

Karnataka Tulu Academy - Unicode Reply

TA-01/05/2021

23-May-2021

Attaching herewith

- As an handwritten evidence of all characters and stacking behavior to Tulu proposal (L2/ L2021/21019-tulu) in TA-ATT-03/05/2021.
- Soft copy of the Tulu drama book "Piṅgārada bāle siri" written in Tulu Script(Tulu Lipi Book) published in 2018 by **Gangadhar Kidiyoor**(TA-ATT-02/05/2021)
- Few pictures showing modern orthographic Tulu script characters being used in public places, in and around Tulunadu.(TA-ATT-04/05/2021)
- Translated copy of the book "Tuli Lipi Parichaya" (Tulu Script) by **Dr. Radhakrishna Bellur**, scholar, paleographer and epigraphist. The book entirely covers the history and evolution of the script and it was published by 'Karnataka Tulu Sahitya Academy'. The book gives you an explanation to the Tigalari script too.(TA-ATT-01/05/2021).
- Updated version of previously sent font, Tulu Font Baravu as OTF attachment(**Baravu 2.0.otf**)

Finally I would like to answer your queries:

1. **How non traditional characters were invented and are currently used, and identify which were invented.**
 - ು, ೂ, ೃ, ೄ, ೅ were the non-traditional characters invented and are being currently in wide usage. The reason being there is huge difference between Palamtulu (Old Tulu spoken before 16th C.E) and the present Tulu language, pronunciation.
 - The glyph ೆ(ೞ) and ೇ(ೞ) were used for e(ೞ) and o(ೞ) respectively, while new glyphs were added to represent ೆ(ೞ) and ೇ(ೞ).

Non traditional characters, special sounds of tulu

Tulu vowels have distinct letters which currently are inefficient. As previously asked in the document earlier proposed (L2/12-203).

Find the table below for few examples of special vowels;

Vowel	In Tulu lipi	IAST	Meaning in English
è and e ಜ್ಞೆ ಜ್ಞೆ	ಜ್ಞೆ ಬಾರ್ಪೆ	yān barpè	I will come.
	ಜ್ಞೆ ಬಾರ್ಪೆ	āye barpe	He will come.
	ಜ್ಞೆ ಗಾರ್ಪೆ	aṅgārè	Tuesday
	ಜ್ಞೆ ಗಾರ್ಪೆ	aṅgāre	Name given to a person
	ಜ್ಞೆ ಬಾಲ್	balè	Fishing net
	ಜ್ಞೆ ಬಾಲ್	bale	Please come
	ಜ್ಞೆ ಕುರ್ಪೆ	kunṭè	Piece of wood
	ಜ್ಞೆ ಕುರ್ಪೆ	kunṭe	Dwarf man
ಜ್ಞೆ ಕುರ್ಪೆ	ಜ್ಞೆ ಕುರ್ಪೆ	kurè	Stain
	ಜ್ಞೆ ಕುರ್ಪೆ	kure	Monkey, Stingy

Vowel	In Tulu lipi	IAST	Meaning in English
é ಎ	ಎಮೆ	émè	Tortoise
	ಎಂಟೆ	pénṭè	Market
	ಎಬಲ	bélè	Job/Work
ē ಏ	ಏಡು	ēḍu	Goat
	ಏಲ್ಯ	nēlyā	Big
	ಏಡ್	kēṇu	Ask
	ಏಪ್	pēṇu	Lice

Though there is significant difference in its meaning, these variations are very common in Tulu. The native speakers feel it is necessary to represent this with a distinct character than a symbol. Using symbols such as ' and " seems impractical. New letters were widely discussed, experimented and Tulu academy had constituted a team of researchers and linguists, who had come up with these characters. This script is currently taught in Tulunadu and people have been using it, and this is widely accepted.

