

Proposal to Encode the Luo Lakeside Script in the UCS

Oreen Yousuf

oreen.yousuf@gmail.com

To: Script Encoding Working Group (SEWG) / Unicode Technical Committee (UTC)

From: Oreen Yousuf

Subject: Proposal for encoding the Luo Lakeside script in the UCS

Date: 2025 December 5

General Overview:

We propose the addition of the Luo Lakeside script into the Unicode Standard. A short proposal for this script was submitted on June 11, 2019 by the user community (see the following).

- [L2/19-268](#): “Addition of Luo Lakeside Script”

Our current proposal supersedes the above proposal due to the following reasons:

- More detailed history of the script
- Information on community created fonts
- Additional languages that use the script
- IPA
- Joining information for letters
- Current and old letters
- Chart
- Properties
- Collation
- Publication references
- Several more images of evidence of script use

I Background

The Luo Lakeside is an alphabetical script used to write the Luo languages, specifically the Dholuo language (ISO 639-3: luo) of Kenya (which is also spoken in Tanzania). The letters of the script were created by Kefa Ombewa between 2009-2012, and the numerals were separately created by Professor Paul Sidanidi in 2012. The two met on Twitter in 2013 and combined their work. The script is used by users in Kisumu and other parts of Kenya, but is also used by Luo speakers in Botswana. The Batswana users are primarily concentrated in Lobatse. The script has grown far beyond the script inventor’s social circles, causing it to become infeasible to keep precise numbering of users.

Two fonts have been created by the Luo Lakeside script community. The first script was created on June 12, 2012. These fonts have been used to create a dictionary, documents, primers, digital media, physical clocks, etc. These materials were made by people other than the script creator(s). There are no other scripts in competition among the user community. The first font was named “KefaSidandi”, named after the script creators. Some specifics on how to make a font for the script can be found in Section IX.

Some Batswana script users also use the script to write Setswana (ISO 639-3: tsn). Only in isolated incidents has the proposal author observed the script being used to write Swahili (ISO 639-3: swa) and Oromo (ISO 639-3: orm) in the Luo Lakeside script (see Section XI). Both of these languages are spoken in Kenya as well, yet are linguistically unrelated to Luo.

A keyboard can be found here: https://keyman.com/keyboards/luo_lakeside . As of December 2025, 630+ people have downloaded the keyboard.

II Script Name

The proposed script name is “**LUO LAKESIDE**”. The user community refers to the script as the “Luo Lakeside Script.” The script is also known as the “Lakeside Script”, “Luo Alphabet”, or the “African Lakeside Script.”

III Structure

The Luo Lakeside script is an alphabet that is written from left-to-right (LTR) in horizontal lines from the top of a page to the bottom of a page. The script has 33 letters. The script is bicameral, meaning it has an uppercase and lowercase form for (mostly) every letter, however it was at one point unicameral (i.e., having only one form for each sound).

Letter Name	Letter		IPA	Latin Luo Orthography
	Uppercase	Lowercase		
AA	𐌀	𐌁	/a/	A a
BA	𐌂	𐌃	/b/	B b
CHA	𐌄	𐌅	/tʃ/	Ch ch
DA	𐌆	𐌇	/d/	D d
EE	𐌈	𐌉	/e/	E e
FA	𐌊	𐌋	/f/	F f
GA	𐌍	𐌎	/g/	G g
NG’A	𐌐	𐌑	/ŋ/	Ng’ ng’
HA	𐌒	𐌓	/h/	H h
II	𐌔	𐌕	/i/	I i
JA	𐌗	𐌘	/j/	J j
KA	𐌚	𐌛	/k/	K k
LA	𐌝	𐌞	/l/	L l
MA	𐌟	𐌠	/m/	M m
MBA		𐌡	/ᵐb/	Mb mb
NA	𐌣	𐌤	/n/	N n
NDA		𐌥	/ⁿd/	Nd nd
NJA		𐌦	/ⁿj/	Nj nj
NGA		𐌧	/ⁿg/	Ng ng
NYA		𐌨	/ⁿj/	Ny ny
OO	𐌪	𐌫	/o/	O o
PA	𐌭	𐌮	/p/	P p

SHA / CLICK	ᑭ	ᑭ	/ʃ/ /!/	Sh sh and* Q q
RA	ᑭ	ᑭ	/r/	R r
SA	ᑭ	ᑭ	/s/	S s
TA	ᑭ	ᑭ	/t/	T t
THA		ᑭ	/t̥/	Th th
DHA		ᑭ	/d̥/	Dh dh
UU	ᑭ	ᑭ	/u/	U u
VA	ᑭ	ᑭ	/v/	V v
WA	ᑭ	ᑭ	/w/	W w
YA	ᑭ	ᑭ	/j/	Y y
ZA	ᑭ	ᑭ	/z/	Z z

Table 1. All letters in the Luo Lakeside script.

Due to QWERTY keyboard limitations and English/Latin-script influence, 7 letters that were once used – ᑭ /^mb/, ᑭ /ⁿd/, ᑭ /ⁿj/, ᑭ /ⁿg/, ᑭ /ⁿ/, ᑭ /^t/, ᑭ /^d/ – fell into disuse. The phonemes these letters represented are now spelled with Luo Lakeside script digraphs (i.e., Luo Lakeside letters for m+b, n+d, n+j, n+g, n+y, t+h, d+h, respectively). These letters should however still be encoded to preserve old documents as is agreed upon by the community. When the script became bicameral, the existing letters became the lowercase forms. The previously mentioned 7 letters were dropped before the transition to a bicameral script, therefore, uppercase forms were never created for them.

*As seen above in Table 1, the Luo Lakeside letter ᑭ/ᑭ is used for two different sounds. For Luo speakers in Kenya, this letter is used for the foreign sound /ʃ/ (written as <sh> in the Latin script); whereas this same letter is used for the foreign sound /!/ (palatal click) for Luo speakers in Botswana (written as <q> in the Latin script). The latter is due to Batswana Luo Lakeside script users' exposure to Setswana.

Most of the lowercase letters are connected/joined at the bottom in a cursive manner, similar to other scripts (e.g., Adlam, Arabic, Nko, etc.). All letters have the ability to connect to a letter on the right-side, however 17 letters do not have the ability to be connected on the left-side (shown in red in the table below). Below is a table showing all lowercase letters and if they can be connected on the right and/or left-side of the letter.

Letter	Connects Right	Connects Left	Letter	Connects Right	Connects Left
ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ

h	h _o	h _o	h	h _o	h _o
z	z _o	z _o	d	d _o	d _o
l	l _o	l _o	g	g _o	g _o
c	c _o	c _o	o	o _o	o _o
t	t _o	t _o	=	= _o	= _o
r	r _o	r _o	l	l _o	l _o
s	s _o	s _o	r	r _o	r _o
j	j _o	j _o	a	a _o	a _o
g	g _o	g _o	e	e _o	e _o
o	o _o	o _o	z	z _o	z _o
u	u _o	u _o			

Of course, some users may try to connect all letters together in handwriting (especially given that these letters are inherently cursive), but the above table is the default. Uppercase letters are never connected to other uppercase nor to lowercase letters. Even when a word has uppercase among lowercase letters, the uppercase letters still do not connect to other letters (see Figure 1 in Section XI).

Numbers

The Luo language uses a base-10 (decimal) system to count. The Luo Lakeside script has unique digits/numerals.

Luo Name	Luo Lakeside Digit	Hindu-Arabic Equivalent
NONO	⊖	0
ACHIEL	┐	1
ARIYO	┑	2
ADEK	≡	3
ANG'WEN	└	4
ABICH	∪	5
AUCHIEL	┌	6
ABIRIYO	└	7
ABORO	⊕	8
OCHIKO	⊙	9

Table 3. Luo Lakeside script digits/numerals.

All Luo Lakeside script numbers can also be found at lakesidescript.com, see Reference 24 in Section VII below.

IV Character Repertoire

Character	Unicode Name
𐌀	U+1X000 LUO LAKESIDE CAPITAL LETTER AA
𐌁	U+1X001 LUO LAKESIDE CAPITAL LETTER BA
𐌂	U+1X002 LUO LAKESIDE CAPITAL LETTER CHA
𐌃	U+1X003 LUO LAKESIDE CAPITAL LETTER DA
𐌄	U+1X004 LUO LAKESIDE CAPITAL LETTER EE
𐌅	U+1X005 LUO LAKESIDE CAPITAL LETTER FA
𐌆	U+1X006 LUO LAKESIDE CAPITAL LETTER GA
𐌇	U+1X007 LUO LAKESIDE CAPITAL LETTER NGA
𐌈	U+1X008 LUO LAKESIDE CAPITAL LETTER HA
𐌉	U+1X009 LUO LAKESIDE CAPITAL LETTER II
𐌊	U+1X00A LUO LAKESIDE CAPITAL LETTER JA
𐌋	U+1X00B LUO LAKESIDE CAPITAL LETTER KA
𐌌	U+1X00C LUO LAKESIDE CAPITAL LETTER LA
𐌍	U+1X00D LUO LAKESIDE CAPITAL LETTER MA
	U+1X00E RESERVED
𐌎	U+1X00F LUO LAKESIDE CAPITAL LETTER NA
	U+1X010 RESERVED
	U+1X011 RESERVED
	U+1X012 RESERVED
	U+1X013 RESERVED
𐌏	U+1X014 LUO LAKESIDE CAPITAL LETTER OO
𐌐	U+1X015 LUO LAKESIDE CAPITAL LETTER PA
𐌑	U+1X016 LUO LAKESIDE CAPITAL LETTER SH AND CLICK
𐌒	U+1X017 LUO LAKESIDE CAPITAL LETTER RA
𐌓	U+1X018 LUO LAKESIDE CAPITAL LETTER SA

Ŭ	U+1X019 LUO LAKESIDE CAPITAL LETTER TA
	U+1X01A RESERVED
	U+1X01B RESERVED
Ʊ	U+1X01C LUO LAKESIDE CAPITAL LETTER UU
Ʊ	U+1X01D LUO LAKESIDE CAPITAL LETTER VA
Ʊ	U+1X01E LUO LAKESIDE CAPITAL LETTER WA
Ʊ	U+1X01F LUO LAKESIDE CAPITAL LETTER YA
Ʊ	U+1X020 LUO LAKESIDE CAPITAL LETTER ZA
Ʊ	U+1X021 LUO LAKESIDE SMALL LETTER AA
Ʊ	U+1X022 LUO LAKESIDE SMALL LETTER BA
Ʊ	U+1X023 LUO LAKESIDE SMALL LETTER CHA
Ʊ	U+1X024 LUO LAKESIDE SMALL LETTER DA
Ʊ	U+1X025 LUO LAKESIDE SMALL LETTER EE
Ʊ	U+1X026 LUO LAKESIDE SMALL LETTER FA
Ʊ	U+1X027 LUO LAKESIDE SMALL LETTER GA
Ʊ	U+1X028 LUO LAKESIDE SMALL LETTER NGA
Ʊ	U+1X029 LUO LAKESIDE SMALL LETTER HA
Ʊ	U+1X02A LUO LAKESIDE SMALL LETTER II
Ʊ	U+1X02B LUO LAKESIDE SMALL LETTER JA
Ʊ	U+1X02C LUO LAKESIDE SMALL LETTER KA
Ʊ	U+1X02D LUO LAKESIDE SMALL LETTER LA
Ʊ	U+1X02E LUO LAKESIDE SMALL LETTER MA
Ʊ	U+1X02F LUO LAKESIDE SMALL LETTER MBA
Ʊ	U+1X030 LUO LAKESIDE SMALL LETTER NA
Ʊ	U+1X031 LUO LAKESIDE SMALL LETTER NDA
Ʊ	U+1X032 LUO LAKESIDE SMALL LETTER NJA
Ʊ	U+1X033 LUO LAKESIDE SMALL LETTER NGGA
Ʊ	U+1X034 LUO LAKESIDE SMALL LETTER NYA
Ʊ	U+1X035 LUO LAKESIDE SMALL LETTER OO

ᄁ	U+1X036 LUO LAKESIDE SMALL LETTER PA
ᄂ	U+1X037 LUO LAKESIDE SMALL LETTER SHA AND CLICK
ᄃ	U+1X038 LUO LAKESIDE SMALL LETTER RA
ᄄ	U+1X039 LUO LAKESIDE SMALL LETTER SA
ᄅ	U+1X03A LUO LAKESIDE SMALL LETTER TA
ᄆ	U+1X03B LUO LAKESIDE SMALL LETTER THA
ᄇ	U+1X03C LUO LAKESIDE SMALL LETTER DHA
ᄈ	U+1X03D LUO LAKESIDE SMALL LETTER UU
ᄉ	U+1X03E LUO LAKESIDE SMALL LETTER VA
ᄊ	U+1X03F LUO LAKESIDE SMALL LETTER WA
ᄋ	U+1X040 LUO LAKESIDE SMALL LETTER YA
ᄌ	U+1X041 LUO LAKESIDE SMALL LETTER ZA
ᄍ	U+1X042 LUO LAKESIDE DIGIT ZERO
ᄎ	U+1X043 LUO LAKESIDE DIGIT ONE
ᄏ	U+1X044 LUO LAKESIDE DIGIT TWO
ᄐ	U+1X045 LUO LAKESIDE DIGIT THREE
ᄑ	U+1X046 LUO LAKESIDE DIGIT FOUR
ᄒ	U+1X047 LUO LAKESIDE DIGIT FIVE
ᄓ	U+1X048 LUO LAKESIDE DIGIT SIX
ᄔ	U+1X049 LUO LAKESIDE DIGIT SEVEN
ᄕ	U+1X04A LUO LAKESIDE DIGIT EIGHT
ᄖ	U+1X04B LUO LAKESIDE DIGIT NINE

Table 4. Luo Lakeside script character repertoire.

Due to Unicode not allowing apostrophes in the Unicode name for scripts nor characters, the letters for /ŋ/ (ᄃ; ᄄ), which are known as NG'A in Luo, was given the Unicode name NGA. However, the letter for /ŋg/ (ᄅ) is known as NGA in Luo. Therefore, we suggest that the Unicode name for this letter be NGGA. Any future educational material created by persons reading this proposal should not be influenced by these Unicode names, which were chosen due to constraints, and should instead adhere to the official names of the letters listed in Table 1 in Section III.

Empty cells are reserved for potential future encoding of uppercase letters for the 7 lowercase letters discussed in Section III that were dropped due to QWERTY limitations.

Chart

	U+1X00	U+1X01	U+1X02	U+1X03	U+1X04
0	ᐁ		ᐃ	ᐅ	ᐇ
1	ᐉ		ᐋ	ᐍ	ᐏ
2	ᐓ		ᐕ	ᐗ	ᐙ
3	ᐛ		ᐝ	ᐟ	ᐡ
4	ᐣ	ᐤ	ᐧ	ᐩ	ᐫ
5	ᐭ	ᐮ	ᐯ	ᐱ	ᐳ
6	ᐵ	ᐶ	ᐹ	ᐻ	ᐽ
7	ᐿ	ᑀ	ᑂ	ᑄ	ᑆ
8	ᑈ	ᑉ	ᑋ	ᑍ	ᑏ
9	ᑒ	ᑓ	ᑕ	ᑗ	ᑙ
A	ᑜ		ᑞ	ᑠ	ᑢ
B	ᑦ		ᑨ	ᑪ	ᑬ
C	ᑮ	ᑯ	ᑱ	ᑳ	
D	ᑽ	ᑾ	ᑺ	ᑼ	
E		ᑼ	ᑾ	ᑺ	
F	ᑾ	ᑼ	ᑺ	ᑼ	

Additional information on characters

Phonetic value

See IPA for all letters in Table 1 in Section III above.

Joining information

Most lowercase letters join together. However, there are no positional variants in this script. See Table 2 and Section III above for all details.

Punctuation

There are no script-specific Luo Lakeside punctuation marks.

Numbers

There are script-specific Luo Lakeside digits/numerals. See Table 3 in Section III above.

V Properties

General Category and other properties

U+1X000;	LUO	LAKESIDE	CAPITAL	LETTER	AA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X001;	LUO	LAKESIDE	CAPITAL	LETTER	BA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X002;	LUO	LAKESIDE	CAPITAL	LETTER	CHA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X003;	LUO	LAKESIDE	CAPITAL	LETTER	DA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X004;	LUO	LAKESIDE	CAPITAL	LETTER	EE;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X005;	LUO	LAKESIDE	CAPITAL	LETTER	FA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X006;	LUO	LAKESIDE	CAPITAL	LETTER	GA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X007;	LUO	LAKESIDE	CAPITAL	LETTER	NGA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X008;	LUO	LAKESIDE	CAPITAL	LETTER	HA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X009;	LUO	LAKESIDE	CAPITAL	LETTER	II;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X00A;	LUO	LAKESIDE	CAPITAL	LETTER	JA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X00B;	LUO	LAKESIDE	CAPITAL	LETTER	KA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X00C;	LUO	LAKESIDE	CAPITAL	LETTER	LA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X00D;	LUO	LAKESIDE	CAPITAL	LETTER	MA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X00E;	RESERVED	;	;	;	;	;	;	;	;	;	;	;	;	;	;	;
U+1X00F;	LUO	LAKESIDE	CAPITAL	LETTER	NA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X010;	RESERVED	;	;	;	;	;	;	;	;	;	;	;	;	;	;	;
U+1X011;	RESERVED	;	;	;	;	;	;	;	;	;	;	;	;	;	;	;
U+1X012;	RESERVED	;	;	;	;	;	;	;	;	;	;	;	;	;	;	;
U+1X013;	RESERVED	;	;	;	;	;	;	;	;	;	;	;	;	;	;	;
U+1X014;	LUO	LAKESIDE	CAPITAL	LETTER	OO;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X015;	LUO	LAKESIDE	CAPITAL	LETTER	PA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X016;	LUO	LAKESIDE	CAPITAL	LETTER	SHA AND CLICK	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X017;	LUO	LAKESIDE	CAPITAL	LETTER	RA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X018;	LUO	LAKESIDE	CAPITAL	LETTER	SA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X019;	LUO	LAKESIDE	CAPITAL	LETTER	TA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X01A;	RESERVED	;	;	;	;	;	;	;	;	;	;	;	;	;	;	;
U+1X01B;	RESERVED	;	;	;	;	;	;	;	;	;	;	;	;	;	;	;
U+1X01C;	LUO	LAKESIDE	CAPITAL	LETTER	UU;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X01D;	LUO	LAKESIDE	CAPITAL	LETTER	VA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X01E;	LUO	LAKESIDE	CAPITAL	LETTER	WA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X01F;	LUO	LAKESIDE	CAPITAL	LETTER	YA;	Lu;	0;	L;	;	;	;	;	N;	;	;	;
U+1X020;	LUO	LAKESIDE	CAPITAL	LETTER	ZA;	Lo;	0;	L;	;	;	;	;	N;	;	;	;
U+1X021;	LUO	LAKESIDE	SMALL	LETTER	AA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X022;	LUO	LAKESIDE	SMALL	LETTER	BA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X023;	LUO	LAKESIDE	SMALL	LETTER	CHA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X024;	LUO	LAKESIDE	SMALL	LETTER	DA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X025;	LUO	LAKESIDE	SMALL	LETTER	EE;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X026;	LUO	LAKESIDE	SMALL	LETTER	FA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X027;	LUO	LAKESIDE	SMALL	LETTER	GA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X028;	LUO	LAKESIDE	SMALL	LETTER	NGA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X029;	LUO	LAKESIDE	SMALL	LETTER	HA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X02A;	LUO	LAKESIDE	SMALL	LETTER	II;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X02B;	LUO	LAKESIDE	SMALL	LETTER	JA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X02C;	LUO	LAKESIDE	SMALL	LETTER	KA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X02D;	LUO	LAKESIDE	SMALL	LETTER	LA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X02E;	LUO	LAKESIDE	SMALL	LETTER	MA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X02F;	LUO	LAKESIDE	SMALL	LETTER	MBA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;
U+1X030;	LUO	LAKESIDE	SMALL	LETTER	NA;	Ll;	0;	L;	;	;	;	;	N;	;	;	;

U+1X031;LUO	LAKESIDE	SMALL	LETTER	NDA;Ll;0;L;;;N;,,,;
U+1X032;LUO	LAKESIDE	SMALL	LETTER	NJA;Ll;0;L;;;N;,,,;
U+1X033;LUO	LAKESIDE	SMALL	LETTER	NGGA;Ll;0;L;;;N;,,,;
U+1X034;LUO	LAKESIDE	SMALL	LETTER	NYA;Ll;0;L;;;N;,,,;
U+1X035;LUO	LAKESIDE	SMALL	LETTER	OO;Ll;0;L;;;N;,,,;
U+1X036;LUO	LAKESIDE	SMALL	LETTER	PA;Ll;0;L;;;N;,,,;
U+1X037;LUO	LAKESIDE	SMALL	LETTER	SH AND CLICK;Ll;0;L;;;N;,,,;
U+1X038;LUO	LAKESIDE	SMALL	LETTER	RA;Ll;0;L;;;N;,,,;
U+1X039;LUO	LAKESIDE	SMALL	LETTER	SA;Ll;0;L;;;N;,,,;
U+1X03A;LUO	LAKESIDE	SMALL	LETTER	TA;Ll;0;L;;;N;,,,;
U+1X03B;LUO	LAKESIDE	SMALL	LETTER	THA;Ll;0;L;;;N;,,,;
U+1X03C;LUO	LAKESIDE	SMALL	LETTER	DHA;Ll;0;L;;;N;,,,;
U+1X03D;LUO	LAKESIDE	SMALL	LETTER	UU;Ll;0;L;;;N;,,,;
U+1X03E;LUO	LAKESIDE	SMALL	LETTER	VA;Ll;0;L;;;N;,,,;
U+1X03F;LUO	LAKESIDE	SMALL	LETTER	WA;Ll;0;L;;;N;,,,;
U+1X040;LUO	LAKESIDE	SMALL	LETTER	YA;Ll;0;L;;;N;,,,;
U+1X041;LUO	LAKESIDE	SMALL	LETTER	ZA;Ll;0;L;;;N;,,,;
U+1X042;LUO	LAKESIDE	DIGIT	ZERO;Nd;0;L;;0;0;0;N;,,,;	
U+1X043;LUO	LAKESIDE	DIGIT	ONE;Nd;0;L;;1;1;1;N;,,,;	
U+1X044;LUO	LAKESIDE	DIGIT	TWO;Nd;0;L;;2;2;2;N;,,,;	
U+1X045;LUO	LAKESIDE	DIGIT	THREE;Nd;0;L;;3;3;3;N;,,,;	
U+1X046;LUO	LAKESIDE	DIGIT	FOUR;Nd;0;L;;4;4;4;N;,,,;	
U+1X047;LUO	LAKESIDE	DIGIT	FIVE;Nd;0;L;;5;5;5;N;,,,;	
U+1X048;LUO	LAKESIDE	DIGIT	SIX;Nd;0;L;;6;6;6;N;,,,;	
U+1X049;LUO	LAKESIDE	DIGIT	SEVEN;Nd;0;L;;7;7;7;N;,,,;	
U+1X04A;LUO	LAKESIDE	DIGIT	EIGHT;Nd;0;L;;8;8;8;N;,,,;	
U+1X04B;LUO	LAKESIDE	DIGIT	NINE;Nd;0;L;;9;9;9;N;,,,;	

Line breaking information

Answering the following questions will help the Unicode experts determine the appropriate line break properties:

- Words are separated by using U+0020 SPACE.
- Line breaks only occur at word boundaries.
- Special modes like hyphenation are not used to allow line breaks within words.
- Line breaks cannot occur within numbers.
- Line breaks should not occur before full stops.

VI Collation

The collation (alphabetic order) of the Luo Lakeside script letters is the same as presented in Table 1, with uppercase letters being ordered first and then lowercase letters.

Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
< Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
< Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
< Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ

Numbers are ordered before letters; therefore, the full collation of the script is as follows:

0 < 1 < 2 < 3 < 4 < 5 < 6 < 7 < 8 < 9 < Ɓ < Ɓ
< Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
< Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ
Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ < Ɓ

VII References

1. “Luo Lakeside Script Translation”, by: Maureen Oyuga; **ISBN:** 978-9966-111-02-9
2. “The Twelve Months of the Year in 850 Languages and Dialects”, by: Kukisvroomchor; **ISBN-13:** 978-0464513704
3. “Trailer: THE AFRICOLOGIST | Chronicles of Africa – Award winning Documentary Film”. YouTube, February 12, 2014. https://www.youtube.com/watch?v=_mJCfXlm9Gs
4. “Kenyan Luo Lakeside Script with useful transliterations and phrases”. YouTube, September 10, 2021. https://www.youtube.com/watch?v=VCYFe2_2n7s
5. “Oromo [A] words typed in the Kenyan Luo Lakeside Script ƁƁ”. YouTube, March 26, 2022. <https://www.youtube.com/watch?v=0SXPUzyMRko>
6. “Part 1 - Oromo phrases and sentences typed in the Kenyan Luo Lakeside Script”. YouTube, January 16, 2022. <https://www.youtube.com/watch?v=FmOhX4Omtew>
7. “Swahili Part 1 using the Kenyan Luo Lakeside Script - (White Background)”. YouTube, February 10, 2022. <https://www.youtube.com/watch?v=71GbMXd-KVE>
8. “Oromo [B] & © words typed in the Kenyan Luo Lakeside Script ƁƁ”. YouTube, April 5, 2022. https://www.youtube.com/watch?v=YNo4zZ_A5Fg
9. “Oromo [D] words typed in the Kenyan Luo Lakeside Script ƁƁ”. YouTube. April 11, 2022. <https://www.youtube.com/watch?v=wViMxUvIh8A>
10. “Part 4 - Oromo phrases and sentences typed in the Kenyan Luo Lakeside Script”. YouTube. February 10, 2022. <https://www.youtube.com/watch?v=w5Tf3v7cbag>
11. “Part 5 - Oromo phrases and sentences typed in the Kenyan Luo Lakeside Script”. YouTube. February

- 12, 2022. <https://www.youtube.com/watch?v=GkETbx5MKsc>
12. "Part 2 - Oromo phrases and sentences typed in the Kenyan Luo Lakeside Script". YouTube. January 26, 2022. https://www.youtube.com/watch?v=QVL_Dkkh-m4
 13. "Swahili Part 1 using the Kenyan Luo Lakeside Script". YouTube. February 9, 2022. <https://www.youtube.com/watch?v=JSLPOZwJqfl>
 14. "Part 6 - Oromo phrases and sentences typed in the Kenyan Luo Lakeside Script". YouTube. April 12, 2022. <https://www.youtube.com/watch?v=4qR2V9LL5q4>
 15. "Part 7 - Oromo phrases and sentences typed in the Kenyan Luo Lakeside Script". YouTube. April 12, 2022. <https://www.youtube.com/watch?v=9uvBTRYBgo0>
 16. "Swahili Part 3 using the Kenyan Luo Lakeside Script κε". YouTube. July 8, 2022. <https://www.youtube.com/watch?v=oPUX1BCDpnl>
 17. "Swahili Part 2 using the Kenyan Luo Lakeside Script κε". YouTube. June 27, 2022. <https://www.youtube.com/watch?v=t7HIEjanhu4>
 18. "Part 3 - Oromo phrases and sentences typed in the Kenyan Luo Lakeside Script". YouTube. February 7, 2022. <https://www.youtube.com/watch?v=mKzCJsGkoXQ>
 19. "The high intelligence of elephants and their great importance to the natural environment". YouTube. April 11, 2022. <https://www.youtube.com/watch?v=e96Sxx1VjC4>
 20. "Lakeside Script Tutorial 1". YouTube. May 13, 2016. <https://www.youtube.com/watch?v=p-PsSLTrZHo>
 21. "Lakeside Script Tutorial 2". YouTube. May 13, 2016. <https://www.youtube.com/watch?v=6aDd9fL2Hfl>
 22. "Lakeside Script Tutorial 3". YouTube. May 13, 2016. <https://www.youtube.com/watch?v=ukaFk0VN5Tw>
 23. "Lakeside Script Tutorial 4". YouTube. May 13, 2016. https://www.youtube.com/watch?v=Q4XP1z_Lbx0
 24. <https://www.lakesidescript.com/>

VIII Acknowledgements

The proposal author wishes to thank various members of the Luo Lakeside script community for their assistance in clarifying aspects of the Luo Lakeside script.

This project was made possible in part by a grant from the Mellon Foundation to the Script Encoding Initiative at the University of California, Berkeley.

IX Examples

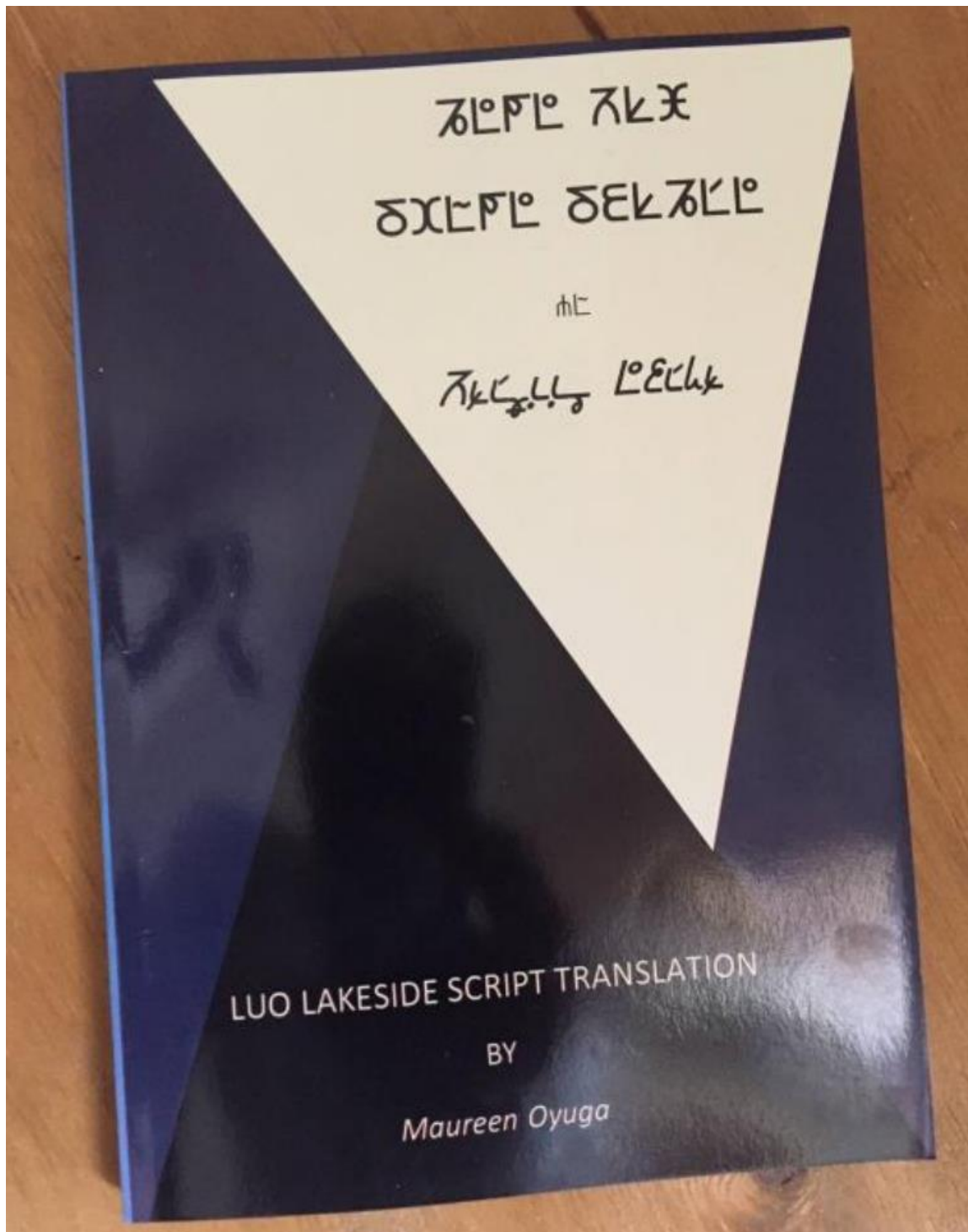


Figure 1.1. A published Luo-English book written in the Luo Lakeside script. See Reference 1 in Section VII.

[illegible]

👍0 👎0 ⚠️Flag 💬Reply

Ulysses

👍0 👎0 ⚠️Flag 💬Reply

[illegible]

👍0 👎0 ⚠️Flag 💬Reply

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

👍0 👎0 ⚠️Flag 💬Reply

$\frac{y}{x} = \frac{y}{\delta C}$

👍 0 👎 0 ⚠️ Flag 💬 Reply

ፌዴራል ግዴታ ለሕግ ማስፈጸም ማስፈጸሙን ማረጋገጥና ማረጋገጥ
ሕግ ማስፈጸሙን ማረጋገጥና ማረጋገጥ ማረጋገጥና ማረጋገጥ

👍0 👎0 ⚠️Flag 💬Reply

👍 0 👎 0 ⚠️ Flag 💬 Reply

အဲဒါနဲ့ပဲ သူက ပုံမှန်အတိုင်း နေထိုင်နေရဖို့ အတွက် ခုနက ပြောခဲ့တဲ့ အချက်တွေကို အသေအချာ နားလည်ရဖို့ လိုအပ်ပါတယ်။

👍 0 👎 0 ⚠️ Flag 💬 Reply

Figure 2. Online forum

428 Luo [Dholuo]

LUO

Southern Luo dialect with 4.2 million speakers in Kenya and Tanzania. Sinistrodextral (left-to-right-reading) Luo Lakeside script shown, developed by Kefa Ombewa. *Kik iyany nyang' ka pod in ei pi.* ("Do not insult the crocodile when you are still in the water.")

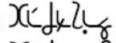
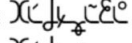
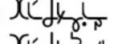
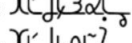
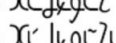
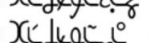
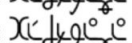
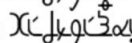
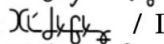
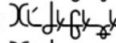
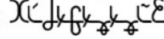

- 01:  / Dumacel
 02:  / Dumariyo
 03:  / Dumadek
 04:  / Dumangwen
 05:  / Dumabic
 06:  / Dumabichel
 07:  / Dumabiro
 08:  / Dumaboro
 09:  / Dumabungwen
 10:  / Dumaapar
 11:  / Dumaaparacel
 12:  / Dumaaparariyo
-

Figure 3. The Luo Lakeside script used in a published book, "The Twelve Months of the Year in 850 Languages and Dialects". See Reference 2 in Section VII.

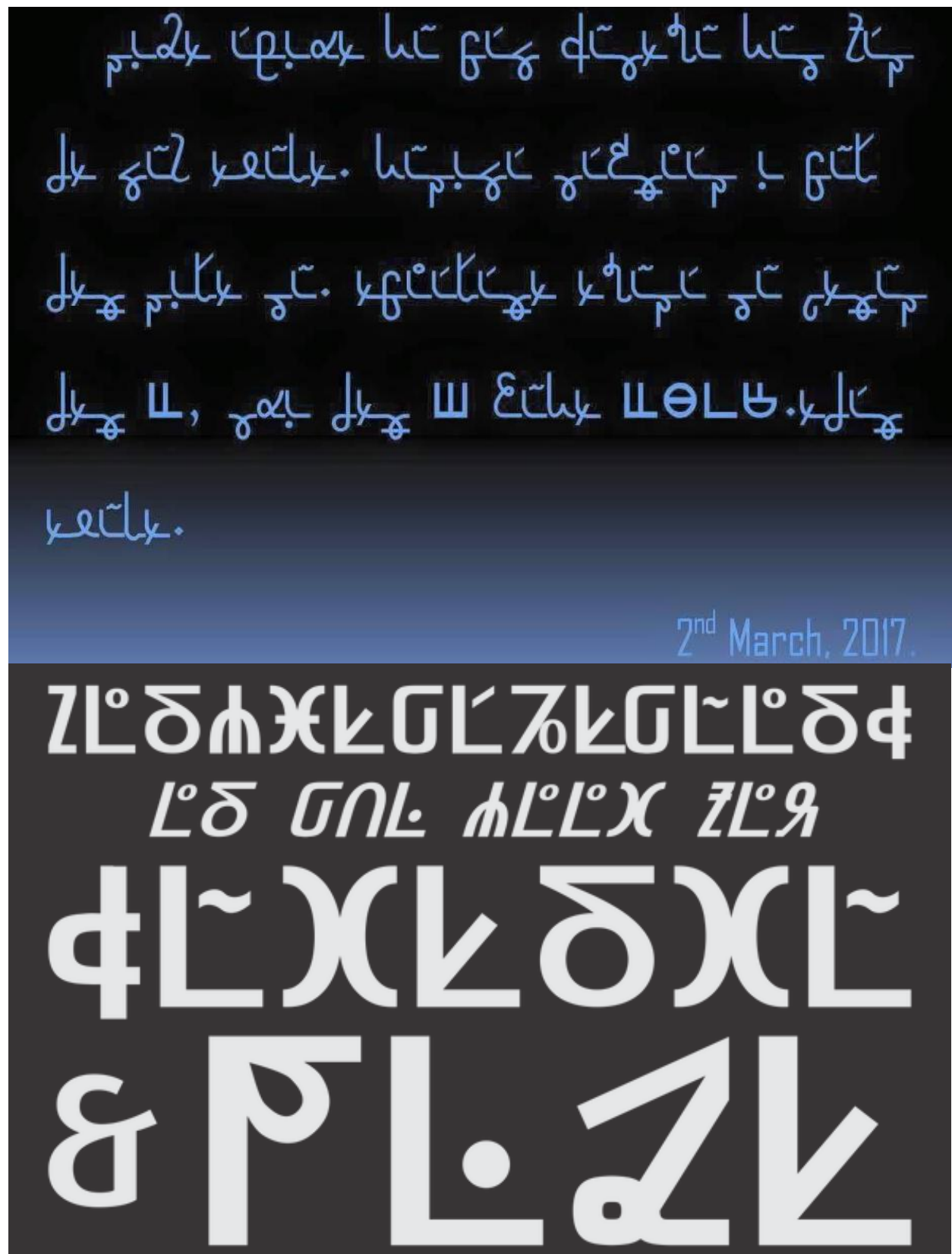


Figure 4. Digital images of text shared online.

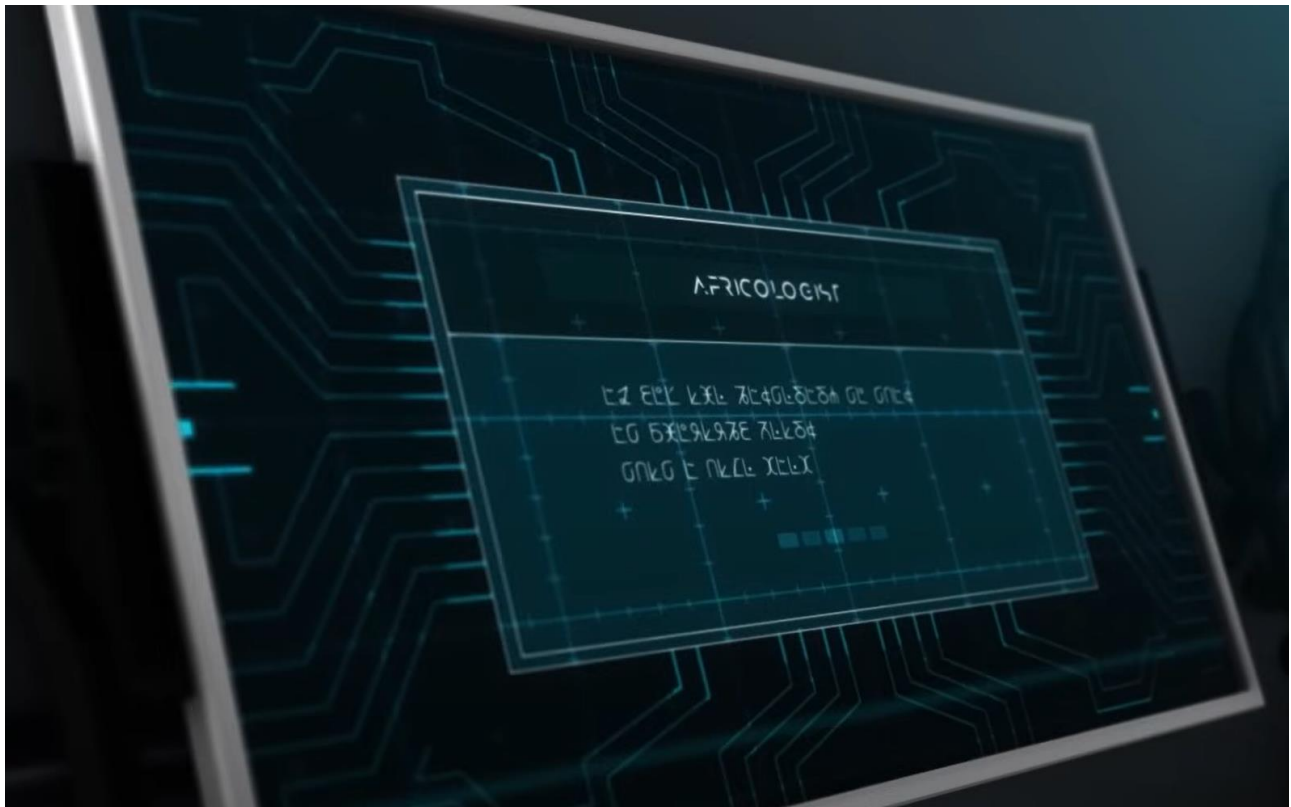


Figure 5. The Luo Lakeside script used in *"The Africologist"*, a documentary on African history, science, and technology. See Reference 3 in Section VII.

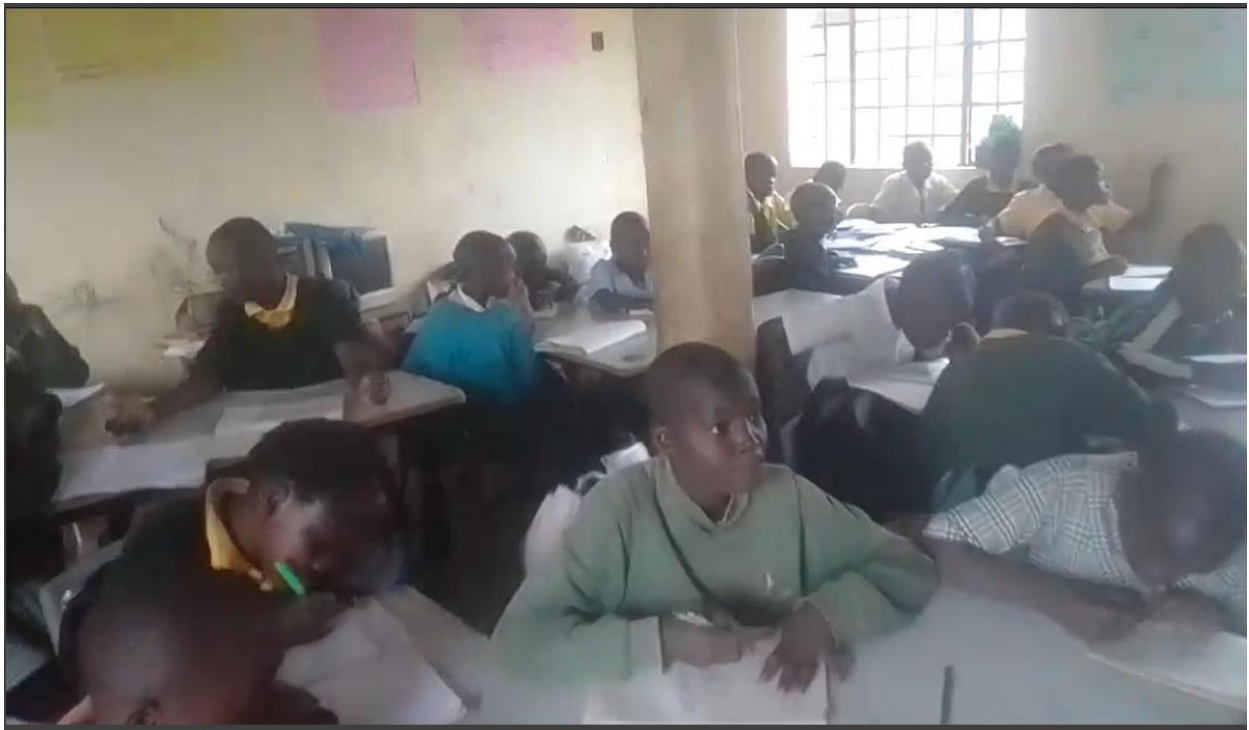


Figure 6. Classroom educated in the Luo Lakeside script at Captain's Choice Academy in Kenya.



Figure 7. (Left) Botswana Secondary School Principal Ndinaane displays a dual Hindu-Arabic numeral and Luo Lakeside numeral clock. (Right) Mrs. Johnson of Nxakato Junior Secondary School Sowa Town Botswana with a t-shirt using the Luo Lakeside script.



Figure 8. Stand of Luo Lakeside script users promoting the script.

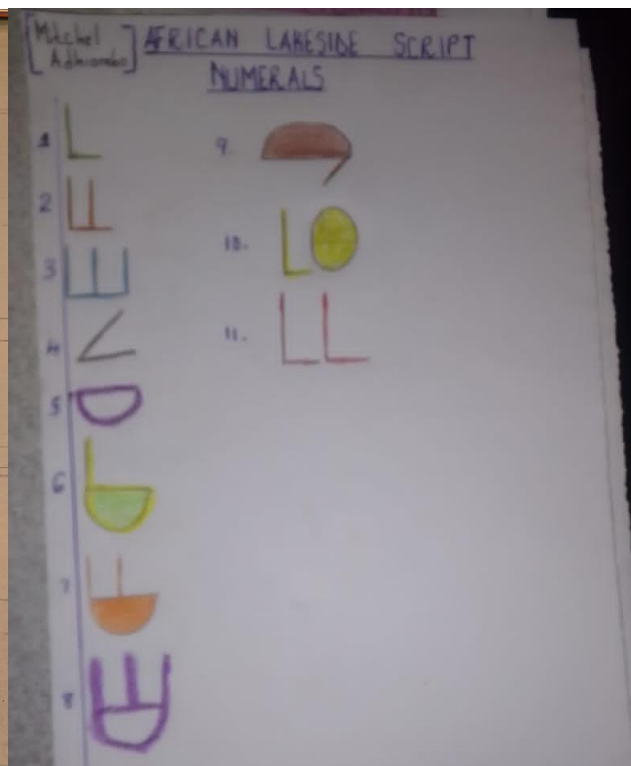
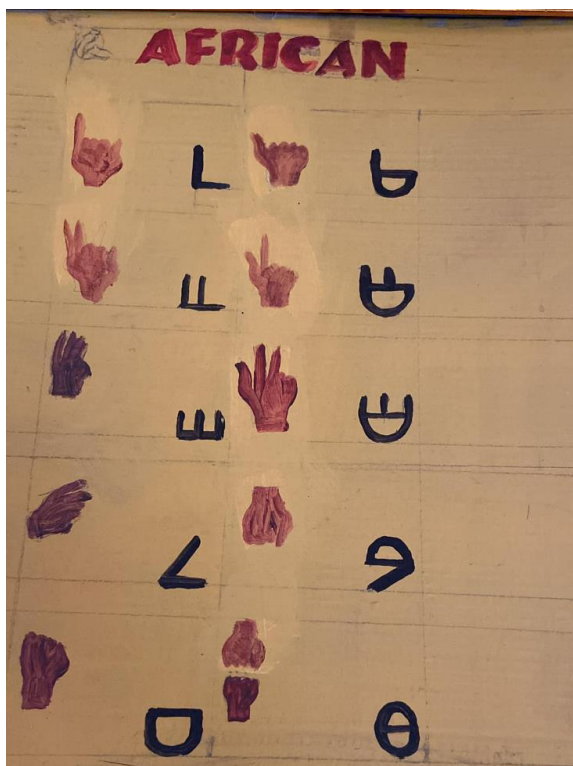
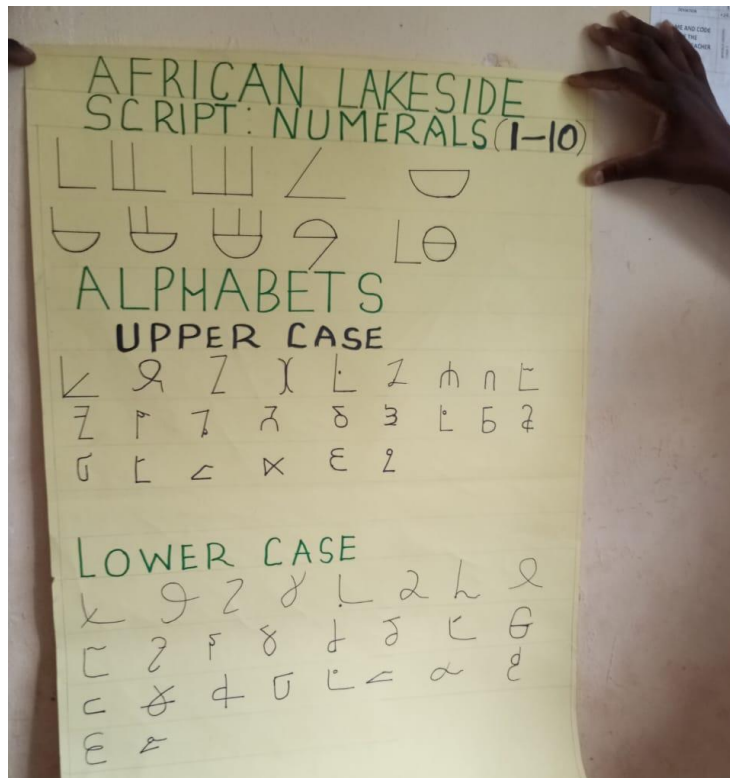


Figure 9. Various charts teachers use in classes.



Figure 12. Digital media of 2023 New Year's celebration in the Luo Lakeside script.

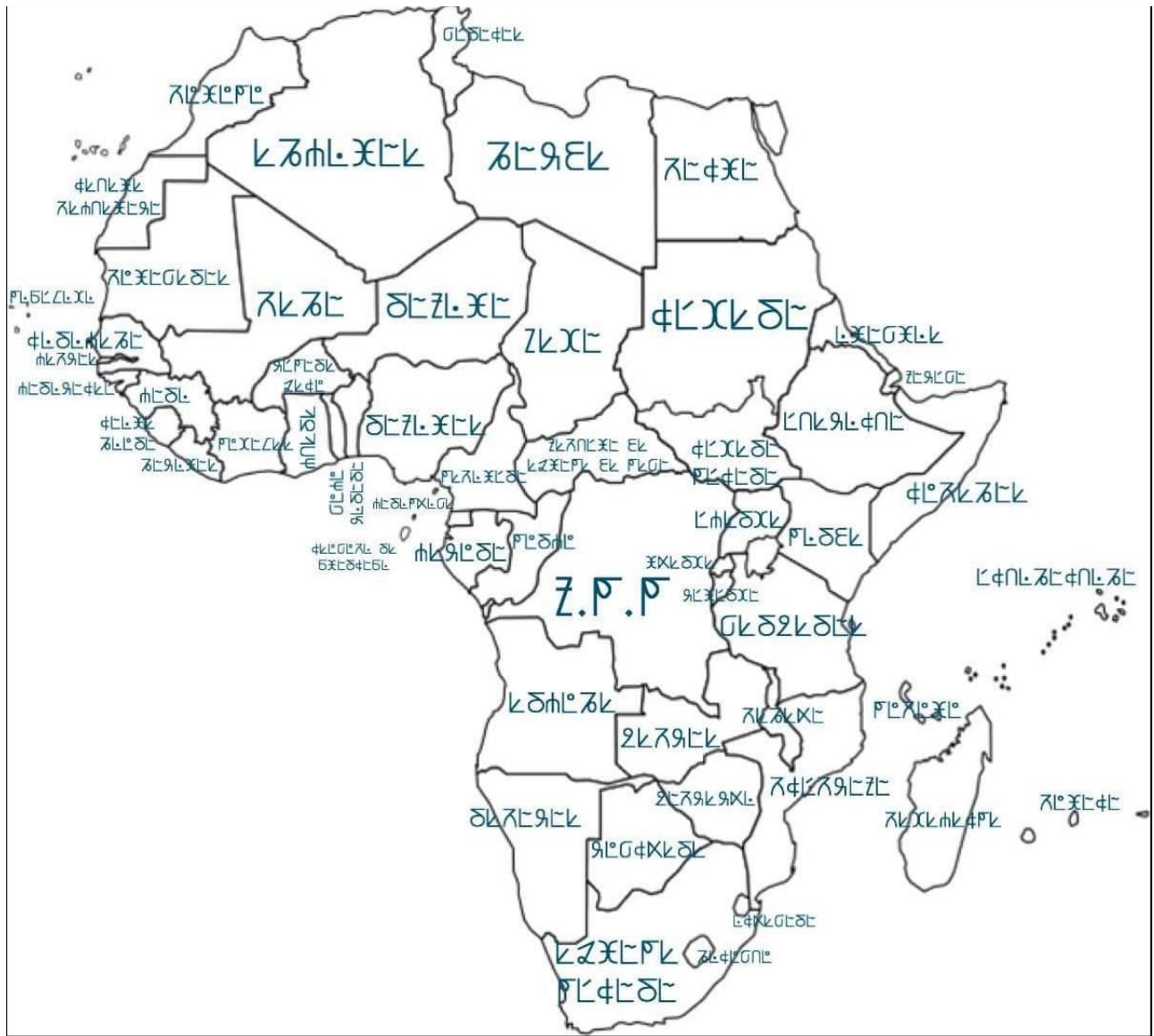


Figure 13. Map of Africa in the Luo Lakeside script.



Figure 16. Works from artists using Luo Lakeside calligraphy (top-left of both images).

Wuodwa, kik ibed gi samuoyo. Itimo tich maber kabisa. Kaponi abedo jatelo mar
Luo, abiro hakikisha ni ndiko miloso ni ema ibiro tiyogo e puiny Luo.

Figure 18. Text shared online.

Latin transliteration: “Wuodwa, kik ibed gi samuoyo. Itimo tich maber kabisa. Kaponi abedo jatelo mar Luo, abiro hakikisha ni ndiko miloso ni ema ibiro tiyogo e puiny Luo.”

English translation: “Our son, do not falter. You have done a good job. If I become a leader of the Luo, I will ensure the writing is the one to be used in Luoland.”

Amala isa keessa inni guddaan nama gargaruudha = (His greatest attribute is helping others)
 ኣለኦ ንቀ ምረቐቐ ንሓር ኣረጋገኡ ዕሽ ሓጺሓጺብ

Amantaa cimaan qaba = I have a firm belief
 ኣለኦብኡ ብርሕኡ ጭዳ

Amma dammaqun narra jiraataa? = Do I have to get up now?
 ኣለኦ ጸባሽቁጥኡ ዕጽጽ ጸጽኡብኡ?

Amma yeroon meeqa? = What time is it?
 ኣለኦ ደረጃ ሓረግ?

Amma iyyuu muggaan jira = I am still sleepy
 ኣለኦ ርዩሮ ሓረግኡ ጸጽ

Please = Tafadhali
 ሀጺብኒ

Please write it down. = Waweza kuiandika.
 ጸሓፊ ምረቐኡሆ.

Do you speak English? = Unazungumza Kingereza?
 ርዕዚኡኣለኦ ምረቐኡሆ?

Do you speak Swahili? = Unazungumza Kiswahili?
 ርዕዚኡኣለኦ ምረቐጸሊኒ?

Sorry = Samahani
 ቀረብኒ




Figure 17. Video screenshot of Oromo (top) and Swahili (bottom) being written in the Luo Lakeside script. See Reference 6-7 in Section VII.

X ISO Proposal Summary Forms

ISO/IEC JTC 1/SC 2/WG 2 PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹

Please fill all the sections A, B and C below.

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.

Please ensure you are using the latest Form from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

A. Administrative

1. Title:	Proposal to Encode the Luo Lakeside Script in the UCS	
2. Requester's name:	Oreen Yousuf	
3. Requester type (Member body/Liaison/Individual contribution):	Individual contribution	
4. Submission date:	2025 December 5	
5. Requester's reference (if applicable):	oreen.yousuf@gmail.com	
6. Choose one of the following:		
This is a complete proposal:	Yes	
(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):	Yes	
Proposed name of script:		
b. The proposal is for addition of character(s) to an existing block:	No	
Name of the existing block:		
2. Number of characters in proposal:	69	
3. Proposed category (select one from below - see section 2.2 of P&P document):		
A-Contemporary <input checked="" type="checkbox"/>	B.1-Specialized (small collection)	B.2-Specialized (large collection)
C-Major extinct <input type="checkbox"/>	D-Attested extinct	E-Minor extinct
F-Archaic Hieroglyphic or Ideographic <input type="checkbox"/>	G-Obscure or questionable usage symbols	
4. Is a repertoire including character names provided?	Yes	
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?	Kefa Ombewa	
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):	Kefa Ombewa, kefa.ombewa@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)?	No	

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

¹ Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

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

1. Has this proposal for addition of character(s) been submitted before?	Yes
If YES explain	<i>Short proposal submitted - L2/19-268</i>
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.)?	Yes
If YES, with whom?	<i>User community; script creator(s)</i>
If YES, available relevant documents:	<i>Enclosed in this proposal</i>
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	Yes
Reference:	<i>Enclosed in this proposal</i>
4. The context of use for the proposed characters (type of use; common or rare)	Rare
Reference:	<i>Enclosed in this proposal</i>
5. Are the proposed characters in current use by the user community?	Yes
If YES, where? Reference:	<i>Kenya (various parts) and Botswana (mainly Lobatse)</i>
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	No
If YES, is a rationale provided?	
If YES, reference:	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	Yes
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
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?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
11. Does the proposal include use of combining characters and/or use of composite sequences?	No
If YES, is a rationale for such use provided?	
If YES, reference:	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	
If YES, reference:	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility characters?	No
If YES, are the equivalent corresponding unified ideographic characters identified?	
If YES, reference:	