

Revised Proposal for Encoding the Shaaldaa Script in the UCS

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To: UTC
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General Overview:

This is a revised proposal to encode the Shaaldaa script into the Unicode Standard. It supersedes the following document:

- [L2/24-109](#): “Proposal for Encoding the Sheek Bakrii Saphaloo Script in the UCS”

This version differs from the most recent version, L2/24-109, due to the following reasons and updates:

- Script name change from “Sheek Bakrii Saphaloo” to “Shaaldaa” as per community feedback.
- A review of letter and numeral glyphs variants has been added to Section III.
- Fixed character property typo of script-specific numerals from “No” to “Nd”
- Additional figures from other modern-day script in Section IX (Figures 60-61).
- Additional figures from the son of Sheikh Bakri in Section IX (Figures 62-65).
- Additional figures from Sheikh Bakrii in Section IX (Figures 66.1-66.18).
- Additional figures of handwritten samples of the comprehensive script (Figures 69.1-69.8)
- A diagram depicting the glyph variation of numerals, via educators, is added as Figure 70.
- Numeric values for digits added to field 6 of the properties data.

I Background

Sheikh Bakri Sapalo (November 1895 - 5 April 1980), born Abubakar Garad Usman (Oromo: Abubakar Garad Usmaan), known by many Oromo people regardless of their religious background, was a revered Oromo scholar, poet, linguist and religious teacher from Ethiopia. The Oromo language (ISO 639-3: orm; endonym: Afaan Oromoo) is an official language of Ethiopia, a recognized minority language in Kenya, and is spoken by ~37 million people in total. Sheikh Bakri created an abugida for Oromo in 1940-1948 (Ethiopian Calendar)/1948-1956 (Gregorian Calendar) in Ligibo, Goro Gutu district, East Hararghe Zone.

Sheikh Bakri taught the script to his pupils and those that were curious, which ushered in a period where people would write personal correspondences to each other in the script. Sheikh Bakri also wrote his famous poems, manuscripts, and other works in the script. He was then placed under a decade-long ‘honorable confinement’ in Dire Dawa (and later allowed to travel to and from Allede) in 1965 by Amhara officials who disapproved of the script’s use. It was during this period that his most prominent work “*Shalda*” was written. Hayward and Hassen (1981) describe the work as “*a caustically worded indictment of Amhara colonial oppression and an account of the suffering of the Oromo under this regime*” and that “*Shalda is of interest in that it is really both the first and the last major writing in Shaykh Bakri Sapalō’s alphabet.*”

The script has been reported to still be in use in East (and possibly West) Hararghe Zone (Oromo: Harargee Bahaa; Amharic: ምስራቅ ሀረርጌ ዞን) in eastern Oromia (Oromo Region, Ethiopia), which is not to be confused with the Harari Region of Ethiopia (Harari: ሀረሪ ሓሰን; Amharic: ሐረሪ ክልል; Oromo: Naannoo Hararii), among Oromo people, Muslim scholars, and others for secret communications among themselves and with their students. There is evidence that Sheikh Bakri's script at one point spread to the Bale region (Oromo: Aana Baalee; Amharic: ባሌ ዞን) during times of Oromo and Somali armed resistance. Emperor Haile Selassie I's soldiers captured usage of the script on the battlefields in Bale in 1964/1965. Prominent Oromo scholar Dr. Mohammed Hassen Ali noted this continued use of Sheikh Bakri's script in 2019 when he visited a number of cities and towns in eastern Oromia. He and other Oromo scholars again made subsequent confirmations that the script created by Sheikh Bakri Sapalo is still being used for communication in eastern Oromia. The script is also currently being taught in Dire Dawa, Ethiopia. One teacher of the script personally reports that 100 people just in his social circle alone have learned the script, and has been independently verified by the authors of this proposal.

There is overwhelming endorsement for the script to be encoded into Unicode from both users and scholars of Oromo linguistics, history, culture, heritage, etc. The value of encoding the script is to both serve the people that have been using the script for the past ~70 years, students currently learning the script, and for the digital preservation of historical documents and culture.

II Script Name

The proposed script name is "SHAALDAA", reflecting the name of the script used by the user community. This name was given to the script by the script creator as confirmed by his surviving children. Some users may colloquially refer to the script as "Qubee Sheek Bakrii Saphaloo". The canonical name of the script, in the script, is "፳፻፳" and the literal meaning is "a double-edged sword".

III Structure

The Shaaldaa script is an abugida written left to right in horizontal lines, from the top to the bottom of a page. The script has 33 base glyphs used in education to familiarize the students with the structure of the script. Each base glyph has 10 counterparts that each have a distinct vocalic component of the grapheme (e.g., 'ba', 'bu', 'bi', etc.), and 1 pure consonant counterpart without any vocalic component (e.g., 'b'). The base glyph by itself has no phonemic value and is not used by itself in written language, but is used in education. It does not serve the same purpose of representing standalone 'consonants' (C) like the 6th form of the Ethiopic script can (e.g., ብ, ግ, ቋ). Unlike some languages that use the Ethiopic script, the Shaaldaa script does distinguish between non-gemination and gemination. There are 33 more base glyphs with the same 11 counterparts (vocalic, pure consonant) used for consonantal gemination. In summary, there are 33 base glyphs, 10 vocalized graphemes, and 1 pure consonant grapheme. Then, there are 33 more base glyphs (with 10 vocalic and 1 pure consonant counterparts) for gemination. This totals 792 unique graphemes that will be categorically reviewed here. Figures 69.1-69.8 present contemporary handwritten samples of the full inventory.

Current Oromo Orthography	IPA	Base Glyph	<a> /e/	<u> /u/	<i> /i/	<e> /ɛ/	<o> /ɔ/	<aa> /a:/	<uu> /u:/	<ii> /i:/	<ee> /e:/	<oo> /o:/	/C/
vowel /ə/	ø/ʔ	፩	፪	፫	፬	፭	፮	፯	፰	፱	፳	፴	፵
vowel /ɛ/	ø:/ʔ:	፶	፷	፸	፹	፺	፻	፼	፽	፾	፿	፻፵	፻፶
b	b	፳	፳፩	፳፪	፳፫	፳፬	፳፭	፳፮	፳፯	፳፰	፳፱	፳፳	፳፴
bb	b:	፳፵	፳፵፩	፳፵፪	፳፵፫	፳፵፬	፳፵፭	፳፵፮	፳፵፯	፳፵፰	፳፵፱	፳፵፳	፳፵፴
j	ɔɟ	፳፶	፳፶፩	፳፶፪	፳፶፫	፳፶፬	፳፶፭	፳፶፮	፳፶፯	፳፶፰	፳፶፱	፳፶፳	፳፶፴
jj	ɔɟ:	፳፶፵	፳፶፵፩	፳፶፵፪	፳፶፵፫	፳፶፵፬	፳፶፵፭	፳፶፵፮	፳፶፵፯	፳፶፵፰	፳፶፵፱	፳፶፵፳	፳፶፵፴
d	d	፳፷	፳፷፩	፳፷፪	፳፷፫	፳፷፬	፳፷፭	፳፷፮	፳፷፯	፳፷፰	፳፷፱	፳፷፳	፳፷፴
dd	d:	፳፷፵	፳፷፵፩	፳፷፵፪	፳፷፵፫	፳፷፵፬	፳፷፵፭	፳፷፵፮	፳፷፵፯	፳፷፵፰	፳፷፵፱	፳፷፵፳	፳፷፵፴
h	h	፳፸	፳፸፩	፳፸፪	፳፸፫	፳፸፬	፳፸፭	፳፸፮	፳፸፯	፳፸፰	፳፸፱	፳፸፳	፳፸፴
hh	h:	፳፸፵	፳፸፵፩	፳፸፵፪	፳፸፵፫	፳፸፵፬	፳፸፵፭	፳፸፵፮	፳፸፵፯	፳፸፵፰	፳፸፵፱	፳፸፵፳	፳፸፵፴
w	w	፳፹	፳፹፩	፳፹፪	፳፹፫	፳፹፬	፳፹፭	፳፹፮	፳፹፯	፳፹፰	፳፹፱	፳፹፳	፳፹፴
ww	w:	፳፹፵	፳፹፵፩	፳፹፵፪	፳፹፵፫	፳፹፵፬	፳፹፵፭	፳፹፵፮	፳፹፵፯	፳፹፵፰	፳፹፵፱	፳፹፵፳	፳፹፵፴
z	z	፳፺	፳፺፩	፳፺፪	፳፺፫	፳፺፬	፳፺፭	፳፺፮	፳፺፯	፳፺፰	፳፺፱	፳፺፳	፳፺፴
zz	z:	፳፺፵	፳፺፵፩	፳፺፵፪	፳፺፵፫	፳፺፵፬	፳፺፵፭	፳፺፵፮	፳፺፵፯	፳፺፵፰	፳፺፵፱	፳፺፵፳	፳፺፵፴
h*	ħ	፳፻	፳፻፩	፳፻፪	፳፻፫	፳፻፬	፳፻፭	፳፻፮	፳፻፯	፳፻፰	፳፻፱	፳፻፳	፳፻፴
hh*	ħ:	፳፻፵	፳፻፵፩	፳፻፵፪	፳፻፵፫	፳፻፵፬	፳፻፵፭	፳፻፵፮	፳፻፵፯	፳፻፵፰	፳፻፵፱	፳፻፵፳	፳፻፵፴
x	tʰ	፳፻፶	፳፻፶፩	፳፻፶፪	፳፻፶፫	፳፻፶፬	፳፻፶፭	፳፻፶፮	፳፻፶፯	፳፻፶፰	፳፻፶፱	፳፻፶፳	፳፻፶፴
xx	tʰ:	፳፻፶፵	፳፻፶፵፩	፳፻፶፵፪	፳፻፶፵፫	፳፻፶፵፬	፳፻፶፵፭	፳፻፶፵፮	፳፻፶፵፯	፳፻፶፵፰	፳፻፶፵፱	፳፻፶፵፳	፳፻፶፵፴
y	j	፳፻፷	፳፻፷፩	፳፻፷፪	፳፻፷፫	፳፻፷፬	፳፻፷፭	፳፻፷፮	፳፻፷፯	፳፻፷፰	፳፻፷፱	፳፻፷፳	፳፻፷፴
yy	j:	፳፻፷፵	፳፻፷፵፩	፳፻፷፵፪	፳፻፷፵፫	፳፻፷፵፬	፳፻፷፵፭	፳፻፷፵፮	፳፻፷፵፯	፳፻፷፵፰	፳፻፷፵፱	፳፻፷፵፳	፳፻፷፵፴
k	k	፳፻፸	፳፻፸፩	፳፻፸፪	፳፻፸፫	፳፻፸፬	፳፻፸፭	፳፻፸፮	፳፻፸፯	፳፻፸፰	፳፻፸፱	፳፻፸፳	፳፻፸፴
kk	k:	፳፻፸፵	፳፻፸፵፩	፳፻፸፵፪	፳፻፸፵፫	፳፻፸፵፬	፳፻፸፵፭	፳፻፸፵፮	፳፻፸፵፯	፳፻፸፵፰	፳፻፸፵፱	፳፻፸፵፳	፳፻፸፵፴
l	l	፳፻፸፶	፳፻፸፶፩	፳፻፸፶፪	፳፻፸፶፫	፳፻፸፶፬	፳፻፸፶፭	፳፻፸፶፮	፳፻፸፶፯	፳፻፸፶፰	፳፻፸፶፱	፳፻፸፶፳	፳፻፸፶፴
ll	l:	፳፻፸፶፵	፳፻፸፶፵፩	፳፻፸፶፵፪	፳፻፸፶፵፫	፳፻፸፶፵፬	፳፻፸፶፵፭	፳፻፸፶፵፮	፳፻፸፶፵፯	፳፻፸፶፵፰	፳፻፸፶፵፱	፳፻፸፶፵፳	፳፻፸፶፵፴
m	m	፳፻፸፷	፳፻፸፷፩	፳፻፸፷፪	፳፻፸፷፫	፳፻፸፷፬	፳፻፸፷፭	፳፻፸፷፮	፳፻፸፷፯	፳፻፸፷፰	፳፻፸፷፱	፳፻፸፷፳	፳፻፸፷፴
mm	m:	፳፻፸፷፵	፳፻፸፷፵፩	፳፻፸፷፵፪	፳፻፸፷፵፫	፳፻፸፷፵፬	፳፻፸፷፵፭	፳፻፸፷፵፮	፳፻፸፷፵፯	፳፻፸፷፵፰	፳፻፸፷፵፱	፳፻፸፷፵፳	፳፻፸፷፵፴
n	n	፳፻፸፸	፳፻፸፸፩	፳፻፸፸፪	፳፻፸፸፫	፳፻፸፸፬	፳፻፸፸፭	፳፻፸፸፮	፳፻፸፸፯	፳፻፸፸፰	፳፻፸፸፱	፳፻፸፸፳	፳፻፸፸፴
nn	n:	፳፻፸፸፵	፳፻፸፸፵፩	፳፻፸፸፵፪	፳፻፸፸፵፫	፳፻፸፸፵፬	፳፻፸፸፵፭	፳፻፸፸፵፮	፳፻፸፸፵፯	፳፻፸፸፵፰	፳፻፸፸፵፱	፳፻፸፸፵፳	፳፻፸፸፵፴
s	s	፳፻፸፹	፳፻፸፹፩	፳፻፸፹፪	፳፻፸፹፫	፳፻፸፹፬	፳፻፸፹፭	፳፻፸፹፮	፳፻፸፹፯	፳፻፸፹፰	፳፻፸፹፱	፳፻፸፹፳	፳፻፸፹፴
ss	s:	፳፻፸፹፵	፳፻፸፹፵፩	፳፻፸፹፵፪	፳፻፸፹፵፫	፳፻፸፹፵፬	፳፻፸፹፵፭	፳፻፸፹፵፮	፳፻፸፹፵፯	፳፻፸፹፵፰	፳፻፸፹፵፱	፳፻፸፹፵፳	፳፻፸፹፵፴
f	f	፳፻፸፻	፳፻፸፻፩	፳፻፸፻፪	፳፻፸፻፫	፳፻፸፻፬	፳፻፸፻፭	፳፻፸፻፮	፳፻፸፻፯	፳፻፸፻፰	፳፻፸፻፱	፳፻፸፻፳	፳፻፸፻፴
ff	f:	፳፻፸፻፵	፳፻፸፻፵፩	፳፻፸፻፵፪	፳፻፸፻፵፫	፳፻፸፻፵፬	፳፻፸፻፵፭	፳፻፸፻፵፮	፳፻፸፻፵፯	፳፻፸፻፵፰	፳፻፸፻፵፱	፳፻፸፻፵፳	፳፻፸፻፵፴

s*	s	ሰ	ሱ	ሲ	ሳ	ሴ	ስ	ሶ	ሷ	ሸ	ሹ	ሺ	ሻ
ss*	s:	ሰ።	ሱ።	ሲ።	ሳ።	ሴ።	ስ።	ሶ።	ሷ።	ሸ።	ሹ።	ሺ።	ሻ።
q	k'	ግ	ገ	ጊ	ጋ	ጋ	ግ	ግ	ግ	ግ	ግ	ግ	ግ
qq	k':	ግ።	ገ።	ጊ።	ጋ።	ጋ።	ግ።	ግ።	ግ።	ግ።	ግ።	ግ።	ግ።
r	r	ረ	ሪ	ራ	ራ	ራ	ራ	ራ	ራ	ራ	ራ	ራ	ራ
rr	r:	ረ።	ሪ።	ራ።	ራ።	ራ።	ራ።	ራ።	ራ።	ራ።	ራ።	ራ።	ራ።
sh	ʃ	ሸ	ሹ	ሺ	ሻ	ሼ	ሽ	ሾ	ሿ	ሿ	ሿ	ሿ	ሿ
shsh	ʃ:	ሸ።	ሹ።	ሺ።	ሻ።	ሼ።	ሽ።	ሾ።	ሿ።	ሿ።	ሿ።	ሿ።	ሿ።
t	t	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ
tt	t:	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።
kh**	x	ኧ	ኧ	ኧ	ኧ	ኧ	ኧ	ኧ	ኧ	ኧ	ኧ	ኧ	ኧ
khkh**	x:	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።	ኧ።
dh	ɖ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ
dhdh	ɖ:	ወ።	ወ።	ወ።	ወ።	ወ።	ወ።	ወ።	ወ።	ወ።	ወ።	ወ።	ወ።
g	g	ጎ	ጎ	ጎ	ጎ	ጎ	ጎ	ጎ	ጎ	ጎ	ጎ	ጎ	ጎ
gg	g:	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።	ጎ።
c	tʃ'	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ
cc	tʃ':	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።
ny	ɲ	ኸ	ኸ	ኸ	ኸ	ኸ	ኸ	ኸ	ኸ	ኸ	ኸ	ኸ	ኸ
nyny	ɲ:	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።	ኸ።
ch	tʃ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ
chch	tʃ:	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።	ጠ።
ph	p'	ፑ	ፑ	ፑ	ፑ	ፑ	ፑ	ፑ	ፑ	ፑ	ፑ	ፑ	ፑ
phph	p':	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።	ፑ።
a	ɨ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ
aa	ɨ:	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።	ሰ።
p	p	ቀ	ቀ	ቀ	ቀ	ቀ	ቀ	ቀ	ቀ	ቀ	ቀ	ቀ	ቀ
pp	p:	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።	ቀ።
v	v/β	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ
vv	v:/β:	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።	ፈ።
zy	ʒ	ኃ	ኃ	ኃ	ኃ	ኃ	ኃ	ኃ	ኃ	ኃ	ኃ	ኃ	ኃ
zyzy	ʒ:	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።	ኃ።
ts	ts'	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ	ጥ
tsts	ts':	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።	ጥ።

Table 1. Inventory of the Shaaldaa script. *See “Additional Character Information” in Section IV.

First forms (labeled as “Base Glyphs”) are not used in actual writing (Hayward & Hassen, 1981. Page 560), but are essential in learning the script. Empty cells under “Current Oromo Orthography” mean these phonemes do not have a concrete spelling in Qubee (the Latin-based Oromo orthography).

The last 5 graphemes (ሰ, ቀ, ፈ, ኃ, and ጥ, and all of their vocalized, pure consonant and geminated counterparts) are used for loanwords.

Punctuation and Numerals/Digits:

There are specific characters for both punctuation and numerals (0-9) in the Shaaldaa script. Shaaldaa punctuation is fairly straight forward with only two marks having been introduced, namely a wordspace and full stop.

* ‘ጎ’ used for words in ‘ሐ’ and ‘ረ’, ‘ጎ’ for words in ‘ሠ’.
 ** ‘ኧ’ used for words in ‘ኸ’ and ‘ከ’, ‘ሰ’ for words in ‘ሰ’ and ‘ረ’

A wordspace/word-separator is represented by 2 vertically stacked dots – visually similar to a Latin colon (U+003A :). While it also appears to be visually similar to an Ethiopic word separator (U+1361 ፡), the Shaalmaa word-separator is always 2 *circular* dots, and never 2 square-like dots as is the case in some Ethiopic fonts. In practice, a whitespace (U+0020 SPACE) is often used, whereas historical documents more often use the script specific punctuation.

A full-stop is represented by two horizontally parallel strokes, and is visually similar to an equal sign (U+003D =). In practice, a period (U+002E FULL STOP .) is often used, and use of the Ethiopic full-stop (U+1362 ፡) has been observed (see Figure 19, Section IX). See Plate I.1 in Section IX which highlights both punctuation marks.

Punctuation: ፡ wordspace/word-separator, = full stop

It is noteworthy that the modern practice borrows western punctuation liberally, such as parenthesis, quotation marks, comma, question mark, and apostrophe, among others.

The Shaalmaa script includes a digital numeral system. Unlike the punctuation marks, the Shaalmaa numeral glyphs have evolved and proliferated over the years and warrant a more thorough explanation. Accordingly, the next section covers glyph variation in numerals. Table 2 presents the Shaalmaa numeral glyphs found in widest use as identified by the user community and originating from Sheikh Mahammasiraac Sheikh Bakrii (a son of Sheikh Bakrii).

0	1	2	3	4	5	6	7	8	9
ፀ	ፑ	ፒ	ፓ	ፔ	ፕ	ፖ	ፘ	ፙ	ፚ

Table 2. Shaalmaa digits and their values.

Glyph Variations:

As a historically handwritten writing system, variation in the shapes of both letters and numbers is naturally encountered. Variation may also be a consequence of the clandestine use of the script in its earliest days leading to parties developing divergent habits in isolation. Notable variations that are an oft source of confusion are reviewed here.

Shaalmaa numerals show the most variation with no fewer than *four* sets of glyphs that have been found in varying degrees of use by different camps within the user community. The most popularized set of numeral glyphs is found on a monument to Sheikh Bakri Sapalo, one of two, erected in his home town (see Figures 42-44) . The monument in turn was created by Sheikh Mahammasiraac Sheik Bakrii (SMSB), the son of the script’s creator as well as student. Sheikh Mahammasiraac uses these glyphs in regular writing and has taught them to generations of his students. For convenience, the name of the scribe is employed to refer to the different glyph sets. Digits 0-9:

The Sheikh Mahammasiraac Sheikh Bakrii Set (SMSB): ፀ ፑ ፒ ፓ ፔ ፕ ፖ ፘ ፙ ፚ

The set of numeral glyphs by Sheikh Mahammad Rashad are likely the best-known shapes *outside* of Ethiopia by virtue of Sheikh Mahammad serving as the primary informant for University of London researchers R.J. Hayward and Mohammed Hassan who in turn published our Reference 1, the seminal work on the script found in the west. We have not yet found these glyph choices in use by modern users.

The Sheikh Mahammad Rashad Set (SMR): ፀ ፑ ፒ ፓ ፔ ፕ ፖ ፘ ፙ ፚ

A third set of glyphs was found to be in use by Ibsa Sheikh Mahammasiraac (ISM), a son of Sheikh Mahammasiraac. The ISM glyph set would appear to show more Latin script influences as reflected in the “F”-like shapes for the digits 5 (5) and 7 (7), the “Z”-like shapes of digits 6 (6) and 9 (9), and the simple vertical stroke for the digit “1” (1). These shapes may also point to a modernization direction for the glyphs. The ISM glyphs are presented in Figure 67 and in the following:

The Ibsa Sheikh Mahammasiraac Set (ISM): 0 1 5 7 ۲ F Z 7 > Z

The fourth set of numeral glyphs found in use comes from another student of Sheikh Bakri’s, Sheikh Nuradin Ahmad (SNA), who has been a decades-long, well respected, educator of the script. The Sheikh Nuradin Ahmad (SNA) numeral glyphs are presented in Figure 68 and in the following:

The Sheikh Nuradin Ahmad Set (SNA): 0 1 4 ۴ ۲ ۶ ۷ ۸ ۹

As the various numeral shapes represent differing handwritten styles, the shapes are not found together in the same document. Accordingly, the authors recommend that these handwritten styles be treated as separate typefaces. Vendors wishing to support the styles within a single computer font, could however do so with OpenType stylistic sets or character variants. The approaches that have been applied for distinguishing the Arabic, Persian, Sindi, and Urdu numeral shapes may likewise be applied here.

	0	1	2	3	4	5	6	7	8	9
Sheikh Mahammasiraac Sheikh Bakrii (SMSB)	0	۱	۲	۳	۴	۵	۶	۷	۸	۹
Sheikh Mahammad Rashad (SMR)	0	۱	۲	۳	۴	۵	۶	۷	۸	۹
Ibsa Sheikh Mahammasiraac (ISM)	0	1	۲	۳	۴	F	Z	7	>	Z
Sheikh Nuradin Ahmad (SNA)	0	1	۲	۳	۴	۵	۶	۷	۸	۹

Table 3. A Comparative view of the Shaaldaq Numeral Glyph Sets

To a lesser degree, glyph variation is also found in Shaaldaq letters. The handwriting of Sheikh Bakrii Saphaloo is treated as canonical and can be observed in Figures 66.1-66.18. It is worth pointing out then the differences in Sheikh Mahammad Rashad’s handwriting as observed in Reference 1.

	Sheikh Bakrii Saphaloo	Sheikh Mahammad Rashad
R/RR	ر/ر	ر/ر
G/GG	گ/گ	گ/گ
C/CC	چ/چ	چ/چ
N/NN	ن/ن	ن/ن
NY/NYNY	ی/ی	ی/ی

Table 4. Variation found in five Shaaldaq series.

Should vendors wish to support the glyph differences, they may do so in the same manner as they would support the difference in the numeral glyphs.

Diacritics:

Diacritical marks are not used in the Shaaldaq script.

IV Character Repertoire

General Category and other properties

Table 2 presents the 824 syllabic graphemes, punctuation, and digital numerals in total for the Shaaldaa orthography. The table provides the shapes, names, and relative ordering. A consistent naming pattern is used throughout where the consonant component of a syllable name will be identical to the corresponding syllable name from the sibling script, Ethiopic (U+1200 – U+137F). However, the Ethiopic syllable naming follows the conventions for Semitic languages, while Afaan Oromo is a Cushitic language which follows a different system of phonology. This phonological awareness is the basis of the Qubee writing practice whose rules of gemination and vowel length are applied to the final part of a letter name.

The Shaaldaa script features both glottal and pharyngeal vowels in both short and long stresses along with a stop. The Shaaldaa syllabary is kept contiguous by also populating the syllabary positions for the geminated syllables (i.e. CCV, CCVV table cells) for the vowel families. The naming of these vowel glyphs follows a positional logic, in keeping with the CV syllables, and applies the modifier “GEMINATE” to distinguish them.

An Ethiopic encoding model is required for the script due to 1) a significant percentage of graphical irregularity when attempting to interpret the script’s vocalized graphemes through consistent application of “diacritics” (see Table 4 at the end of Section IX), 2) Hayward and Hassen’s assessment of how the structure of the script came about in relation to the Ethiopic script (see Reference 1, Section VII; see Figures 2, 3, 4, 6, 7, and 19, Section IX), 3) the way the user community conceptualizes the script as distinct letters, 4) the user community also being active users of the Ethiopic script in parallel. Diacritics are largely a foreign creation that do not exist in the local practices of written language and should not be imposed upon indigenous systems.

To the proposal authors, the only benefit of pursuing an Indic encoding model instead of an Ethiopic model would be to save encoding space. However, for the reasons cited, the model is simply not compatible with user requirements.

The Shaaldaa glyph inventory, with their respective addresses and letter names are presented in Table 2:

፩	U+1C800 SHAALDAA SYLLABLE VOWEL BASE
፪	U+1C801 SHAALDAA SYLLABLE A
፫	U+1C802 SHAALDAA SYLLABLE U
፬	U+1C803 SHAALDAA SYLLABLE I
፭	U+1C804 SHAALDAA SYLLABLE E
፮	U+1C805 SHAALDAA SYLLABLE O
፯	U+1C806 SHAALDAA SYLLABLE AA
፰	U+1C807 SHAALDAA SYLLABLE UU
፱	U+1C808 SHAALDAA SYLLABLE II
፳	U+1C809 SHAALDAA SYLLABLE EE
፴	U+1C80A SHAALDAA SYLLABLE OO
፵	U+1C80B SHAALDAA SYLLABLE GLOTTAL STOP

ಉ	U+1C80C SHAALDAA SYLLABLE SECONDARY VOWEL BASE
ಊ	U+1C80D SHAALDAA SYLLABLE SECONDARY A
ಋ	U+1C80E SHAALDAA SYLLABLE SECONDARY U
ಋ	U+1C80F SHAALDAA SYLLABLE SECONDARY I
ಌ	U+1C810 SHAALDAA SYLLABLE SECONDARY E
಍	U+1C811 SHAALDAA SYLLABLE SECONDARY O
ಏ	U+1C812 SHAALDAA SYLLABLE SECONDARY AA
ಋ	U+1C813 SHAALDAA SYLLABLE SECONDARY UU
ಋ	U+1C814 SHAALDAA SYLLABLE SECONDARY II
ಌ	U+1C815 SHAALDAA SYLLABLE SECONDARY EE
಍	U+1C816 SHAALDAA SYLLABLE SECONDARY OO
ಋ	U+1C817 SHAALDAA SYLLABLE SECONDARY GLOTTAL STOP
ಬ	U+1C818 SHAALDAA SYLLABLE B BASE
ಬಾ	U+1C819 SHAALDAA SYLLABLE BA
ಬು	U+1C81A SHAALDAA SYLLABLE BU
ಬಿ	U+1C81B SHAALDAA SYLLABLE BI
ಬೆ	U+1C81C SHAALDAA SYLLABLE BE
ಬೊ	U+1C81D SHAALDAA SYLLABLE BO
ಬಾ	U+1C81E SHAALDAA SYLLABLE BAA
ಬು	U+1C81F SHAALDAA SYLLABLE BUU
ಬಿ	U+1C820 SHAALDAA SYLLABLE BII
ಬೆ	U+1C821 SHAALDAA SYLLABLE BEE
ಬೊ	U+1C822 SHAALDAA SYLLABLE BOO
ಬ	U+1C823 SHAALDAA SYLLABLE B
ಬಾ	U+1C824 SHAALDAA SYLLABLE BB BASE
ಬಾ	U+1C825 SHAALDAA SYLLABLE BBA
ಬು	U+1C826 SHAALDAA SYLLABLE BBU
ಬಿ	U+1C827 SHAALDAA SYLLABLE BBI
ಬೆ	U+1C828 SHAALDAA SYLLABLE BBE
ಬೊ	U+1C829 SHAALDAA SYLLABLE BBO
ಬಾ	U+1C82A SHAALDAA SYLLABLE BBAA
ಬು	U+1C82B SHAALDAA SYLLABLE BBUU
ಬಿ	U+1C82C SHAALDAA SYLLABLE BBII
ಬೆ	U+1C82D SHAALDAA SYLLABLE BBEE
ಬೊ	U+1C82E SHAALDAA SYLLABLE BBOO
ಬ	U+1C82F SHAALDAA SYLLABLE BB
ಜ	U+1C830 SHAALDAA SYLLABLE J BASE
ಜಾ	U+1C831 SHAALDAA SYLLABLE JA
ಜು	U+1C832 SHAALDAA SYLLABLE JU

ᱚ	U+1C833 SHAALDAA SYLLABLE JI
ᱛ	U+1C834 SHAALDAA SYLLABLE JE
ᱜ	U+1C835 SHAALDAA SYLLABLE JO
ᱝ	U+1C836 SHAALDAA SYLLABLE JAA
ᱞ	U+1C837 SHAALDAA SYLLABLE JUU
ᱟ	U+1C838 SHAALDAA SYLLABLE JII
ᱠ	U+1C839 SHAALDAA SYLLABLE JEE
ᱡ	U+1C83A SHAALDAA SYLLABLE JOO
ᱢ	U+1C83B SHAALDAA SYLLABLE J
ᱣ	U+1C83C SHAALDAA SYLLABLE JJ BASE
ᱤ	U+1C83D SHAALDAA SYLLABLE JJA
ᱥ	U+1C83E SHAALDAA SYLLABLE JJU
ᱦ	U+1C83F SHAALDAA SYLLABLE JJI
ᱧ	U+1C840 SHAALDAA SYLLABLE JJE
ᱨ	U+1C841 SHAALDAA SYLLABLE JJO
ᱩ	U+1C842 SHAALDAA SYLLABLE JJAA
ᱪ	U+1C843 SHAALDAA SYLLABLE JJUU
ᱫ	U+1C844 SHAALDAA SYLLABLE JJII
ᱬ	U+1C845 SHAALDAA SYLLABLE JJEE
ᱭ	U+1C846 SHAALDAA SYLLABLE JJOO
ᱮ	U+1C847 SHAALDAA SYLLABLE JJ
ᱯ	U+1C848 SHAALDAA SYLLABLE D BASE
ᱰ	U+1C849 SHAALDAA SYLLABLE DA
ᱱ	U+1C84A SHAALDAA SYLLABLE DU
ᱲ	U+1C84B SHAALDAA SYLLABLE DI
ᱳ	U+1C84C SHAALDAA SYLLABLE DE
ᱴ	U+1C84D SHAALDAA SYLLABLE DO
ᱵ	U+1C84E SHAALDAA SYLLABLE DAA
ᱶ	U+1C84F SHAALDAA SYLLABLE DUU
ᱷ	U+1C850 SHAALDAA SYLLABLE DII
ᱸ	U+1C851 SHAALDAA SYLLABLE DEE
ᱹ	U+1C852 SHAALDAA SYLLABLE DOO
ᱺ	U+1C853 SHAALDAA SYLLABLE D
ᱻ	U+1C854 SHAALDAA SYLLABLE DD BASE
ᱼ	U+1C855 SHAALDAA SYLLABLE DDA
ᱽ	U+1C856 SHAALDAA SYLLABLE DDU
᱾	U+1C857 SHAALDAA SYLLABLE DDI
᱿	U+1C858 SHAALDAA SYLLABLE DDE
᱀	U+1C859 SHAALDAA SYLLABLE DDO

𑄀	U+1C85A SHAALDAA SYLLABLE DDAA
𑄁	U+1C85B SHAALDAA SYLLABLE DDUU
𑄂	U+1C85C SHAALDAA SYLLABLE DDII
𑄃	U+1C85D SHAALDAA SYLLABLE DDEE
𑄄	U+1C85E SHAALDAA SYLLABLE DDOO
𑄅	U+1C85F SHAALDAA SYLLABLE DD
𑄆	U+1C860 SHAALDAA SYLLABLE H BASE
𑄇	U+1C861 SHAALDAA SYLLABLE HA
𑄈	U+1C862 SHAALDAA SYLLABLE HU
𑄉	U+1C863 SHAALDAA SYLLABLE HI
𑄊	U+1C864 SHAALDAA SYLLABLE HE
𑄋	U+1C865 SHAALDAA SYLLABLE HO
𑄌	U+1C866 SHAALDAA SYLLABLE HAA
𑄍	U+1C867 SHAALDAA SYLLABLE HUU
𑄎	U+1C868 SHAALDAA SYLLABLE HII
𑄏	U+1C869 SHAALDAA SYLLABLE HEE
𑄐	U+1C86A SHAALDAA SYLLABLE HOO
𑄑	U+1C86B SHAALDAA SYLLABLE H
𑄒	U+1C86C SHAALDAA SYLLABLE HH BASE
𑄓	U+1C86D SHAALDAA SYLLABLE HHA
𑄔	U+1C86E SHAALDAA SYLLABLE HHU
𑄕	U+1C86F SHAALDAA SYLLABLE HHI
𑄖	U+1C870 SHAALDAA SYLLABLE HHE
𑄗	U+1C871 SHAALDAA SYLLABLE HHO
𑄘	U+1C872 SHAALDAA SYLLABLE HHA
𑄙	U+1C873 SHAALDAA SYLLABLE HHUU
𑄚	U+1C874 SHAALDAA SYLLABLE HHII
𑄛	U+1C875 SHAALDAA SYLLABLE HHEE
𑄜	U+1C876 SHAALDAA SYLLABLE HHOO
𑄝	U+1C877 SHAALDAA SYLLABLE HH
𑄞	U+1C878 SHAALDAA SYLLABLE W BASE
𑄟	U+1C879 SHAALDAA SYLLABLE WA
𑄠	U+1C87A SHAALDAA SYLLABLE WU
𑄡	U+1C87B SHAALDAA SYLLABLE WI
𑄢	U+1C87C SHAALDAA SYLLABLE WE
𑄣	U+1C87D SHAALDAA SYLLABLE WO
𑄤	U+1C87E SHAALDAA SYLLABLE WAA
𑄥	U+1C87F SHAALDAA SYLLABLE WUU
𑄦	U+1C880 SHAALDAA SYLLABLE WII

୧୫୫	U+1C881 SHAALDAA SYLLABLE WEE
୧୫୬	U+1C882 SHAALDAA SYLLABLE WOO
୧୫୭	U+1C883 SHAALDAA SYLLABLE W
୧୫୮	U+1C884 SHAALDAA SYLLABLE WW BASE
୧୫୯	U+1C885 SHAALDAA SYLLABLE WWA
୧୬୦	U+1C886 SHAALDAA SYLLABLE WWU
୧୬୧	U+1C887 SHAALDAA SYLLABLE WWI
୧୬୨	U+1C888 SHAALDAA SYLLABLE WWE
୧୬୩	U+1C889 SHAALDAA SYLLABLE WWO
୧୬୪	U+1C88A SHAALDAA SYLLABLE WWAA
୧୬୫	U+1C88B SHAALDAA SYLLABLE WWUU
୧୬୬	U+1C88C SHAALDAA SYLLABLE WWII
୧୬୭	U+1C88D SHAALDAA SYLLABLE WVEE
୧୬୮	U+1C88E SHAALDAA SYLLABLE WVOO
୧୬୯	U+1C88F SHAALDAA SYLLABLE WW
୧୭୦	U+1C890 SHAALDAA SYLLABLE Z BASE
୧୭୧	U+1C891 SHAALDAA SYLLABLE ZA
୧୭୨	U+1C892 SHAALDAA SYLLABLE ZU
୧୭୩	U+1C893 SHAALDAA SYLLABLE ZI
୧୭୪	U+1C894 SHAALDAA SYLLABLE ZE
୧୭୫	U+1C895 SHAALDAA SYLLABLE ZO
୧୭୬	U+1C896 SHAALDAA SYLLABLE ZAA
୧୭୭	U+1C897 SHAALDAA SYLLABLE ZUU
୧୭୮	U+1C898 SHAALDAA SYLLABLE ZII
୧୭୯	U+1C899 SHAALDAA SYLLABLE ZEE
୧୮୦	U+1C89A SHAALDAA SYLLABLE ZOO
୧୮୧	U+1C89B SHAALDAA SYLLABLE Z
୧୮୨	U+1C89C SHAALDAA SYLLABLE ZZ BASE
୧୮୩	U+1C89D SHAALDAA SYLLABLE ZZA
୧୮୪	U+1C89E SHAALDAA SYLLABLE ZZU
୧୮୫	U+1C89F SHAALDAA SYLLABLE ZZI
୧୮୬	U+1C8A0 SHAALDAA SYLLABLE ZZE
୧୮୭	U+1C8A1 SHAALDAA SYLLABLE ZZO
୧୮୮	U+1C8A2 SHAALDAA SYLLABLE ZZAA
୧୮୯	U+1C8A3 SHAALDAA SYLLABLE ZZUU
୧୯୦	U+1C8A4 SHAALDAA SYLLABLE ZZII
୧୯୧	U+1C8A5 SHAALDAA SYLLABLE ZZEE
୧୯୨	U+1C8A6 SHAALDAA SYLLABLE ZZOO
୧୯୩	U+1C8A7 SHAALDAA SYLLABLE ZZ

ᄁ	U+1C8A8 SHAALDAA SYLLABLE HX BASE
ᄂ	U+1C8A9 SHAALDAA SYLLABLE HXA
ᄃ	U+1C8AA SHAALDAA SYLLABLE HXU
ᄄ	U+1C8AB SHAALDAA SYLLABLE HXI
ᄅ	U+1C8AC SHAALDAA SYLLABLE HXE
ᄆ	U+1C8AD SHAALDAA SYLLABLE HXO
ᄇ	U+1C8AE SHAALDAA SYLLABLE HXAA
ᄈ	U+1C8AF SHAALDAA SYLLABLE HXUU
ᄉ	U+1C8B0 SHAALDAA SYLLABLE HXII
ᄊ	U+1C8B1 SHAALDAA SYLLABLE HXEE
ᄋ	U+1C8B2 SHAALDAA SYLLABLE HXOO
ᄌ	U+1C8B3 SHAALDAA SYLLABLE HX
ᄍ	U+1C8B4 SHAALDAA SYLLABLE HHX BASE
ᄎ	U+1C8B5 SHAALDAA SYLLABLE HHXA
ᄏ	U+1C8B6 SHAALDAA SYLLABLE HHXU
ᄐ	U+1C8B7 SHAALDAA SYLLABLE HHXI
ᄑ	U+1C8B8 SHAALDAA SYLLABLE HHXE
ᄒ	U+1C8B9 SHAALDAA SYLLABLE HHXO
ᄓ	U+1C8BA SHAALDAA SYLLABLE HHXAA
ᄔ	U+1C8BB SHAALDAA SYLLABLE HHXUU
ᄕ	U+1C8BC SHAALDAA SYLLABLE HHXII
ᄖ	U+1C8BD SHAALDAA SYLLABLE HHXEE
ᄗ	U+1C8BE SHAALDAA SYLLABLE HHXOO
ᄘ	U+1C8BF SHAALDAA SYLLABLE HHX
ᄙ	U+1C8C0 SHAALDAA SYLLABLE X BASE
ᄚ	U+1C8C1 SHAALDAA SYLLABLE XA
ᄛ	U+1C8C2 SHAALDAA SYLLABLE XU
ᄜ	U+1C8C3 SHAALDAA SYLLABLE XI
ᄝ	U+1C8C4 SHAALDAA SYLLABLE XE
ᄞ	U+1C8C5 SHAALDAA SYLLABLE XO
ᄟ	U+1C8C6 SHAALDAA SYLLABLE XAA
ᄠ	U+1C8C7 SHAALDAA SYLLABLE XUU
ᄡ	U+1C8C8 SHAALDAA SYLLABLE XII
ᄢ	U+1C8C9 SHAALDAA SYLLABLE XEE
ᄣ	U+1C8CA SHAALDAA SYLLABLE XOO
ᄤ	U+1C8CB SHAALDAA SYLLABLE X
ᄥ	U+1C8CC SHAALDAA SYLLABLE XX BASE
ᄦ	U+1C8CD SHAALDAA SYLLABLE XXA
ᄧ	U+1C8CE SHAALDAA SYLLABLE XXU

𑄃𑄆	U+1C8CF SHAALDAA SYLLABLE XXI
𑄃𑄇	U+1C8D0 SHAALDAA SYLLABLE XXE
𑄃𑄈	U+1C8D1 SHAALDAA SYLLABLE XXO
𑄃𑄉	U+1C8D2 SHAALDAA SYLLABLE XXAA
𑄃𑄊	U+1C8D3 SHAALDAA SYLLABLE XXUU
𑄃𑄋	U+1C8D4 SHAALDAA SYLLABLE XXII
𑄃𑄌	U+1C8D5 SHAALDAA SYLLABLE XXEE
𑄃𑄍	U+1C8D6 SHAALDAA SYLLABLE XXOO
𑄃𑄎	U+1C8D7 SHAALDAA SYLLABLE XX
𑄃𑄏	U+1C8D8 SHAALDAA SYLLABLE Y BASE
𑄃𑄐	U+1C8D9 SHAALDAA SYLLABLE YA
𑄃𑄑	U+1C8DA SHAALDAA SYLLABLE YU
𑄃𑄒	U+1C8DB SHAALDAA SYLLABLE YI
𑄃𑄓	U+1C8DC SHAALDAA SYLLABLE YE
𑄃𑄔	U+1C8DD SHAALDAA SYLLABLE YO
𑄃𑄕	U+1C8DE SHAALDAA SYLLABLE YAA
𑄃𑄖	U+1C8DF SHAALDAA SYLLABLE YUU
𑄃𑄗	U+1C8E0 SHAALDAA SYLLABLE YII
𑄃𑄘	U+1C8E1 SHAALDAA SYLLABLE YEE
𑄃𑄙	U+1C8E2 SHAALDAA SYLLABLE YOO
𑄃𑄚	U+1C8E3 SHAALDAA SYLLABLE Y
𑄃𑄛	U+1C8E4 SHAALDAA SYLLABLE YY BASE
𑄃𑄜	U+1C8E5 SHAALDAA SYLLABLE YYA
𑄃𑄝	U+1C8E6 SHAALDAA SYLLABLE YYU
𑄃𑄞	U+1C8E7 SHAALDAA SYLLABLE YYI
𑄃𑄟	U+1C8E8 SHAALDAA SYLLABLE YYE
𑄃𑄠	U+1C8E9 SHAALDAA SYLLABLE YYO
𑄃𑄡	U+1C8EA SHAALDAA SYLLABLE YYAA
𑄃𑄢	U+1C8EB SHAALDAA SYLLABLE YYUU
𑄃𑄣	U+1C8EC SHAALDAA SYLLABLE YYII
𑄃𑄤	U+1C8ED SHAALDAA SYLLABLE YYEE
𑄃𑄥	U+1C8EE SHAALDAA SYLLABLE YYOO
𑄃𑄦	U+1C8EF SHAALDAA SYLLABLE YY
𑄃𑄧	U+1C8F0 SHAALDAA SYLLABLE K BASE
𑄃𑄨	U+1C8F1 SHAALDAA SYLLABLE KA
𑄃𑄩	U+1C8F2 SHAALDAA SYLLABLE KU
𑄃𑄪	U+1C8F3 SHAALDAA SYLLABLE KI
𑄃𑄫	U+1C8F4 SHAALDAA SYLLABLE KE
𑄃𑄬	U+1C8F5 SHAALDAA SYLLABLE KO

𑄂	U+1C8F6 SHAALDAA SYLLABLE KAA
𑄃	U+1C8F7 SHAALDAA SYLLABLE KUU
𑄄	U+1C8F8 SHAALDAA SYLLABLE KII
𑄅	U+1C8F9 SHAALDAA SYLLABLE KEE
𑄆	U+1C8FA SHAALDAA SYLLABLE KOO
𑄇	U+1C8FB SHAALDAA SYLLABLE K
𑄈	U+1C8FC SHAALDAA SYLLABLE KK BASE
𑄉	U+1C8FD SHAALDAA SYLLABLE KKA
𑄊	U+1C8FE SHAALDAA SYLLABLE KKU
𑄋	U+1C8FF SHAALDAA SYLLABLE KKI
𑄌	U+1C900 SHAALDAA SYLLABLE KKE
𑄍	U+1C901 SHAALDAA SYLLABLE KKO
𑄎	U+1C902 SHAALDAA SYLLABLE KKA
𑄏	U+1C903 SHAALDAA SYLLABLE KUU
𑄐	U+1C904 SHAALDAA SYLLABLE KII
𑄑	U+1C905 SHAALDAA SYLLABLE KEE
𑄒	U+1C906 SHAALDAA SYLLABLE KOO
𑄓	U+1C907 SHAALDAA SYLLABLE KK
𑄔	U+1C908 SHAALDAA SYLLABLE L BASE
𑄕	U+1C909 SHAALDAA SYLLABLE LA
𑄖	U+1C90A SHAALDAA SYLLABLE LU
𑄗	U+1C90B SHAALDAA SYLLABLE LI
𑄘	U+1C90C SHAALDAA SYLLABLE LE
𑄙	U+1C90D SHAALDAA SYLLABLE LO
𑄚	U+1C90E SHAALDAA SYLLABLE LAA
𑄛	U+1C90F SHAALDAA SYLLABLE LUU
𑄜	U+1C910 SHAALDAA SYLLABLE LII
𑄝	U+1C911 SHAALDAA SYLLABLE LEE
𑄞	U+1C912 SHAALDAA SYLLABLE LOO
𑄟	U+1C913 SHAALDAA SYLLABLE L
𑄠	U+1C914 SHAALDAA SYLLABLE LL BASE
𑄡	U+1C915 SHAALDAA SYLLABLE LLA
𑄢	U+1C916 SHAALDAA SYLLABLE LLU
𑄣	U+1C917 SHAALDAA SYLLABLE LLI
𑄤	U+1C918 SHAALDAA SYLLABLE LLE
𑄥	U+1C919 SHAALDAA SYLLABLE LLO
𑄦	U+1C91A SHAALDAA SYLLABLE LLA
𑄧	U+1C91B SHAALDAA SYLLABLE LLUU
𑄨	U+1C91C SHAALDAA SYLLABLE LLII

𑄂	U+1C91D SHAALDAA SYLLABLE LLEE
𑄃	U+1C91E SHAALDAA SYLLABLE LLOO
𑄄	U+1C91F SHAALDAA SYLLABLE LL
𑄅	U+1C920 SHAALDAA SYLLABLE M BASE
𑄆	U+1C921 SHAALDAA SYLLABLE MA
𑄇	U+1C922 SHAALDAA SYLLABLE MU
𑄈	U+1C923 SHAALDAA SYLLABLE MI
𑄉	U+1C924 SHAALDAA SYLLABLE ME
𑄊	U+1C925 SHAALDAA SYLLABLE MO
𑄋	U+1C926 SHAALDAA SYLLABLE MAA
𑄌	U+1C927 SHAALDAA SYLLABLE MUU
𑄍	U+1C928 SHAALDAA SYLLABLE MII
𑄎	U+1C929 SHAALDAA SYLLABLE MEE
𑄏	U+1C92A SHAALDAA SYLLABLE MOO
𑄐	U+1C92B SHAALDAA SYLLABLE M
𑄑	U+1C92C SHAALDAA SYLLABLE MM BASE
𑄒	U+1C92D SHAALDAA SYLLABLE MMA
𑄓	U+1C92E SHAALDAA SYLLABLE MMU
𑄔	U+1C92F SHAALDAA SYLLABLE MMI
𑄕	U+1C930 SHAALDAA SYLLABLE MME
𑄖	U+1C931 SHAALDAA SYLLABLE MMO
𑄗	U+1C932 SHAALDAA SYLLABLE MMAA
𑄘	U+1C933 SHAALDAA SYLLABLE MMUU
𑄙	U+1C934 SHAALDAA SYLLABLE MMII
𑄚	U+1C935 SHAALDAA SYLLABLE MMEE
𑄛	U+1C936 SHAALDAA SYLLABLE MMOO
𑄜	U+1C937 SHAALDAA SYLLABLE MM
𑄝	U+1C938 SHAALDAA SYLLABLE N BASE
𑄞	U+1C939 SHAALDAA SYLLABLE NA
𑄟	U+1C93A SHAALDAA SYLLABLE NU
𑄠	U+1C93B SHAALDAA SYLLABLE NI
𑄡	U+1C93C SHAALDAA SYLLABLE NE
𑄢	U+1C93D SHAALDAA SYLLABLE NO
𑄣	U+1C93E SHAALDAA SYLLABLE NAA
𑄤	U+1C93F SHAALDAA SYLLABLE NUU
𑄥	U+1C940 SHAALDAA SYLLABLE NII
𑄦	U+1C941 SHAALDAA SYLLABLE NEE
𑄧	U+1C942 SHAALDAA SYLLABLE NOO
𑄨	U+1C943 SHAALDAA SYLLABLE N

न	U+1C944 SHAALDAA SYLLABLE NN BASE
न्	U+1C945 SHAALDAA SYLLABLE NNA
नु	U+1C946 SHAALDAA SYLLABLE NNU
नि	U+1C947 SHAALDAA SYLLABLE NNI
ने	U+1C948 SHAALDAA SYLLABLE NNE
नो	U+1C949 SHAALDAA SYLLABLE NNO
ना	U+1C94A SHAALDAA SYLLABLE NNA
नु	U+1C94B SHAALDAA SYLLABLE NNU
नि	U+1C94C SHAALDAA SYLLABLE NNI
ने	U+1C94D SHAALDAA SYLLABLE NNE
नो	U+1C94E SHAALDAA SYLLABLE NNO
न	U+1C94F SHAALDAA SYLLABLE NN
स	U+1C950 SHAALDAA SYLLABLE S BASE
सा	U+1C951 SHAALDAA SYLLABLE SA
सु	U+1C952 SHAALDAA SYLLABLE SU
सि	U+1C953 SHAALDAA SYLLABLE SI
से	U+1C954 SHAALDAA SYLLABLE SE
सो	U+1C955 SHAALDAA SYLLABLE SO
सा	U+1C956 SHAALDAA SYLLABLE SAA
सु	U+1C957 SHAALDAA SYLLABLE SUU
सि	U+1C958 SHAALDAA SYLLABLE SII
से	U+1C959 SHAALDAA SYLLABLE SEE
सो	U+1C95A SHAALDAA SYLLABLE SOO
स	U+1C95B SHAALDAA SYLLABLE S
स	U+1C95C SHAALDAA SYLLABLE SS BASE
सा	U+1C95D SHAALDAA SYLLABLE SSA
सु	U+1C95E SHAALDAA SYLLABLE SSU
सि	U+1C95F SHAALDAA SYLLABLE SSI
से	U+1C960 SHAALDAA SYLLABLE SSE
सो	U+1C961 SHAALDAA SYLLABLE SSO
सा	U+1C962 SHAALDAA SYLLABLE SSAA
सु	U+1C963 SHAALDAA SYLLABLE SSUU
सि	U+1C964 SHAALDAA SYLLABLE SSII
से	U+1C965 SHAALDAA SYLLABLE SSE
सो	U+1C966 SHAALDAA SYLLABLE SSOO
स	U+1C967 SHAALDAA SYLLABLE SS
फ	U+1C968 SHAALDAA SYLLABLE F BASE
फा	U+1C969 SHAALDAA SYLLABLE FA
फु	U+1C96A SHAALDAA SYLLABLE FU

𑄁	U+1C96B SHAALDAA SYLLABLE FI
𑄂	U+1C96C SHAALDAA SYLLABLE FE
𑄃	U+1C96D SHAALDAA SYLLABLE FO
𑄄	U+1C96E SHAALDAA SYLLABLE FAA
𑄅	U+1C96F SHAALDAA SYLLABLE FUU
𑄆	U+1C970 SHAALDAA SYLLABLE FII
𑄇	U+1C971 SHAALDAA SYLLABLE FEE
𑄈	U+1C972 SHAALDAA SYLLABLE FOO
𑄉	U+1C973 SHAALDAA SYLLABLE F
𑄊	U+1C974 SHAALDAA SYLLABLE FF BASE
𑄋	U+1C975 SHAALDAA SYLLABLE FFA
𑄌	U+1C976 SHAALDAA SYLLABLE FFU
𑄍	U+1C977 SHAALDAA SYLLABLE FFI
𑄎	U+1C978 SHAALDAA SYLLABLE FFE
𑄏	U+1C979 SHAALDAA SYLLABLE FFO
𑄐	U+1C97A SHAALDAA SYLLABLE FFAA
𑄑	U+1C97B SHAALDAA SYLLABLE FFUU
𑄒	U+1C97C SHAALDAA SYLLABLE FFII
𑄓	U+1C97D SHAALDAA SYLLABLE FFEE
𑄔	U+1C97E SHAALDAA SYLLABLE FFOO
𑄕	U+1C97F SHAALDAA SYLLABLE FF
𑄖	U+1C980 SHAALDAA SYLLABLE ALTERNATE S BASE
𑄗	U+1C981 SHAALDAA SYLLABLE ALTERNATE SA
𑄘	U+1C982 SHAALDAA SYLLABLE ALTERNATE SU
𑄙	U+1C983 SHAALDAA SYLLABLE ALTERNATE SI
𑄚	U+1C984 SHAALDAA SYLLABLE ALTERNATE SE
𑄛	U+1C985 SHAALDAA SYLLABLE ALTERNATE SO
𑄜	U+1C986 SHAALDAA SYLLABLE ALTERNATE SAA
𑄝	U+1C987 SHAALDAA SYLLABLE ALTERNATE SUU
𑄞	U+1C988 SHAALDAA SYLLABLE ALTERNATE SII
𑄟	U+1C989 SHAALDAA SYLLABLE ALTERNATE SEE
𑄠	U+1C98A SHAALDAA SYLLABLE ALTERNATE SOO
𑄡	U+1C98B SHAALDAA SYLLABLE ALTERNATE S
𑄢	U+1C98C SHAALDAA SYLLABLE ALTERNATE SS BASE
𑄣	U+1C98D SHAALDAA SYLLABLE ALTERNATE SSA
𑄤	U+1C98E SHAALDAA SYLLABLE ALTERNATE SSU
𑄥	U+1C98F SHAALDAA SYLLABLE ALTERNATE SSI
𑄦	U+1C990 SHAALDAA SYLLABLE ALTERNATE SSE
𑄧	U+1C991 SHAALDAA SYLLABLE ALTERNATE SSO

U+1C992	SHAALDAA SYLLABLE ALTERNATE SSAA
U+1C993	SHAALDAA SYLLABLE ALTERNATE SSUU
U+1C994	SHAALDAA SYLLABLE ALTERNATE SSII
U+1C995	SHAALDAA SYLLABLE ALTERNATE SSEE
U+1C996	SHAALDAA SYLLABLE ALTERNATE SSOO
U+1C997	SHAALDAA SYLLABLE ALTERNATE SS
U+1C998	SHAALDAA SYLLABLE Q BASE
U+1C999	SHAALDAA SYLLABLE QA
U+1C99A	SHAALDAA SYLLABLE QU
U+1C99B	SHAALDAA SYLLABLE QI
U+1C99C	SHAALDAA SYLLABLE QE
U+1C99D	SHAALDAA SYLLABLE QO
U+1C99E	SHAALDAA SYLLABLE QAA
U+1C99F	SHAALDAA SYLLABLE QUU
U+1C9A0	SHAALDAA SYLLABLE QII
U+1C9A1	SHAALDAA SYLLABLE QEE
U+1C9A2	SHAALDAA SYLLABLE QOO
U+1C9A3	SHAALDAA SYLLABLE Q
U+1C9A4	SHAALDAA SYLLABLE QQ BASE
U+1C9A5	SHAALDAA SYLLABLE QQA
U+1C9A6	SHAALDAA SYLLABLE QQU
U+1C9A7	SHAALDAA SYLLABLE QQI
U+1C9A8	SHAALDAA SYLLABLE QQE
U+1C9A9	SHAALDAA SYLLABLE QQO
U+1C9AA	SHAALDAA SYLLABLE QQAA
U+1C9AB	SHAALDAA SYLLABLE QQUU
U+1C9AC	SHAALDAA SYLLABLE QQII
U+1C9AD	SHAALDAA SYLLABLE QQEE
U+1C9AE	SHAALDAA SYLLABLE QQOO
U+1C9AF	SHAALDAA SYLLABLE QQ
U+1C9B0	SHAALDAA SYLLABLE R BASE
U+1C9B1	SHAALDAA SYLLABLE RA
U+1C9B2	SHAALDAA SYLLABLE RU
U+1C9B3	SHAALDAA SYLLABLE RI
U+1C9B4	SHAALDAA SYLLABLE RE
U+1C9B5	SHAALDAA SYLLABLE RO
U+1C9B6	SHAALDAA SYLLABLE RAA
U+1C9B7	SHAALDAA SYLLABLE RUU
U+1C9B8	SHAALDAA SYLLABLE RII

ຼຽ	U+1C9B9 SHAALDAA SYLLABLE REE
ຼຽຸ	U+1C9BA SHAALDAA SYLLABLE ROO
ຼຽ	U+1C9BB SHAALDAA SYLLABLE R
ຼຽຸ	U+1C9BC SHAALDAA SYLLABLE RR BASE
ຼຽຸຸ	U+1C9BD SHAALDAA SYLLABLE RRA
ຼຽຸຸຸ	U+1C9BE SHAALDAA SYLLABLE RRU
ຼຽຸຸຸຸ	U+1C9BF SHAALDAA SYLLABLE RRI
ຼຽຸຸຸຸຸ	U+1C9C0 SHAALDAA SYLLABLE RRE
ຼຽຸຸຸຸຸຸ	U+1C9C1 SHAALDAA SYLLABLE RRO
ຼຽຸຸຸຸຸຸຸ	U+1C9C2 SHAALDAA SYLLABLE RRAA
ຼຽຸຸຸຸຸຸຸຸ	U+1C9C3 SHAALDAA SYLLABLE RRUU
ຼຽຸຸຸຸຸຸຸຸຸ	U+1C9C4 SHAALDAA SYLLABLE RRII
ຼຽຸຸຸຸຸຸຸຸຸຸ	U+1C9C5 SHAALDAA SYLLABLE RREE
ຼຽຸຸຸຸຸຸຸຸຸຸຸ	U+1C9C6 SHAALDAA SYLLABLE RROO
ຼຽຸຸຸຸຸຸຸຸຸຸຸຸ	U+1C9C7 SHAALDAA SYLLABLE RR
ຼຽຸ	U+1C9C8 SHAALDAA SYLLABLE SH BASE
ຼຽຸຸ	U+1C9C9 SHAALDAA SYLLABLE SHA
ຼຽຸຸຸ	U+1C9CA SHAALDAA SYLLABLE SHU
ຼຽຸຸຸຸ	U+1C9CB SHAALDAA SYLLABLE SHI
ຼຽຸຸຸຸຸ	U+1C9CC SHAALDAA SYLLABLE SHE
ຼຽຸຸຸຸຸຸ	U+1C9CD SHAALDAA SYLLABLE SHO
ຼຽຸຸຸຸຸຸຸ	U+1C9CE SHAALDAA SYLLABLE SHAA
ຼຽຸຸຸຸຸຸຸຸ	U+1C9CF SHAALDAA SYLLABLE SHUU
ຼຽຸຸຸຸຸຸຸຸຸ	U+1C9D0 SHAALDAA SYLLABLE SHII
ຼຽຸຸຸຸຸຸຸຸຸຸ	U+1C9D1 SHAALDAA SYLLABLE SHEE
ຼຽຸຸຸຸຸຸຸຸຸຸຸ	U+1C9D2 SHAALDAA SYLLABLE SHOO
ຼຽຸຸຸຸຸຸຸຸຸຸຸຸ	U+1C9D3 SHAALDAA SYLLABLE SH
ຼຽຸຸຸ	U+1C9D4 SHAALDAA SYLLABLE SSH BASE
ຼຽຸຸຸຸ	U+1C9D5 SHAALDAA SYLLABLE SSHA
ຼຽຸຸຸຸຸ	U+1C9D6 SHAALDAA SYLLABLE SSHU
ຼຽຸຸຸຸຸຸ	U+1C9D7 SHAALDAA SYLLABLE SSHI
ຼຽຸຸຸຸຸຸຸ	U+1C9D8 SHAALDAA SYLLABLE SSHE
ຼຽຸຸຸຸຸຸຸຸ	U+1C9D9 SHAALDAA SYLLABLE SSHO
ຼຽຸຸຸຸຸຸຸຸຸ	U+1C9DA SHAALDAA SYLLABLE SSHAA
ຼຽຸຸຸຸຸຸຸຸຸຸ	U+1C9DB SHAALDAA SYLLABLE SSHUU
ຼຽຸຸຸຸຸຸຸຸຸຸຸ	U+1C9DC SHAALDAA SYLLABLE SSHII
ຼຽຸຸຸຸຸຸຸຸຸຸຸຸ	U+1C9DD SHAALDAA SYLLABLE SSHEE
ຼຽຸຸຸຸຸຸຸຸຸຸຸຸຸ	U+1C9DE SHAALDAA SYLLABLE SSHOO
ຼຽຸຸຸຸຸຸຸຸຸຸຸຸຸຸ	U+1C9DF SHAALDAA SYLLABLE SSH

᳚	U+1C9E0 SHAALDAA SYLLABLE T BASE
᳛	U+1C9E1 SHAALDAA SYLLABLE TA
᳜	U+1C9E2 SHAALDAA SYLLABLE TU
᳝	U+1C9E3 SHAALDAA SYLLABLE TI
᳞	U+1C9E4 SHAALDAA SYLLABLE TE
᳟	U+1C9E5 SHAALDAA SYLLABLE TO
᳠	U+1C9E6 SHAALDAA SYLLABLE TAA
᳡	U+1C9E7 SHAALDAA SYLLABLE TUU
᳢	U+1C9E8 SHAALDAA SYLLABLE TII
᳣	U+1C9E9 SHAALDAA SYLLABLE TEE
᳤	U+1C9EA SHAALDAA SYLLABLE TOO
᳥	U+1C9EB SHAALDAA SYLLABLE T
᳦	U+1C9EC SHAALDAA SYLLABLE TT BASE
᳧	U+1C9ED SHAALDAA SYLLABLE TTA
᳨	U+1C9EE SHAALDAA SYLLABLE TTU
ᳩ	U+1C9EF SHAALDAA SYLLABLE TTI
ᳪ	U+1C9F0 SHAALDAA SYLLABLE TTE
ᳫ	U+1C9F1 SHAALDAA SYLLABLE TTO
ᳬ	U+1C9F2 SHAALDAA SYLLABLE TTAA
᳭	U+1C9F3 SHAALDAA SYLLABLE TTUU
ᳮ	U+1C9F4 SHAALDAA SYLLABLE TTII
ᳯ	U+1C9F5 SHAALDAA SYLLABLE TTEE
ᳰ	U+1C9F6 SHAALDAA SYLLABLE TTOO
ᳱ	U+1C9F7 SHAALDAA SYLLABLE TT
᳚	U+1C9F8 SHAALDAA SYLLABLE KH BASE
᳛	U+1C9F9 SHAALDAA SYLLABLE KHA
᳜	U+1C9FA SHAALDAA SYLLABLE KHU
᳝	U+1C9FB SHAALDAA SYLLABLE KHI
᳞	U+1C9FC SHAALDAA SYLLABLE KHE
᳟	U+1C9FD SHAALDAA SYLLABLE KHO
᳠	U+1C9FE SHAALDAA SYLLABLE KHAA
᳡	U+1C9FF SHAALDAA SYLLABLE KHUU
᳢	U+1CA00 SHAALDAA SYLLABLE KHII
᳣	U+1CA01 SHAALDAA SYLLABLE KHEE
᳤	U+1CA02 SHAALDAA SYLLABLE KHOO
᳥	U+1CA03 SHAALDAA SYLLABLE KH
᳦	U+1CA04 SHAALDAA SYLLABLE KKH BASE
᳧	U+1CA05 SHAALDAA SYLLABLE KKHA
᳨	U+1CA06 SHAALDAA SYLLABLE KKHU

කි	U+1CA07 SHAALDAA SYLLABLE KKHI
කී	U+1CA08 SHAALDAA SYLLABLE KKHE
කූ	U+1CA09 SHAALDAA SYLLABLE KKHO
කූඞ	U+1CA0A SHAALDAA SYLLABLE KKHAA
කූඞු	U+1CA0B SHAALDAA SYLLABLE KKHUU
කිඞ	U+1CA0C SHAALDAA SYLLABLE KKHII
කිඞූ	U+1CA0D SHAALDAA SYLLABLE KXXEE
කූඞු	U+1CA0E SHAALDAA SYLLABLE KKHOO
කිඞ	U+1CA0F SHAALDAA SYLLABLE KKH
කිඞ	U+1CA10 SHAALDAA SYLLABLE DH BASE
කිඞ	U+1CA11 SHAALDAA SYLLABLE DHA
කිඞ	U+1CA12 SHAALDAA SYLLABLE DHU
කිඞ	U+1CA13 SHAALDAA SYLLABLE DHI
කිඞ	U+1CA14 SHAALDAA SYLLABLE DHE
කිඞ	U+1CA15 SHAALDAA SYLLABLE DHO
කිඞ	U+1CA16 SHAALDAA SYLLABLE DHAA
කිඞ	U+1CA17 SHAALDAA SYLLABLE DHUU
කිඞ	U+1CA18 SHAALDAA SYLLABLE DHII
කිඞ	U+1CA19 SHAALDAA SYLLABLE DHEE
කිඞ	U+1CA1A SHAALDAA SYLLABLE DHOO
කිඞ	U+1CA1B SHAALDAA SYLLABLE DH
කිඞ	U+1CA1C SHAALDAA SYLLABLE DDH BASE
කිඞ	U+1CA1D SHAALDAA SYLLABLE DDHA
කිඞ	U+1CA1E SHAALDAA SYLLABLE DDHU
කිඞ	U+1CA1F SHAALDAA SYLLABLE DDHI
කිඞ	U+1CA20 SHAALDAA SYLLABLE DDHE
කිඞ	U+1CA21 SHAALDAA SYLLABLE DDHO
කිඞ	U+1CA22 SHAALDAA SYLLABLE DDHAA
කිඞ	U+1CA23 SHAALDAA SYLLABLE DDHUU
කිඞ	U+1CA24 SHAALDAA SYLLABLE DDHII
කිඞ	U+1CA25 SHAALDAA SYLLABLE DDHEE
කිඞ	U+1CA26 SHAALDAA SYLLABLE DDHOO
කිඞ	U+1CA27 SHAALDAA SYLLABLE DDH
කිඞ	U+1CA28 SHAALDAA SYLLABLE G BASE
කිඞ	U+1CA29 SHAALDAA SYLLABLE GA
කිඞ	U+1CA2A SHAALDAA SYLLABLE GU
කිඞ	U+1CA2B SHAALDAA SYLLABLE GI
කිඞ	U+1CA2C SHAALDAA SYLLABLE GE
කිඞ	U+1CA2D SHAALDAA SYLLABLE GO

U+1CA2E	SHAALDAA SYLLABLE GAA
U+1CA2F	SHAALDAA SYLLABLE GUU
U+1CA30	SHAALDAA SYLLABLE GII
U+1CA31	SHAALDAA SYLLABLE GEE
U+1CA32	SHAALDAA SYLLABLE GOO
U+1CA33	SHAALDAA SYLLABLE G
U+1CA34	SHAALDAA SYLLABLE GG BASE
U+1CA35	SHAALDAA SYLLABLE GGA
U+1CA36	SHAALDAA SYLLABLE GGU
U+1CA37	SHAALDAA SYLLABLE GGI
U+1CA38	SHAALDAA SYLLABLE GGE
U+1CA39	SHAALDAA SYLLABLE GGO
U+1CA3A	SHAALDAA SYLLABLE GGAA
U+1CA3B	SHAALDAA SYLLABLE GGUU
U+1CA3C	SHAALDAA SYLLABLE GGII
U+1CA3D	SHAALDAA SYLLABLE GGEE
U+1CA3E	SHAALDAA SYLLABLE GGOO
U+1CA3F	SHAALDAA SYLLABLE GG
U+1CA40	SHAALDAA SYLLABLE C BASE
U+1CA41	SHAALDAA SYLLABLE CA
U+1CA42	SHAALDAA SYLLABLE CU
U+1CA43	SHAALDAA SYLLABLE CI
U+1CA44	SHAALDAA SYLLABLE CE
U+1CA45	SHAALDAA SYLLABLE CO
U+1CA46	SHAALDAA SYLLABLE CAA
U+1CA47	SHAALDAA SYLLABLE CUU
U+1CA48	SHAALDAA SYLLABLE CII
U+1CA49	SHAALDAA SYLLABLE CEE
U+1CA4A	SHAALDAA SYLLABLE COO
U+1CA4B	SHAALDAA SYLLABLE C
U+1CA4C	SHAALDAA SYLLABLE CC BASE
U+1CA4D	SHAALDAA SYLLABLE CCA
U+1CA4E	SHAALDAA SYLLABLE CCU
U+1CA4F	SHAALDAA SYLLABLE CCI
U+1CA50	SHAALDAA SYLLABLE CCE
U+1CA51	SHAALDAA SYLLABLE CCO
U+1CA52	SHAALDAA SYLLABLE CCAA
U+1CA53	SHAALDAA SYLLABLE CCUU
U+1CA54	SHAALDAA SYLLABLE CCII

U+1CA55	SHAALDAA SYLLABLE CCEE
U+1CA56	SHAALDAA SYLLABLE CCOO
U+1CA57	SHAALDAA SYLLABLE CC
U+1CA58	SHAALDAA SYLLABLE NY BASE
U+1CA59	SHAALDAA SYLLABLE NYA
U+1CA5A	SHAALDAA SYLLABLE NYU
U+1CA5B	SHAALDAA SYLLABLE NYI
U+1CA5C	SHAALDAA SYLLABLE NYE
U+1CA5D	SHAALDAA SYLLABLE NYO
U+1CA5E	SHAALDAA SYLLABLE NYAA
U+1CA5F	SHAALDAA SYLLABLE NYUU
U+1CA60	SHAALDAA SYLLABLE NYII
U+1CA61	SHAALDAA SYLLABLE NYEE
U+1CA62	SHAALDAA SYLLABLE NYOO
U+1CA63	SHAALDAA SYLLABLE NY
U+1CA64	SHAALDAA SYLLABLE NNY BASE
U+1CA65	SHAALDAA SYLLABLE NNYA
U+1CA66	SHAALDAA SYLLABLE NNYU
U+1CA67	SHAALDAA SYLLABLE NNYI
U+1CA68	SHAALDAA SYLLABLE NNYE
U+1CA69	SHAALDAA SYLLABLE NNYO
U+1CA6A	SHAALDAA SYLLABLE NNYAA
U+1CA6B	SHAALDAA SYLLABLE NNYUU
U+1CA6C	SHAALDAA SYLLABLE NNYII
U+1CA6D	SHAALDAA SYLLABLE NNYEE
U+1CA6E	SHAALDAA SYLLABLE NNYOO
U+1CA6F	SHAALDAA SYLLABLE NNY
U+1CA70	SHAALDAA SYLLABLE CH BASE
U+1CA71	SHAALDAA SYLLABLE CHA
U+1CA72	SHAALDAA SYLLABLE CHU
U+1CA73	SHAALDAA SYLLABLE CHI
U+1CA74	SHAALDAA SYLLABLE CHE
U+1CA75	SHAALDAA SYLLABLE CHO
U+1CA76	SHAALDAA SYLLABLE CHAA
U+1CA77	SHAALDAA SYLLABLE CHUU
U+1CA78	SHAALDAA SYLLABLE CHII
U+1CA79	SHAALDAA SYLLABLE CHEE
U+1CA7A	SHAALDAA SYLLABLE CHOO
U+1CA7B	SHAALDAA SYLLABLE CH

ꠘ	U+1CA7C SHAALDAA SYLLABLE CCH BASE
ꠙ	U+1CA7D SHAALDAA SYLLABLE CCHA
ꠚ	U+1CA7E SHAALDAA SYLLABLE CCHU
ꠛ	U+1CA7F SHAALDAA SYLLABLE CCHI
ꠜ	U+1CA80 SHAALDAA SYLLABLE CCHE
ꠝ	U+1CA81 SHAALDAA SYLLABLE CCHO
ꠞ	U+1CA82 SHAALDAA SYLLABLE CCHAA
ꠟ	U+1CA83 SHAALDAA SYLLABLE CCHUU
ꠠ	U+1CA84 SHAALDAA SYLLABLE CCHII
ꠡ	U+1CA85 SHAALDAA SYLLABLE CCHEE
ꠢ	U+1CA86 SHAALDAA SYLLABLE CCHOO
ꠣ	U+1CA87 SHAALDAA SYLLABLE CCH
ꠤ	U+1CA88 SHAALDAA SYLLABLE PH BASE
ꠥ	U+1CA89 SHAALDAA SYLLABLE PHA
ꠦ	U+1CA8A SHAALDAA SYLLABLE PHU
ꠧ	U+1CA8B SHAALDAA SYLLABLE PHI
꠨	U+1CA8C SHAALDAA SYLLABLE PHE
꠩	U+1CA8D SHAALDAA SYLLABLE PHO
꠪	U+1CA8E SHAALDAA SYLLABLE PHAA
꠫	U+1CA8F SHAALDAA SYLLABLE PHUU
꠬	U+1CA90 SHAALDAA SYLLABLE PHII
꠭	U+1CA91 SHAALDAA SYLLABLE PHEE
꠮	U+1CA92 SHAALDAA SYLLABLE PHOO
꠯	U+1CA93 SHAALDAA SYLLABLE PH
꠰	U+1CA94 SHAALDAA SYLLABLE PPH BASE
꠱	U+1CA95 SHAALDAA SYLLABLE PPHA
꠲	U+1CA96 SHAALDAA SYLLABLE PPHU
꠳	U+1CA97 SHAALDAA SYLLABLE PPHI
꠴	U+1CA98 SHAALDAA SYLLABLE PPHE
꠵	U+1CA99 SHAALDAA SYLLABLE PPHO
꠶	U+1CA9A SHAALDAA SYLLABLE PPHAA
꠷	U+1CA9B SHAALDAA SYLLABLE PPHUU
꠸	U+1CA9C SHAALDAA SYLLABLE PPHII
꠹	U+1CA9D SHAALDAA SYLLABLE PPHEE
꠺	U+1CA9E SHAALDAA SYLLABLE PPHOO
꠻	U+1CA9F SHAALDAA SYLLABLE PPH
꠼	U+1CAA0 SHAALDAA SYLLABLE PHARYNGEAL BASE
꠽	U+1CAA1 SHAALDAA SYLLABLE PHARYNGEAL A
꠾	U+1CAA2 SHAALDAA SYLLABLE PHARYNGEAL U

𑌆	U+1CAA3 SHAALDAA SYLLABLE PHARYNGEAL I
𑌇	U+1CAA4 SHAALDAA SYLLABLE PHARYNGEAL E
𑌈	U+1CAA5 SHAALDAA SYLLABLE PHARYNGEAL O
𑌉	U+1CAA6 SHAALDAA SYLLABLE PHARYNGEAL AA
𑌊	U+1CAA7 SHAALDAA SYLLABLE PHARYNGEAL UU
𑌋	U+1CAA8 SHAALDAA SYLLABLE PHARYNGEAL II
𑌌	U+1CAA9 SHAALDAA SYLLABLE PHARYNGEAL EE
𑌍	U+1CAAA SHAALDAA SYLLABLE PHARYNGEAL OO
𑌎	U+1CAAB SHAALDAA SYLLABLE PHARYNGEAL
𑌏	U+1CAAC SHAALDAA SYLLABLE GEMINATE PHARYNGEAL BASE
𑌐	U+1CAAD SHAALDAA SYLLABLE GEMINATE PHARYNGEAL A
𑌑	U+1CAAE SHAALDAA SYLLABLE GEMINATE PHARYNGEAL U
𑌒	U+1CAAF SHAALDAA SYLLABLE GEMINATE PHARYNGEAL I
𑌓	U+1CAB0 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL E
𑌔	U+1CAB1 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL O
𑌕	U+1CAB2 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL AA
𑌖	U+1CAB3 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL UU
𑌗	U+1CAB4 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL II
𑌘	U+1CAB5 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL EE
𑌙	U+1CAB6 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL OO
𑌚	U+1CAB7 SHAALDAA SYLLABLE GEMINATE PHARYNGEAL
𑌛	U+1CAB8 SHAALDAA SYLLABLE P BASE
𑌜	U+1CAB9 SHAALDAA SYLLABLE PA
𑌝	U+1CABA SHAALDAA SYLLABLE PU
𑌞	U+1CABB SHAALDAA SYLLABLE PI
𑌟	U+1CABC SHAALDAA SYLLABLE PE
𑌠	U+1CABD SHAALDAA SYLLABLE PO
𑌡	U+1CABE SHAALDAA SYLLABLE PAA
𑌢	U+1CABF SHAALDAA SYLLABLE PUU
𑌣	U+1CAC0 SHAALDAA SYLLABLE PII
𑌤	U+1CAC1 SHAALDAA SYLLABLE PEE
𑌥	U+1CAC2 SHAALDAA SYLLABLE POO
𑌦	U+1CAC3 SHAALDAA SYLLABLE P
𑌧	U+1CAC4 SHAALDAA SYLLABLE PP BASE
𑌨	U+1CAC5 SHAALDAA SYLLABLE PPA
𑌩	U+1CAC6 SHAALDAA SYLLABLE PPU
𑌪	U+1CAC7 SHAALDAA SYLLABLE PPI
𑌫	U+1CAC8 SHAALDAA SYLLABLE PPE
𑌬	U+1CAC9 SHAALDAA SYLLABLE PPO

𑀓𑀺	U+1CACA SHAALDAA SYLLABLE PPAA
𑀓𑀻	U+1CACB SHAALDAA SYLLABLE PPUU
𑀓𑀼	U+1CACC SHAALDAA SYLLABLE PPII
𑀓𑀽	U+1CACD SHAALDAA SYLLABLE PPEE
𑀓𑀾	U+1CACE SHAALDAA SYLLABLE PPOO
𑀓𑀿	U+1CACF SHAALDAA SYLLABLE PP
𑀔𑀺	U+1CAD0 SHAALDAA SYLLABLE V BASE
𑀔𑀻	U+1CAD1 SHAALDAA SYLLABLE VA
𑀔𑀼	U+1CAD2 SHAALDAA SYLLABLE VU
𑀔𑀽	U+1CAD3 SHAALDAA SYLLABLE VI
𑀔𑀾	U+1CAD4 SHAALDAA SYLLABLE VE
𑀔𑀿	U+1CAD5 SHAALDAA SYLLABLE VO
𑀕𑀺	U+1CAD6 SHAALDAA SYLLABLE VAA
𑀕𑀻	U+1CAD7 SHAALDAA SYLLABLE VUU
𑀕𑀼	U+1CAD8 SHAALDAA SYLLABLE VII
𑀕𑀽	U+1CAD9 SHAALDAA SYLLABLE VEE
𑀕𑀾	U+1CADA SHAALDAA SYLLABLE VOO
𑀕𑀿	U+1CADB SHAALDAA SYLLABLE V
𑀖𑀺	U+1CADC SHAALDAA SYLLABLE VV BASE
𑀖𑀻	U+1CADD SHAALDAA SYLLABLE VVA
𑀖𑀼	U+1CADE SHAALDAA SYLLABLE VVU
𑀖𑀽	U+1CADF SHAALDAA SYLLABLE VVI
𑀖𑀾	U+1CAE0 SHAALDAA SYLLABLE VVE
𑀖𑀿	U+1CAE1 SHAALDAA SYLLABLE VVO
𑀗𑀺	U+1CAE2 SHAALDAA SYLLABLE VVAA
𑀗𑀻	U+1CAE3 SHAALDAA SYLLABLE VVUU
𑀗𑀼	U+1CAE4 SHAALDAA SYLLABLE VVII
𑀗𑀽	U+1CAE5 SHAALDAA SYLLABLE VVEE
𑀗𑀾	U+1CAE6 SHAALDAA SYLLABLE VVOO
𑀗𑀿	U+1CAE7 SHAALDAA SYLLABLE VV
𑀘𑀺	U+1CAE8 SHAALDAA SYLLABLE ZH BASE
𑀘𑀻	U+1CAE9 SHAALDAA SYLLABLE ZHA
𑀘𑀼	U+1CAEA SHAALDAA SYLLABLE ZHU
𑀘𑀽	U+1CAEB SHAALDAA SYLLABLE ZHI
𑀘𑀾	U+1CAEC SHAALDAA SYLLABLE ZHE
𑀘𑀿	U+1CAED SHAALDAA SYLLABLE ZHO
𑀙𑀺	U+1CAEE SHAALDAA SYLLABLE ZHAA
𑀙𑀻	U+1CAEF SHAALDAA SYLLABLE ZHUU
𑀙𑀼	U+1CAF0 SHAALDAA SYLLABLE ZHII

𑌒	U+1CAF1 SHAALDAA SYLLABLE ZHEE
𑌓	U+1CAF2 SHAALDAA SYLLABLE ZHOO
𑌔	U+1CAF3 SHAALDAA SYLLABLE ZH
𑌕	U+1CAF4 SHAALDAA SYLLABLE ZZH BASE
𑌖	U+1CAF5 SHAALDAA SYLLABLE ZZHA
𑌗	U+1CAF6 SHAALDAA SYLLABLE ZZHU
𑌘	U+1CAF7 SHAALDAA SYLLABLE ZZHI
𑌙	U+1CAF8 SHAALDAA SYLLABLE ZZHE
𑌚	U+1CAF9 SHAALDAA SYLLABLE ZZHO
𑌛	U+1CAFA SHAALDAA SYLLABLE ZZHAA
𑌜	U+1CAFB SHAALDAA SYLLABLE ZZHUU
𑌝	U+1CAFC SHAALDAA SYLLABLE ZZHII
𑌞	U+1CAFD SHAALDAA SYLLABLE ZZHEE
𑌟	U+1CAFE SHAALDAA SYLLABLE ZZHOO
𑌠	U+1CAFF SHAALDAA SYLLABLE ZZH
𑌡	U+1CB00 SHAALDAA SYLLABLE TS BASE
𑌢	U+1CB01 SHAALDAA SYLLABLE TSA
𑌣	U+1CB02 SHAALDAA SYLLABLE TSU
𑌤	U+1CB03 SHAALDAA SYLLABLE TSI
𑌥	U+1CB04 SHAALDAA SYLLABLE TSE
𑌦	U+1CB05 SHAALDAA SYLLABLE TSO
𑌧	U+1CB06 SHAALDAA SYLLABLE TSAA
𑌨	U+1CB07 SHAALDAA SYLLABLE TSUU
𑌩	U+1CB08 SHAALDAA SYLLABLE TSII
𑌪	U+1CB09 SHAALDAA SYLLABLE TSEE
𑌫	U+1CB0A SHAALDAA SYLLABLE TSOO
𑌬	U+1CB0B SHAALDAA SYLLABLE TS
𑌭	U+1CB0C SHAALDAA SYLLABLE TTS BASE
𑌮	U+1CB0D SHAALDAA SYLLABLE TTSA
𑌯	U+1CB0E SHAALDAA SYLLABLE TTU
𑌰	U+1CB0F SHAALDAA SYLLABLE TTSI
𑌱	U+1CB10 SHAALDAA SYLLABLE TTSE
𑌲	U+1CB11 SHAALDAA SYLLABLE TTSO
𑌳	U+1CB12 SHAALDAA SYLLABLE TTSA
𑌴	U+1CB13 SHAALDAA SYLLABLE TTUU
𑌵	U+1CB14 SHAALDAA SYLLABLE TTII
𑌶	U+1CB15 SHAALDAA SYLLABLE TTSEE
𑌷	U+1CB16 SHAALDAA SYLLABLE TTSOO
𑌸	U+1CB17 SHAALDAA SYLLABLE TTS

0	U+1CB20 SHAALDAA SMR ZERO
ጵ	U+1CB21 SHAALDAA DIGIT ONE
ጶ	U+1CB22 SHAALDAA DIGIT TWO
ጷ	U+1CB23 SHAALDAA DIGIT THREE
ጸ	U+1CB24 SHAALDAA DIGIT FOUR
ጹ	U+1CB25 SHAALDAA DIGIT FIVE
ጺ	U+1CB26 SHAALDAA DIGIT SIX
ጻ	U+1CB27 SHAALDAA DIGIT SEVEN
ጼ	U+1CB28 SHAALDAA DIGIT EIGHT
ጽ	U+1CB29 SHAALDAA DIGIT NINE
:	U+1CB2A SHAALDAA WORDSPACE
=	U+1CB2B SHAALDAA FULL STOP

Table 2. The Shaaldaa Orthography

Additional information on characters

Phonetic value

The authors have already provided IPA values in Table 1 in Section III above. Therefore, here the authors will provide additional clarifying information for the phonemes associated with certain graphemes.

ጵ (/ħ/) (and its vocalized, pure consonant, and geminated counterparts) is reserved for words of Arabic origin, representing the Arabic letter <ح>.

ጸ (/s/) and ጷ (/s/), and their counterparts, are perceived the same in Oromo. Hayward and Hassen (1981; pages 561-562 of Reference 1, Section VII) state:

“Another matter that appears to challenge the phonemic ideal is the fact that there are two symbols each for h and s, though all competent linguistic descriptions are fairly unanimous in according the language only on h (laryngeal fricative) phoneme and one s (alveolar sibilant) phoneme. The matrices of Figs. 2–4, as well as the accompanying illustrative sentences, are unhelpful in this case, for h¹ and h² are used in what appears to be a quite unprincipled way. When, however, we examine Shaykh Bakri’s own use of h¹ and h² (at least in the MS of the letter shown in plate 1) we discover that h¹ is employed consistently to represent the laryngeal fricative, while h² is used only to represent a voiceless pharyngeal fricative. The latter occurs, of course, only in words borrowed from Arabic, as, for example, in the proper names Hāmid, Aḥmad and Fārah, all of which appear in line 3 of the letter. It seems then that it was Shaykh Bakri’s intention to maintain the Arabic distinction in written Oromo, though it seems odd that h² appears in the main matrix of symbols, rather than with the separate list of symbols provided for the representation of other non-Oromo sounds (see below [Table 4 in this proposal]). Why there are two symbols for s, however, is not at all clear. In Matrix 2 (shown in Fig. 2) the Ethiopic equivalents of s¹ and s² are given as ሰ and ሰ። respectively. From a strictly linguistic viewpoint there is even less need for two s’s in Oromo than there is in Modern Amharic, for the latter does at least have etymological justification for this graphic redundancy. Within the limited corpus at our disposal s² appears only twice, and both of these occurrences are in abbreviations which appear in line 1 of Shaykh Bakri’s letter. Unfortunately, these shed little light on the significance of s², since we are at present quite unable to say what these abbreviations stand for. The only thing that does seem clear is that s², like its Amharic counterpart ሰ።, is, in some sense, a ‘special’ letter.”

ጺ (and all its counterparts) is phonetically /x/, which is an allophone of /k/. Hayward and Hassen (1981; page 561 of Reference 1, Section VII) state:

1C80E;SHAALDAA SECONDARY U;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C80F;SHAALDAA SECONDARY I;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C810;SHAALDAA SECONDARY E;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C811;SHAALDAA SECONDARY O;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C812;SHAALDAA SECONDARY AA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C813;SHAALDAA SECONDARY UU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C814;SHAALDAA SECONDARY II;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C815;SHAALDAA SECONDARY EE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C816;SHAALDAA SECONDARY OO;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C817;SHAALDAA SECONDARY GLOTTAL STOP;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C818;SHAALDAA SYLLABLE B BASE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C819;SHAALDAA SYLLABLE BA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C81A;SHAALDAA SYLLABLE BU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C81B;SHAALDAA SYLLABLE BI;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C81C;SHAALDAA SYLLABLE BE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C81D;SHAALDAA SYLLABLE BO;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C81E;SHAALDAA SYLLABLE BAA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C81F;SHAALDAA SYLLABLE BUU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C820;SHAALDAA SYLLABLE BII;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C821;SHAALDAA SYLLABLE BEE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C822;SHAALDAA SYLLABLE BOO;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C823;SHAALDAA SYLLABLE B;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C824;SHAALDAA SYLLABLE BB BASE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C825;SHAALDAA SYLLABLE BBA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C826;SHAALDAA SYLLABLE BBU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C827;SHAALDAA SYLLABLE BBI;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C828;SHAALDAA SYLLABLE BBE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C829;SHAALDAA SYLLABLE BBO;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C82A;SHAALDAA SYLLABLE BBAA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C82B;SHAALDAA SYLLABLE BBUU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C82C;SHAALDAA SYLLABLE BBII;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C82D;SHAALDAA SYLLABLE BBEE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C82E;SHAALDAA SYLLABLE BBOO;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C82F;SHAALDAA SYLLABLE BB;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C830;SHAALDAA SYLLABLE J BASE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C831;SHAALDAA SYLLABLE JA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C832;SHAALDAA SYLLABLE JU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C833;SHAALDAA SYLLABLE JI;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C834;SHAALDAA SYLLABLE JE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C835;SHAALDAA SYLLABLE JO;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C836;SHAALDAA SYLLABLE JAA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C837;SHAALDAA SYLLABLE JUU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C838;SHAALDAA SYLLABLE JII;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C839;SHAALDAA SYLLABLE JEE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C83A;SHAALDAA SYLLABLE JOO;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C83B;SHAALDAA SYLLABLE J;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C83C;SHAALDAA SYLLABLE JJ BASE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C83D;SHAALDAA SYLLABLE JJA;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C83E;SHAALDAA SYLLABLE JJU;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C83F;SHAALDAA SYLLABLE JJI;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C840;SHAALDAA SYLLABLE JJE;Lo;0;L; ; ; ; ;N; ; ; ; ;
 1C841;SHAALDAA SYLLABLE JJO;Lo;0;L; ; ; ; ;N; ; ; ; ;

1C842;SHAALDAA SYLLABLE JJAA;Lo;0;L;;;;;N;;;;;
 1C843;SHAALDAA SYLLABLE JJUU;Lo;0;L;;;;;N;;;;;
 1C844;SHAALDAA SYLLABLE JJII;Lo;0;L;;;;;N;;;;;
 1C845;SHAALDAA SYLLABLE JJEE;Lo;0;L;;;;;N;;;;;
 1C846;SHAALDAA SYLLABLE JJ00;Lo;0;L;;;;;N;;;;;
 1C847;SHAALDAA SYLLABLE JJ;Lo;0;L;;;;;N;;;;;
 1C848;SHAALDAA SYLLABLE D BASE;Lo;0;L;;;;;N;;;;;
 1C849;SHAALDAA SYLLABLE DA;Lo;0;L;;;;;N;;;;;
 1C84A;SHAALDAA SYLLABLE DU;Lo;0;L;;;;;N;;;;;
 1C84B;SHAALDAA SYLLABLE DI;Lo;0;L;;;;;N;;;;;
 1C84C;SHAALDAA SYLLABLE DE;Lo;0;L;;;;;N;;;;;
 1C84D;SHAALDAA SYLLABLE DO;Lo;0;L;;;;;N;;;;;
 1C84E;SHAALDAA SYLLABLE DAA;Lo;0;L;;;;;N;;;;;
 1C84F;SHAALDAA SYLLABLE DUU;Lo;0;L;;;;;N;;;;;
 1C850;SHAALDAA SYLLABLE DII;Lo;0;L;;;;;N;;;;;
 1C851;SHAALDAA SYLLABLE DEE;Lo;0;L;;;;;N;;;;;
 1C852;SHAALDAA SYLLABLE DOO;Lo;0;L;;;;;N;;;;;
 1C853;SHAALDAA SYLLABLE D;Lo;0;L;;;;;N;;;;;
 1C854;SHAALDAA SYLLABLE DD BASE;Lo;0;L;;;;;N;;;;;
 1C855;SHAALDAA SYLLABLE DDA;Lo;0;L;;;;;N;;;;;
 1C856;SHAALDAA SYLLABLE DDU;Lo;0;L;;;;;N;;;;;
 1C857;SHAALDAA SYLLABLE DDI;Lo;0;L;;;;;N;;;;;
 1C858;SHAALDAA SYLLABLE DDE;Lo;0;L;;;;;N;;;;;
 1C859;SHAALDAA SYLLABLE DDO;Lo;0;L;;;;;N;;;;;
 1C85A;SHAALDAA SYLLABLE DDAA;Lo;0;L;;;;;N;;;;;
 1C85B;SHAALDAA SYLLABLE DDUU;Lo;0;L;;;;;N;;;;;
 1C85C;SHAALDAA SYLLABLE DDII;Lo;0;L;;;;;N;;;;;
 1C85D;SHAALDAA SYLLABLE DDEE;Lo;0;L;;;;;N;;;;;
 1C85E;SHAALDAA SYLLABLE DDOO;Lo;0;L;;;;;N;;;;;
 1C85F;SHAALDAA SYLLABLE DD;Lo;0;L;;;;;N;;;;;
 1C860;SHAALDAA SYLLABLE H BASE;Lo;0;L;;;;;N;;;;;
 1C861;SHAALDAA SYLLABLE HA;Lo;0;L;;;;;N;;;;;
 1C862;SHAALDAA SYLLABLE HU;Lo;0;L;;;;;N;;;;;
 1C863;SHAALDAA SYLLABLE HI;Lo;0;L;;;;;N;;;;;
 1C864;SHAALDAA SYLLABLE HE;Lo;0;L;;;;;N;;;;;
 1C865;SHAALDAA SYLLABLE HO;Lo;0;L;;;;;N;;;;;
 1C866;SHAALDAA SYLLABLE HAA;Lo;0;L;;;;;N;;;;;
 1C867;SHAALDAA SYLLABLE HUU;Lo;0;L;;;;;N;;;;;
 1C868;SHAALDAA SYLLABLE HII;Lo;0;L;;;;;N;;;;;
 1C869;SHAALDAA SYLLABLE HEE;Lo;0;L;;;;;N;;;;;
 1C86A;SHAALDAA SYLLABLE HOO;Lo;0;L;;;;;N;;;;;
 1C86B;SHAALDAA SYLLABLE H;Lo;0;L;;;;;N;;;;;
 1C86C;SHAALDAA SYLLABLE HH BASE;Lo;0;L;;;;;N;;;;;
 1C86D;SHAALDAA SYLLABLE HHA;Lo;0;L;;;;;N;;;;;
 1C86E;SHAALDAA SYLLABLE HHU;Lo;0;L;;;;;N;;;;;
 1C86F;SHAALDAA SYLLABLE HHI;Lo;0;L;;;;;N;;;;;
 1C870;SHAALDAA SYLLABLE HHE;Lo;0;L;;;;;N;;;;;
 1C871;SHAALDAA SYLLABLE HHO;Lo;0;L;;;;;N;;;;;
 1C872;SHAALDAA SYLLABLE HHAA;Lo;0;L;;;;;N;;;;;
 1C873;SHAALDAA SYLLABLE HHUU;Lo;0;L;;;;;N;;;;;
 1C874;SHAALDAA SYLLABLE HHII;Lo;0;L;;;;;N;;;;;
 1C875;SHAALDAA SYLLABLE HHEE;Lo;0;L;;;;;N;;;;;

1C876;SHAALDAA SYLLABLE HH00;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C877;SHAALDAA SYLLABLE HH;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C878;SHAALDAA SYLLABLE W BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C879;SHAALDAA SYLLABLE WA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C87A;SHAALDAA SYLLABLE WU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C87B;SHAALDAA SYLLABLE WI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C87C;SHAALDAA SYLLABLE WE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C87D;SHAALDAA SYLLABLE WO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C87E;SHAALDAA SYLLABLE WAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C87F;SHAALDAA SYLLABLE WUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C880;SHAALDAA SYLLABLE WII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C881;SHAALDAA SYLLABLE WEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C882;SHAALDAA SYLLABLE WOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C883;SHAALDAA SYLLABLE W;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C884;SHAALDAA SYLLABLE WW BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C885;SHAALDAA SYLLABLE WWA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C886;SHAALDAA SYLLABLE WWU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C887;SHAALDAA SYLLABLE WWI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C888;SHAALDAA SYLLABLE WWE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C889;SHAALDAA SYLLABLE WWO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C88A;SHAALDAA SYLLABLE WWAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C88B;SHAALDAA SYLLABLE WWUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C88C;SHAALDAA SYLLABLE WWII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C88D;SHAALDAA SYLLABLE WWEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C88E;SHAALDAA SYLLABLE WWOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C88F;SHAALDAA SYLLABLE WW;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C890;SHAALDAA SYLLABLE Z BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C891;SHAALDAA SYLLABLE ZA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C892;SHAALDAA SYLLABLE ZU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C893;SHAALDAA SYLLABLE ZI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C894;SHAALDAA SYLLABLE ZE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C895;SHAALDAA SYLLABLE ZO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C896;SHAALDAA SYLLABLE ZAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C897;SHAALDAA SYLLABLE ZUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C898;SHAALDAA SYLLABLE ZII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C899;SHAALDAA SYLLABLE ZEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C89A;SHAALDAA SYLLABLE ZOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C89B;SHAALDAA SYLLABLE Z;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C89C;SHAALDAA SYLLABLE ZZ BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C89D;SHAALDAA SYLLABLE ZZA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C89E;SHAALDAA SYLLABLE ZZU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C89F;SHAALDAA SYLLABLE ZZI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A0;SHAALDAA SYLLABLE ZZE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A1;SHAALDAA SYLLABLE ZZO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A2;SHAALDAA SYLLABLE ZZAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A3;SHAALDAA SYLLABLE ZZUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A4;SHAALDAA SYLLABLE ZZII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A5;SHAALDAA SYLLABLE ZZEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A6;SHAALDAA SYLLABLE ZZOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A7;SHAALDAA SYLLABLE ZZ;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A8;SHAALDAA SYLLABLE HX BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8A9;SHAALDAA SYLLABLE HXA;Lo;0;L; ; ; ; ; N; ; ; ; ;

1C8AA;SHAALDAA SYLLABLE HXU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8AB;SHAALDAA SYLLABLE HXI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8AC;SHAALDAA SYLLABLE HXE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8AD;SHAALDAA SYLLABLE HXO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8AE;SHAALDAA SYLLABLE HXAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8AF;SHAALDAA SYLLABLE HXUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B0;SHAALDAA SYLLABLE HXII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B1;SHAALDAA SYLLABLE HXEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B2;SHAALDAA SYLLABLE HXOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B3;SHAALDAA SYLLABLE HX;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B4;SHAALDAA SYLLABLE HHX BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B5;SHAALDAA SYLLABLE HHXA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B6;SHAALDAA SYLLABLE HHXU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B7;SHAALDAA SYLLABLE HHXI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B8;SHAALDAA SYLLABLE HHXE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8B9;SHAALDAA SYLLABLE HHXO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8BA;SHAALDAA SYLLABLE HHXAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8BB;SHAALDAA SYLLABLE HHXUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8BC;SHAALDAA SYLLABLE HHXII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8BD;SHAALDAA SYLLABLE HHXEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8BE;SHAALDAA SYLLABLE HHXOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8BF;SHAALDAA SYLLABLE HHX;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C0;SHAALDAA SYLLABLE X BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C1;SHAALDAA SYLLABLE XA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C2;SHAALDAA SYLLABLE XU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C3;SHAALDAA SYLLABLE XI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C4;SHAALDAA SYLLABLE XE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C5;SHAALDAA SYLLABLE XO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C6;SHAALDAA SYLLABLE XAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C7;SHAALDAA SYLLABLE XUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C8;SHAALDAA SYLLABLE XII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8C9;SHAALDAA SYLLABLE XEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8CA;SHAALDAA SYLLABLE XOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8CB;SHAALDAA SYLLABLE X;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8CC;SHAALDAA SYLLABLE XX BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8CD;SHAALDAA SYLLABLE XXA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8CE;SHAALDAA SYLLABLE XXU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8CF;SHAALDAA SYLLABLE XXI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D0;SHAALDAA SYLLABLE XXE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D1;SHAALDAA SYLLABLE XXO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D2;SHAALDAA SYLLABLE XXAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D3;SHAALDAA SYLLABLE XXUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D4;SHAALDAA SYLLABLE XXII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D5;SHAALDAA SYLLABLE XXEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D6;SHAALDAA SYLLABLE XXOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D7;SHAALDAA SYLLABLE XX;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D8;SHAALDAA SYLLABLE Y BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8D9;SHAALDAA SYLLABLE YA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8DA;SHAALDAA SYLLABLE YU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8DB;SHAALDAA SYLLABLE YI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8DC;SHAALDAA SYLLABLE YE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8DD;SHAALDAA SYLLABLE YO;Lo;0;L; ; ; ; ; N; ; ; ; ;

1C8DE;SHAALDAA SYLLABLE YAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8DF;SHAALDAA SYLLABLE YUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E0;SHAALDAA SYLLABLE YII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E1;SHAALDAA SYLLABLE YEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E2;SHAALDAA SYLLABLE YOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E3;SHAALDAA SYLLABLE Y;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E4;SHAALDAA SYLLABLE YY BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E5;SHAALDAA SYLLABLE YYA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E6;SHAALDAA SYLLABLE YYU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E7;SHAALDAA SYLLABLE YYI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E8;SHAALDAA SYLLABLE YYE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8E9;SHAALDAA SYLLABLE YYO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8EA;SHAALDAA SYLLABLE YYAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8EB;SHAALDAA SYLLABLE YYUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8EC;SHAALDAA SYLLABLE YYII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8ED;SHAALDAA SYLLABLE YYEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8EE;SHAALDAA SYLLABLE YYOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8EF;SHAALDAA SYLLABLE YY;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F0;SHAALDAA SYLLABLE K BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F1;SHAALDAA SYLLABLE KA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F2;SHAALDAA SYLLABLE KU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F3;SHAALDAA SYLLABLE KI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F4;SHAALDAA SYLLABLE KE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F5;SHAALDAA SYLLABLE KO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F6;SHAALDAA SYLLABLE KAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F7;SHAALDAA SYLLABLE KUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F8;SHAALDAA SYLLABLE KII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8F9;SHAALDAA SYLLABLE KEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8FA;SHAALDAA SYLLABLE KOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8FB;SHAALDAA SYLLABLE K;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8FC;SHAALDAA SYLLABLE KK BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8FD;SHAALDAA SYLLABLE KKA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8FE;SHAALDAA SYLLABLE K KU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C8FF;SHAALDAA SYLLABLE K KI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C900;SHAALDAA SYLLABLE K KE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C901;SHAALDAA SYLLABLE K KO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C902;SHAALDAA SYLLABLE K KAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C903;SHAALDAA SYLLABLE K KUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C904;SHAALDAA SYLLABLE K KII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C905;SHAALDAA SYLLABLE K KEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C906;SHAALDAA SYLLABLE K KOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C907;SHAALDAA SYLLABLE K K;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C908;SHAALDAA SYLLABLE L BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C909;SHAALDAA SYLLABLE LA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C90A;SHAALDAA SYLLABLE LU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C90B;SHAALDAA SYLLABLE LI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C90C;SHAALDAA SYLLABLE LE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C90D;SHAALDAA SYLLABLE LO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C90E;SHAALDAA SYLLABLE LAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C90F;SHAALDAA SYLLABLE LUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C910;SHAALDAA SYLLABLE LII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C911;SHAALDAA SYLLABLE LEE;Lo;0;L; ; ; ; ; N; ; ; ; ;

1C912;SHAALDAA SYLLABLE LOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C913;SHAALDAA SYLLABLE L;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C914;SHAALDAA SYLLABLE LL BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C915;SHAALDAA SYLLABLE LLA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C916;SHAALDAA SYLLABLE LLU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C917;SHAALDAA SYLLABLE LLI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C918;SHAALDAA SYLLABLE LLE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C919;SHAALDAA SYLLABLE LLO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C91A;SHAALDAA SYLLABLE LLAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C91B;SHAALDAA SYLLABLE LLUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C91C;SHAALDAA SYLLABLE LLII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C91D;SHAALDAA SYLLABLE LLEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C91E;SHAALDAA SYLLABLE LLOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C91F;SHAALDAA SYLLABLE LL;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C920;SHAALDAA SYLLABLE M BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C921;SHAALDAA SYLLABLE MA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C922;SHAALDAA SYLLABLE MU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C923;SHAALDAA SYLLABLE MI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C924;SHAALDAA SYLLABLE ME;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C925;SHAALDAA SYLLABLE MO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C926;SHAALDAA SYLLABLE MAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C927;SHAALDAA SYLLABLE MUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C928;SHAALDAA SYLLABLE MII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C929;SHAALDAA SYLLABLE MEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C92A;SHAALDAA SYLLABLE MOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C92B;SHAALDAA SYLLABLE M;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C92C;SHAALDAA SYLLABLE MM BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C92D;SHAALDAA SYLLABLE MMA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C92E;SHAALDAA SYLLABLE MMU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C92F;SHAALDAA SYLLABLE MMI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C930;SHAALDAA SYLLABLE MME;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C931;SHAALDAA SYLLABLE MMO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C932;SHAALDAA SYLLABLE MMAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C933;SHAALDAA SYLLABLE MMUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C934;SHAALDAA SYLLABLE MMII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C935;SHAALDAA SYLLABLE MMEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C936;SHAALDAA SYLLABLE MMOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C937;SHAALDAA SYLLABLE MM;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C938;SHAALDAA SYLLABLE N BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C939;SHAALDAA SYLLABLE NA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C93A;SHAALDAA SYLLABLE NU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C93B;SHAALDAA SYLLABLE NI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C93C;SHAALDAA SYLLABLE NE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C93D;SHAALDAA SYLLABLE NO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C93E;SHAALDAA SYLLABLE NAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C93F;SHAALDAA SYLLABLE NUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C940;SHAALDAA SYLLABLE NII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C941;SHAALDAA SYLLABLE NEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C942;SHAALDAA SYLLABLE NOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C943;SHAALDAA SYLLABLE N;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C944;SHAALDAA SYLLABLE NN BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C945;SHAALDAA SYLLABLE NNA;Lo;0;L; ; ; ; ; N; ; ; ; ;

1C946;SHAALDAA SYLLABLE NNU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C947;SHAALDAA SYLLABLE NNI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C948;SHAALDAA SYLLABLE NNE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C949;SHAALDAA SYLLABLE NNO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C94A;SHAALDAA SYLLABLE NNAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C94B;SHAALDAA SYLLABLE NNUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C94C;SHAALDAA SYLLABLE NNII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C94D;SHAALDAA SYLLABLE NNEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C94E;SHAALDAA SYLLABLE NNOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C94F;SHAALDAA SYLLABLE NN;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C950;SHAALDAA SYLLABLE S BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C951;SHAALDAA SYLLABLE SA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C952;SHAALDAA SYLLABLE SU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C953;SHAALDAA SYLLABLE SI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C954;SHAALDAA SYLLABLE SE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C955;SHAALDAA SYLLABLE SO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C956;SHAALDAA SYLLABLE SAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C957;SHAALDAA SYLLABLE SUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C958;SHAALDAA SYLLABLE SII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C959;SHAALDAA SYLLABLE SEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C95A;SHAALDAA SYLLABLE SOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C95B;SHAALDAA SYLLABLE S;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C95C;SHAALDAA SYLLABLE SS BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C95D;SHAALDAA SYLLABLE SSA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C95E;SHAALDAA SYLLABLE SSU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C95F;SHAALDAA SYLLABLE SSI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C960;SHAALDAA SYLLABLE SSE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C961;SHAALDAA SYLLABLE SSO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C962;SHAALDAA SYLLABLE SSAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C963;SHAALDAA SYLLABLE SSUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C964;SHAALDAA SYLLABLE SSII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C965;SHAALDAA SYLLABLE SSEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C966;SHAALDAA SYLLABLE SSOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C967;SHAALDAA SYLLABLE SS;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C968;SHAALDAA SYLLABLE F BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C969;SHAALDAA SYLLABLE FA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C96A;SHAALDAA SYLLABLE FU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C96B;SHAALDAA SYLLABLE FI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C96C;SHAALDAA SYLLABLE FE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C96D;SHAALDAA SYLLABLE FO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C96E;SHAALDAA SYLLABLE FAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C96F;SHAALDAA SYLLABLE FUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C970;SHAALDAA SYLLABLE FII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C971;SHAALDAA SYLLABLE FEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C972;SHAALDAA SYLLABLE FOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C973;SHAALDAA SYLLABLE F;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C974;SHAALDAA SYLLABLE FF BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C975;SHAALDAA SYLLABLE FFA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C976;SHAALDAA SYLLABLE FFU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C977;SHAALDAA SYLLABLE FFI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C978;SHAALDAA SYLLABLE FFE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C979;SHAALDAA SYLLABLE FFO;Lo;0;L; ; ; ; ; N; ; ; ; ;

1C97A;SHAALDAA SYLLABLE FFAA;Lo;0;L;;;;;N;;;;;
 1C97B;SHAALDAA SYLLABLE FFUU;Lo;0;L;;;;;N;;;;;
 1C97C;SHAALDAA SYLLABLE FFII;Lo;0;L;;;;;N;;;;;
 1C97D;SHAALDAA SYLLABLE FFEE;Lo;0;L;;;;;N;;;;;
 1C97E;SHAALDAA SYLLABLE FFOO;Lo;0;L;;;;;N;;;;;
 1C97F;SHAALDAA SYLLABLE FF;Lo;0;L;;;;;N;;;;;
 1C980;SHAALDAA SYLLABLE ALTERNATE S BASE;Lo;0;L;;;;;N;;;;;
 1C981;SHAALDAA SYLLABLE ALTERNATE SA;Lo;0;L;;;;;N;;;;;
 1C982;SHAALDAA SYLLABLE ALTERNATE SU;Lo;0;L;;;;;N;;;;;
 1C983;SHAALDAA SYLLABLE ALTERNATE SI;Lo;0;L;;;;;N;;;;;
 1C984;SHAALDAA SYLLABLE ALTERNATE SE;Lo;0;L;;;;;N;;;;;
 1C985;SHAALDAA SYLLABLE ALTERNATE SO;Lo;0;L;;;;;N;;;;;
 1C986;SHAALDAA SYLLABLE ALTERNATE SAA;Lo;0;L;;;;;N;;;;;
 1C987;SHAALDAA SYLLABLE ALTERNATE SUU;Lo;0;L;;;;;N;;;;;
 1C988;SHAALDAA SYLLABLE ALTERNATE SII;Lo;0;L;;;;;N;;;;;
 1C989;SHAALDAA SYLLABLE ALTERNATE SEE;Lo;0;L;;;;;N;;;;;
 1C98A;SHAALDAA SYLLABLE ALTERNATE S00;Lo;0;L;;;;;N;;;;;
 1C98B;SHAALDAA SYLLABLE ALTERNATE S;Lo;0;L;;;;;N;;;;;
 1C98C;SHAALDAA SYLLABLE ALTERNATE SS BASE;Lo;0;L;;;;;N;;;;;
 1C98D;SHAALDAA SYLLABLE ALTERNATE SSA;Lo;0;L;;;;;N;;;;;
 1C98E;SHAALDAA SYLLABLE ALTERNATE SSU;Lo;0;L;;;;;N;;;;;
 1C98F;SHAALDAA SYLLABLE ALTERNATE SSI;Lo;0;L;;;;;N;;;;;
 1C990;SHAALDAA SYLLABLE ALTERNATE SSE;Lo;0;L;;;;;N;;;;;
 1C991;SHAALDAA SYLLABLE ALTERNATE SSO;Lo;0;L;;;;;N;;;;;
 1C992;SHAALDAA SYLLABLE ALTERNATE SSAA;Lo;0;L;;;;;N;;;;;
 1C993;SHAALDAA SYLLABLE ALTERNATE SSUU;Lo;0;L;;;;;N;;;;;
 1C994;SHAALDAA SYLLABLE ALTERNATE SSII;Lo;0;L;;;;;N;;;;;
 1C995;SHAALDAA SYLLABLE ALTERNATE SSEE;Lo;0;L;;;;;N;;;;;
 1C996;SHAALDAA SYLLABLE ALTERNATE SS00;Lo;0;L;;;;;N;;;;;
 1C997;SHAALDAA SYLLABLE ALTERNATE SS;Lo;0;L;;;;;N;;;;;
 1C998;SHAALDAA SYLLABLE Q BASE;Lo;0;L;;;;;N;;;;;
 1C999;SHAALDAA SYLLABLE QA;Lo;0;L;;;;;N;;;;;
 1C99A;SHAALDAA SYLLABLE QU;Lo;0;L;;;;;N;;;;;
 1C99B;SHAALDAA SYLLABLE QI;Lo;0;L;;;;;N;;;;;
 1C99C;SHAALDAA SYLLABLE QE;Lo;0;L;;;;;N;;;;;
 1C99D;SHAALDAA SYLLABLE QO;Lo;0;L;;;;;N;;;;;
 1C99E;SHAALDAA SYLLABLE QAA;Lo;0;L;;;;;N;;;;;
 1C99F;SHAALDAA SYLLABLE QUU;Lo;0;L;;;;;N;;;;;
 1C9A0;SHAALDAA SYLLABLE QUI;Lo;0;L;;;;;N;;;;;
 1C9A1;SHAALDAA SYLLABLE QEE;Lo;0;L;;;;;N;;;;;
 1C9A2;SHAALDAA SYLLABLE QOO;Lo;0;L;;;;;N;;;;;
 1C9A3;SHAALDAA SYLLABLE Q;Lo;0;L;;;;;N;;;;;
 1C9A4;SHAALDAA SYLLABLE QQ BASE;Lo;0;L;;;;;N;;;;;
 1C9A5;SHAALDAA SYLLABLE QQA;Lo;0;L;;;;;N;;;;;
 1C9A6;SHAALDAA SYLLABLE QQU;Lo;0;L;;;;;N;;;;;
 1C9A7;SHAALDAA SYLLABLE QQI;Lo;0;L;;;;;N;;;;;
 1C9A8;SHAALDAA SYLLABLE QQE;Lo;0;L;;;;;N;;;;;
 1C9A9;SHAALDAA SYLLABLE QOO;Lo;0;L;;;;;N;;;;;
 1C9AA;SHAALDAA SYLLABLE QQAA;Lo;0;L;;;;;N;;;;;
 1C9AB;SHAALDAA SYLLABLE QQUU;Lo;0;L;;;;;N;;;;;
 1C9AC;SHAALDAA SYLLABLE QQII;Lo;0;L;;;;;N;;;;;
 1C9AD;SHAALDAA SYLLABLE QQEE;Lo;0;L;;;;;N;;;;;

1C9AE;SHAALDAA SYLLABLE QQ00;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9AF;SHAALDAA SYLLABLE QQ;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B0;SHAALDAA SYLLABLE R BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B1;SHAALDAA SYLLABLE RA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B2;SHAALDAA SYLLABLE RU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B3;SHAALDAA SYLLABLE RI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B4;SHAALDAA SYLLABLE RE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B5;SHAALDAA SYLLABLE RO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B6;SHAALDAA SYLLABLE RAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B7;SHAALDAA SYLLABLE RUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B8;SHAALDAA SYLLABLE RII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9B9;SHAALDAA SYLLABLE REE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9BA;SHAALDAA SYLLABLE ROO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9BB;SHAALDAA SYLLABLE R;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9BC;SHAALDAA SYLLABLE RR BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9BD;SHAALDAA SYLLABLE RRA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9BE;SHAALDAA SYLLABLE RRU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9BF;SHAALDAA SYLLABLE RRI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C0;SHAALDAA SYLLABLE RRE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C1;SHAALDAA SYLLABLE RRO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C2;SHAALDAA SYLLABLE RRAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C3;SHAALDAA SYLLABLE RRUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C4;SHAALDAA SYLLABLE RRRI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C5;SHAALDAA SYLLABLE RREE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C6;SHAALDAA SYLLABLE RROO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C7;SHAALDAA SYLLABLE RR;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C8;SHAALDAA SYLLABLE SH BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9C9;SHAALDAA SYLLABLE SHA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9CA;SHAALDAA SYLLABLE SHU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9CB;SHAALDAA SYLLABLE SHI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9CC;SHAALDAA SYLLABLE SHE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9CD;SHAALDAA SYLLABLE SHO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9CE;SHAALDAA SYLLABLE SHAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9CF;SHAALDAA SYLLABLE SHUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D0;SHAALDAA SYLLABLE SHII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D1;SHAALDAA SYLLABLE SHEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D2;SHAALDAA SYLLABLE SHOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D3;SHAALDAA SYLLABLE SH;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D4;SHAALDAA SYLLABLE SSH BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D5;SHAALDAA SYLLABLE SSHA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D6;SHAALDAA SYLLABLE SSHU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D7;SHAALDAA SYLLABLE SSHI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D8;SHAALDAA SYLLABLE SSHE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9D9;SHAALDAA SYLLABLE SSHO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9DA;SHAALDAA SYLLABLE SSHAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9DB;SHAALDAA SYLLABLE SSHUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9DC;SHAALDAA SYLLABLE SSHII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9DD;SHAALDAA SYLLABLE SSHEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9DE;SHAALDAA SYLLABLE SSHOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9DF;SHAALDAA SYLLABLE SSH;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9E0;SHAALDAA SYLLABLE T BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1C9E1;SHAALDAA SYLLABLE TA;Lo;0;L; ; ; ; ; N; ; ; ; ;

1C9E2;SHAALDAA SYLLABLE TU;Lo;0;L;;;;;N;;;;;
 1C9E3;SHAALDAA SYLLABLE TI;Lo;0;L;;;;;N;;;;;
 1C9E4;SHAALDAA SYLLABLE TE;Lo;0;L;;;;;N;;;;;
 1C9E5;SHAALDAA SYLLABLE TO;Lo;0;L;;;;;N;;;;;
 1C9E6;SHAALDAA SYLLABLE TAA;Lo;0;L;;;;;N;;;;;
 1C9E7;SHAALDAA SYLLABLE TUU;Lo;0;L;;;;;N;;;;;
 1C9E8;SHAALDAA SYLLABLE TII;Lo;0;L;;;;;N;;;;;
 1C9E9;SHAALDAA SYLLABLE TEE;Lo;0;L;;;;;N;;;;;
 1C9EA;SHAALDAA SYLLABLE TOO;Lo;0;L;;;;;N;;;;;
 1C9EB;SHAALDAA SYLLABLE T;Lo;0;L;;;;;N;;;;;
 1C9EC;SHAALDAA SYLLABLE TT BASE;Lo;0;L;;;;;N;;;;;
 1C9ED;SHAALDAA SYLLABLE TTA;Lo;0;L;;;;;N;;;;;
 1C9EE;SHAALDAA SYLLABLE TTU;Lo;0;L;;;;;N;;;;;
 1C9EF;SHAALDAA SYLLABLE TTI;Lo;0;L;;;;;N;;;;;
 1C9F0;SHAALDAA SYLLABLE TTE;Lo;0;L;;;;;N;;;;;
 1C9F1;SHAALDAA SYLLABLE TTO;Lo;0;L;;;;;N;;;;;
 1C9F2;SHAALDAA SYLLABLE TTAA;Lo;0;L;;;;;N;;;;;
 1C9F3;SHAALDAA SYLLABLE TTUU;Lo;0;L;;;;;N;;;;;
 1C9F4;SHAALDAA SYLLABLE TTII;Lo;0;L;;;;;N;;;;;
 1C9F5;SHAALDAA SYLLABLE TTEE;Lo;0;L;;;;;N;;;;;
 1C9F6;SHAALDAA SYLLABLE TTOO;Lo;0;L;;;;;N;;;;;
 1C9F7;SHAALDAA SYLLABLE TT;Lo;0;L;;;;;N;;;;;
 1C9F8;SHAALDAA SYLLABLE KH BASE;Lo;0;L;;;;;N;;;;;
 1C9F9;SHAALDAA SYLLABLE KHA;Lo;0;L;;;;;N;;;;;
 1C9FA;SHAALDAA SYLLABLE KHU;Lo;0;L;;;;;N;;;;;
 1C9FB;SHAALDAA SYLLABLE KHI;Lo;0;L;;;;;N;;;;;
 1C9FC;SHAALDAA SYLLABLE KHE;Lo;0;L;;;;;N;;;;;
 1C9FD;SHAALDAA SYLLABLE KHO;Lo;0;L;;;;;N;;;;;
 1C9FE;SHAALDAA SYLLABLE KHAA;Lo;0;L;;;;;N;;;;;
 1C9FF;SHAALDAA SYLLABLE KHUU;Lo;0;L;;;;;N;;;;;
 1CA00;SHAALDAA SYLLABLE KHII;Lo;0;L;;;;;N;;;;;
 1CA01;SHAALDAA SYLLABLE KHEE;Lo;0;L;;;;;N;;;;;
 1CA02;SHAALDAA SYLLABLE KHOO;Lo;0;L;;;;;N;;;;;
 1CA03;SHAALDAA SYLLABLE KH;Lo;0;L;;;;;N;;;;;
 1CA04;SHAALDAA SYLLABLE KKH BASE;Lo;0;L;;;;;N;;;;;
 1CA05;SHAALDAA SYLLABLE KKHA;Lo;0;L;;;;;N;;;;;
 1CA06;SHAALDAA SYLLABLE KKHU;Lo;0;L;;;;;N;;;;;
 1CA07;SHAALDAA SYLLABLE KKHI;Lo;0;L;;;;;N;;;;;
 1CA08;SHAALDAA SYLLABLE KKHE;Lo;0;L;;;;;N;;;;;
 1CA09;SHAALDAA SYLLABLE KKHO;Lo;0;L;;;;;N;;;;;
 1CA0A;SHAALDAA SYLLABLE KKHAA;Lo;0;L;;;;;N;;;;;
 1CA0B;SHAALDAA SYLLABLE KKHUU;Lo;0;L;;;;;N;;;;;
 1CA0C;SHAALDAA SYLLABLE KKHII;Lo;0;L;;;;;N;;;;;
 1CA0D;SHAALDAA SYLLABLE KKHEE;Lo;0;L;;;;;N;;;;;
 1CA0E;SHAALDAA SYLLABLE KKHOO;Lo;0;L;;;;;N;;;;;
 1CA0F;SHAALDAA SYLLABLE KKH;Lo;0;L;;;;;N;;;;;
 1CA10;SHAALDAA SYLLABLE DH BASE;Lo;0;L;;;;;N;;;;;
 1CA11;SHAALDAA SYLLABLE DHA;Lo;0;L;;;;;N;;;;;
 1CA12;SHAALDAA SYLLABLE DHU;Lo;0;L;;;;;N;;;;;
 1CA13;SHAALDAA SYLLABLE DHI;Lo;0;L;;;;;N;;;;;
 1CA14;SHAALDAA SYLLABLE DHE;Lo;0;L;;;;;N;;;;;
 1CA15;SHAALDAA SYLLABLE DHO;Lo;0;L;;;;;N;;;;;

1CA16;SHAALDAA SYLLABLE DHAA;Lo;0;L;;;;;N;;;;;
 1CA17;SHAALDAA SYLLABLE DHUU;Lo;0;L;;;;;N;;;;;
 1CA18;SHAALDAA SYLLABLE DHII;Lo;0;L;;;;;N;;;;;
 1CA19;SHAALDAA SYLLABLE DHEE;Lo;0;L;;;;;N;;;;;
 1CA1A;SHAALDAA SYLLABLE DHOO;Lo;0;L;;;;;N;;;;;
 1CA1B;SHAALDAA SYLLABLE DH;Lo;0;L;;;;;N;;;;;
 1CA1C;SHAALDAA SYLLABLE DDH BASE;Lo;0;L;;;;;N;;;;;
 1CA1D;SHAALDAA SYLLABLE DDHA;Lo;0;L;;;;;N;;;;;
 1CA1E;SHAALDAA SYLLABLE DDHU;Lo;0;L;;;;;N;;;;;
 1CA1F;SHAALDAA SYLLABLE DDHI;Lo;0;L;;;;;N;;;;;
 1CA20;SHAALDAA SYLLABLE DDHE;Lo;0;L;;;;;N;;;;;
 1CA21;SHAALDAA SYLLABLE DDHO;Lo;0;L;;;;;N;;;;;
 1CA22;SHAALDAA SYLLABLE DDHAA;Lo;0;L;;;;;N;;;;;
 1CA23;SHAALDAA SYLLABLE DDHUU;Lo;0;L;;;;;N;;;;;
 1CA24;SHAALDAA SYLLABLE DDHII;Lo;0;L;;;;;N;;;;;
 1CA25;SHAALDAA SYLLABLE DDHEE;Lo;0;L;;;;;N;;;;;
 1CA26;SHAALDAA SYLLABLE DDHOO;Lo;0;L;;;;;N;;;;;
 1CA27;SHAALDAA SYLLABLE DDH;Lo;0;L;;;;;N;;;;;
 1CA28;SHAALDAA SYLLABLE G BASE;Lo;0;L;;;;;N;;;;;
 1CA29;SHAALDAA SYLLABLE GA;Lo;0;L;;;;;N;;;;;
 1CA2A;SHAALDAA SYLLABLE GU;Lo;0;L;;;;;N;;;;;
 1CA2B;SHAALDAA SYLLABLE GI;Lo;0;L;;;;;N;;;;;
 1CA2C;SHAALDAA SYLLABLE GE;Lo;0;L;;;;;N;;;;;
 1CA2D;SHAALDAA SYLLABLE GO;Lo;0;L;;;;;N;;;;;
 1CA2E;SHAALDAA SYLLABLE GAA;Lo;0;L;;;;;N;;;;;
 1CA2F;SHAALDAA SYLLABLE GUU;Lo;0;L;;;;;N;;;;;
 1CA30;SHAALDAA SYLLABLE GII;Lo;0;L;;;;;N;;;;;
 1CA31;SHAALDAA SYLLABLE GEE;Lo;0;L;;;;;N;;;;;
 1CA32;SHAALDAA SYLLABLE GOO;Lo;0;L;;;;;N;;;;;
 1CA33;SHAALDAA SYLLABLE G;Lo;0;L;;;;;N;;;;;
 1CA34;SHAALDAA SYLLABLE GG BASE;Lo;0;L;;;;;N;;;;;
 1CA35;SHAALDAA SYLLABLE GGA;Lo;0;L;;;;;N;;;;;
 1CA36;SHAALDAA SYLLABLE GGU;Lo;0;L;;;;;N;;;;;
 1CA37;SHAALDAA SYLLABLE GGI;Lo;0;L;;;;;N;;;;;
 1CA38;SHAALDAA SYLLABLE GGE;Lo;0;L;;;;;N;;;;;
 1CA39;SHAALDAA SYLLABLE GGO;Lo;0;L;;;;;N;;;;;
 1CA3A;SHAALDAA SYLLABLE GGAA;Lo;0;L;;;;;N;;;;;
 1CA3B;SHAALDAA SYLLABLE GGUU;Lo;0;L;;;;;N;;;;;
 1CA3C;SHAALDAA SYLLABLE GGII;Lo;0;L;;;;;N;;;;;
 1CA3D;SHAALDAA SYLLABLE GGEE;Lo;0;L;;;;;N;;;;;
 1CA3E;SHAALDAA SYLLABLE GG OO;Lo;0;L;;;;;N;;;;;
 1CA3F;SHAALDAA SYLLABLE GG;Lo;0;L;;;;;N;;;;;
 1CA40;SHAALDAA SYLLABLE C BASE;Lo;0;L;;;;;N;;;;;
 1CA41;SHAALDAA SYLLABLE CA;Lo;0;L;;;;;N;;;;;
 1CA42;SHAALDAA SYLLABLE CU;Lo;0;L;;;;;N;;;;;
 1CA43;SHAALDAA SYLLABLE CI;Lo;0;L;;;;;N;;;;;
 1CA44;SHAALDAA SYLLABLE CE;Lo;0;L;;;;;N;;;;;
 1CA45;SHAALDAA SYLLABLE CO;Lo;0;L;;;;;N;;;;;
 1CA46;SHAALDAA SYLLABLE CAA;Lo;0;L;;;;;N;;;;;
 1CA47;SHAALDAA SYLLABLE CUU;Lo;0;L;;;;;N;;;;;
 1CA48;SHAALDAA SYLLABLE CII;Lo;0;L;;;;;N;;;;;
 1CA49;SHAALDAA SYLLABLE CEE;Lo;0;L;;;;;N;;;;;

1CA4A;SHAALDAA SYLLABLE COO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA4B;SHAALDAA SYLLABLE C;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA4C;SHAALDAA SYLLABLE CC BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA4D;SHAALDAA SYLLABLE CCA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA4E;SHAALDAA SYLLABLE CCU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA4F;SHAALDAA SYLLABLE CCI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA50;SHAALDAA SYLLABLE CCE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA51;SHAALDAA SYLLABLE CCO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA52;SHAALDAA SYLLABLE CCAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA53;SHAALDAA SYLLABLE CCUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA54;SHAALDAA SYLLABLE CCII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA55;SHAALDAA SYLLABLE CCEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA56;SHAALDAA SYLLABLE CCOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA57;SHAALDAA SYLLABLE CC;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA58;SHAALDAA SYLLABLE NY BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA59;SHAALDAA SYLLABLE NYA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA5A;SHAALDAA SYLLABLE NYU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA5B;SHAALDAA SYLLABLE NYI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA5C;SHAALDAA SYLLABLE NYE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA5D;SHAALDAA SYLLABLE NYO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA5E;SHAALDAA SYLLABLE NYAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA5F;SHAALDAA SYLLABLE NYUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA60;SHAALDAA SYLLABLE NYII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA61;SHAALDAA SYLLABLE NYEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA62;SHAALDAA SYLLABLE NYOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA63;SHAALDAA SYLLABLE NY;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA64;SHAALDAA SYLLABLE NNY BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA65;SHAALDAA SYLLABLE NNYA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA66;SHAALDAA SYLLABLE NNYU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA67;SHAALDAA SYLLABLE NNYI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA68;SHAALDAA SYLLABLE NNYE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA69;SHAALDAA SYLLABLE NNYO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA6A;SHAALDAA SYLLABLE NNYAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA6B;SHAALDAA SYLLABLE NNYUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA6C;SHAALDAA SYLLABLE NNYII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA6D;SHAALDAA SYLLABLE NNYEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA6E;SHAALDAA SYLLABLE NNYOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA6F;SHAALDAA SYLLABLE NNY;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA70;SHAALDAA SYLLABLE CH BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA71;SHAALDAA SYLLABLE CHA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA72;SHAALDAA SYLLABLE CHU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA73;SHAALDAA SYLLABLE CHI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA74;SHAALDAA SYLLABLE CHE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA75;SHAALDAA SYLLABLE CHO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA76;SHAALDAA SYLLABLE CHAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA77;SHAALDAA SYLLABLE CHUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA78;SHAALDAA SYLLABLE CHII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA79;SHAALDAA SYLLABLE CHEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA7A;SHAALDAA SYLLABLE CHOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA7B;SHAALDAA SYLLABLE CH;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA7C;SHAALDAA SYLLABLE CCH BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CA7D;SHAALDAA SYLLABLE CCHA;Lo;0;L; ; ; ; ; N; ; ; ; ;

1CA7E;SHAALDAA SYLLABLE CCHU;Lo;0;L;;;;;N;;;;;
1CA7F;SHAALDAA SYLLABLE CCHI;Lo;0;L;;;;;N;;;;;
1CA80;SHAALDAA SYLLABLE CCHE;Lo;0;L;;;;;N;;;;;
1CA81;SHAALDAA SYLLABLE CCHO;Lo;0;L;;;;;N;;;;;
1CA82;SHAALDAA SYLLABLE CCHAA;Lo;0;L;;;;;N;;;;;
1CA83;SHAALDAA SYLLABLE CCHUU;Lo;0;L;;;;;N;;;;;
1CA84;SHAALDAA SYLLABLE CCHII;Lo;0;L;;;;;N;;;;;
1CA85;SHAALDAA SYLLABLE CCHEE;Lo;0;L;;;;;N;;;;;
1CA86;SHAALDAA SYLLABLE CCHOO;Lo;0;L;;;;;N;;;;;
1CA87;SHAALDAA SYLLABLE CCH;Lo;0;L;;;;;N;;;;;
1CA88;SHAALDAA SYLLABLE PH BASE;Lo;0;L;;;;;N;;;;;
1CA89;SHAALDAA SYLLABLE PHA;Lo;0;L;;;;;N;;;;;
1CA8A;SHAALDAA SYLLABLE PHU;Lo;0;L;;;;;N;;;;;
1CA8B;SHAALDAA SYLLABLE PHI;Lo;0;L;;;;;N;;;;;
1CA8C;SHAALDAA SYLLABLE PHE;Lo;0;L;;;;;N;;;;;
1CA8D;SHAALDAA SYLLABLE PHO;Lo;0;L;;;;;N;;;;;
1CA8E;SHAALDAA SYLLABLE PHAA;Lo;0;L;;;;;N;;;;;
1CA8F;SHAALDAA SYLLABLE PHUU;Lo;0;L;;;;;N;;;;;
1CA90;SHAALDAA SYLLABLE PHII;Lo;0;L;;;;;N;;;;;
1CA91;SHAALDAA SYLLABLE PHEE;Lo;0;L;;;;;N;;;;;
1CA92;SHAALDAA SYLLABLE PHOO;Lo;0;L;;;;;N;;;;;
1CA93;SHAALDAA SYLLABLE PH;Lo;0;L;;;;;N;;;;;
1CA94;SHAALDAA SYLLABLE PPH BASE;Lo;0;L;;;;;N;;;;;
1CA95;SHAALDAA SYLLABLE PPHA;Lo;0;L;;;;;N;;;;;
1CA96;SHAALDAA SYLLABLE PPHU;Lo;0;L;;;;;N;;;;;
1CA97;SHAALDAA SYLLABLE PPHI;Lo;0;L;;;;;N;;;;;
1CA98;SHAALDAA SYLLABLE PPHE;Lo;0;L;;;;;N;;;;;
1CA99;SHAALDAA SYLLABLE PPHO;Lo;0;L;;;;;N;;;;;
1CA9A;SHAALDAA SYLLABLE PPHAA;Lo;0;L;;;;;N;;;;;
1CA9B;SHAALDAA SYLLABLE PPHUU;Lo;0;L;;;;;N;;;;;
1CA9C;SHAALDAA SYLLABLE PPHII;Lo;0;L;;;;;N;;;;;
1CA9D;SHAALDAA SYLLABLE PPHEE;Lo;0;L;;;;;N;;;;;
1CA9E;SHAALDAA SYLLABLE PPHOO;Lo;0;L;;;;;N;;;;;
1CA9F;SHAALDAA SYLLABLE PPH;Lo;0;L;;;;;N;;;;;
1CAA0;SHAALDAA PHARYNGEAL BASE;Lo;0;L;;;;;N;;;;;
1CAA1;SHAALDAA PHARYNGEAL A;Lo;0;L;;;;;N;;;;;
1CAA2;SHAALDAA PHARYNGEAL U;Lo;0;L;;;;;N;;;;;
1CAA3;SHAALDAA PHARYNGEAL I;Lo;0;L;;;;;N;;;;;
1CAA4;SHAALDAA PHARYNGEAL E;Lo;0;L;;;;;N;;;;;
1CAA5;SHAALDAA PHARYNGEAL O;Lo;0;L;;;;;N;;;;;
1CAA6;SHAALDAA PHARYNGEAL AA;Lo;0;L;;;;;N;;;;;
1CAA7;SHAALDAA PHARYNGEAL UU;Lo;0;L;;;;;N;;;;;
1CAA8;SHAALDAA PHARYNGEAL II;Lo;0;L;;;;;N;;;;;
1CAA9;SHAALDAA PHARYNGEAL EE;Lo;0;L;;;;;N;;;;;
1CAAA;SHAALDAA PHARYNGEAL OO;Lo;0;L;;;;;N;;;;;
1CAAB;SHAALDAA PHARYNGEAL ;Lo;0;L;;;;;N;;;;;
1CAAC;SHAALDAA GEMINATED PHARYNGEAL BASE;Lo;0;L;;;;;N;;;;;
1CAAD;SHAALDAA GEMINATED PHARYNGEAL AA;Lo;0;L;;;;;N;;;;;
1CAAE;SHAALDAA GEMINATED PHARYNGEAL UU;Lo;0;L;;;;;N;;;;;
1CAAF;SHAALDAA GEMINATED PHARYNGEAL II;Lo;0;L;;;;;N;;;;;
1CAB0;SHAALDAA GEMINATED PHARYNGEAL EE;Lo;0;L;;;;;N;;;;;
1CAB1;SHAALDAA GEMINATED PHARYNGEAL O;Lo;0;L;;;;;N;;;;;

1CAB2;SHAALDAA GEMINATED PHARYNGEAL AA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAB3;SHAALDAA GEMINATED PHARYNGEAL UU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAB4;SHAALDAA GEMINATED PHARYNGEAL II;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAB5;SHAALDAA GEMINATED PHARYNGEAL EE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAB6;SHAALDAA GEMINATED PHARYNGEAL OO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAB7;SHAALDAA GEMINATED PHARYNGEAL;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAB8;SHAALDAA SYLLABLE P BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAB9;SHAALDAA SYLLABLE PA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CABA;SHAALDAA SYLLABLE PU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CABB;SHAALDAA SYLLABLE PI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CABC;SHAALDAA SYLLABLE PE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CABD;SHAALDAA SYLLABLE PO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CABE;SHAALDAA SYLLABLE PAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CABF;SHAALDAA SYLLABLE PUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC0;SHAALDAA SYLLABLE PII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC1;SHAALDAA SYLLABLE PEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC2;SHAALDAA SYLLABLE POO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC3;SHAALDAA SYLLABLE P;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC4;SHAALDAA SYLLABLE PP BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC5;SHAALDAA SYLLABLE PPA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC6;SHAALDAA SYLLABLE PPU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC7;SHAALDAA SYLLABLE PPI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC8;SHAALDAA SYLLABLE PPE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC9;SHAALDAA SYLLABLE PPO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CACA;SHAALDAA SYLLABLE PPAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CACB;SHAALDAA SYLLABLE PPUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAC;SHAALDAA SYLLABLE PPII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CACD;SHAALDAA SYLLABLE PPEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CACE;SHAALDAA SYLLABLE PPOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CACF;SHAALDAA SYLLABLE PP;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD0;SHAALDAA SYLLABLE V BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD1;SHAALDAA SYLLABLE VA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD2;SHAALDAA SYLLABLE VU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD3;SHAALDAA SYLLABLE VI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD4;SHAALDAA SYLLABLE VE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD5;SHAALDAA SYLLABLE VO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD6;SHAALDAA SYLLABLE VAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD7;SHAALDAA SYLLABLE VUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD8;SHAALDAA SYLLABLE VII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAD9;SHAALDAA SYLLABLE VEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CADA;SHAALDAA SYLLABLE VOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CADB;SHAALDAA SYLLABLE V;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CADC;SHAALDAA SYLLABLE VV BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CADD;SHAALDAA SYLLABLE VVA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CADE;SHAALDAA SYLLABLE VVU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CADF;SHAALDAA SYLLABLE VVI;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAE0;SHAALDAA SYLLABLE VVE;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAE1;SHAALDAA SYLLABLE VVO;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAE2;SHAALDAA SYLLABLE VVAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAE3;SHAALDAA SYLLABLE VVUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAE4;SHAALDAA SYLLABLE VVII;Lo;0;L; ; ; ; ; N; ; ; ; ;
 1CAE5;SHAALDAA SYLLABLE VVEE;Lo;0;L; ; ; ; ; N; ; ; ; ;

1CAE6;SHAALDAA SYLLABLE VVOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAE7;SHAALDAA SYLLABLE VV;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAE8;SHAALDAA SYLLABLE ZH BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAE9;SHAALDAA SYLLABLE ZHA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAEA;SHAALDAA SYLLABLE ZHU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAEB;SHAALDAA SYLLABLE ZHI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAEC;SHAALDAA SYLLABLE ZHE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAED;SHAALDAA SYLLABLE ZHO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAEE;SHAALDAA SYLLABLE ZHAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAEF;SHAALDAA SYLLABLE ZHUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF0;SHAALDAA SYLLABLE ZHII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF1;SHAALDAA SYLLABLE ZHEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF2;SHAALDAA SYLLABLE ZHOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF3;SHAALDAA SYLLABLE ZH;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF4;SHAALDAA SYLLABLE ZZH BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF5;SHAALDAA SYLLABLE ZZHA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF6;SHAALDAA SYLLABLE ZZHU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF7;SHAALDAA SYLLABLE ZZHI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF8;SHAALDAA SYLLABLE ZZHE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAF9;SHAALDAA SYLLABLE ZZHO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAFA;SHAALDAA SYLLABLE ZZHAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAFb;SHAALDAA SYLLABLE ZZHUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAFc;SHAALDAA SYLLABLE ZZHII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAFd;SHAALDAA SYLLABLE ZZHEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAFf;SHAALDAA SYLLABLE ZZHOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CAFF;SHAALDAA SYLLABLE ZZH;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB00;SHAALDAA SYLLABLE TS BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB01;SHAALDAA SYLLABLE TSA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB02;SHAALDAA SYLLABLE TSU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB03;SHAALDAA SYLLABLE TSI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB04;SHAALDAA SYLLABLE TSE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB05;SHAALDAA SYLLABLE TSO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB06;SHAALDAA SYLLABLE TSAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB07;SHAALDAA SYLLABLE TSUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB08;SHAALDAA SYLLABLE TSII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB09;SHAALDAA SYLLABLE TSEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB0A;SHAALDAA SYLLABLE TSOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB0B;SHAALDAA SYLLABLE TS;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB0C;SHAALDAA SYLLABLE TTS BASE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB0D;SHAALDAA SYLLABLE TTSA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB0E;SHAALDAA SYLLABLE TTTSU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB0F;SHAALDAA SYLLABLE TTTSI;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB10;SHAALDAA SYLLABLE TTSE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB11;SHAALDAA SYLLABLE TTTSO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB12;SHAALDAA SYLLABLE TTTSAA;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB13;SHAALDAA SYLLABLE TTTSUU;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB14;SHAALDAA SYLLABLE TTTSII;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB15;SHAALDAA SYLLABLE TTSEE;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB16;SHAALDAA SYLLABLE TTTSOO;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB17;SHAALDAA SYLLABLE TTS;Lo;0;L; ; ; ; ; N; ; ; ; ;
1CB20;SHAALDAA DIGIT ZERO;Nd;0;L; ; ; ; ; 0;0;0;N; ; ; ; ;
1CB21;SHAALDAA DIGIT ONE;Nd;0;L; ; ; ; ; 1;1;1;N; ; ; ; ;

1CB22;SHAALDAA	DIGIT TWO;	Nd;0;L;;2;2;2;N; ; ; ;
1CB23;SHAALDAA	DIGIT THREE;	Nd;0;L;;3;3;3;N; ; ; ;
1CB24;SHAALDAA	DIGIT FOUR;	Nd;0;L;;4;4;4;N; ; ; ;
1CB25;SHAALDAA	DIGIT FIVE;	Nd;0;L;;5;5;5;N; ; ; ;
1CB26;SHAALDAA	DIGIT SIX;	Nd;0;L;;6;6;6;N; ; ; ;
1CB27;SHAALDAA	DIGIT SEVEN;	Nd;0;L;;7;7;7;N; ; ; ;
1CB28;SHAALDAA	DIGIT EIGHT;	Nd;0;L;;8;8;8;N; ; ; ;
1CB29;SHAALDAA	DIGIT NINE;	Nd;0;L;;9;9;9;N; ; ; ;
1CB2A;SHAALDAA	WORDSPACE;	Po;0;L;; ; ; ; ;N; ; ; ;
1CB2B;SHAALDAA	FULL STOP;	Po;0;L;; ; ; ; ;N; ; ; ;

Table 3. Shaaldaa Properties

Line breaking information

Line Breaking rules for the Shaaldaa script are as follows:

- Words are separated with the native script word separator, ፡, explained above, or with U+0020 SPACE. The word separator was extensively used in historical documents.
- Line breaks only occur at word boundaries.
- There is not a special mode found that allows lines breaks within words at select positions, such as using a hyphen sign (U+002D HYPHEN-MINUS) that other scripts apply.
- Line breaks cannot occur within numbers. Numbers must always be kept together.
- There are no restrictions explicitly stated on line breaking before or after certain punctuation characters. However, line breaking is observed in practice to occur only after the Shaaldaa punctuation.
- There are no other special considerations for line breaking in this script.

The Shaaldaa script is likely to occur with the Latin, Ethiopic, and possibly the Arabic script:

- Latin due to the current Qubee orthography.
- Ethiopic due to the user community being Ethiopian and using the Ethiopic script in many aspects of life.
- Arabic due to many Oromo people, including students of Sheikh Bakri, being Muslim. Sheikh Bakri was an Islamic scholar who extensively wrote in Arabic and an Arabic script-based Oromo orthography. Digitization of his historical manuscripts will require cohesion between his script and Arabic.

VI Collation

The expected sorting order of the script follows the ordering used in education and is shown in Table 1 and reflected in Table 2. Table 1 is read/ordered from left-to-right and top-to-bottom.

VII References

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3. Rovenchak Andrij and Jason Glavy. *African Writing Systems of the Modern Age: The Sub-Saharan Region*. First English edition revised and expanded from the original Ukrainian edition ed. Athinkra 2011: 66-69
4. "Oromoon qubee jaarraa 16ffaairraa qabdi". YouTube, January 6, 2024. <https://www.youtube.com/watch?v=m5onMVuSz88>
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8. Sheikh Nuraddin Ahmed and Aneso Mohammed going through documents in the Shaalmaa script – <https://www.tiktok.com/t/ZT8EdrCge/>
9. Engravings of Shaalmaa script – <https://www.tiktok.com/t/ZT8EdeyBi/>
10. Full Misrak Media (ምስራክ ሚዲያ) interview with Aneso Mohammed on his book about Sheikh Bakri Saphaloo and the latter's script – <https://www.tiktok.com/t/ZT8EdkuwE/>
11. "Seenaa Sheek Bakrii Saphaloo Sheek Mahammad siraacirraa ha dhageenyuu May 30, 2022". YouTube, May 30, 2022. <https://www.youtube.com/watch?v=mPj11ST34gQ>
12. Mohammed, Aneso, Sirna Barreeffama, Addis Ababa: Arodyon Books, Shaaalmaa, 2025.

Font and Keyboard

The Shaalmaa font used in this proposal, and a keyboard, can be retrieved from the Athinkra GitHub repository: <https://github.com/athinkra/sheek-bakrii-saphaloo> . A keyboard, that includes the aforementioned font, is available from the SIL Keyman website at the location: https://keyman.com/keyboards/qff_sbs .

VIII Acknowledgements

The authors would like to thank the scholars that have provided input, support, and feedback into this proposal and for helping us understand the legacy of Sheikh Bakri Saphaloo's script and its modern utilization. In particular, Professor Mohammed Hassen Ali and Aneso Mohammed worked closely with the authors providing both informative and financial support to the investigative effort. Without which, this proposal would not have been possible. Additionally, the following informants provided highly valuable input:

Dr. Asafa Jalata, Dr. Asfaw Beyene, Dr. Tesfaye Tesso, Dr. Feda Negesse, Dr. Fedha Kebede (Oromo Studies Association President), Taha Ali Abdi, Mahdi Hamid Muudee, Mekuria Bulcha, Fandishe Abdurehman, Guluma Gemedede, Apagodu Maa, and Prof. Getahun Benti.

The authors are also very grateful to Dr. Charles Riley, Dr. Andrij Rovenchak, and Jason Glavy of Athinkra, LLC for contributing the "JG Oromo" font for Shaalmaa script and placing it under an Open Source license. The contributed font has been updated and used here under the name "Sheek Bakrii Saphaloo".

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.

An endorsement for the Unicode encoding of the Shaaldaa script from several Oromo scholars, represented by Dr. Mohammed Hassen, follows:

“Proposal for computer support to be extended to Shaykh Bakri’s Oromo writing system”

The purpose behind this proposal is neither to superimpose Shaykh Bakri’s writing system upon **Qubee**, the widely used Latin alphabet-based Oromo writing system, nor upon **Ge’ez**, the Ethiopic alphabet (writing system). On the contrary, it is to demonstrate that Shaykh Bakri’s invention was an original writing system that was “...purpose built, in which all the major issues of Oromo phonology are properly provided for.”¹ This original writing system, which appears to be more popular today than seven decades ago, deserves to be considered for getting support for computer use.

Shaykh Bakri (1895-1980) was scholar who devoted his long life to educating his people in the language they understood. However, before the Ethiopian revolution of 1974, the Oromo language was banned by a succession of imperial regimes, from being used for teaching, preaching, publishing or broadcasting services in Ethiopia. Up the 1970s, only a fraction of the Oromo in the region of Haraghe knew either the Amharic or Arabic languages. It was precisely for this reason that Shaykh Bakri attempted to produce teaching material in the language that his Oromo people understood. For that purpose, he experimented with using both Ethiopic (Ge’ez) and Arabic writing systems. Nevertheless, Shaykh Bakri quickly realized that neither the Ethiopic nor Arabic writing systems were suitable for writing in the Oromo language. In that regard “...Shaykh Bakri was the first Oromo who saw clearly the problems inherent in attempting to write the Oromo language by means of orthographic systems which had been devised primarily for other languages”.²

The Ethiopic writing system has three major shortcomings, when used for writing in the Oromo language or any Cushitic language, such as Sidama or Somali. First, the Ethiopic writing system has only seven vowels, as opposed to ten vowels of the Oromo language. What is more, vowels of the Ethiopic writing system, "...do not have sound representation for the Oromo language"³. Second, there is a difference in consonants and glottal stops. Third, in the words of Andraejewski, the Ethiopic alphabet: "does not show the germination of consonants and is ill-fitted to represent the [Oromo] vowel sound."⁴ Additionally, the Ethiopic writing system fails to represent specific widely present Oromo consonants, particularly (dh, g, c, ch, ph, ny)⁵.

The problem with Arabic-written material in the Oromo language was that the Arabic writing system consists solely of consonants only; whereas the Oromo language has ten vowels. It was his realization of the above-mentioned factors, coupled with Shaykh Bakri's commitment that the Oromo language have its own writing system⁶, that most probably launched him on a decade-long journey that culminated in his invention of an alphabet in 1953 at one of his teaching centers known as Ligibo.⁷

Having developed the alphabet, [Shaykh Bakri] taught it to all his students and to others as well. To a limited extent people began to exchange letters in the new alphabet...In addition to letters, Shaykh Bakri himself employed his alphabet for writing his poems and other works.⁸

Seventy-one years after its invention, and forty-four years after the death of its inventor, Shaykh Bakri's script appears to be more popular among educated Oromo in eastern Ethiopia today than during his lifetime (see below).

This conclusion is confirmed by Dr. Nuraddin Aman, a researcher at the Institute of Ethiopian Studies, and educator at the Addis Abba University in Ethiopia. He attended a major scholarly conference held on the campus of Dire Dawa University in November 2022. Among those who made presentations at that conference was a young graduate from Hadama University Institute of Technology, named Aneso Mohammed, who made his presentation on his new draft book written on Shaykh Bakri's script(see below on publication of that book).

Finally, **I believe that supporting Shaykh Bakri's writing system on computers is an idea whose time has come.** It was a thoughtfully designed writing system that has been used decades mainly for secret communications. However, it now appears that the writing system is not only viable but used openly to the extent that a young scholar, Aneso Mohammed, published his book in Addis Ababa, the Ethiopian capital in October 2023. The publication of this book received good media coverage. It may open a new chapter in the interest in Shaykh Bakri's script. This development most likely will encourage others to use that script. In short, there is interest in Shaykh Bakri's script, both in Ethiopia and among Diaspora Oromo scholars and others. From this perspective, if Shaykh Bakri's script is further developed, particularly if supported for computer use, it will open a new chapter in the scholarly analysis of that script itself, of the Oromo language and of an important indigenous initiative at overcoming state prohibition of expression by persons determined to keep their ancient language alive and, further, to develop it despite looming obstacles. Making the script available for computer access will encouraging scholarly productivity in the history of all these areas, Oromo writing,

linguistics, support for indigeneity and a more accurate history of the region where the language revival occurred.

Sincerely,



Mohammed Hassen

Endnotes

1. R.J. Hayward and Mohammed Hassen, 1981, "The Oromo Orthography of Shaykh Bakri Sapalo," *Bulletin of the School of Oriental and African Studies, (University of London, Volume XLIV, part 3)*: 553.
2. *Ibid.*
3. Feyisa Densie, "Special Features in Oromiffa and Reasons for Adopting Latin Script for Developing Oromo Orthography," *The Journal of Oromo Studies*, Volume 2, Numbers 1 and 2 (1995): 25.
4. B.W. Andrzejewski, "Some Observations on the Present Orthography of Oromo," *Proceedings of the Fifth International Conference of Ethiopian Studies*, ed. By J. Tubina, Rotterdam: A. A. Balkam, 1980: 127.
5. Mahadi Haamid Mudde, *Oromo Dictionary, Volume 1, English-Oromo* (Atlanta: Sagalee Oromoo Publishing Co., Inc. 1995) : xix.
6. Hayward & Hassen, 553
7. Aliyi Khalifa, 2000, "The Life and Career of Sheik Bakrii Saphalo (1895-1980)" B.A. Thesis, Addis Ababa University: 24.
8. Hayward & Hassen, 553.

IX Additional Figures/Images:

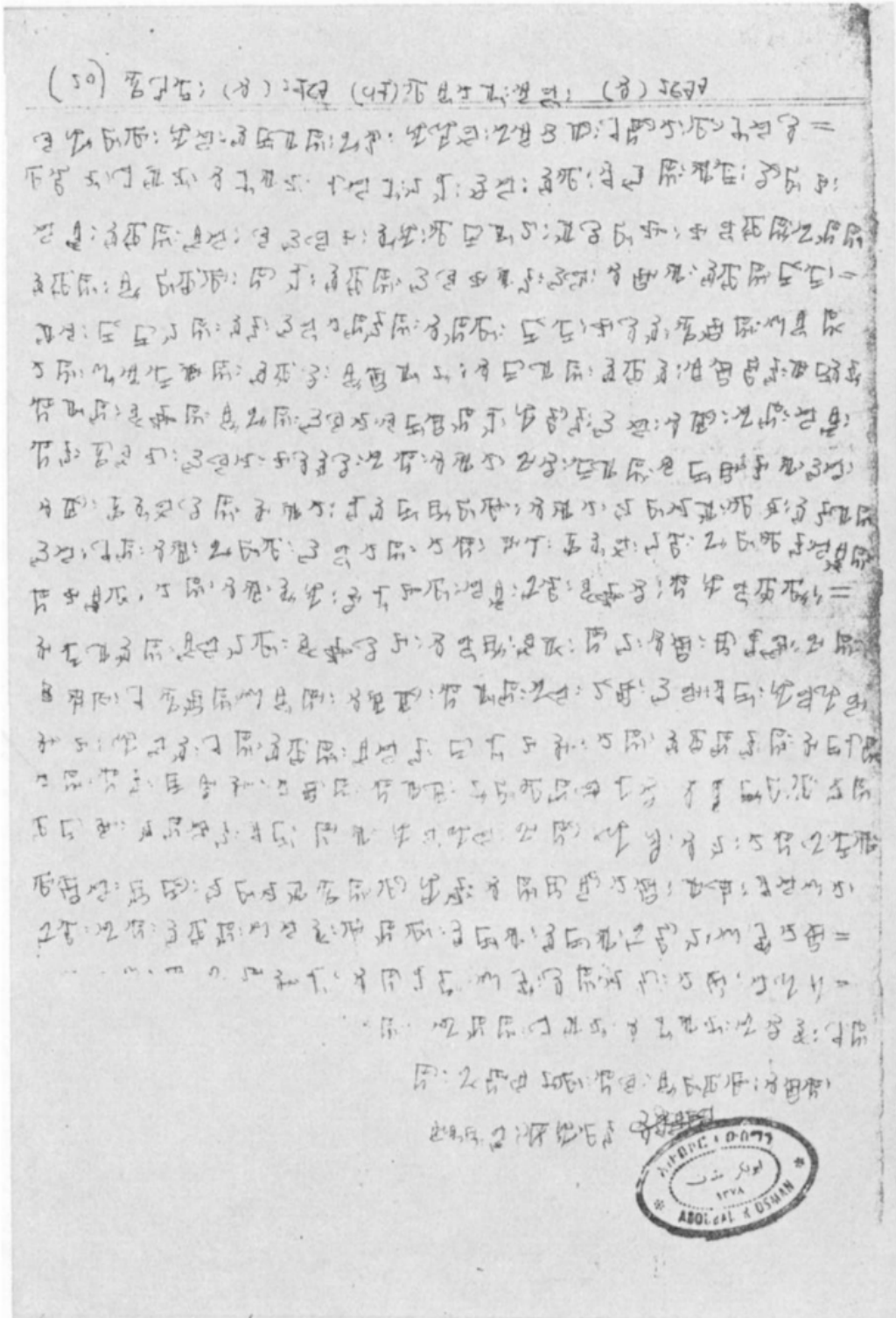


Plate I. A letter by Sheikh Bakri Sapalo, labeled as Plate I from Hayward and Hassen 1981. From 1378 Hijri Calendar (1958 or 1959 Gregorian Calendar); dated in the stamp on the bottom-right.

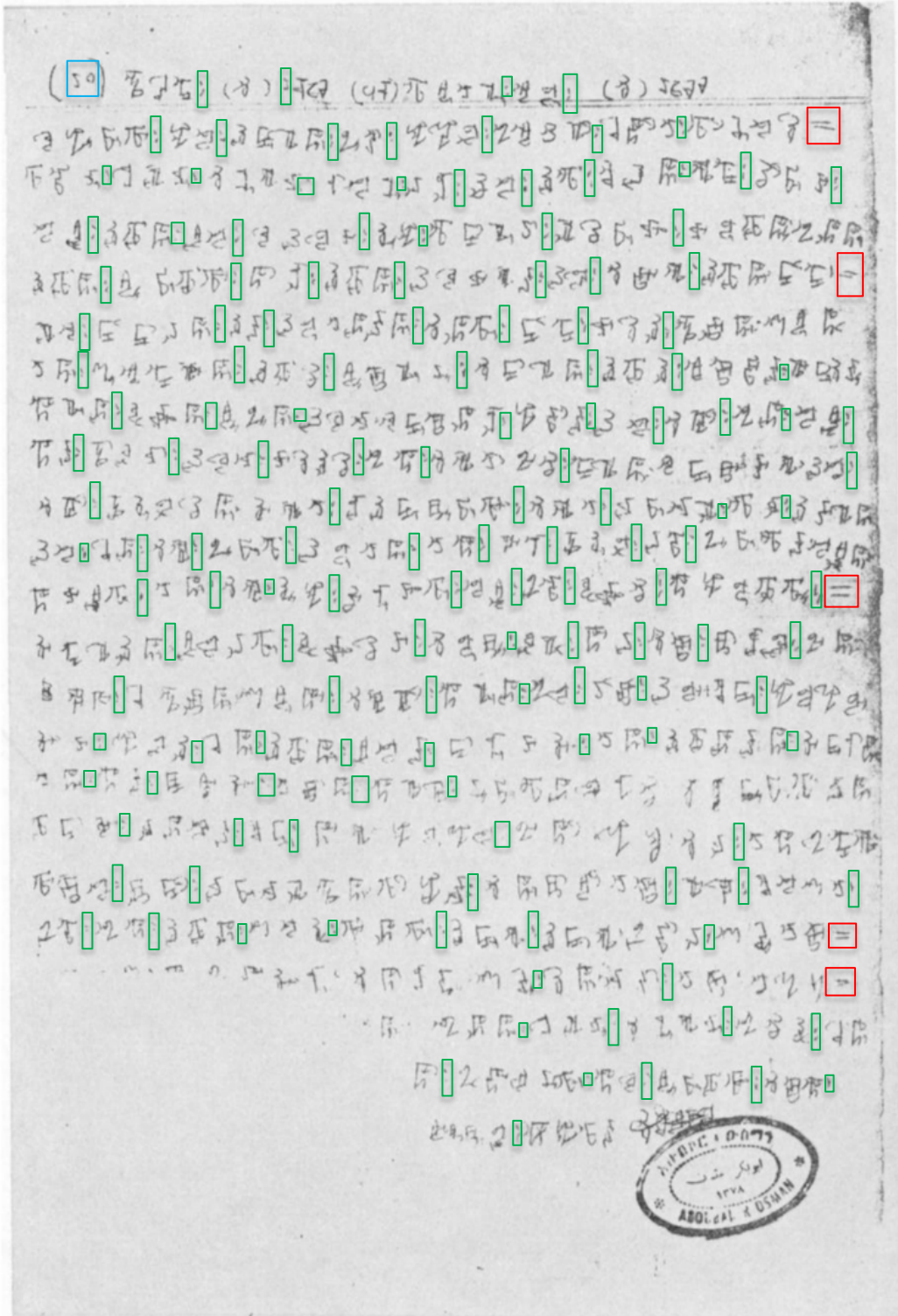


Plate I.1 (edited) Green boxes highlight some of the script-specific word-separator (many more in the Plate). Red boxes highlight some of the script-specific full-stop. The blue box highlights script-specific numerals.

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
	C	Ca	Cu	Ci	Ce	Co	Cā	Cū	Cī	Cē	Cō	C̄	C _# ^(C)
?/φ	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
b	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
d	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
d	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
h ¹	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
w	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
z	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
h ²	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
t	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
y	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
k	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
l	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
m	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
n	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
s ¹	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
f	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
s ²	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
k	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
r	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
š	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
t	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
x	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
s	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
g	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
ç	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
ñ	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
č	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
ǰ	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘

FIG. 1

Figure 1. Table of Shaaldaa script created by Hayward and Hassen 1981. Column I is the 'base glyph'; Column II-VI are consonant+short vowel syllable graphemes; Column VII-XI are consonant+long-vowel syllable graphemes; Column XII represents the 'base glyph' for geminated consonants (which will have 5 short vowel, 5 long vowel, and 1 pure consonant counterpart); Column XIII represents a simple consonant without an inherent vowel.

المرفق حال كونها متممات بالحركات الآتية
وهي الحركات الطوال

3) اوقا اوقا اوقا : اوقا : اوقا اوقا :
اوقا اوقا : اوقا اوقا ::

	ا	ا	ا	ا	ا		ا	ا	ا	ا	ا		ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا
ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا	ا

FIG. 3

Figure 3. Matrix from Hayward and Hassen 1981.

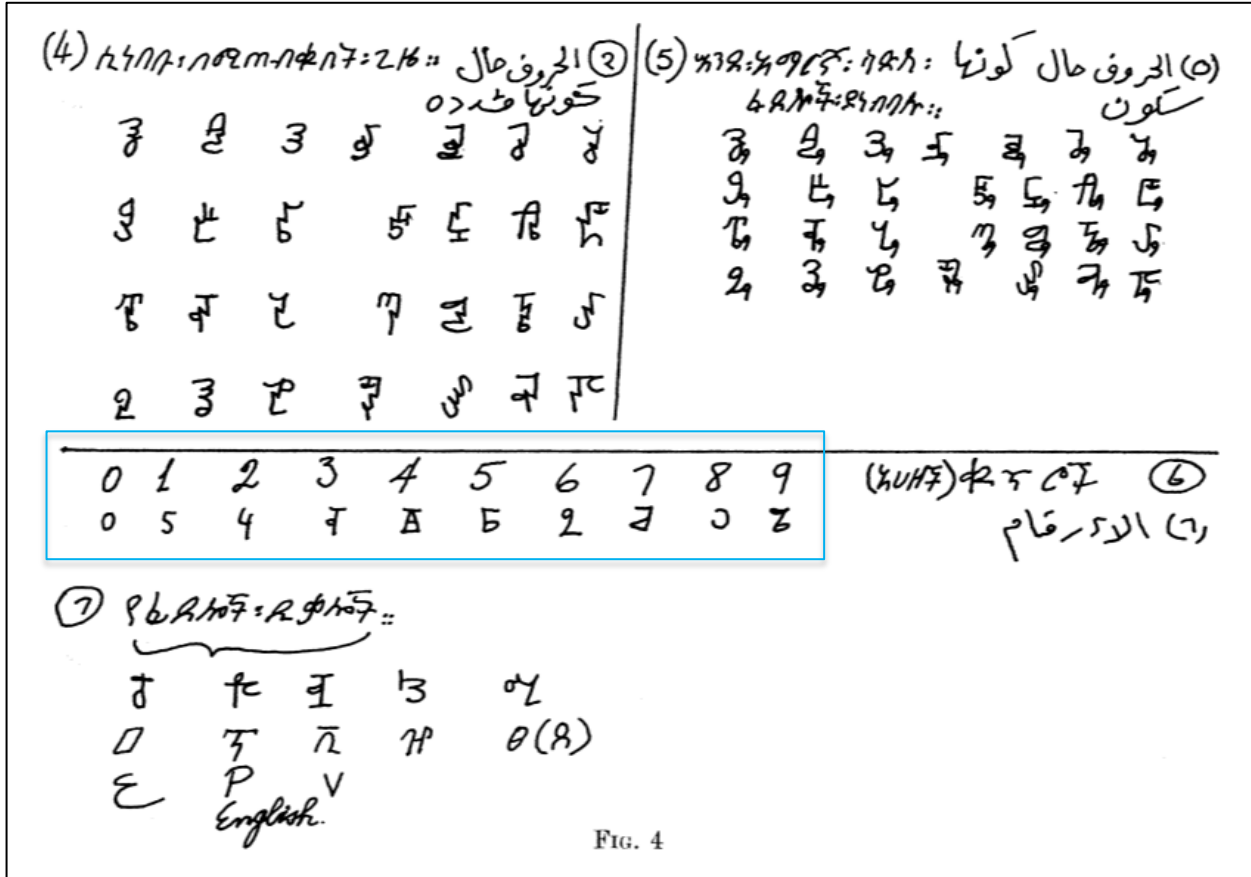


Figure 4. From Hayward and Hassen 1981. Blue box highlights script-specific numerals.

Ethiop. glyph	Afaan Oromo	Base glyph	a	u	i	e	o	aa	uu	ii	ee	oo	/C/
አ	'	ዕ	ዐ	ዑ	ዒ	ዓ	ዔ	ዕ	ዖ	዗	ዘ	ዙ	ዛ
አ	'	ዕ	ዐ	ዑ	ዒ	ዓ	ዔ	ዕ	ዖ	዗	ዘ	ዙ	ዛ
በ	b	በ	ቦ	ቧ	ቨ	ቩ	ቪ	ቫ	ቬ	ቭ	ቮ	ቯ	ቢ
በ	bb	በ	ቦ	ቧ	ቨ	ቩ	ቪ	ቫ	ቬ	ቭ	ቮ	ቯ	ቢ
ጀ	j	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ
ጀ	jj	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ	ጋ
ደ	d	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ
ደ	dd	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ	ደ
ሀ	h	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ
ሀ	hh	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ
ወ	w	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ
ወ	ww	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ	ወ
ዘ	z	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ
ዘ	zz	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ	ዘ
ሀ	h ¹	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ
ሀ	hh ¹	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ	ሀ
ጠ	x	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ
ጠ	xx	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ
የ	y	የ	የ	የ	የ	የ	የ	የ	የ	የ	የ	የ	የ
የ	yy	የ	የ	የ	የ	የ	የ	የ	የ	የ	የ	የ	የ
ከ	k	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ
ከ	kk	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ	ከ
ለ	l	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ
ለ	ll	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ	ለ
ጠ	m	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ
ጠ	mm	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ	ጠ
ነ	n	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ
ነ	nn	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ	ነ
ሰ	s	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ
ሰ	ss	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ	ሰ
ፈ	f	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ
ፈ	ff	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ	ፈ
ሠ	s	ሠ	ሠ	ሠ	ሠ	ሠ	ሠ	ሠ	ሠ	ሠ	ሠ	ሠ	ሠ

Figure 6. Table 4.2 from page 67 of “African Writing Systems of the Modern Age: The Sub-Saharan Region” by Andrij Rovenchak and Jason Glavy. Showcases vocalized and standalone consonant forms of geminated base glyphs.

Ethiop. glyph	Afaan Oromo	Base glyph	a	u	i	e	o	aa	uu	ii	ee	oo	/C/
ሠ	ss	ሠ	ሠፈ	ሠቲ	ሠቲ	ሠቲ	ሠቲ	ሠቲ	ሠቲ	ሠቲ	ሠቲ	ሠቲ	ሠቲ
ቀ	q	ቀ	ቀፈ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ
ቀ	qq	ቀ	ቀፈ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ	ቀቲ
ረ	r	ረ	ረፈ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ
ረ	rr	ረ	ረፈ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ	ረቲ
ሸ	sh	ሸ	ሸፈ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ
ሸ	sh*	ሸ	ሸፈ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ	ሸቲ
ተ	t	ተ	ተፈ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ
ተ	tt	ተ	ተፈ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ	ተቲ
ኸ	k ²	ኸ	ኸፈ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ
ኸ	kk ²	ኸ	ኸፈ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ	ኸቲ
ደ	dh	ደ	ደፈ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ
ደ	dh*	ደ	ደፈ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ	ደቲ
ገ	g	ገ	ገፈ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ
ገ	gg	ገ	ገፈ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ	ገቲ
ጨ	ch	ጨ	ጨፈ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ
ጨ	ch*	ጨ	ጨፈ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ	ጨቲ
ኘ	ny	ኘ	ኘፈ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ
ኘ	ny*	ኘ	ኘፈ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ	ኘቲ
ቸ	c	ቸ	ቸፈ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ
ቸ	cc	ቸ	ቸፈ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ	ቸቲ
ጰ	ph	ጰ	ጰፈ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ
ጰ	ph*	ጰ	ጰፈ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ	ጰቲ
ዐ	’ ³	ዐ	ዐፈ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ
ዐ	’ ³	ዐ	ዐፈ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ	ዐቲ
ፐ	p	ፐ	ፐፈ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ
ፐ	pp	ፐ	ፐፈ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ
ቨ	v	ቨ	ቨፈ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ
ቨ	vv	ቨ	ቨፈ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ	ቨቲ
ዝ	zh	ዝ	ዝፈ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ
ዝ	zh*	ዝ	ዝፈ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ	ዝቲ
ፐ	s ⁴	ፐ	ፐፈ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ
ፐ	ss ⁴	ፐ	ፐፈ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ	ፐቲ

Figure 7. Table 4.2 (continued) from page 68 of “African Writing Systems of the Modern Age: The Sub-Saharan Region” by Andrij Rovenchak and Jason Glavy. Showcases vocalized and standalone consonant forms of geminated base glyphs.

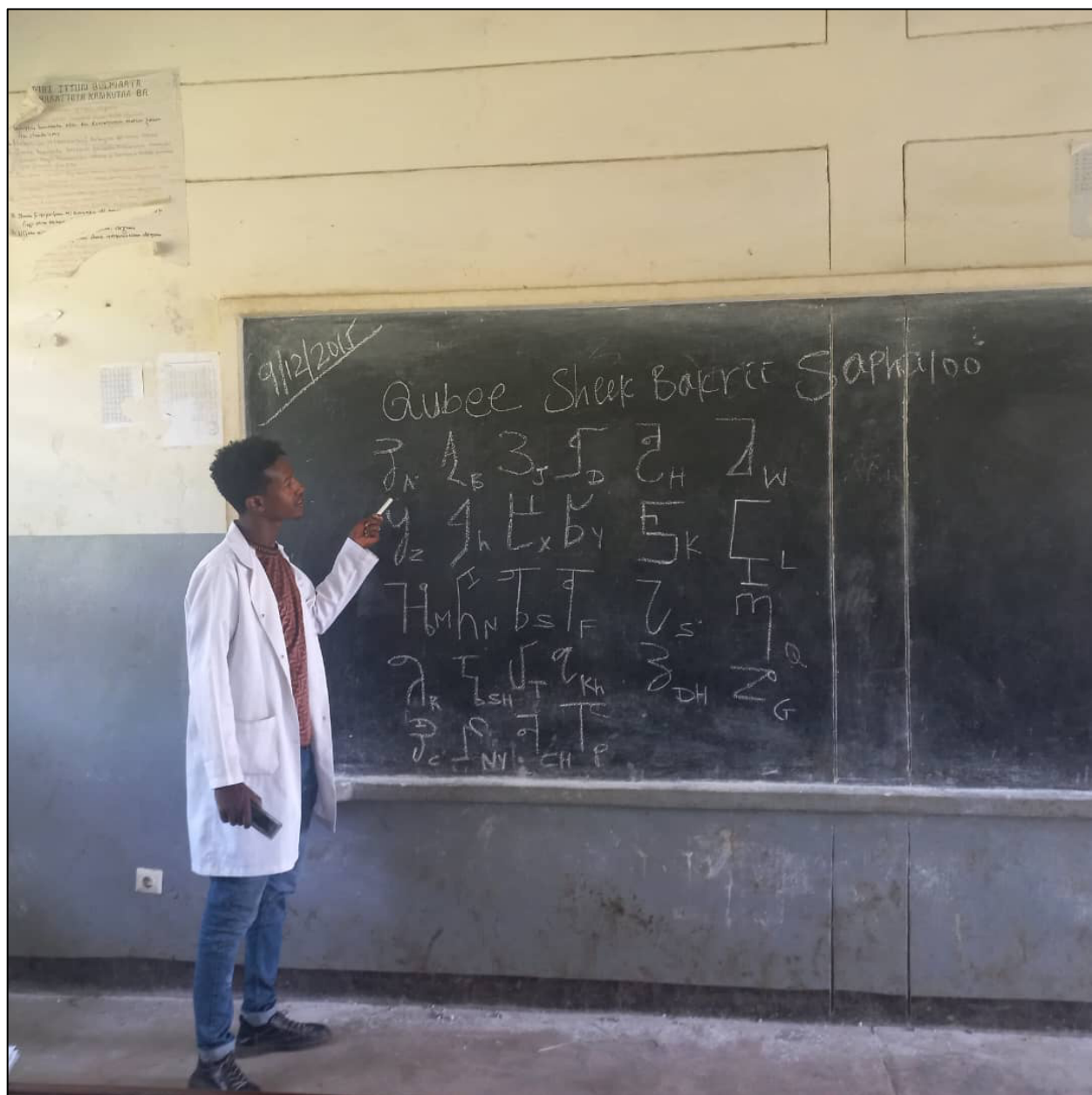


Figure 8. A young chemist named Aneso Mohammed teaching the Shaalmaa script to a full classroom of students in Dire Dawa, Ethiopia, 2023. Ethiopian Calendar date is present in the top left of the chalkboard.



Figure 9. Students of Aneso Mohammed learning the Shaaldaa script in Dire Dawa, Ethiopia, 2023.

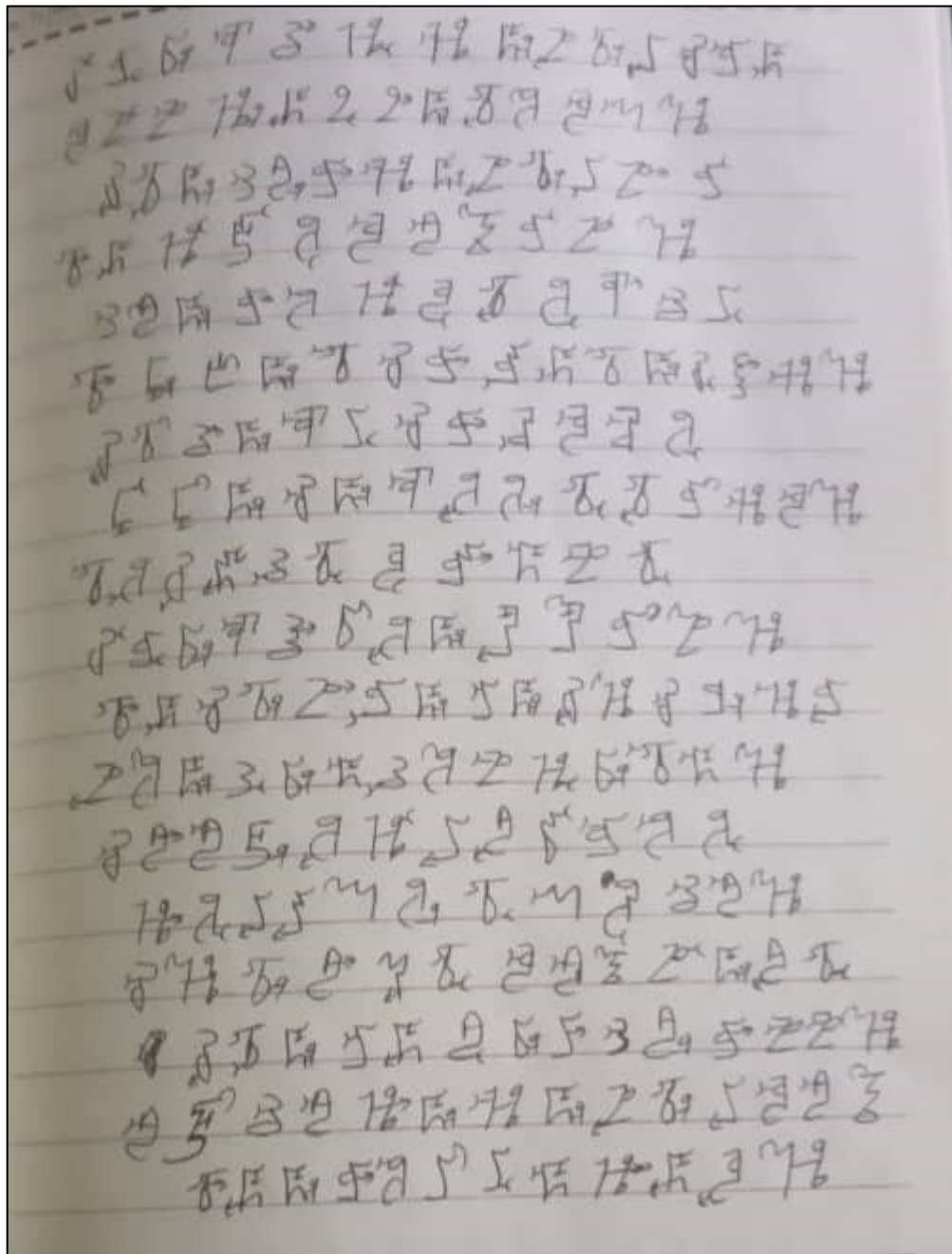


Figure 10. Modern day writing of the Shaalada script by one of Sheikh Bakri's students.

Handwritten text in Arabic script, likely a religious or scholarly manuscript.

Figure 11. Excerpt of Sheikh Bakri Sapalo's handwriting.

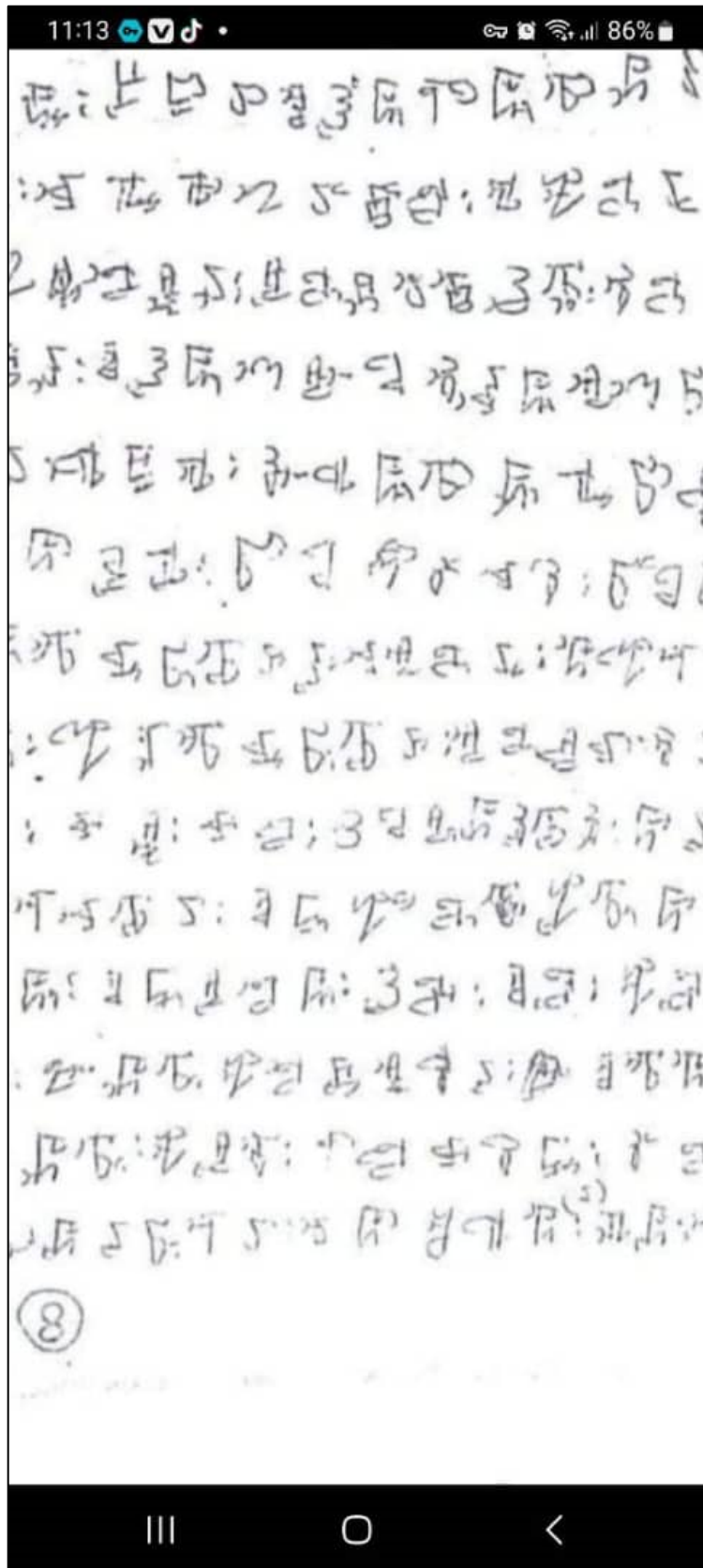


Figure 12. Excerpt of Sheikh Bakri Sapalo's handwriting.

Handwritten text in Arabic script, likely a religious or scholarly manuscript. The text is arranged in approximately 15 horizontal lines. A horizontal line is drawn across the middle of the page, separating the upper and lower sections of text. The handwriting is dense and characteristic of classical Islamic calligraphy.

Figure 13. Excerpt of Sheikh Bakri Sapalo's handwriting.



Figure 14. Chemist Aneso Mohammed in front of a Shaaldaa teaching table.



Figure 15. Shaaldaa script teaching table. Letters displayed are the base glyphs as they have been used when teaching the script. The following base glyphs are missing from the above teaching table because they are used for foreign sounds. However, these letters are learned later.

IPA	Shaaldaa script Base Glyph
ɣ	ᄁ
p	ᄂ
v/β	ᄃ
ʒ	ᄄ
ts'	ᄅ

Table 5. Shaaldaa graphemes used for non-native phonemes.

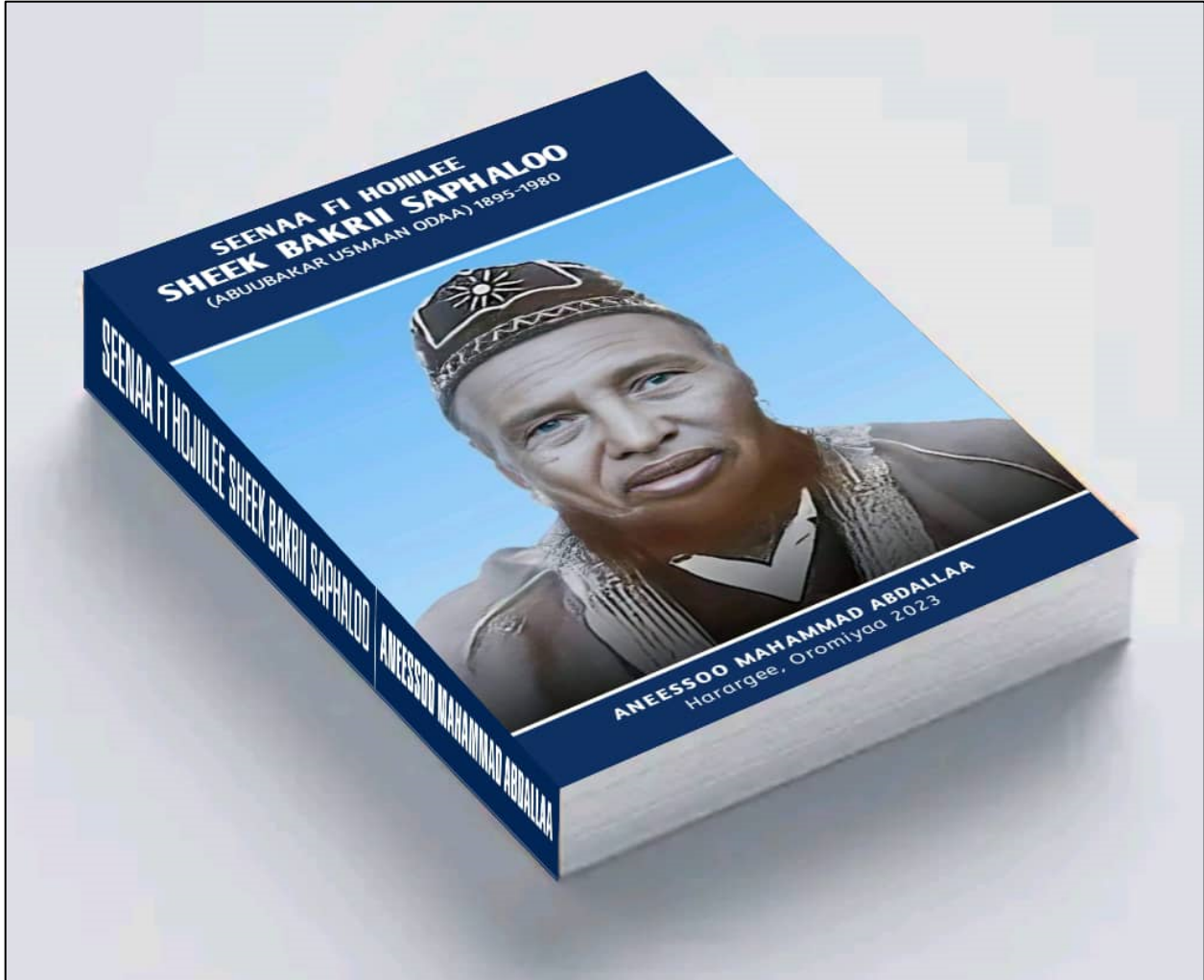


Figure 16. A book by Aneso Mohammed with a translated title of “*History and Works of Sheikh Bakri Sapalo*” published late 2023/early 2024 (Gregorian Calendar). Written in Oromo with the Latin-based Oromo orthography (Qubee).



Figure 17. Debut event of Aneso Mohammed's book on Sheikh Bakri Sapalo and the latter's script – late 2023/early 2024.



Figure 18. Debut event of Aneso Mohammed’s book on Sheikh Bakri Sapalo and the latter’s script – late 2023/early 2024.

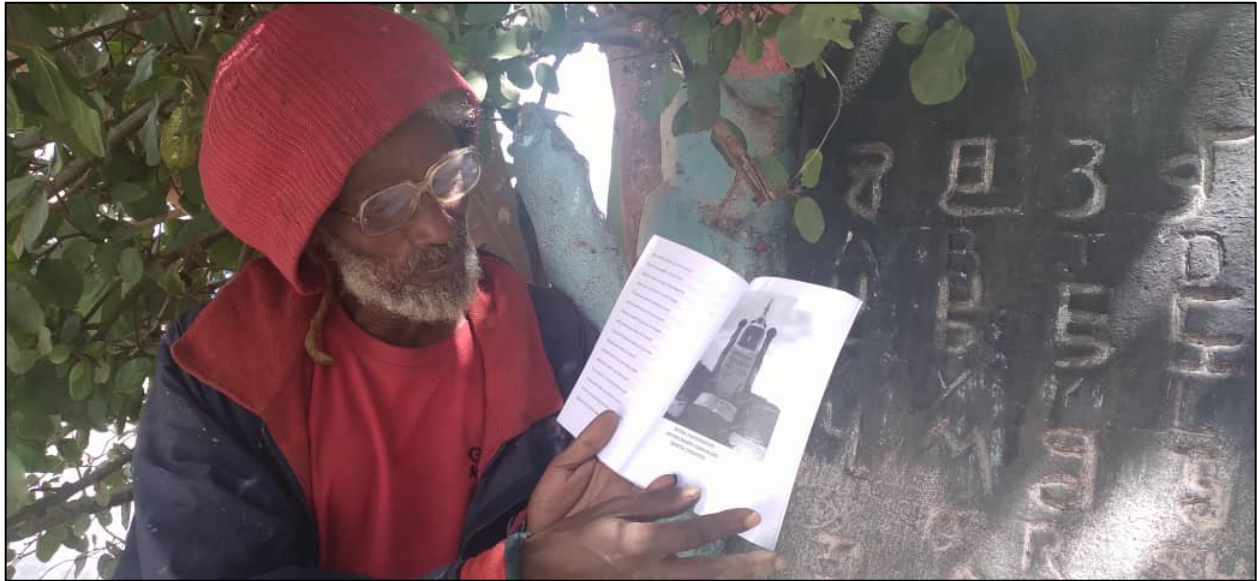


Figure 19. Reader of Aneso Mohammed’s book on Sheikh Bakri Sapalo. Engraving of the Shaaldaa script in the background.

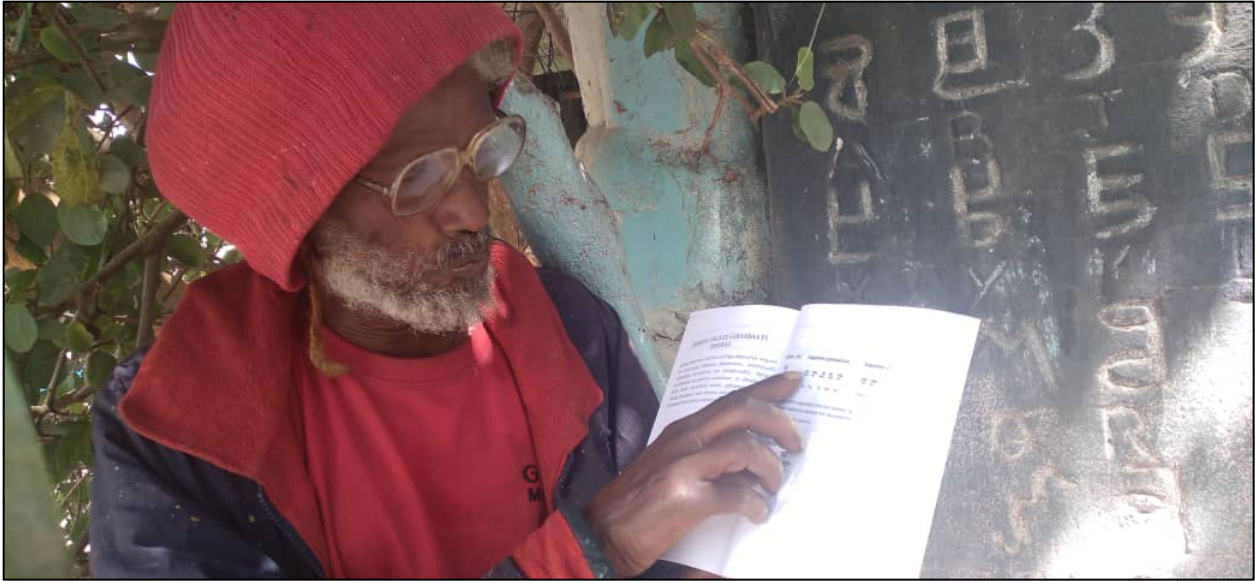


Figure 20. Reader of Aneso Mohammed's book on Sheikh Bakri Sapalo. Engraving of the Shaaldaa script in the background.

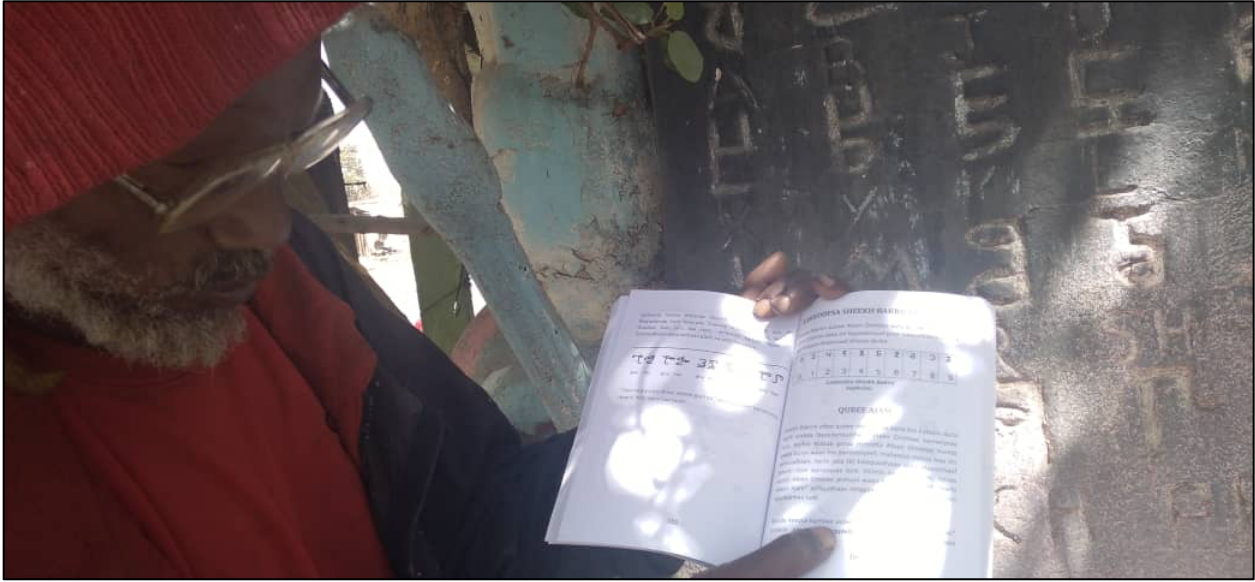


Figure 21. Reader of Aneso Mohammed's book on Sheikh Bakri Sapalo. Engraving of the Shaaldaa script in the background.



Figure 22. Engraving of the Shaaldaa script.

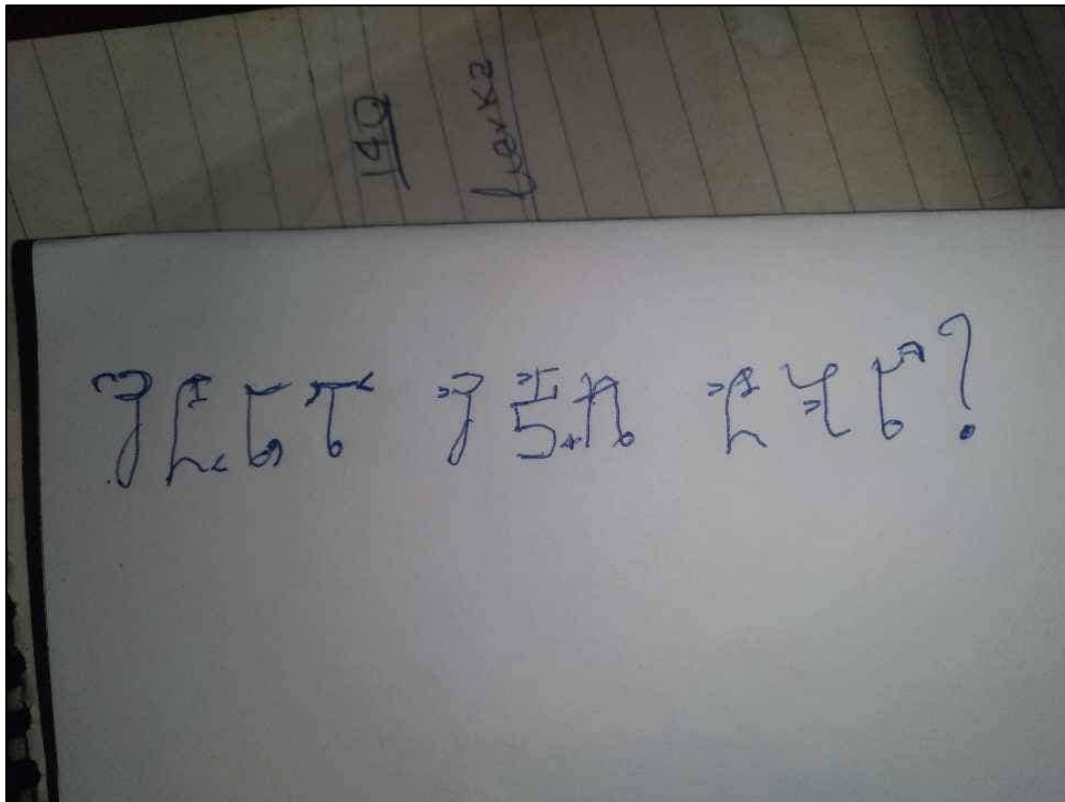


Figure 23. Handwritten note in the Shaaldaa script from Dire Dawa.

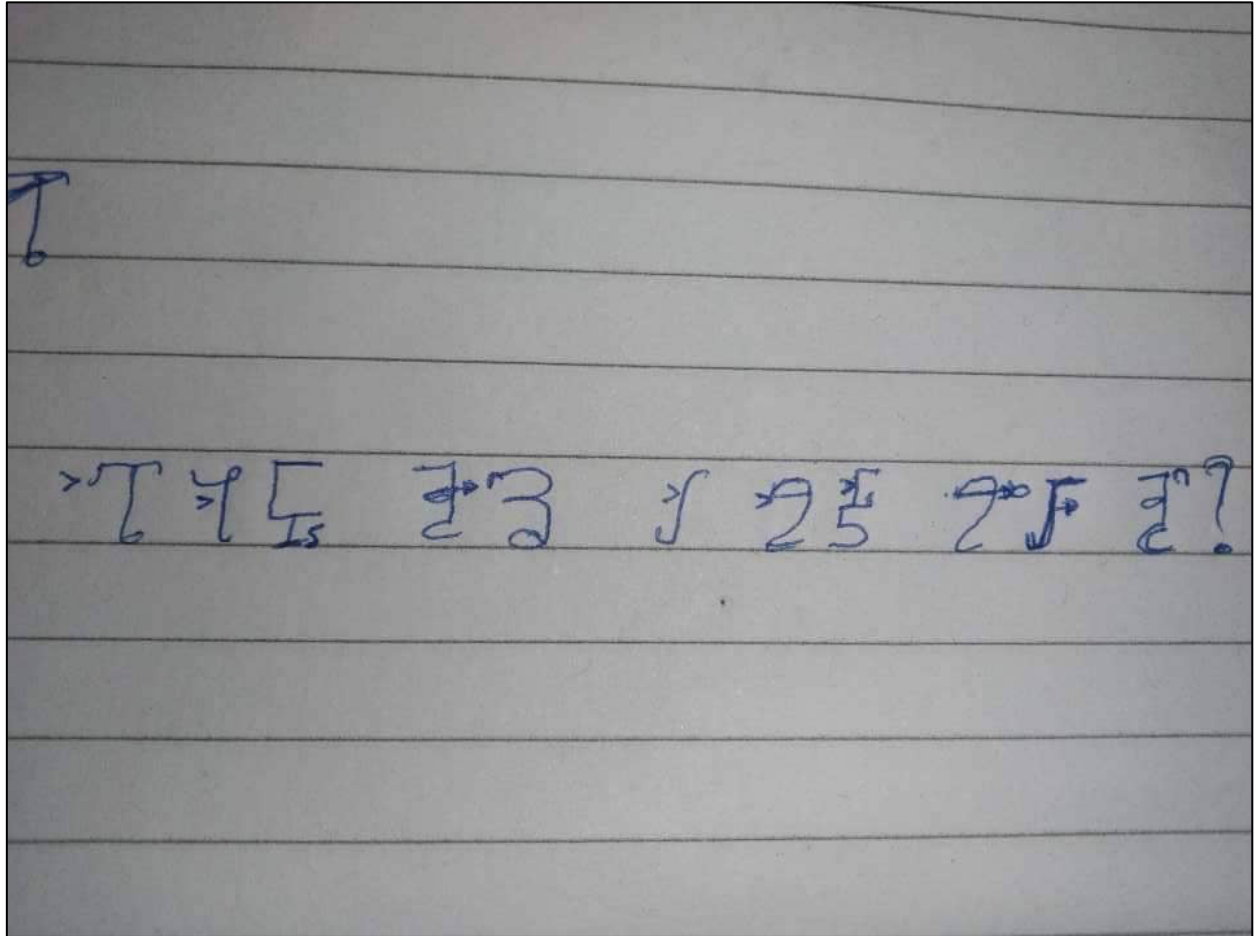


Figure 24. Handwritten note in the Shaaldaa script from Dire Dawa.

፪፩ ሆይ ገገገ
ገገገ ገገገ ገገገ
ገገገ ገገገ ገገገ
ገገገ ገገገ ገገገ
ገገገ

Figure 26. Oromo excerpt typed in the Shaaldaa script with a font.



Figure 27. Another independent group being educated in the Shaaldaa script.



Figure 28. Another independent group being educated in the Shaaldaa script.



Figure 29. The Shaaldaa script being discussed on “Dire Today” news. See Reference 4, Section VII.

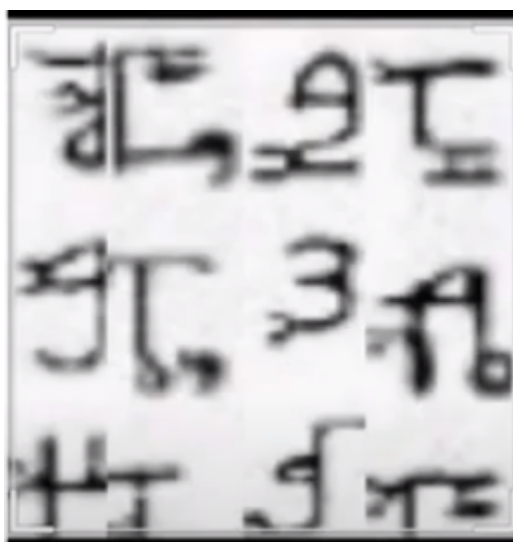


Figure 30. Shaaldaa script shown in a video on “Dire Today” about the script. See Reference 5, Section VII.

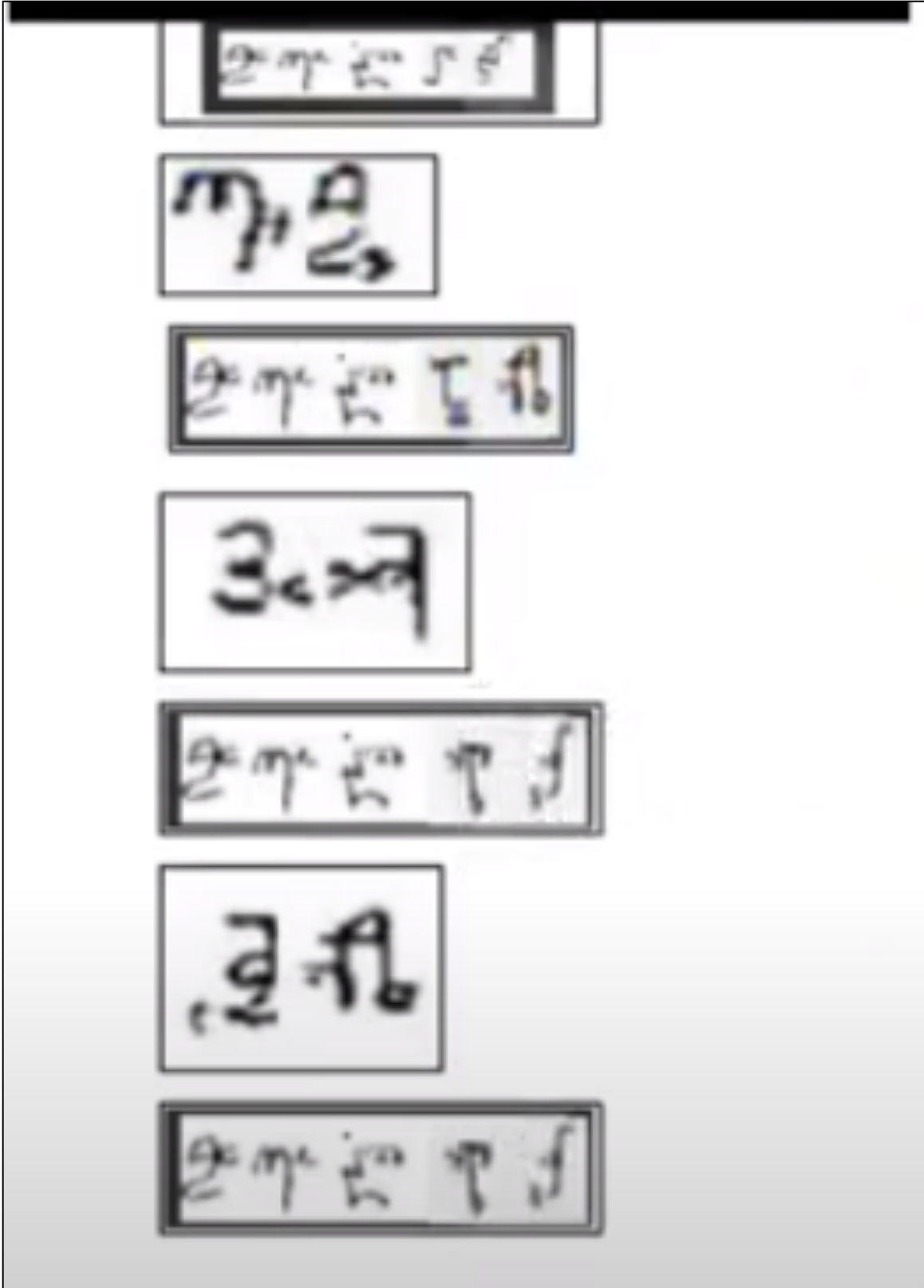


Figure 31. Shaalda script shown in a video on “Dire Today” about the script. See Reference 5, Section VII.

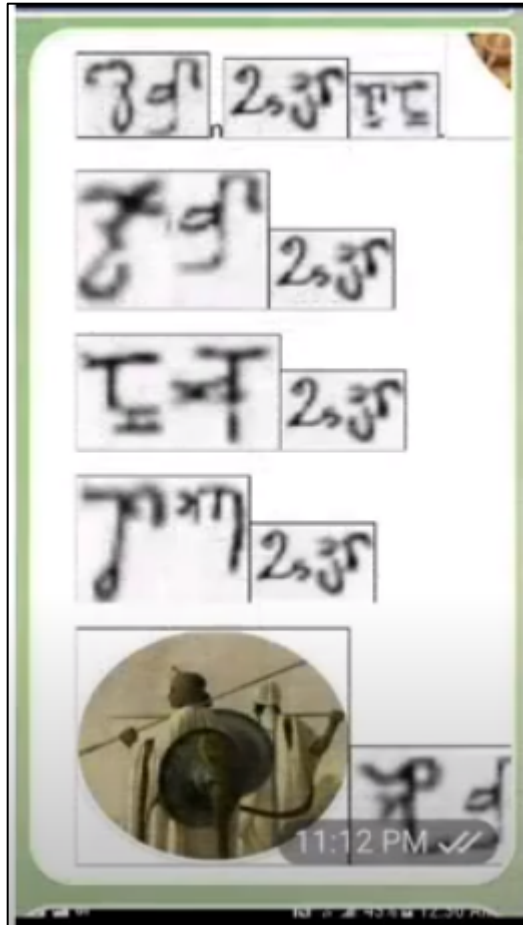


Figure 32. Various Oromo words in the Shaaldaa script shown in a video on “Dire Today” about the script. See Reference 5, Section VII.

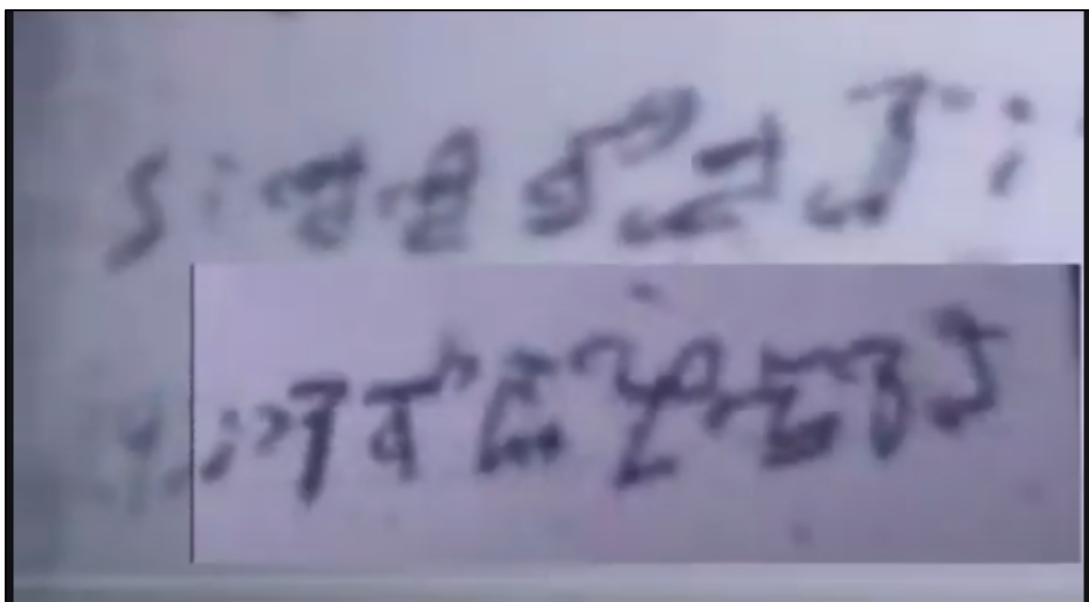


Figure 33. Shaaldaa script shown in a video on “Dire Today” about the script. See Reference 5, Section VII. Appears to be from one of Sheikh Bakri’s manuscripts.



Figure 34. The word “𐌆𐌇𐌅𐌆” (*Latin transliteration: “gaala”; IPA: /ga:le/; translation: “camel”*) in the Shaaldaa script alongside a picture of a camel, shown in a video on “*Dire Today*” about the script. See Reference 5, Section VII. An attempt to create digital educational content in the script.

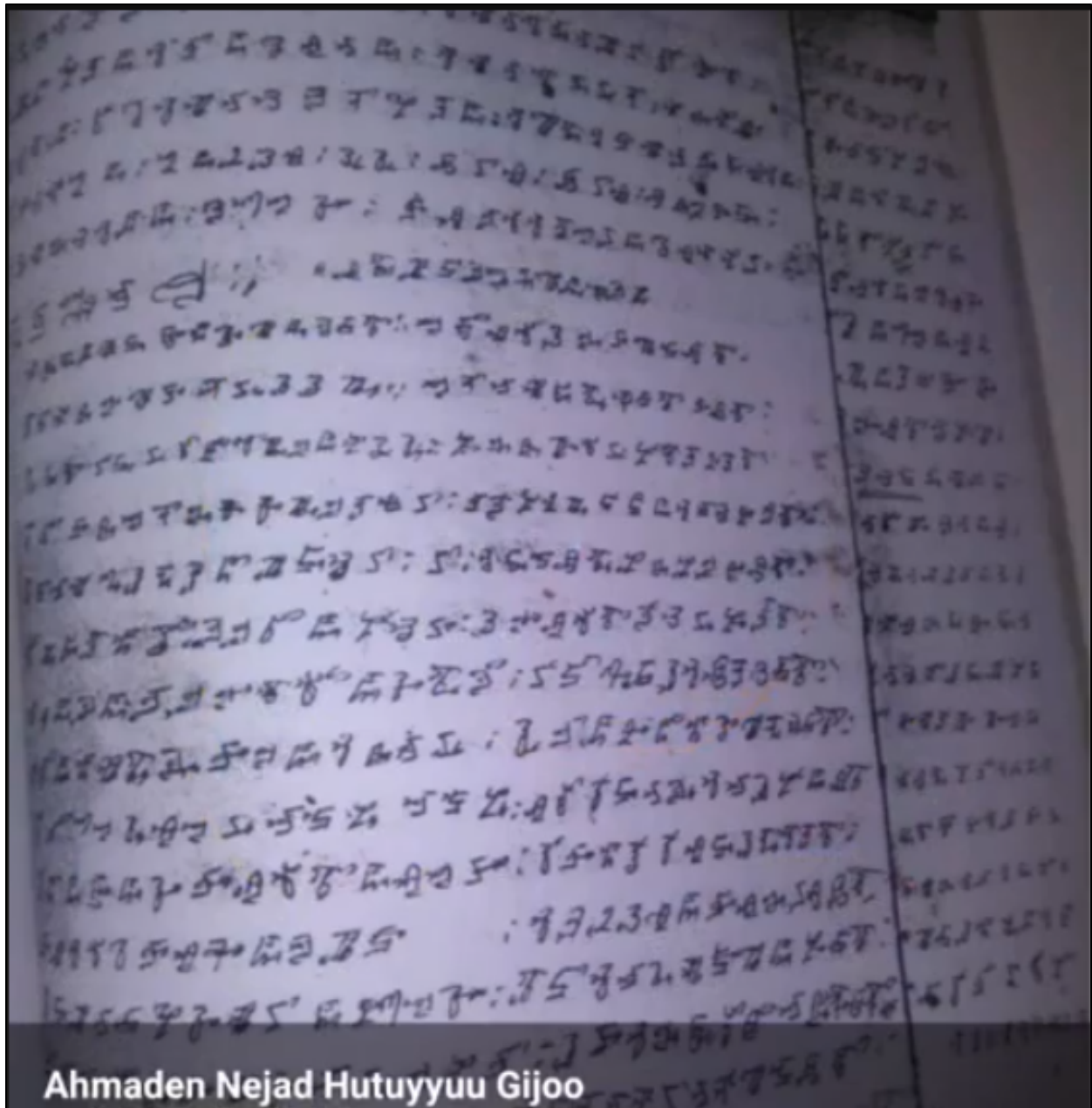


Figure 35. Shaalda script shown in a video on “Dire Today” about the script. See Reference 5, Section VII. Appears to be from one of Sheikh Bakri’s manuscripts.

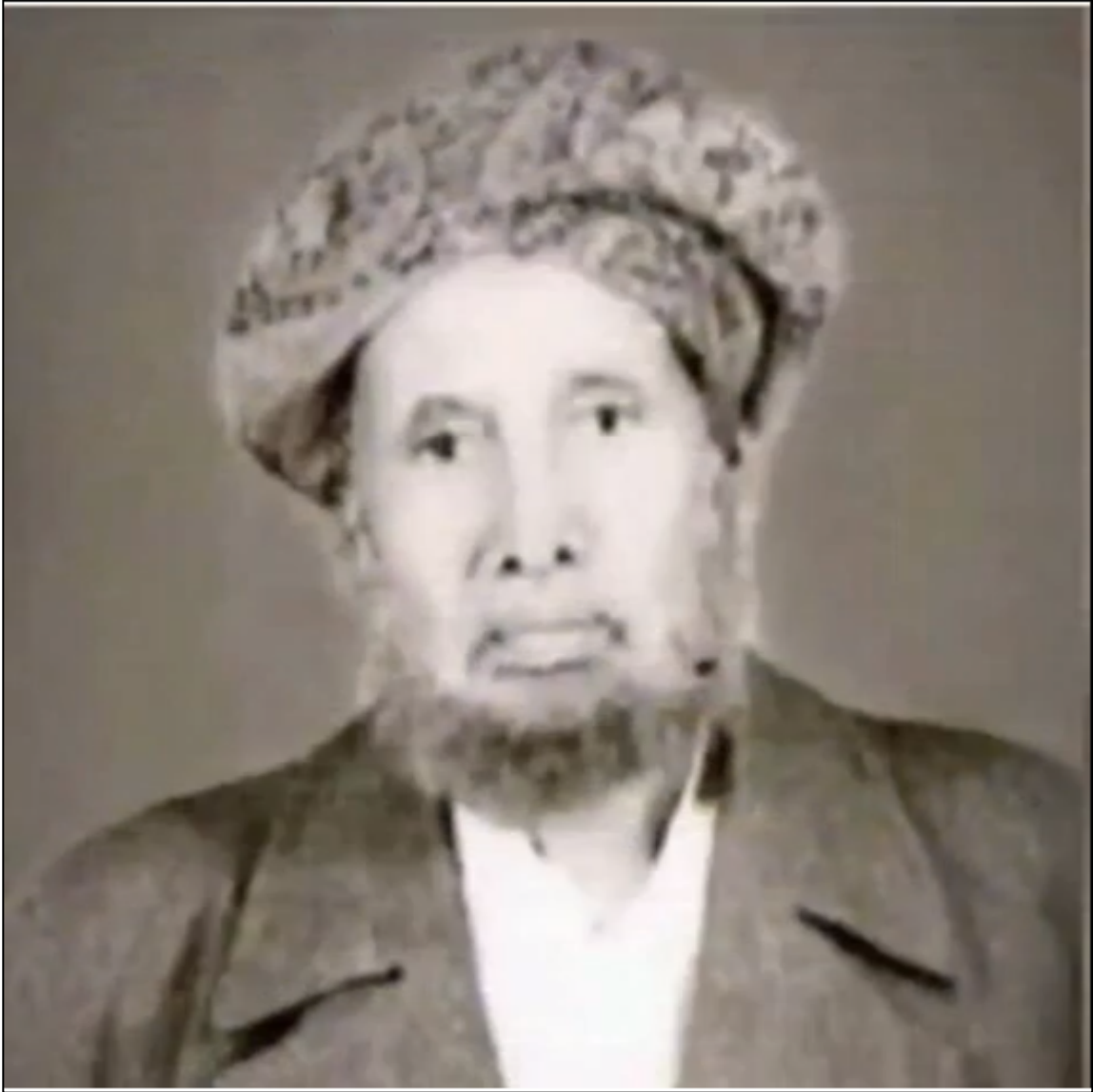


Figure 36. A picture of Sheikh Bakri Sapalo shown in a video on *"Dire Today"* about the script. See Reference 5, Section VII.



Figure 37. 3 handwritten instances of the script alongside images of Sheikh Bakri Sapalo (left) and 2 others (center and right) shown in a debate video about scripts on “Dire Today”. See Reference 6, Section VII.



Figure 38. Street interview about the Shaaldaa script and its creator, with another teaching chart to the left, on “Dire Today”. See Reference 7, Section VII.

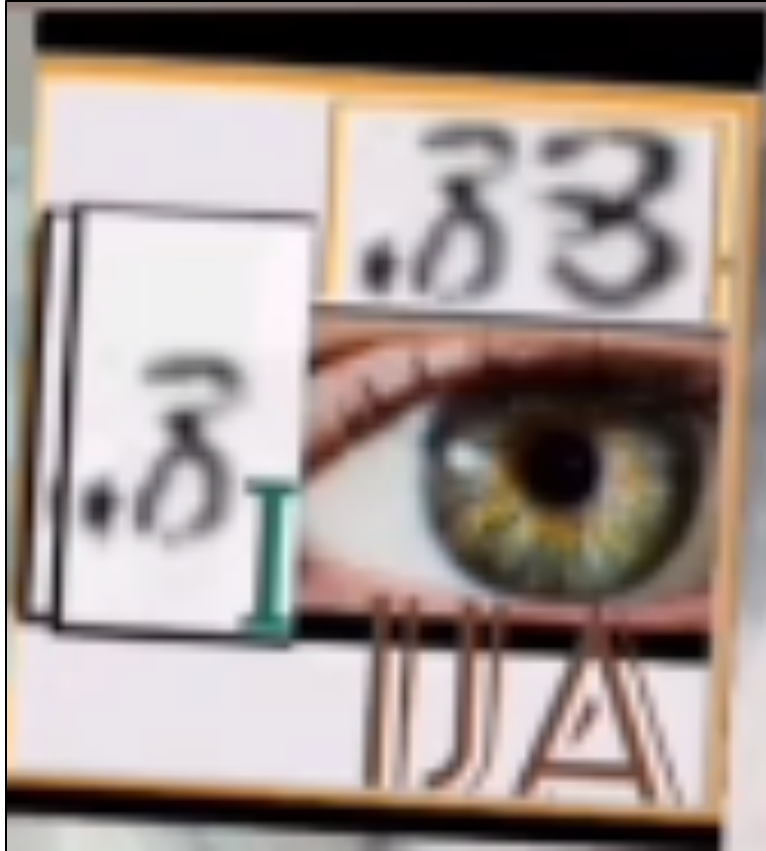


Figure 39. The word “*ija*” (*Latin transliteration: “ija”; IPA: /ije/; translation: “eye”*) in the Shaaldaa script alongside a picture of an eye, shown in a video on “*Dire Today*” about the Sheikh Bakri and the script. See Reference 7, Section VII. Another attempt to create digital educational content in the script.



Figure 40. A Shaaldaa script font showcased in a video on “*Dire Today*”.

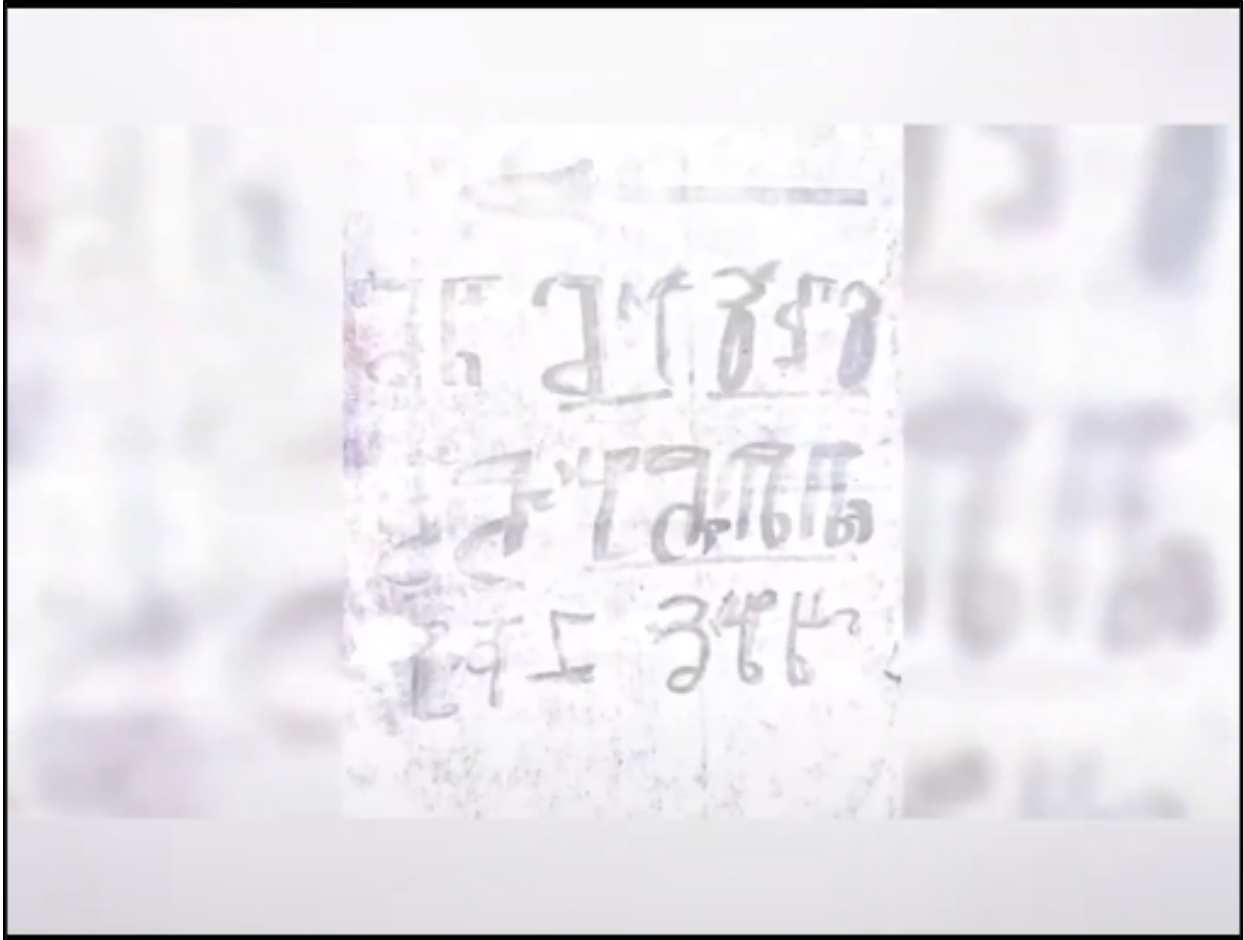


Figure 41. Handwritten material in the Shaaldaa script. See Reference 7, Section VII.



Figure 42. An inscribed monument dedicated to the Shaaldaa script in the village of Saphaloo.

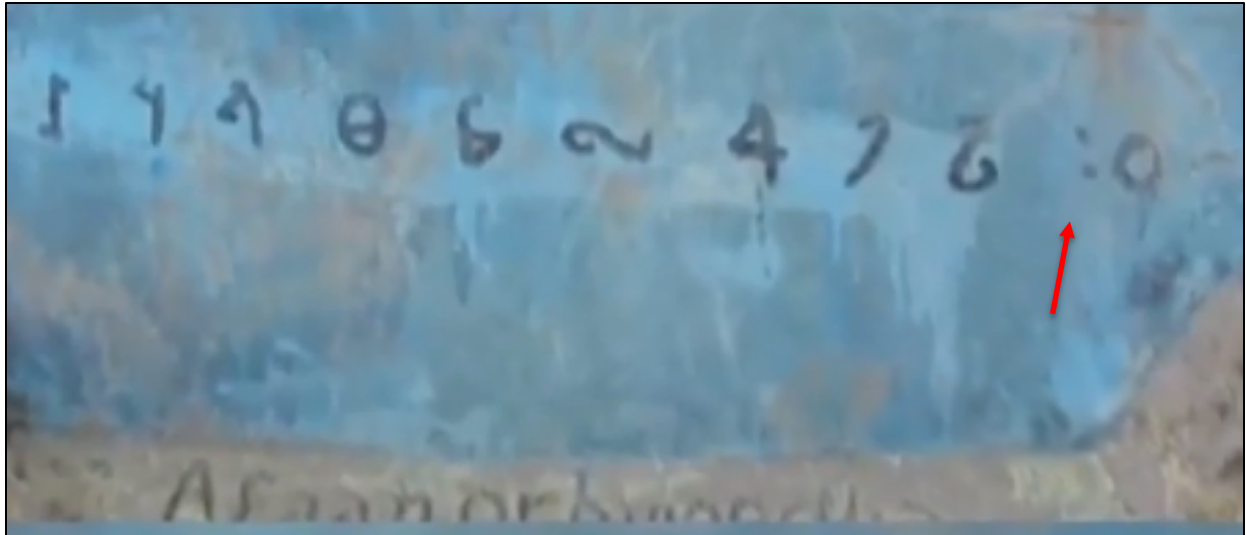


Figure 43. Shaaldaa script numerals inscribed on the script monument in Figure 42. The colon-like inscription (:) with a red arrow pointing to it is has been explained to the authors as the result of erosion and does not represent a writing element. Unfortunately, the appearance of “:0” has led some members of the user community to believe that this is prescribed way of writing the value “10”.

