1 Introduction

This document provides explanations to “Comments on Proposals of Zanabazar Square and Soyombo Script from Mongolian Experts” (N4653 L2/15-009). It is available at:

http://www.unicode.org/L2/L2015/15009-n4653-zanabazar.pdf

The proposals referred to in N4653 are:

- N4414 L2/13-069 “Revised Proposal to Encode the Soyombo Script in ISO/IEC 10646”
  http://www.unicode.org/L2/L2013/13069-soyombo.pdf

- N4541 L2/14-024 “Proposal to Encode the Zanabazar Square Script in ISO/IEC 10646”

The N4414 proposal for Soyombo is dated April 2013. A completely revised and expanded proposal for Soyombo was submitted in January 2015:

- N4655 L2/15-004 “Proposal to Encode the Soyombo Script in ISO/IEC 10646”
  http://www.unicode.org/L2/L2015/15004-soyombo.pdf

As N4655 was submitted around the same time as N4653, it is likely that the Mongolian experts did not have an opportunity to review it. It is hoped that experts will review N4655 at their earliest convenience and provide the proposal author with feedback.

Before continuing to the comments offered by Mongolian experts, it is important to state that the sole purpose of the proposals to encode the Soyombo and Zanabazar Square scripts in Unicode (ISO/IEC 10646). The goal is to develop a technical implementation that allows users around the world to represent the historical and linguistic works of Mongolia on computers and mobile devices. The encoding proposals do not attempt to define orthographic standards for the scripts and they do not attempt to revise existing orthographies.

The character repertoire for the two scripts are based upon evidence found in manuscripts, inscriptions, and other sources. The glyph shape of each character is intended to be only illustrative. The glyph are used only to identify the characters. It is understood that different shapes for letters are found in manuscripts and other sources. These shapes can be represented using fonts for different styles.

The proposal author invites further feedback from the Mongolian and Japanese national bodies and encourages ongoing discussion.
2 Response to Comments

2.1 Comment from Japan

1. Comment: “It seems that even the name of the script “Zanabazar Square Script” should be reconsidered (in their comments, they use different name “Hevtee Durvuljin Script”).”

Response: The rationale for identifying the script as “Zanabazar Square” is provided in Section 3.1 of N4541:

The name for the script block is ‘Zanabazar Square’. It is known in Mongolian as ‘Хэвтээ Дөрвөлжин бичиг’ xewtee dörböljin bicig or ‘Хэвтээ Дөрвөлжин Єсэг’ xewtee dörböljin üseg [current transliteration: hevtee durvuljin], both of which translate into English as “Horizontal Square Script”, but this is a technical name and is not commonly used. The normalized Latin transliteration ‘Xewtee Dorboljin’ was used for the script in the preliminary proposal, but it was deemed too localized for usage in an international context. Therefore, [in proposals submitted after the preliminary proposal], the descriptor ‘Mongolian’ was added to the English translation to produce ‘Mongolian Horizontal Square’. However, this name proved a bit long and it was curtailed to ‘Mongolian Square’. Yet, ‘Mongolian Square’ is a generic name as it can also refer to Phags-pa, another Mongolian, or rather Central Asian, script that is also known as ‘Дөрвөлжин Єсэг’ dörböljin üseg, or ‘Square Script’.

The script is commonly refered to as ‘Занабазарын Дөрвөлжин Єсэг’ zanabazarin dörböljin üseg “Zanabazar Square Script” in the academic community […]. This name is used because it differentiates the two Central Asian ‘square’ scripts on the basis of the names of their inventors: ‘Phags-pa’ for the vertical and ‘Zanabazar’ for the horizontal script. For these reasons, ‘Zanabazar Square’ is a suitable and unique identifier for the script block in the UCS. The Mongolian and alternate English names have been added as aliases for the script in the names list.

The name Занабазарын Дорволжин Єсэг [Zanabazarin Dörböljin Üseg] is the title of a book published in 2005 by Byambaa Ragchaagiin (Рагчааин Бямба). In that book dörböljin is translated as ‘Quadratic’ instead of ‘Square’. The terms may be considered equivalent in English translation.

It would be useful to learn about the preferences for the name of the script from a wider range of Mongolian scholars.

2.2 Comments from Mongolia

1. Comment: To give a due consideration and conduct scientific research on traditional writing order, traits, dimensions, manuscript graphics, proportion of Soyombo script in encoding, given that there is some dimensional faulty of Soyombo script found in Anshuman Pandey’s project.

Response: The meaning of the comment regarding the “dimensional” fault of the Soyombo script is unclear. Does this comment refer to the typographic design of the Soyombo font used in N4414? The latest proposal N4655 uses a different font. It should be noted that the glyphs used for Soyombo characters are intended to be illustrative representations, not standard specifications for the typographic design of Soyombo letters. Font designers can develop Soyombo fonts using any style that they prefer. As Unicode is a character-encoding standard and not a typographic standard, issues regarding the
representation of letters in calligraphy or the formal design of letters are not part of the script-encoding process.

2. **Comment:** Undur Gegeen’s “Hevtee durvuljin script” being created as stenographic version of “Soyombo” script. Therefore, we should analyze and conduct research on its’ dimension, form and encoding at same time.

**Response:** The character-encoding standard for the two scripts focuses on their structure and logic. Matters of ‘dimension’ and ‘form’ would be best addressed in a font specification for the scripts and not in a character-encoding standards.

3. **Comment:** Soyombo script being created for writing down literary works of Sanskrit, Tibetan and Mongolian in perfect way, hence should allocate/equivalent/ phonetics and wordlore of those languages.

   - If Mongolian words are written by Soyombo script, there should be the right transcription of Mongolian script adhered
   - If Sanskrit words are written by Soyombo script, there should be right transcription of Sanskrit script adhered
   - If Tibetan words are written by Soyombo script, there should be the right transcription of Tibetan script adhered /This issues should be also considered in Hevtee durvuljin script/

**Response:** The encoding proposals for Soyombo and Zanabazar Square are focused upon identifying distinctive characters of each the script. The details regarding the transcription of Soyombo and Zanabazar Square into Mongolian, Sanskrit, and Tibetan are not part of the script-encoding process. One approach to handling transliteration or transcription would be to propose an ISO standard (as was done for Indic scripts in ISO 15919 “Transliteration of Devanagari and related Indic scripts into Latin characters”) Another option is for the Mongolian standards body to create and maintain tables with values for the various letters in different languages and scripts.

4. **Comment:** According to our observation Dr. Anshuman Pandey mainly compared Soyombo script with Sanskrit and Tibetan vowels and consonants, but he didn’t emphasize phonetics, word-lore and Mongolian grammar in his research. He should have considered how to transcript consonants (г, ж/ з/, ү/ү) in Mongolian alphabet by Soyombo script.

**Response:** The issue of how to transliterate or transcribe the Mongolian or Cyrillic scripts into Soyombo are not within the scope of the Unicode standard. As stated in the response to the previous comment, such transliteration should be managed through an ISO standard for Mongolian

5. **Comment:** We believe that research should be conducted on the horizontal and vertical writing methods of Soyombo script, while writing Mongolian words.

**Response:** Please see section 4.12 of N4655 for a discussion of representing vertical text in Soyombo. Essentially, Soyombo is written left to right, top to bottom. Therefore, a vertical representation of Soyombo would require that text is oriented top to bottom, left to right, with glyphs appearing in their normal, upright shape.

6. **Comment:** Another comment we have is cases where Soyombo script is written by either head letter or without head letter and when transcript Sanskrit tantric manuscripts are used.
Response: Please refer to section 4.9 of N4655 for a discussion of head marks. Several Soyombo head marks and terminal marks have been proposed for inclusion in the script block.

I thank the Mongolian experts for their careful review of the Soyombo and Zanabazar Square script encoding proposals. I would like to again request that experts review the most recent proposed encoding for Soyombo described in N4655.