Proposal to encode JIHVAMULIYA and UPADHMANIYA for Newa

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1 Introduction

This document requests to encode following two characters in Newa script.

Glyph	Code	Character name
ꭓ	11460	NEWA SIGN JIHVAMULIYA
ꭒ	11461	NEWA SIGN UPADHMANIYA

2 Description

Jihvāmūlīya represents voiceless velar fricative and occurs before the unvoiced velar letters *ka* and *kha*. *Upadhmānīya* represents voiceless bilabial fricative and occurs before the unvoiced labial letters *pa* and *pha*.

NEWA SIGN JIHVAMULIYA corresponds to ꭓ U+11003 BRAHMI SIGN JIHVAMULIYA, ꭓ U+0CF1 KANNADA SIGN JIHVAMULIYA, ꭓ U+0F88 TIBETAN SIGN LCE TSA CAN, ꭓ 11A84 SOYOMBO SIGN JIHVAMULIYA and Devanagari form ꭓ . NEWA SIGN UPADHMANIYA corresponds to Devanagari form ꭒ . The Devanagari forms are discussed in L2/17-319. Since all these characters have been encoded per-script, it is proposed to encode them for Newa independently.

3 Encoding model

As in other Indic scripts *jihvāmūlīya* and *upadhmānīya* combine with the respective consonants to form a stack without the use of *virama*.

Ex . *jihvāmūlīya* + *ka* → stack of *ẖka*

Similar formations occur with *ẖkha, ẖpa and ẖpha*.

 In consonant clusters, these two letters behave same as other consonants. More than two consonants can also occur such as *ẖkra, ẖpra*. Vowel signs can also occur with these clusters.

These are headless letters and vowel signs are written using contextual forms. (See page 6 of L2/12-003R for details on use of contextual forms)

4 Character Data

Character properties In the format of `UnicodeData.txt`:

`11460; NEWA SIGN JIHVAMULIYA;Lo;0;L;;;;;;N;;;;;`

`11461; NEWA SIGN UPADHMANIYA;Lo;0;L;;;;;;N;;;;;`

Linebreaking In the format of `LineBreak.txt`:

`11460.. 11461; AL # Lo [2] NEWA SIGN JIHVAMULIYA.. NEWA SIGN UPADHMANIYA`

Syllabic categories In the format of `IndicSyllabicCategory.txt`:

`# Indic_Syllabic_Category=Consonant_Prefixed`

`11460.. 11461; Consonant_Prefixed # Lo [2] NEWA SIGN JIHVAMULIYA ..  NEWA SIGN UPADHMANIYA`

Other properties are similar to corresponding characters in Kannada and Brahmi.

5 References

Chatterji, Kshitish Chandra (ed.), Cāndravyākaraṇa of Candragomin (2 v.) (Poona: Deccan College Postgraduate and Research Institute, 1953-1961).

Pandey, Anshuman. "Proposal to Encode the Newar Script in ISO/IEC 10646." 2012.(L2/12-003R)
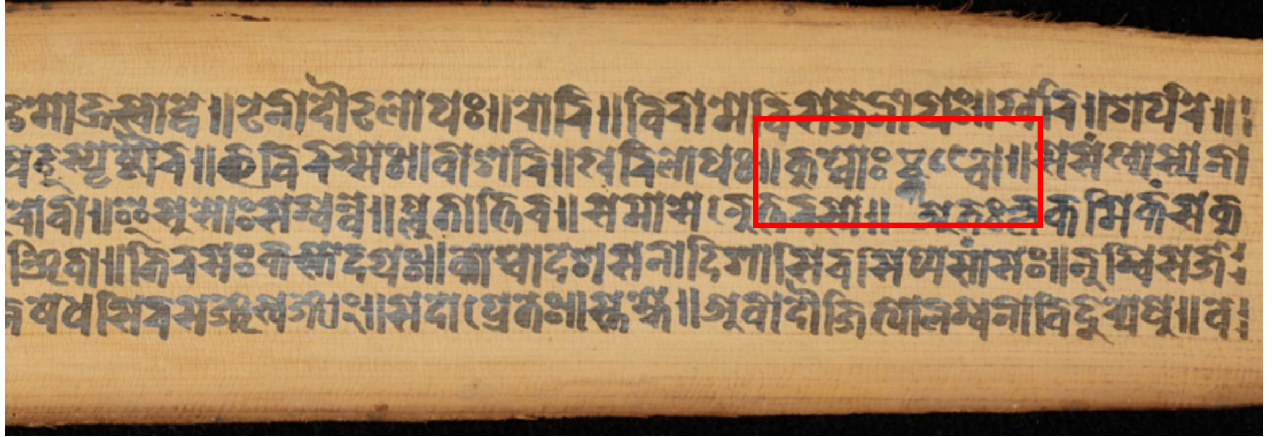
Figure 1. A manuscript folio showing use of the signs in the sutra *kupvoḥ ḫkaḫpau* (written as *ḫkaḫpo* in this folio) in a Sanskrit grammar text-*Cāndravyākaraṇa* written by *Candragomin*. 532 Nepal Samvat/ 1412 CE. These are the modern forms and chosen as representative glyphs.

Source: MS Add.1691.4 of Cambridge University Digital Library.

https://cudl.lib.cam.ac.uk/view/MS-ADD-01691-00004/64

Figure 2. Use of *upadhmānīya* in early Newa manuscript *Viṣṇudharmaśāstra*. 167 Nepal Samvat/ 1046 CE (from Indoskript).

A. Administrative

1. **Title:**	*Proposal to encode JIHVAMULIYA and UPADHMANIYA for NEWA*
2. Requester's name:	*Srinidhi A, Sridatta A*
3. Requester type (Member body/Liaison/Individual contribution):	*Individual contribution*
4. Submission date:	*October 10, 2017*
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:	*Newa*
2. Number of characters in proposal:	*2*
3. Proposed category (select one from below - see section 2.2 of P&P document):	

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[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?

        Srinidhi A

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

        srinidhi.pinkpetals24@gmail.com

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 HTUhttp://www.unicode.orgUTH for such information on other scripts. Also see Unicode Character Database (Hhttp://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?	*N/A*
Reference:	
4. The context of use for the proposed characters (type of use; common or rare)	*rare*
Reference:	
5. Are the proposed characters in current use by the user community?	
If YES, where? Reference:	*Details are not available*
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: *See the text of proposal.*

11. Does the proposal include use of combining characters and/or use of composite sequences? *No*

If YES, is a rationale for such use provided?

If YES, reference:

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: