Proposal to encode the TAKRI LETTER SSA in Unicode

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1 Introduction

This document has two objectives

- to encode a new character TAKRI LETTER SSA.
- to change the representative glyph of TAKRI LETTER KHA.

2 Relation between SSA and KHA

TAKRI LETTER KHA is currently encoded with the glyph of ध. The proposal of Takri identified the use ध for SSA. But a separate character for SSA was not proposed as it was identical to KHA. In many varieties of Takri separate glyphs for SSA and KHA exist.

In many North Indian languages like Braj Bhasha, Bundeli, Rajasthani etc. often use ṣa ष to represent kha ख. It likely due to confusion in the pronunciation of these consonants. It is exemplified below in the The Hindi classical tradition: a Braj Bhāṣā reader.

(k)   ṣ may be represented by *kh*, e.g. *bhākhā*, reflecting pronunciation. In manuscripts, [kh] may be written with the graph ष, e.g. षात 'eats'. (A convention in the published text of BhBh, wherein [kh] is written ष, is not followed in the transcription in this book.)

In similar way some of texts of Takri varieties like Chambeali, Kangri, Kullvi have used SSA ध to represent both SSA and KHA. However many varieties like Mandeali, Rohru(Shimla), Bushahr(present Shimla & Kinnaur districts) have retained original glyphs of KHA and SSA.

3 Need of Independent encoding of SSA

The proposed glyph of SSA ध is derived from ध U+111B0 SHARADA LETTER SSA. The proposed glyph of KHA 𑆒 is derived from 𑆒 U+11192 SHARADA LETTER KHA. In plain text these is need to represent both KHA and SSA distinctly in Takri script. Also encoding of SSA will be able to represent kṣa 𑆒𑆝 which is written as conjunct. It is reasonable to represent ध for SSA and 𑆒 for KHA which are their original glyphs as in Devanagari.

4 Proposed changes

A new character U+116B8 ध TAKRI LETTER SSA is proposed.

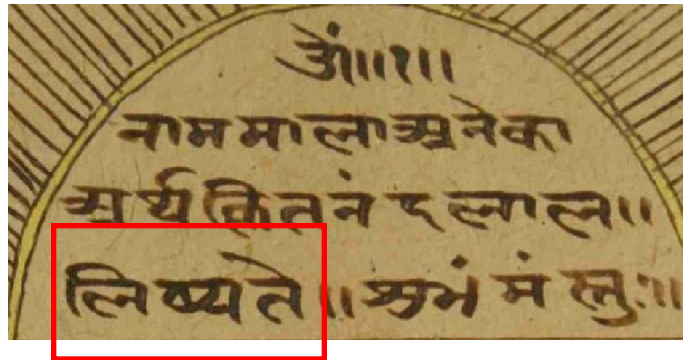ॻष is the proposed glyph for 1168B TAKRI LETTER KHA.

5 Character Data

The properties for the proposed character in the Unicode Character Database format are:

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116B8;TAKRI LETTER SSA;Lo;0;L;;;;;N;;;;;
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6 Examples of KHA written using ष in Devanagari

In the above Hindi manuscript the words sukhī and būkh are written using SSA as सुषी and भूष.

In the above manuscript likhyate is written using SSA as लिष्यते.

7 References

Grierson, George A. 1904. "On the Modern Indo-Aryan Alphabets of North-Western India." In The Journal of the Asiatic Society of Great Britain and Ireland, 1904, pp.67–73.

———. 1916. The Linguistic Survey of India. Vol. IX. Indo-Aryan Family. Central Group. Part IV. Specimens of Pahāṛī Languages and Gujuri. Calcutta: Office of the Superintendent of Government Printing, India.

Pandey, Anshuman. *Proposal to Encode the Takri Script in ISO/IEC 10646*. L2/09-424.2009.

Snell, Rupert. *The Hindi classical tradition: a Braj Bhāṣā reader*. No. 2. Psychology Press, 1991.
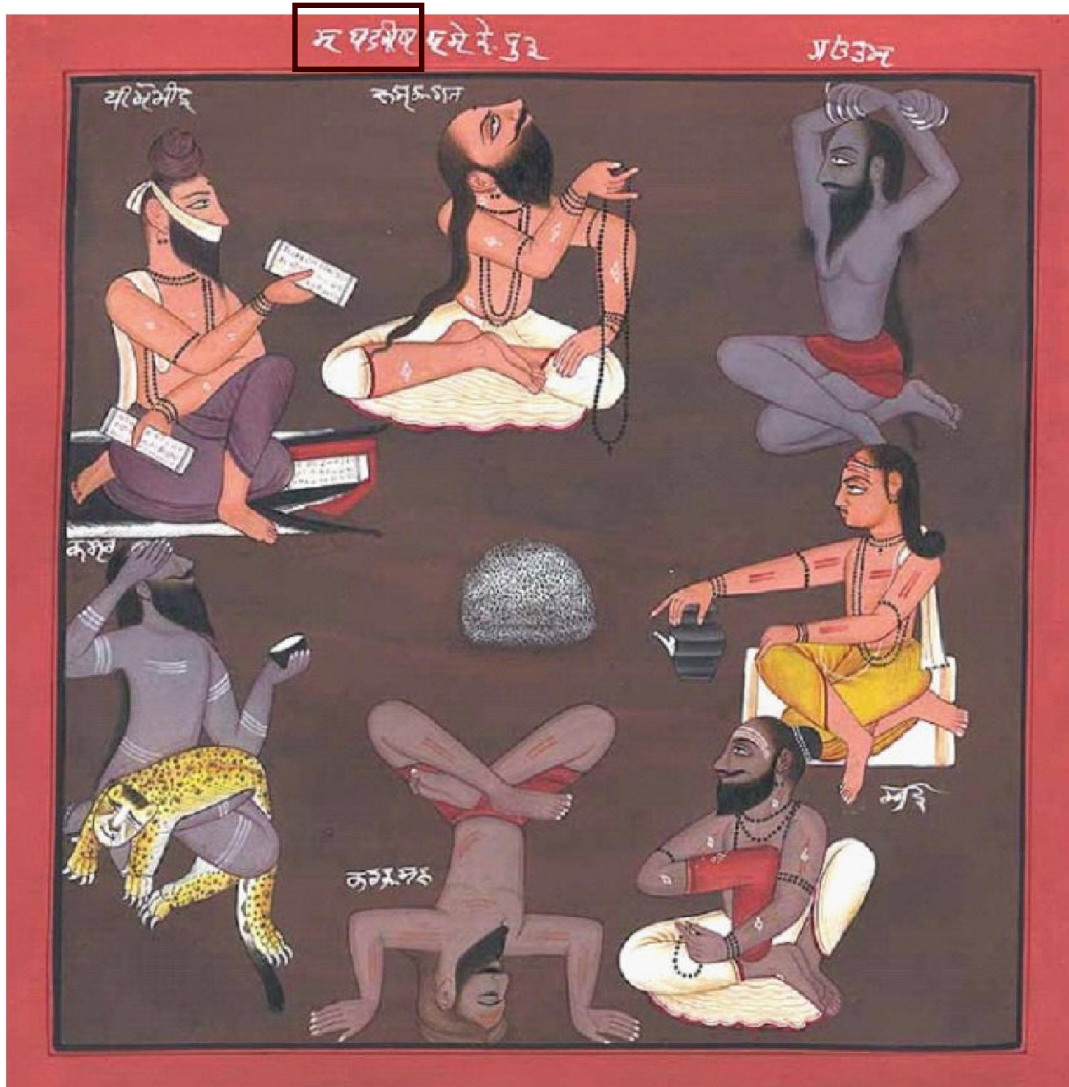
8 Attestations

Figure 1. Use of ध for SSA as the word sapatarīṣ(i).

Maṇḍĕāli Alphabet.

Vowels.		Consonants.					
a	𑚀	ka	𑚊	da		hu	
ā		kha		dha		ṭṭu	
kā		ga		ṇa		ṇha	
i		gha		pa		nha	
ki		cha		pha		jya	
ī		chha		ba		dhya	
kī		ja		bha		nhy	
u, ū		jha		ma		tra	
ku, kū		ṭa		ya		pra	
e		ṭha		ra		sra	
kē		ḍa		la		khwa	
ai		ḍha		va		gwa	
kai		ṇa		śa, sha, sa.		dwa	
ō, au		ta		ha		rwa	
kō, kau		tha		la			

NOTE.—The letter *ai* is represented by the sign for *yō*, and an initial *ē* is also optionally represented by the same character. The letters *ṇa* and *ṇa* are usually written with *anuswāra* over the preceding syllable.

Figure 2. Use of distinct charater for KHA in Mandeali form of Takri (from Grierson 1916: 719).

a		da	
ā		dha	
i, ī		na	
u, ū		pa	
ē		pha	
ai		ba	
ō		bha	
au		ma	
ka		mha	
kha		ya	
ga		ra	
gha		la	
cha		va	
chha		ṣa, sha, sa	
ja		ha	
jha		kā	
ṭa		ki, kī	
ṭha		ku, kū	
ḍa		kē	
ḍha		kai	
ṇa		kō	
ta		kau	
tha			

Figure 3. Use of distinct charater for KHA in Mahasu (Kochi style) form of Takri (from Grierson 1916: 614).

Figure 4. Use of distinct charaters for KHA and SSA in Mandeali form of Takri.

Figure 5. Use of distinct charaters for KHA and SSA in Mahasu (Rohru of Shimla style) form of Takri.

Figure 6. Use of distinct charaters for KHA and SSA in Mahasu (Bushahr of Shimla style) form of Takri.

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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
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*.
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)

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A. Administrative

1.**Title:**	*Proposal to encode the TAKRI LETTER SSA in Unicode*
2. Requester's name:	*Srinidhi A and Sridatta A*
3. Requester type (Member body/Liaison/Individual contribution):	Individual contribution
4. Submission date:	June 29, 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):	*No*
Proposed name of script:	
b. The proposal is for addition of character(s) to an existing block:	*Yes*
Name of the existing block:	*Takri*
2. Number of characters in proposal:	*1*

3. Proposed category (select one from below - see section 2.2 of P&P document):

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"	**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. Existing glyph of TAKRI LETTER KHA needs to be used for the proposed character.***

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

> ***Not necessary***

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 issue

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 the proposal	

8. 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 UAX#44: 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, 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:

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? | *No*

If YES, is a rationale for its inclusion provided?

If Yes, reference:

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: