Title: Proposal to include Indus Kohistani Language alphabets
Action: For consideration by UTC and ISO/IEC JTC1/SC2/WG2
Author: Rehmat Aziz Khan Chitrali
Date: 04-June-2020

Introduction:

The Indus Kohistani language is spoken in Pakistan’s Indus Kohistan, Khyber Pakhtunkhwa Province of Pakistan and is written in Arabic and roman scripts. Khowar Academy is a nonprofit organization working on standardizing alphabets of Indus Kohistani and other endangered languages spoken in the Pakistan.

There are 17 special characters in this language’s Arabic script which are currently not supported in Unicode but the leading linguist and researcher of Indus Kohistani language Mr. Razwal Kohistani and Rehmat Aziz Chitrali (the author) of this document has invented a keyboard for Indus Kohistani language and wrote the first ever Shina Qaida (Primer Book) and used these characters in their books. In this proposal I want to present these 17 characters to Unicode teams for their inclusion. There is a regional language authority namely Khowar Academy working on the endangered languages of Pakistan and this academy supports these requests.

Requests:

The author requests the encoding 17 new alphabets used in Indus Kohistani language spoken in Indus Kohistan of Khyber Pakhtunkhwa Province of Pakistan.

Character name and shape

<table>
<thead>
<tr>
<th>Shape</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Image" /></td>
<td>ARABIC LETTER ALEF WITH ARABIC LETTER SUPERSCRIPT ALEF</td>
</tr>
<tr>
<td><img src="image2" alt="Image" /></td>
<td>ARABIC LETTER ALEF WITH ARABIC INVERTED DAMMA ABOVE</td>
</tr>
<tr>
<td><img src="image3" alt="Image" /></td>
<td>ARABIC LETTER MAMDUDAH WITH ARABIC LETTER SUPERSCRIPT ALEF</td>
</tr>
<tr>
<td><img src="image4" alt="Image" /></td>
<td>ARABIC LETTER HAH WITH EQUALS SIGN UNDER</td>
</tr>
<tr>
<td><img src="image5" alt="Image" /></td>
<td>ARABIC LETTER REH WITH EQUALS SIGN ABOVE</td>
</tr>
<tr>
<td>Image</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>ARABIC LETTER SEEN WITH EQUALS SIGN ABOVE</td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>ARABIC LETTER NOON GHUNNAH WITH GAAF</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>ARABIC LETTER WAW WITH ARABIC SUKUN ABOVE</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>ARABIC LETTER WAW WITH ARABIC LETTER SUPERSCRIPT ALEF</td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>ARABIC LETTER WAW WITH ARABIC INVERTED DAMMA ABOVE</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>ARABIC LETTER YEH WITH ARABIC LETTER SUPERSCRIPT ALEF</td>
</tr>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td>ARABIC LETTER YEH WITH ARABIC SMALL HIGH UPRIGHT RECTANGULAR ZERO JOINED WITH YEY</td>
</tr>
<tr>
<td><img src="image8.png" alt="Image" /></td>
<td>ARABIC LETTER YEH WITH ARABIC LETTER SUPERSCRIPT ALEF</td>
</tr>
</tbody>
</table>
Figure 1

Indus Kohistani chey. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up

Indus Kohistani zhey. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up
Figure – 4

Indus Kohistani ng. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up

Figure-5

Indus Kohistani alef. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up
Figure – 6

Indus Kohistani alif. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida\mode\2up

Figure – 7

Indus Kohistani waw. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida\mode\2up

Figure – 8
Indus Kohistani alef maddah. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up

Figure – 9

Indus Kohistani waw. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up

Figure – 10

Indus Kohistani yeh. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up

Figure – 11

Indus Kohistani yeh. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up

Figure – 12
Figure – 13

Indus Kohistani yeh. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida mode/2up

Figure – 14

Indus Kohistani yeh. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida mode/2up

Figure – 15

Indus Kohistani yeh. Excerpt from Indus Kohistani Qaida (Primer Book) compiled by Razwal Kohistani and Ruth Laila, Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida mode/2up
Reference

1. Indus Kohistani Qaida (Primer Book) by Razwal Kohistani and Ruth Laila, published by Himalayan Jungle Project Palas, Indus Kohistan, Pakistan, 1996. Please see this document here https://archive.org/details/kohistani_shina_qaida/mode/2up

2. Indus Kohistani-Qaida by Rehmat-Aziz-Chitrali-Published-byKhowar-Academy-Chitral-Pakistan, 1996
ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPORTEIRO OF ISO/IEC 10646

Please fill all the sections A, B and C below.
See also http://www.unicode.org/JTC1/SC2/WG2/docs/roadmaps.html for latest Roadmaps.

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.

A. Administrative

1. Title: Proposal to include Indus Kohistani alphabet

2. Requester's name: Rehmat Aziz Khan Chitrali

3. Requester's type (Member body/Liaison/Individual contribution): Individual

4. Submission date: 04/06/2020

5. Requester's reference (if applicable): This is a complete proposal:

6. Choose one of the following:
   (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: Arabic extended-A
   b. The proposal is for addition of character(s) to an existing block:
      Name of the existing block: B.2-Specialized (large collection)

2. Number of characters in proposal: 17

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)
   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?
   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?
      Rehmat Aziz Khan Chitrali, Linguist and Researcher at Khowar Academy Chitral Pakistan
   b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.)
      Rehmat Aziz Khan Chitrali Email: rachitrali@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 section titled Character name and shape

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

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes/No</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Has this proposal for addition of character(s) been submitted before?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>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.)?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?</td>
<td>Yes</td>
<td>Indus Kohistan, Khyber Pakhtunkhwa, Pakistan</td>
</tr>
<tr>
<td>4. The context of use for the proposed characters (type of use; common or rare)</td>
<td>Common</td>
<td>The proposed alphabets are very common in Indus Kohistani books, Dictionaries, Alphabet books published in Pakistan</td>
</tr>
<tr>
<td>5. Are the proposed characters in current use by the user community?</td>
<td>Yes</td>
<td>Most of recent published Indus Kohistani books, text editors use these characters</td>
</tr>
<tr>
<td>6. After giving due considerations to the principles in the P&amp;P document must the proposed characters be entirely in the BMP?</td>
<td>Yes</td>
<td>Character could be kept with their counterparts in Arabic block</td>
</tr>
<tr>
<td>7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>11. Does the proposal include use of combining characters and/or use of composite sequences?</td>
<td>N/A</td>
<td>Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?</td>
</tr>
<tr>
<td>12. Does the proposal contain characters with any special properties such as control function or similar semantics?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>13. Does the proposal contain any Ideographic compatibility characters?</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
(Detach the following pages from the filled summary form before submitting).

Information accompanying submissions

The process of deciding which characters should be included in the repertoire of the standard by WG 2 depends on the availability of accurate and comprehensive information about any proposed additions. WG 2, at its San Francisco meeting 26, designed a form (template) that will assist the submitters in gathering and providing the relevant information, and will assist WG 2 in making more informed decisions.

This form is part of the WG 2 Principles and Procedures document and is available on line at http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html.

A duly completed proposal summary form must accompany each new submission. The latest version of this form must be used in submissions. Such a form will assist WG 2 to better evaluate the proposal, and progress the proposal towards a speedier acceptance and inclusion in the standard. Submitters are also requested to ensure that a proposed character does not already exist in the standard.

Submitters are encouraged to visit the “Where is my Character” page on the Unicode web site for more information on checking if their proposed character or script is already encoded in the standard, or if a similar proposal has already been made by someone else. There are also several electronic discussion lists maintained by the Unicode consortium that one could use to discuss with other experts internationally on various subjects related to the standard. Submitters are also encouraged to familiarize themselves with ISO/IEC TR15285 – Character Glyph Model. The latest version of ISO/IEC 10646 as well as ISO/IEC TR15285 are available on line under ‘Freely Available Standards’ at: http://standards.iso.org/itf/PubliclyAvailableStandards/.

National bodies should take note of the guidelines in section C.4 Some guidelines on proposing new material as ballot comments in the P&P document.

In addition to text extracted from the standard in Annex L: Character-naming guidelines in the P&P document, the following definitions from the standard are also referenced in the proposal summary form:

Clause 4.12 Combining character:
A member of an identified subset of the coded character set of ISO/IEC 10646 intended for combination with the preceding non-combining graphic character, or with a sequence of combining characters preceded by a non-combining character (see also 4.14).

NOTE – ISO/IEC 10646 specifies several subset collections, which include combining characters.

Clause 4.14 Composite sequence:
A sequence of graphic characters consisting of a non-combining character followed by one or more combining characters (see also 4.12).

NOTE 1 – A graphic symbol for a composite sequence generally consists of the combination of the graphic symbols of each character in the sequence.

NOTE 2 – A composite sequence is not a character and therefore is not a member of the repertoire of ISO/IEC 10646.
Submitter’s responsibilities

The national body or liaison organization (or any other organization or an individual) proposing new character(s) or a new script shall provide:

1. Proposed category for the script or character(s), character name(s), and description of usage.
2. Justification for the category and name(s).
3. A representative glyph(s) image on paper:
   - If the proposed glyph image is similar to a glyph image of a previously encoded ISO/IEC 10646 character, then additional justification for encoding the new character shall be provided.
   - Note: Any proposal that suggests that one or more of such variant forms is actually a distinct character requiring separate encoding should provide detailed, printed evidence that there is actual, contrastive use of the variant form(s). It is insufficient for a proposal to claim a requirement to encode characters in the Standard, glyphic forms which happen to occur in another character encoding that did not follow the Character-Glyph Model that guides the choice of appropriate characters for encoding in ISO/IEC 10646.
   - Note: WG 2 has resolved in Resolution M38.12 not to add any more Arabic presentation forms to the standard and suggests users to employ appropriate input methods, rendering and font technologies to meet the user requirements.
4. Mappings to accepted sources, for example, other standards, dictionaries, accessible published materials.
5. Font resource:
   - A font must be provided to the Editor promptly after the characters have been approved by WG2 for use in printing the charts. If a font is not provided, the Editor cannot include the glyphs in the charts and, as a result, the repertoire of characters corresponding to these glyphs will not be included in draft amendments. Fonts must be in one of the following formats (in preferential order): OpenType, TrueType, Postscript Type 1.
   - Fonts submitted must have no license restrictions that prevent embedding into PDF documents. Because of synchronization between ISO/IEC 10646 and The Unicode Standard, any grant of license must cover use in publishing both standards and related documents (see resolution M45.30). For technical reasons, the editors must be able under that license to freely modify or replace glyph outlines in their copies of the fonts. The submitter should be prepared to provide fonts of suitable quality and license conditions, unless equivalent fonts are already available to the editors.
6. List of all the parties consulted:
   - Towards ensuring that all significant stakeholders have been consulted, WG 2 requests that submitters solicit feedback from other groups who use the proposed characters, and list these contacts.
   - Submitters are encouraged to provide the email id(s) of the submitter as well as other experts who have been consulted to facilitate any clarification queries.
7. Equivalent glyph images:
   - If the submission intends using composite sequences of proposed or existing combining and noncombining characters, a list consisting of each composite sequence and its corresponding glyph images shall be provided to better understand the intended use.
8. Compatibility equivalents:
   - If the submission includes compatibility ideographic characters, identify (per resolution M45.29):
     - the source, which contains two distinct code positions that correspond to a single unified CJK Ideograph character of ISO/IEC 10646
     - the ISO 10646 unified CJK Ideograph
     - the code position in the source for the unified CJK ideograph
     - the code position in the source for the proposed compatibility ideograph
9. Properties that may affect the BiDi processing:
   - Any BiDirectional algorithm related properties associated with the characters should be spelled out (see UAX9 - http://www.unicode.org/reports/tr9/).
10. Any additional information that will assist in correct understanding of the different characteristics and linguistic processing of the proposed character(s) or script.
11. If any of the proposed characters are suitable as syntax characters please take note of guideline D.2.5 (on page 24 and of Unicode Standard Annex 31 at http://www.unicode.org/reports/tr31/).
12. If the proposal is for a new script, identify the standardized characters that are commonly used directly in the script, or proposed to be unified with the characters of the script, in particular standardized characters allocated in different blocks. Examples include punctuation marks and combining marks. Such information will assist in assigning properties for characters shared across multiple scripts or in identifying character repertoires needed to support particular languages.
13. If you are aware of already standardized characters that are visually close to any of the proposed characters, you are invited to list them in the proposal. This will assist in the analysis of the script for ‘visually confusables’, towards providing additional guidance on use of the standard from a security perspective (see UTR#36 - Unicode Security Considerations – at http://www.unicode.org/reports/tr36/).