

Disunification of Tulu–Tigalari script & Invented Tulu Script

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Issue—identifying the best way-forward for the two proposals :

- Identification of which characters would be unifiable (and which characters are not)
- resolving the architectural issues (i.e., conjunct formation) of modern vs. historic script usage.
- check whether it is acceptable to use the script name “Tulu” for both the modern and historical usage.

NAME :

In reply to SAH : "check whether it is acceptable to use the script name “Tulu” for both the modern and historical usage."

A paper was written about the script naming for the Tulu–Tigalari Script which are shared with SAH previously : https://www.academia.edu/48672076/Naming_the_Tulu_Tigalari_Script

It was also discussed in the Tulu–Tigalari Proposal LA/21–201 , on page 8.

The Tulu–Tigalari Proposal is made for encoding the historical script that was extensively used in the western regions of Karnataka from 1100s onwards. It was varyingly called the Tulu script or the Tigalari script. Various organizations around the globe have recently started revising them. It is established that the large corpus of manuscripts and inscriptions found in this script to be of great value. There are over 1 Lakh manuscripts and around 60 stone inscriptions discovered so far in this script.

The hybrid term Tulu-Tigalari was used for this script in the proposal because of two reasons :

1. The Tulu-Tigalari proposal includes all manuscripts and stone inscriptions written in this historical script. This includes Sanskrit, Kannada and Tulu language manuscripts.
2. More importantly, this script has been referred to as either the Tulu Script or the Tigalari Script across various Manuscript archives within India and in other countries.

For example :

British Library, Tübingen Archives etc., – Tulu Script.

Oriental Research Inst., Oriental Manuscript Library – Tigalari Script

We also find several research papers and books, interchangeably using the same two names. It is also documented by the prominent epigraphist B L Rice as below :

68. Whether the Kodagu or Coorg dialect itself should be reduced to writing, and form a direct subject of instruction, is a question that should be determined by the popular opinion of the Coorgs themselves. They have never hitherto made any demand to that effect, nor is Coorg taught even in any indigenous school. On the other hand the general tendency with the Coorgs has been to conceal the language, especially from Europeans and strangers, confining its use to strictly private and domestic purposes. The Tulu stands on the same footing. Both are unwritten languages, but use the Kannada character in case of need. Sanskrit works however are copied by the Tulu Brahmans in a form of Grantha, called I believe Tigalare, and this is sometimes mentioned as the Tulu character.

Figure 9 : Seen above is an Excerpt from B L Rice's, 1884 Report.

It is therefore important to retain the hybrid name Tulu-Tigalari script to refer to this script in this Unicode block to include all the historical and archival references.

NUMBERS :

The Tulu-Tigalari script uses numbers from the Kannada script. The numbers mentioned in the newly invented Tulu script proposal L2/23-02 appears only in 1 palm leaf manuscript. The authors of the Tulu-Tigalari proposal are aware of its existence. For the time being, it is recognized as a one-off sample and not considering it proof enough to encode them. And therefore did not include them in the proposal. This will not matter to a newly invented script.

CHARACTERS :

The characters proposed for the Tulu-Tigalari block represent very closely the behavior of this script in the Manuscript forms and the stone inscriptions. It is very important to retain this representation in the form it's proposed. It will be extremely valuable to have this support for the research community to accurately document the historical materials at the earliest. Considering the large number of historical material available in this script, the use is foreseen to be quite significant amongst the researchers and those interested to use this script for newer Sanskrit language publications in this script.

The invented Tulu characters shown in the document: L2/23-021 is not based on the historical Tulu-Tigalari script. It is a hybrid script based on :

- Very loosely the Tulu-Tigalari-Malayalam glyph Shapes
- Many vowel mark behaviors based on the Malayalam script
- Conjunct behaviors based on the Kannada Script

This is stated on page 20 & 38 of the KTSA proposal L2/23-021.

Quoting page 20 :

Kindly note that Karnataka Tulu Sahitya Academy (KTSA) was established in the year 1994.

In a meeting held in 2007 it was decided to standardize Tulu script congruous to modern Tulu, which had a lot of variations in hand written and archaic forms.

It was decided to make it simpler, but to retain the basic glyphs of the script, complex compounding was less entertained and usage of stacking was preferred to represent such letters by Tulu linguists and scholars. This document consists of most recent changes adopted by KTSA in accordance to current Tulu language.

The historical images presented on page 36 of L2/23-021 have images of Tulu-Tigalari stone inscriptions. Since this is very different from the invented Tulu Script proposed, it is better to not refer to them in this context. The stone inscription forms are supported by the Tulu-Tigalari proposal already.

The table with the invented Tulu script & Tigalari script comparison on page 16 of L2/23-021 is misleading. The Tigalari script sample is not based on any historical documents. This has been pointed-out several times before. It is an erroneous chart recently drawn by an individual. There is no manuscript or stone inscription that matches the Tigalari script sample cited. We strongly recommend to avoid using any unsubstantiated historical references that might be misleading.

Besides the apparent similarity between the consonant forms, there does not see to be much taken forward from the historical Tulu-Tigalari script. The invented Tulu script is for all practical purposes closer to Malayalam Unicode Block as compared to the Tulu-Tigalari Unicode block as analyzed in the following chart :

	Tulu-Tigalari	Malayalam	Invented Tulu Script	Kannada
Vowel U	ಁ	ഉ	◀ 2	ಉ
KA+v.m.U	ಁ	കു	ಢ	ಕು
Vowel UU	ಃ	ഊ	3	ಊ
KA+v.m.UU	ಃ	കൂ	ಢ	ಕೂ
KA+v.m. Voc. R	ಋ	കുറ	ಢ ▶	ಕೃ
KA+v.m. Voc. RR	ೠ	കൂറ	ಢ ▶	ಕೃ
Vowel E	-	എ	4	ಎ
KA+v.m. E	-	കെ	◀ 12	ಕೆ
Vowel EE	ൺ	ഈ	4	ಏ
KA+v.m. EE	രി	കേ	12	ಕೇ
Vowel AI	ൺ	ഐ	12	ಐ
KA+v.m. AI	രരി	കൈ	◀ 112	ಕೈ
Vowel O	-	ഒ	3	ಒ
KA+v.m. O	-	കൊ	◀ 121	ಕೊ
Vowel OO	ൺ	ഓ	13	ಓ
KA+v.m. OO	രരി	കോ	121	ಕೋ
Vowel AU	ൺ	ഔ	37	ಔ
KA+v.m.AU	രരി	കൗ	◀ 27	ಕೌ
KA+KA	ഠ	ക	ಢ ▶	ಕ
GA+GA	ഗ	ഗ	◀ 5 5 ▶	ಗ
CA+CA	ച / ച	ച	2 2 ▶	ಚ
K9	ത്	കു	ಢ	ಕ್

In the chart above, the characters marked in yellow do not follow either Tulu-Tigalari, Malayalam or Kannada logic. The rest look inspired by either Modern Malayalam or Kannada more than the old Tulu-Tigalari script (as stated by KTSA in page 38 of L2/23-021).

The Tulu special sound 'ə' in the Tulu-Tigalari proposal is represented with a Virama character (𑌪) as seen in Tulu language, Tulu-Tigalari script manuscripts and stone inscriptions. The invented Tulu script uses the Virama+Vowel Mark U (𑌪𑌮) to represent the same sound. It is a very commonly occurring sound in the Tulu language and will create issues.

The requested Reph behaviors in the two proposal and are not compatible.

A few confusing characters between Invented Tulu Script and Archaic Tulu-Tigalari :

Tulu-Tigalari	Invented Tulu Script	Invented Tulu
EE	𑌪𑌮	E
CA	𑌪	KA
VA/PA	𑌪	CA
VA+CHA/CA+CHA?	𑌪𑌮	CHA
DA	𑌪	10
NYA	𑌪	SA
KEE	𑌪𑌮	KE
KOO	𑌪𑌮𑌮	KO

The conjoining consonants YA, RA, LA and VA which take a secondary form while ligating are also behave differently in the newly invented script.

Letter/Cluster	Modern form	Tulu-Tigalari
tu	ತು	ತು
ku	ಕು	ಕು
pra	ಪ್ರ	ಪ್ರ
sthi	ಸ್ಥಿ	ಸ್ಥಿ
svē	ಸ್ವೇ	ಸ್ವೇ
kṣi	ಕ್ಷಿ	ಕ್ಷಿ
ppu	ಪ್ಪು	ಪ್ಪು
kū	ಕು	ಕು
tsya	ತ್ಸಾ	ತ್ಸಾ
kṣa	ಕ್ಷಾ	ಕ್ಷಾ
dra	ಡ್ರ	ಡ್ರ
kau	ಕೌ	ಕೌ
hma	ಹ್ಮ	ಹ್ಮ
ṣyō	ಷ್ಯೌ	ಷ್ಯೌ

Table 19: Comparing modern standards with T

There might arise issues with this invented script going forward as-well. For example :

The commonly occurring forms KE, KEE, KO, KOO have very a very similar marks to their left despite having varying phonetic values. This newly invented shapes most likely will be lost in handwriting :

ಕೆ ಕೆ ಕೆ ಕೆ
KE KEE KO KOO

In the traditional style of all Grantha based scripts, E/EE with a mark to its left is AI. Since this is an invented script maybe it doesn't matter :

𑌢𑌣 𑌢𑌣𑌢𑌣 𑌢𑌣𑌢𑌣𑌢𑌣
E EE AI

In page 39 L2/23-021 KTSA agrees that it will be better to encode the Tulu-Tigalari script and the Tulu script separately. We agree completely with this decision due to the reasons stated above.

Re-stating them again below. The reasons to disunify the Tulu-Tigalari and Tulu script are :

1. The Tulu-Tigalari proposal handles this complex archaic script very delicately to closely represent the manuscript and stone inscription forms.
2. The archaic Tulu-Tigalari script is a well established script and cannot be changed as its primary users will be researchers who will be needing the script represented as closely as possible to its archaic forms as seen in manuscripts and inscriptions. This helps in identifying the original reading if required at a later date. Much like Hebrew or Greek that is printed along-side Latin in the Bibles.
3. The invented Tulu-Script is very new and will be subjected to changes over time. Having it linked to an archaic script might needlessly create complications for a new script like this going forward. It will be restricting to the new script and will created unnecessary complications for the archaic script. It is best to encode them separately, much like Bengali and Maithili.
4. Objectives of the two encodings are different. The Tulu-Tigalari

script is looking at the past and capturing all the nuances present in the script. There are a lot of vedic marks and special sounds that are being researched. The behavior of these might be building on the current encoding in its archaic form. Having the newly invented behavior clubbed with this will be confusing an architecturally challenging.

5. The Tulu-Tigalari script and the invented Tulu script have many inconsistencies in their behavior as mentioned in this paper and will complicate the already complex behavior of this script. The differences identified are quite commonly occurring in both these scripts and are not minor. Both the KTSA and the authors of this proposal agree to disunify both these scripts and see no benefit in clubbing them together for both the scripts.

As authors of the Tulu-Tigalari proposal we urge the UTC to take the proposal forward and publish it in its current form. This script is long awaited for use by the researchers who want to start documenting and publishing the manuscripts.