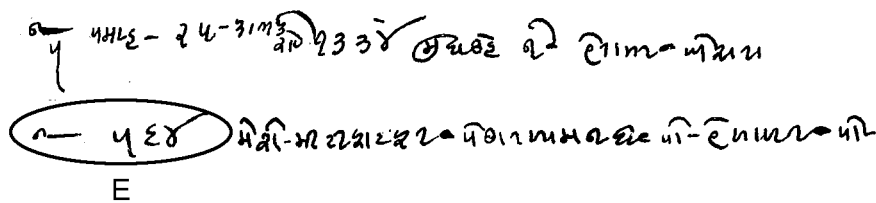
The ९- KAITHI ENUMERATION SIGN is used in writing enumerated lists and numeric sequences. It is found written before, above, or below a digit or sequence of digits. It is a stylized version of १ KAITHI LETTER NA and is an abbreviation of *nambar*, which is the transliteration of the English word ‘number’. In its basic function it is identical to N^o 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:



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 १ 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 plaintiffs (मु॒ए।३।१ *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 ९-५६४.¹⁰²



¹⁰² Bihar High Court of Judicature, 1939.

5.12 Nukta

The ◌ KAITHI SIGN NUKTA is commonly used to distinguish ◌ KAITHI LETTER BA from ◌ KAITHI LETTER VA. It is also written under ◌ KAITHI LETTER YA to produce the variant form ◌. In some cases, the *nukta* is written below letters to represent sounds from Urdu. For example, the following specimen represents the sound of ج U+0632 ARABIC LETTER ZAIN by placing *nukta* under KAITHI LETTER JA in the word नज़दीक *nazdik*.¹⁰³

जयन ओकरन वड़का वेठा येणसौं घन अवेण नहै, घनक नज़दीक नाथ ओ
गोन सुनठक । अयगा नोकरन सौं पुषठकै जे अरि को खिरेक जे नाथ गान

The *Kaithi o Hindi barnamala* also shows the use of *nukta* under KAITHI LETTER JA to represent U+0632 ARABIC LETTER ZAIN. Similar to ज्ञ U+095B DEVANAGARI LETTER ZA, KAITHI LETTER JA with *nukta* may also be used to transliterate ث U+0630 ARABIC LETTER THAL, ض U+0636 ARABIC LETTER DAD, ظ U+0638 ARABIC LETTER ZAH, and ج U+0698 ARABIC LETTER ZEH. Also used in the text is a *nukta* under KAITHI LETTER KA, similar to Devanagari क़ U+0958 DEVANAGARI LETTER QA to represent ق U+0642 ARABIC LETTER QAF:

A B
(३) नोण नोशवफ़ मरुओ उशफो नोण याद फि-
या फनो । फल्ह याद फनेगे फहफन नघे

In a similar manner, the following shows the use of *nukta* under KAITHI LETTER KHA, similar to Devanagari ख़ U+0959 DEVANAGARI LETTER KHHA to represent ح U+062E ARABIC LETTER KHHA:

(५) यनाव नइफे दिनजनप्येवने फिनते हैं । लिप्यने
दो पदने में चेप्यान नही देते । इशीलीते ये

The following example shows the use of *nukta* under KAITHI LETTER PHA, similar to Devanagari फ़ U+095E DEVANAGARI LETTER FA to represent ف U+0641 ARABIC LETTER FEH:

होता है । मूलशेठप्याडो । कालके राथशेवय ।
इशदिये में केप्राहै ॥

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.

¹⁰³ Grierson, 1903b: 74.

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 Devanāgarī, and in native writing the two are easy to distinguish¹⁰⁴

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.¹⁰⁵ This was most likely done to assist with writing speed since aligning the heights of characters with the lines added additional effort. The other practice was to produce lines on an entire page and to hang the letters from the lines.¹⁰⁶

The following example shows a line used only for the first line:¹⁰⁷

The following example shows the use of ruled lines for written Kaithi:¹⁰⁸

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

सुपी को नुमी कहा और प्रकठे की प्र रूप
पानी को समहन और इखन ने देप्पा की
अषा है। और इखन ने कहा की नुमी

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

¹⁰⁴ Hoernle, 1975: 1fn1. ¹⁰⁵ Grierson, 1899: 4. ¹⁰⁶ Hoernle, 1975: 1fn1. ¹⁰⁷ Grierson, 1899: Plate XVII. ¹⁰⁸ Grierson, 1899: Plate XI.

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. Figure 5 shows Kaithi digits, which may be interpreted as variant forms of Devanagari digits. In the figure, the forms of 8 and 9 show the greatest variance and might represent a regional style. Figure 18 provides a comparison of digits of Kaithi, Devanagari, and other scripts. The similarities between Kaithi and Devanagari digits are pronounced in this figure. The Kaithi digits may be considered candidates for unification with those of Devanagari, but they are proposed for inclusion in the interest of completeness. The author requests the UTC to decide upon unification given the typological similarity of Kaithi digits to Devanagari forms.

5.15 Number Forms and Unit Marks

Number forms and unit marks are commonly found in Kaithi documents. Among these are fractions (eg. 𑂏 NORTH INDIC FRACTION ONE SIXTEENTH, 𑂏 NORTH INDIC FRACTION ONE HALF, etc.), currency (eg. 𑂏 NORTH INDIC RUPEE MARK), and other marks (eg. 𑂏 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, Modi, and others. For this reason, the present author proposed that the number forms and unit marks be encoded independently in the UCS.¹⁰⁹ The characters were accepted by the UTC and allocated in a new block to be named “Common Indic Number Forms” (U+A830..U+A83F).

5.16 Regional Variants

There are three styles of Kaithi, one each associated with the Bhojpuri, Magahi, and Maithili languages.¹¹⁰ 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).¹¹¹ 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.¹¹²

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 | 𑂏 | 𑂏 | KAITHI LETTER NYA | 𑂏 | 𑂏 |
| KAITHI LETTER AA | 𑂏 | 𑂏 | KAITHI LETTER PHA | 𑂏 | 𑂏 |
| KAITHI LETTER I | 𑂏 | 𑂏 | KAITHI LETTER YA | 𑂏 | 𑂏 |
| KAITHI LETTER II | 𑂏 | 𑂏 | KAITHI LETTER LA | 𑂏 | 𑂏 |
| KAITHI LETTER KA | 𑂏 | 𑂏 | | | |

¹⁰⁹ Pandey, 2007. ¹¹⁰ Grierson, 1903b: 11. ¹¹¹ Grierson, 1899: 4. ¹¹² Diringer, 1968: 290.

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 वासने मेण देहस । ओकन रे दसा हो गरठ की जवन सुअनिआ मुसी प्पा
 नहो जही जो ओ के मिठए गो ज ओही से आपन पेठ मुसी से नान, ठेकिन रहे
 ना ओ के केव देए नहठ । जव ओ के येण नरठ गो ज अपने मन में कहस की

The Calcutta Bible Society's font:

के समान उगाफ्रा और इखन ने देप्पा
 की म्रछा है। सो सांइ और वीहान
 दीसना हीन ऊफ्रा। और इखन ने कहा

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:¹¹³

that there is only one sign for each of the following groups of Nāgarī letters: 1) । (properly = *n*) for the nasals ङ *ṅ*, ज *ṅ̄*, ण *ṇ*, न *n*; 2) श (a combination of *s* and *ṣ*) for the sibilants स *s*, ष *ṣ*, ष *sh*; 3) च for the labials ब *b* and व *v*; 4) ञ (properly = *j*) for the palatals ञ *j* and य *y*; and also that of the two forms of *ch* one is very much like to one of the two forms of *dh*, the other to one of the two forms of *y*. For the vowels Kaithi has only four fundamental signs: ॠ ॡ ॢ ॣ *ā, ī, ū, e*. The others

¹¹³ 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 descendants. Kaithi is considered to be the source from which regional north Indic scripts are derived, such as Mahajani¹¹⁴ and Sylheti Nagari,¹¹⁵ 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 Oríá 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.”¹¹⁶ 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 Nágari or Devanágari and the Mahájani or Kothivál. The first is an improvement, the second a corruption of the Kaithí or of its more ancient original.”¹¹⁷

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.¹¹⁸ 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.¹¹⁹

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,”¹²⁰ but also shows specimens of the “Bihar” languages as being in the “Kaithi character.”¹²¹ 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.

¹¹⁴ Kellogg, 1893: 23. ¹¹⁵ Lloyd-Williams, et al., 2002: 5. ¹¹⁶ Hoernle, 1880: 2. ¹¹⁷ Hoernle, 1975: 2. ¹¹⁸ Grierson, 1903b: 11. ¹¹⁹ The Unicode Consortium, 2007: 321. ¹²⁰ American Bible Society, 1938: 159. ¹²¹ American Bible Society, 1938: 69.

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 Kaithī character employed all over Northern India.”¹²² 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 *Vāñiāī* or *Ṣarrāfi*” 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 “Modh, Gujarátí, and Kaithí alphabets ... possess a great similarity of character” while Mahajani is “still a further corruption, for cursive purposes” of Devanagari.¹²³ 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.¹²⁴

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 Oríá 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.¹²⁵

Class or Formal Name? The problem with the synonymity between Kaithi and Gujarati is determining which definition of ‘Kaithi’ is being referred 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.”¹²⁶ 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. Diringier concludes by stating that “Bihari Kaithi” and Gujarati “(if the latter is at all connected with the Kaithi) are essentially different.”¹²⁷

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 referred 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.¹²⁸ David Diringier supports this view when he refers to the specific development of regional styles of this the Kaithi family as “Bihari Kaithi” and Gujarati.¹²⁹ 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.”¹³⁰ 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

¹²² Grierson, 1908: 338. ¹²³ Grierson, 1899: 3. ¹²⁴ Grierson, 1904b: 67. ¹²⁵ Hoernle, 1975: 2. ¹²⁶ Grierson, 1903b: 11. ¹²⁷ Diringier, 1968: 289. ¹²⁸ Others specialists agree with such classifications. In a table titled “Taxonomy of Alphabets and Scripts” in *Thinking in Type*, Alexander White poses a quaternary hierarchy of writing systems. At the top of the hierarchy are “families of scripts” from which are successively descended “genera of scripts,” “scripts,” and finally “alphabets.” Kaithi is classified in this taxonomy as a “script” from which the Gujarati “alphabet” is derived. At the “script” level besides Kaithi are Devanagari, Bengali, and others. The Kaithi “script” belongs to the “genera” “Devanagaroid,” which belongs to the Brahmic “family” (White, 2005: viii). ¹²⁹ Diringier, 1968: 289-290. ¹³⁰ Diringier, 1968: 290.

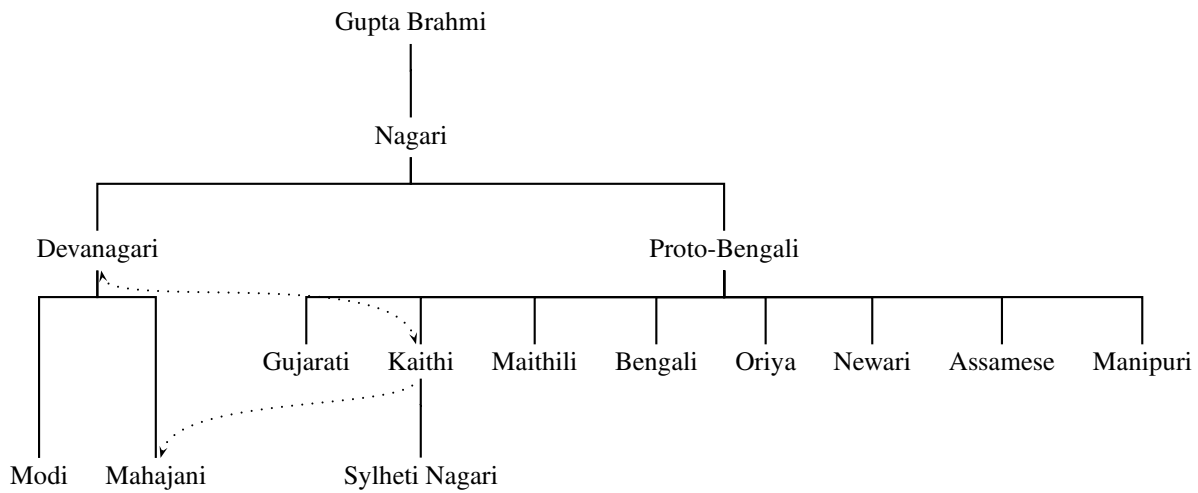


Figure 2: Relationship of Kaithi to selected Nagari-based scripts

a Tirhutí *paṭwári* finds little difficulty in reading a Gujarátí book.”¹³¹ 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 regional Gujarati linguistic, scribal, and print traditions.¹³² 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 for 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”¹³³ In Gujarat, Kaithi was “elevated to the position of a national character.”¹³⁴ 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.”¹³⁵

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 rūpa*¹³⁶ or *ghasīṭa śailī*¹³⁷ — 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.”¹³⁸ The emergence of Kaithi and Devanagari from a common source explains the similarity of certain letter shapes, but the differences between

¹³¹ Grierson, 1899: 3. ¹³² A point of interest is that while Grierson’s *paṭwári* 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 Jivā 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). ¹³³ Grierson, 1903b: 11. ¹³⁴ Grierson, 1903b: 11. ¹³⁵ Grierson, 1903b: 21. ¹³⁶ Ojhā, 1971: 130. ¹³⁷ Varmā, 1972: 170. ¹³⁸ Grierson, 1899: 3.

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 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.”¹³⁹ 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.”¹⁴⁰

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.”¹⁴¹ As such, Lloyd-Williams suggests that while Gujarati may be considered the western-most member of the Kaithi family, the distinction of the eastern-most member should go to Syloti Nagri, not the Bihari Kaithi.¹⁴² 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.¹⁴³

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.

¹³⁹ Grierson, 1903b: 11. ¹⁴⁰ Grierson, 1903b: 11. ¹⁴¹ Lloyd-Williams, et al., 2002: 5. ¹⁴² Lloyd-Williams, et al., 2002: 5.

¹⁴³ Lloyd-Williams, et al., 2002: 6.

Some letters in Kaithi and Gujarati have similar appearance, but different semantic value. For instance, ૐ KAITHI LETTER JA resembles ૐ U+0AB3 GUJARATI LETTER LLA. Kaithi lacks the letter for LLA. Grierson¹⁴⁴ shows a form of the consonant-vowel ligature for *hr̄* as ૐ. This ligature is identical in shape to ૐ KAITHI LETTER JHA. This ligature would be written as ૐ harī in Kaithi.

¹⁴⁴ 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 |
| | A, AA, I, II, O, AU | U, UU, E, AI | — | K. lacks VOCALIC R |
| Gujarati & 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.

| | KAITHI | GUJARATI | DEVANAGARI | SYLOTI NAGRI | | KAITHI | GUJARATI | DEVANAGARI | SYLOTI NAGRI |
|------------|--------|----------|------------|-----------------|------------|--------|----------|------------|-----------------|
| <i>ka</i> | 𑂔 | ક | क | 𑂔 | <i>tha</i> | 𑂔 | થ | थ | 𑂔 |
| <i>kha</i> | 𑂕 | ખ | ख | 𑂕 | <i>da</i> | 𑂕 | દ | द | 𑂕 |
| <i>ga</i> | 𑂖 | ગ | ग | 𑂖 | <i>dha</i> | 𑂖 | ધ | ध | 𑂖 |
| <i>gha</i> | 𑂗 | ઘ | घ | 𑂗 | <i>na</i> | 𑂗 | ન | न | 𑂗 |
| <i>ṅa</i> | 𑂘 | ઙ | ङ | — | <i>pa</i> | 𑂘 | પ | प | 𑂘 |
| <i>ca</i> | 𑂙 | ચ | च | 𑂙 | <i>pha</i> | 𑂙 | ફ | फ | 𑂙 |
| <i>cha</i> | 𑂚 | છ | छ | 𑂚 | <i>ba</i> | 𑂚 | બ | ब | 𑂚 |
| <i>ja</i> | 𑂛 | જ | ज | 𑂛 | <i>bha</i> | 𑂛 | ભ | भ | 𑂛 |
| <i>jha</i> | 𑂜 | ઝ | झ | 𑂜 | <i>ma</i> | 𑂜 | મ | म | 𑂜 |
| <i>ṅā</i> | 𑂝 | ઞ | ञ | — | <i>ya</i> | 𑂝 | ય | य | — |
| <i>ṭa</i> | 𑂞 | ટ | ट | 𑂞 | <i>ra</i> | 𑂞 | ર | र | 𑂞 |
| <i>ṭha</i> | 𑂟 | ઠ | ठ | 𑂟 | <i>la</i> | 𑂟 | લ | ल | 𑂟 |
| <i>ḍa</i> | 𑂠 | ડ | ड | 𑂠 | <i>ḷa</i> | — | ળ | ळ | — |
| <i>ra</i> | 𑂡 | — | ड़ | — | <i>va</i> | 𑂡 | વ | व | 𑂡 |
| <i>ḍha</i> | 𑂢 | ढ | ढ | 𑂢 | <i>śa</i> | 𑂢 | શ | श | 𑂢 |
| <i>ṛha</i> | 𑂣 | — | ढ़ | — | <i>ṣa</i> | 𑂣 | ષ | ष | — |
| <i>ṅa</i> | 𑂤 | ण | ण | — | <i>sa</i> | 𑂤 | સ | स | — |
| <i>ta</i> | 𑂥 | त | त | 𑂥 | <i>ha</i> | 𑂥 | ह | ह | 𑂥 |

