L2/20-151

Proposal to encode the KAITHI VOWEL SIGN VOCALIC R

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1 Introduction

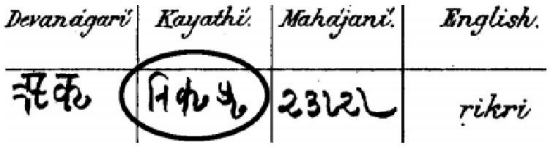
This document requests to encode the Vowel sign of Vocalic R used in Kaithi script. The details regarding glyph, code point and character name are mentioned below.

◌ृ 110C2 KAITHI VOWEL SIGN VOCALIC R

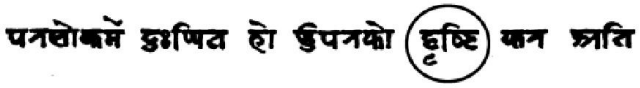
2 Background and Description

The original proposal of Kaithi (L2/07-418, page no 23) mentions the existence of vowel sign of Vocalic R. However it was not proposed as independent vowel letter is not attested in Kaithi. The corresponding portion from proposal is given below.

> VOCALIC R The vowel sign ◌ृ for the Kaithi equivalent of ऋ U+090B DEVANAGARI LETTER VOCALIC R (*ṛ*) appears in several documents. It's use typically suggests an attempt to strictly preserve the pronunciation or to represent the origin of Sanskrit loan words in regional languages. The independent vowel letter does not appear to exist in Kaithi; the consonant-vowel combination 𑂩𑂲 *ri* (KAITHI LETTER RA + KAITHI VOWEL SIGN II is used as a substitute. The sign is shown in writing in the specimen below as a part of a consonant-vowel ligature (𑂍ृ) with KAITHI LETTER KA:[68]



> The example below shows this sign used in print for transcribing the word *dṛṣṭi* in Kaithi:[69]



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

As mentioned in the proposal the independent vowel letter of ṛ is not attested in the Kaithi documents so far examined by us. ṛ is generally written as ri or rī. However distinct character for vowel sign Vocalic R is attested in words of Sanskrit origin (tatsama) in many Kaithi documents like handwritten manuscripts, primers and printed books. The glyph of the proposed character in Kaithi is same as ◌ृ U+0943 DEVANAGARI VOWEL SIGN VOCALIC R.

Hence we propose to encode this character to represent these texts accurately despite the lack of independent vowel letter.

3 Character properties

- Unicode character data:
  110C2; KAITHI VOWEL SIGN VOCALIC R;Mn;0;NSM;;;;;N;;;;;
- Indic_Syllabic_Category= Vowel_Dependent
- Linebreak = CM
- Indic_Positional_Category= Bottom

4 References

[1] Eastwick, Edward Backhouse. *A concise grammar of the Hindústání language: to which are added, selections for reading*. B. Quaritch, 1858.

[2] Greaves, Edwin. *Hindi grammar* Printed at The Indian Press Ltd, Allahabad,1921

[3] Grierson, George Abraham. *A handbook to the Kaithi character*. Thacker, Spink, and Company, 1881.

[4] Pandey, Anshuman. "Proposal to Encode the Kaithi Script in ISO/IEC 10646." (2007).

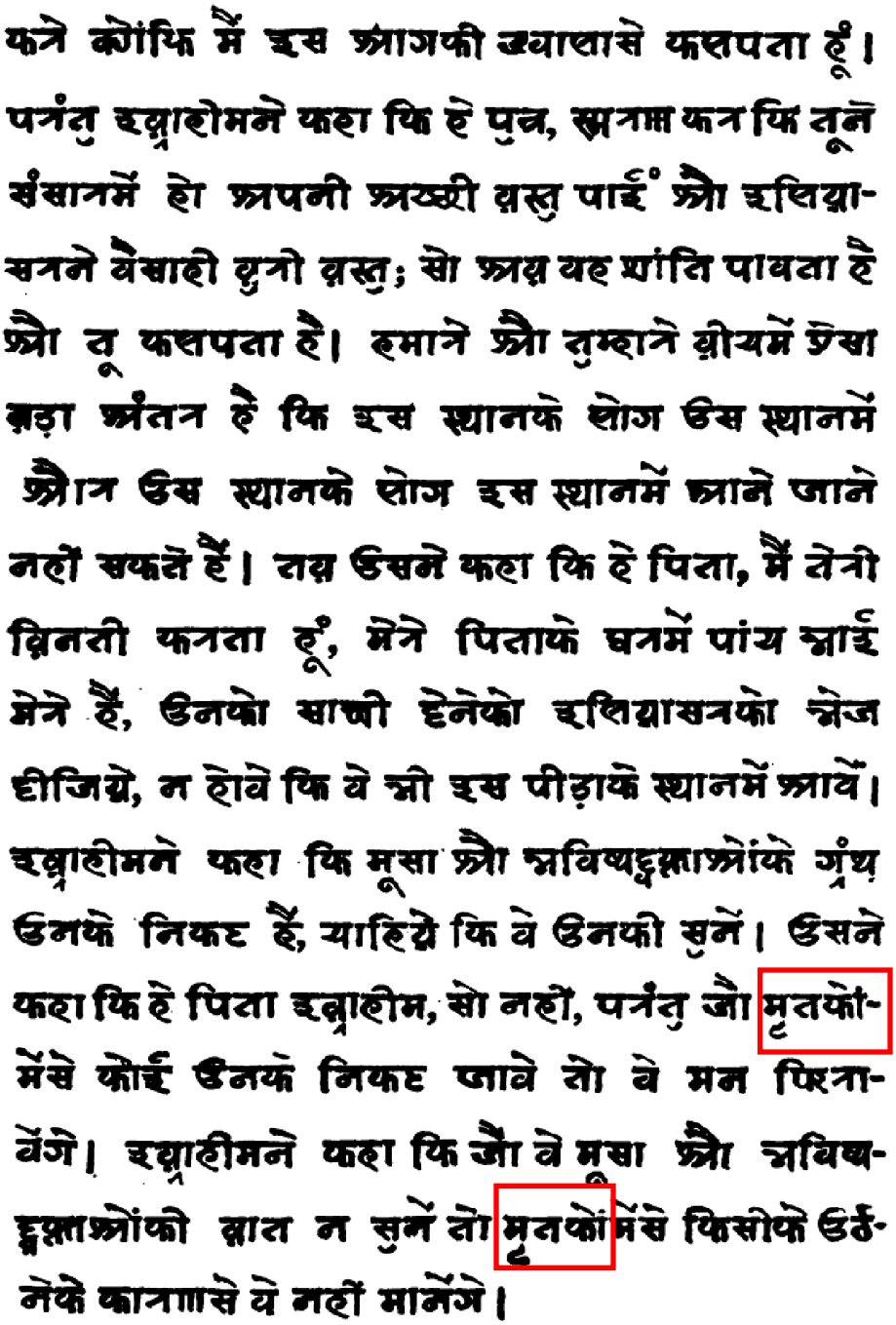
[5] विजय शंकर मल्लिक सुधापति. कैथी लिपि सीखने की प्रारंभिक पुस्तक (Vijaya Śaṁkara Mallika Sudhāpati . Kaithī lipi sīkhanē kī prāraṁbhika pustaka)

[6] http://www.museumsofindia.gov.in/repository/record/alh_ald-AM-MSS-217-38-18315

Pl. 8.

HINDĪ IN KAITHĪ CHARACTERS,
Luke, Chap. XVI. v. 19, &c.

Figure 1. The proposed character used in the word dṛṣṭi. The language is Hindi (from [1]).



करे क्योंकि मैं इस आगकी ज्वालासे कलपता हूं।
परंतु इब्राहीमने कहा कि हे पुत्र, स्मरण कर कि तूने
संसारमें हो अपनी अच्छी वस्तु पाईं औ इलियाज़-
रने वैसाही बुरी वस्तु; सो अब वह शांति पावता है
औ तू कलपता है। हमारे औ तुम्हारे बीचमें ऐसा
बड़ा अंतर है कि इस स्थानके लोग उस स्थानमें
औार उस स्थानके लोग इस स्थानमें आने जाने
नहीं सकते हैं। तब उसने कहा कि हे पिता, मैं तेरी
बिनती करता हूं, मेरे पिताके घरमें पांच भाई
मेरे हैं, उनको साक्षी देनेको इलियाज़रको भेज
दीजिये, न होवे कि वे भी इस पीड़ाके स्थानमें आवें।
इब्राहीमने कहा कि मूसा औ भविष्यद्वक्ताओंके ग्रंथ
उनके निकट हैं, चाहिये कि वे उनकी सुनें। उसने
कहा कि हे पिता इब्राहीम, सो नहीं, परंतु जौ मृतकों-
मेंसे कोई उनके निकट जावे तो वे मन फिरा-
वेंगे। इब्राहीमने कहा कि जौ वे मूसा औ भविष्य-
द्वक्ताओंकी बात न सुनें तो मृतकोंमेंसे किसीके उठे-
नेके कारणासे वे नहीं मानेंगे।

Figure 2. The proposed character used in the word mr̥takōṁ. The language is Hindi (from [1]).

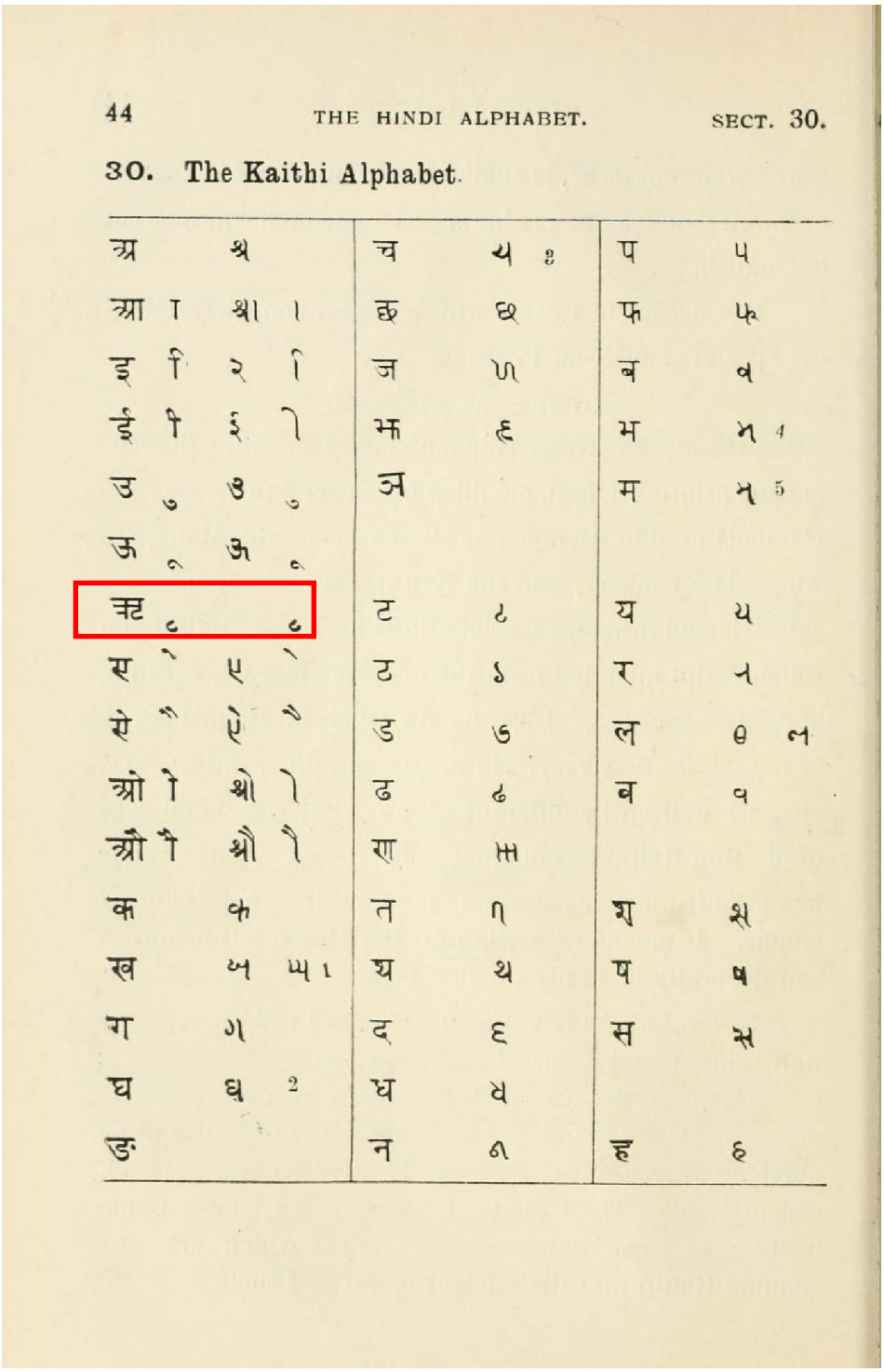
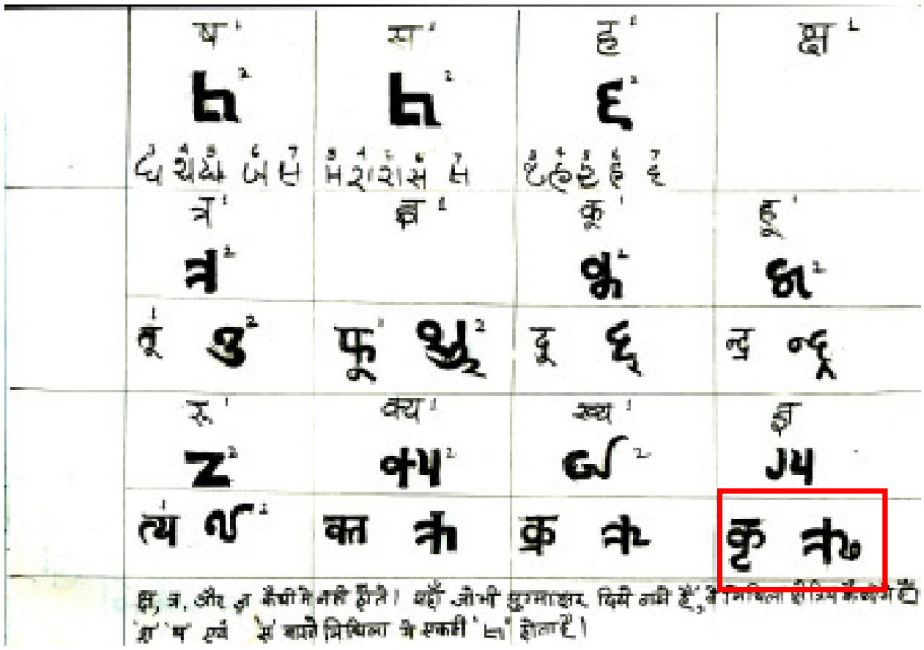


Figure 3. Use of vowel sign vocalic r in Kaithi and comparison of Kaithi and Devanagari alphabets (from [2]).

Figure 4. Use of vowel sign vocalic r in Kaithi along with other vowel signs in kr̥ (from [3]).

Figure 5. Use of kr̥ from a primer to learn Kaithi also shows comparison with Devanagari (from [5]).



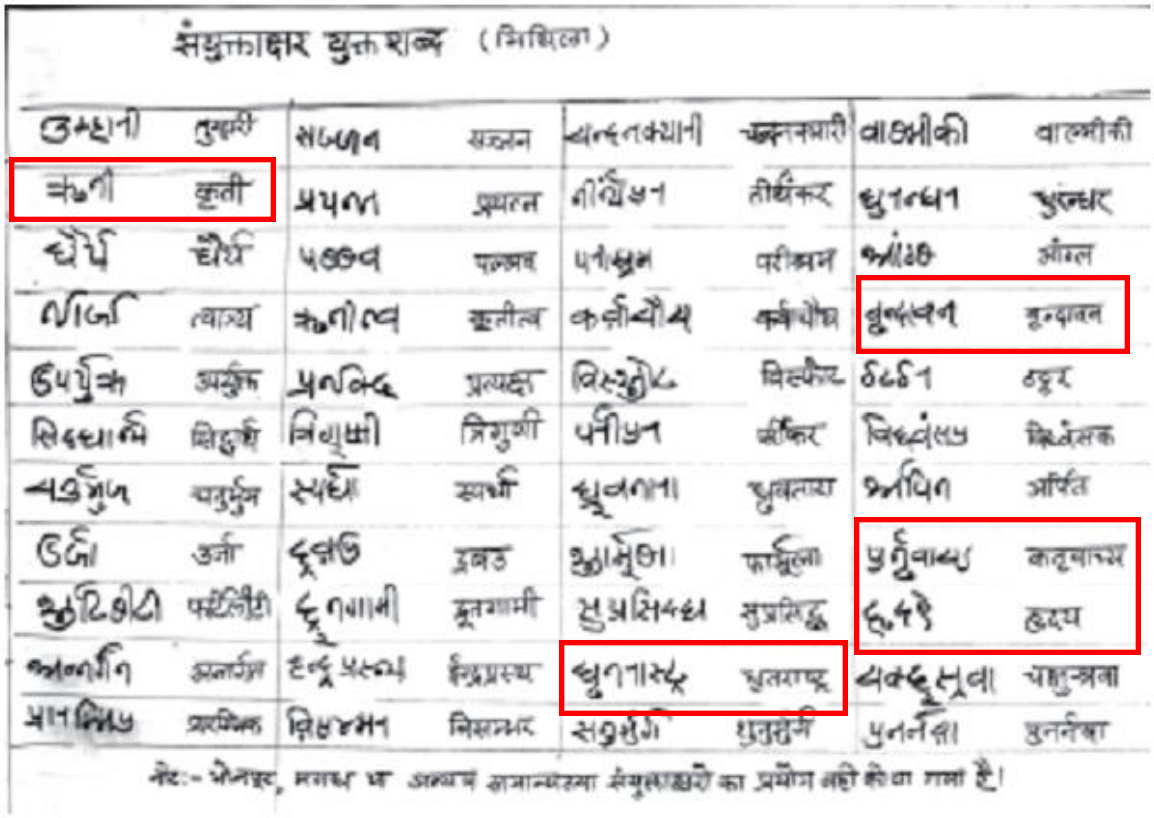


Figure 6. Use of vowel sign vocalic r in a primer to learn Kaithi script in the words kṛtī, dhṛtarāṣṭra, bṛndābana, kartṛbācya and hṛdaai in Mithila form of Kaithi (from [5]).

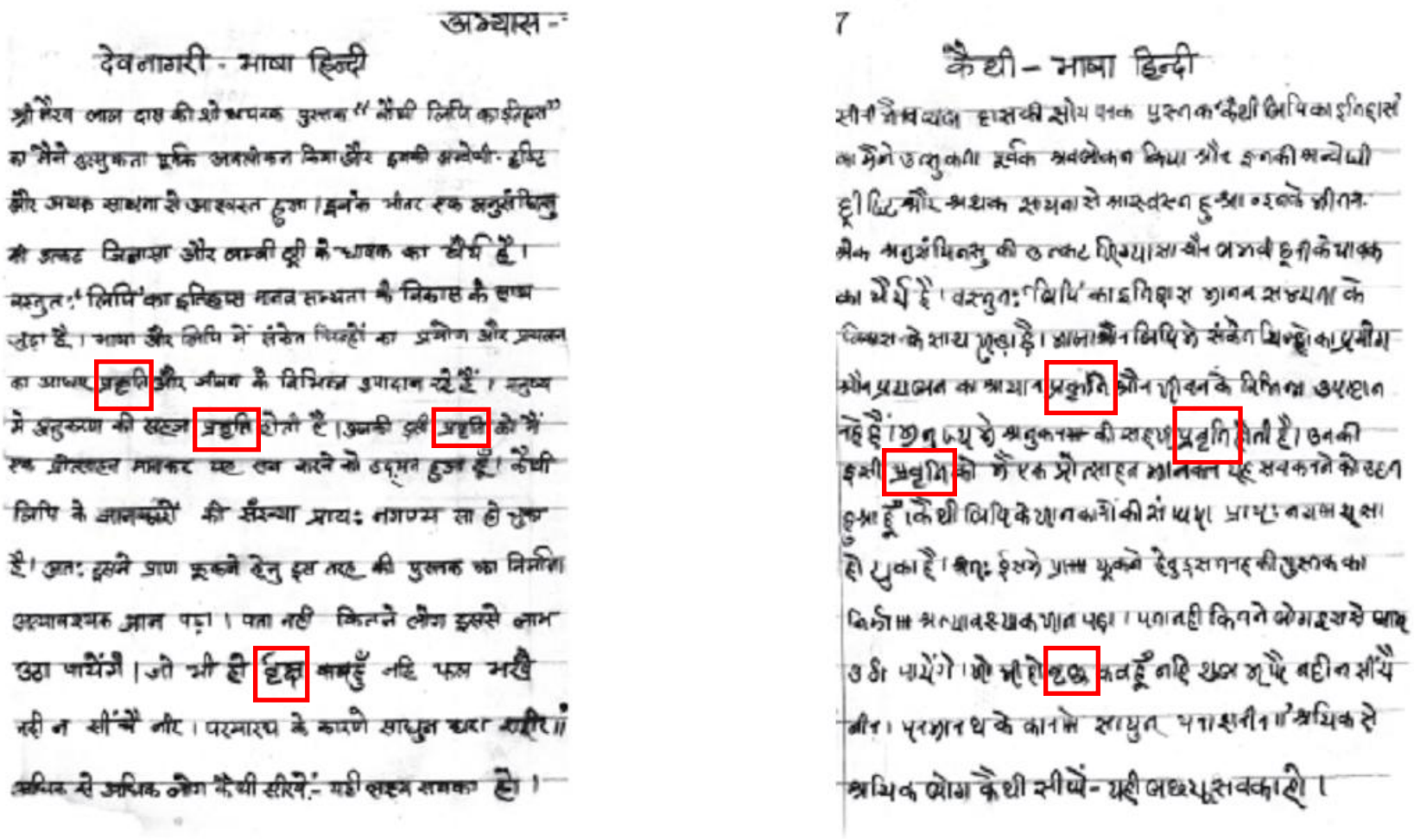


Figure 7. Use of vowel sign vocalic r in Kaithi during transliteration of Hindi language text from Devanagari to Kaithi. It is used in words prakṛti, pravṛti and vṛcha (from [5]).

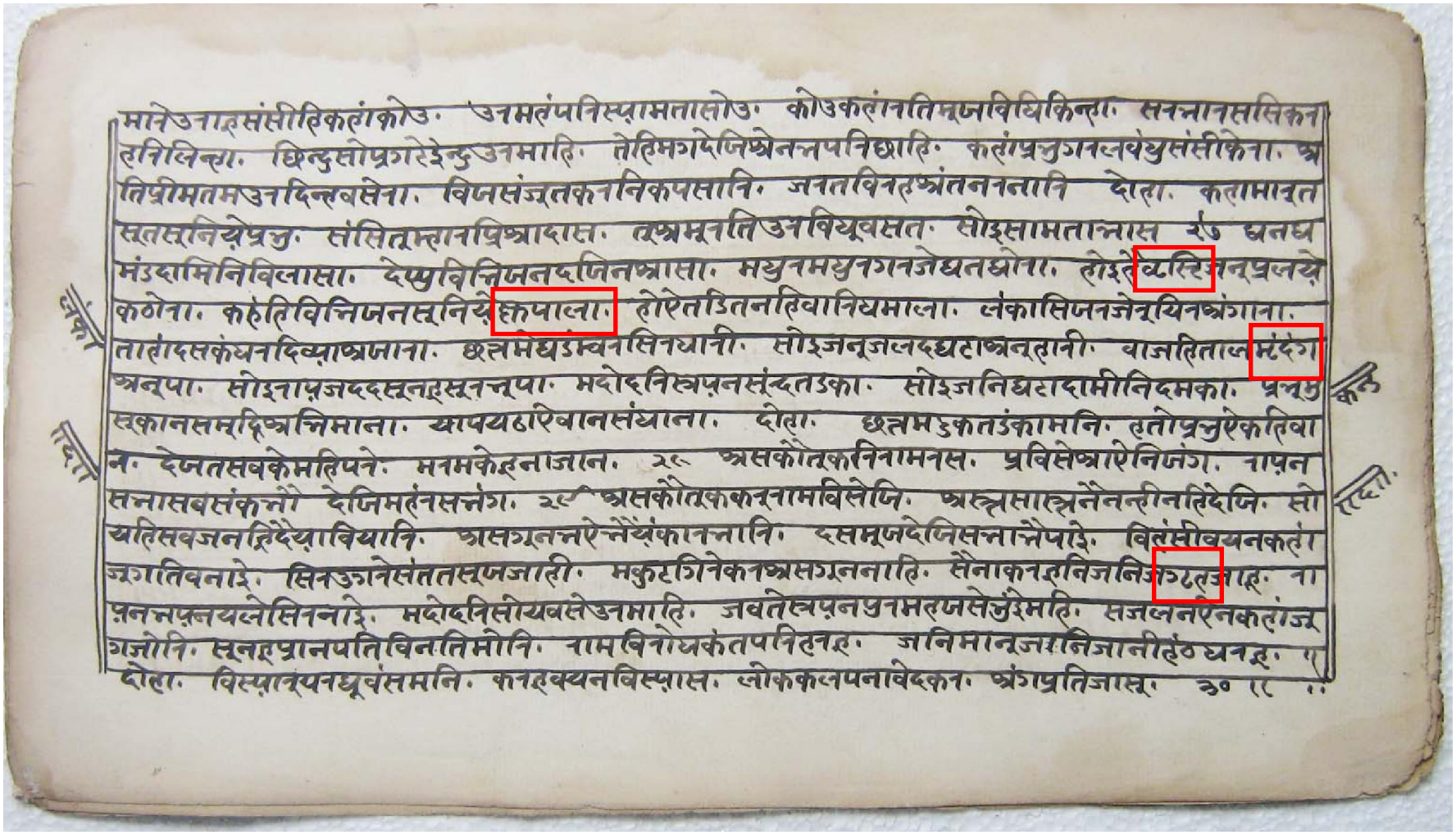


Figure 8. A folio of Lankākānda chapter of Rāmacaritamānasa manuscript written in Kaithi script. The language is Awadhi. The proposed character occurs in the words bṛsṭi, kṛpālā, mṛdaṁga and gṛha .

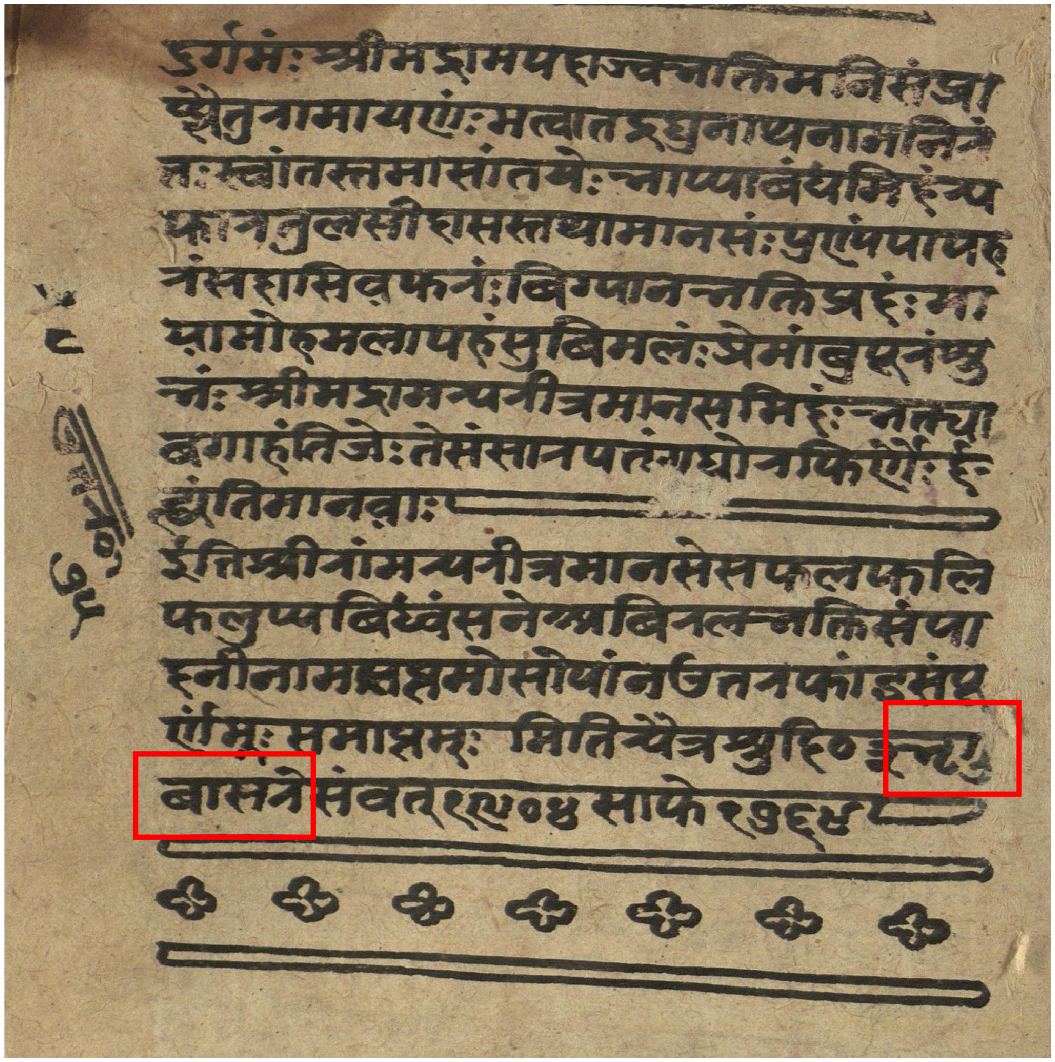


Figure 9. A folio of Rāmacaritamānasa manuscript written in Kaithi script, though it has Devanagari influence in some letters. The proposed character occurs in the bhṛgubāsarē. The manuscript is dated Virama Samvat 1904/Saka 1769 which corresponds to 1847 CE (from [6]).

ISO/IEC JTC 1/SC 2/WG 2

PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS

FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646[1]

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from http://std.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://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html**.**

See also http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html **for latest *Roadmaps*.**

A. Administrative

1. **Title:**	**Proposal to encode the KAITHI VOWEL SIGN VOCALIC R**
2. Requester's name:	Srinidhi A and Sridatta A
3. Requester type (Member body/Liaison/Individual contribution):	*Individual Contribution*
4. Submission date:	*June 24, 2020*
5. Requester's reference (if applicable):	
6. Choose one of the following:	
This is a complete proposal:	*Yes*
(or) More information will be provided later:	

B. Technical – General

1. Choose one of the following:	
a. This proposal is for a new script (set of characters):	
Proposed name of script:	
b. The proposal is for addition of character(s) to an existing block:	*Yes*
Name of the existing block:	*Kaithi*
2. Number of characters in proposal:	*1*
3. Proposed category (select one from below - see section 2.2 of P&P document):	

[1] Form number: N4502-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, 2008-05, 2009-11, 2011-03, 2012-01)

A-Contemporary		B.1-Specialized (small collection)		B.2-Specialized (large collection)	X
C-Major extinct		D-Attested extinct		E-Minor extinct	
F-Archaic Hieroglyphic or Ideographic			G-Obscure or questionable usage symbols		

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. Fonts related:

a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?

Not necessary. The glyph can be borrowed from Devanagari.

b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):

NA

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:

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 the text of proposal.

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 Unicode Character Database (http://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? *No*

   If YES explain

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*

   If YES, with whom?

   If YES, available relevant documents:

3. Information on the user community for the proposed characters (for example:

   size, demographics, information technology use, or publishing use) is included? *No*

   Reference:

4. The context of use for the proposed characters (type of use; common or rare) *common*

   Reference:

5. Are the proposed characters in current use by the user community? No

   If YES, where? Reference: *Kaithi script is not in active use today.*

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely

   in the BMP? *N/A*

   If YES, is a rationale provided?

   If YES, reference:

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? *N/A*

8. Can any of the proposed characters be considered a presentation form of an existing

   character or character sequence? *No*

   If YES, is a rationale for its inclusion provided?

   If YES, reference:

9. Can any of the proposed characters be encoded using a composed character sequence of either

   existing characters or other proposed characters? *No*

   If YES, is a rationale for its inclusion provided?

If YES, reference:

10. Can any of the proposed character(s) be considered to be similar (in appearance or function)

to, or could be confused with, an existing character? *Yes*

If YES, is a rationale for its inclusion provided? *Yes*

If YES, reference: *It is similar to U+0943 DEVANAGARI VOWEL SIGN VOCALIC R.*

11. Does the proposal include use of combining characters and/or use of composite sequences? *Yes*

If YES, is a rationale for such use provided? *Yes*

If YES, reference: *It is a combining mark. See the text of the proposal for details*

Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

If YES, reference:

12. Does the proposal contain characters with any special properties such as

control function or similar semantics? *No*

If YES, describe in detail (include attachment if necessary)

13. Does the proposal contain any Ideographic compatibility characters? *No*

If YES, are the equivalent corresponding unified ideographic characters identified?

If YES, reference: