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

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# May 21, 2007

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# ISO/IEC JTC 1/SC 2/WG 2 PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646<sup>1</sup>

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

#### A. Administrative

- 1. Title: Proposal to Encode the Kaithi Script in Plane 1 of ISO/IEC 10646
- 2. Requester's name: 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: May 21, 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: 73
- 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 font contains normalized forms of letters found in hand-written and printed Kaithi documents. It was drawn 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.

<sup>&</sup>lt;sup>1</sup> 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?: **No**
- 2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)? **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. Other contexts discussed at length in the text of the proposal).
- 5. Are the proposed characters in current use by the user community?: Yes, by scholars working in fields enumerated above. It is difficult to verify whether the script is presently in active use in India.
  - (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). It is a revision of draft proposal L2/05-343 submitted to the Unicode Technical Committee on October 25, 2005. This revision incorporates some recommendations made by Michael Everson in L2/05-368 upon a review of L2/05-343. The major changes include the addition of new letters; the removal of *daṇḍās*; the removal of fraction and accounting signs, which now appear in a separate proposal for "North Indian Accounting Signs" (L2/07-139); and the inclusion of additional specimens that further demonstrate the significance of Kaithi and its status as an independent, unique writing system.

## 1.1 Significance of the Script

Kaithi is a major historical script that was used throughout the British Indian provinces of Bihar and the North-Western Provinces & Oudh (hereafter, NWP&O); the region, roughly, of present-day Bihar and Uttar Pradesh. The script was used for writing Bhojpuri, Magahi, Urdu, and varieties of Hindi throughout the region. Kaithi was the common script of these languages until the early 20th century, at which time it was gradually replaced by Devanagari.

Kaithi is a historically significant and independent writing system that possessed a distinct scribal tradition and a print tradition based upon standardized metal fonts. It's importance in north Indian society can be measured by the activities for which it was employed and by the substantial number of materials written and printed in the script. Owing to its popularity, Kaithi was accorded status as the official script of the Government of Bihar in 1880. Official recognition contributed to the growth of the administrative and cultural importance of Kaithi. As the official script of Bihar, Kaithi was used in courts of law, where it replaced the Devanagari and Perso-Arabic scripts for writing both the formal Urdu of the courts and the local languages of the region. Also, on account of its use by large segments of the population, the governments of Bihar and NWP&O selected Kaithi as the medium of written instruction in the schools. The standardization of Kaithi by the British led to the development of printing in the script. The British produced Kaithi metal fonts, which were used for government documents and for printing textbooks. Printing in Kaithi was propagated by Western missionaries, who recognized Kaithi's popularity and developed metal fonts for the script in order to print translations of Christian literature in regional north Indian languages.

Although primarily regarded as a secular script, Kaithi spread beyond use in administration, law, and education

came to be used as a medium for writing religious and literary texts;

Kaithi was one of several scripts used throughout north India. As such, it appears in religious and lmanuscripts, commercial records, and other documents alongside Devanagari and other major scripts.

Its distinctiveness is evident from its use alongside several scripts, including Devanagari, in religious and literary manuscripts, commercial records, and court documents.

Beyond its administrative and commercial uses, Kaithi was used for informal correspondence and for the keeping of personal records. It was exported to the Caribbean, Africa, and other regions by north Indian diaspora communities and was maintained in these areas by their descendants.

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<sup>&</sup>lt;sup>1</sup> Pandey, 2007.

## 1.2 Justification for Encoding

An encoding for Kaithi in the UCS is necessary for users engaged in the preservation, representation, and reproduction of written and printed Kaithi documents in digital media.

An encoding for Kaithi will provide users with the means to identify, represent, and process the script in electronic plain-text, not merely at the graphical presentation level. This is necessary for distinguishing between multiple scripts in single documents.

An encoding for Kaithi will also benefit non-specialist users seeking to access and preserve personal records written 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 documents written in it.

to support active research on Kaithi documents and efforts to preserve Kaithi manuscripts. Kaithi is used by specialists working with source materials in the regional languages of Uttar Pradesh and Bihar.

## 1.3 Acknowledgments

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

Digital reproductions of folios from a manuscript of the *Mahāgaṇapatistotra* (shown in Figure 18 and Figure 19) are used here with permission from the University of Pennsylvania Libraries.

A digital reproduction of a folio from a manuscript of the *Tale of Sudama* (shown in Figure 28) is used here with permission from Sam Fogg, London.

# 2 Characters Proposed

The 73 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:

H	KAITHI LETTER KA	S	KAITHI LETTER DDA	વ	KAITHI LETTER BA
ખ	KAITHI LETTER KHA	Ģ	KAITHI LETTER DDDHA	প	KAITHI LETTER BHA
71	KAITHI LETTER GA	ઢ	KAITHI LETTER DDHA	৸	KAITHI LETTER MA
ઘ	KAITHI LETTER GHA	Ġ	KAITHI LETTER RHA	ય	KAITHI LETTER YA
B	KAITHI LETTER NGA	Ж	KAITHI LETTER NNA	1	KAITHI LETTER RA
ય	KAITHI LETTER CA	1	KAITHI LETTER TA	9	KAITHI LETTER LA
छ	KAITHI LETTER CHA	થ	KAITHI LETTER THA	વ઼	KAITHI LETTER VA
$\mathcal{M}$	KAITHI LETTER JA	3	KAITHI LETTER DA	શ	KAITHI LETTER SHA
Æ	KAITHI LETTER JHA	ધ	KAITHI LETTER DHA	Ŋ	KAITHI LETTER SSA
બ	KAITHI LETTER NYA	গ	KAITHI LETTER NA	સ	KAITHI LETTER SA
ડ	KAITHI LETTER TTA	Ч	KAITHI LETTER PA	ε	KAITHI LETTER HA
S	KAITHI LETTER TTHA	શ	KAITHI LETTER PHA		

**Vowels** There are 10 independent vowels:

શ્ર	KAITHI LETTER A	$\mathcal{E}$	KAITHI LETTER U	શ્રો	KAITHI LETTER O
શ્રા	KAITHI LETTER AA	3,	KAITHI LETTER UU	શ્રૌ	KAITHI LETTER AU
২	KAITHI LETTER I	у	KAITHI LETTER E		
Ę	KAITHI LETTER II	б	KAITHI LETTER AI		

**Vowel Signs** There are 9 dependent vowel signs:

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

**Special Signs** There are 5 special signs:

ំ	KAITHI SIGN CANDRABINDU	ः	KAITHI SIGN VISARGA	়	KAITHI SIGN NUKTA
்	KAITHI SIGN ANUSVARA	$\circ$	KAITHI SIGN VIRAMA		

**Digits** There are 10 digits:

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

**Punctuation** There are 4 punctuation marks:

KAITHI WORD SEPARATOR
 KAITHI ABBREVIATION SIGN
 KAITHI SENTENCE SEPARATOR
 KAITHI ENUMERATION SIGN

## 2.1 Characters Not Proposed

The following characters are attested in printed and written Kaithi materials, but are not proposed for inclusion at the present because there is insufficient information regard the character and its properties; the possibility of representing a character with another of similar or equal function; or a policy recommendation made by the Unicode Technical Committee. Space has been reserved in the Kaithi block to accommodate the possible inclusion of these characters in the future.

**VOCALIC R** The vowel sign  $\circ$  for the Kaithi equivalent of  $\rightarrow$  U+090B DEVANAGARI LETTER VOCALIC R (r) is shown in Figure 33 as a consonant-vowel ligature ( $\circ$ ) with KAITHI LETTER KA. The letter for this vowel is quite rare in Kaithi. Instead, the consonant-vowel combination  $\uparrow$  ri (KAITHI LETTER RA + KAITHI VOWEL SIGN II is used to transcribe the Sanskrit sound as it is pronounced in regional languages. The example given in Figure 33 is the only instance of this letter (as a vowel sign) found by the present author in the specimens examined. The independent letter for a Kaithi ri has not been identified. There is, therefore, insufficient evidence to propose this character for inclusion in the Kaithi block.

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 general thought is that introducing script-specific dandās is similar to introducing distinct punctuation, as as commas and periods, for each script. For Kaithi, as for other scripts, the claim may be made that script-specific dandās are necessary in order to ensure stylistic compatibility between dandās and other characters. However, the Unicode Technical Committee has determined that unless evidence is presented to warrant the encoding of script-specific dandās, the unification of these characters with those of Devanagari remains the recommendation. Although several specimens in the present proposal show distinctive Kaithi dandās, they are not typologically different enough to justify a disunification with Devanagari dandās. See section 5.11 for a detailed discussion of dandās in Kaithi.

## 2.2 Basis for Character Shapes

The Kaithi script proposed here for encoding in the UCS is the Standard Kaithi developed and promoted by the British governments of Bihar and the NWP&O in the 19th century. The proposed script is an extension of Standard Kaithi, which includes letters not commonly found in written and printed documents, but that are considered traditional letters as attested in charts and other character inventories of the script. These rare letters are KAITHI LETTER NGA, KAITHI LETTER NYA, KAITHI LETTER NNA, and KAITHI LETTER SSA (see Figure 38 and Figure 39).

The letterforms of the Kaithi script proposed here are primarily normalized forms of the Kaithi metal fonts used in the *Linguistic Survey of India*, while the rarer letters absent from the former fonts are derived from those found in fonts of the Baptist Mission Press and in various charts illustrating the characters and other features of Kaithi. Digits and punctuation are derived from forms found in manuscripts and script charts.

The font for the proposed Kaithi script was drawn by Anshuman Pandey. The digitized letterforms were designed to express fidelity to the forms of Standard Kaithi found in the *Linguistic Survey of India*. The Kaithi font used to print speciments in the *Linguistic Survey of India* were most likely based on the Standard Kaithi of Bihar. Further discussion of Kaithi typefaces and regional variants is discussed in section 6.

The Standard Kaithi served as the basis for at least two sets of metal fonts. Both of these fonts were used by George A. Grierson for printing Kaithi in the *Linguistic Survey of India*. Other metal fonts exist, but their letterforms suggest influences drawn from other scripts. One of these is the metal font developed by the Baptist Mission Press of Calcutta. Table 3 compares letters from the two Kaithi fonts in the *Linguistic Survey of India* and the font of the Baptist Mission Press with the digitized font. The hand-written forms of the rare letters below serve as the basis for their counterparts in the proposed script.

	TIRHUTI	BHOJPURI	MAGAHI
KAITHI LETTER NGA	T	ઉ	<b>T</b>
KAITHI LETTER NYA	K	٤	3,
KAITHI LETTER NNA	स	₹#	111

	1108	1109	110A	110B	110C
0	৽	æ	w	$\widetilde{}$	0
1	•	3	æ	$\mathcal{C}$	ص
2	ः	ব	ত	্	B
3	क्र	$\boldsymbol{\varnothing}$	7	ं 9	m
4	क्र	5	<i>æ</i> 9	ं	>>
5	×	M	व	$\sim$	7
6	w	7	रू	<b></b>	w
7	$\boldsymbol{\mathscr{Y}}$	<b>√</b>	$\boldsymbol{x}$	ি	9
8	5	S	ফ	্	IJ
9	ע	<b>y</b>	7	्र	40
Α	$\sim$	<b>ઝ</b> .	Ø	ः	
В	શ્રી	જ	વ		
С	श्च	<b>.</b> €	ऋ	1	
D	H	Ж	Ø	=	
E	च	<b>C</b>	સ	0	
F	<b>3</b> [	ચ	E	ૄ	

Table 1: Glyph chart for Kaithi

```
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; ; ; ; ; ; ; ; 110C1; KAITHI DIGIT ONE; Nd; 0; L; ; 1; 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; KATTHI LETTER T; Lo; 0; L; ; ; ; ; N; ; ; ;
                                                          110C5; KATTHI 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; ; ; ;
                                                          110C7; KAITHI DIGIT SEVEN; Nd; 0; L; ; 7; 7; 7; N; ; ; ;
11087; KAITHI LETTER U; Lo; 0; L;;;;; 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; ; ; ; ; ; ; ; ;
                                                          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; ; ; ; ; ; ; ; ;
                                                          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;;;; iN;;;;
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; ; ; ; ; ; ; ; ;
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; KATTHI 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; < reserved >
110BC; KAITHI WORD SEPARATOR; Po; 0; L; ; ; ; ; N; ; ; ;
110BD; KAITHI SENTENCE SEPARATOR; Po; 0; L;;;;; N;;;;;
110BE; KAITHI ABBREVIATION SIGN; Po; 0; L;;;;; N;;;;;
110BF; KAITHI ENUMERATION SIGN; Po; 0; L;;;;; N;;;;;
```

Table 2: Character Names and Properties

#### CONSONANTS

	A	В	C	D		A	В	C	D		A	В	C	D
ka	श	4	य	h	ḍа	હ	હ	3	S	ba	વ	વ	व	વ
kha	щ	ષ	प्प	ખ	ŗa		ড়	ड़	Ģ	bha	જા	n	ন্ন	প
ga	ગ	<b>3</b> J	স	91	ḍhа	ઢ	ઢ	ट	ઢ	та	n	મ	म	৸
gha	ધ	ઘ	घ	ઘ	ŗha		Ġ	ह	Ġ	ya	ય	ય	य	યુ
'nа	_	_	_	B	ņа		_	प्स	Ж	ra	1	4	ব	1
ca	ય	ય	य	ય	ta	a	Ŋ	त	(	la	8	9	ব	9
cha	ઇ	ક્ષ	छ	छ	tha	થ	થ	थ	થ	va	4	લ્	व	વ઼
ja	Ŋ	M	ত্ত	M	da	٤	ξ	E	3	śa	શ	શ	श	શ
jha	æ	ξ	ङ	É	dha	ધ	ય	ঘ	ય	șа	억	_	ষ	Ŋ
ña	_		_	બ	na	૧	વ	न	গ	sa	સ	સ	स	સ
ţta	٢	S	ξ	ડ	pa	ч	ų	प	ч	ha	Ę	હ	ह	ε
ṭha	δ	S	ठ	S	pha	4	શ	奴	શ્					

#### VOWELS

	A	В	C	D		A	В	C	D		Α	В	C	D
а	મ	श्र	ऋ	શ્ર	и	ક	ઉ	ઉ	ક	o	<b>સ્રો</b>	શ્રો	ऋो	શ્રો
ā	<b>અ</b> 1	શ્રા	<b>फ्र्या</b>	શ્રા	ū	<b>3</b> 1	ઝ	ঞ্জ	ઝ	аи	શ્રો	શ્રી	ऋी	શ્રી
i	ş	ş	इ	ঽ	e	ų	ų	प्र	у	аṃ	<b>અં</b>	શ્રે	फ्रां	શું
ī	ફ	ક્ષ	ई	Ę	ai	ý	ý	प्रे	ģ	аḥ	<b>ઝ</b> :	શ્ર:	_	<b>શ</b> :

Table 3: Comparison of Kaithi fonts used by Grierson in the *Linguistic Survey of India* (columns 'A' and 'B') and by the Baptist Mission Press (column 'C') with the digitized Kaithi font developed by Anshuman Pandey (column 'D').

## **3** Technical Features

#### **3.1** Name

The name of the script in the UCS shall be Kaithi. The name of the script in the Latin transliteration recommended by ISO 15919 is Kaithī.<sup>2</sup>

#### 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.<sup>3</sup> The script is historically significant and there exists a substantial body of literature written in it.

#### 3.3 Allocation

Kaithi is currently allocated in the Roadmap to the Supplementary Multilingual Plane (Plane 1) at the range U+11080..U+110CF.<sup>4</sup> The five rows allocated for Kaithi in Plane 1 are sufficient to encode the script in the UCS.

The glyph chart in Table 1 and the list of character names in Table 2 show reserved code points. The positions U+110BA and U+110BB are reserved for the possible future inclusion of *daṇḍās*, which are attested, but not presently proposed for inclusion, as discussed in section 2.1. The range U+110CA..U+110CF following the digits is reserved for characters not yet identified.

## 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 Indian scripts. The encoding model for Kaithi may be based on the model implemented for Devanagari.

Consonant letters bear the inherent vowel a (KAITHI LETTER A) when unaccompanied by a vowel sign. The inherent vowel is suppressed by the  $vir\bar{a}ma$  (KAITHI SIGN VIRAMA) to produce the bare consonant. 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.

Consecutive sequences of consonants are written as consonant conjuncts with *virāma*. Consonant conjuncts occur as true ligatures or as a sequence of consonant letters where an explicit *virāma* is written with each consonant except the final letter.

## 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)

<sup>&</sup>lt;sup>2</sup> International Organization for Standardization, 2001; Stone, 2004. <sup>3</sup> International Organization for Standardization, 2005: 4.

<sup>&</sup>lt;sup>4</sup> Everson, et al., 2006.

**Vowel Signs** The dependent vowel signs are divided into two classes based upon their spacing attributes. The first class consists of 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 KAITHI VOWEL SIGN AA, KAITHI VOWEL SIGN I, KAITHI VOWEL SIGN II, KAITHI VOWEL SIGN O, and KAITHI VOWEL SIGN UU, 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)

**Special Signs** The KAITHI SIGN CANDRABINDU and KAITHI SIGN ANUSVARA belong to the "Mn" category, are of combining class "0", and possess the bidirectional class value "NSM".

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

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

The KAITHI SIGN NUKTA belongs to the general category "Mn", has a combining class value of "7" (Nuktas), and is of the bidirectional class value "NSM". Combinations of consonants and KAITHI SIGN NUKTA are to be treated as regular consonants.

**Punctuation** All punctuation marks except for 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)

The KAITHI ENUMERATION SIGN possesses properties similar to the first class of dependent vowels. It belongs to the general category "Mn" and to the bidirectional class "NSM".

**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: *dependent upon on the respective digit:* 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

Bidirectional Class: L (Left-to-Right)

#### 3.6 Collation

The collating order for Kaithi is dependent upon the language represented. Generally, languages written in Kaithi follow the sort order used for modern standard Hindi. Independent vowel letters are sorted before consonant letters.

Charts and tables of Kaithi and other north Indian scripts are inconsistent in their placement of *anusvāra* and *visarga* within the order of vowels. In some they appear at the head, in others at the back. The collation pattern used in dictionaries places *anusvāra* and *visarga* at the head of the vowel order before KAITHI LETTER A and are written as combinations with the latter. This is the preferred order:

Dependent vowels 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 *anusvāra* and *visarga*) attached to the letter:

The pattern for consonants is as follows:

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

In some nasal-consonant conjuncts, the dental nasal, ¶ KAITHI LETTER NA, is used as the homorganic nasal letter for all articulation classes except for the labial class, where KAITHI LETTER MA is never substituted with KAITHI LETTER NA (see Figure 37). When KAITHI LETTER NA is used generically, it should be sorted as a member of the class to which the following consonant belongs (see section 5.7 for further details).

#### 3.7 Character Classes

Based on structure, Kaithi consonant letters may be grouped into four different classes:

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



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

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

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

$$\mathcal{E}$$
 S S S  $\mathcal{E}$   $\mathcal{E}$   $\mathcal{E}$  jha tha da ra da 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.

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

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

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

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

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

# 4 Background

## 4.1 Name of the Script

The name 'Kaithi' (केश्वे) is derived from the term Sanskrit कायस्थ kāyastha, which refers to the name of the scribal community of north India.<sup>5</sup> The term kaithī is the colloquial rendition of kāyasthī or kāyathī, which means "belonging to the scribe." The script was also called Kaithīnāgarī.<sup>6</sup> 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 is transliterated in British books as both 'Kaithī' and 'Kaithí'. This proposal uses the name 'Kaithi' without diacritics and recommends this form as the normalized name of the script in the UCS. It should be noted that while Kaithi refers to the formal name of a historical script of Bihar and the NWP&O, it also refers to a family of scripts and a style of writing (see section 7 for further details).

## 4.2 Languages Written in the Script

Kaithi is the traditional script of the Bhojpuri and Magahi languages. It was the popular script of the Awadhi and Maithili languages; the Devanagari and Tirhuta scripts being the more formal scripts, respectively. At present, these languages are all written in Devanagari. Kaithi was also used to write Urdu or "Hindustani", although now Urdu is associated with the Perso-Arabic script.

In several sources, Kaithi is associated with the 'Bihari' language. This association is misleading since there is no such language or language family called 'Bihari'. The term 'Bihari' was adopted by Grierson to refer to the Eastern sub-family of the Indo-Aryan languages that included Bhojpuri, Magahi, and Maithili. He wrote "Bihārī means properly the language of Bihar" and it "occupies a middle place between Bengali and Eastern Hindī". Other linguists propagated the concept of 'Bihari' as a language, following most likely from Grierson. Similarly, Hoernle wrote that the "Eastern Hindi" is commonly written in the Kaithi script. Hoernle's "Eastern Hindi" includes Baiswari (a form of Awadhi) and Bhojpuri. It is for this reason that Kaithi is called a Bihari script; however, it's geographic distribution and influence extended beyond the districts of Bihar (see section 7 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. By the early 20th century, Devanagari had completely replaced Kaithi as the formal script for Awadhi, but its use in informal communication is attested through the middle of the century. A specimen of Awadhi written in Kaithi is given in Figure 10.

**Bhojpuri** Kaithi was the traditional script of Bhojpuri, <sup>13</sup> which is spoken predominantly in Uttar Pradesh and Bihar, with significant speaker populations in Madhya Pradesh. Bhojpuri speakers are also found outside of India in Nepal, Mauritius, Guyana, Suriname, Fiji, Trinidad and Tobago, and other parts of the Caribbean. The Devanagari script is used for literary and formal publication activity in Bhojpuri. Recent research indicates that Kaithi is still used for informal communication in Bhojpuri. <sup>14</sup> Ethnologue also suggests currently activity by listing Kaithi and Devanagari as scripts used for the language. <sup>15</sup> Kaithi was used in

Floernle, 1880: 1. 6 Śākyavamśa, 1974: 64. 7 Grierson, 1903b: 1. 8 "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). Coulmas's reference to a "Bihari" language is curious since no such language or language family exists. The "Bihari" languages refered to here are presumably Bhojpuri, Magahi, and Maithili. 9 Hoernle, 1880: 1. 10 Hoernle, 1880: viii. 11 Grierson, 1904a: 14. 12 Saxena, 1937: 20. 13 Grierson, 1903b: 48 14 M. Verma, 2003: 519. 15 Gordon, 2005.

the Caribbean by Bhojpuri-speaking emigrants who carried the script with them. A specimen of Bhojpuri written in Kaithi is given in Figure 6 and a printed specimen in Figure 14.

**Magahi** Kaithi was the traditional script of Magahi, <sup>16</sup> 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". <sup>17</sup> 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, or Maithili), Kaithi, and Devanagari scripts. Brahmins use the Mithilākṣara script and other communities use Kaithi. Devanagari began to place both Kaithi and the Maithili script at the turn of the twentieth century. A specimen of Maithili written in Kaithi is given in Figure 7 and a printed specimen in Figure 13.

**Urdu** Kaithi was used for writing Urdu in the law courts of Bihar and Bengal when it replaced Perso-Arabic as the official script of these states during the British administration. The majority of extant legal documents from Bihar from the British period were in Urdu written in Kaithi. There is a substantial amount of such manuscripts, specimens of which are given in figures 20, 21, and 22.

**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.<sup>20</sup> A specimen of Bengali in Kaithi is shown in Figure 11. On the Western periphery, in Rajasthan, the Marwari language was at times written in Kaithi; a specimen of which is given in Figure 28.

#### 4.3 Brief Historical Overview

Kaithi is traditionally associated with the scribal community of north India and its literary practices. Through this association Kaithi is a secular script used for routine administrative purposes. Grierson wrote that "The Kaithī alphabet is, properly speaking, the alphabet used by the Kāyath or Kāyastha caste,—the writing caste of Northern India". Although its origins are unclear, Kaithi became a significant writing system in the 17th century. From this time, the use of the script spread beyond the Kayastha community into the broader population. 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". The widespread use 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. Eden's goal was to replace the incumbent Persian script with a writing system more familiar to the population of Bihar. The official status conferred upon Kaithi was met with wide approval, as is evident from Grierson's dedication in the *Handbook to the Kaithi Character*:

To the Honorable Sir Ashley Eden, K.C.S.I., Lieutenant-Governor of Bengal, who, by first introducing Kaithí as the sole official character of our law courts, has done more for Bihár than a decade of legislation<sup>26</sup>

<sup>&</sup>lt;sup>16</sup> Grierson, 1903b: 35. <sup>17</sup> S. Verma, 2003: 501. <sup>18</sup> Grierson, 1903b: 21. <sup>19</sup> Yadav, 2003: 484. <sup>20</sup> Grierson, 1903a: 7.

<sup>&</sup>lt;sup>21</sup> Grierson, 1903b: 11. <sup>22</sup> P. Gupta, 1967: 31. <sup>23</sup> Education Commission Report, 1884: 46-7, quoted in King, 1994: 83.

<sup>&</sup>lt;sup>24</sup> Grierson, 1899: 1. <sup>25</sup> King, 1994: 67. <sup>26</sup> Grierson, 1899: 1.

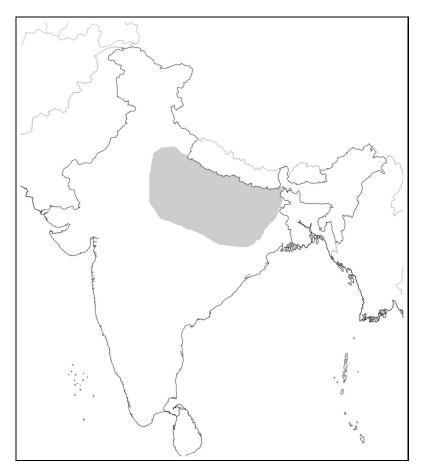


Figure 1: Geo-political extent of the Kaithi script in South Asia.

Eden's adoption of Kaithi as the official script of Bihar was preceded by, and built upon, earlier British efforts to promote the script. Due to its importance, Kaithi was "raised to the dignity of type in Bihar" despite it being "primarily a cursive written hand". In 1875, 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. Standardization was necessary due to variations in the style and manner of writing Kaithi across northern India. Nesfield assembled samples of Kaithi from all of the districts of NWP&O and devised a standard form of the script. Nesfield then produced the first set of Kaithi metal fonts based on this improved and standardized script. These fonts were used to print primers for elementary levels of the vernacular schools of Oudh. When the Government of Bihar recognized Kaithi as its official script in 1880, it also commissioned the creation of Kaithi metal fonts. These fonts were used for various administrative and other purposes as discussed in section 4.4.

The standardization and official recognition of Kaithi signifies the importance of Kaithi in north Indian society towards the end of the 19th century. In his preface to Edward H. Palmer's *Oriental Penmanship*, a manual for the formal scripts of north India, Frederic Pincott writes that

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

<sup>&</sup>lt;sup>27</sup> Grierson, 1903b: 11.

employed by Hindûs, although it has not yet been recognized in Courts and Kachharîs [courts].<sup>28</sup>

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. The association of Kaithi with the languages of Bihar led Grierson to use Kaithi metal fonts for all printed specimens of Bhojpuri, Magahi, and Maithili in volume five of the monumental *Linguistic Survey of India, Volume V* (1903). Grierson's work remains the most comprehensive studies of Kaithi orthography and usage to date.

The factors that generated the official recognition of Kaithi also brought it into competition with Devanagari and Perso-Arabic and ultimately to its demise. In 1880, Rudolf Hoernle wrote that Devanagari "will probably in course of time entirely supersede the Kaithí; perhaps not altogether an advantage, as it can be written with less rapidity and ease than its rival".<sup>29</sup> The decline of Kaithi is generally attributed to the socio-political conditions of pre-Independence India. In the early 20th century, organizations such as the Nagari Pracharini Sabha (Society for the Promotion of Nagari) 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". 30 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.<sup>31</sup> 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". 32 A similar claim can be made for the replacement of Kaithi by Devanagari.

### 4.4 Spheres of Use

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.

There is also an effort initiated by the Government of India to catalogue and preserve Kaithi manuscripts. 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, for the purpose of training researchers to read Kaithi and other scripts used in north Indian manuscripts.<sup>33</sup>

**Court Records** Kaithi first rose to popularity by being established as the official script of the law courts of Bihar. Figure 20, Figure 21, and Figure 22 show samples of documents submitted to the courts of Bihar.

• Bihar High Court of Judicature. 1939. *Selection of Hindusthani documents from the courts of Bihar*, compiled by S.K. Das. Patna, Bihar: Superintendent, Government Printing.

**Book Publishing** The standardization of Kaithi 1875 made it suitable for the printing of books. Kaithi entered the world of print through the major publishers, Khadgavilās Press and Munshi Naval Kishor of Lucknow. The Khadgavilās 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

<sup>&</sup>lt;sup>28</sup> Pincott in Palmer, c.1870: v. <sup>29</sup> Hoernle, 1880: 2. <sup>30</sup> Shapiro, 2003: 257. <sup>31</sup> King, 1989: 192. <sup>32</sup> Grierson, 1899: vi.

<sup>&</sup>lt;sup>33</sup> National Mission for Manuscripts, Government of India, 2005.

script of Bihar, the Khadgavilās Press was the first printing house in Bihar to acquire Kaithi types and to begin printing Kaithi documents and books. Rāmadīna Siṃha, the director of Khadgavilās Press, approached Grierson about Kaithi types and Grierson, through the assistance of the government, commissioned Kaithi types in Calcutta. Soon after, Khadgavilās Press began to publish Kaithi documents for the government, which ranged from agricultural and general administrative registers.<sup>34</sup> In Awadh, the notable publisher of Urdu books, Munshi Naval Kishor of Lucknow, printed several professional texts and 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 while books are printed in Kaithi, "it is by no means as common as the Devanágarí".<sup>35</sup> Hoernle corroborates Kellogg, stating that Kaithi "is used in printing as well as in writing; but owning to the preponderance of H. H. [High Hindi], which has adopted the Devanágarí, the latter is much more common in books" and to justify the use of Devanagari in his grammar he writes that "I shall adopt it in this work also, as the more generally known of the two."

Devanagari is the script for whatever is sought to be published today, or has been sought to be published since the early part of the twentieth century. Part of the reason may be simply the unavailability of typesetting for Kaithi. But more importantly, Devanagari in the greater Hindi area has a more scholarly image and is perceived as the right instrument for any kind of activity that has any claim to being literary. Devanagari as the 'metropolitan script' (as the name implied) has increasingly become the script of the new literatures of Bihari and other 'regional' languages and also replaced the earlier scripts.<sup>37</sup>

**Education** By 1881, the standard Kaithi had being prescribed for general use in the primary and middle vernacular schools of Bihar. "In Bihar, it [Kaithi] is used for teaching the lower classes, to whom a knowledge of Dēva-nāgarī is an unnecessary luxury, the elements of a primary education". Used initially for printing elementary school primers, textbooks in standard Kaithi quickly appeared in primary and middle vernacular schools and were established for use in scribal examinations. It was known "from the commencement of education operations in Behar, that Kaithi was the popular character" of the province. As the British brought village schools of Bihar under government supervision, administrators learned that these schools taught their students to read and write in Kaithi. Therefore, Kaithi was retained in the schools of Bihar because the script "was the only one which could be employed with any hope of success, if the system of instruction was to be kept on the really broad and popular basis on which it rested". 42

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.<sup>43</sup> 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. Due to the prevalence of Hindi (as opposed to Avadhi, Bhojpuri, etc.) in the majority of the districts of the NWP&O motivated government officials to introduce Devanagari instead of Kaithi in scribal schools in which the vernacular language was the medium of instruction, not formal Hindi.<sup>44</sup> The schools of Bihar continued to use the script until at least 1913.<sup>45</sup>

• Pincott, Frederic. 1886. *Bala dīpaka: a new series of Hindi readers for the use of schools and patsalas*. Part II. Bankipore: Sāhib Prasād Siṃha, Khaḍgavilās Press. In Kaithi script. 120 pages.

#### **Manuals and Script Primers**

• Ambikāprasāda. 1880. Kaithī-patramālā. Translated by Ambikāprasāda from the Maktub-i Ahmadi

<sup>&</sup>lt;sup>34</sup> Simha, 1986: 249-250. <sup>35</sup> Kellogg, 1893: 23. <sup>36</sup> Hoernle, 1975: 2. <sup>37</sup> S. Verma, 2003: 501. <sup>38</sup> Grierson, 1903b: 11. <sup>39</sup> Ojhā, 1971: 130. <sup>40</sup> King, 1994: 65-66. <sup>41</sup> Education Commission: Report by the Bengal Provinces Committee, Calcutta, 1884: 46-7, quoted in King, 1994: 83. <sup>42</sup> Education Commission Report, 1884: 46-7, quoted in King, 1994: 83. <sup>43</sup> Vedalankar, 1969: 154. <sup>44</sup> Vedalankar, 1969: 152. <sup>45</sup> King, 1989: 192.

(مكتوب احمدى) of Saiyid Ahmad Husain. Lucknow: Munshi Naval Kishor. A Letter-writer in the Kaithi character. 76 pages. 1st edition printed in 1880, 10th edition in 1889. Hindi in Kaithi script.

- Grierson, George A. 1881. *A Kayathí Handbook*. Calcutta: Thacker, Spink & Co. Second revised edition published in 1899 under the title *A Handbook to the Kaithí Character*. 61 pages. The manual contains 30 plates illustrating various styles of Kaithi writing. Rectos of most plates contain transcriptions and translations.
- Hanumānaprasāda. 1877. Kaithī varnamālā. A Kaithi reader. Lucknow. 4 pages.
- Kaithī vo hindī barnamālā [कैथी वो हिन्दी बर्नमाला] ("Kaithee-Hindi Reader"). 1882. Chapra, Bihar: Nasim Saran Press. 16 pages. Hindi in Kaithi and Devanagari scripts.
- Śivanārāyaṇa. 1870. *Patrahitaisini: arthāt, Kaithī acharoṃ meṃ ciṭṭhī patrī likhane kī rīti sīkhanevālī pustaka*. Lucknow: Munshi Naval Kishor. On writing letters, proper forms of address; intended for professional scribes. Translated into Avadhi by Pandit Śivanārāyaṇa from the Hindustani *Mufid al-Insha*. 44 pages. Hindi in Kaithi script. ???th edition in 1883.

**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. 46

**Commercial Transactions** Kaithi was used for recording commercial transactions. Receipts were the most common commercial documents written in Kaithi.<sup>47</sup> Figure 23 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 very likely 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 or interpretive 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 story of Sudama, taken from the *Bhāgavata Purāṇa*, is in the Marwari language written entirely in Kaithi. The manuscript is from Bikaner, Rajasthan and is dated to the early 19th century. Since the language is Marwari, one might expect the script to be the Mahajani script, which is more commonly associated with Rajasthani languages, or the Gujarati script. A comparison of the letterforms in the manuscript with Mahajani and Gujarati indicates that the script is distinctly Kaithi. The *Miragāvatī* of Qutban was originally in written in 1503 in Avadhi in the Persian script. Out of the five extant manuscripts of the Sufi romance, four are in Kaithi and one is in the Persian hand.<sup>48</sup> Similarly, the 16th century *Padmāvat* of Malik Muhammad Jayasi was also originally written in Avadhi in the Persian script, but several derivative manuscripts are written in Kaithi.<sup>49</sup>

Although Devanagari was the preferred script for recording Hindu religious texts, Kaithi was also used for

<sup>&</sup>lt;sup>46</sup> Beverly, 1874: 76. <sup>47</sup> "Kaithee and Bengla are used in the payment receipts and bills of ghat manghies, contractors and others" (Jha, 1966: ii.). <sup>48</sup> Miśra, 1963: 1-6. <sup>49</sup> Grierson, 1904a: 14.

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 figures 18 and 19). The *stotra* itself is Sanskrit written in Devanagari, but the commentary, which is also Sanskrit, is written in the Maithili style of Kaithi. Moreover, the last folio contains several annotations written in the Bhojpuri style of Kaithi. In other religious works, the sacred scribal importance of Devanagari influences Kaithi orthography. A manuscript of Jīvā Gosvāmī's *saṃkalpapatrī*, or what Mukherjee and Wright call a "testamentary document", was written in "Sanskritized Braj" in "Nagarized Kaithi". Dated to 1665, the manuscript contains instructions and other matters related to the custody of the temples and libraries of the Caitanyapanthī Gaudīya Vaiṣṇava sect founded by Jīvā Gosvāmī in Vrindavan.

- *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 *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: "Kaithīlipi"); Maner Śarīf (origin: Patna; script: Perso-Arabic); Delhi (origin: Delhi; script: Perso-Arabic); and Ekaḍalā (origin: Fatehpur; script: "Kaithī lipi") (Miśra, 1963: 1-6; Gupta, 1967: 97-98).

Government Seals As an administrative script, Kaithi was used in 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 29). The use of Kaithi in an official seal suggests the prominence of the script in government routine and further illustrates the formal acceptance 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, it had not acceded to its contemporary official position.

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 24 and Figure 25). 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); [...] $^{51}$ 

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

Mukherjee and Wright, 1979: 298. 51 "Comparative Religion Notes," 1894: 293.

literature appeared. Kaithi features prominently as the script preferred by the Society for publishing portions of the bible in Hindi.<sup>52</sup>

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

Personal Records and Correspondence Kaithi was used for maintaining family records, private correspondence, and transactional accounts. Thomas Metcalf writes that the use "of distinctive scripts such as Kayathi and Mahajuni was common practice among Indian families, many of whom, especially among the mercantile community, wished in this way to preserve their records from prying eyes of uninitiated outsiders".<sup>53</sup> As large numbers of Bhojpuri-speaking inhabitants of north India migrated to Trinidad and other locations in the Caribbean during the 19th and 20th centuries, they carried the Kaithi script with them. The present author was contacted by two individuals who trace their families' ancestory to north India and whose ancestors maintained the use of Kaithi outside of India, Mr. Nigel Ramoutar and Dr. Dipendra Sinha. Mr. Ramoutar's family migrated from eastern Uttar Pradesh to Trinidad at the turn of the 20th century. His grandparents maintained family records and personal correspondence in Kaithi, which have been preserved by his family in Trinidad. Dr. Sinha, whose family hails ancestrally from Bihar, informed the author that Kaithi was used by migrant Indian communities in Jamaica as well. At present it is unknown exactly how prevalent the use of Kaithi was in Trinidad, Jamaica, and other locations in the Caribbean. Nonetheless, the preservation of the Kaithi script by Indian immigrants is evidence for the popular strength of the script in north India.

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<sup>&</sup>lt;sup>52</sup> The Journal of Sacred Literature often published information about the progress of activity. In a section titled "Intelligence" 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". <sup>53</sup> Metcalf, 1967: 679ff.

**Epigraphical Records** Inscriptional records in Kaithi are extremely rare. However, the archaeology gallery at the Bharata Kala Bhavan at the Banaras Hindu University supposedly has in its holdings a copper plate bearing an inscription in Sanskrit in the Kaithi script.<sup>54</sup> The text of the inscription is a land grant by Baj Bahadur Chandradeva (fl.1090), a ruler of the Gahadavala dynasty of Kanyakubja. If the script is in fact Kaithi, the Chandradeva's inscription would be the earliest attested use of Kaithi.

# 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

In some cases no distinction is made between KAITHI LETTER I and KAITHI LETTER II, or between KAITHI LETTER U and KAITHI LETTER UU.<sup>55</sup> 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.

#### **5.3** 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 the letters \(\mathbb{K}\) KAITHI LETTER SSA, and \(\mathbb{H}\) KAITHI LETTER SA as \(\mathbb{N}\) KAITHI LETTER SHA. Both the palatal and dental sibilants are found in the Kaithi specimens in the Linguistic Survey of India.

In a specimen of Maithili, <sup>56</sup> the word *khuśī* is written with the dental sibilant as *khusī*:

and in a specimen of Magahi<sup>57</sup> it is written with the palatal sibilant khuśī:

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

<sup>&</sup>lt;sup>54</sup> Bharat Kala Bhavan, Banaras Hindu University, 2001. <sup>55</sup> Hoernle, 1880: 2. <sup>56</sup> Grierson, 1903b: 74. <sup>57</sup> Grierson, 1903b: 74.

#### **5.4** 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 figures 3, 4, and 33).

The shapes of KAITHI LETTER NGA and KAITHI LETTER NYA resemble to some extent 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 ( and using the letter:



#### 5.5 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.<sup>58</sup> 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<sup>59</sup> shows a differentiation between ba and va through the use of the underdot to represent va.

## 5.6 The letter YA

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

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

The difference between 4 and 4 is a stylistic variation, not a phonological difference that is differentiated orthographically as in the case of Bengali 4 u+094F BENGALI LETTER YA and 4 u+09DF BENGALI LETTER

<sup>&</sup>lt;sup>58</sup> Chatterji, 1970 [1926]: 226. <sup>59</sup> Grierson, 1903b: 124.

YYA. Presumably, the underdot was applied to the Kaithi ya in order to distinguish it from 4 KAITHI LETTER CA.

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

#### 5.7 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. Other signs for nasalization such as the Devanagari *candrabindu* are generally not used in Kaithi. A peculiar practice for marking nasalization is used in the bibles printed by the Calcutta Bible Society. In these bibles there are two marks for indicating nasalization. One mark resembles the regular *anusvāra* and the other is a small open-circle. The open-circle mark appears to be used to indicate class nasals, while the *anusvāra* represents true vowel nasalization:

Grierson shows the use of *candrabindu* to write the Kaithi transcription of  $\mathfrak{F}$ :

Nasal-Consonant Conjuncts Nasal-consonant conjuncts are written either as ligatures with the half-form of the appropriate class nasal letter or with the full form of the nasal letter marked with an explicit  $vir\bar{a}ma$ . A peculiar manner for writing such ligatures is used in the printed Kaithi specimens in the Linguistic Survey of India. For nasal-consonant conjuncts that are written as ligatures, the dental nasal  $\P$  KAITHI LETTER NA, is used as the generic nasal marker for all articulation classes (see Figure 37). For example, the conjunct nta is represented appropriately as  $\P$ 0. However, the conjunct nda is represented as  $\P$ 5. Unlike the case of nta, where the dental nasal letter na is allied with the dental stop ta, in nda, the dental nasal is used to represent the the retroflex nasal na since the following consonant, na0, is a retroflex stop. In such instances, KAITHI LETTER NA should be sorted as a member of the class to which the second element of the conjunct belongs.

The form of nasal-consonant conjuncts is not uniform in Grierson. In a specimen of Magahi, <sup>60</sup>, Grierson uses *virāma* to write the *nda* conjunct:

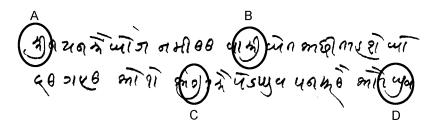
and in a specimen of Maithili, <sup>61</sup> he uses a ligature to represent the *nda* conjunct:

<sup>&</sup>lt;sup>60</sup> Grierson, 1903b: 129. <sup>61</sup> Grierson, 1903b: 75.

## 5.8 Consonant-Vowel Ligatures

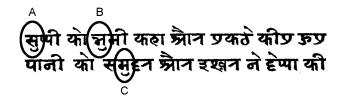
In writing, syllables composed of consonants with vertical descenders at the right edge and the vowels u and  $\bar{u}$  are represented as distinct consonant and vowel sign combinations or as ligatures. The latter is often a swash technique that results from rapid writing. In such cases, the vowels i and  $\bar{t}$  may at times be written in a manner that resembles the dependent forms of u and  $\bar{u}$ . Therefore, these forms of u and  $\bar{u}$  are often curved leftward and over the consonant letter. Generally, the appropriate consonant-vowel combination is apparent from context.

In the excerpt below, the labeled portions indicate consonant-vowel ligatures. Portions 'A' and 'B' are the syllable  $k\bar{\imath} + |\hat{\imath}| + |\hat$ 



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:

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



The font used by Grierson in the *Linguistic Survey of India* has distinct  $m\bar{a}tr\bar{a}$  forms for u. The forms of u  $m\bar{a}tr\bar{a}$  in the words marked 'A,' 'B,' and 'D' represent the typical shape of the dependent vowel; for example ku + 3 as 4 instead of 4. The shape of the syllable 4 in portion 'C' is a ligature designed to accommodate the descending tail of 4 with the 4 4 4 is written as 4 to avoid the appearance 4.

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

## 5.9 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. ५२५); Sanskrit pradeśa प्रदेश becomes pardes ५१६२; and Sanskrit snāna (Dev. स्नान) becomes asanān (Kai. १२००). Other practices of simplifying include: Sanskrit vyavahāra (Dev. व्यवहार) becomes beohār (Kai. ११०); Sanskrit jñāna ज्ञान is simplified to giān शिश्र.

In instances where metathesis does not occur, the representation of the cluster was 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 ray or ray. 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 ₩ written with a half-form of KAITHI LETTER MA is expressed in Unicode as

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

The form শ্ব is expressed as

```
KAITHI LETTER MA + KAITHI VIRAMA + U+200C ZERO WIDTH NON-JOINER + KAITHI LETTER BA
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**In Writing** At times, the scribe would writing conjunct with an explicit *virāma* at other times he would produce 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 *strī* in the word *distrīkat* marked 'B':

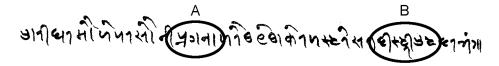


Figure 4 shows conjuncts that may be encountered in the Maithili style of written Kaithi. Some Kaithi documents also show 'false' conjuncts, especially when the second element of the conjunct is *ra*. In the following example the word *paraganāt* is written *praganāt*:

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

In writing, doubled consonants are written only once. A word like *patta*  $abla \pi$  is written *pata*  $abla \cap$ . 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  $acch\bar{a}$ , where a half form of ca is attached to the full form of cha:

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

Another example of inconsistent use of conjuncts is shown below. The word  $\mathcal{E}$   $\mathcal{H} \cap dost$  is written in two ways in the *Linguistic Survey of India*. In the example 63 below, the cluster *sta* is written with a ligature

but in another specimen<sup>64</sup>, the conjunct is represented with a *virāma* form:

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*:

<sup>&</sup>lt;sup>62</sup> Kellogg, 1893: 23. <sup>63</sup> Grierson, 1903b: 75 <sup>64</sup> Grierson, 1903b: 125

#### 5.10 Word Boundaries

Punctuation is inconsistent in Kaithi. Grierson writes that "Kaithí has no stops except the full period" and "it is not customary to leave any space between the words." Although lack of punctuation is not foreign to Indian scribal traditions, in Kaithi the lack of word boundaries is most likely a result of the need for writing rapidly in courts and other administrative arenas. Standardization began to change this. Grierson writes the "Standard Kaithí, however, used in Government offices, does separate its words". The practice of marking word boundaries also depended upon the scribe's regard for applying spaces or other delimiters between words. Some marked word boundaries consistently, others showed no such regard. Some manuscripts show the practice of identifying not only sentence boundaries, but boundaries between words, as well.

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

The - KAITHI WORD SEPARATOR is used to represent the word boundary marker.

## **5.11** Line and Paragraph Boundaries

There is no set convention for marking line boundaries in Kaithi. In many manuscripts the text is written continuously without delimitation of syntactic boundaries. Several scribes, however, employed various orthographic devices to mark line and paragraph terminations. The  $dand\bar{a}$  was introduced in printed Kaithi to mark phrase or sentence terminations.

**Daṇḍā** As with other scripts derived from Brahmi, Kaithi uses the daṇḍā and double daṇḍā to indicate line endings and other terminations. The function of the Kaithi daṇḍā and double daṇḍā is similar to that of Devanagari and other Indic scripts, but should be encoded separately, not unified with Devanagari daṇḍā or double dandā due to the distinct shape of the Kaithi forms.

Compare Kaithi dandā I to Devanagari I, and Kaithi double dandā II to Devanagari II.

The table below compares the forms of  $dand\bar{a}$  in the metal fonts used by Grierson to print Kaithi and Devanagari in the *Linguistic Survey of India*:

<sup>65</sup> Grierson, 1899: 4.

KAITHI DEVANAGARI

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

The following example shows the use of dandas in written text. The dandas are written with serifs:

स्रोकायात्म प्रक्रमेश हिरामणा ज्या जम्मण परंग राम आंदा प्रका प्रशासका का कि का कि शाक पुर्म न तका दूस का का का विषेता.

**Swash Marks** In addition to  $dand\bar{a}$  and double  $dand\bar{a}$ , lines and paragraphs are often terminated with horizontal lines. In the specimens in Figure 7 and Figure 21, 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.

The KAITHI WORD SEPARATOR (-) can be used to represent both the dashes used for marking word boundaries and the horizontal line used for marking the end of sentences. The KAITHI SENTENCE SEPARATOR (=) can be used to represent the end of paragraph mark.

**Other Marks** The specimen below<sup>66</sup> shows the use of a cross to mark phrase boundaries, while swashes are used to separate words:

## 5.12 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 480 at a line boundary:

<sup>66</sup> Grierson, 1903b: 82.

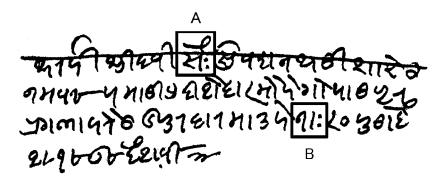
An interesting example of hyphenation occurs in the example below. Here hyphenation splits a conjunct formed with *virāma* in the word *barāmhan* anithe word barāmhan anithe example also illustrates metathesis in the consonant conjunct *hma*, which is rendered *mha*.

#### 5.13 Abbreviation

Abbreviation is common in Kaithi documents, but there is no consistency in the manner in which it is indicated. Typically, abbreviation is indicated through the use of signs.

Circle The ° KAITHI ABBREVIATION SIGN is found in written documents. It is similar in function to U+0970 DEVANAGARI ABBREVIATION SIGN. The Kaithi abbreviation sign may resemble the digit zero, however, the two are distinguishable through context. This sign is used to abbreviate common words and phrases, primarily at the beginning of legal documents. For example, in the following, the sequence (1) ° (1/L'), using a variant form of 9 KAITHI LETTER LA, represents the Sanskrit likhitam (9) Unit, meaning "it is written" and is abbreviated due to its common use as an introductory element in written statements submitted to the courts.

**Colon** The following shows the use of a *visarga*-like character for marking abbreviations. In the example below, portion 'A'  $(\mathcal{A}:)$  *se.* is an abbreviation for the title  $\mathcal{A} \cup \mathcal{A} \cup$ 

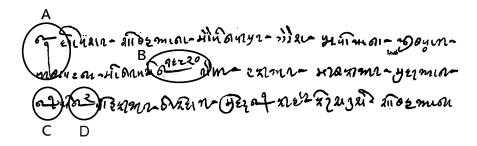


Below-Base Slash Another method of abbreviation is evidenced in the following example. A virgule-like mark is written in the portion 'B' ("૧૧૫) to abbreviate the word ૧૧૫૧ "November". The text in portion 'A' is the same form shown in the example above.

**Swash** Another method, which is rare, is to indicate abbreviation through swash. The circled portion below shows the abbreviation  $\frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac$ 

#### 5.14 Enumeration

The  $^{\circ}$  Kaithi enumeration sign is used in the writing of enumerated lists and numerical sequences. It is written either above or below a digit or sequence of digits. It is a stylized version of  $\P$  Kaithi letter NA and is an abbreviation of *nambar*, the transliteration of the English word 'number'. Its basic function is identical to Nº U+2116 NUMERO SIGN, the sign for indicating ordinal numbering in the Latin alphabet. The following specimen from a legal document illustrates the use of the enumeration sign to mark two distinct numerical 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 9 in 'C', but this is most likely the result of the descending stroke of the digit, as compared with 'D'. Here the enumeration signs refer to plantiffs (9899 muda'ān) '1' and '2' in the given case.

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

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

#### 5.15 Nukta

The O KAITHI SIGN NUKTA is commonly used to distinguish Q KAITHI LETTER BA from Q KAITHI LETTER VA. It is also written under Q KAITHI LETTER YA to produce the variant form Q. In some cases, the *nukta* is

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

In a similar manner, the following shows the use of *nukta* under катты letter кна, similar to Devanagari ख u+0959 devanagari letter кнна to represent → u+062E arabic letter кнна:

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

The form of Kaithi letters in the *Kaithi o Hindi barnamala* appear too heavily influenced by Devanagari, the Kaithi letters with *nukta* are no less. Thus, although the letters with *nukta* are attested in Kaithi documents, they are not recommended for encoding in the Kaithi block.

But the use of *nukta* is inconsistent. The present author has not yet seen KAITHI LETTER GA with *nukta*, although presumably it could be used like T U+095A DEVANAGARI LETTER GHHA to represent  $\dot{\mathcal{E}}$  U+063A ARABIC LETTER GHAIN. It might be possible to reproduce the repertoire of *nukta* letters of the Devanagari block in the Kaithi block, but given that such letters are not generally listed in tables of Kaithi letters, it is better to encode the KAITHI SIGN NUKTA so that such letter can be created as needed.

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<sup>&</sup>lt;sup>67</sup> Grierson, 1903b: 74.

#### 5.16 Headstroke

Several manuscripts and books show Kaithi written and printed with a headstroke similar to that of Devanagari. In the majority of manuscripts, the line is not a headstroke, but a typographic device used for emphasis, titling, or sectioning. Grierson notes that "in many documents it is customary to rule only the first line, for show; and to leave the rest unruled, for comfort".<sup>68</sup> Hoernle adds

Sometimes a series of lines is first ruled across the page, and the letters are afterwards hung on to them. These lines must not be confounded with the headstroke of the Devanágarí, and in native writing the two are easy to distinguish<sup>69</sup>

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

गति प्रविश्वामित है नहार देव मत दुने गरि इपुना है मन प्रविश्वादी यमो अदमे प्रदूषते मोदे गति प्रविश्वादी प्रति वार्मे अने दसव्यन उपना प्रति प्रविश्वादी गामी न अस्मिन प्रामित्री उद्य ने अन्य स्त्र खना पी दासी न अभिन्द्र का स्न प्रति गति अपने मेडम दिक्र ने प्रविश्व क्षाद्यी स्तारेन नम्य प्र अदियह ने मान देव कि नि स प्रतारे

The following examples shows a line used only for the first line:

ज्ञानि-त्रवान-हानामा- यमिष्ठहमे- बाह-हाजा-प्रशाह-डी जानिश-महाम-हाव्य-हाहारा- भारी-महिल- जी-प्रध्र-हिण्रा-है- हशय-हम्नार-जेह-ज्ञानिश-स्नाराहे-

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

सुष्पी को जुमी कहा क्रीन प्रकरे कीए कप्र पानी को समुद्दन क्रीन इखन ने हेप्पा की क्रिष्ठा है। क्रीन इखन ने कहा की जुमी

Figure 34 shows a comparison of hand-written Devanagari and Kaithi. At first glance, it appears that the Kaithi is written with the head-stroke similar to the Devanagari. Comparing the two scripts, it becomes clear that the head-stroke accompanying the Kaithi letters is actually a ruled-line, which unlike the actual head-stroke of the Devanagari letters, is not broken between individual letters.

<sup>&</sup>lt;sup>68</sup> Grierson, 1899: 4. <sup>69</sup> Hoernle, 1975: 1f.

## **5.17** Accounting Notation

Accounting signs are commonly found in Kaithi documents. Among these are fractions (eg.  $\sim 1/16$ ,  $\parallel 1/2$ , etc.), currency (eg.  $\sim 1/16$ , and other marks (eg.  $\sim 1/16$  placeholder mark). A few of these are depicted in Figure 5. These signs are important for the complete representation of Kaithi in the UCS; however, the present author has determined that these signs are not exclusive to Kaithi. They are used across several north Indian scripts, including Devanagari, Gujarati, Gurmukhi, Mahajani, Maithili, and Modi. The author, therefore, recommends that these accounting signs be unified and encoded in a separate block in order to enable general use with other scripts. These accounting signs have been proposed for inclusion as the North Indian Accounting Signs block in L2/07-139R.

## **6** Regional Variants and Typeface Styles

## 6.1 Regional Variations

There are three distinct regional styles of Kaithi, each associated with the Bhojpuri, Magahi, and Maithili languages. In the *Linguistic Survey of India*, Grierson states:

So far as Bihārī is concerned, the Kaithī used changes slightly according to locality, and three varieties are recognised, *viz.*, that of Mithilā, that of Magah, and that used in writing Bhojpurī.<sup>70</sup>

These regional styles of Kaithi are compared in Figure 3. The differences between the three styles are due to regional scribal traditions. In his *Handbook to the Kaithi Character*, Grierson provides examples of model hand-written specimens in each of the three styles. He 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).<sup>71</sup>

Although not mentioned in many sources, it is likely that Nesfield relied upon the Magahi style as the basis of his standard Kaithi. David Diringer alludes to this, writing that the "Magahi type had been adopted by the Bengal Government for official Bihari publications; books are printed in it in Patna, and the character has become more or less standardized".<sup>72</sup>

Encoding these styles separately is unnecessary. The primary differences are due to swash techniques that influence the writing style. A few variant shapes exist, but these can be unified with the prevailing form of the letter. Separate fonts may be produced for the regional styles and their variant letters.

	STANDARD	VARIANT		STANDARD	VARIANT
KAITHI LETTER A	શ્ર	M	KAITHI LETTER NYA	거	3
KAITHI LETTER AA	શ્રા	MI	KAITHI LETTER PHA	શુ	પ્ર
KAITHI LETTER I	২	3	KAITHI LETTER YA	ય	ય
KAITHI LETTER II	ફ	ş	KAITHI LETTER LA	9	લ
KAITHI LETTER KA	41	$\mathcal{E}$			

#### **6.2** Typefaces

There are at least three 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*. Another Kaithi metal

<sup>&</sup>lt;sup>70</sup> Grierson, 1903b; 11. <sup>71</sup> Grierson, 1899; 4. <sup>72</sup> Diringer, 1968; 290.

font was 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.

The fonts used by Grierson and by the Calcutta Bible Society possess radically different forms. Some Kaithi fonts were produced with the headstroke and others without. The Hindi bibles of the Baptist missionaries in Calcutta were generally printed in Kaithi fonts bearing the headstroke. While this practice may give the impression that the script is Devanagari, upon closer inspection it is quite clear that the letters belong distinctly to the Kaithi script. 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.

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.

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 24. 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.

#### 7 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. Modern Kaithi is descended from the Kutila script by way of the Gupta script and ultimately from Brahmi. Suniti Kumar Chatterji states that

the old Dēva-nāgarī style of the Indian alphabet which prevailed in Northern and Western India [which is the Gupta or 'Proto-Nāgarī' script] from the 7th century, namely, the «Kaithī» script, came to Magadha by way of the Bhōjpuriyā tract; and this Kaithī alphabet has held the ground till now. Kaithī because of its simplicity has spread to Mithilā as well, where only the Brāhmans and other upper classes keep up the old Maithilī character.<sup>73</sup>

Based upon its structural characteristics and geographical location, Richard Salomon classifies Kaithi among the eastern group of scripts used for the New Indo-Aryan languages, which also includes Bengali, Maithili, and Oriya. This group is typically referred to as the Proto-Bengali or Gaudi family, which is a descendant of the Nagari form of Gupta. Genetically, Kaithi is related more to Bengali than to Devanagari. While general information about Kaithi's genetic affiliation is ascertainable, details about its evolution from proto-Bengali to the modern standardized form are unclear.

Kaithi is considered to be the source of scripts such as Mahajani<sup>75</sup> and Sylheti Nagari<sup>76</sup> and quite possibly of the modern Gujarati script. Hoernle wrote that of the "four principal types of alphabet" employed in northern India — "the Kaithí, the Bangálí, the Oriá and the Gurmukhí" — "[t]he Kaithí is the most widely spread; it is used in writing not only in Eastern, but also, slightly modified, in Western Hindústán, Maráṭhá and Gujarát. In G. [Gujarati] and sometimes in E. H. [Eastern Hindustan] is it adopted also in print".<sup>77</sup> Hoernle suggests that other scripts found in the Hindi region are derived from Kaithi: "[T]here are two subtypes much in use in the area occupied by the Kaithí, to which they are the most nearly related. There are the

<sup>&</sup>lt;sup>73</sup> Chatterji, 1970 [1926]: 225. <sup>74</sup> Salomon, 2003: 69. <sup>75</sup> Kellogg, 1893: 23. <sup>76</sup> Lloyd-Williams, et al., 2003: 5. <sup>77</sup> Hoernle, 1880: 2.

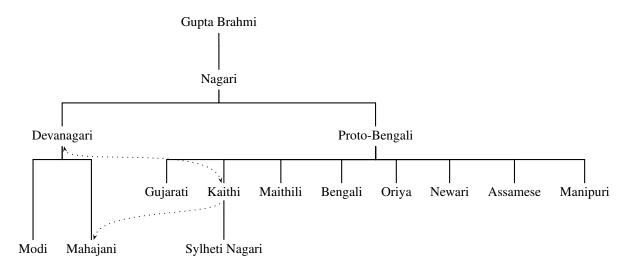


Figure 2: Relationship of Kaithi to selected Nagari-based scripts

Nágarí or Devanágarí and the Mahájaní or Kothivál. The first is an improvement, the second a corruption of the Kaithí or of its more ancient original".<sup>78</sup>

In discussing Kaithi's relationship to other scripts, it is important to clarify the manner in which the term 'Kaithi' has been used in the literature. It is possible to establish three different meanings of 'Kaithi'. First, the term 'Kaithi' refers to the formal name of a historical script used in Bihar and the NWP&O. It is this 'Kaithi' that is being proposed here for encoding in the UCS. Second, 'Kaithi' refers to the name of a family of scripts used throughout northern India. Third, 'Kaithi' refers to a style of writing.

Kaithi is used to refer to a style of writing, similar to the terms 'Mahājanī', 'Moḍī', and 'Laṇḍā'. These terms refer to particular styles of writing as well as 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', *mahājanī* means 'mercantile', *moḍī* means 'bent', *laṇḍā* means 'clipped'. Other terms such as *sarrāfī* 'banker' and *vāṇiāī* 'mercantile' are used to refer to further derivatives of these script styles.

These scripts are contrasted from those that are called  $n\bar{a}gar\bar{\iota}$ , which can be interpreted to mean 'urbane' or 'refined', and which are considered more formal 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 polysemic. Nagari also refers to the western script family that that evolved from the Kutila script, the other two being the northern-western Sharada and the eastern Gaudi, which is the ancestor of proto-Bengali, the parent of Kaithi. The scripts that descended from the Nagari script may be considered to be of the  $n\bar{a}gar\bar{\iota}$  class. Therefore, since Kaithi is descended from the Nagari branch of Kutila, it is accurate to state that the  $kaith\bar{\iota}$  class of scripts are a subtype of the  $n\bar{a}gar\bar{\iota}$  class, or that Kaithi is a Nagari script just as Devanagari is a Nagari script.

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 Indian 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

<sup>&</sup>lt;sup>78</sup> Hoernle, 1975: 2.

the Gujerat coast to the river Kosi" in Bihar. To be sure, Kaithi and Gujarati are the only major north Indian scripts without the distinctive headstroke common to other scripts. They are also the major 'running hands' or common scripts to be cast in metal type and used for the printing of books and other documents. It is the absence of the headstroke that is noted in *The Unicode Standard*, *Version 5.0* as the historical link between Kaithi and Gujarati:

The Gujarati script is a North Indian script closely related to Devanagari. It is most obviously distinguished from Devanagari by not having a horizontal bar for its letterforms, a characteristic of the older Kaithi script to which Gujarati is related. The Gujarati script is used to write the Gujarati language of the Gujarat state in India.<sup>80</sup>

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", 81 but also shows specimens of the "Bihar" languages as being in the "Kaithi character". 82 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 priting Gujarati and "Bihari" in the *Linguistic Survey of India*, as shown in Figure 30.

In Grierson's descriptions of the relationship between Gujarati and other script 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". But in 1899 he wrote that the Gujarati script "corresponds to what is known as the Mahājanī script in Upper India" and to what is "known as Vāṇiāī or Ṣarrāfī" in Gujarat. However, the script formally known as 'Mahajani' in north India is typologically distinct from Gujarati, as shown in Figure 33. Grierson also writes that the "Moḍh, Gujarátí, and Kaithí alphabets ... possess a great similarity of character" while Mahajani is "still a further corruption, for cursive purposes" of Devanagari. In 1904, Grierson suggested that Mahajani and Landa are more likely derived from a different ancestor found in north-western India, related more directly to Sharada than to Devanagari.

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

The general likeness of these four types [the Kaithí, the Bangálí, the 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.<sup>86</sup>

The problem with the synonymity between Kaithi and Gujarati is determining which definition of 'Kaithi' is being refered to. Is it Kaithi, as the formal name of a historical script, or Kaithi, as class or family of script styles? Further analysis of Grierson proves that the term 'Kaithi' being used as a synonym of Gujarati is in fact Kaithi as the name of a family of scripts. Although Grierson cites the prevalence of Kaithi from Bihar to Gujarat, he states that "[t]hroughout this great tract it has of course many variations, some depending upon locality and others upon individual handwriting". Thus, 'Kaithi' is a family of scripts whose regional forms developed into distinct scripts. The differentiation of the Kaithi class into regional writing systems accounts for the relationship between modern Kaithi and Gujarati and other scripts. In the eastern reaches of its geographical spread, 'Kaithi' retained its name; in the western periphery it assumed the name associated

 <sup>&</sup>lt;sup>79</sup> Grierson, 1903b: 11.
 <sup>80</sup> The Unicode Consortium, 2007: 321.
 <sup>81</sup> American Bible Society, 1938: 159.
 <sup>82</sup> American Bible Society, 1938: 159.
 <sup>83</sup> Grierson, 1908: 338.
 <sup>84</sup> Grierson, 1899: 3.
 <sup>85</sup> Grierson, 1904b: 67.
 <sup>86</sup> Hoernle, 1975: 2.
 <sup>87</sup> Grierson, 1903b: 11.

with the language current in that region, Gujarati. Diringer concludes by stating that "Bihari Kaithi" and Gujarati "(if the latter is at all connected with the Kaithi) are essentially different".<sup>88</sup>

Within the Bihari sub-class are the Bhojpuri, Magahi, and Maithili forms. Of these, the "Magahi type had been adopted by the Bengal Government for official Bihari publications; books are printed in it in Patna, and the character has become more or less standardized".<sup>89</sup>

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". <sup>90</sup> As such, Lloyd-Williams suggests that while Gujarati may be considered the westernmost member of the Kaithi family, the distinction of the eastern-most member should go to Syloti Nagri, not the Bihari Kaithi. <sup>91</sup> 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. <sup>92</sup>

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

But, genetic affinity is not the sole determinant of script classification and significance. Grierson writes that among this family of scripts, "Gujarátí, the most western, differs little from Kaithí, the most eastern, and a Tirhutiá *paṭwárí* finds little difficulty in reading a Gujarátí book". This reductive mutual intelligibility does not diminish the distiveness 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. 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.

While there exists a closer relationship between Kaithi and Gujarati, many specialists associate Kaithi with Devanagari. Kaithi is often considered a corruption or cursive —  $parivartita \ r\bar{u}pa^{98}$  or  $ghas\bar{t}ta \ sail\bar{t}^{99}$  — form of Devanagari. Such characterizations are inaccurate. The relationship between the two scripts is more appropriately described as one of parallel development rather than linear descent. Grierson, the foremost authority on Kaithi, states that while Kaithi and Devanagari are related, "the two alphabets arose  $pari\ passu$ , from an older original still found existing in inscriptions and the like". The emergence of Kaithi and De-

Biringer, 1968: 289. Biringer, 1968: 290. Diringer, 1968: 290. Diringer,

vanagari from a common source explains the similarity of certain letter shapes, but the differences between them highlight the divergence in the development and use of the two scripts. In fact, as shown in Figure 2, Kaithi and Devanagari belong to different sub-families of Nagari.

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

The scripts classified within the aforementioned categories may indeed possess similar features, such as the absence of the head-stroke, but the development of specific features among these regional styles resulted in modern writing systems that are not only typologically distinct from their historical siblings, but that are also tied to region-specific literary and cultural traditions. Grierson writes that "[t]he oldest books published in the Gujarātī language were printed in the Dēva-nāgarī type" and that the introduction of Gujarati metal type "is a matter within the memory of the present generation". <sup>102</sup>

The Kaithi script proposed here for encoding in the UCS is the Standard Kaithi developed from the Magahi sub-type of Kaithi by the governments of Bihar and NWP&O in the 19th century. The standardization and official recognition of a script and the subsequent adaption of the script in print technology suggests that the script is an independent writing system with a distinct typology and scribal tradition. Although it was "primarily a cursive written hand", Kaithi was "raised to the dignity of type in Bihar and Gujerat" In Gujarat, Kaithi was "elevated to the position of a national character". In Bihar, Kaithi received the same status: "[a] fount of Kaithī type is adopted by the Bengal Government for official publications in the vernacular, intended for publication in Bihar, in which this deficiency has been supplied, and books are now printed in Patna in the same type, so that gradually the written character is becoming more correct in this respect". In the contract of the property of the same type, so that gradually the written character is becoming more correct in this respect".

#### 7.1 Comparison of Letters 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 30. Table 4 and Table 5 illustrates the differences between Kaithi, Gujarati, Devanagari, and Syloti Nagri through a comparison of the digitized fonts for each script. These comparison 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.

Hoernle writes that "[t]hough [Kaithi] has a general resemblance to the modern Devanágarí, there are but

<sup>&</sup>lt;sup>101</sup> Grierson, 1903b: 11. <sup>102</sup> Grierson, 1903b: 11. <sup>103</sup> Grierson, 1903b: 11. <sup>104</sup> Grierson, 1903b: 11. <sup>105</sup> Grierson, 1903b: 21.

few of its letters, which do not exhibit some points of difference". He states that "all the vowels, and the consonants kh, ch, jh, bh, d, dh and r differ entirely in the two alphabets; and the horizontal top-line is omitted by the Kaithí in all letters alike".  $^{107}$ 

A comparison of the printed forms of 36 consonants of Kaithi, Gujarati, and Devanagari yields the following:

• 10 of 36 consonant letters between Kaithi and Gujarati are unique to Kaithi: KA, JA, JHA, DDDHA, RHA NNA, PHA, BA, RA, LA. Note: Gujarati does not have counterparts for Kaithi DDDHA and RHA.

8 are typologically similar, but graphically distinct: KHA, NGA, CA, TA, DHA, NA, BHA, HA.

17 are very similar: GA, GHA, CHA, NYA, TTA, TTHA, DDA, DDHA, THA, DA, PA, MA, YA, VA, SHA, SSA, SA.

1 is not found in Kaithi: counterpart for Gujarati LLA.

• 9 of 36 consonant letters between Kaithi and Devanagari are unique to Kaithi: KHA, JA, JHA, NNA, DA, DHA, PHA, RA, LA.

14 are typologically similar, but graphically distinct: KA, GA, NGA, CA, TTHA, TA, DHA, NA, BA, BHA, MA, YA, VA, HA.

12 are very similar: GHA, CHA, NYA, TTA, DDA, DDDHA, DDHA, RHA, PA, SHA, SSA, SA.

1 is not found in Kaithi: counterpart for Devanagari LLA.

• 10 of 36 consonant letters between Gujarati and Devanagari are unique to Gujarati: KA, KHA, JA, JHA, NNA, DA, PHA, BA, LA, and LLA.

4 are typologically similar, but graphically distinct: CA, BHA, RA, HA.

20 are very similar: GA, GHA, NGA, CHA, NYA, TTA, TTHA, DDA, DDHA, TA, THA, DHA, NA, PA, MA, YA, VA, SHA, SSA, SA.

2 are not found in Gujarati: counterparts for Devanagari DDDHA or RHA.

A comparison of the printed forms of 11 independent vowels of the three scripts shows the following:

• 9 of 11 vowels between Kaithi and Gujarati are distinctive in Kaithi: A, AA, I, II, UU, E, AI, O, and AU.

1 is typologically similar, but graphically distinct: U.

1 is not found in Kaithi: counterpart for Gujarati VOCALIC R.

• 6 of 11 vowels between Kaithi and Devanagari are distinctive in Kaithi: A, AA, I, II, O, and AU.

4 are very similar: U, UU, E, AI.

1 is not found in Kaithi: counterpart for Devanagari VOCALIC R.

• 8 of 11 vowels between Gujarati and Devanagari are distinctive in Gujarati: A, AA, I, II, E, AI, O, and AU.

<sup>&</sup>lt;sup>106</sup> Hoernle, 1880: 1. <sup>107</sup> Hoernle, 1880: 1.

2 are typologically similar, but graphically distinct: U and UU.

1 is very similar: VOCALIC R.

Some letters in Kaithi and Gujarati have similar appearance, but different semantic value. For instance,  $v_i$  kaithi letter ja resembles  $v_i$  u+0AB3 GUJARATI LETTER LLA. Kaithi does not have a letter for LLA. Grierson<sup>108</sup> shows a form of the consonant-vowel ligature for  $h_r$  as  $\epsilon$ . This ligature is identical in shape to  $\epsilon$  kaithi letter jha. This ligature would be written as  $\epsilon v_i$  har $\bar{i}$  in Kaithi.

<sup>&</sup>lt;sup>108</sup> Grierson, 1908: 338.

	KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI		KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI
ka	H	ક	क	प्रा	tha	થ	થ	थ	<b>₹</b>
kha	ų	ખ	ख	म्प्	da	ξ	3	द	দ্
ga	71	၂င	ग	ग	dha	ય	ધ	ध	প্
gha	ઘ	ધ	घ	ৰ	na	গ	ન	न	ग
'nа	B	S:	ङ	_	pa	Ч	પ	प	দ
ca	ય	ચ	च	ৰ	pha	શ્ર	ફ	फ	T
cha	छ	$\mathcal{C}$	छ	刄	ba	વ	બ	ब	ব্
ja	M	૪	ज	ज	bha	প্র	$\mathcal{H}$	भ	ন্
jha	Ę	$\mathcal{K}$	झ	W	та	৸	મ	म	স্থা
ña	બ	ગ	ञ	_	ya	યુ	ય	य	_
ţа	ડ	S	ट	3	ra	1	ર	र	ব
ṭha	S	δ	ठ	চ	la	9	લ	ल	<b>1</b>
ḍа	S	S	ड	ড	ļa	_	Պ	ळ	_
ŗa	Ģ	_	ड़	_	va	વ઼	વ	व	র
фhа	ઢ	S	ढ	ঢ	śa	શ	શ	श	श
ŗha	Ġ	_	ढ़	_	ṣа	Ч	Ŋ	ष	_
ņа	Ж	પુર	ण	_	sa	સ	સ	स	_
ta	$\mathbf{Q}$	ત	त	न	ha	ب	Ş	ह	দা

Table 4: A comparison of the consonant letters of the Kaithi, Gujarati, Devanagari, and Syloti Nagri scripts

INDEPENDENT VOWELS

DEPENDENT VOWEL SIGNS

	KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI		KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI
a	શ્ર	અ	अ	_	<i>-a</i>	_	_	_	
ā	શ્રા	આ	आ	ス	-ā	्र	ા	ा	ा
i	<b>২</b>	ઇ	इ	ष्ट्	-i	િ	િ	ি	ी
ī	ई	$\mathcal{S}$	ई	_	-ī	ી	ી	ी	_
и	3	3	उ	ত্ত	-и	ূ	ૢ	ુ	ુ
ū	3,	ઊ	ऊ		- <b>ū</b>	્	ू	ૂ	
ŗ	_	*	ऋ	_	- <u>r</u>	_	ृ	ૃ	
e	у	એ	ए	P	-е	े	े	े	े
ai	$\theta$	ઐ	ऐ	न्	-ai	ै	ै	ै	៉
0	શ્રો	ઓ	ओ	র	-0	ો	ો	ो	ो
аи	શ્રી	ઔ	औ	_	-au	ী	ો	ौ	_

Table 5: A comparison of vowel letters and signs of the Kaithi, Gujarati, Devanagari, and Syloti Nagri scripts

	KAITHI	GUJARATI	DEVANAGARI	SYLOTI NAGRI		KAITHI	GUJARATI	DEVANAGARI	SYLOTI Nagri
0	0	0	0	0	5	Ч	પ	¥	Ŷ
1	٩	૧	8	5	6	ξ	૭	६	৬
2	२	ર	2	Ş	7	O	9	Ø	9
3	3	3	3	9	8	۲	6	ょ	Ъ
4	8	γ	8	8	9	۲	(-	9	৯

Table 6: A comparison of digits of the Kaithi, Gujarati, Devanagari, and Syloti Nagri scripts. Note: Syloti Nagri uses Bengali digits.

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that there is only one sign for each of the following groups of Nágarí letters: 1) 4 (properly = n) for the nasals  $\bar{s}$   $\dot{n}$ ,  $\bar{n}$ ,

PLATE II.

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

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

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

## PLATE III.

# Combinations of consonants Strong conjuncts.

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

### WEAK CONJUNCTS.

HHI non, 114 ny, od non, of non, of non, of no, of no, of no, of mn, the mm, the my, then, of ml, the mh, 24 yy, from I ry, fre, from from the of ly, of ll, on the only, of ly, of ll, on the only, of so, o

### MIXED CONJUNCTS.

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

\* Pronounced like gy, with a nasal accent.

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

### PLATE IV.

## Numerals &c.

The following are the more usual forms of the Numerals.

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

### MONEY.

Il 3pies (One pice), Il 6 pies, Ill 9 pies, I lánú, I 2 ánás, I 3 ánás, I 4 ánás, I 5 ánás, II 9 ánás, Ill 12 ánás, Ill 12 ánás, Ill 18 Rs T.M.4.

The modes of writing pies differ in different districts.

WEIGHT.

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

### AREA.

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

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

9012919 10 Bighás. 16 Kts. 6Dhurs.

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

### PLATE XXVIII.

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

रेक यडा भारीभी मंत्रुत के जानी सा प्योग पी भारश भारे के या बेट सा गर्छे जब उ भने वगर नय बेट सन शो अर्छ १। ह लेटा मारेपाश जलन यन गर्छ गोने में भा अर के जात था में गाड दाहें वा हों वा मुंगे गरे जा जा गोपद्यर जविकाबासी मनी जयम मय क्रांपा स्व वेठीआ भी छमें ध्येन में थारी क्यान ही धार्व छ अछन् दन ्रीवयवर्ते प्योग नभी वि या भी प्येत क्रिक्शिया ५० गए । भी भागात्र पडाय परामें भी भी क्लिंग्रे कि उपमें गय गाराय यहा भी के क्लार्स वेय हैं क्योंन वह त एक यह पो हैं पड़ा ध्वान इहैं रेश्रमगागवरे इवात शीर्धे देयारी की जडा गोगजी नयानमारे गोन के जारा माने के सारी टारे के नयारी एरीमं रमने बांगव के कविभाव राइ इवडीकवर्तिश ध्येके वर्षे कर्नी री ए

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

#### PLATE X.

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

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

#### PLATE XXVII.

Two Fables
(Mugh character and dialect)
The Tiger the Leopard & the Wolf.

THE BURNING HOUSE.

स्मिष्ठा पास हुंडार क्योर झंडुका। मत्ता क्यपत्रेमवर्षे मन मेर्डिश कार किल्ला का यह सहर जामा जा पार गांडि क्यों पर्यापर पर्यापर क्यापत में पुरा काराइ ह्य ३ % ६ में विश्व हिंदि हैं बराहा भोर हिंद्र हो अहते एजी बड़जी हमन भारतमा तब बंधा अहे हिंदि भी हाबा हमना पाराक्यों क्योंन उनते क्यांका तक पाड़ा का है छक्ष क्योंन हमा अन बाँछ । इस अहा ता हम हथ अहि अहि हम प्राप्त में यह महिका हा आहे आरे होरागे ना हम हथ हमा स्था माने में यह महिका पार्वि हिं को ति मार्ग किया गण है है है प्यालों के का मार्थ पहार्वि है की हमना कार्य हो है जात तथ तो केंद्रकार कोर्ग उड़ना शहण यह हिन्द्र कोन यथा शोरी हमनाको या वीरुद्र हम परसमका के धार गामक कारण करण जे बहु तथह कार्य ण तेये ताला क्षेत्र स्पर्ता हा याण गुक्र भाग शुरूपत स अहम्बद्ध का गाहरण व्यांडां काडा क्षप्राठक तथा का माना केन यापत गुरुष्ठ क्यांन कागर स्थाया वर्ग हमहत्र पत्र क्यांमायत महास्था में भट् भग्भाग सा सासा वासामामा एवं हिसपरास वामिस सा काश क्राममें जे ब्राप्ताम राई छन तथ क्राम्मन राय जेंगे जिने राम पश्चमन क्यांने क्यांने में याज परात हरामाह हेर्थान हमरा हो महायस यह प्रहा करेड क्यार उर्व अनव फ्रेंग क्षा भइ।

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

#### BIHARÎ.

MAITHILI DIALECT (SOUTHERN VARIETY).

(BEGUSARAI, NORTHERN MONGHYR.)

#### SPECIMEN II.

#### A FOLK-TALE.

418- 3114-4- 8311-01081-15+ 00- B- AMINA-44141-EH-40E1E-3021-101- 404- 10-MYOI - HIST - H - 01504 - 14 - 8 - Jumi - H - SH-14- 410- da-211- 2147- 54-61- mienmisun- nio; Almi- 4:04 - 14- 543- 54- 681 851-45180-419+ 8-417-418-4- 110541-Infrance 4 - mi411 - 41 - 417- 4170 4- 2017-40 4-19- Enn - 54 - El-main - 4 das 9-057-48A+ ñ41-31141-Hisl-2han-8/311-400-10-10/01-201-201411-4149-4149 Paria - 00 - 400 - MINI - MINI - MYA - HETIA sia-na-mi41-411- m1411-H-4484-14-11-451-20-mer-141-6-418541-

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

#### EASTERN HINDI.

AWADHI DIALECT.

(DISTRICT GONDA.)

अअमले के इइ पेटवा रहे उन मां में छोरका वेर आ मापते पाप से मारिस कि हे पाप तम कां मन्त पामा परंदे प्रका पारि हैंसे तो हिनापन पुत्री ६० का नार हिस्स - कुछ हिन के पार्छ छ। टका वेटवा सव ते हैं वे परहेस पता गा नामव जाजाति वेकानकान मां उड़ाइ हिल्स - जाव सव र्प्तम जुका तो अहि रोम मां वृडा हुना प्रान्तव हो भूषात भी लागे - गपंड. परि हिस के प्रका मलह के लागा-ब्रिका समानि नागर्व मे प्यापित प्रेत मां पहरस-6-m140 पर 4101 न्यूसी से अध्व सुन्नि min 12 वहत पुरम से जारि त्रेता - स्ता प्रही के नारी हैत गरा-जाय वाकी सुधि ने तय करें 01011 कि तमने बाप के बत्त नीजानन जो धार्य मां मिला देवाम पाल जात

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

#### BENGALI OR BANGA-BHĀSHĀ.

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

25- 6017-88- Cymin 478-04122 42121- mnon-41434 360 32 nen nen man- allen of niz me et signi com que une se आर्मा- श्रीक- हाक- प्राध्न - द्वाही-4/21-214-36-0 03-672-0850-48 Sid-min- Creb mnoi- an 46- 51 non- Orla. min- on- Con alver una- le sie- Byan

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

#### BIHĀRĪ.

MAGAHĪ DIALECT.

(GAYA DISTRICT.)

### SPECIMEN I.

૫% શ્રાદમી જે દુ ગો વેઠા હ0થીન । ઉન્ન ફર્ફો મેં સે સ્રોડના શ્રપન વાપ સે ઋહ્0% के ए वावुंणी गोर्टन श्रीफ वंगुस में से जे हमन वधाना हो है से હમતા દેદા પવ અ શ્રપન સવ ચીખ વતુસ હનઋન્દો દુનો મેં વાંઠ દેવના હત દોન નોષે ના પૌલય કે છોડમાં વેઠલા શ્રપન સન ચોળ નદોત સંદોત કે કોર્ય વહો કુત્ર દેસ મેં 200 ડો0ા હુર્યો ખો જે થપળ સવ પુંખો કુટ્યાઈ મેં ખીશાળ % ते है0% । श्रांड ज्व सव अशां युक्क एवं के हेस में वड़ी मानी श्रका**0 प**ड़0 શ્રાઉ શ્રીઋતા દીઋસીઋ દીષે 0010ર । एव દુર્શા જે પેડોો તદ્વરશ્રા દોંશાં ખા જે તદે 0)10 । क श्रोकता अपन वाथ में सुश्रत अतावे 0। पेडी ७ करा श्राष्ठ क सुश्रतीश्रन ને ખાય લાગ શુંસા સે થવન પેઠ મને ગા તો છો છ્રેન રહ વાસો સોર્ય શ્રોજના ના દે હ્વરા ખવ શ્રોઋના વુદ્ધાર 000ર વવ જલ્વઝ જે હમન વાપ જે જેગા વીજન ચાનન હથ ખીનના હંડુગ્રામન પ્પાય ને દરન ખે ગ્રનના ત્રના ને દે હથા શાઉ હન तुथे भन हो। अब डिंड के अपन वाप हीं जाएव आड डनका से कहव के ए वायुजी હ્મ પ્રગાલાય પ્રીતી શાહ પોહ્તા પ્રોતી વહા પાપ જૈંગા શાહ શ્રવ હમ પોહ્ત વેઠા ઋહાવે મુક્ત નાં હો ! તં હમતા શ્રપન હતો મખુતા નોશ્વત તથા વસ એ ૩ડ૦ શ્રાષ્ઠ શ્રપન વાપ શેંશાં ડોઇ આપની શ્રોક્ષના પદુંચે છા કુલ્ફ દુન વાક્રીય હ્વર કે શ્રીજન વર્ષા શ્રીજના દેષ્મુલજરા જ દેષા જે શ્રીજના વર્ણ નોરુ 000રા શરૂ દર્ ં કે શ્રીઋતા ગાંગા સે મોછાર થાંક સુધે ચાંદે છેગાંગરા પત્ર વેઠલા શ્રીઋતા સે कह0क्षर के ए वावुणी हम अ)।बाब भीती अ। जिल्ला भीती वड़ा पाप कैं। શ્રાહ હ્મ મોહ્ય વેઠા ભ્રહાવે ખુલૂત ના હો ા વાસો શ્રોસ્ત વધ્ધા શ્રધન નીસ્તવન સે ઋહ્0ઋર જે પ્યુવ વેશ વેશ gon onal શાહ પ્રજ્ઞા પેઠ્દાવર્દો શાહ પ્રજ્ઞા દાય મેં શ્રેગુડો પે શ્રા દેશાં શ્રાષ્ઠ ગોલ મેં ખુતા દેશાં શ્રાષ્ઠ સ્પત્રો ખુવ ખાતે પોતે ખાર શ્રાષ્ઠ ખુસી ઋતી સાફે જે ર વેટા હમત મત સુભા હ0 શાહ શેન જે ખોલા હૈ ર મું 10 ગેઇ હ0 માહ શ્રવ શ્રેન જે મો00 દા શાંક જ સવ પ્યુંશી મયાવે 0)10ના

શોજન વહ્કા વેઠના વાય મેં હ0ક શાઉ ખવ દુર્શ સે શા જે **ઘ**ન ઝોનો પહુચા વ ગોષ શાઉ વાચ સુવ0ઝા વવ પડો વીઝન જે વો0ો જે પુલ્0ઝ જે

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

#### BIHĀRĪ.

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

(DARBHANGA DISTRICT.)

ષ્ક ગોડા જે દુર વેડા તરૈજા છોડજા વેડા વાપ સોં જ્રેલ્મજ ખે વાપ સ્ત્રત િંદ્સુસા સાજ થળ દે દદા વાપ શ્રીઋત દિસ્સા થળ વાડિ દે0ઋજે ા થોને જ દિળ પત **છો**ડના વેડા શ્રપન સત્ત થન ૫ન્નડ્ડા ને વર્ણ દૂત દેસ ચાંછ ડોઇ ! શ્રોષ સપન સત્તડા યન લુક્ષન્મ મેં શ્રોહા દેવના શ્રોન્ન સત્ત યન ખપન શ્રોહા ડોવેન, શ્રોહી દેસ મેં વર્લ્યાની શ્રુપ્તાં પર્ણી ૧૫૫૧ શ્રી શ્રીફી દેસ મેં ૯૬ ગોડાલ શ્રીફી ડામ સૂગ્રન શ્રીકરા દોસ મેં છે કે મોળ પહું છે ખે દમતા વાપક શ્રોફી ડામ કરોક વોક્રત શ્રોફ્ટ ખક્રતા ખા પો રું શ્રધિ ક ધન વચે છે જાા દન ૫૧ મૂર્ખે મને જ્યા દન વાપ જ શ્રો પા ખાયવ ઋહ્વે ખે હન મોહત થો માગવાનુક વહ શ્રપનાય જેઇ ા હન મોહત વેઠા જહેવાન ખોગ નિફ સ્થિત્રી । ફ્રમના ગોં શ્રપના શ્રોફિ ડામ નો ઋત નાષ્યા ક સાપ્ત નાગ મન મેં ડાંગિ વાપઋ શો 400 ા વાપઋ 0) પદું 40 ા છે જિન જમાન શ્રત જે જિ શ્રીઋત વાપ દેષ્પિષ્ઠિ મમામ છે શ્રીઋતા દિસ ખાદો અલ્લે, શ્રીઋતા ગાતદીન મેં છતા के સુમ્વા 00 के का વેઠા કરૂ છ જે ખે વાપ દમ પોદ્ય માગવાન વહુ શ્રપતાય જે 0 દ n ક્રિમ વોદ્ય વેઠા ક્રહૈવા ખોગ નાફ ક્ર્શા શ્રોક્રય વાપ યાફ પત શ્રપના નોક્રય *ક્રે* ઋરુ૦ઋ ળે ખૂવ નીઋ ર નુષા ૦ા, ૯ઋતા પર્જતા, શ્રીંડી રાથ મેં દરી, પનરો સે પર્જતા દરી ા મોઠાષ્ઠ વાલ્યા છાં જંમાત ખે હમ સાજા થા પો જે મુસી જતી ા જિંદી જ ગૌ હમત વેડા મતિ જં ખી રહે 1 કે વેડા દેવા 500 સ્વ સે શ્વેત મેડ0 1 કે જાદ સજ ખુસો જત 01310 1

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

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

#### KAITHĪ OR KĀYATHĪ ALPHABET.

#### Vowels. ai શ્રો ō $\alpha u$ અ: ah. CONSONANTS. Gutturals. kakhagaghaPalatals. chachhaŊ jajha Cerebrals. ţa thaહ dadha Dentals. Q thata dadha $n\alpha$ Labials. paphbabhan maSemi-Vowels. ya raθ lavaSibilants. શ sά shaAspirate. ę ha

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

```
મ a \text{ (not expressed)}; મા <math>\bar{a} 1;
ર i \hat{i}; ર \bar{i} \hat{i}; ર \hat{a} \hat{i}; ર \hat{a} \hat{i}; મે \hat{a} \hat{a} \hat{i}.
```

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

```
જા ka, જા k\bar{a}, જિ ki, જો k\bar{i}, જા ku, જ k\hat{u}, જો k\hat{e}, જો kai, જો k\bar{o}, જો kau.
```

The vowel mark  $\cdot$  is called NGLAII anusvār as in Dēva-nāgarī. It denotes the nasalization of a preceding vowel, and can therefore never begin a syllable. It is written over, or to the right of the preceding vowel : as, where ams, where bian. It is used for both the anunāsik and the anusvār of Dēva-nāgarī. The mark is called Salai 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,  $\xi^{ijk}$  dukkh written and pronounced  $\xi^{ijk}$  dukh.

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

KAITHINAGARI SCRIPT ξ8 स्वर्, व्यञ्जन VOWEL , CONSONANT By M GE HH SHA

Figure 16: Inventory of Kaithi letters (from Śākyavaṃśa, 1974: 64)

इारदा	गुरुमुसी	केथि	बंगला	मेथिकी	उक्ल	गुजराती	देव नागरी
9 -	<b>9</b>	~ 1	5	5	C	9	2
3 2	2 2	2	72/~	<b>?</b> ~	9/2	2,	<b>Q</b> 2
3	<b>Q</b> (3	<b>3</b> 3	93	W <sup>a</sup>	<b>ណ</b> ្ន	33	<b>જા</b> ′~
ス 4	å	3 8 4	8 4	8	<b>X</b>	84	<b>3</b> 4
<b>X</b> 4 <b>Y</b> 5 <b>S</b> 6	4 5	7.	<b>V</b> 15	<b>%</b>	35	भू	
5 6	<b>W</b> 6	سکو	<b>9</b> °		50	<b>5</b> 6	71. W.
7	2		<b>q</b>	الم الم	97	97	7
5 8	8	9 7 K 8	∞ل	8 🛪		8	\$
9	e f	6 B	<b>6 6</b>	3	6 /Z & ]	<b>9</b> ァ \> ∞  \> ๑	<b>%</b>
<b>30</b>	<b>90</b>	10	<b>30</b>	<b>30</b>	<b>Co</b>	70 10	<b>20</b>

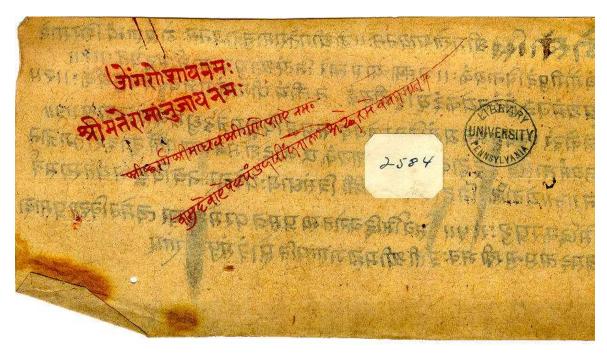
Figure 17: Comparison of numerals of Kaithi and other scripts (from Śākyavaṃśa, 1974: 76)

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

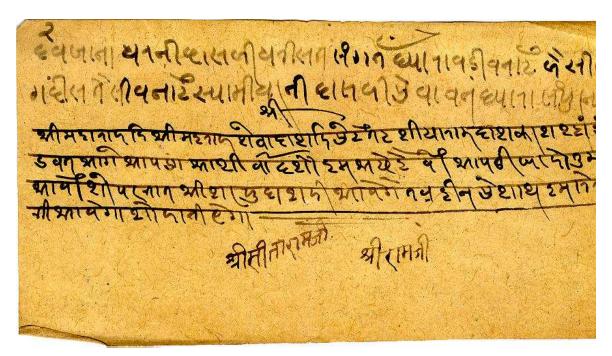
Folio 1b: Sanskrit in Devanagari script

Folio 2a: Maithili style of Kaithi

Figure 18: Folios 1b and 2a from the *Mahāgaṇapatistotra* written in Devanagari and Kaithi (continued in Figure 19). 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 19: Folios 1a and 4a from the *Mahāgaṇapatistotra* written in Devanagari and Kaithi (continued from Figure 18). The reproductions of these folios are used with permission from the University of Pennsylvania.

คุ อาเนียเก- มีเอยาแดเ-มีเนิดนาหา- วารียน นูน์เนเลเ- ของเก-พอเนาสา หาอาการาชางาง कर्यात्रे अस्ति का का कर्या कर महत्त्र की कार्य की कार कार कार ลี ฉีนทหายเก- ลแองเก- ณๆ แโล2 x32 นิโปยา mia สเลย mian หนึ่งกิ มกรานา- แบก นา ะแกลร์ แมลภิพการีนั้นา-แพเลิ เกอมพา-. 46 กลเกางนีกวิ มแรก-สามมรางและบา 1 พลเก- ภมิ (มีสะมารใ T morright ting & Huselt- as Alaxi 14 mm 478/18 2121912 2 mm 4/24 411 11 - 211 81 82 Hi? SIII THE H'21/21 52 03 มะเอมหมา2 มาริวิทธรมเม− อาเพาง + พทมพนา แบงเอง (हिंगाम प्रामान) के पृथानियान प्राचित्र क्षाइ की पुण प्रामान्य के दे คินกานหนุฐทอสาขายายา มาเลา- อเสาะ อาสาร To Del 13 of of Bhi? Enmanuine - Del 4 ser 4 2 212- Bull-2 mong my St al- 414 m m 21 11 thug 1- Her mar of 920 874- Huzzaly 42012 13m2xy0 2 mc & 4112 220 221-मार्थहेन्द्रामा मा इकी Ty 4415- 24-317 20 2338 Duez a Crim- man 1 4 28 มิสิ-ม กาย 22 4 อกา m ม ก ณ เกิ - En mr - เกิ पेका १०४- मी पात अर्ग आके शहा मार्ग रे में 2 यहा का शु केरामा การีชาบาราสาราราชายการเราตุ ราเพศนลาสาราชา 21 2500 41 31 4142 ar mrien42 22 mis 92

Figure 20: Excerpt from a plaint from the district court of Patna, Bihar hand-written in Kaithi (from Bihar High Court of Judicature, 1939).

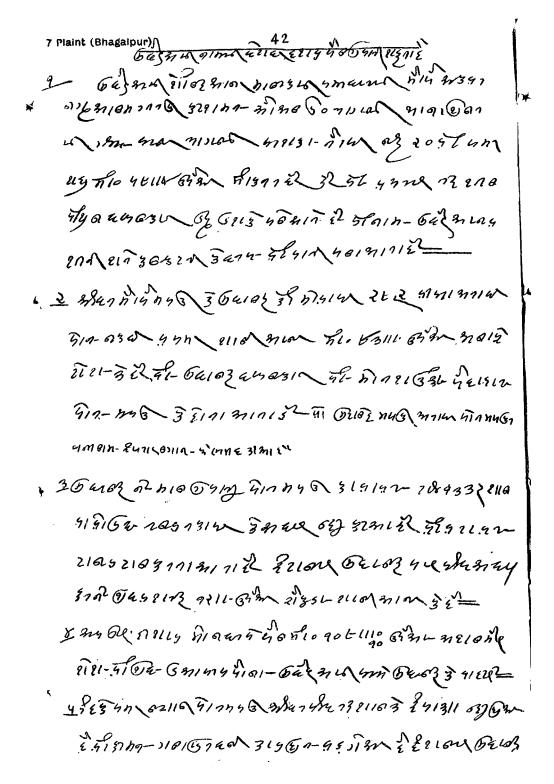


Figure 21: Excerpt from a plaint from the district court of Bhagalpur, Bihar hand-written in Kaithi (from Bihar High Court of Judicature, 1939).

22.Patta (Ranchi) เกอง เรา M- อฟานานานากเล- 3 อาก- 47 กาฯ - อานาณ 461117-4117-4611171-M M-41114-62a14-111 - 24-MM 211-2114111-4210111 481218117141-112-4110-11716-113161-mg 1161 2722 - m171 - 416 6187 - m110)-42- Elung 47102- 291m5-018-40018-410-018-100 Ma-mi-41412 nma-yamer 32-y en 91- 8812 としていられータいのとかれて一引としてかり、2一のかる12717 HIMIN-czi 61 Ezzz-mi-214-92121 72-15/912 111-114-11-5091-0041-311を-41を-4151-4151-पा-41)14 1016 - 10 - 110 - 110 - 110 - 1101 - 9110 - 110 - 110 - 1101 -49m n-11101117212-4210 my 1121-11011-671 67 2211 นโ-กเวกา-ยกางกาเยร - ๆหเนาา-นเลา)กาก-มี-านหาก-หางเกา 4) ผืงคา-สหนส-ยาญ mini-4-20101-21-1941-8147-8147-8min 49m1140 Hiley 4 - 47 - 411-47118 4-18-1407 ที่หา่างเกา - พกางใน - พกานการ - พกานเอาทา

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

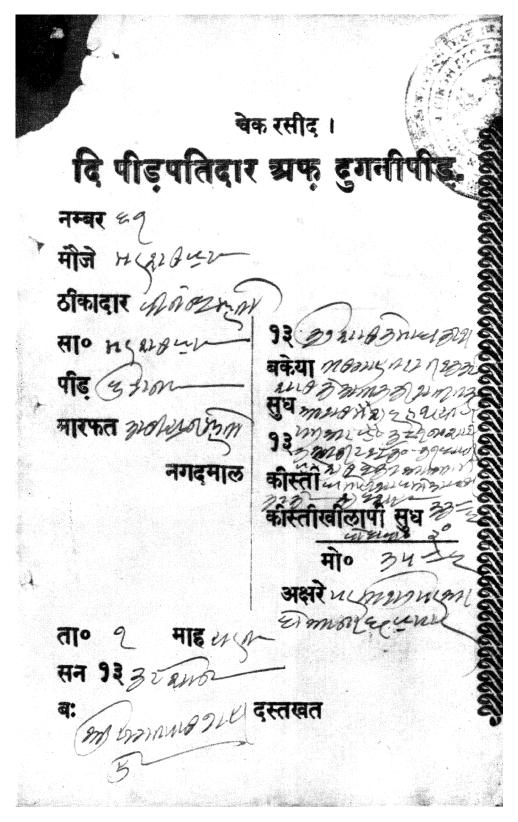


Figure 23: A rent receipt granted by the Pirpattidar of Dugni (Principality of Seraikella) written in Kaithi on a form printed in Devanagari (from Government of Bihar, 1954: plate following p.288).

# **एतपती की पुसतक।**

क्रीन

### जातना की पुसतक के वीसवें पनव तक।

THE BOOK

OF

#### GENESIS

AND

99

#### PART OF EXODUS,

IN KAITHI.

#### CALCUTTA:

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

BATHET MISSION PRESS.

1851.

#### **उतपती की पुसतक।**

#### १ पहीसा पत्रव।

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

र्वतपती की प्रतक।

१ पत्रव।

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

Figure 24: The title, first, and second pages of the Book of Genesis printed in Kaithi type (from Calcutta Bible Society, 1851). The Kaithi font used here resembles Devanagari in the use of the headstroke, but distinct Kaithi letters can be identified.

THE

#### NEW TESTAMENT

OF OUR

LORD AND SAVIOUR

JESUS CHRIST,

IN THE

HIND! LANGUAGE.

KAITHI CHARACTER.

TRANSLATED FROM THE GREEK

BY

THE CALCUTTA BAPTIST MISSIONARIES,

WITH NATIVE ASSISTANTS.

CALCUTTA:

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

1850.

धनमपुसतकका ऋँतन्नाग।

सनवात

पननु बीष्ठ प्यीष्टके यान सुसप्तायान

चार

पनेनितोंकी किनियाष्ट्रींका विवना

ঙ্গীৰ

**उ**पदेशाहिक क्री जविष्यद्याकाका पतन।

यूनानीय भाषासे हिन्ही भाषामें किया जना;

म्बान

र्रेजचुँउदेयीय वर्षासमाजने छपकानसे छापा छुना।

फलकत्ता

विन्हुखानी सन १४०७ ब्रीयवी सन १८५०

मधिलिपित सुसमायात।

१ पहिला पर्व ।

ष्ट्रीक्टकी वैशावित ।

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

Figure 25: 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 24; it resembles Devanagari in the use of the headstroke, but distinct Kaithi letters can be identified. Note, in particular, the use of \(\mathbb{H}\) KAITHI LETTER NNA in the word (\(\frac{9.4}{9.4}\)\(\mathbb{H}\), which appears in last word of the fifth sentence on the Kaithi title page.

67

#### **BICOL**

94 BIHARI: Magahi dialect

97

Devanagari characters

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

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

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

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

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

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

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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 ६ श्वर ખગા સે શ્વર સત પ્રેમ અર છે છે શાયત ૧ મને સે તાશ્ર તા હોય વાकी શતના ખીલત પાય !

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

### काहे को जे कोइ परमेशर को इक्षा पर चले, सेइ इसर भाद बहोन आर साथ हेक।

Devanagari characters; Mk. 3.35

Spoken by over 300,000 people in Manbhum district of Bengal, India. First publication, St. Mark's Gospel in 1895 at Pokhuria, Manbhum, India, by the Santal Mission Press; tr. by A. Campbell of the United Free Church Mission and a native Christian, Ishwar Sahai. हो प्रधि किन्तु अपार जींदगी पाविष्य । का हे का रंघर संसा र के खितन दुवार के वखन का उखद ष्यम्ना एक अवन जा बेटा के देव खन का ये प्रति खप्नी खेवन गपरे विष्यास कर परिच उखह नाक निह्न श्रीक किन्तु भ्रायार जींदगी पाव थि । का हेवा संसार केर देशों करें करें बेव रेखर ख्रम्

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 खरगमध्य रहिन्हार हमरासभक वाप ते हर नाम पिन्त होवे ते हर राज्य आवे ते हर मनमाणित खर्ममध्य जेहन तेहन

Part of the Lord's Prayer

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

### BIHARI: Nagpuria dialect

99

Kaithi characters

काहिक ईश्लन हुितया किनमत के ऐसत हुित कन्ठक, कि उभाव एक्ठा वेटाके हैिक, कि जे केड इक्षनमें विश्वास कनी, से तास त होक, मान अतहा जोवत पावाका

1909

Devanagari characters

#### तोंए परमेश्वर अपन ईश्वरके परनाम कर, श्रीर खली डकरे 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 26: 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*.

96

