

Universal Multiple-Octet Coded Character Set
 International Organization for Standardization
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 Международная организация по стандартизации

Doc Type: Working Group Document**Title: Proposal to encode the Wancho script in the UCS****Source: UC Berkeley Script Encoding Initiative (Universal Scripts Project)****Author: Michael Everson****Status: Liaison Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Date: 2017-07-26****Replaces: N4785 (L2/17-042)**

1. Introduction. The Wancho language has some 51,000 speakers and is used chiefly in the southeast of Arunachal Pradesh, as well as in Assam and Nagaland. There are 64 villages in Longding, 4 villages in the Tirap district, 128 villages in Nagaland, over 23 villages in Myanmar (where it may be called Chuyo), 3 in Bhutan and 4 in Assam, all where the language is spoken. Wancho is a Sino-Tibetan language of the Konyak or Northern Naga subfamily of the Sal family spoken in eastern India, parts of Bangladesh, and Myanmar. There are three main dialect areas, Northern, Central, and Southern. The script was devised between 2001 and 2012 by Banwang Losu, a teacher at a government middle school in his home village in Longding District, Arunachal Pradesh. The Wancho script is taught today in schools.

2. Processing. Wancho is a simple alphabetic script comprised of letters which represent both consonants and vowels. There are no conjunct characters. Diacritical marks are used on vowel letters to indicate tone. A few characters are similar to other characters, distinguished by a diacritical mark, but this dot is not productive; while five of them appear in pairs in alphabetical order (ᱠ AA *a*, ᱡ A *ə*; ᱢ SA *s*, ᱣ SHA *ś*; ᱤ JA *j*, ᱥ ZA *z*; ᱦ O *o*, ᱧ AU *au*; ᱨ AANG *aŋ*, ᱩ ANG *aŋ*), the dotted forms of both ᱪ RA *r* and ᱫ U *u* (ᱪ TRA *tr* and ᱫ UN *ū*) are sorted at some distance from them.

3. Orthography. Tones are marked in various ways in different varieties of Wancho. An absolute system of tone marking would not work for Wancho because, for instance, in an Upper Wancho dialect, it is the low tone which is the most common tone, but in a Lower Wancho dialect, it is the high tone which is the most common. The convention is to leave the most common tone unmarked, to mark the second-most common tone with one diacritical mark, and to mark the least-common tone with a double diacritical mark. Different diacritical marks are used to distinguish language varieties whose unmarked tone differs. Syllables checked with the glottal stop are neutral as to tone, and are also unmarked.

3.1 Tone marks not present in N4785. The Wancho script was developed for all the Wancho languages, but Losu 2013 focussed on Northern Wancho. In the orthography used for that variety, the most common low tone was marked with a single vowel (as in ᱠ *gi* ‘cane’), the mid tone was marked with two vowels (as in ᱢ *gi* ‘thread’), and the least-frequent high with three vowels (as in ᱣ *gi* ‘incise’). It became clear that this mechanism was cumbersome, and when the description of Southern Wancho (Burling and Wangsu 1998) was examined, it became clear that tone distribution (in terms of frequency) was not uniform and that this scheme would prove so confusing to users that they were likely to avoid doubling and tripling vowels altogether. The four tone marks proposed here were devised in consultation with Banwang Losu, in two pairs, one to be used with Northern Wancho and one with Southern. In a sense

this is analogous to the use of the acute accent in Irish and the grave accent in Scottish Gaelic: the different diacritics help a reader identify the language and orthography at a glance. Other Wancho languages are not well described (and it could take decades before that is accomplished).

In an Upper Wancho dialect (tones are low, mid, high, checked):

ᄒᄒ gi ‘cane’	ᄒᄒ gi ‘thread’	ᄒᄒ gi ‘incise’	ᄒᄒ gi? ‘wilting’
ᄒᄒ tu ‘blunt’	ᄒᄒ tu ‘iron’	ᄒᄒ tu ‘see’	ᄒᄒ tu? ‘thorn’
ᄒᄒ ka ‘legs apart’	ᄒᄒ ka ‘go’	ᄒᄒ ka ‘door’	ᄒᄒ ka? ‘soil’
ᄒᄒ ke ‘buttock’	ᄒᄒ ke ‘weak’	ᄒᄒ ke —	ᄒᄒ ke? —
ᄒᄒ ki ‘quarrel’	ᄒᄒ ki ‘dog’	ᄒᄒ ki ‘hatch’	ᄒᄒ ki? ‘to salve’
ᄒᄒ o ‘noise’	ᄒᄒ o ‘bird’	ᄒᄒ o ‘protect’	ᄒᄒ o? —

In a Lower Wancho dialect (tones are high⁴⁴, falling⁵², low¹¹, checked):

ᄒᄒ zi ⁴⁴ ‘thread’	ᄒᄒ lwi ⁵² ‘water buffalo’	ᄒᄒ zi ¹¹ ‘die’	ᄒᄒ li? ‘warm’
ᄒᄒ k ^h o ⁴⁴ ‘braid’	ᄒᄒ k ^h o ⁵² ‘hair of head’	ᄒᄒ k ^h o ¹¹ ‘door’	ᄒᄒ k ^h o? ‘penis’
ᄒᄒ hi ⁴⁴ ‘dog’	ᄒᄒ hi ⁵² —	ᄒᄒ hi ¹¹ ‘point’	ᄒᄒ hi? ‘small’

The diphthongs /ai/ and /au/ may be short or long; /au/ is spelt somewhat differently when long. These are spelt əi/ai and əu/au here, though another transcription might be ai/āi and ai/āu. The tone mark is placed on the first vowel in a diphthong.

ᄒᄒ kài ‘cough’	ᄒᄒ kai ‘sputum’	ᄒᄒ kái ‘kick’	ᄒᄒ kai? ‘beat’
ᄒᄒ kài ‘give, let’s’	ᄒᄒ kai ‘bent’	ᄒᄒ kái ‘plant’	ᄒᄒ kai? ‘flick’
ᄒᄒ kàs ‘half’	ᄒᄒ kās —	ᄒᄒ kái —	ᄒᄒ kās? ‘prune’
ᄒᄒ kàs ‘he, she’	ᄒᄒ kàs ‘step’	ᄒᄒ kàs ‘run-off’	ᄒᄒ kàs? ‘give’

3.1 Vowels not present in N4785. The other difference between the repertoire concerns the addition of two short vowels, ᄒ ə and ᄒ əṅ, which are ᄒ a and ᄒ aṅ augmented with the use of the dot diacritic. Minimal pairs exist: ᄒ ᄒ ᄒ ᄒ ᄒ ᄒ ‘look upwards’, ᄒ ᄒ ᄒ ᄒ ᄒ ᄒ ‘banana leaf’ (tones unknown at present for this pair); ᄒ ᄒ ᄒ ᄒ ᄒ ᄒ ‘sky’, ᄒ ᄒ ᄒ ᄒ ᄒ ᄒ ‘shoulder’. The previous orthography was defective and could not support these distinctions.

4. Non-alphabetic characters are used in Wancho. Ordinary generic punctuation marks like COMMA and FULL STOP and QUESTION MARK are used in Wancho and can be represented by existing UCS characters.

5. Digits. U+1E2F0..U+1E2F9 are the decimal digits 0–9. Common punctuation and operators are used for mathematical operations. See Figure 3.

6. Ordering. The ordering of the character set follows that of the code chart. The first four characters are given in an order which resembles the Aramaic order used by many alphabets (a b c g d, sort of a hybrid of Latin and Greek ABCΓΔ) but this seems to be incidental and there is no particular similarity to that or any other order otherwise. Dotted letters are sorted as separate from their undotted counterparts.

7. Character names. The character names here use the usual UCS transcription for the scripts of India: ᄒ AA a, ᄒ A ə, ᄒ BA b, ᄒ CA tʃ, ᄒ DA d, ᄒ GA g, ᄒ YA j, ᄒ PHA p^h, ᄒ LA l, ᄒ NA n, ᄒ PA p, ᄒ TA t, ᄒ THA θ, ᄒ FA f, ᄒ SA s, ᄒ SHA ʃ, ᄒ JA dʒ, ᄒ ZA z, ᄒ WA w, ᄒ VA v, ᄒ KA k, ᄒ O o, ᄒ AU aṅ, ᄒ RA r, ᄒ MA m, ᄒ KHA k^h, ᄒ HA h, ᄒ E e, ᄒ I i, ᄒ NGA ṅ, ᄒ U u, ᄒ LLHA ḷ, ᄒ TSA ts, ᄒ TRA tʃ, ᄒ ONG ɔṅ, ᄒ AANG aṅ, ᄒ ANG əṅ, ᄒ ING iṅ, ᄒ ON ð, ᄒ EN ē, ᄒ AN ā, ᄒ NYA ṇ, ᄒ UN ũ, ᄒ YIH ʔ.

8. Unicode Character Properties.

1E2C0;WANCHO LETTER AA;Lo;0;L;;;;;N;;;;;
1E2C1;WANCHO LETTER A;Lo;0;L;;;;;N;;;;;
1E2C2;WANCHO LETTER BA;Lo;0;L;;;;;N;;;;;
1E2C3;WANCHO LETTER CA;Lo;0;L;;;;;N;;;;;
1E2C4;WANCHO LETTER DA;Lo;0;L;;;;;N;;;;;
1E2C5;WANCHO LETTER GA;Lo;0;L;;;;;N;;;;;
1E2C6;WANCHO LETTER YA;Lo;0;L;;;;;N;;;;;
1E2C7;WANCHO LETTER PHA;Lo;0;L;;;;;N;;;;;
1E2C8;WANCHO LETTER LA;Lo;0;L;;;;;N;;;;;
1E2C9;WANCHO LETTER NA;Lo;0;L;;;;;N;;;;;
1E2CA;WANCHO LETTER PA;Lo;0;L;;;;;N;;;;;
1E2CB;WANCHO LETTER TA;Lo;0;L;;;;;N;;;;;
1E2CC;WANCHO LETTER THA;Lo;0;L;;;;;N;;;;;
1E2CD;WANCHO LETTER FA;Lo;0;L;;;;;N;;;;;
1E2CE;WANCHO LETTER SA;Lo;0;L;;;;;N;;;;;
1E2CF;WANCHO LETTER SHA;Lo;0;L;;;;;N;;;;;
1E2D0;WANCHO LETTER JA;Lo;0;L;;;;;N;;;;;
1E2D1;WANCHO LETTER ZA;Lo;0;L;;;;;N;;;;;
1E2D2;WANCHO LETTER WA;Lo;0;L;;;;;N;;;;;
1E2D3;WANCHO LETTER VA;Lo;0;L;;;;;N;;;;;
1E2D4;WANCHO LETTER KA;Lo;0;L;;;;;N;;;;;
1E2D5;WANCHO LETTER O;Lo;0;L;;;;;N;;;;;
1E2D6;WANCHO LETTER AU;Lo;0;L;;;;;N;;;;;
1E2D7;WANCHO LETTER RA;Lo;0;L;;;;;N;;;;;
1E2D8;WANCHO LETTER MA;Lo;0;L;;;;;N;;;;;
1E2D9;WANCHO LETTER KHA;Lo;0;L;;;;;N;;;;;
1E2DA;WANCHO LETTER HA;Lo;0;L;;;;;N;;;;;
1E2DB;WANCHO LETTER E;Lo;0;L;;;;;N;;;;;
1E2DC;WANCHO LETTER I;Lo;0;L;;;;;N;;;;;
1E2DD;WANCHO LETTER NGA;Lo;0;L;;;;;N;;;;;
1E2DE;WANCHO LETTER U;Lo;0;L;;;;;N;;;;;
1E2DF;WANCHO LETTER LLHA;Lo;0;L;;;;;N;;;;;
1E2E0;WANCHO LETTER TSA;Lo;0;L;;;;;N;;;;;
1E2E1;WANCHO LETTER TRA;Lo;0;L;;;;;N;;;;;
1E2E2;WANCHO LETTER ONG;Lo;0;L;;;;;N;;;;;
1E2E3;WANCHO LETTER AANG;Lo;0;L;;;;;N;;;;;
1E2E4;WANCHO LETTER ANG;Lo;0;L;;;;;N;;;;;
1E2E5;WANCHO LETTER ING;Lo;0;L;;;;;N;;;;;
1E2E6;WANCHO LETTER ON;Lo;0;L;;;;;N;;;;;
1E2E7;WANCHO LETTER EN;Lo;0;L;;;;;N;;;;;
1E2E8;WANCHO LETTER AN;Lo;0;L;;;;;N;;;;;
1E2E9;WANCHO LETTER NYA;Lo;0;L;;;;;N;;;;;
1E2EA;WANCHO LETTER UN;Lo;0;L;;;;;N;;;;;
1E2EB;WANCHO LETTER YIH;Lo;0;L;;;;;N;;;;;
1E2EC;WANCHO TONE TUP;Mn;230;NSM;;;;;N;;;;;
1E2ED;WANCHO TONE TUP MANG;Mn;230;NSM;;;;;N;;;;;
1E2EE;WANCHO TONE OKOI;Mn;230;NSM;;;;;N;;;;;
1E2EF;WANCHO TONE OKOI MANG;Mn;230;NSM;;;;;N;;;;;
1E2F0;WANCHO DIGIT ZERO;Nd;0;L;0;0;0;N;;;;;
1E2F1;WANCHO DIGIT ONE;Nd;0;L;1;1;1;N;;;;;
1E2F2;WANCHO DIGIT TWO;Nd;0;L;2;2;2;N;;;;;
1E2F3;WANCHO DIGIT THREE;Nd;0;L;3;3;3;N;;;;;
1E2F4;WANCHO DIGIT FOUR;Nd;0;L;4;4;4;N;;;;;
1E2F5;WANCHO DIGIT FIVE;Nd;0;L;5;5;5;N;;;;;
1E2F6;WANCHO DIGIT SIX;Nd;0;L;6;6;6;N;;;;;
1E2F7;WANCHO DIGIT SEVEN;Nd;0;L;7;7;7;N;;;;;
1E2F8;WANCHO DIGIT EIGHT;Nd;0;L;8;8;8;N;;;;;
1E2F9;WANCHO DIGIT NINE;Nd;0;L;9;9;9;N;;;;;
1E2FF;WANCHO NGUN SIGN;Sc;0;ET;;;;;N;;;;;

9. References

Burling, Robbins, and Mankai Wangsu. 1998. “Wancho phonology and word list”, in *Linguistics of the Tibeto-Burman Area* 21.2, pp. 43–71.

Losu, Banwang. 2013. *The Wancho Script*. New Delhi: Partridge India. ISBN 978-1-4828-1251-0

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Figures.

4 LAIZI OR LAILI
(A L P H A B E T)

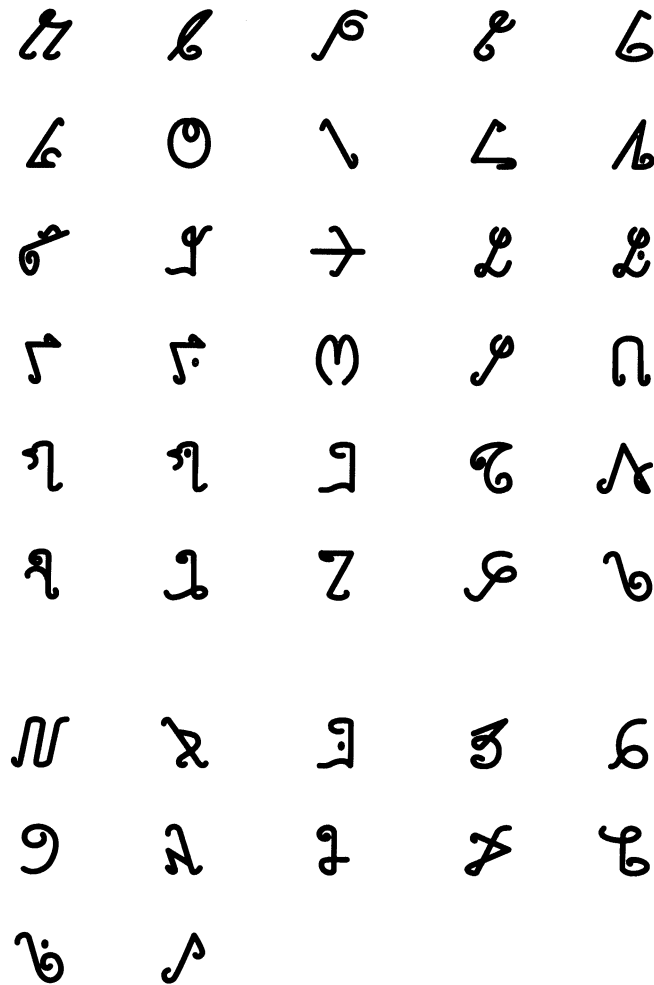


Figure 1. Chart of the Wancho alphabet. The gap appears between the letters which are used for sounds common to other languages of India, and sounds which are considered unique to Wancho. From Losu 2013:31. Since the publication of Losu 2013 analysis of the use of Wancho script for multiple varieties of Wancho has led to the addition of the following characters, which are part of this proposal:



11 SIMILARITIES

(Similar in sound, different in meaning)

(Short Vowel Sounds)				(Long Vowel Sounds)						
Wancho	English	=	Wancho	English						
ḶḶ	Ba	Gap	=	ḶḶḶ	Baa	Teeth/Axe	ḶḶ	bā	ḶḶ	bā
ḶḶ	Ban	Fire	=	ḶḶḶ	Bann	10(Ten)	ḶḶḶ	bàn	ḶḶḶ	ban
ḶḶ	Bea	Group	=	ḶḶḶ	Bea*	Pull	ḶḶ	bè	ḶḶ	be
ḶḶ	Bu	Hot(Chilli)	=	ḶḶḶ	Boo	Itching/Scabies	ḶḶ	bù	ḶḶ	bu
ḶḶ	Bo*	Scrotum	=	ḶḶḶ	Bo*	Song	ḶḶ	bò	ḶḶ	bō
ḶḶ	Cha	One	=	ḶḶḶ	Chaa	Remainder	ḶḶ	cā	ḶḶ	cā
ḶḶ	Cho	Chest	=	ḶḶḶ	Cho	Summer	ḶḶ	cò	ḶḶ	co
ḶḶ	Cham	What	=	ḶḶḶ	Cham	Food	ḶḶḶ	càm	ḶḶḶ	cam
ḶḶ	Chi	Water	=	ḶḶḶ	Chee	Penis	ḶḶ	cì	ḶḶ	ci
ḶḶ	Da	Slave	=	ḶḶḶ	Daa	Rough surface	ḶḶ	dā	ḶḶ	dā
ḶḶ	Dam	Bamboo mat	=	ḶḶḶ	Damm	Careless	ḶḶḶ	dàm	ḶḶḶ	dam
ḶḶ	Di	Shield	=	ḶḶḶ	Dee	Die	ḶḶ	dì	ḶḶ	di
ḶḶ	Ga	Useless	=	ḶḶḶ	Gaa	Afraid/Fear	ḶḶ	gā	ḶḶ	gā
ḶḶ	Gan	Fence	=	ḶḶḶ	Gann	Shame	ḶḶḶ	gàn	ḶḶḶ	gan
ḶḶ	Gi	Cane	=	ḶḶḶ	Gee	Thread	ḶḶ	gì	ḶḶ	gi
ḶḶ	Gong	Horn	=	ḶḶḶ	Gonng	Strong	ḶḶ	gòḶ	ḶḶ	gōḶ
ḶḶ	Go*	Bamboo	=	ḶḶḶ	Go:*	Discussion/ Meeting	ḶḶ	gò	ḶḶ	gō
ḶḶ	No*	Basket	=	ḶḶḶ	No*	Turning	ḶḶ	nò	ḶḶ	nō
ḶḶ	Ni	Smile	=	ḶḶḶ	Nee	Cloths	ḶḶ	nì	ḶḶ	ni
ḶḶ	Pan	Tree	=	ḶḶḶ	Pann	Rule	ḶḶḶ	pàn	ḶḶḶ	pan
ḶḶ	Pi	Fly	=	ḶḶḶ	Pee	Bend	ḶḶ	pì	ḶḶ	pi
ḶḶ	Tu	Not sharp	=	ḶḶḶ	Too	See	ḶḶ	tù	ḶḶ	tu
ḶḶ	Than	Face	=	ḶḶḶ	Thann	Target	ḶḶḶ	thàn	ḶḶḶ	than
ḶḶ	Ki	Quarrel	=	ḶḶḶ	Kee	Chick comes out of egg	ḶḶ	kì	ḶḶ	ki
ḶḶ	O	Noise	=	ḶḶ	O	Bird	ḶḶ	ò	ḶḶ	o
ḶḶ	Man	No	=	ḶḶḶ	Mann	Name	ḶḶḶ	màn	ḶḶḶ	man
ḶḶ	Khan	Yam	=	ḶḶḶ	Khann	Buried	ḶḶḶ	khàn	ḶḶḶ	khan
ḶḶḶ	Mai	Good	=	ḶḶḶḶ	Maie	Animals/Meat	ḶḶḶḶ	mài	ḶḶḶḶ	māi
ḶḶ	Ja*	Water	=	ḶḶḶ	Ja*	Bone	ḶḶ	jā	ḶḶ	jā
ḶḶ	Nga	Tire	=	ḶḶḶ	Ngaa	Mithun	ḶḶ	nā	ḶḶ	nā
ḶḶ	Khi	Red	=	ḶḶḶ	Khee	Keen	ḶḶ	khì	ḶḶ	khi
ḶḶ	Kan	To carry	=	ḶḶḶ	Kann	Hug	ḶḶḶ	kàn	ḶḶḶ	kan
ḶḶḶ	Kom	They	=	ḶḶḶḶ	Komm	We	ḶḶḶ	kòm	ḶḶḶ	kom
ḶḶ	Ju	Beg	=	ḶḶḶ	Joo	Wine	ḶḶ	jù	ḶḶ	ju
ḶḶ	Pong	Meet	=	ḶḶḶ	Pongn	Join	ḶḶ	pòḶ	ḶḶ	poj
ḶḶ	Lam	Way	=	ḶḶḶ	Lamm	seek/search	ḶḶḶ	lām	ḶḶḶ	lam
ḶḶ	Shan	Face	=	ḶḶḶ	Shann	Praise	ḶḶḶ	sàn	ḶḶḶ	san
ḶḶḶ	Chuu	Bite	=	ḶḶ	Chu	Melt	ḶḶ	cu	ḶḶ	cù

Figure 2. Some minimal pairs in Wancho. From Losu 2013:86–87. On the left the words are given in an earlier orthography which marks tone by doubling and tripling vowels and nasals. On the right is the reformed orthography, which has a vowel *ḶḶ* for short *a* and the second and third tones (in the case of this variety of Northern Wancho, mid and high tones).

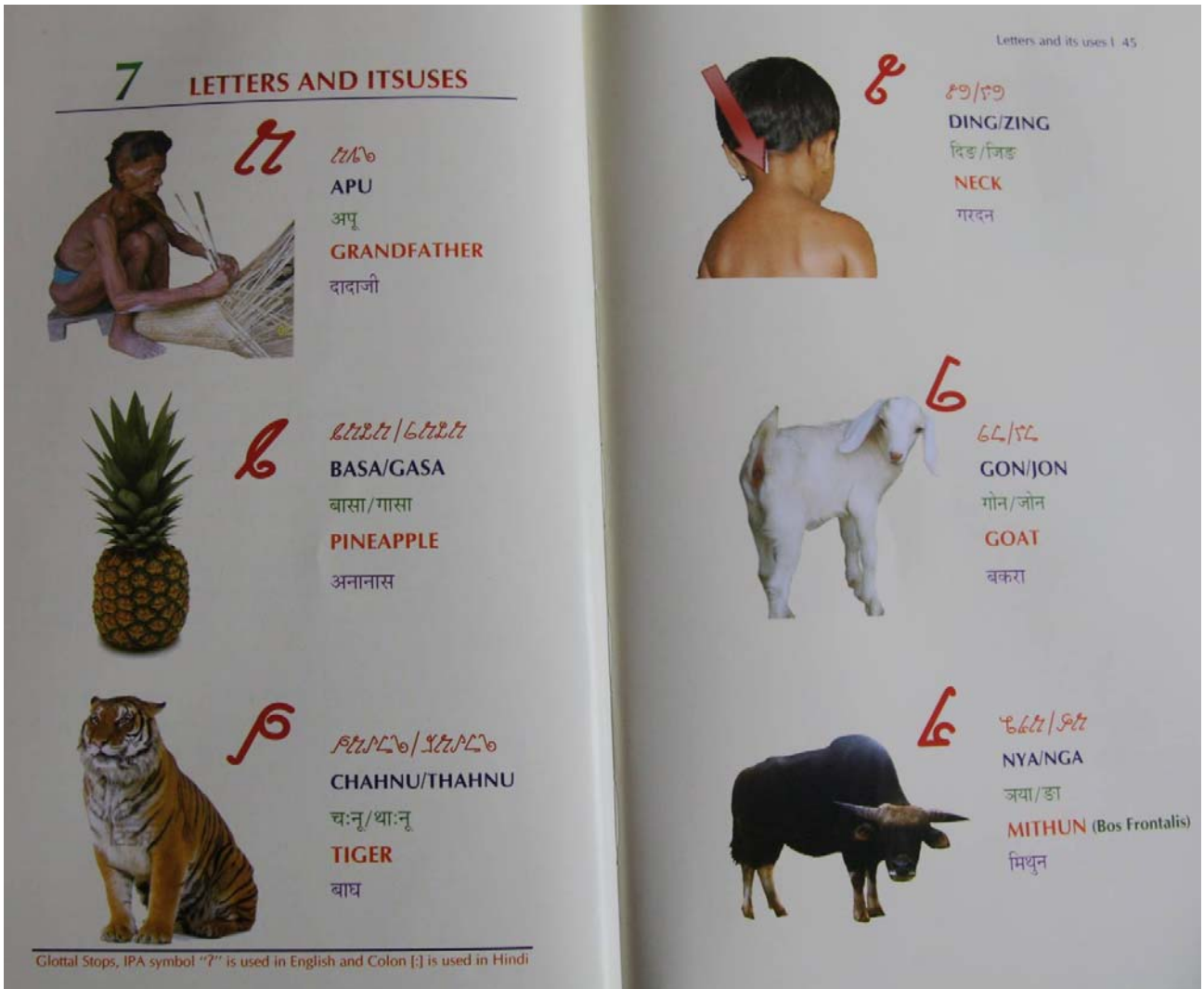


Figure 5. Examples of words beginning the alphabet in Wancho script, Latin script, Devanagari script, with English and Hindi translations. Variant readings like ꠘꠘꠘꠘꠘꠘ *chahnu* [tʃaʔnù] / ꠘꠘꠘꠘꠘꠘ *thahnu* [θaʔnù] indicate dialect variation. From Losu 2013:44–45.

MAIZA
ᄒᄒᄒᄒ



ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ?
ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ.

ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ?
ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ.

ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ?
ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ.

ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ?
ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ.

ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ?
ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ.

ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ?
ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ ᄒᄒᄒᄒ.

This is moral character building poem especially for the school going children. The verse contained the prohibition of using drugs like alcohol, opium, and dirty activities in our daily life. Apart from that, good habit in every walk of life is encouraged in the last part of stanza.

Figure 6. A Wancho poem. From Losu 2013:124.

KOI GAGA NUN KAONG

NUN KAONG NUN KAONG
 LUNGA NUN KAONG LUNGA NUN KAONG
 HUMTO, NUN KAONG NUN KAONG
 APUNA PHAWTO APEENA HUNTO
 KHUNTO, NUN KAONG NUN KAONG
 SAMPA NA HATAI LAMGOI NA HATAI
 CHINGTO, NUN KAONG NUN KAONG
 SAH NA HATAI JING NA HATAI
 MAANPHE, NUN KAONG NUN KAONG

(Translated below)

Koi gaga O koi gaga
 Nuna kaong Pana kaong
 Humto, koi gaga O koi gaga
 Apuna phawto Apeena hungto
 Khungto, koi gaga O koi gaga
 Sampa na hatai Lamgoi na hatai
 Chingto, koi gaga O koi gaga
 Sah na hatai jing na hatai
 Maanphe, koi gaga O koi gaga.

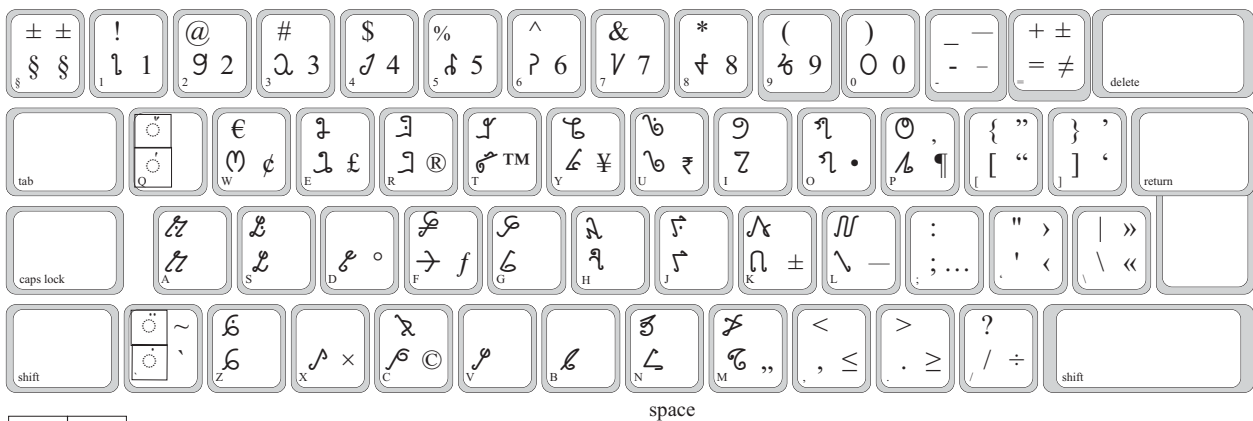


A child is weeping, singing above song (Poem) with her toy horse (Maan) during the day at home. Her mother, father and parents went to field leaving her alone, no one was there to take care of and play with her except toy.

Figure 7. A Wancho song with transliteration. From Losu 2013:125.



































































Figure 9. Students taking an examination in Wancho script.















































shift	alt-shift
plain	alt

a = Ḃ [a:]	n = ᄀ [n]	A = Ḃ [ə]	N = ᄃ [əŋ]	˘ = ˙
b = ᄁ [b]	o = ᄁ [o:]	B = —	O = ᄁ [aʊ]	˘ ~ ˙
c = ᄃ [tʃ]	p = ᄃ [p]	C = ᄃ [ts]	P = ᄃ [pʰ]	
d = ᄃ [d]	q = ˙	D = —	Q = ˙	
e = ᄃ [e]	r = ᄃ [r]	E = ᄃ [ɛ]	R = ᄃ [tʃ]	
f = ᄃ [f]	s = ᄃ [s]	F = ᄃ (₹ rupee)	S = ᄃ [ʃ]	
g = ᄃ [g]	t = ᄃ [t]	G = ᄃ [ŋ]	T = ᄃ [θ]	
h = ᄃ [h]	u = ᄃ [u]	H = ᄃ [ä]	U = ᄃ [ü]	
i = ᄃ [i]	v = ᄃ [v]	I = ᄃ [iŋ]	V = —	
j = ᄃ [dʒ]	w = ᄃ [w]	J = ᄃ [z]	W = € (euro)	
k = ᄃ [k]	x = ᄃ [ʔ]	K = ᄃ [kʰ]	X = —	
l = ᄃ [l]	y = ᄃ [j]	L = ᄃ [ʃ]	Y = ᄃ [ŋ]	
m = ᄃ [m]	z = ᄃ [a:ŋ]	M = ᄃ [ð]	Z = ᄃ [əŋ]	





Figure 10. Wancho keyboard layout.

	1E2C	1E2D	1E2E	1E2F
0	 1E2C0	 1E2D0	 1E2E0	 1E2F0
1	 1E2C1	 1E2D1	 1E2E1	 1E2F1
2	 1E2C2	 1E2D2	 1E2E2	 1E2F2
3	 1E2C3	 1E2D3	 1E2E3	 1E2F3
4	 1E2C4	 1E2D4	 1E2E4	 1E2F4
5	 1E2C5	 1E2D5	 1E2E5	 1E2F5
6	 1E2C6	 1E2D6	 1E2E6	 1E2F6
7	 1E2C7	 1E2D7	 1E2E7	 1E2F7
8	 1E2C8	 1E2D8	 1E2E8	 1E2F8
9	 1E2C9	 1E2D9	 1E2E9	 1E2F9
A	 1E2CA	 1E2DA	 1E2EA	
B	 1E2CB	 1E2DB	 1E2EB	
C	 1E2CC	 1E2DC	 1E2EC	
D	 1E2CD	 1E2DD	 1E2ED	
E	 1E2CE	 1E2DE	 1E2EE	
F	 1E2CF	 1E2DF	 1E2EF	 1E2FF











Letters

- 1E2C0  WANCHO LETTER AA
- 1E2C1  WANCHO LETTER A
- 1E2C2  WANCHO LETTER BA
- 1E2C3  WANCHO LETTER CA
- 1E2C4  WANCHO LETTER DA
- 1E2C5  WANCHO LETTER GA
- 1E2C6  WANCHO LETTER YA
- 1E2C7  WANCHO LETTER PHA
- 1E2C8  WANCHO LETTER LA
- 1E2C9  WANCHO LETTER NA
- 1E2CA  WANCHO LETTER PA
- 1E2CB  WANCHO LETTER TA
- 1E2CC  WANCHO LETTER THA
- 1E2CD  WANCHO LETTER FA
- 1E2CE  WANCHO LETTER SA
- 1E2CF  WANCHO LETTER SHA
- 1E2D0  WANCHO LETTER JA
- 1E2D1  WANCHO LETTER ZA
- 1E2D2  WANCHO LETTER WA
- 1E2D3  WANCHO LETTER VA
- 1E2D4  WANCHO LETTER KA
- 1E2D5  WANCHO LETTER O
- 1E2D6  WANCHO LETTER AU
- 1E2D7  WANCHO LETTER RA
- 1E2D8  WANCHO LETTER MA
- 1E2D9  WANCHO LETTER KHA
- 1E2DA  WANCHO LETTER HA
- 1E2DB  WANCHO LETTER E
- 1E2DC  WANCHO LETTER I
- 1E2DD  WANCHO LETTER NGA
- 1E2DE  WANCHO LETTER U
- 1E2DF  WANCHO LETTER LLHA
- 1E2E0  WANCHO LETTER TSA
- 1E2E1  WANCHO LETTER TRA
- 1E2E2  WANCHO LETTER ONG
- 1E2E3  WANCHO LETTER AANG
- 1E2E4  WANCHO LETTER ANG
- 1E2E5  WANCHO LETTER ING
- 1E2E6  WANCHO LETTER ON
- 1E2E7  WANCHO LETTER EN
- 1E2E8  WANCHO LETTER AN
- 1E2E9  WANCHO LETTER NYA
- 1E2EA  WANCHO LETTER UN
- 1E2EB  WANCHO LETTER YIH


Tone marks

- 1E2EC  WANCHO TONE TUP
- 1E2ED  WANCHO TONE TUP MANG
- 1E2EE  WANCHO TONE OKOI
- 1E2EF  WANCHO TONE OKOI MANG

Digits

- 1E2F0  WANCHO DIGIT ZERO
- 1E2F1  WANCHO DIGIT ONE
- 1E2F2  WANCHO DIGIT TWO
- 1E2F3  WANCHO DIGIT THREE
- 1E2F4  WANCHO DIGIT FOUR
- 1E2F5  WANCHO DIGIT FIVE
- 1E2F6  WANCHO DIGIT SIX
- 1E2F7  WANCHO DIGIT SEVEN
- 1E2F8  WANCHO DIGIT EIGHT
- 1E2F9  WANCHO DIGIT NINE

Symbol

- 1E2FF  WANCHO NGUN SIGN
= rupee
→ 20B9 ₹ indian rupee sign

A. Administrative

1. Title

Proposal to encode the Wancho script in the UCS

2. Requester's name

UC Berkeley Script Encoding Initiative (Universal Scripts Project)

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

Liaison contribution.

4. Submission date

2017-07-26

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

Yes.

6b. More information will be provided later

No.

B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

Yes.

1b. Proposed name of script

Wancho.

1c. The proposal is for addition of character(s) to an existing block

No.

1d. Name of the existing block

2. Number of characters in proposal

59.

3. Proposed category (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)

Category A.

4a. Is a repertoire including character names provided?

Yes.

4b. If YES, are the names in accordance with the “character naming guidelines” in Annex L of P&P document?

Yes.

4c. Are the character shapes attached in a legible form suitable for review?

Yes.

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

Michael Everson via Banwang Losu

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, Fontographer.

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes.

7. 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.

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.

See above.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

Yes. N4785.

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes.

2b. If YES, with whom?

Banwang Losu, Stephen Morey, Andrew Cunningham. Yhilan Ko

2c. 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?

Contemporary use by Wancho speakers.

4a. The context of use for the proposed characters (type of use; common or rare)

Common.

4b. Reference

5a. Are the proposed characters in current use by the user community?

Yes.

5b. If YES, where?

In Arunachal Pradesh.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

No.

6b. If YES, is a rationale provided?

6c. If YES, reference

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

Yes.

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

No.

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No.

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

No.

10b. If YES, is a rationale for its inclusion provided?

10c. If YES, reference

11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?

No.

11b. If YES, is a rationale for such use provided?

11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

No.

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

No.

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?