2. Regarding ra and la characters

- Kindly note. In our previous proposal letter (L2/L2021/21019-tulu) there was an error in glyphs ra and la. The letters were interchanged due to typing error by our documentation team.
- Anymore the letters ra and la will be represented as

ರ will be ra or rra

ಲ will be la or zha

3. Would modern users be able to tolerate horizontal conjuncts as the default look in system fonts?

No, Most native users are acquainted to Kannada due to the medium of instruction and regional implications over several years, prefer post base form easy to be understood. Tulu academy considered this as the first preference of the conjunct forms. Though traditional orthography would be still achieved in font using stylized forms or alternative form. This will be used in deciphering artifacts and inscriptions. Modern users will prefer reformed orthography and should be the default look in system fonts. A factor to consider here is traditional orthography widely varies from letter to letter.

Most Dravidian scripts have adapted to modern way of orthography due to multiple reasons. The Malayalam, sister writing system of Tulu adapted distinct writing of ് and ് swara, in consonant addition like ്. Though traditionally it is joined to main consonant(൬), it was deliberately separated to bring cohesiveness and overlapping of vattus.

4. Name of the script

The proposal from Murthy-Ranjan provides rationale for viewing Tulu and Tigalari as a single script. If you still disagree, please provide reasoning, with references to any sources.

If you are ok with considering it a single script, is the joint name Tulu-Tigalari acceptable?

"Karnataka Tulu Sahitya Academy" and Tuluvas don't have any objection to the coinage of name "Tulu-Tigalari", whereas here we are affirmative that Tulu, Tigalari and Malayalam are three sister scripts evolved from Western Grantha script. We have no objection in using the same proposed script for Tigalari under the title "Tulu-Tigalari". Also we don't object Tigalari occupying a separate unicode block.

The idea of unified script is not appropriate as it deviates from the idea of evolution of script. Several inscriptions deciphered in Tulu are in late 21st century and are still being discovered. Multiple researches done previously are inadequate or lack enough evidence to classify Tigalari and Tulu as same script. There is clear attempt to overshadow Tulu with Tigalari. In earlier proposal, only palm leaf manuscripts were considered as substantial portion of evidence. It is important to note that the shelf life of these palm leaves manuscripts is low. Meanwhile epigraphists and paleographic experts have found multiple stone inscriptions dated to 10th CE, which implies that, it predates any palm leaves. If you look into few stone inscriptions it is found that Tulu script was used to write Tulu sentences, and Kannada script was used to write Kannada sentences in a single stone inscription. This is substantial proof that Tulu was used in administration along with Kannada and script itself was Tulu.

Tigalari is an alien word to Tulunadu. Not a single mention of word *Tigalari* can be found here. Epigraphist and paleographer **Subas Nayak Bantakal** under the guidance of S. A Krishnaiah and Dr. Radhakrishna Bellur, writes in his book “**Tulu Shasanagalu**”(Trans:Tulu Inscription, published by Dravidian University, Kuppam), about this. The highlights are as follows.

Number of inscriptions stand as proof for the fact that Southern Grantha or Tulu script(lipi) existed and used in Tulunad region in 10th century

- Kadire inscription of Alupa king Kundavarma(AD 968)
This Sanskrit inscription is written in Grantha script or developing Tulu script
- Talangere inscription of Jayasimha (980-1000 AD)
First part of this inscription has Sanskrit written in Grantha-Tulu script and second part in Kannada language and Kannada script.

These two inscriptions stand as leading proof for the usage of Tulu script in 10th century and they prove that Tulu had royal patronage during this time. To get royal patronage the script must have existed at least 10-50 years.

From 11th century onwards this script was used to write Tulu inscriptions. There was a practice of inscribing inscriptions in Sanskrit and Kannada, but no inscription of Tulu was there in Kannada script. New effort from Alupa kings to use Grantha script to write local language Tulu paved way to get royal patronage for Tulu language. There are more than 20 Tulu language inscriptions found in various places like Gosada, Kidoor, Anantapura, Pelattoor, Kudupu, Vittla, Kunjoor, Parakkila, Bajakoodlu, Renjala, Kulashekhara etc.

Tulu script with support of Alupas spreaded in North Canara and Malenadu during 12-13th century. Alupas and Sataras had good political and marital relationship and this helped in spreading of Tulu script. Alupas have ruled North Canara and Humcha regions, where a few inscriptions of Kannada language in Tulu script were found. This script is called Tigalari in this region. With respect to palm leaf manuscripts more than 15000 leaves in Tulu script are found in this region. There is no much difference between Tulu and Tigalari script. Tulu version of Pallava grantha is called Tigalari in Malenadu. Use of crescent moon, RRA and ZHA characters are only found in Tulu inscriptions. In Tulu script there are no separate symbols for short (e o) and long (ē ō) vowels. These are interpreted as long or short according to usage. Older kannada and Malayalam also did not possess separate symbols for short and long vowels. Half vowel, a special sound in Tulu language has a separate representation. It is represented by writing a crescent moon over the letter. But in Grantha, half vowel is represented by writing a vertical line over the letter. Other special sounds of Tulu language è and é do not have special representations, because this script couldn't make it to the printing press. If it was used for orienting purpose, then these sounds might have got special representations.

Tulu script continues as a creeper and almost has a round shape. Each letter starts from left to right in clockwise direction. These letters can be written in just a single stroke, without lifting the pen. This script is best suited to write in palm leaves. For example in Devanagari script which extensively uses horizontal and vertical lines, tend to tear the leaf. Devanagari and Kannada scripts which use combination of lines and circles to represent a letter requires more than one stroke to write. This takes comparatively much time and tend to damage the leaf. For this reason, most of the manuscripts found in this region are in Tulu script. It is very rare to find a palm leaf manuscript in

Devanagari script. Most of the Sanskrit manuscripts discuss the topics of Ramayana, Mahabharata, Vedic mantras, Ayurveda and many more. 12 Tulu language manuscripts are found, out of which Devi mahatme, Tulu Ramayano, Mahabharato, Bhagavato, Karnaparva, Kaveri are prominent.

Unique Tulu numeric system is found in these Tulu manuscripts. These symbols are derived from Grantha script.

A.C. Burnell (1874-78) in his book 'Elements of South Indian Paleography' have recorded this writing system as Tulu-Malayalam. This name suggests that first Tulu and then Malayalam.

Roy Bahadur Gowri Shankar Ojha (1971) have recorded Tulu alphabet and Malayalam alphabet separately in his book 'Bhaarateeya Lipimaala'.

Dr. P. Gururaja Bhat named this script "so called Tulu script" in his work 'Studies in Tuluva history and culture'. (By this time no Tulu inscriptions or Tulu manuscripts were discovered).

Dr. Vasanth Shetty in his work 'Brahmavarada Itihasa' says that though copper plates found in Moodukeri are in Kannada language and script, there are some names written in Tulu script. Researchers have confirmed it as Tulu script. Inscription found in Ullooru Kartikeya Subramanya Temple, Kandaavara has few Tulu lines in it.

B. Lewis Rice who catalogued manuscripts of Sanskrit and Prakrit have collected 270 manuscripts in Shringeri and surrounding regions. According to him out of 270 manuscripts, 21 are in Tulu script and 1 is in Tigalari script. In Epigraphia Carnatica, Vol-3 an inscription from Maalangi mentions about the donation given to a teacher who teaches 'Nagari, Kannada, Tigularya'. B.L.Rice has interpreted this as Tigula means Tamil and Arya means Marathi. But, as Nagari is a script it is more relevant to consider Tigularya as the name of the script. Epigraphia Carnatica Vol-3: Inscriptions found in Mysore region are in Nagari, Kannada, Grantha & Arava, Grantha & Tamil and Grantha scripts. Mysore is adjacent to Tamilnadu. During the rule of Hoysalas, Mysore and Bangalore were under the rule of Cholas. Many Chola Grantha inscriptions are found in this region. Chola Grantha is derived from Pallava Grantha. Tulu-Malayalam is also derived from Pallava Grantha.