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

| | INDEPENDENT VOWELS | | | | DEPENDENT VOWEL SIGNS | | | |
|-----------|--------------------|----------|------------|--------------|-----------------------|----------|------------|--------------|
| | KAITHI | GUJARATI | DEVANAGARI | SYLOTI NAGRI | KAITHI | GUJARATI | DEVANAGARI | SYLOTI NAGRI |
| <i>a</i> | अ | अ | अ | — | -a | — | — | — |
| <i>ā</i> | आ | आ | आ | 𑂀 | -ā | ा | ा | ा |
| <i>i</i> | इ | ઇ | इ | इ | -i | ि | ि | ि |
| <i>ī</i> | ई | ઈ | ई | — | -ī | ी | ी | — |
| <i>u</i> | उ | ઉ | उ | उ | -u | ु | ु | ु |
| <i>ū</i> | ऊ | ઊ | ऊ | — | -ū | ू | ू | — |
| <i>r</i> | — | ૨ | ऋ | — | -r | — | ृ | — |
| <i>e</i> | ए | એ | ए | ऐ | -e | े | े | े |
| <i>ai</i> | ऐ | ઐ | ऐ | ऋ | -ai | ै | ै | ै |
| <i>o</i> | ओ | ઓ | ओ | ॠ | -o | ो | ो | ो |
| <i>au</i> | औ | ઔ | औ | — | -au | ौ | ौ | — |

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

| | KAITHI | GUJARATI | DEVANAGARI | SYLOTI NAGRI | | KAITHI | GUJARATI | DEVANAGARI | SYLOTI NAGRI |
|---|--------|----------|------------|--------------|---|--------|----------|------------|--------------|
| 0 | ० | ૦ | ० | ० | 5 | ୫ | ૫ | ५ | ୫ |
| 1 | १ | ૧ | १ | ১ | 6 | ୬ | ૬ | ६ | ৬ |
| 2 | २ | ૨ | २ | ২ | 7 | ୭ | ૭ | ७ | ৭ |
| 3 | ३ | ૩ | ३ | ৩ | 8 | ୮ | ૮ | ८ | ৮ |
| 4 | ४ | ૪ | ४ | ৪ | 9 | ୯ | ૯ | ९ | ৯ |

Table 8: A comparison of digits of Kaithi, Gujarati, Devanagari, and Syloti Nagri. 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* [उत्पत्ती की पुसतक और खाना की पुसतक के वीसवे पारव तक] [*Utapatī kī pusataka aura jātarā kī pusataka ke vīsveṃ parava taka*]. (Book of Genesis from the Old Testament translated into Hindi in the Kaithi script). Printed for the Calcutta Bible Society by J. Thomas, Baptist Mission Press, Calcutta.
- Chatterji, Suniti Kumar. 1970. *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 Oriyā 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, Paramēśvarīlāla. 1967. कुतुबन कृत मिरगावती [The Miragāvati of Kutuban]. Vārānasi: Viśvavidyālaya Prakāśana.
- Hoernle, A. F. Rudolf. 1880. *A Comparative Grammar of the Gauḍian (Aryo-Indian) Languages: with special reference to the Eastern Hindī, 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 Hindī language: in which are treated the High Hindī, Braj, and the Eastern Hindī of the Rāmāyan of Tulsi Dās, also the colloquial dialects of Rājputānā, Kumāon, Avadh, Rīwā, Bhojpūr, Magadha, Maithila, etc., with copious philological notes*. 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. Freitag. Berkeley: University of California Press.
- . 1994. *One Language, Two Scripts: The Hindi Movement in Nineteenth Century North India*. Bombay: Oxford University Press.
- Lloyd-Williams, James; 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 Mrgāvātī 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, Gaurīśaṅkara 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>
- Ramyeed, Lutchemee 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*. Kaṭhamaṇḍau.
- 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.
- Siṃha, 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 Pariśad.
- 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, Śivaśaṅkara 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*, *Bhojpurī* & *Magah* Scribes.

| Tirhuti | Bhojpurī | Magah | English | Tirhuti | Bhojpurī | Magah | English |
|---------|----------|-------|---------|---------|----------|-------|---------|
| अ | म | म | a | १ | ३ | ३ | n |
| आ | मि | मि | ā | २ | ४ | ४ | t |
| इ | २ | २ | i | ३ | ५ | ५ | th |
| ई | ३ | ३ | ī | ४ | ६ | ६ | d |
| उ | ४ | ४ | u | ५ | ७ | ७ | dh |
| ऊ | ५ | ५ | ū | ६ | ८ | ८ | n |
| ए | ६ | ६ | e | ७ | ९ | ९ | p |
| ऐ | ७ | ७ | ai | ८ | १० | १० | ph |
| ओ | ८ | ८ | o | ९ | ११ | ११ | b |
| ॠ | ९ | ९ | au | १० | १२ | १२ | bh |
| क | १० | १० | k | ११ | १३ | १३ | m |
| ख | ११ | ११ | kh | १२ | १४ | १४ | y-j |
| ग | १२ | १२ | g | १३ | १५ | १५ | r |
| घ | १३ | १३ | gh | १४ | १६ | १६ | l |
| ङ | १४ | १४ | ṅ | १५ | १७ | १७ | v b |
| च | १५ | १५ | ch | १६ | १८ | १८ | s |
| छ | १६ | १६ | chh | १७ | १९ | १९ | kh |
| ज | १७ | १७ | j | १८ | २० | २० | s |
| झ | १८ | १८ | jh | १९ | २१ | २१ | h |
| ण | १९ | १९ | ṇ | २० | २२ | २२ | |
| त | २० | २० | t | २१ | २३ | २३ | |
| थ | २१ | २१ | th | २२ | २४ | २४ | |
| द | २२ | २२ | d | २३ | २५ | २५ | |
| ध | २३ | २३ | dh | २४ | २६ | २६ | |

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

PLATE IV.

NUMERALS &C.

The following are the more usual forms of the Numerals.

१ 1, २ 2, ३ 3, ४ 4, ५ 5, ६ 6, ७ 7, ८ 8, ९ 9, १० 10.

MONEY.

१ 3 pias (One pie), २ 6 pias, ३ 9 pias, ४ 1 áná, ५ 2 áná, ६ 3 áná, ७ 4 áná, ८ 5 áná,

९ 6 áná, १० 7 áná, ११ 8 áná, १२ 9 áná, १३ 12 áná, १४ R.1. १५ R.7.10.4

The modes of writing pias differ in different districts.

WEIGHT.

Chhatáńks १ 1, २ 2, ३ 3, ४ 4, ५ 5, ६ 6, ७ 7, ८ 8, ९ 9, १० 12.

Sers. १ 1, २ 2, ३ 3, ४ 4, ५ 5, ६ 6, ७ 7, ८ 8, ९ 9, १० 10, ११ 11, १२ 20, १३ 30

१५०० = 1 M^d 10 S^r 10 Chhatks.

AREA.

Dhurs. १ 1, २ 2, ३ 3, ४ 4, ५ 5, ६ 6, ७ 7, ८ 10, ९ 11, १० 15.

Katthás १ 1, २ 2, ३ 3, ४ 4, ५ 5, ६ 6, ७ 10, ८ 15.

१०००० 10 Bighás. 16 Kts. 6 Dhurs.

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 (see section 5.15).

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

एक बडा आदीमी अंगुन केवारी लो प्येन पोअथश आ
 के पाए बेटला रहै जव उ मरे भगठ नय बेटपन शि
 कएथ १। एवेठा मोरेपाश जपन बन रहै नौबेकेमै आ
 गुन के प्येन पा मे गाड दहै पा टां रागु भोगन पनय
 तोपइए जव उ आदीमी मरी जएथ नय आपा सय
 बेटोआ मीठके प्येनके पागे आन गे पन भगठन ए
 नीब बनके प्येन नमीठठ पाकी प्येन आछी नए शो प्ये
 दठ गएथ आगे अंगुनके पडपुव पनके आरे पुव
 अंगुनके अठ उपगठै नय तोपाव बेटा मीठके आके
 वेयठै आगे वहुन एक बन पौठै बडा पुश नइठै
 एगे इम भोगनके इवान गीप्येके पाही की बडा भोगनो
 ववानकहै नौबेके अंगुन माबेके पाही टागैके वपाही
 एहीमें इमरे भोगनके कठेआन एइ इठडी बनकेगी
 प्येके वदे कइनी होए

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

PLATE X.

A BOND

मै सोम १६ म न भ ठी वे च सोम भा पी म उ छ म त्ते छ। कौ न सोम पेशा उर न
 उनी ध १ मी जो प १ सो नी प्र ग ना ज ते छ ए छे को न स र्ने स न छी स्त्री उ छ ६ १ नं ग
 वी सी य छी स्त्री उ छ म धु व नी था ना वे नी प छ उ छै भा गे ६ म सो वे छी ज पे नी
 ल उ पे भा उ प उ छे भा धा उ स का स न १ छ उ पे भा भा ठि भा ना १ ६ ॥ ६ ॥ १ ॥
 छै मो स मा सोम म न ध भ ठी वे च सोम मी भा प म भ ठी जा न सोम पे सा ङ्गी
 धा नी ध १ मी जो गी शा ई उ १ प्र ग ना ना न प्र ए छे उ १ न स र्ने स न छी स्त्री उ छ
 म न भ १ उ १ वी सी य छी स्त्री उ छ वी था ना सी ना म छी से उ १ न सु छी व छी सा
 व छी सो ए छ उ पे भा मा ६ धा नी ठि का क य प वी न स उ छ मी भा प ने धा ठा रे
 नी स उ उ १ १ उ १ छै वी न म सु उ धा ना छी य छे न छै उ छे पे भा भा स ठ मी सु
 ६ उ न मा शी मा ६ भा सी न स न १ र ६ ६ सा ठ उ न उ छ ए छे मु स भा धा रे
 उ १ उ न म सु उ धा ना वी भा प स उ १ ठे गे ई स म कु छ र छी ठा वी उ उ १ न छि उ १
 ग वी ना भा धा ए छे पे भा प १ उ १ ना उ सु छ व छी सा प म प उ १ र ६ १ म धा
 ठ वी व १ उ १ १ १ छै ग। ई स धा स्ने छै ६ म न्द उ ठ मा व नी उ न म सु उ उ छी य छी
 भा उ यो उ न प उ १ न उ १ उ म भा वी नो : १ र म ई स १ १ ६ ६ ० ई स वी =
 उ नी व न म सु उ धा ना सोम मी ६ म न्द म नी १ मी उ मी म धु व नी प्र ग ना धा छी —

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.

एकरा पाध कुंडल और कुंजमा गरी मयनेहने म
 नैकेरन और कहल्यन की यठ कुंज जाभा कुं
 पाठ ठाँ और यतोय यतोय मयन में कुंज अगाइ
 बय ई कहके यनमे उखे कुंज अगाँ और उखे कुंज
 एगो यगो हन मारका नय यथा कहे अगाँ की अया अगा
 योलीमो और गुने मोका गन यंडा का ऐकइ और हंग
 का योठइ की एक कुंज तो हम बयठि काहेअ हम यनके गन
 हगाँ और धरानो का हम बयठि हमगा अगा माने में यड मेहल
 पाठि हठ और नेश कुंज ययठ हई द्यामो केश मइ
 यहाइ हई का हमगा मयु शे ठेगान नय तो कुंजमा और कुंज
 शरुणे यठ ऐकइ और यथा शीशे हगलमाँ य योठइ
 एक यडयगमा के धा गनके मयन अग गेठइ नयठ मयने
 तो यग यठा बने धरानो शे गन गेठइ और लोकायन के
 कुंजइ की गेहान योसि चाडि लकायन नयठ मयनमा य
 ययठ गेठइ और शगने धरानो यने अगाँ नय लोकायन मयनमा
 शे कहे अगाँ की ककी लकायनो नय उकयनके योठइ की
 मयन अगाँमें जो लकायन शेइ यने नय मयन शय जने
 जने शय यइअन और मने के ययन यरीन लकाय उठयन
 एकरा शे मयनमा यड ययन नैठइ और उठ यग के
 ययन यइअन

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

BIHĀRĪ.

MAITHILĪ DIALECT (SOUTHERN VARIETY). (BEGUSABAI, NORTHERN MONGHYR.)

SPECIMEN II.

A FOLK-TALE.

फोर - गीत - में - रोगी - जोर - १५ + नव - ७ - कमायन -
 कमायन - एम - पण्डित - उमैमा - जोर - फोर - नव -
 अपना - मौनी - सं - कदक - फि - ऐ - उमैमा - सं - एम -
 गैम - मोठ - ठेव - माग - ओफा - दूय - एही - पाएन -
 मोरुपा - जोरुनीमा - कदक - फि - एम - दूय - एही
 ठेरा - पण्डित - काल + ३ - वाग - सुनि - के - जोरुवा -
 पिसिआएके - ओफा - नव - माग - माग के - माग -
 कदक - फि - एम - दूय - एही - मैमन - फोरुम
 ३ - ठेरा - पण्डित + नैप - ओफा - मौनी - शिके -
 ठेरा - यठे - नव - जोरुवा - ओफा - पाए - पाए
 विराय - ठे - यठे - पायन - पायन - अपना - सुगग
 गेठ - नव - ओफा - साग - ओफा - सं - पुएठके -
 फि - गे - फरा - मैठे - मए - नैप - ७ - जोरुवा -

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

EASTERN HINDI.

AWADHĪ DIALECT.

(DISTRICT GONDA.)

अमुजने के कुद पे ल्हा रे उंन मां से खोल्का वेल्हा
 आपने वाप से कहिस कि रे वाप हम कां जवना
 वपना पतंचै नवन वांछि देखे तो उ आपन पूंजी
 उर का वांछि दिसिस - कुछ दिन के पाछे खोल्का
 वेल्हा सब लै है के परदेस चला गा आवत मांसव
 जाजाति बेकाकामां उड़ा दिसिस - जव सब
 फूक चुका तो हरि देस मां वड़ा हुआ पा-ताव तो
 भूपन मी लागे - ताव उ वरि देस के एक मनई के लागे -
 उल्का सुन्नाति यावु के व्याति 1 जेते मां पहरस -
 उन्नापन पेट करवा खुसा से जवना सुन्नाति व्याा रे
 बहुत खुसा से जाति जेता - मुला वरु के उ नारी देा गरा
 जव वुको सुधि मै तव कतै लागी कि हमने वाप के वुत
 नोकारतन कां याद कां मिलान है वुक वच्चि जात है ^{१२}

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)

BIHĀRĪ.

MAGAHĪ DIALECT.

(GAYA DISTRICT.)

SPECIMEN I.

एक आदमी के दु गी वेटा हथीन । उनकरहीं में से छोटका अपन बाप से कहकर के ए बाबुजी गोहन यीज वगुस में से जे हमन बघना हो है से हमना दे द । एव ज अपन सब यीज वगुस उनकरहीं दुनों में बाँट देक । तेन दीन बीगे ना पौक के छोटका वेठवा अपन सब यीज वटोन सटोन के कोरि वड़ी दुन देस में यठठ गेठ । हुआं जा के अपन सब पुंजी कुयाठी में जीअन कर देक । आउ जव सब गवां युकर एव ज देस में वड़ी मारी अकाठ पड़ठ आउ ओकना दीकसीक होए ठगठर । एव हुआं के एगो नहररआ होआं जा के रहे ठगठ । ज ओकना अपन बाप में सुअन यनावे ठा पेठैकर । आउ ज सुअनीअन के धाए बाठा मुंसा से अपन पेठ मने ठा नी ठिहक हठ बाकी कोरि ओकना ना दे हठर । जव ओकना बुहाए ठगठर एव कहकर के हमन बाप के कैगी नौकरन याकरन हथ जीनका हंठुआमन धाए के हसन जे अकका अकका के दे हथ । आउ हम नुपें मन हो । अब उठ के अपन बाप हीं जाएव आउ उनका से कहव के ए बाबुजी हम मगवान नीनी आउ गोहना नीनी वड़ा पाप कैठी । आउ अब हम गोहन वेटा कहवे गुकुन ना हो । गुं हमना अपन एगो मगुना नीअन नथ । वस ज उठठ आउ अपन बाप होआं गेठ । जयनी ओकना पहुंये ठा कुंए दुन बाकीए हठर के ओकन वप्पा ओकना देषठकर । ज देष के ओकना वड़ा मोह ठगठर । अउ उठठ के ओकना गठा से मोठठर आउ युमे याटे ठगठर । एव वेठवा ओकना से कहकर के ए बाबुजी हम मगवान नीनी आउ गोहना नीनी वड़ा पाप कैठी आउ हम गोहन वेटा कहवे गुकुन ना हो । बाकी ओकन वप्पा अपन नौकरनन से कहकर के धुव बेश बेश गुगा ठावी आउ एकना पेन्हावहीं आउ एकना हाथ में अंगुठी पेन्हा देहीं आउ गोट में गुगा देहीं आउ हमरहीं धुव धागे पीगे जार आउ धुसी करी काहे के र वेटा हमन मन युकर हठ आउ खेन के जीअठ है र मुठा गेठ हठ आउ अब खेन के मोठठ है । आउ ज सब धुसी मयावे ठगठन ॥

ओकन वड़का वेठवा बाप में हठर आउ जव हुआं से आ के बन नीनी पहुंयठ एव गोग आउ नाथ सुनठक । एव एगो नौकरन के वोठा के पुंठठ के

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.)

एक गोटा के दुइ वेठा नहैक । छोठका वेठा वाप सौं कहैकैक जे वाप हमन हिस्सा सभ धन दे दह । वाप ओकरन हिस्सा धन वाठि देठकैक । थोकेक दिन पर छोठका वेठा अपन सभ धन एकट्ठा के वढ़ि दून देस यठि गेठ । ओण अपन सभठा धन कुकरन में ओहा देठक । ओकरन सभ धन जखन ओहा गेठैक, ओही देस में वढ़ानी अकाठ पड़ै । जखन ओ ओही देस में एक गोटाक ओही गाम सुगन यजेवा पर नोकन नहै । ओकरना सुगनक धैवाक नूसो वे धैवा ठै मेठै । जखन ओकरना होस मेठैक भोग पड़ै जे हमना वापक ओही गाम कनेक नोकन अछि जकरना धा पी के अधिक धन वयैकैक । हम एण नूमें भजेथी । हम वापक ओण जाएव कहै जे हम गोहन ओ नगावानक वढ़ अपनाय कैठ । हम गोहन वेठा कहैवाक जोग नहि छिओ । हमना गो अपना ओहि गाम नोकन नाथ । ई सभ वाप मन में गनि वापक ओण यठठ । वापक ठा पहुंयठ । ठेकिन जखन सुनकंहि छठ ओकरन वाप देखिगहि मनक ठेठ ओकरना दिस जठठे यठठै, ओकरना गनदनि में ठा के युम्वा ठेठकैक । वेठा कहैकै जे वाप हम गोहन नगावानक वढ़ अपनाय कैठहु गै हम गोहन वेठा कहैवा जोग नहि छी । ओकरन वाप यहि पर अपना नोकन के कहैकै जे धूव नोक २ गुआ ठा, एकरना पहना, औंठी हाथ में दही, पनहो से पहना दही । मोटाएठ वाखा ठा के मान जे हम सभ धा पी के धूसी करी । कियेक गो हमन वेठा मनि के जी एठै । ई वेठा हेना गेठ छठ से छेन मेठठ । ई कहि सभ धूसी कर ठाठठ ।

जखन ओकरन वढ़का वेठा धेगसौं धन अवैण नहै, धनक नणदीक नाथ ओ गान सुनठक । अपना नोकन सौं पुखैकै जे आरि की छिएक जे नाथ गान होखैक । वो सभ कहैकैक जे गोहन नार् आएठ अछि नीके जेका एठै है गै गोहन वाप एक मोटाएठ वाखा मनठक है । गोहि पर ओ नमसाए गेठै, आंगन नहो गेठ । जखन ओकरन वाप वाहन आवि ओकरना नेहोना कर ठाठै । ओ अपना वाप सौं कहैकैक जे एकेक दिन सौं हम गोहन सेवा कैठौ गोहना कहठा सौं कोनो काज वाहन नहो

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 अदमी के दू वेटा रहै । ओ में से छोटा अपने वाप से कहैस को
ए वाप हमने वपना के जवन माठ असवाव हो गवन हम के दा, एही पर वपना
दूनों वेटा के आपन वन वॉट देहैस । बहुत दिन ना वोगै पावठ को छोटा वेटा
कुठ आपन वन वटोत के कउनों दूर देस के निकठ गइठ और आपन वन पनाव
याठ में उड़ा पुड़ा उठैस । जव कुठ ओकर वन ओना गइठ गव ओह देस में
वहुन काठ पड़ठ, ओ उ दाना के मोहणाज होवै ठगठ । गव ज जा के ओह देस के
एक सहर के नहरेशा के पास पहुँचठ । ज अदमी ओ के अपने प्ये में सूवन यनावै
के वासगे मेज देहैस । ओकर ई दसा हो गइठ को जवन सुअनिआ गुसी प्या
रहै जही जो ओ के मिठ गे ज ओही से आपन पेट प्युसी से मरग, ठेकिन रही
ना ओ के केव देग रहै । जव ओ के येग गइठ गे ज अपने मन में कहैस को
केगना नोकनिहा मजदुनिहा हमने वाप के वॉटें जेकरे प्या के बहुत हव वठिक
वय जाठ ओ हम नूयन मरग हई । हम यठव अपने वाप किहाँ जाव ओ कहव को
ए वाप हम गोहने आगे ओ दइउ के पाप करठो, एह ठाएक नरयो को अव हम के
केव गोहान वेटा कहै । अपने नोकनिहा मजदुनिहा में से हम के समुह के नरया ।
इहै कह के ज उठठ ओ अपने वाप किहाँ आइठ । जव दूजै रहै गवै ओकर वाप ओ के
देखैस । ओ के दनद गइठ, दउउ के गइठ, ओकरे गठे ठगठ ओ ओ के युमठसा गव
वेठोअ अपने वाप से कहैस को ए वाप हम गोहने हजूर ओ दइउ के पाप
करठो, अव गोहान वेटा कहवै ठाएक नरयो । ठेकिन वपना अपने नोकन से कहैस
को जवन अषा से अषा कपड़ा हो गवन ठिआ के ओन के पहिनावण जा ओ उन
के हाथ में अंगूठी ओ पैर में जूना पहिनावा ओ सब केहु आवा प्या जाइ ओ
प्युसी करी, काहे से को ई हमान वेटा मन के सेन जोअठ है, हेनाए के सेन
मिठठ है । एही पर सब केहु प्युसी करै ठगठ ॥

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

KAITHĪ OR KĀYATHĪ ALPHABET.

VOWELS.

| | | | | | | | | | | | |
|---|---|---|----|---|---|---|----|----|----|----|-----|
| अ | a | आ | ā | इ | i | ई | ī | उ | u | ऊ | ū. |
| ए | ē | ऐ | ai | ओ | ō | औ | au | अं | am | अः | ah. |

CONSONANTS.

| | | | | | | | | | | | |
|---------------------|---|-----|---|------|---|----|---|-----|---|----|--|
| <i>Gutturals.</i> | क | ka | ख | kha | ग | ga | घ | gha | | | |
| <i>Palatals.</i> | च | cha | छ | chha | ज | ja | झ | jha | | | |
| <i>Cerebrals.</i> | ट | ṭa | ठ | ṭha | ड | ḍa | ढ | ḍha | | | |
| <i>Dentals.</i> | त | ta | थ | tha | द | da | ध | dha | न | na | |
| <i>Labials.</i> | प | pa | फ | ph | ब | ba | भ | bha | म | ma | |
| <i>Semi-Vowels.</i> | य | ya | र | ra | ल | la | व | va | | | |
| <i>Sibilants.</i> | श | śa | ष | ṣha | स | sa | | | | | |
| <i>Aspirate.</i> | ह | ha | | | | | | | | | |

अ a, being inherent in each consonant, is only written when initial in a word or syllable; thus, we write अ५ ap, ५अ tua, but ५ pa, ५ ta. The other vowels, when following a consonant, are substituted for the inherent अ a, and, in this case, they take the following forms:—

| | | | | | |
|---|---|------------------|---|----|---|
| अ | a | (not expressed); | आ | ā | । |
| इ | i | । | ई | ī | । |
| उ | u | । | ऊ | ū | । |
| ए | ē | । | ऐ | ai | । |
| | | | ओ | ō | । |
| | | | औ | au | । |

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

| | | | | | | | | | | | | | |
|----|------|----|-----|----|------|----|-----|----|-----|----|-----|----|-----|
| क | ka, | क | kā, | कि | ki, | की | kī, | कु | ku, | कू | kū, | के | kē, |
| कै | kai, | को | kō, | कौ | kau. | | | | | | | | |

The vowel mark \cdot is called अनुस्वार *anuswār* 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, अं५ aṁs, ५ई॑ bāḥ. It is used for both the *anunāsik* and the *anuswār* of Dēva-nāgarī. The mark ; is called बिस्वर्ग *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, दुःख५ *duḥkh* written and pronounced दु५ *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 Hindi is usually *written*, and many works, intended chiefly for the more illiterate classes, are now frequently printed, is here subjoined.

I. AS PRINTED.

VOWELS.

अ a, आ ā, इ i, ई ī, उ u, ऊ ū, ए e, ऐ ai, ओ o, औ au,
 ङ ang, ञ ah

CONSONANTS.

| | | | | | | |
|------|-------|-----|------|------|-----|------|
| क k | ख kh | ग g | घ gh | ङ ng | ह h | |
| च ch | छ chh | ज j | झ jh | ञ ñ | य y | श sh |
| ट t | ठ th | ड d | ढ dh | ण ñ | र r | ष sh |
| त t | थ th | द d | ध dh | न n | ल l | स s |
| प p | फ ph | ब b | भ bh | म m | व v | |

II. AS COMMONLY WRITTEN,

the letters being suspended from a continuous top-line.

CONSONANTS.

VOWELS.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| क | ख | ग | घ | ङ | ह | म | न |
| च | छ | ज | झ | ञ | य | र | श |
| ट | ठ | ड | ढ | ण | व | ल | स |
| त | थ | द | ध | न | व | ल | स |
| प | फ | ब | भ | म | व | ल | स |

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

कैथी नागरी लिपि

स्वर , व्यञ्जन VOWEL , CONSONANT

अ आ इ ई उ ए ओ औ अं अः

अ आ इ ई उ ए ओ औ अं अः
A Ā I Ī U Ū E Āi 0 AU AM AH

क ख ग घ च छ ज झ

क ख ग घ च छ ज झ
KA KHA GA GHA CHA CHHA JA JHA

ट ठ ड ढ ण त थ द ध न

ट ठ ड ढ ण त थ द ध न
TA THA DA DHA NA TA THA DA DHA NA

प फ व भ म य र ल व

प फ व भ म य र ल व
PA PHA BA BHA MA YA RA LA VA

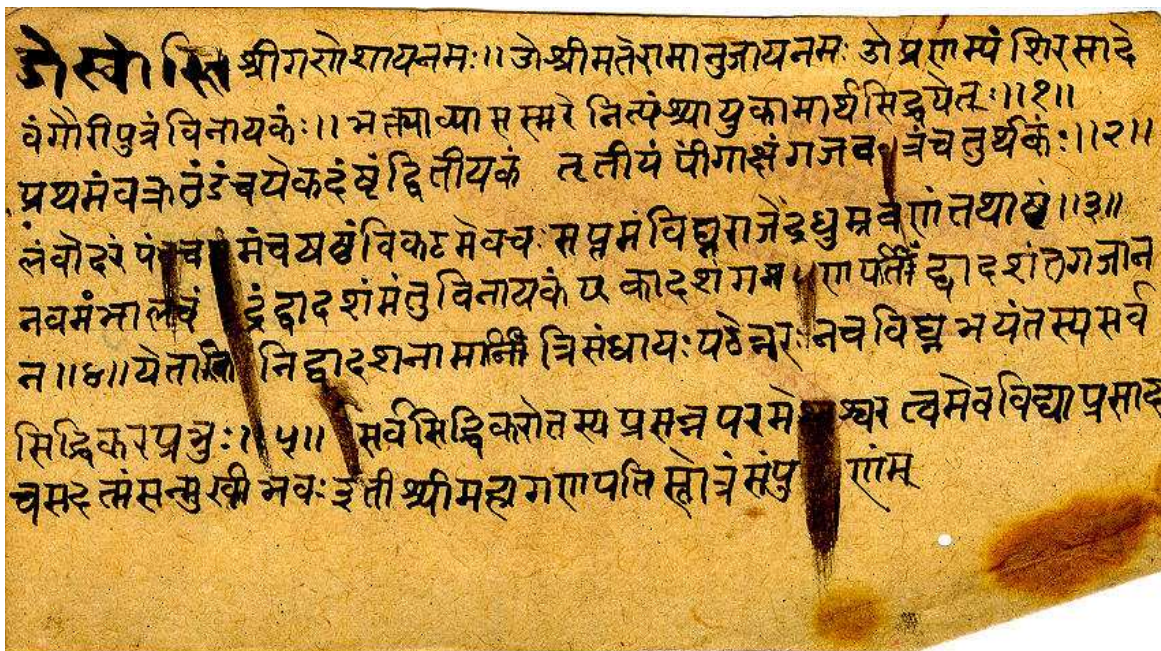
श ष स ह

श ष स ह
SHA SHA SA HA

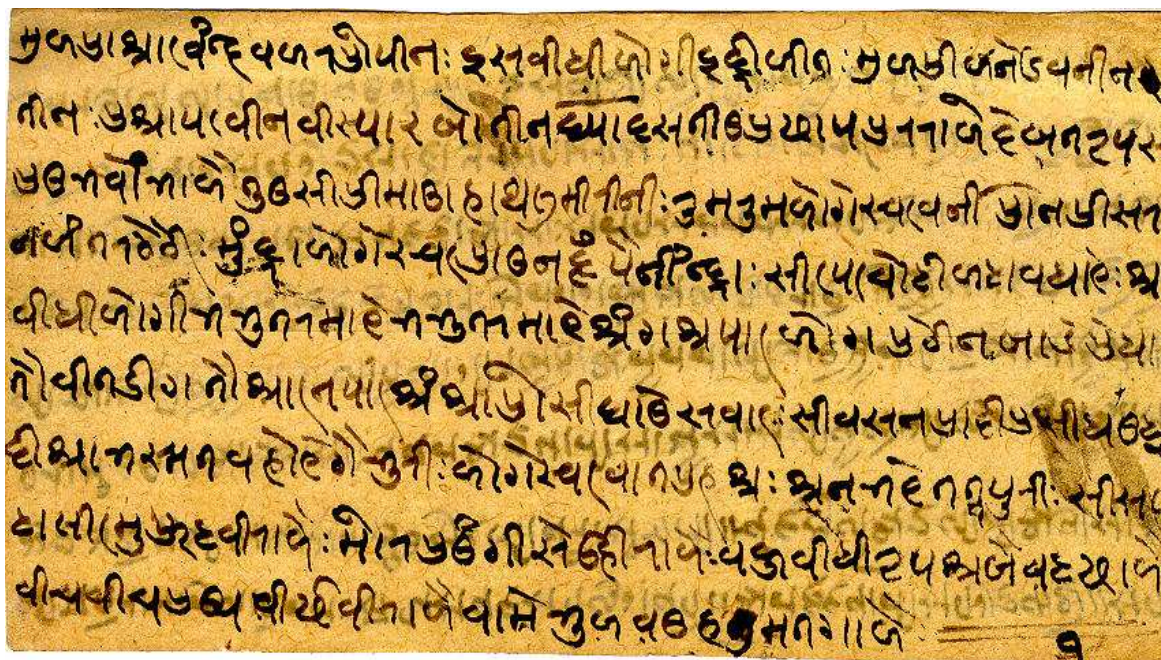
Figure 17: Inventory of Kaithi letters (from Śākyavaṃśa, 1974: 64)

| शारदा | उरमुली | कैथि | बंगला | भैथिली | उत्कल | गुजराती | देव नागरी |
|----------|----------|----------|----------|----------|----------|----------|-----------|
| ७ 1 | १ 1 | १ 1 | १ 1 | १ 1 | १ 1 | १ 1 | १ 1 |
| ३ 2 | २ 2 | २ 2 | २ 2 | २ 2 | २ 2 | २ 2 | २ 2 |
| ३ 3 | ३ 3 | ३ 3 | ३ 3 | ३ 3 | ३ 3 | ३ 3 | ३ 3 |
| ४ 4 | ४ 4 | ४ 4 | ४ 4 | ४ 4 | ४ 4 | ४ 4 | ४ 4 |
| ५ 5 | ५ 5 | ५ 5 | ५ 5 | ५ 5 | ५ 5 | ५ 5 | ५ 5 |
| ६ 6 | ६ 6 | ६ 6 | ६ 6 | ६ 6 | ६ 6 | ६ 6 | ६ 6 |
| ७ 7 | ७ 7 | ७ 7 | ७ 7 | ७ 7 | ७ 7 | ७ 7 | ७ 7 |
| ८ 8 | ८ 8 | ८ 8 | ८ 8 | ८ 8 | ८ 8 | ८ 8 | ८ 8 |
| ९ 9 | ९ 9 | ९ 9 | ९ 9 | ९ 9 | ९ 9 | ९ 9 | ९ 9 |
| १० 10 | १० 10 | १० 10 | १० 10 | १० 10 | १० 10 | १० 10 | १० 10 |

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

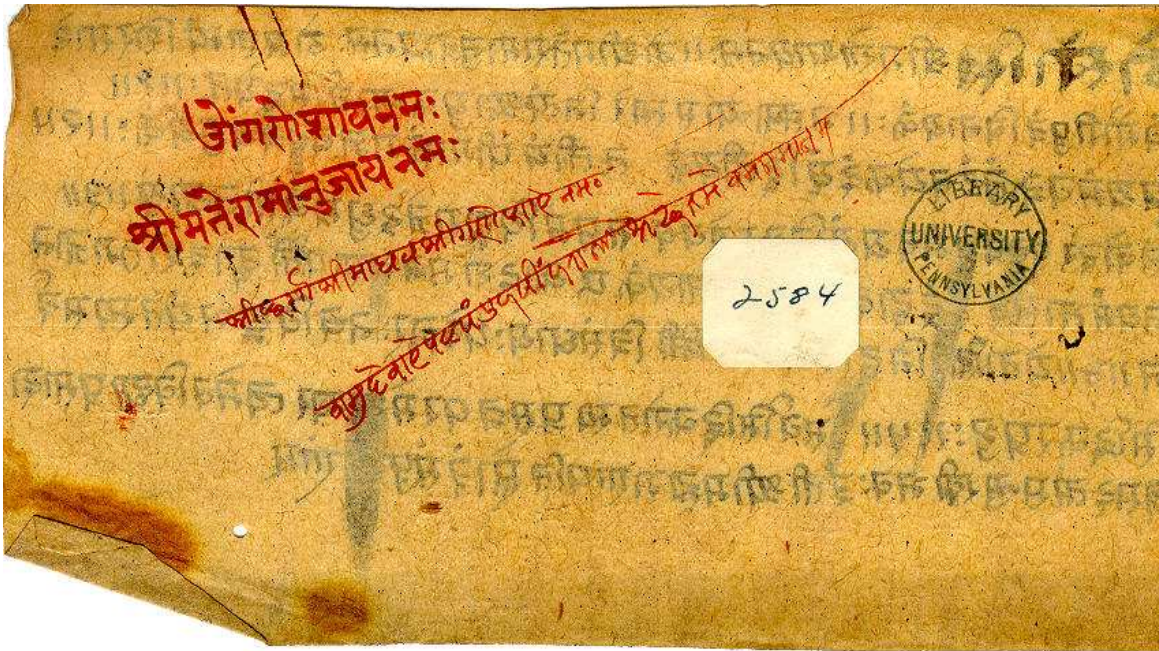


Folio 1b: Sanskrit in Devanagari script

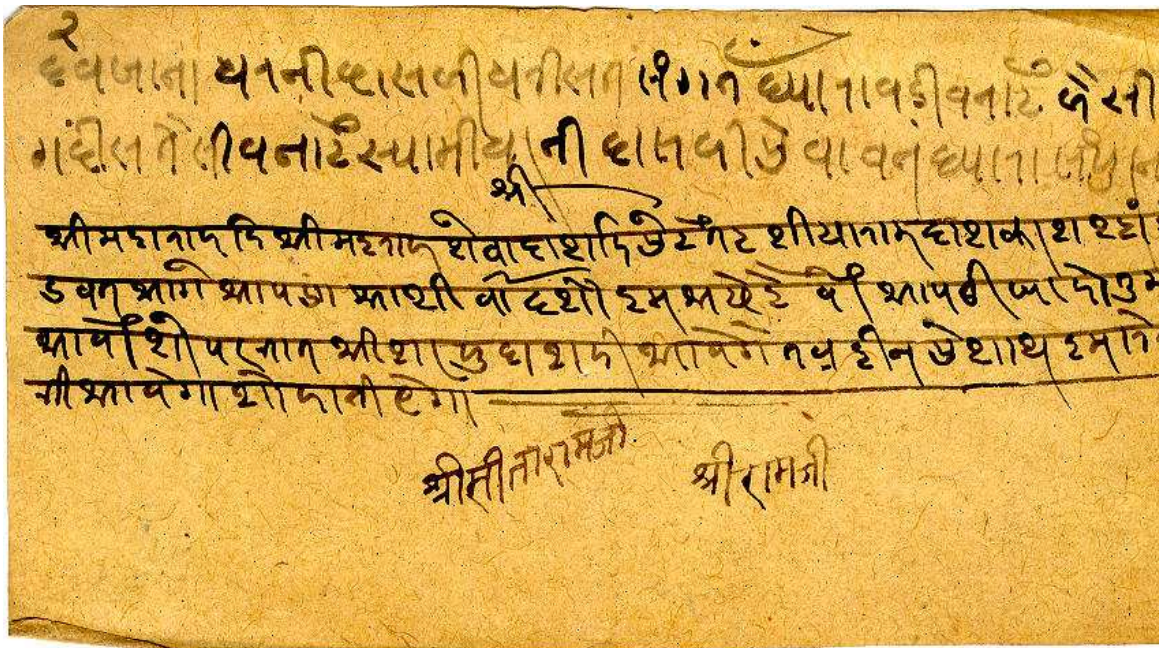


Folio 2a: Maithili style of Kaithi

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 *Mahāgaṇapatiṣṭotra* written in Devanagari and Kaithi (continued from Figure 19). The reproductions of these folios are used with permission from the University of Pennsylvania.