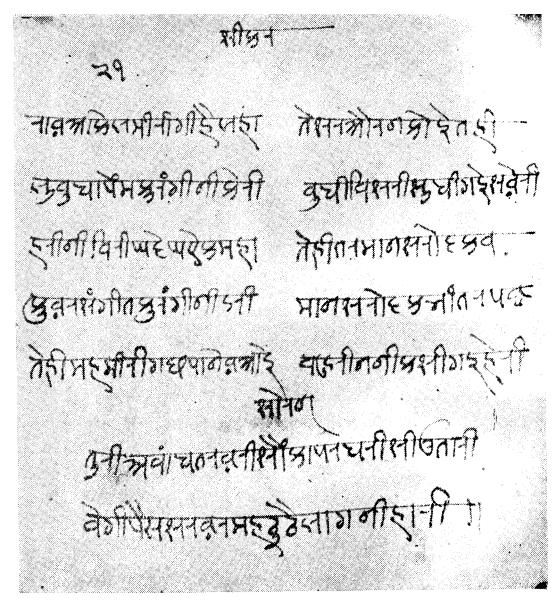


Figure 27: A folio from the "Ekaḍalā" manuscript of *Miragāvatī* c.1828 (from Miśra, 1963: plate 2).



Figure 28: A folio from the *Tale of Sudama*, India, Bikaner, 1745-6 CE, No. 9028, Sam Fogg, London. Image © Sam Fogg, London

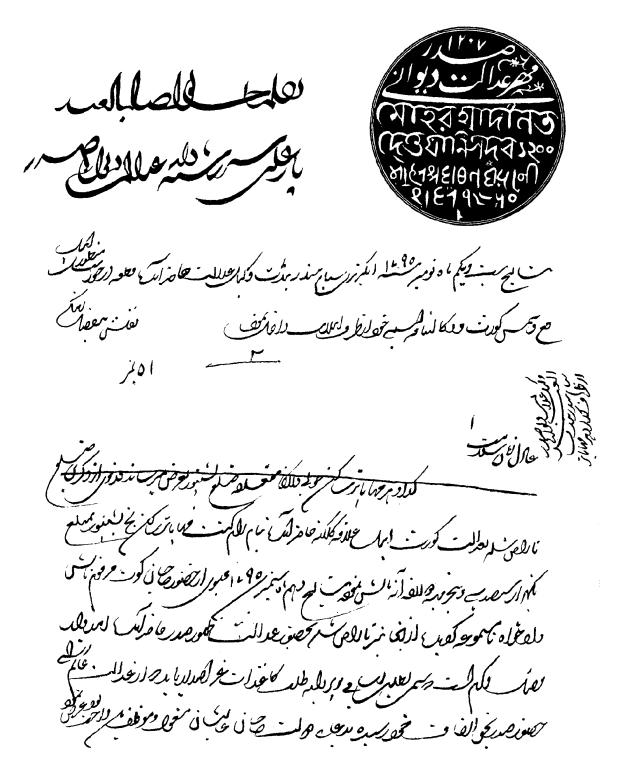


Figure 29: A letter to the Supreme Civil Court of Appeals in Calcutta. The letter is written in the high Persian idiom and śikastā style common in courts of law. The seal at the top contains text in the Perso-Arabic (first two lines), Bengali (middle two lines), and Kaithi (bottom two lines) scripts. The Kaithi text reads "اقراع على على المجاه على ا

પત્ન શ્રાદમો ને દુ ગો વેઠા હ્વિયોના ઉનક્ષ્ફ ોં મેં સે છોડમાં લામ વાપ સે ક્રહ્મ ને પ વાલુળો ગોહન ચીળ વાયુસ મેં સે ળે હમન વાયના હો હૈ સે હમના દે દા તવ જ લાન સવ ચીળ વાયુસ કનક્ષ્ફ ોં દુનો મેં વાંઠ દેવના હેન દોન નો તો વાપોલ ને ક્લોડમાં વેઠલો લાન સવ ચીળ વેઠાન સંઠોન ને કોં લાંઠો દુન દેસ મેં ચલલ ગેલા હુલાં ખો ને લાન સવ પુંખો કુચાલો મેં બોલાન ક્રન દેવના લાક ખવ સવ ગાલાં ચુક્ર ભવ સવ પુંખો કુચાલો મેં બોલાન ક્રન દેવના લાક ખવ સવ ગાલાં ચુક્ર ભવ જ દેસ મેં વણે માનો લગા પણ લાક લોકના દોક્ર માન હોય લગા માં સુલન ચનાવે લા પેડીલ ફરા લાકો છે સુલનોલ ને ખાપ લાલા મુંસલન ચનાવે લા પેડીલ ફરા લાકો કોં સાલ સ્ત્ર સ્ત્ર ના દો ફરા અને લાધ મેં સુલન ચનાવે લા પેડીલ ફરા લાકો કોં સાલ સ્ત્ર સ્ત્ર ના લાધ કે સ્ત્રી લાકો હોય લાકો કોં સાલ સ્ત્ર મામ લાકો સાલ સ્ત્ર સ્ત્ર ના લાક સ્ત્ર મામ લાકો સાલ સ્તર લાધ તે સ્ત્રી લાકો કોં લાક સ્ત્ર મામ તે સ્ત્રી લાકો લાકો સાલ સ્ત્ર સ્ત્ર લાકો સાલ સ્ત્ર સ્ત્ર ના લાક સ્ત્ર મામ સાલ સાલ વાય મેં સ્ત્ર મામ લાકો સાલ સ્ત્ર સ્ત્ર લાકો સાલ સ્ત્ર સ્ત્ર લાકો સાલ સ્તર લાકો સાલ સ્ત્ર સ્ત્ર લાક સ્ત્ર મામ સ્ત્ર સ્ત્ર લાકો સાલ સ્તર સ્ત્ર લાકો સાલ સ્ત્ર સ્ત્ર લાકો સાલ સ્ત્ર સ્ત્ર લાકો સાલ સ્ત્ર સ્ત્ર લાકો સ્ત્ર સ્ત્ર લાક સ્તર લાક સ્ત્ર સ્ત્ર સ્ત્ર લાક સ્ત્ર સ્ત્ર

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

किसी मानुस के दो बेटे थे। उन में मे लच्चरे बेटे ने बाप से कहा है बाप आप के धन में जो मेरा बखरा हो उसको मुभे दे दीजिये। तब उसने अपना धन उनमें बाँट दिया। बहुत दिन नहीं बीते, कि लच्चरा बेटा सब कुछ बटोर टूर देस चला गया और वहां लुचपन में दिन बितावते अपना धन उड़ा दिया। जब वह सब कुछ उड़ा चुका तब उस देस में अकाल पड़ा और वह 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 भक्ष जिन्हें सूअर खाते हैं पर कोई उसको कुछ नहीं देता था। तब उसको चेत हुआ और कहने

Figure 30: Comparison of Kaithi (from Grierson, 1903b: 124), Gujarati (from Grierson, 1908: 365), and Devanagari (from Grierson, 1916: 95) types from the *Linguistic Survey of India*.

Figure 31: Comparison of hand-written Kaithi (from Ojhā, 1971: Plate LXXVIII) and Gujarati letters (from Ojhā, 1971: Plate LXXIX).

Vowels															
<b>અ</b>	Γ	a		ચા	आ	ā		٤	इ	i		Ş	ई ऐ	i	-
<b>૩</b> ૩ શ્રો ઝ		и		<b>ઝ</b> શ્રો	ऊ	$\bar{u}$		ų	ए	e		الم الم	ऐ	4	ıi
શ્રી ઝં	<del>ो</del>	0		શ્રો	औ	аи						•			
Consonant	S														
Stops															
Velar	<b>4</b> 5	क	k	щ	ख	kh	ગ	ग	g	ધ	घ	gh			
Palatal	ય	च	$\boldsymbol{c}$	ધ્ય	छ	ch	Ń	ত	j	æ	झ	jh			
Cerebral	ટ	ਟ	ţ	ه	ਰ	ţh	Ç	ड	d	ಡ	ढ	дh			
Dental	વ	त	t	થ	थ	th	٤	द	d	ધ	ध	dh	ન	न	n
Labial	ч	ч	p	4	फ	ph	4	অ	b	જા	भ	bh	n	म	m
Semivowel	s														
	યૂ	य	y	1	₹	r	θ	ਲ	1	4	ਕ	ν			
Spirants															
	গ	श	Ś	뼥	ষ	ķ	સ	स	S	હ	ह	h			
Others															
Anusvāra	<b>કાં</b>	अं	am												
Visarga	શ્ર:	अ:	ah												

Figure 32: Comparison of Kaithi and Devanagari (from S. Verma, 2003: 502).

PLATE I.

Deva nág <b>or</b> i.		Mahájani	English	Devand gari.		Mahdjani	English:	Deva- noigari	Kayathi	Mahájani	English!
双	શ્ર	3	a	3.	G	ઝ	n	र्न	ৰ	<i>&amp;</i>	n
ग्रा	ઝાં 1	3,5	ά	च	4	r	ch	प	ч.	20	p
दूरी	7 9	र्र	i	8	છ	છ	chh	4,	ઝુ	3	ph
1000 T		٤٠	ΰ	ज	9	3	j	व	9	cu	· 6
30	60	3	u	祈	હ	Œ.	jh	म	1	e	bh
20	69	6	w	त्र	<b>ઝ</b>	<b>3</b>	'n	म	H	32	m
我と		ર	ri	3	દ	2	ţ	य	ч	62	yj
	3) 6 3	67	e	ठ	8	. ර	th	र	1	2	r
3 2	3	6	ai	3	3	2	d	ल	6	S	ľ
ग्रोने	श्री भ	Q.	0	T	6	79	đh	व	4	ce	v.b
期刊	到争	g	au	सा	1	300	ņ	श	21	रट	<b>s</b> '
क	ቀሣ	3	k	त	9	10	t	स्र	બ	20	sh,kh
ख	બ	ರಲ _	kh	घ	थ	مى	th	स	स	20	s
ग	11	22	g	दं	4	8	d	ह	5	3	h
द्य	ध्	EC	gh	घ	ㅂ	EL	dh				

## COMBINATIONS OF VOWELS.

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

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

Figure 33: A comparison of the Kaithi script with the Devanagari and Mahajani (from Grierson, 1899: Plate I).

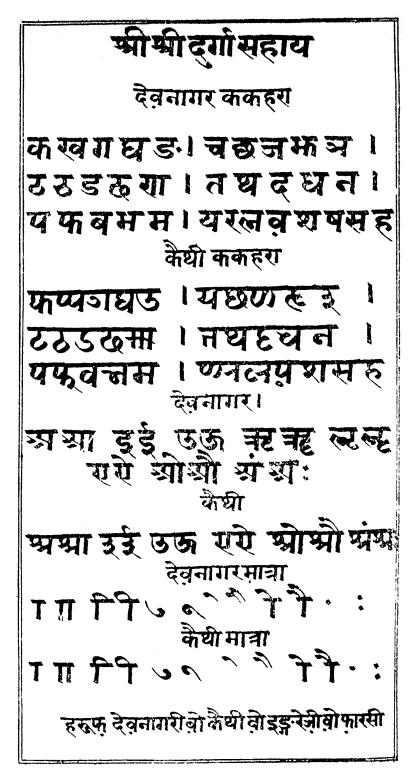


Figure 34: A table from *Kaithī vo hindī barnamālā*, a Kaithi script primer, showing the Kaithi and Devanagari scripts in parallel. The Kaithi letters in this primer are drawn in conformity to the Devanagari style, which is most noticeable in the presence of the headstroke. Note the difference in the headstroke in Devanagari and Kaithi (from *Kaithī vo hindī barnamālā*, 1882: 2).

इनको देख, अवजा, पा	तीपी , श्रोसदे ,
इतको हेप्प भवणा । प	ानीपी श्रीदनहै।
तीनश्रन	<b>त्रोंकेशव्द</b>
क ल म कलम	फ ल में फलम
क म ल कमल	या म ज एमल
क <sup>्थ्रा</sup> ंल काल	फ भा ज फाल
त इं न तीन	तः इंन तीन
म-फ-ल मूल	म ७ छ मूल
त ए ल तेल	त में ज तेज
ल त आ स्ता	जना स्त्रा जना
द फ़ झा दफा़	E प <sub>र</sub> आ <b>ह</b> पूा
म ए ई मरी	स-न-इ मनी
वा	त.
कसमकार। यहस्तताव	तमूलहै। एक वो दी-
तीनहोताहै। मृतसे ७२	वाड़ो । कालकेहाय-
सेवच। इसदफ़ेमं क	ाहे ॥
कलमकार। यहत्त्रताका	· _
होताहै। मृतशिष्णाडो	। काटन के हाधशेवय।
इशाह्युमें केम्हाहै॥	
ara ma	3136 00-3
चारश्रह	रायान्यद
, , ,	

Figure 35: Comparison of writing techniques in Kaithi and Devanagari (from  $Kaith\bar{\iota}\ vo\ hind\bar{\iota}\ barnam\bar{a}l\bar{a}$ , 1882: 8).

Lautwert	Proto- Bengālī 11. Jahrh.	Bengālī	Orissisch (Oriyā)	Gujarātī	Kaithi	Manipurī	Lautwert	Proto- Bengālī 11. Jahrh.	Bengālī	Orissisch (Oṛiyā)	Gujarātī	Kaithī	Manipuri
$\overline{a}$	ਸ	অ	21	ય્પ	গ	<b>I</b>	ņa	η	ণ	ଣ	ણ	Н	F
i	MM	ই	<u>a</u>	ઇ	1		ta		ত	ຄ	a	$\cap$	24
u	3	উ	ର	G	6		tha	ય	થ	4	ય	4	エ
e	9	এ	4	ચ્યે	(0		da	ਫ	দ	ଦ	٤	ሌ	$\mathcal{L}$
o	3	હ	ઉ	ઓ	211		dha	9	ধ	ય	ધ	4	心
$ar{a}$		আ	211	ખા	201		na	ন	a	ନ	ન	7	P
ka	क	ক	S	タ	413	æ	pa	य	প	ฮ	પ	4	Ш
kha	શ્ય	থ	84	щ	બ	压	pha	ঘ	ফ	ರ್	X	ry	E
ga	স	গ	น	ગ	51	M	ba	ৰ	ব	S	ય્પ	þ	8
gha	द्य	ঘ	ପ	ધ	4	रू	bha		ভ	ଭ	ભ	N	$\mathfrak{I}$
$\dot{n}a$		હ	$\mathcal{S}_{\mathbf{r}}$		b	ھر	ma	য	ম	Я	4	4	He
$\check{c}a$	व	Б	၇	ય	4	Ħ	ya	น	য়	IJ	ય		ス
$\check{c}ha$	あ	ছ	Ð	છ	$\alpha$	देन् १	ra	ਰ	র	$\Omega$	ર	7	$\Delta$
$\check{g}a$	잦	জ	Si	4	บุ	ढ	la	ন	ল	$\Omega$	(1	В	7
$\check{g}ha$		₹	જ્	거	4	ટ્ટ	va	ą	ব	ඉ	9	9	F
$\tilde{n}a$	B	ঞ	G			$\gamma \mathcal{O}$	$\acute{s}a$	ध	×	87	१।		ठठ
ţa		ট	3	ک	ሪ	ळा	$\mathfrak{s}a$	Я	ষ	8	d		
tha		ð	0	5	ర	田	sa	স	স	3	સ	H	لى
da	ड	ড	ତ	5	ح	~	ha	इ	হ	रू	V	द	6
$\dot{q}ha$	2	G	ଚ	ઢ	ઢ	M							

Figure 36: Comparison of scripts descended from proto-Bengali (from Jensen, 1969: 370).

!	TABLE I.—HIN	DI ALPHABETS	S.		TABLE	I. (CONCLUDED)	-HINDI ALPHA	ABETS.
Nágarí	Káyathí.	Mahajani.	Baniauțí.	_	Nágari.	Káyathí.	Mahájaní.	Baniauți.
स्रा वि ३	लिस स्थान	6 6	m 6 6 8		ट ड ड उ	ट ठ उ ढ ढ	ુ જ જ જ ક	१९००५
あ。 取 2 マ 3 前 1	新 <b> </b>	\$ \$ \$m	8 4 F		ন ঘ হ ধ ম	तत त्य ह चिय न	<b>L</b> 9 = 4 = 0	0 es & 23 60
नी ने क ख ग	क व	37 37 37 37	की 3 43 21		ਧ ਯ ਕ ਮ ਸ	प फ्रॅं व के म	प्रस्त ७ १ १	umger
ਬ ਲ ਸ	च न न	41 25	<i>a</i> , <i>a</i> , <i>u</i> ,		य र ल न	ਧ <b>ਮ</b> ਨ ਲ ਕ਼	9 77 cm 7	6223
क ज भ ञ	ত্ব ভা হা	& 9 & &	ور ب پ د		श ष म रु	प्र प्र स र	Sus =	5 ug 5 =

Figure 37: Comparison of Kaithi with other scripts used for writing Hindi (from Kellogg, 1893: 26–27).

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नागरी	कैथी	गुजराती	मोड़ी	बंगला	उड़िया	नागरी	क्रैथी	गुजराती	मोड़ी	बंगला	उड़िया	न्।री	कैथी	गुजराती	मोंड़ी	बंगला	उड़िया
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की	की	કી	બ્રી	কী	କା	평	GR.	છ	w	চ্চ	B	₹	4	ર	J	র	ର
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Figure 38: Comparison of Kaithi with other Indic scripts (from Mule, 1974: 163–165).

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Figure 39: Comparison of Kaithi with other Indic scripts (from Naik, 1971: Table 13).

900-1900

NORTH-GUPTA

<sub>ारती</sub> 600-900 AD. BHARATI

SIDDHA MATRIKA (NAIL-HEADED) 500 A.D. शुलक्षीष (सिखमानुका)

उत्तर गुप्त

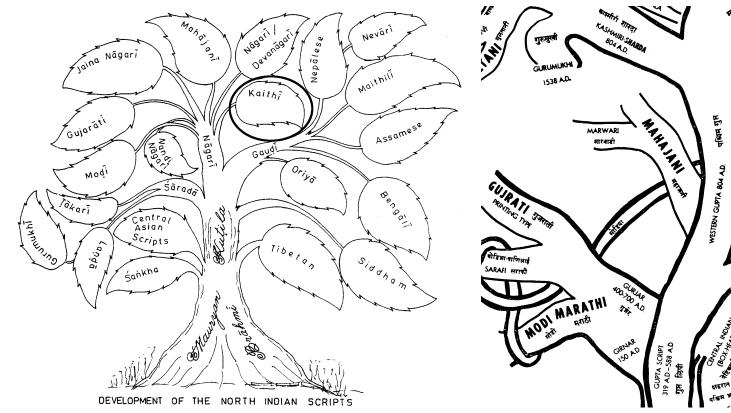


Figure 40: A family tree of north Indian scripts showing Kaithi as a branch of Nagari (from Singh, 1991: 16).

Figure 41: The position of the Kaithi script with regard to others (from Naik, 1971: Plate 36).