Tigula stands for Tamil and Tigalari can be understood as the script used in Tamilnadu to write Sanskrit. Tigula also means Dravida, and this alters the meaning of Tigularya into script used in Dravida land to write Sanskrit, which is technically Grantha script. If at all the Grantha script had a name Tigularya, then one has to call Pallava Grantha, Chola Grantha as Tigularya Script. Same goes with children scripts of Grantha, Tulu-Malayalam. If we call Tulu and Malayalam scripts as Tigularya or Tigalari, the difference between Grantha, Tulu and Malayalam scripts will not be noted. Researchers also have an opinion that Tamil Script derived from Pallava Grantha. One can find few inscriptions of Chola Grantha in Tulunad.

A.C. Burnell recognized the Grantha script of Kaveri delta and Tanjavore as Brahminical or square hand, Arcot and Madras as Jain or round hand, Malabar as irregular sprawling hand and Tulunad as neater.

- We can go ahead with new name "**Tulu-Tigalari**" provided no compromises are done with respect to all the proposed characters by Tulu Academy's expert committee. Multiple experienced linguists, epigraphists, Universities, Karnataka and Kerala State Tulu Academies, and experts of Tulu language have agreed upon these characters. Tulu is the language of land with vibrant culture, and with more than 10 million speakers all around the world, while the end users for Tigalari all around India won't even cross 2 digits and no language uses it as a script (limited to manuscripts).
- I would also like to bring it to your notice that, Tigalari script were used for writing Sanskrit hymns and literature in and around Malenad areas of Karnataka. But for Sanskrit, already we have been using Devanagari script all around India. Apart from that, there were also workshops conducted in Karnataka for reading tigalaari manuscripts and translating the literature into Kannada. That means once the manuscripts are studied and translated, the script becomes almost obsolete among public. Because the script doesn't relate itself with any language or live culture. Hence we need to think about end users for the particular script characters in future.

- Everything that *Ms. Vaishnavi* explained in “**Tulu-Tigalari**” proposal is wonderful, I really salute to her work as an individual. She is alone doing a wonderful job whereas, the whole Tulu Academy is really slow at it (Unfortunately due to various reasons). But we really do not agree with one thing, that is being Tulu and Tigalari are one and the same. The truth is they are sister scripts of same origin.
- The Tulu script characters finalised by “**Karnataka Tulu Sahitya Academy**” has been approved by “**Government of Karnataka**”. Also the technical committee of **CIIL** (Central Institute of Indian Languages) has suggested to submit this script to Unicode Consortium. Even the Karnataka state government is on the consideration of declaring Tulu as “Associate Official language”. Also there is a demand for inclusion of Tulu to the ‘**Schedule 8**’ list under **Government of India**. As per the new **National Education Policy** (NEP) there is an provision for providing primary education in mother tongue, all over the country . Hence Tulu script has an immediate relevance and importance.

Considering all the facts above, it is very clear that *Ms. Vaishnavi* is forcefully inducing Tigalari into Tulu and making it “**Tulu-Tigalari**”. Ultimately we would like to convey that if Tigalari and Tulu scripts are considered same, then the same applies to Malayalam (Ref: Brigel and Henry Harkness, found in *Ms.Vaishnavi*’s proposal draft). Whereas Malayalam has already been considered as separate script. The script characters we have proposed are already in wide usage all around Karnataka, Kerala, Maharashtra states of India and abroad.

I would like to again bring it your kind notice that - “**Karnataka Tulu Sahitya Academy**” is a Government body under the “**Government of Karnataka**” of India and all the researches, studies and activities are carried out here following a protocol in a systematically channelized way.

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