1. Plaint (Patna)

ॐ एतद्द्वारा - शांतिप्रदान-मार्गद्वारा - विवेक प्रदान-प्रयत्न-
 मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-प्रयत्न-
 अन्तर्गत-विद्यार्थी-वर्ग-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान
 नं. नं. नं. नं. - शांतिप्रदान-प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 २ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 ३ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 ४ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 ५ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 ६ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 ७ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 ८ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 ९ मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-
 १० मन्त्रालय-मिशनरि १९२० ॥ १॥ - रजि. नं. - मन्त्रालय-
 प्रयत्न-प्रति-प्रत्येक-विद्यार्थी-शांतिप्रदान-

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

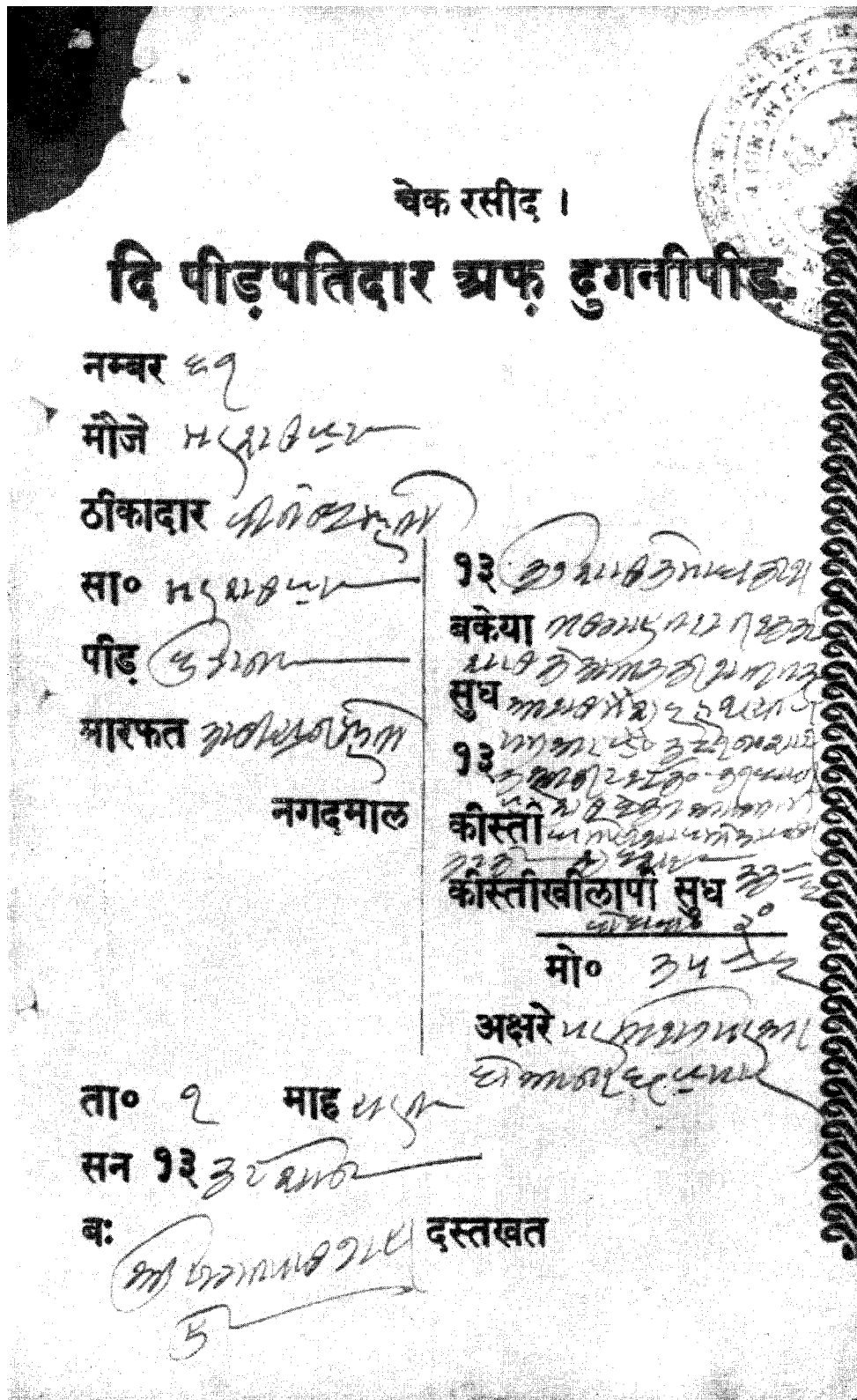


Figure 24: A rent receipt granted by the Pirpattidar of Dugni (Principality of Seraikella) written in Kaithi on a form printed in Devanagari (from Government of Bihar, 1954: plate following p.288).

उत्पत्ती की पुसतक।

औन

जातना की पुसतक के बीसवें 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.

उत्पत्ती की पुसतक।

१ पहिला पनव।

१ आनंज में इश्खन ने खनग और पीन
२ थीवी को सीनजा। और पीनथीवी वेडौख
और सुनी थी और गहीनाव पन अंघी
३ आना था और इश्खन का आतमा जल
पन डोखता था। और इश्खन ने कहा की
४ उंजीआला होवे और उंजीआला हो
गया। और इश्खन ने उंजीआले को देप्पा
की अछा है और इश्खन ने उंजीआले
५ को अंघीआने से वीजाग कीआ। और
इश्खन ने उंजीआले को दीन और अंघी
आने को नात कहा और सांइ और
६ वीहान पहीला दीन ऊआ। फेन इश्खन ने
कहा की पानीओं के मघ में आकास होवे
और पानीओं को पानीओं से वीजाग
७ कने। तव इश्खन ने आकास को बनाआ
और आकास के नीचे के पानीओं को

C. B. S.]

B

1

[5,000.

२

उत्पत्ती की पुसतक।

[१ पनव।

आकास के उपन के पानीओं से वीजाग
कीआ और प्रेसा हो गया। और इश्खन ८
ने आकास को खनग कहा और सांइ और
वीहान दुसना दीन ऊआ। फेन इश्खन ने ४
कहा की खनग के तले के पानी प्रकही
असथान में प्रकठे होवे और सुपी दीपाइ
हवे और प्रेसा हो गया। और इश्खन ने १०
सुपी को नुमी कहा और प्रकठे कीप्र ऊप्र
पानी को समुहन और इश्खन ने देप्पा की
अछा है। और इश्खन ने कहा की नुमी ११
घास को और साग पात को जीन में बीज
हो और फलवंत पेड़ों को जो अपनी
अपनी ज्ञांती के समान फलें जीन के बीज
नुमी पन आप में होवे उगावे और प्रेसा
हो गया। और नुमीने घास और साग १२
पात को अपनी अपनी ज्ञांती के समान
जीन में बीज हो और फलवंत पेड़ों को
जीन का बीज उनमें होवे उनकी ज्ञांती
के समान उगाआ और इश्खन ने देप्पा
की अछा है। सो सांइ और वीहान १३
दीसना दीन ऊआ। और इश्खन ने कहा १४

2

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
HINDI 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.

घनमपुसतकका अंतभाग।

अनघात

पननु ग्रीशु प्रीष्टके यान सुसमायान

बौर

पनेनितोकी किनिद्याओका सिन्नना

मोन

पदेशादिक औ नविष्यद्याकका पतन।

दूनानीय भाषासे हिन्दी भाषामें किया गया ;

मोन

ईजर्जुडेयीय समीसमाजके उपकानसे धापा हुआ।

कलकत्ता

हिन्दुस्थानी सन १४०३ ग्रीशवी सन १८५०

मथिलिपित सुसमायान।

१ पहिला पत्र।

प्रीष्ट की वंशावलि।

- १ इव्नाहीमका संतान दायूद्, उसका संतान ग्रीशु
- २ प्रीष्ट; उसकी वंशावली यही है। इव्नाहीमका पुत्र
- ३ इसहाफ; इसहाफका पुत्र याकूब; याकूबका पुत्र
- ४ यहूदा औ उसके जार्ई। तामन औ यहूदासे
- ५ फानिस औन सातह जन्मे; इसो फानिसका पुत्र
- ६ हिस्नोम; हिस्नोमाका पुत्र अनाम; अनामका पुत्र
- ७ असोनाद्व; असोनाद्वका पुत्र नहशोन; नह-
- ८ शोनका पुत्र सल्मोन। नाह्व औ सल्मोनसे द्योयस
- ९ जन्मा; नूत् औ द्योयस से ओवेद् जन्मा; ओवेद्का
- १० पुत्र यिशय; यिशयका सुत दायूद् राजा; दायूद्
- ११ राजा औ उनियकी विधवासे सुलिमान जन्मा; सुलि-
- १२ मानका पुत्र निहवियम; निहवियमका पुत्र अत्रिय;
- १३ अत्रियका पुत्र आसा। आसाका पुत्र यिहोशाफह;
- १४ यिहोशाफहका पुत्र यिहोनम; यिहोनमका संतान
- १५ उंसिय। उंसियका पुत्र योथम; योथमका पुत्र आ-
- १६ हस्; आहसका पुत्र हिस्किय। हिस्कियका पुत्र
- १७ मनशि; मनशिका पुत्र आमोन; आमोनका पुत्र
- १८ योशिय। औन दार्विल नजनको जानेके समय उसी
- १९ योशियके संतान यिप्पनिय औ उसके सब जार्ई।
- २० दार्विलको जानेके पीछे यिप्पनियका पुत्र शियल्-
- २१ तियल; शियलतियलका पुत्र सितुदार्विल। सितुदा-
- २२ १८४७.] १ १ [१५००.

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 𑑖 KAITHI LETTER NNA in the word सिन्नना, which appears in last word of the fifth sentence on the Kaithi title page.

BICOL

94

16 ¶ Huli ta an Dios namoot na gayo sa kinaban, na itinao nia an saiyang Aking bogtong, tagñaning 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 Aki sa kinaban na magsilot kan kinaban; kundi tagñaning 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 sa kinaban, asin an magna tauo namoot pang labi sa diklom ki sa liwanag; huli ta an saindang magna guibo maraot.

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

21 Alagad an nagguiguibo nin katotoohan minadolok sa ilao, tagñaning an saiyang magna guibo mahayag, na an magna 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 ईश्वर भगवान से अरसन प्रेम करते जे आपन एकठउता पुपन देहठे की जे केहु उरका पन विश्वास करे से नास न होए वाकी अरना जोवन पाए ।

1913

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

काहे के जे कोइ परमेशर के इच्छा पर चले, सेइ हमर भाइ बहोन आर 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 Sabai.

BIHARI: Magahi dialect

97

Devanagari characters

होअधि किन्तु अपार जीदगी पावधि । काहेहा ईश्वर संसार के सिमन् दुनार केनखन् का उअह् अयना एक अयना वेटाके देसखन् का ये प्रति अद्मी आकरापरि विश्वास कर इधि उअह् नाश नहि होअधि किन्तु अपार जीदगी पाव धि । काहेहा संसारकेर दोधो करैकरे बेन ईश्वर अय 1826

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

हे खरगमथ रहनिहार हमरासभक वाप तोहर नाम पवित्र होवे तोहर राज्य आवे तोहर मनसाफित खरगमथ जेहन तेहन Part of the Lord's Prayer

Spoken by at least 10,000,000 people in Tirhut, 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

काहेकि ईश्वर दुनिया[केनमन]के ऐसन हुठान करठक, कि उ अपन एकठा वेटाके देठक, कि जे केउ उकरमे विश्वास करी, से नास न होक, भगवान अरना जोवन पावोका

1909

Devanagari characters

ताँए परमेश्वर अपन ईश्वरके परनाम कर, और 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*.

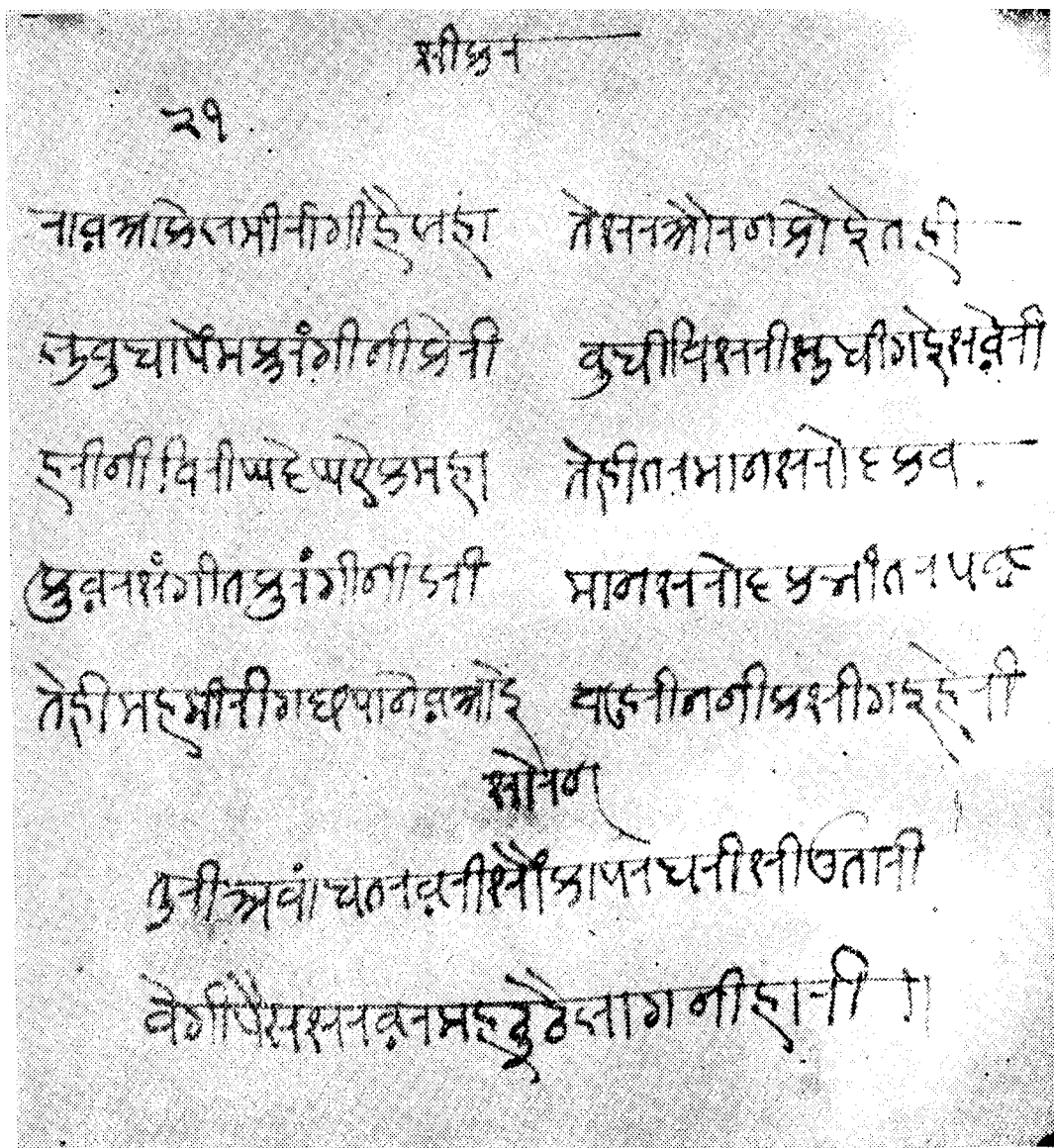


Figure 28: A folio from the Ekaḍalā manuscript of *Miragāvātī* c.1828 (from Miśra, 1963: plate 2).



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

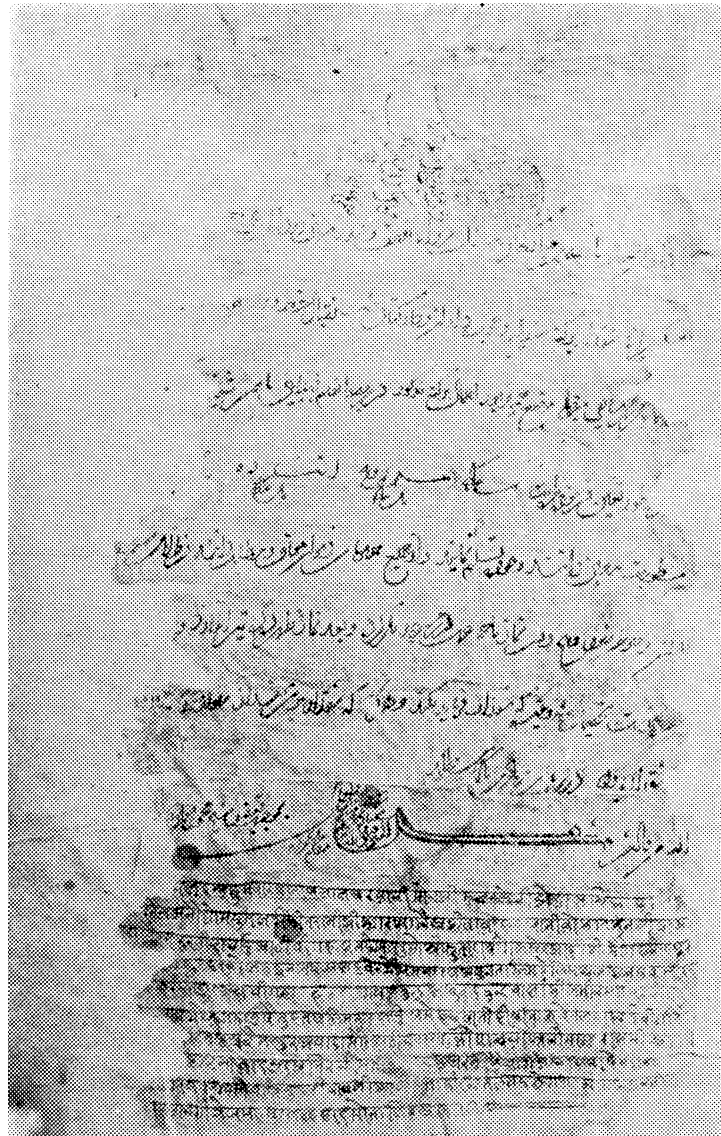


Figure 30: A *sanad* of Sher Shah Suri, dated December 19, 1540 (947 A. H.), bear the Persian text of the warrant in the Perso-Arabic and Kaithi scripts (from Jalaluddin, 1978: Plate I).

فلاط لصلاب
 باعبر رسته علاء



منج بر سب ویکم ماه نومبر ۱۸۹۰
 مع وکس کورت و دکا لکنا و سب خود لفظ و لکنا
 نقاش سبھا

ارکھ کور
 حال کور

کدوم هر ما با تر کور و لکنا
 نار لکنا کور کور
 کدوم هر ما با تر کور و لکنا
 نار لکنا کور کور
 کدوم هر ما با تر کور و لکنا
 نار لکنا کور کور

Figure 31: A letter to the Supreme Civil Court of Appeals in Calcutta. The letter is written in the high Persian idiom and *sikastā* 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 “मोहार आदालत दिवाणी सदर १८५०” (*mohar adalat divānī sadar 1850*) is a transliteration of the Urdu “مہر عدالت دیوانے صدر ۱۲۰۷” meaning “the seal of the Supreme Civil Court of Appeals” (from Stewart, 1825: plate 12, p.54–55).

एक आदमी के दु गी बेटा हथीन । उनकूहीं में से छोटका अपन बाप से कहक के ए बाबुजी गोहन थीन वगुस में से जे हमन बयना हो है से हमना देह । एव ज अपन सब थीन वगुस उनकूहीं दुनों में बाँट देक । देन दीन बीगे ना पौक के छोटका बेटका अपन सब थीन बटोर सटोर के कोर वड़ी दुन देस में यठठ गेठ । हुआं जा के अपन सब पुंजी कुयाठी में जीआन कर देक । आउ जब सब गवां युक्त एव ज देस में वड़ी नानी अकाठ पठठ आउ ओकना दीकसीक होए ठगठर । एव हुआं के एगो नहररशा हींआं जा के रहे ठगठ । ज ओकना अपन बाप में सुअन यनावे ठा पेठौकर । आउ ज सुअनीअन के बाए ब्राठा मुसा से अपन पेट नने ठा नी ठोएक हठ बाकी कोर ओकना ना दे हठर । जब ओकना बुहाए ठगठर एव कहक के हमन बाप के कैगी वीकर

अक भाबुसने जे दीकरा हता. अने तेओमांना नानाअे आपने कहुं के, आप, संपतनेा पहेंअतो भाग मने आप, ने तेखे तेओने पुंअ वहुंअी आपी. अने थोअ छहाअ पछी नाने 'दीकरे सधणुं अेकहुं करीने वेगणा देशमां गयो, ने त्यां रंग भोगे पोतानी संपत ठगठरी नाप्पी. अने तेखे अंधुं अरअी नाप्पुं, तार पछी ते देशमां भोटा इकाण पअयो, ने तेने तंगी पअवा हागी. अने ते न्छने ते देशना वतनीओमांना अेकने त्यां रबो, ने तेखे पोताना भेतरमां लुंडोने यारवा साइ तेने भोअयो. अने जे शिंगे लुंडे आता हतां तेमांथी पोतानुं पेठुं भरवाने तेनी छंअा हती, ने छेछंअे तेने आप्पुं नहीं. अने ते सावअीत थयो तार तेखे कहुं के, मारा आपना छेठवा मणुरोने पुंअण रोठवा छे, पखुं हुं तो भूअे वानाश पाभुंछुं. हुं छेठने मारा आपनी पासे न्छश ने तेने कहीश के, आप, में आकाश साभा तथा तारीं आगण पाप क्छुं छे. अने हवे तारो दीकरे कहेवावा हुं योअ नथी, मने तारा मणुरोमांना अेकना न्खेो गखु. अने ते छेठने पोताना आपनी पासे गयो, ने ते हल धखेो वेगणेो हतो तार तेना आपे तेने दीठो, ने तेने कइथु आवी, ने ते छेठने तेनी छेठे वणगयो, ने तेने मुंअन क्छुं. अने दीकराअे तेने कहुं के, आप, में आकाश साभा तथा तारीं आगण पाप क्छुं छे, ने हवे तारो दीकरे कहेवावा हुं योअ नथी. पखुं आपे पोताना दासने कहुं के, उत्तम वअ लछ आवेो, ने अेने पहरोवेो, ने अेने हाथे वीठी धाखेो, ने पगमां न्खेअा पहरोवेो. अने पाणेखा वाछरअने धावीने कापो, ने आपखे आछने आनंद करीअे. केभके आ मारो दीकरे मुअेो हतेो

किसी मानुस के दो बेटे थे । उन में से लहुरे बेटे ने बाप से कहा हे बाप आप के धन में जो मेरा बखरा हो उसको मुझे दे दीजिये । तब उसने अपना धन उनमें बाँट दिया । बहुत दिन नहीं बीते, कि लहुरा बेटा सब कुछ बटोर दूर देस चला गया और वहाँ लुचपन में दिन बितावते अपना धन उड़ा दिया । जब वह सब कुछ उड़ा चुका तब उस देस में अकाल पड़ा और वह कंगाल 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 भरूँ 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*.

कैथी लिपि.

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

गुजराती लिपि.

अ आ इ ई उ ऊ ऋ ॠ ए ऐ ओ औ अं अः क ख - ग
 अ आ इ ई उ ऊ ए ऐ ओ औ अं अः क ख ग
 घ ङ च छ ज झ ञ ट ठ ड ढ ण त थ द ध न प फ व
 ध ङ च छ ज झ ञ ट ठ ड ढ ण त थ द ध न प फ व
 भ म य र ल व श ष स ह ङ का कि की कु कू के कै
 ल म य र ल व श ष स ह ङ का कि की कु कू के कै
 को कौ कं कः १ २ ३ ४ ५ ६ ७ ८ ९
 को कौ कं कः १ २ ३ ४ ५ ६ ७ ८ ९

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

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

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

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

KAITHI

VOWELS.

अ, आ, इ, ई, उ, ँ, ए, ऐ, ओ, औ, ं, ः

CONSONANTS.

| | | | | | | |
|------|-------|-----|------|------|-----|------|
| क k | ख kh | ग g | घ gh | ङ ng | ह h | |
| च ch | छ chh | ज j | झ jh | ञ ñ | य y | श sh |
| ट t | ठ th | ड d | ढ dh | ण ñ | र r | ष sh |
| त t | थ th | द d | ध dh | न n | ल l | स s |
| प p | फ ph | ब b | भ bh | म m | व v | |

DEVANAGARI

VOWELS.

Short, अ इ उ ऋ लृ ए ओ • anuswāra.

Long, आ ई उ ऋ लृ ऐ औ : visarga.

CONSONANTS.

| | Hard. | Soft. | Nasals. | Sibilants. | Semi-vowels, &c. |
|--------------|-------|-------|---------|------------|------------------|
| Gutturals . | क ख | ग घ | ङ | | ह |
| Palatals . . | च छ | ज झ | ञ | श | य |
| Cerebrals . | ट ठ | ड ढ | ण | ष | र |
| Dentals . . | त थ | द ध | न | स | ल |
| Labials . . | प फ | ब भ | म | | 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.

| <i>Devanāgarī</i> | <i>Kayathī</i> | <i>Mahājani</i> | <i>English</i> | <i>Devanāgarī</i> | <i>Kayathī</i> | <i>Mahājani</i> | <i>English</i> | <i>Devanāgarī</i> | <i>Kayathī</i> | <i>Mahājani</i> | <i>English</i> |
|-------------------|----------------|-----------------|----------------|-------------------|----------------|-----------------|----------------|-------------------|----------------|-----------------|----------------|
| अ | अ | अ | a | इ | इ | इ | i | न | न | न | n |
| आ | आ | आ | ā | उ | उ | उ | u | प | प | प | p |
| इ | इ | इ | i | ए | ए | ए | e | फ | फ | फ | ph |
| उ | उ | उ | u | अ | अ | अ | a | ब | ब | ब | b |
| ऊ | ऊ | ऊ | ū | इ | इ | इ | i | भ | भ | भ | bh |
| ऋ | ऋ | ऋ | rī | उ | उ | उ | u | म | म | म | m |
| ॠ | ॠ | ॠ | ṛi | ए | ए | ए | e | य | य | य | yj |
| ऌ | ऌ | ऌ | ai | उ | उ | उ | u | र | र | र | r |
| ॡ | ॡ | ॡ | o | उ | उ | उ | u | ल | ल | ल | l |
| क | क | क | k | शा | शा | शा | śa | व | व | व | v.b |
| ख | ख | ख | kh | त | त | त | t | श | श | श | śh, kh |
| ग | ग | ग | g | थ | थ | थ | th | स | स | स | s |
| घ | घ | घ | gh | द | द | द | d | सा | सा | सा | śa |

COMBINATIONS OF VOWELS.

| <i>Devanāgarī</i> | <i>Kayathī</i> | <i>Mahājani</i> | <i>English</i> | <i>Devanāgarī</i> | <i>Kayathī</i> | <i>Mahājani</i> | <i>English</i> |
|-------------------|----------------|-----------------|----------------|-------------------|----------------|-----------------|----------------|
| अक | अक | अक | aka | रक | रक | रक | rikri |
| आका | आका | आका | āka | रके | रके | रके | eke |
| इकि | इकि | इकि | iki | रकै | रकै | रकै | aikai |
| इकी | इकी | इकी | ikī | ओकी | ओकी | ओकी | oko |
| उकु | उकु | उकु | uku | ओकी | ओकी | ओकी | aukau, |
| ऊकु | ऊकु | ऊकु | ukū | | | | |

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

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

| | | | |
|--|-----|-------|-----|
| इनको देख, अवजा, पानीपी, ओलदे, इनको देख, अवणा, पानीपी, ओलदे । | | | |
| तीनअक्षरोंकेशब्द | | | |
| क-ल-म | कलम | फ-ल-म | फलम |
| क-म-ल | कमल | फ-म-ल | फमल |
| क-आ-ल | काल | फ-आ-ल | फाल |
| त-इ-न | तीन | त-इ-न | तीन |
| म-ऊ-ल | मूल | म-उ-ल | मूल |
| त-ए-ल | तेल | त-ऐ-ल | तेल |
| ल-त-आ | लता | ल-त-आ | लता |
| द-फ-आ | दफा | द-फ-आ | दफा |
| म-र-ई | मरी | म-न-इ | मनी |
| वात | | | |
| कलमकाठ । यहलताकामूलहै । एकबो दो- तीनहोताहै । मूलसेउखाड़ो । कालकेहाथ- सेवच । इसदफेमेंक्याहै ॥ | | | |
| कलमकाठ । यहलताकामूलहै । एकपोदोतीन होताहै । मूलसेउखाड़ो । कालकेहाथसेवच । इसदफेमेंक्याहै ॥ | | | |
| चारअक्षरोंकेशब्द | | | |

Figure 38: Comparison of writing techniques in Kaithi and Devanagari (from *Kaithī vo hindī barnamālā*, 1882: 8).

| Lautwert | Proto-Bengali 11. Jahrh. | Bengali | Orissisch (Oriyā) | Gujarāti | Kaithi | Manipuri | Lautwert | Proto-Bengali 11. Jahrh. | Bengali | Orissisch (Oriyā) | Gujarāti | Kaithi | Manipuri |
|----------|-----------------------------|---------|----------------------|----------|--------|----------|----------|-----------------------------|---------|----------------------|----------|--------|----------|
| a | 𑒠 | 𑒡 | 𑒢 | 𑒣 | 𑒤 | 𑒥 | na | 𑒦 | 𑒧 | 𑒨 | 𑒩 | 𑒪 | 𑒫 |
| i | 𑒬 | 𑒭 | 𑒮 | 𑒯 | 𑒰 | 𑒱 | ta | 𑒲 | 𑒳 | 𑒴 | 𑒵 | 𑒶 | 𑒷 |
| u | 𑒸 | 𑒹 | 𑒺 | 𑒻 | 𑒼 | 𑒽 | tha | 𑒾 | 𑒿 | 𑓀 | 𑓁 | 𑓂 | 𑓃 |
| e | 𑓄 | 𑓅 | 𑓆 | 𑓇 | 𑓈 | 𑓉 | da | 𑓊 | 𑓋 | 𑓌 | 𑓍 | 𑓎 | 𑓏 |
| o | 𑓐 | 𑓑 | 𑓒 | 𑓓 | 𑓔 | 𑓕 | dha | 𑓖 | 𑓗 | 𑓘 | 𑓙 | 𑓚 | 𑓛 |
| ā | | 𑓜 | 𑓝 | 𑓞 | 𑓟 | 𑓠 | na | 𑓡 | 𑓢 | 𑓣 | 𑓤 | 𑓥 | 𑓦 |
| ka | 𑓧 | 𑓨 | 𑓩 | 𑓪 | 𑓫 | 𑓬 | pa | 𑓭 | 𑓮 | 𑓯 | 𑓰 | 𑓱 | 𑓲 |
| kha | 𑓳 | 𑓴 | 𑓵 | 𑓶 | 𑓷 | 𑓸 | pha | 𑓹 | 𑓺 | 𑓻 | 𑓼 | 𑓽 | 𑓾 |
| ga | 𑓿 | 𑔀 | 𑔁 | 𑔂 | 𑔃 | 𑔄 | ba | 𑔅 | 𑔆 | 𑔇 | 𑔈 | 𑔉 | 𑔊 |
| gha | 𑔋 | 𑔌 | 𑔍 | 𑔎 | 𑔏 | 𑔐 | bha | 𑔑 | 𑔒 | 𑔓 | 𑔔 | 𑔕 | 𑔖 |
| ṅa | | 𑔗 | 𑔘 | 𑔙 | 𑔚 | 𑔛 | ma | 𑔜 | 𑔝 | 𑔞 | 𑔟 | 𑔠 | 𑔡 |
| ṅa | 𑔣 | 𑔤 | 𑔥 | 𑔦 | 𑔧 | 𑔨 | ya | 𑔩 | 𑔪 | 𑔫 | 𑔬 | 𑔭 | 𑔮 |
| ṅha | 𑔯 | 𑔰 | 𑔱 | 𑔲 | 𑔳 | 𑔴 | ra | 𑔵 | 𑔶 | 𑔷 | 𑔸 | 𑔹 | 𑔺 |
| ṅha | 𑔻 | 𑔼 | 𑔽 | 𑔾 | 𑔿 | 𑕀 | la | 𑕁 | 𑕂 | 𑕃 | 𑕄 | 𑕅 | 𑕆 |
| ṅha | 𑕇 | 𑕈 | 𑕉 | 𑕊 | 𑕋 | 𑕌 | va | 𑕍 | 𑕎 | 𑕏 | 𑕐 | 𑕑 | 𑕒 |
| ṅa | 𑕓 | 𑕔 | 𑕕 | 𑕖 | 𑕗 | 𑕘 | śa | 𑕙 | 𑕚 | 𑕛 | 𑕜 | 𑕝 | 𑕞 |
| ṭa | | 𑕟 | 𑕠 | 𑕡 | 𑕢 | 𑕣 | ṣa | 𑕤 | 𑕥 | 𑕦 | 𑕧 | 𑕨 | 𑕩 |
| ṭha | | 𑕪 | 𑕫 | 𑕬 | 𑕭 | 𑕮 | sa | 𑕯 | 𑕰 | 𑕱 | 𑕲 | 𑕳 | 𑕴 |
| ḍa | 𑕵 | 𑕶 | 𑕷 | 𑕸 | 𑕹 | 𑕺 | ha | 𑕻 | 𑕼 | 𑕽 | 𑕾 | 𑕿 | 𑖀 |
| ḍha | 𑖁 | 𑖂 | 𑖃 | 𑖄 | 𑖅 | 𑖆 | | 𑖇 | 𑖈 | 𑖉 | 𑖊 | 𑖋 | 𑖌 |

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

TABLE I.—HINDI ALPHABETS.

| Nāgari. | Kāyathī. | Mahājani. | Baniaṭī. |
|---------|----------|-----------|----------|
| अ | 𑂀 | 𑂀 | 𑂀 |
| आ | 𑂁 | 𑂁 | 𑂁 |
| इ | 𑂂 | 𑂂 | 𑂂 |
| ई | 𑂃 | 𑂃 | 𑂃 |
| उ | 𑂄 | 𑂄 | 𑂄 |
| ऊ | 𑂅 | 𑂅 | 𑂅 |
| ऋ | 𑂆 | 𑂆 | 𑂆 |
| ॠ | 𑂇 | 𑂇 | 𑂇 |
| ऌ | 𑂈 | 𑂈 | 𑂈 |
| ॡ | 𑂉 | 𑂉 | 𑂉 |
| ऋ | 𑂊 | 𑂊 | 𑂊 |
| ॠ | 𑂋 | 𑂋 | 𑂋 |
| ऌ | 𑂌 | 𑂌 | 𑂌 |
| ॡ | 𑂍 | 𑂍 | 𑂍 |
| अ | 𑂎 | 𑂎 | 𑂎 |
| आ | 𑂏 | 𑂏 | 𑂏 |
| इ | 𑂐 | 𑂐 | 𑂐 |
| ई | 𑂑 | 𑂑 | 𑂑 |
| उ | 𑂒 | 𑂒 | 𑂒 |
| ऊ | 𑂓 | 𑂓 | 𑂓 |
| ऋ | 𑂔 | 𑂔 | 𑂔 |
| ॠ | 𑂕 | 𑂕 | 𑂕 |
| ऌ | 𑂖 | 𑂖 | 𑂖 |
| ॡ | 𑂗 | 𑂗 | 𑂗 |
| अ | 𑂘 | 𑂘 | 𑂘 |
| आ | 𑂙 | 𑂙 | 𑂙 |
| इ | 𑂚 | 𑂚 | 𑂚 |
| ई | 𑂛 | 𑂛 | 𑂛 |
| उ | 𑂜 | 𑂜 | 𑂜 |
| ऊ | 𑂝 | 𑂝 | 𑂝 |
| ऋ | 𑂞 | 𑂞 | 𑂞 |
| ॠ | 𑂟 | 𑂟 | 𑂟 |
| ऌ | 𑂠 | 𑂠 | 𑂠 |
| ॡ | 𑂡 | 𑂡 | 𑂡 |
| अ | 𑂢 | 𑂢 | 𑂢 |
| आ | 𑂣 | 𑂣 | 𑂣 |
| इ | 𑂤 | 𑂤 | 𑂤 |
| ई | 𑂥 | 𑂥 | 𑂥 |
| उ | 𑂦 | 𑂦 | 𑂦 |
| ऊ | 𑂧 | 𑂧 | 𑂧 |
| ऋ | 𑂨 | 𑂨 | 𑂨 |
| ॠ | 𑂩 | 𑂩 | 𑂩 |
| ऌ | 𑂪 | 𑂪 | 𑂪 |
| ॡ | 𑂫 | 𑂫 | 𑂫 |
| अ | 𑂬 | 𑂬 | 𑂬 |
| आ | 𑂭 | 𑂭 | 𑂭 |
| इ | 𑂮 | 𑂮 | 𑂮 |
| ई | 𑂯 | 𑂯 | 𑂯 |
| उ | 𑂰 | 𑂰 | 𑂰 |
| ऊ | 𑂱 | 𑂱 | 𑂱 |
| ऋ | 𑂲 | 𑂲 | 𑂲 |
| ॠ | 𑂳 | 𑂳 | 𑂳 |
| ऌ | 𑂴 | 𑂴 | 𑂴 |
| ॡ | 𑂵 | 𑂵 | 𑂵 |
| अ | 𑂶 | 𑂶 | 𑂶 |
| आ | 𑂷 | 𑂷 | 𑂷 |
| इ | 𑂸 | 𑂸 | 𑂸 |
| ई | 𑂹 | 𑂹 | 𑂹 |
| उ | 𑂺 | 𑂺 | 𑂺 |
| ऊ | 𑂻 | 𑂻 | 𑂻 |
| ऋ | 𑂼 | 𑂼 | 𑂼 |
| ॠ | 𑂽 | 𑂽 | 𑂽 |
| ऌ | 𑂾 | 𑂾 | 𑂾 |
| ॡ | 𑂿 | 𑂿 | 𑂿 |
| अ | 𑃀 | 𑃀 | 𑃀 |
| आ | 𑃁 | 𑃁 | 𑃁 |
| इ | 𑃂 | 𑃂 | 𑃂 |
| ई | 𑃃 | 𑃃 | 𑃃 |
| उ | 𑃄 | 𑃄 | 𑃄 |
| ऊ | 𑃅 | 𑃅 | 𑃅 |
| ऋ | 𑃆 | 𑃆 | 𑃆 |
| ॠ | 𑃇 | 𑃇 | 𑃇 |
| ऌ | 𑃈 | 𑃈 | 𑃈 |
| ॡ | 𑃉 | 𑃉 | 𑃉 |
| अ | 𑃊 | 𑃊 | 𑃊 |
| आ | 𑃋 | 𑃋 | 𑃋 |
| इ | 𑃌 | 𑃌 | 𑃌 |
| ई | 𑃍 | 𑃍 | 𑃍 |
| उ | 𑃎 | 𑃎 | 𑃎 |
| ऊ | 𑃏 | 𑃏 | 𑃏 |
| ऋ | 𑃐 | 𑃐 | 𑃐 |
| ॠ | 𑃑 | 𑃑 | 𑃑 |
| ऌ | 𑃒 | 𑃒 | 𑃒 |
| ॡ | 𑃓 | 𑃓 | 𑃓 |
| अ | 𑃔 | 𑃔 | 𑃔 |
| आ | 𑃕 | 𑃕 | 𑃕 |
| इ | 𑃖 | 𑃖 | 𑃖 |
| ई | 𑃗 | 𑃗 | 𑃗 |
| उ | 𑃘 | 𑃘 | 𑃘 |
| ऊ | 𑃙 | 𑃙 | 𑃙 |
| ऋ | 𑃚 | 𑃚 | 𑃚 |
| ॠ | 𑃛 | 𑃛 | 𑃛 |
| ऌ | 𑃜 | 𑃜 | 𑃜 |
| ॡ | 𑃝 | 𑃝 | 𑃝 |
| अ | 𑃞 | 𑃞 | 𑃞 |
| आ | 𑃟 | 𑃟 | 𑃟 |
| इ | 𑃠 | 𑃠 | 𑃠 |
| ई | 𑃡 | 𑃡 | 𑃡 |
| उ | 𑃢 | 𑃢 | 𑃢 |
| ऊ | 𑃣 | 𑃣 | 𑃣 |
| ऋ | 𑃤 | 𑃤 | 𑃤 |
| ॠ | 𑃥 | 𑃥 | 𑃥 |
| ऌ | 𑃦 | 𑃦 | 𑃦 |
| ॡ | 𑃧 | 𑃧 | 𑃧 |
| अ | 𑃨 | 𑃨 | 𑃨 |
| आ | 𑃩 | 𑃩 | 𑃩 |
| इ | 𑃪 | 𑃪 | 𑃪 |
| ई | 𑃫 | 𑃫 | 𑃫 |
| उ | 𑃬 | 𑃬 | 𑃬 |
| ऊ | 𑃭 | 𑃭 | 𑃭 |
| ऋ | 𑃮 | 𑃮 | 𑃮 |
| ॠ | 𑃯 | 𑃯 | 𑃯 |
| ऌ | 𑃰 | 𑃰 | 𑃰 |
| ॡ | 𑃱 | 𑃱 | 𑃱 |
| अ | 𑃲 | 𑃲 | 𑃲 |
| आ | 𑃳 | 𑃳 | 𑃳 |
| इ | 𑃴 | 𑃴 | 𑃴 |
| ई | 𑃵 | 𑃵 | 𑃵 |
| उ | 𑃶 | 𑃶 | 𑃶 |
| ऊ | 𑃷 | 𑃷 | 𑃷 |
| ऋ | 𑃸 | 𑃸 | 𑃸 |
| ॠ | 𑃹 | 𑃹 | 𑃹 |
| ऌ | 𑃺 | 𑃺 | 𑃺 |
| ॡ | 𑃻 | 𑃻 | 𑃻 |
| अ | 𑃼 | 𑃼 | 𑃼 |
| आ | 𑃽 | 𑃽 | 𑃽 |
| इ | 𑃾 | 𑃾 | 𑃾 |
| ई | 𑃿 | 𑃿 | 𑃿 |
| उ | 𑄀 | 𑄀 | 𑄀 |
| ऊ | 𑄁 | 𑄁 | 𑄁 |
| ऋ | 𑄂 | 𑄂 | 𑄂 |
| ॠ | 𑄃 | 𑄃 | 𑄃 |
| ऌ | 𑄄 | 𑄄 | 𑄄 |
| ॡ | 𑄅 | 𑄅 | 𑄅 |
| अ | 𑄆 | 𑄆 | 𑄆 |
| आ | 𑄇 | 𑄇 | 𑄇 |
| इ | 𑄈 | 𑄈 | 𑄈 |
| ई | 𑄉 | 𑄉 | 𑄉 |
| उ | 𑄊 | 𑄊 | 𑄊 |
| ऊ | 𑄋 | 𑄋 | 𑄋 |
| ऋ | 𑄌 | 𑄌 | 𑄌 |
| ॠ | 𑄍 | 𑄍 | 𑄍 |
| ऌ | 𑄎 | 𑄎 | 𑄎 |
| ॡ | 𑄏 | 𑄏 | 𑄏 |
| अ | 𑄐 | 𑄐 | 𑄐 |
| आ | 𑄑 | 𑄑 | 𑄑 |
| इ | 𑄒 | 𑄒 | 𑄒 |
| ई | 𑄓 | 𑄓 | 𑄓 |
| उ | 𑄔 | 𑄔 | 𑄔 |
| ऊ | 𑄕 | 𑄕 | 𑄕 |
| ऋ | 𑄖 | 𑄖 | 𑄖 |
| ॠ | 𑄗 | 𑄗 | 𑄗 |
| ऌ | 𑄘 | 𑄘 | 𑄘 |
| ॡ | 𑄙 | 𑄙 | 𑄙 |
| अ | 𑄚 | 𑄚 | 𑄚 |
| आ | 𑄛 | 𑄛 | 𑄛 |
| इ | 𑄜 | 𑄜 | 𑄜 |
| ई | 𑄝 | 𑄝 | 𑄝 |
| उ | 𑄞 | 𑄞 | 𑄞 |
| ऊ | 𑄟 | 𑄟 | 𑄟 |
| ऋ | 𑄠 | 𑄠 | 𑄠 |
| ॠ | 𑄡 | 𑄡 | 𑄡 |
| ऌ | 𑄢 | 𑄢 | 𑄢 |
| ॡ | 𑄣 | 𑄣 | 𑄣 |
| अ | 𑄤 | 𑄤 | 𑄤 |
| आ | 𑄥 | 𑄥 | 𑄥 |
| इ | 𑄦 | 𑄦 | 𑄦 |
| ई | 𑄧 | 𑄧 | 𑄧 |
| उ | 𑄨 | 𑄨 | 𑄨 |
| ऊ | 𑄩 | 𑄩 | 𑄩 |
| ऋ | 𑄪 | 𑄪 | 𑄪 |
| ॠ | 𑄫 | 𑄫 | 𑄫 |
| ऌ | 𑄬 | 𑄬 | 𑄬 |
| ॡ | 𑄭 | 𑄭 | 𑄭 |
| अ | 𑄮 | 𑄮 | 𑄮 |
| आ | 𑄯 | 𑄯 | 𑄯 |
| इ | 𑄰 | 𑄰 | 𑄰 |
| ई | 𑄱 | 𑄱 | 𑄱 |
| उ | 𑄲 | 𑄲 | 𑄲 |
| ऊ | 𑄳 | 𑄳 | 𑄳 |
| ऋ | 𑄴 | 𑄴 | 𑄴 |
| ॠ | 𑄵 | 𑄵 | 𑄵 |
| ऌ | 𑄶 | 𑄶 | 𑄶 |
| ॡ | 𑄷 | 𑄷 | 𑄷 |
| अ | 𑄸 | 𑄸 | 𑄸 |
| आ | 𑄹 | 𑄹 | 𑄹 |
| इ | 𑄺 | 𑄺 | 𑄺 |
| ई | 𑄻 | 𑄻 | 𑄻 |
| उ | 𑄼 | 𑄼 | 𑄼 |
| ऊ | 𑄽 | 𑄽 | 𑄽 |
| ऋ | 𑄾 | 𑄾 | 𑄾 |
| ॠ | 𑄿 | 𑄿 | 𑄿 |
| ऌ | 𑅀 | 𑅀 | 𑅀 |
| ॡ | 𑅁 | 𑅁 | 𑅁 |
| अ | 𑅂 | 𑅂 | 𑅂 |
| आ | 𑅃 | 𑅃 | 𑅃 |
| इ | 𑅄 | 𑅄 | 𑅄 |
| ई | 𑅅 | 𑅅 | 𑅅 |
| उ | 𑅆 | 𑅆 | 𑅆 |
| ऊ | 𑅇 | 𑅇 | 𑅇 |
| ऋ | 𑅈 | 𑅈 | 𑅈 |
| ॠ | 𑅉 | 𑅉 | 𑅉 |
| ऌ | 𑅊 | 𑅊 | 𑅊 |
| ॡ | 𑅋 | 𑅋 | 𑅋 |
| अ | 𑅌 | 𑅌 | 𑅌 |
| आ | 𑅍 | 𑅍 | 𑅍 |
| इ | 𑅎 | 𑅎 | 𑅎 |
| ई | 𑅏 | 𑅏 | 𑅏 |
| उ | 𑅐 | 𑅐 | 𑅐 |
| ऊ | 𑅑 | 𑅑 | 𑅑 |
| ऋ | 𑅒 | 𑅒 | 𑅒 |
| ॠ | 𑅓 | 𑅓 | 𑅓 |
| ऌ | 𑅔 | 𑅔 | 𑅔 |
| ॡ | 𑅕 | 𑅕 | 𑅕 |
| अ | 𑅖 | 𑅖 | 𑅖 |
| आ | 𑅗 | 𑅗 | 𑅗 |
| इ | 𑅘 | 𑅘 | 𑅘 |
| ई | 𑅙 | 𑅙 | 𑅙 |
| उ | 𑅚 | 𑅚 | 𑅚 |
| ऊ | 𑅛 | 𑅛 | 𑅛 |
| ऋ | 𑅜 | 𑅜 | 𑅜 |
| ॠ | 𑅝 | 𑅝 | 𑅝 |
| ऌ | 𑅞 | 𑅞 | 𑅞 |
| ॡ | 𑅟 | 𑅟 | 𑅟 |
| अ | 𑅠 | 𑅠 | 𑅠 |
| आ | 𑅡 | 𑅡 | 𑅡 |
| इ | 𑅢 | 𑅢 | 𑅢 |
| ई | 𑅣 | 𑅣 | 𑅣 |
| उ | 𑅤 | 𑅤 | 𑅤 |
| ऊ | 𑅥 | 𑅥 | 𑅥 |
| ऋ | 𑅦 | 𑅦 | 𑅦 |
| ॠ | 𑅧 | 𑅧 | 𑅧 |
| ऌ | 𑅨 | 𑅨 | 𑅨 |
| ॡ | 𑅩 | 𑅩 | 𑅩 |
| अ | 𑅪 | 𑅪 | 𑅪 |
| आ | 𑅫 | 𑅫 | 𑅫 |
| इ | 𑅬 | 𑅬 | 𑅬 |
| ई | 𑅭 | 𑅭 | 𑅭 |
| उ | 𑅮 | 𑅮 | 𑅮 |
| ऊ | 𑅯 | 𑅯 | 𑅯 |
| ऋ | 𑅰 | 𑅰 | 𑅰 |
| ॠ | 𑅱 | 𑅱 | 𑅱 |
| ऌ | 𑅲 | 𑅲 | 𑅲 |
| ॡ | 𑅳 | 𑅳 | 𑅳 |
| अ | 𑅴 | 𑅴 | 𑅴 |
| आ | 𑅵 | 𑅵 | 𑅵 |
| इ | 𑅶 | 𑅶 | 𑅶 |
| ई | 𑅷 | 𑅷 | 𑅷 |
| उ | 𑅸 | 𑅸 | 𑅸 |
| ऊ | 𑅹 | 𑅹 | 𑅹 |
| ऋ | 𑅺 | 𑅺 | 𑅺 |
| ॠ | 𑅻 | 𑅻 | 𑅻 |
| ऌ | 𑅼 | 𑅼 | 𑅼 |
| ॡ | 𑅽 | 𑅽 | 𑅽 |
| अ | 𑅾 | 𑅾 | 𑅾 |
| आ | 𑅿 | 𑅿 | 𑅿 |
| इ | 𑆀 | 𑆀 | 𑆀 |
| ई | 𑆁 | 𑆁 | 𑆁 |
| उ | 𑆂 | 𑆂 | 𑆂 |
| ऊ | 𑆃 | 𑆃 | 𑆃 |
| ऋ | 𑆄 | 𑆄 | 𑆄 |
| ॠ | 𑆅 | 𑆅 | 𑆅 |
| ऌ | 𑆆 | 𑆆 | 𑆆 |
| ॡ | 𑆇 | 𑆇 | 𑆇 |
| अ | 𑆈 | 𑆈 | 𑆈 |
| आ | 𑆉 | 𑆉 | 𑆉 |
| इ | 𑆊 | 𑆊 | 𑆊 |
| ई | 𑆋 | 𑆋 | 𑆋 |
| उ | 𑆌 | 𑆌 | 𑆌 |
| ऊ | 𑆍 | 𑆍 | 𑆍 |
| ऋ | 𑆎 | 𑆎 | 𑆎 |
| ॠ | 𑆏 | 𑆏 | 𑆏 |
| ऌ | 𑆐 | 𑆐 | 𑆐 |
| ॡ | 𑆑 | | |

| नागरी | कैथी | गुजराती | मोंड़ी | बंगला | उड़िया |
|-----------------------------|------|---------|--------|-------|--------|
| अ | 𑄀 | 𑀅 | 𑄂 | 𑄂 | 𑄂 |
| आ | 𑄁 | 𑀆 | 𑄃 | 𑄃 | 𑄃 |
| क | 𑄂 | 𑀇 | 𑄄 | 𑄄 | 𑄄 |
| ख | 𑄃 | 𑀈 | 𑄅 | 𑄅 | 𑄅 |
| ग | 𑄄 | 𑀉 | 𑄆 | 𑄆 | 𑄆 |
| घ | 𑄅 | 𑀊 | 𑄇 | 𑄇 | 𑄇 |
| ङ | 𑄆 | 𑀋 | 𑄈 | 𑄈 | 𑄈 |
| च | 𑄇 | 𑀌 | 𑄉 | 𑄉 | 𑄉 |
| छ | 𑄈 | 𑀍 | 𑄊 | 𑄊 | 𑄊 |
| ज | 𑄉 | 𑀎 | 𑄋 | 𑄋 | 𑄋 |
| झ | 𑄊 | 𑀏 | 𑄌 | 𑄌 | 𑄌 |
| ञ | 𑄋 | 𑀐 | 𑄍 | 𑄍 | 𑄍 |
| ट | 𑄌 | 𑀑 | 𑄎 | 𑄎 | 𑄎 |
| ठ | 𑄍 | 𑀒 | 𑄏 | 𑄏 | 𑄏 |
| ड | 𑄎 | 𑀓 | 𑄐 | 𑄐 | 𑄐 |
| ढ | 𑄏 | 𑀔 | 𑄑 | 𑄑 | 𑄑 |
| ण | 𑄐 | 𑀕 | 𑄒 | 𑄒 | 𑄒 |
| त | 𑄑 | 𑀖 | 𑄓 | 𑄓 | 𑄓 |
| थ | 𑄒 | 𑀗 | 𑄔 | 𑄔 | 𑄔 |
| द | 𑄓 | 𑀘 | 𑄕 | 𑄕 | 𑄕 |
| ध | 𑄔 | 𑀙 | 𑄖 | 𑄖 | 𑄖 |
| न | 𑄕 | 𑀚 | 𑄗 | 𑄗 | 𑄗 |
| प | 𑄖 | 𑀛 | 𑄘 | 𑄘 | 𑄘 |
| फ | 𑄗 | 𑀜 | 𑄙 | 𑄙 | 𑄙 |
| ब | 𑄘 | 𑀝 | 𑄚 | 𑄚 | 𑄚 |
| भ | 𑄙 | 𑀞 | 𑄛 | 𑄛 | 𑄛 |
| म | 𑄚 | 𑀟 | 𑄜 | 𑄜 | 𑄜 |
| य | 𑄛 | 𑀠 | 𑄝 | 𑄝 | 𑄝 |
| र | 𑄜 | 𑀡 | 𑄞 | 𑄞 | 𑄞 |
| ल | 𑄝 | 𑀢 | 𑄟 | 𑄟 | 𑄟 |
| व | 𑄞 | 𑀣 | 𑄠 | 𑄠 | 𑄠 |
| श | 𑄟 | 𑀤 | 𑄡 | 𑄡 | 𑄡 |
| ष | 𑄠 | 𑀥 | 𑄢 | 𑄢 | 𑄢 |
| स | 𑄡 | 𑀦 | 𑄣 | 𑄣 | 𑄣 |
| ह | 𑄢 | 𑀧 | 𑄤 | 𑄤 | 𑄤 |
| ळ | 𑄣 | 𑀨 | 𑄥 | 𑄥 | 𑄥 |
| वळ | 𑄤 | 𑀩 | 𑄦 | 𑄦 | 𑄦 |
| शळ | 𑄥 | 𑀪 | 𑄧 | 𑄧 | 𑄧 |
| सळ | 𑄦 | 𑀫 | 𑄨 | 𑄨 | 𑄨 |
| हळ | 𑄧 | 𑀬 | 𑄩 | 𑄩 | 𑄩 |
| ळण | 𑄨 | 𑀭 | 𑄪 | 𑄪 | 𑄪 |
| वळण | 𑄩 | 𑀮 | 𑄫 | 𑄫 | 𑄫 |
| शळण | 𑄪 | 𑀯 | 𑄬 | 𑄬 | 𑄬 |
| सळण | 𑄫 | 𑀰 | 𑄭 | 𑄭 | 𑄭 |
| हळण | 𑄬 | 𑀱 | 𑄮 | 𑄮 | 𑄮 |
| ळणव | 𑄭 | 𑀲 | 𑄯 | 𑄯 | 𑄯 |
| वळणव | 𑄮 | 𑀳 | 𑄰 | 𑄰 | 𑄰 |
| शळणव | 𑄯 | 𑀴 | 𑄱 | 𑄱 | 𑄱 |
| सळणव | 𑄰 | 𑀵 | 𑄲 | 𑄲 | 𑄲 |
| हळणव | 𑄱 | 𑀶 | 𑄳 | 𑄳 | 𑄳 |
| ळणवण | 𑄲 | 𑀷 | 𑄴 | 𑄴 | 𑄴 |
| वळणवण | 𑄳 | 𑀸 | 𑄵 | 𑄵 | 𑄵 |
| शळणवण | 𑄴 | 𑀹 | 𑄶 | 𑄶 | 𑄶 |
| सळणवण | 𑄵 | 𑀺 | 𑄷 | 𑄷 | 𑄷 |
| हळणवण | 𑄶 | 𑀻 | 𑄸 | 𑄸 | 𑄸 |
| ळणवणव | 𑄷 | 𑀼 | 𑄹 | 𑄹 | 𑄹 |
| वळणवणव | 𑄸 | 𑀽 | 𑄺 | 𑄺 | 𑄺 |
| शळणवणव | 𑄹 | 𑀾 | 𑄻 | 𑄻 | 𑄻 |
| सळणवणव | 𑄺 | 𑀿 | 𑄼 | 𑄼 | 𑄼 |
| हळणवणव | 𑄻 | 𑁀 | 𑄽 | 𑄽 | 𑄽 |
| ळणवणवण | 𑄼 | 𑁁 | 𑄾 | 𑄾 | 𑄾 |
| वळणवणवण | 𑄽 | 𑁂 | 𑄿 | 𑄿 | 𑄿 |
| शळणवणवण | 𑄾 | 𑁃 | 𑅀 | 𑅀 | 𑅀 |
| सळणवणवण | 𑄿 | 𑁄 | 𑅁 | 𑅁 | 𑅁 |
| हळणवणवण | 𑅀 | 𑁅 | 𑅂 | 𑅂 | 𑅂 |
| ळणवणवणव | 𑅁 | 𑁆 | 𑅃 | 𑅃 | 𑅃 |
| वळणवणवणव | 𑅂 | 𑁇 | 𑅄 | 𑅄 | 𑅄 |
| शळणवणवणव | 𑅃 | 𑁈 | 𑅅 | 𑅅 | 𑅅 |
| सळणवणवणव | 𑅄 | 𑁉 | 𑅆 | 𑅆 | 𑅆 |
| हळणवणवणव | 𑅅 | 𑁊 | 𑅇 | 𑅇 | 𑅇 |
| ळणवणवणवण | 𑅆 | 𑁋 | 𑅈 | 𑅈 | 𑅈 |
| वळणवणवणवण | 𑅇 | 𑁌 | 𑅉 | 𑅉 | 𑅉 |
| शळणवणवणवण | 𑅈 | 𑁍 | 𑅊 | 𑅊 | 𑅊 |
| सळणवणवणवण | 𑅉 | 𑁎 | 𑅋 | 𑅋 | 𑅋 |
| हळणवणवणवण | 𑅊 | 𑁏 | 𑅌 | 𑅌 | 𑅌 |
| ळणवणवणवणव | 𑅋 | 𑁐 | 𑅍 | 𑅍 | 𑅍 |
| वळणवणवणवणव | 𑅌 | 𑁑 | 𑅎 | 𑅎 | 𑅎 |
| शळणवणवणवणव | 𑅍 | 𑁒 | 𑅏 | 𑅏 | 𑅏 |
| सळणवणवणवणव | 𑅎 | 𑁓 | 𑅐 | 𑅐 | 𑅐 |
| हळणवणवणवणव | 𑅏 | 𑁔 | 𑅑 | 𑅑 | 𑅑 |
| ळणवणवणवणवण | 𑅐 | 𑁕 | 𑅒 | 𑅒 | 𑅒 |
| वळणवणवणवणवण | 𑅑 | 𑁖 | 𑅓 | 𑅓 | 𑅓 |
| शळणवणवणवणवण | 𑅒 | 𑁗 | 𑅔 | 𑅔 | 𑅔 |
| सळणवणवणवणवण | 𑅓 | 𑁘 | 𑅕 | 𑅕 | 𑅕 |
| हळणवणवणवणवण | 𑅔 | 𑁙 | 𑅖 | 𑅖 | 𑅖 |
| ळणवणवणवणवणव | 𑅕 | 𑁚 | 𑅗 | 𑅗 | 𑅗 |
| वळणवणवणवणवणव | 𑅖 | 𑁛 | 𑅘 | 𑅘 | 𑅘 |
| शळणवणवणवणवणव | 𑅗 | 𑁜 | 𑅙 | 𑅙 | 𑅙 |
| सळणवणवणवणवणव | 𑅘 | 𑁝 | 𑅚 | 𑅚 | 𑅚 |
| हळणवणवणवणवणव | 𑅙 | 𑁞 | 𑅛 | 𑅛 | 𑅛 |
| ळणवणवणवणवणवण | 𑅚 | 𑁟 | 𑅜 | 𑅜 | 𑅜 |
| वळणवणवणवणवणवण | 𑅛 | 𑁠 | 𑅝 | 𑅝 | 𑅝 |
| शळणवणवणवणवणवण | 𑅜 | 𑁡 | 𑅞 | 𑅞 | 𑅞 |
| सळणवणवणवणवणवण | 𑅝 | 𑁢 | 𑅟 | 𑅟 | 𑅟 |
| हळणवणवणवणवणवण | 𑅞 | 𑁣 | 𑅠 | 𑅠 | 𑅠 |
| ळणवणवणवणवणवणव | 𑅟 | 𑁤 | 𑅡 | 𑅡 | 𑅡 |
| वळणवणवणवणवणवणव | 𑅠 | 𑁥 | 𑅢 | 𑅢 | 𑅢 |
| शळणवणवणवणवणवणव | 𑅡 | 𑁦 | 𑅣 | 𑅣 | 𑅣 |
| सळणवणवणवणवणवणव | 𑅢 | 𑁧 | 𑅤 | 𑅤 | 𑅤 |
| हळणवणवणवणवणवणव | 𑅣 | 𑁨 | 𑅥 | 𑅥 | 𑅥 |
| ळणवणवणवणवणवणवण | 𑅤 | 𑁩 | 𑅦 | 𑅦 | 𑅦 |
| वळणवणवणवणवणवणवण | 𑅥 | 𑁪 | 𑅧 | 𑅧 | 𑅧 |
| शळणवणवणवणवणवणवण | 𑅦 | 𑁫 | 𑅨 | 𑅨 | 𑅨 |
| सळणवणवणवणवणवणवण | 𑅧 | 𑁬 | 𑅩 | 𑅩 | 𑅩 |
| हळणवणवणवणवणवणवण | 𑅨 | 𑁭 | 𑅪 | 𑅪 | 𑅪 |
| ळणवणवणवणवणवणवणव | 𑅩 | 𑁮 | 𑅫 | 𑅫 | 𑅫 |
| वळणवणवणवणवणवणवणव | 𑅪 | 𑁯 | 𑅬 | 𑅬 | 𑅬 |
| शळणवणवणवणवणवणवणव | 𑅫 | 𑁰 | 𑅭 | 𑅭 | 𑅭 |
| सळणवणवणवणवणवणवणव | 𑅬 | 𑁱 | 𑅮 | 𑅮 | 𑅮 |
| हळणवणवणवणवणवणवणव | 𑅭 | 𑁲 | 𑅯 | 𑅯 | 𑅯 |
| ळणवणवणवणवणवणवणवण | 𑅮 | 𑁳 | 𑅰 | 𑅰 | 𑅰 |
| वळणवणवणवणवणवणवणवण | 𑅯 | 𑁴 | 𑅱 | 𑅱 | 𑅱 |
| शळणवणवणवणवणवणवणवण | 𑅰 | 𑁵 | 𑅲 | 𑅲 | 𑅲 |
| सळणवणवणवणवणवणवणवण | 𑅱 | 𑁶 | 𑅳 | 𑅳 | 𑅳 |
| हळणवणवणवणवणवणवणवण | 𑅲 | 𑁷 | 𑅴 | 𑅴 | 𑅴 |
| ळणवणवणवणवणवणवणवणव | 𑅳 | 𑁸 | 𑅵 | 𑅵 | 𑅵 |
| वळणवणवणवणवणवणवणवणव | 𑅴 | 𑁹 | 𑅶 | 𑅶 | 𑅶 |
| शळणवणवणवणवणवणवणवणव | 𑅵 | 𑁺 | 𑅷 | 𑅷 | 𑅷 |
| सळणवणवणवणवणवणवणवणव | 𑅶 | 𑁻 | 𑅸 | 𑅸 | 𑅸 |
| हळणवणवणवणवणवणवणवणव | 𑅷 | 𑁼 | 𑅹 | 𑅹 | 𑅹 |
| ळणवणवणवणवणवणवणवणवण | 𑅸 | 𑁽 | 𑅺 | 𑅺 | 𑅺 |
| वळणवणवणवणवणवणवणवणवण | 𑅹 | 𑁾 | 𑅻 | 𑅻 | 𑅻 |
| शळणवणवणवणवणवणवणवणवण | 𑅺 | 𑁿 | 𑅼 | 𑅼 | 𑅼 |
| सळणवणवणवणवणवणवणवणवण | 𑅻 | 𑂀 | 𑅽 | 𑅽 | 𑅽 |
| हळणवणवणवणवणवणवणवणवण | 𑅼 | 𑂁 | 𑅾 | 𑅾 | 𑅾 |
| ळणवणवणवणवणवणवणवणवणव | 𑅽 | 𑂂 | 𑅿 | 𑅿 | 𑅿 |
| वळणवणवणवणवणवणवणवणवणव | 𑅾 | 𑂃 | 𑆀 | 𑆀 | 𑆀 |
| शळणवणवणवणवणवणवणवणवणव | 𑅿 | 𑂄 | 𑆁 | 𑆁 | 𑆁 |
| सळणवणवणवणवणवणवणवणवणव | 𑆀 | 𑂅 | 𑆂 | 𑆂 | 𑆂 |
| हळणवणवणवणवणवणवणवणवणव | 𑆁 | 𑂆 | 𑆃 | 𑆃 | 𑆃 |
| ळणवणवणवणवणवणवणवणवणवण | 𑆂 | 𑂇 | 𑆄 | 𑆄 | 𑆄 |
| वळणवणवणवणवणवणवणवणवणवण | 𑆃 | 𑂈 | 𑆅 | 𑆅 | 𑆅 |
| शळणवणवणवणवणवणवणवणवणवण | 𑆄 | 𑂉 | 𑆆 | 𑆆 | 𑆆 |
| सळणवणवणवणवणवणवणवणवणवण | 𑆅 | 𑂊 | 𑆇 | 𑆇 | 𑆇 |
| हळणवणवणवणवणवणवणवणवणवण | 𑆆 | 𑂋 | 𑆈 | 𑆈 | 𑆈 |
| ळणवणवणवणवणवणवणवणवणवणव | 𑆇 | 𑂌 | 𑆉 | 𑆉 | 𑆉 |
| वळणवणवणवणवणवणवणवणवणवणव | 𑆈 | 𑂍 | 𑆊 | 𑆊 | 𑆊 |
| शळणवणवणवणवणवणवणवणवणवणव | 𑆉 | 𑂎 | 𑆋 | 𑆋 | 𑆋 |
| सळणवणवणवणवणवणवणवणवणवणव | 𑆊 | 𑂏 | 𑆌 | 𑆌 | 𑆌 |
| हळणवणवणवणवणवणवणवणवणवणव | 𑆋 | 𑂐 | 𑆍 | 𑆍 | 𑆍 |
| ळणवणवणवणवणवणवणवणवणवणवण | 𑆌 | 𑂑 | 𑆎 | 𑆎 | 𑆎 |
| वळणवणवणवणवणवणवणवणवणवणवण | 𑆍 | 𑂒 | 𑆏 | 𑆏 | 𑆏 |
| शळणवणवणवणवणवणवणवणवणवणवण | 𑆎 | 𑂓 | 𑆐 | 𑆐 | 𑆐 |
| सळणवणवणवणवणवणवणवणवणवणवण | 𑆏 | 𑂔 | 𑆑 | 𑆑 | 𑆑 |
| हळणवणवणवणवणवणवणवणवणवणवण | 𑆐 | 𑂕 | 𑆒 | 𑆒 | 𑆒 |
| ळणवणवणवणवणवणवणवणवणवणवणव | 𑆑 | 𑂖 | 𑆓 | 𑆓 | 𑆓 |
| वळणवणवणवणवणवणवणवणवणवणवणव | 𑆒 | 𑂗 | 𑆔 | 𑆔 | 𑆔 |
| शळणवणवणवणवणवणवणवणवणवणवणव | 𑆓 | 𑂘 | 𑆕 | 𑆕 | 𑆕 |
| सळणवणवणवणवणवणवणवणवणवणवणव | 𑆔 | 𑂙 | 𑆖 | 𑆖 | 𑆖 |
| हळणवणवणवणवणवणवणवणवणवणवणव | 𑆕 | 𑂚 | 𑆗 | 𑆗 | 𑆗 |
| ळणवणवणवणवणवणवणवणवणवणवणवण | 𑆖 | 𑂛 | 𑆘 | 𑆘 | 𑆘 |
| वळणवणवणवणवणवणवणवणवणवणवणवण | 𑆗 | 𑂜 | 𑆙 | 𑆙 | 𑆙 |
| शळणवणवणवणवणवणवणवणवणवणवणवण | 𑆘 | 𑂝 | 𑆚 | 𑆚 | 𑆚 |
| सळणवणवणवणवणवणवणवणवणवणवणवण | 𑆙 | 𑂞 | 𑆛 | 𑆛 | 𑆛 |
| हळणवणवणवणवणवणवणवणवणवणवणवण | 𑆚 | 𑂟 | 𑆜 | 𑆜 | 𑆜 |
| ळणवणवणवणवणवणवणवणवणवणवणवणव | 𑆛 | 𑂠 | 𑆝 | 𑆝 | 𑆝 |
| वळणवणवणवणवणवणवणवणवणवणवणवणव | 𑆜 | 𑂡 | 𑆞 | 𑆞 | 𑆞 |
| शळणवणवणवणवणवणवणवणवणवणवणवणव | 𑆝 | 𑂢 | 𑆟 | 𑆟 | 𑆟 |
| सळणवणवणवणवणवणवणवणवणवणवणवणव | 𑆞 | 𑂣 | 𑆠 | 𑆠 | 𑆠 |
| हळणवणवणवणवणवणवणवणवणवणवणवणव | 𑆟 | 𑂤 | 𑆡 | 𑆡 | 𑆡 |
| ळणवणवणवणवणवणवणवणवणवणवणवणवण | 𑆠 | 𑂥 | 𑆢 | 𑆢 | 𑆢 |
| वळणवणवणवणवणवणवणवणवणवणवणवणवण | 𑆡 | 𑂦 | 𑆣 | 𑆣 | 𑆣 |
| शळणवणवणवणवणवणवणवणवणवणवणवणवण | 𑆢 | 𑂧 | 𑆤 | 𑆤 | 𑆤 |
| सळणवणवणवणवणवणवणवणवणवणवणवणवण | 𑆣 | 𑂨 | 𑆥</ | | |

| Devanagari | Grantha | Kaithi | Maithili | Tulu | Sarada | Takari | Gurumukhi |
|------------|---------|--------|----------|------|--------|--------|-----------|
| अ | 𑌂 | 𑌒 | 𑌒 | 𑌒 | 𑌒 | 𑌒 | 𑌒 |
| आ | 𑌃 | 𑌓 | 𑌓 | 𑌓 | 𑌓 | 𑌓 | 𑌓 |
| इ | 𑌄 | 𑌔 | 𑌔 | 𑌔 | 𑌔 | 𑌔 | 𑌔 |
| ई | 𑌅 | 𑌕 | 𑌕 | 𑌕 | 𑌕 | 𑌕 | 𑌕 |
| उ | 𑌆 | 𑌖 | 𑌖 | 𑌖 | 𑌖 | 𑌖 | 𑌖 |
| ऊ | 𑌇 | 𑌗 | 𑌗 | 𑌗 | 𑌗 | 𑌗 | 𑌗 |
| ऋ | 𑌈 | 𑌘 | 𑌘 | 𑌘 | 𑌘 | 𑌘 | 𑌘 |
| ॠ | 𑌉 | 𑌙 | 𑌙 | 𑌙 | 𑌙 | 𑌙 | 𑌙 |
| ऌ | 𑌊 | 𑌚 | 𑌚 | 𑌚 | 𑌚 | 𑌚 | 𑌚 |
| ॡ | 𑌋 | 𑌛 | 𑌛 | 𑌛 | 𑌛 | 𑌛 | 𑌛 |
| ए | 𑌌 | 𑌜 | 𑌜 | 𑌜 | 𑌜 | 𑌜 | 𑌜 |
| ऐ | 𑌍 | 𑌝 | 𑌝 | 𑌝 | 𑌝 | 𑌝 | 𑌝 |
| ओ | 𑌎 | 𑌞 | 𑌞 | 𑌞 | 𑌞 | 𑌞 | 𑌞 |
| औ | 𑌏 | 𑌟 | 𑌟 | 𑌟 | 𑌟 | 𑌟 | 𑌟 |
| अः | 𑌐 | 𑌠 | 𑌠 | 𑌠 | 𑌠 | 𑌠 | 𑌠 |
| क | 𑌑 | 𑌡 | 𑌡 | 𑌡 | 𑌡 | 𑌡 | 𑌡 |
| ख | 𑌒 | 𑌢 | 𑌢 | 𑌢 | 𑌢 | 𑌢 | 𑌢 |
| ग | 𑌓 | 𑌣 | 𑌣 | 𑌣 | 𑌣 | 𑌣 | 𑌣 |
| घ | 𑌔 | 𑌤 | 𑌤 | 𑌤 | 𑌤 | 𑌤 | 𑌤 |
| ङ | 𑌕 | 𑌥 | 𑌥 | 𑌥 | 𑌥 | 𑌥 | 𑌥 |
| च | 𑌖 | 𑌦 | 𑌦 | 𑌦 | 𑌦 | 𑌦 | 𑌦 |
| छ | 𑌗 | 𑌧 | 𑌧 | 𑌧 | 𑌧 | 𑌧 | 𑌧 |
| ज | 𑌘 | 𑌨 | 𑌨 | 𑌨 | 𑌨 | 𑌨 | 𑌨 |
| झ | 𑌙 | 𑌩 | 𑌩 | 𑌩 | 𑌩 | 𑌩 | 𑌩 |
| ञ | 𑌚 | 𑌪 | 𑌪 | 𑌪 | 𑌪 | 𑌪 | 𑌪 |

| Devanagari | Grantha | Kaithi | Maithili | Tulu | Sarada | Takari | Gurumukhi |
|------------|---------|--------|----------|------|--------|--------|-----------|
| ब | 𑌛 | 𑌫 | 𑌫 | 𑌫 | 𑌫 | 𑌫 | 𑌫 |
| भ | 𑌜 | 𑌬 | 𑌬 | 𑌬 | 𑌬 | 𑌬 | 𑌬 |
| ष | 𑌝 | 𑌭 | 𑌭 | 𑌭 | 𑌭 | 𑌭 | 𑌭 |
| म | 𑌞 | 𑌮 | 𑌮 | 𑌮 | 𑌮 | 𑌮 | 𑌮 |
| य | 𑌟 | 𑌯 | 𑌯 | 𑌯 | 𑌯 | 𑌯 | 𑌯 |
| र | 𑌠 | 𑌰 | 𑌰 | 𑌰 | 𑌰 | 𑌰 | 𑌰 |
| ल | 𑌡 | 𑌱 | 𑌱 | 𑌱 | 𑌱 | 𑌱 | 𑌱 |
| व | 𑌢 | 𑌲 | 𑌲 | 𑌲 | 𑌲 | 𑌲 | 𑌲 |
| श | 𑌣 | 𑌳 | 𑌳 | 𑌳 | 𑌳 | 𑌳 | 𑌳 |
| ष | 𑌤 | 𑌴 | 𑌴 | 𑌴 | 𑌴 | 𑌴 | 𑌴 |
| स | 𑌥 | 𑌵 | 𑌵 | 𑌵 | 𑌵 | 𑌵 | 𑌵 |
| ह | 𑌦 | 𑌶 | 𑌶 | 𑌶 | 𑌶 | 𑌶 | 𑌶 |
| ख | 𑌧 | 𑌷 | 𑌷 | 𑌷 | 𑌷 | 𑌷 | 𑌷 |
| ग | 𑌨 | 𑌸 | 𑌸 | 𑌸 | 𑌸 | 𑌸 | 𑌸 |

| Devanagari | Grantha | Kaithi | Maithili | Tulu | Sarada | Takari | Gurumukhi |
|------------|---------|--------|----------|------|--------|--------|-----------|
| ङ | 𑌩 | 𑌷 | 𑌷 | 𑌷 | 𑌷 | 𑌷 | 𑌷 |
| फ | 𑌪 | 𑌸 | 𑌸 | 𑌸 | 𑌸 | 𑌸 | 𑌸 |
| क | 𑌫 | 𑌹 | 𑌹 | 𑌹 | 𑌹 | 𑌹 | 𑌹 |
| ख | 𑌬 | 𑌺 | 𑌺 | 𑌺 | 𑌺 | 𑌺 | 𑌺 |
| ग | 𑌭 | 𑌻 | 𑌻 | 𑌻 | 𑌻 | 𑌻 | 𑌻 |
| घ | 𑌮 | 𑌼 | 𑌼 | 𑌼 | 𑌼 | 𑌼 | 𑌼 |
| ङ | 𑌯 | 𑌽 | 𑌽 | 𑌽 | 𑌽 | 𑌽 | 𑌽 |
| च | 𑌰 | 𑌾 | 𑌾 | 𑌾 | 𑌾 | 𑌾 | 𑌾 |
| छ | 𑌱 | 𑌿 | 𑌿 | 𑌿 | 𑌿 | 𑌿 | 𑌿 |
| ज | 𑌲 | 𑍀 | 𑍀 | 𑍀 | 𑍀 | 𑍀 | 𑍀 |
| झ | 𑌳 | 𑍁 | 𑍁 | 𑍁 | 𑍁 | 𑍁 | 𑍁 |
| ञ | 𑌴 | 𑍂 | 𑍂 | 𑍂 | 𑍂 | 𑍂 | 𑍂 |
| ट | 𑌵 | 𑍃 | 𑍃 | 𑍃 | 𑍃 | 𑍃 | 𑍃 |
| ठ | 𑌶 | 𑍄 | 𑍄 | 𑍄 | 𑍄 | 𑍄 | 𑍄 |
| ड | 𑌷 | 𑍅 | 𑍅 | 𑍅 | 𑍅 | 𑍅 | 𑍅 |
| ढ | 𑌸 | 𑍆 | 𑍆 | 𑍆 | 𑍆 | 𑍆 | 𑍆 |
| ण | 𑌹 | 𑍇 | 𑍇 | 𑍇 | 𑍇 | 𑍇 | 𑍇 |
| त | 𑌺 | 𑍈 | 𑍈 | 𑍈 | 𑍈 | 𑍈 | 𑍈 |
| थ | 𑌻 | 𑍉 | 𑍉 | 𑍉 | 𑍉 | 𑍉 | 𑍉 |
| द | 𑌼 | 𑍊 | 𑍊 | 𑍊 | 𑍊 | 𑍊 | 𑍊 |
| ध | 𑌽 | 𑍋 | 𑍋 | 𑍋 | 𑍋 | 𑍋 | 𑍋 |
| न | 𑌾 | 𑍌 | 𑍌 | 𑍌 | 𑍌 | 𑍌 | 𑍌 |
| प | 𑌿 | 𑍍 | 𑍍 | 𑍍 | 𑍍 | 𑍍 | 𑍍 |
| फ | 𑍀 | 𑍎 | 𑍎 | 𑍎 | 𑍎 | 𑍎 | 𑍎 |
| ब | 𑍁 | 𑍏 | 𑍏 | 𑍏 | 𑍏 | 𑍏 | 𑍏 |
| भ | 𑍂 | 𑍐 | 𑍐 | 𑍐 | 𑍐 | 𑍐 | 𑍐 |
| म | 𑍃 | 𑍑 | 𑍑 | 𑍑 | 𑍑 | 𑍑 | 𑍑 |
| य | 𑍄 | 𑍒 | 𑍒 | 𑍒 | 𑍒 | 𑍒 | 𑍒 |
| र | 𑍅 | 𑍓 | 𑍓 | 𑍓 | 𑍓 | 𑍓 | 𑍓 |
| ल | 𑍆 | 𑍔 | 𑍔 | 𑍔 | 𑍔 | 𑍔 | 𑍔 |
| व | 𑍇 | 𑍕 | 𑍕 | 𑍕 | 𑍕 | 𑍕 | 𑍕 |
| श | 𑍈 | 𑍖 | 𑍖 | 𑍖 | 𑍖 | 𑍖 | 𑍖 |
| ष | 𑍉 | 𑍗 | 𑍗 | 𑍗 | 𑍗 | 𑍗 | 𑍗 |
| स | 𑍊 | 𑍘 | 𑍘 | 𑍘 | 𑍘 | 𑍘 | 𑍘 |
| ह | 𑍋 | 𑍙 | 𑍙 | 𑍙 | 𑍙 | 𑍙 | 𑍙 |
| ख | 𑍌 | 𑍚 | 𑍚 | 𑍚 | 𑍚 | 𑍚 | 𑍚 |
| ग | 𑍍 | 𑍛 | 𑍛 | 𑍛 | 𑍛 | 𑍛 | 𑍛 |

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

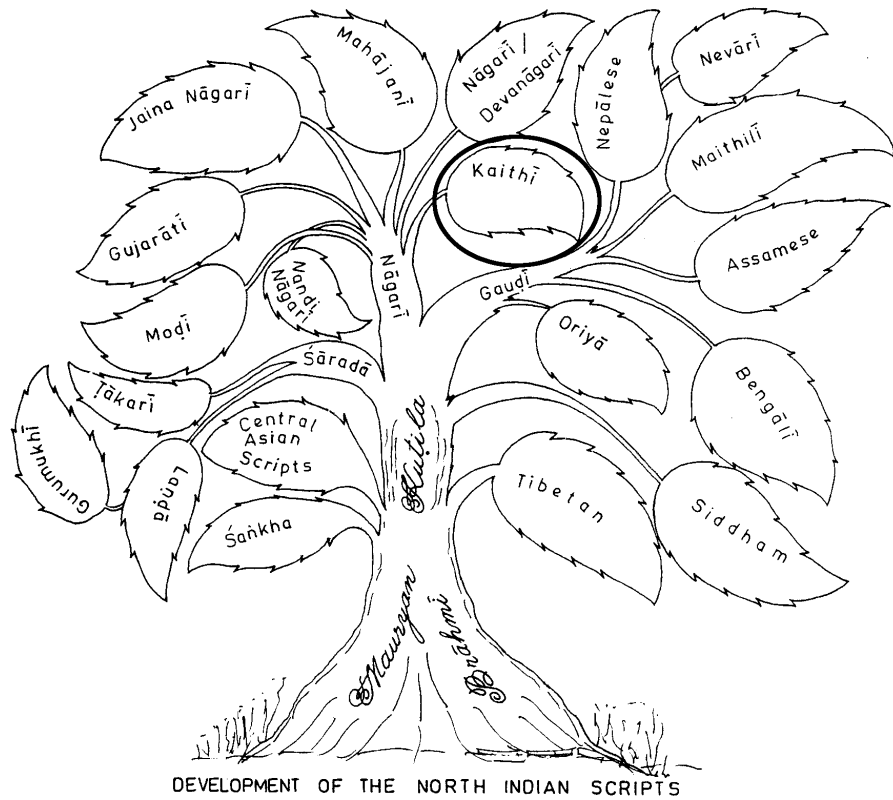


Figure 43: A family tree of north Indic scripts showing Kaithi as a member of the Nagari family (from Singh, 1991: 16).

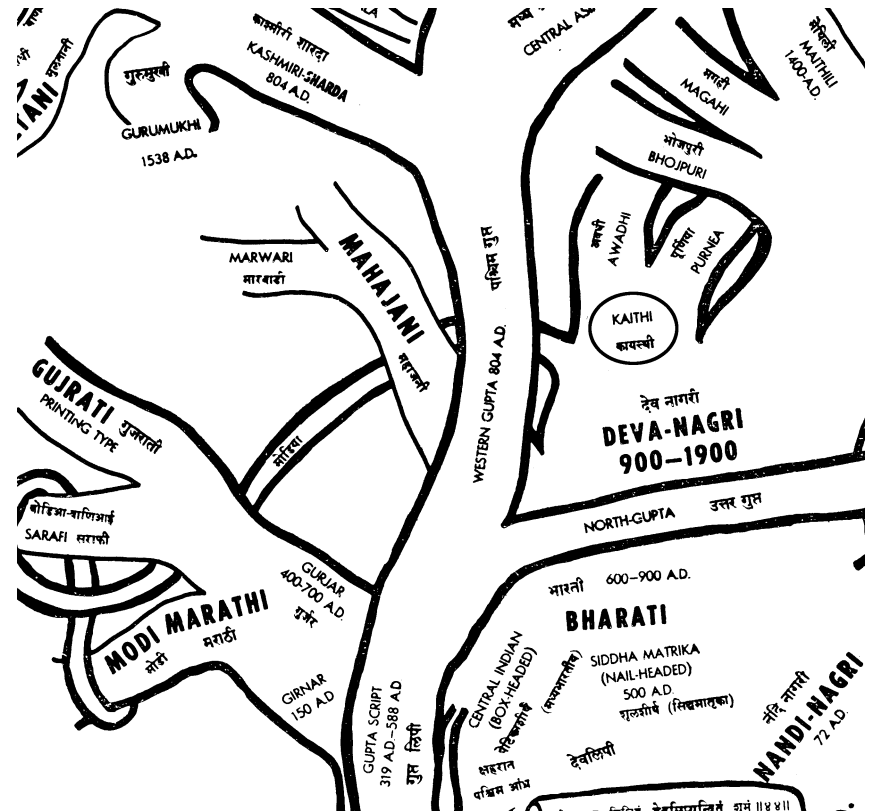


Figure 44: The relationship of Kaithi to other Indic scripts (from Naik, 1971: Plate 36).