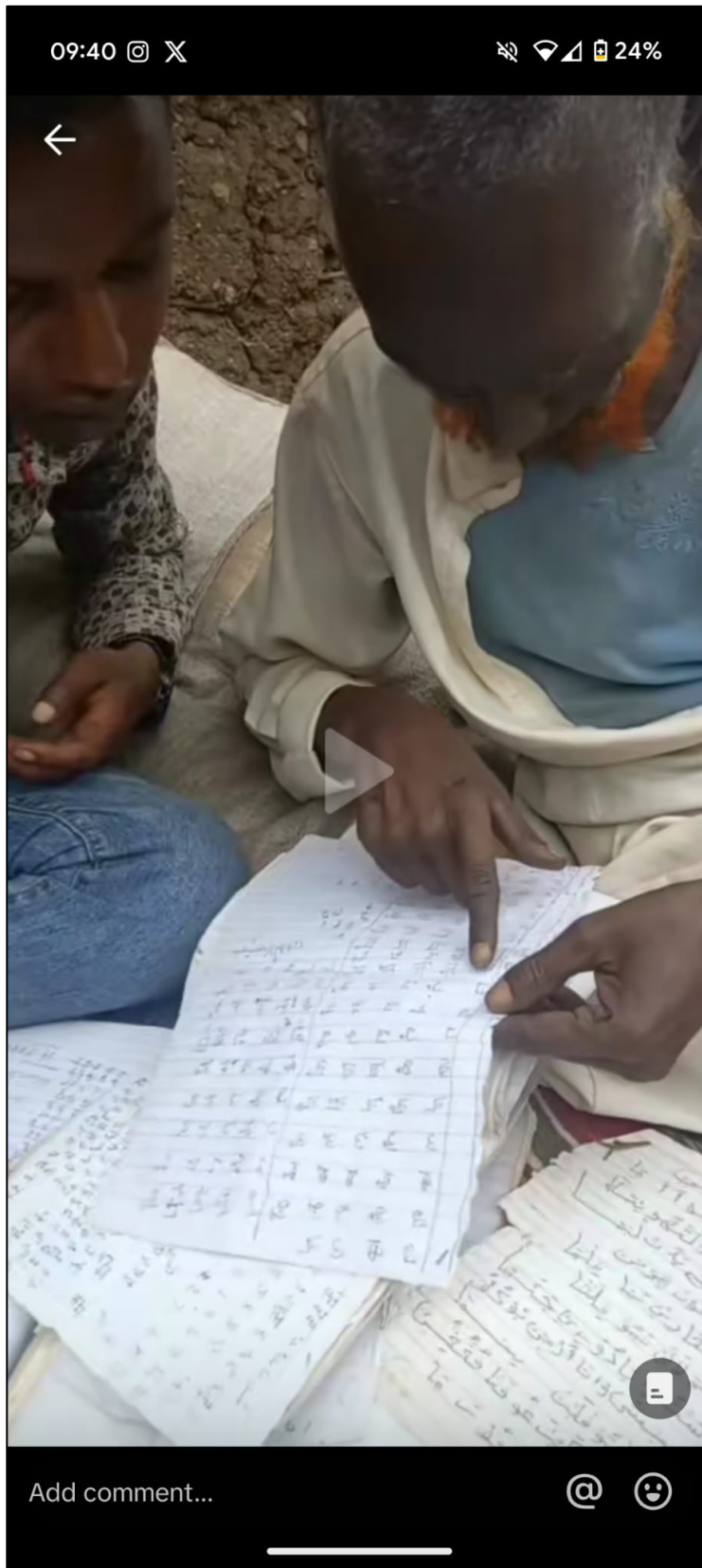


Figure 44. Sheikh Nuraddin Ahmad and Aneso Mohammed with documents in Shaaldaa script. See Reference 8; Section VII.

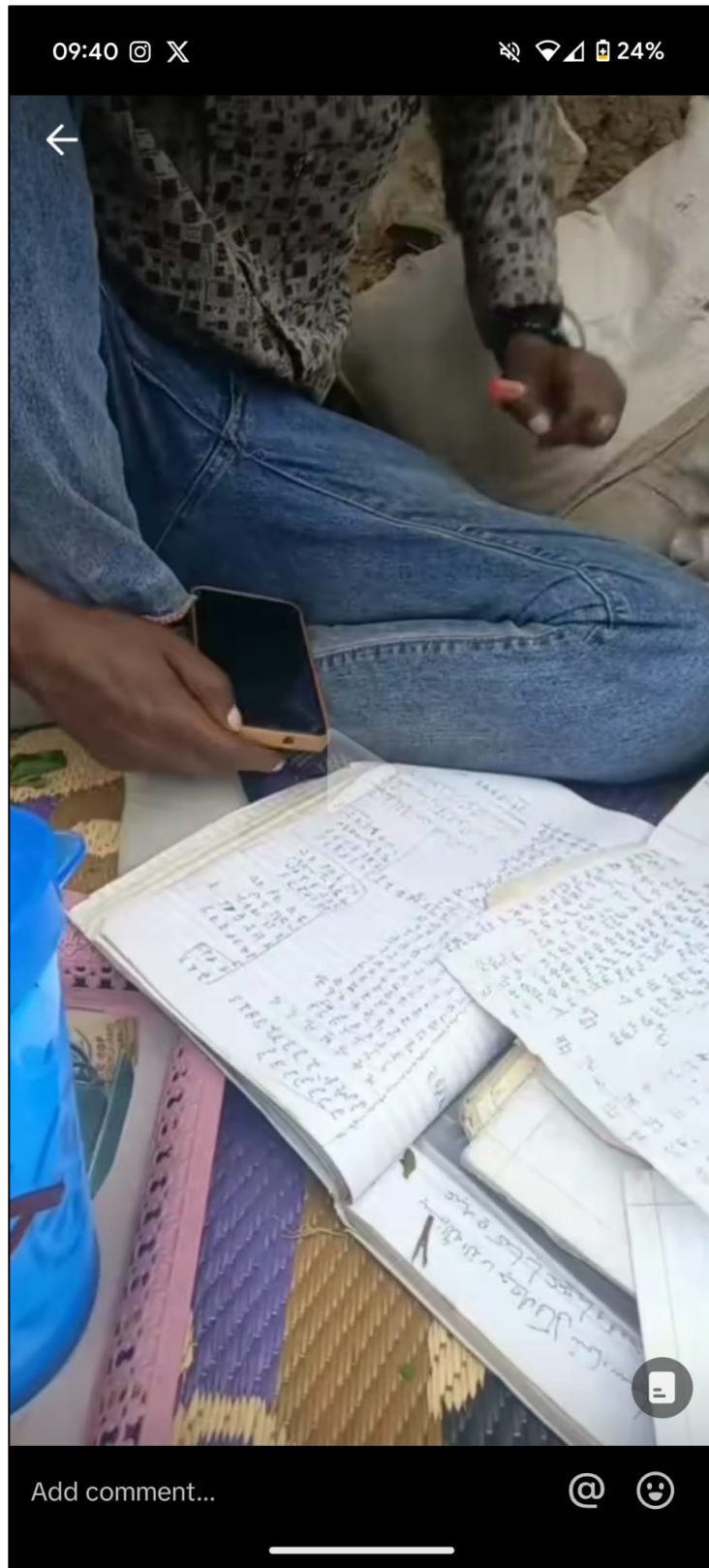


Figure 45. Sheikh Nuraddin Ahmad and Aneso Mohammed with documents in Shaaldaa script. See Reference 8; Section VII.



Figure 46. Shalada script engravings. See Reference 9; Section VII.



Figure 47. Engravings of Oromo sentences written in the Shaaldaa script. There is a parallel engraving in the Latin script in Figure 46. See Reference 9; Section VII.



Figure 48. Engravings of Oromo sentences written in the Latin script, next to the same sentences in the Shaaldaa script seen in Figure 45. See Reference 9; Section VII.

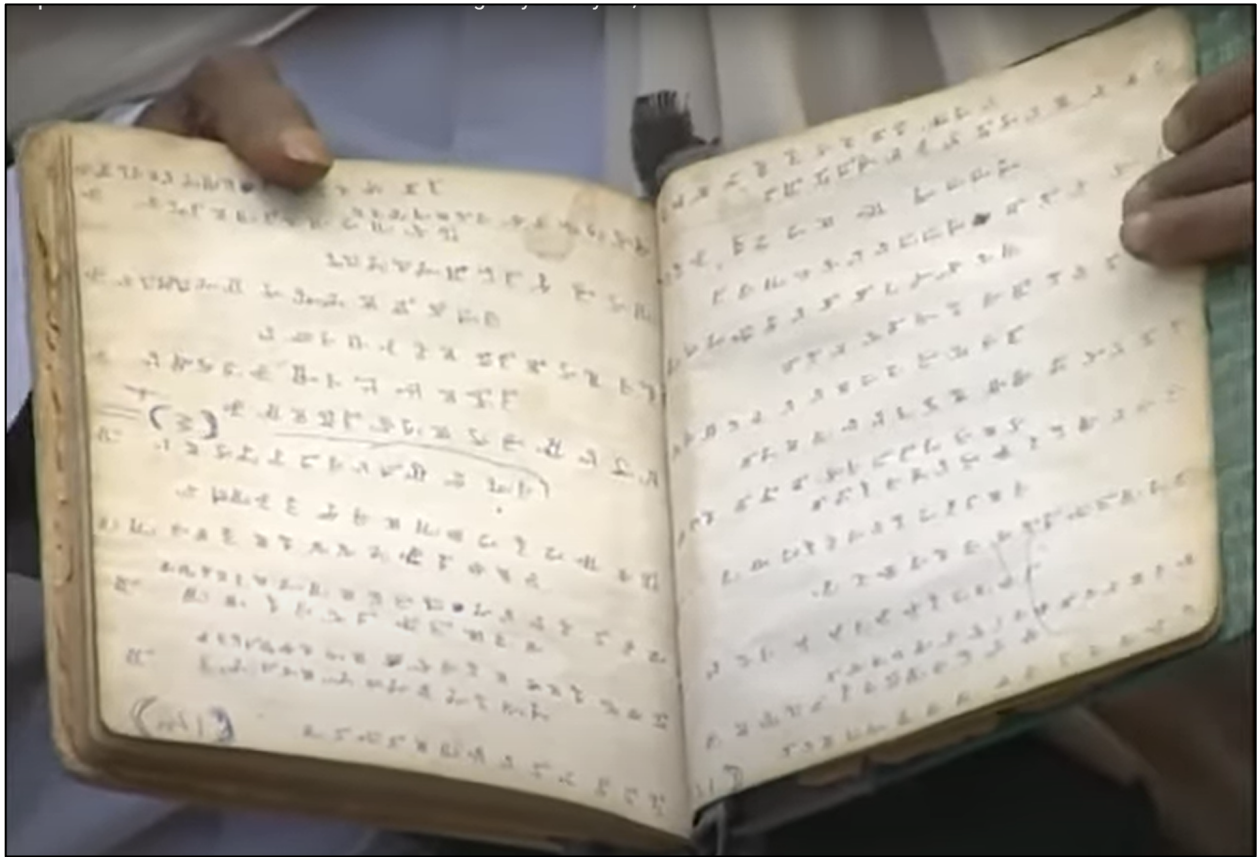


Figure 49. A book written in the Shaaldaa script held by Sheek Mahammad (English spelling: Sheikh Mohammed), a student of Sheikh Bakri Saphalo, who is mentioned as helping Hayward and Hassen in their 1981 paper (Reference 1; Section VII). See Reference 11; Section VII.

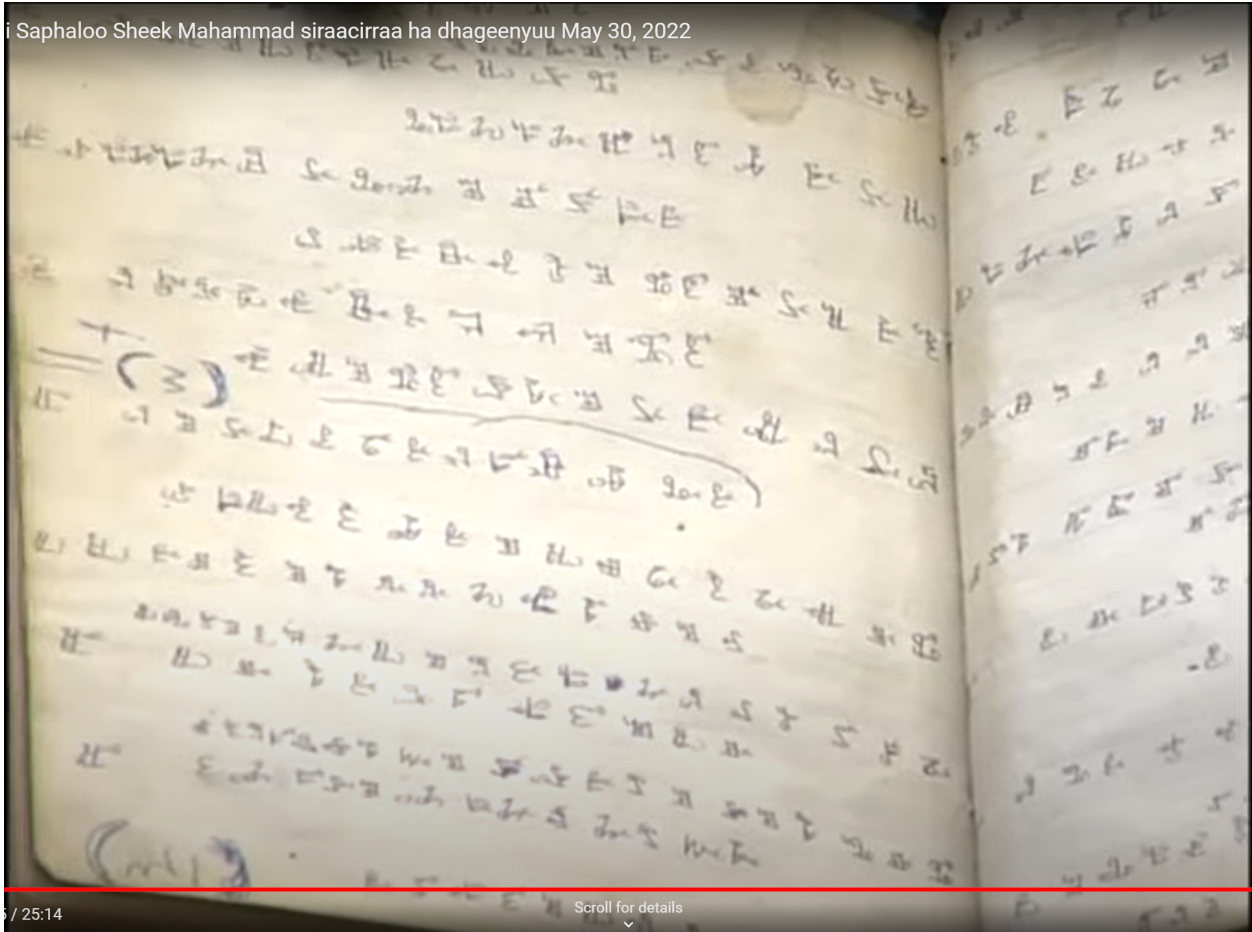


Figure 50. A book written in the Shaaldaa script held by Sheek Mahammad (English spelling: Sheikh Mohammed), a student of Sheikh Bakri Saphalo, who is mentioned as helping Hayward and Hassen in their 1981 paper (Reference 1; Section VII). See Reference 11; Section VII.

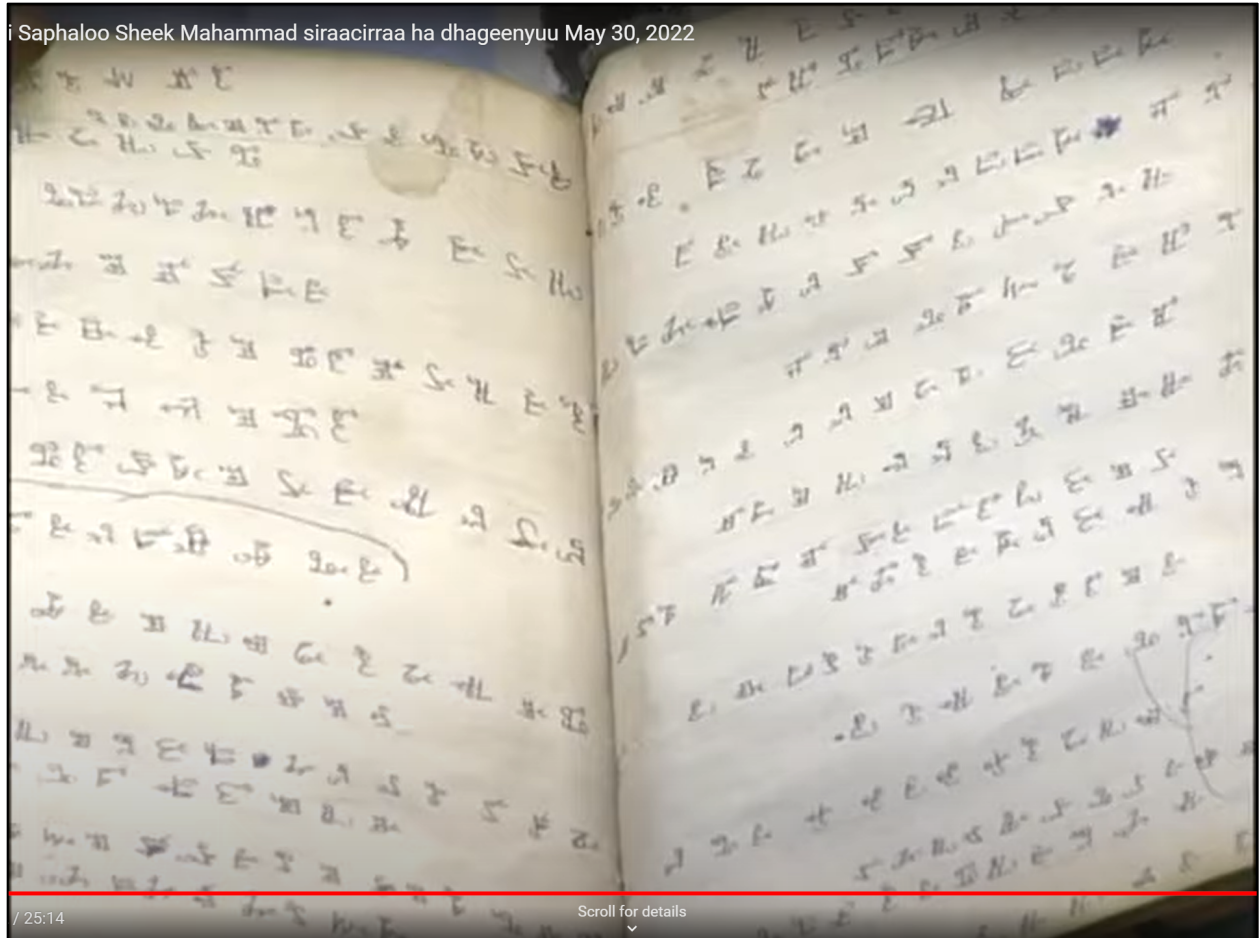


Figure 51. A book written in the Shaaldaa script held by Sheek Mahmammad (English spelling: Sheikh Mohammed), a student of Sheikh Bakri Saphalo, who is mentioned as helping Hayward and Hassen in their 1981 paper (Reference 1; Section VII). See Reference 11; Section VII.

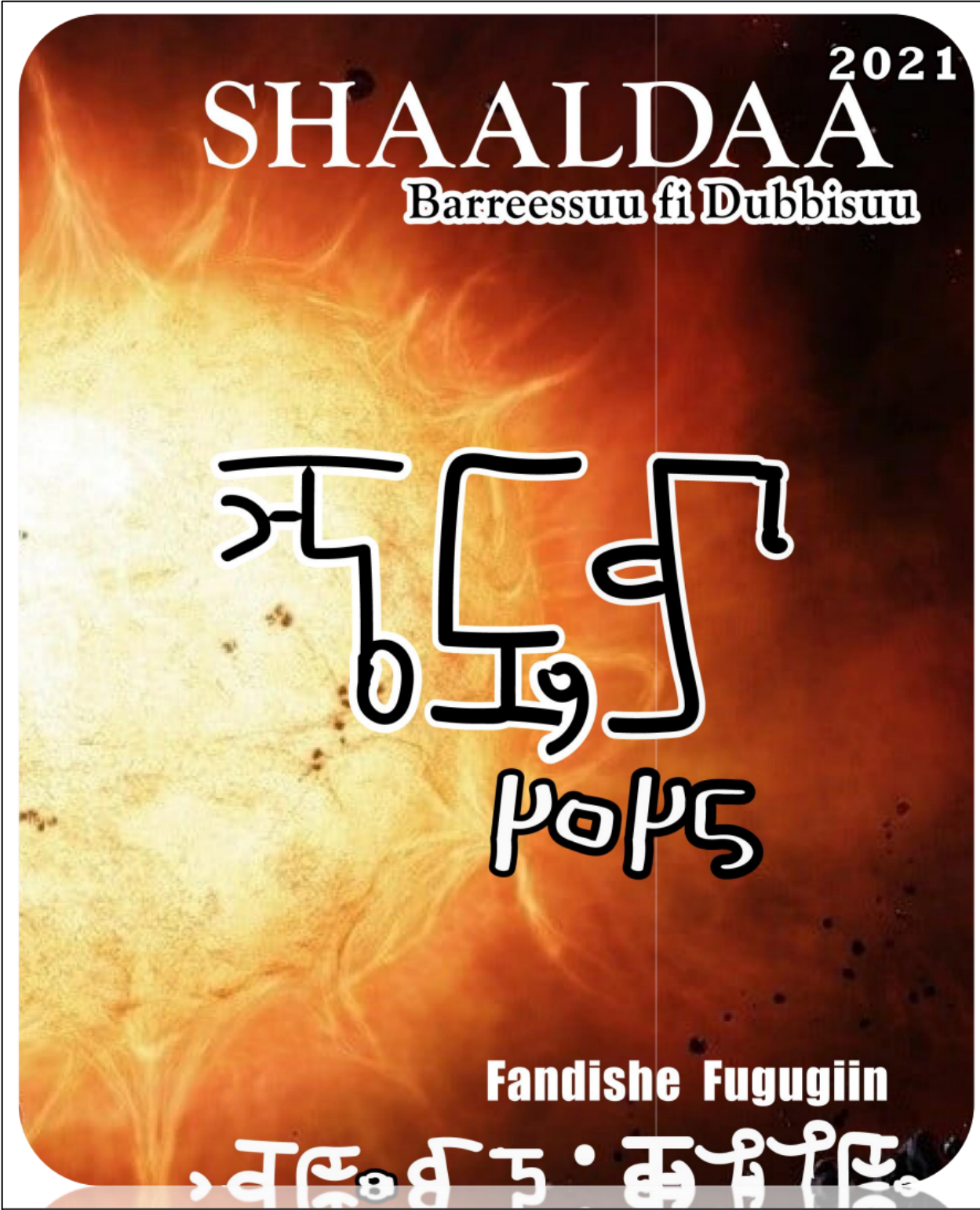


Figure 52. A document about the Shaaldaa script by Fandishe Fugug, Professor of software engineering at Haramaya University.

'KH' qubee qubeewwan lama of keessa qabu yookaan qubee dachaa (digraph phonemes) tahee loqoda oromoo bahaa(fugug) kana birratti haalaan kan fayyadamaniidha. Fakkeenyaaf:

ቢቢ = **beekhe**. garuu jechi beekhe ja'u kun loqoda oromoo gara biraatin

yoo barreeffamu ቢቢ = **beeke**.

Kan biraa jechoonni akka khabiira,

ቢቢቢ = **khabiira**.

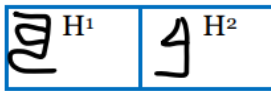
Loqoda bahaa(fugug)	Looqoda gara birraa
ቢቢ (Khana)	ቢቢ (Kana)
ቢቢቢ (khitaaba)	ቢቢቢ (kitaaba)

As keessatti 'kh' yeroo hedduu loqoda gara baha(fugug) kana keessatti irra daddeebi'e kan agarruudha.

Figure 53. A noteworthy page from Fandishe Fugug's document that illustrates how 2 /x/ occurs instead of ፳ /k/ for certain words in the eastern Oromo dialect, "Loqodo bahaa".

Garaagarummaa H¹ Fi H² fi akkaataa itti fayyadama isaanii

Qubee Afaan oromoo Laatiin keessatti dubbifamaa “H” (laryngeal fricative) kan sagalee isaa laagaadhaan uumamu qofatu jira. Gara shaaldaa yeroo dhufnu garuu, qubeewwan “H” lamatu jira kan sagalee hanga tokko wal fakkaatu kan itti fayyadamni isaa garagaraa ta’e.



Shaaldaa keessatti H¹ (laryngeal fricative) akkuma “H” qubee laatiin yeroo mara kan jechoota adda addaa keessatti itti fayyadamnu dha.

Akkusama H² (voiceless pharyngeal fricative) shaaldaa keessatti yeroo hedduu kan fayyadamnu yeroo jechoota afaan biraa irra fudhatame barreessinu kan fayyadamnuudha. Akka Fakkeenyaatti jechoota afaan arabaa irra fudhataman tokko tokko haa ilaallu: -

ሕሙድ = ahmad.

ሕሙድ = haamid

ሕሙድ ሕሙድ ሕሙድ = abdulhaakim

Waluma galatti, H¹ jechoota afaan oromoo yeroo barreessinu kan fayyadamnu fi H² yeroo jechoota afaan alagaa(ormaa) irraa dhufan kan qubee “H” if keessaa qabaniif kan fayyadamnu taha.

Figure 54. A page from Fandishe Fugug’s document that illustrates the difference between ʕ /h/ and ʔ /ħ/, with examples of Arabic-origin names like أَحْمَد (‘Aḥmad), حَامِد (ḥāmid) عبد الحكيم (‘Abd al-Ḥakīm), highlighting the retention of the Arabic letter ح /ħ/. Note, the latter name does not retain the Arabic ع /ʕ/ sound in writing in this specific example, but this is common in many examples of language contact and perhaps other users would retain the sound when writing in the Shaaldaa script via ʕ /ʕ/.

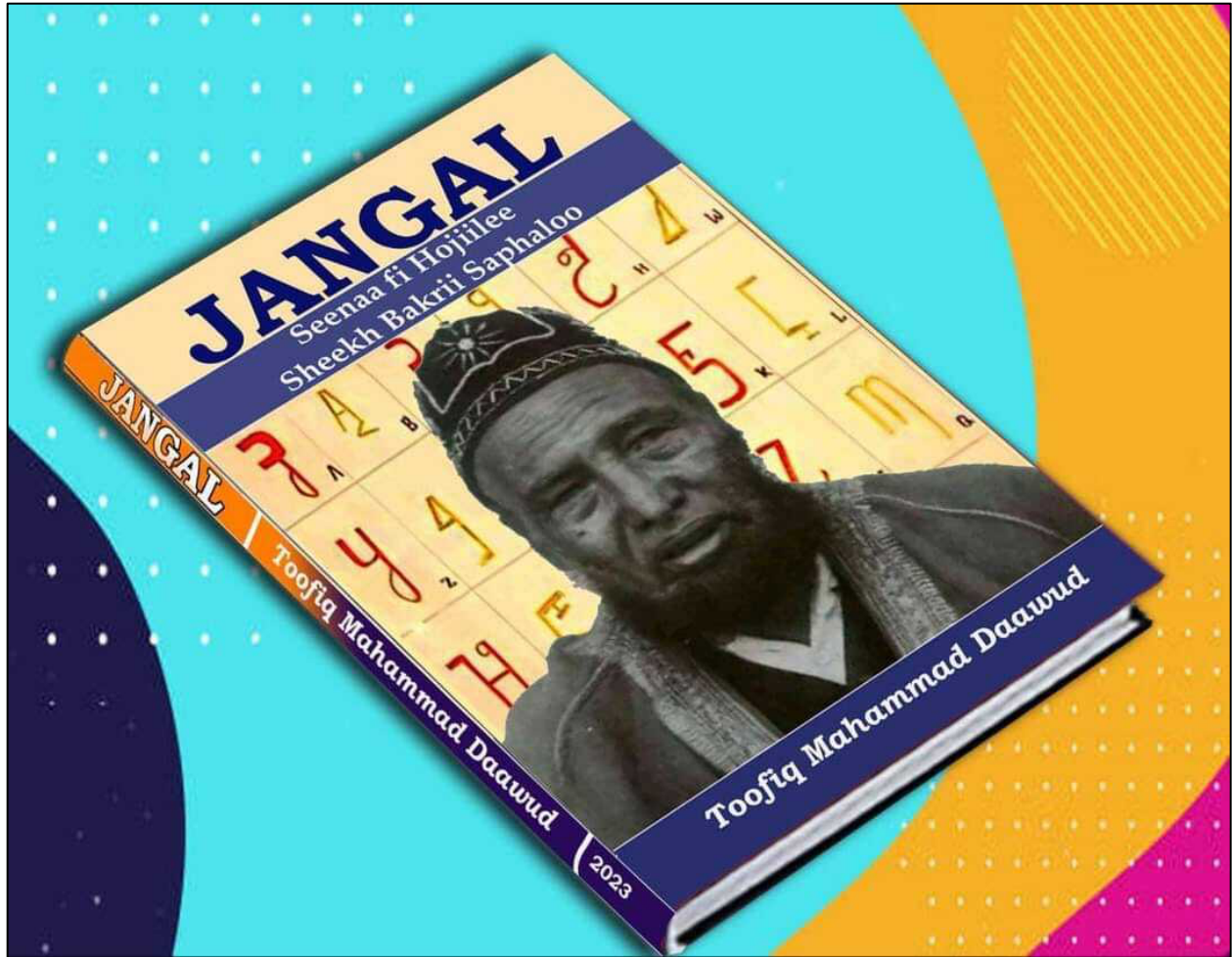


Figure 57. Another book about Sheikh Bakri Saphalo, (translated) entitled “*Jangal – History and Works of Sheikh Bakri Saphalo*”

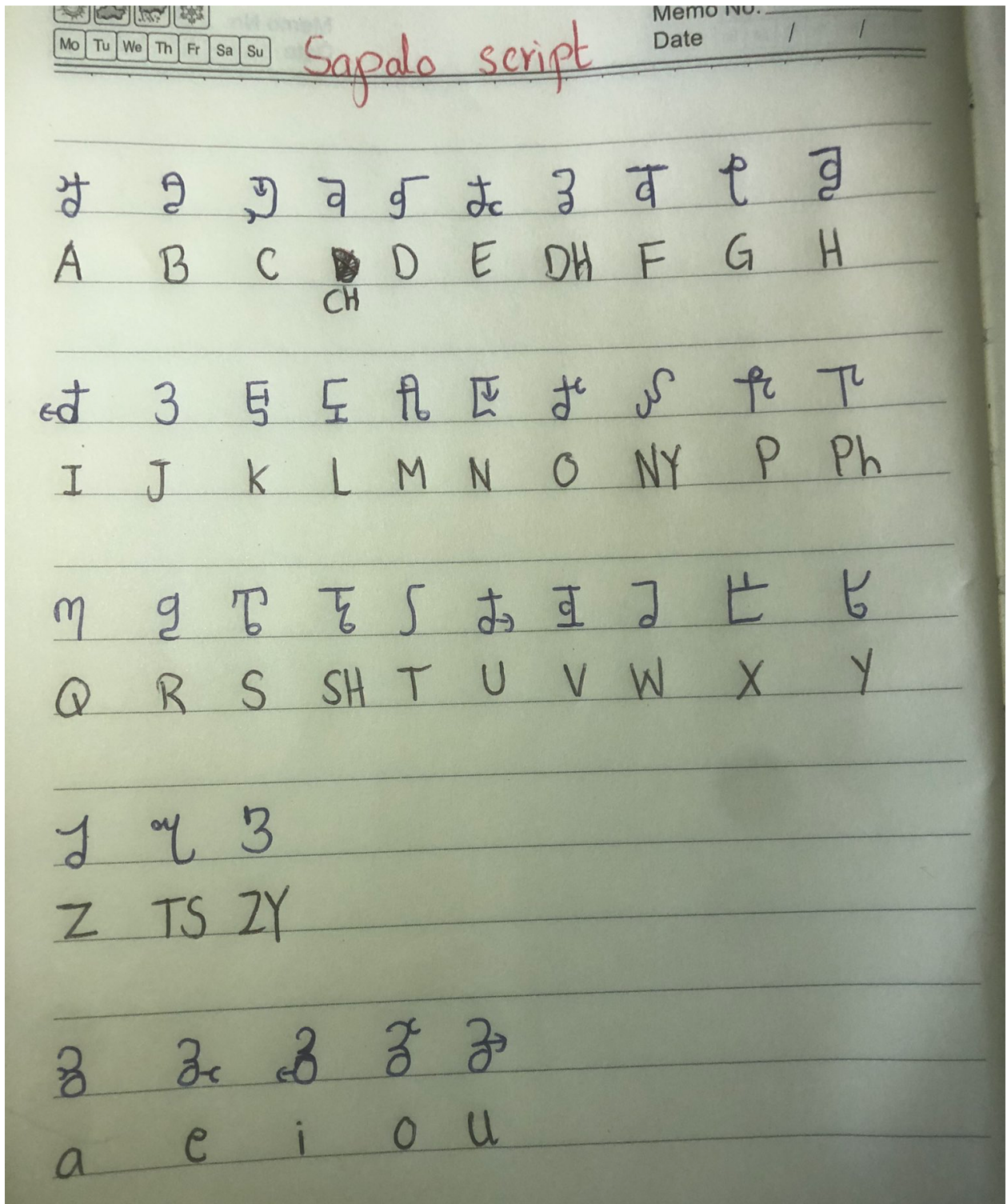


Figure 58. Handwriting of the Shaaladaa script letters by a user. Standalone vowels are written at the bottom, and the Shaaladaa script letters under the Latin A, E, I, O, U are the ɕ letters (𑌃, 𑌅, 𑌇, 𑌉, 𑌑).

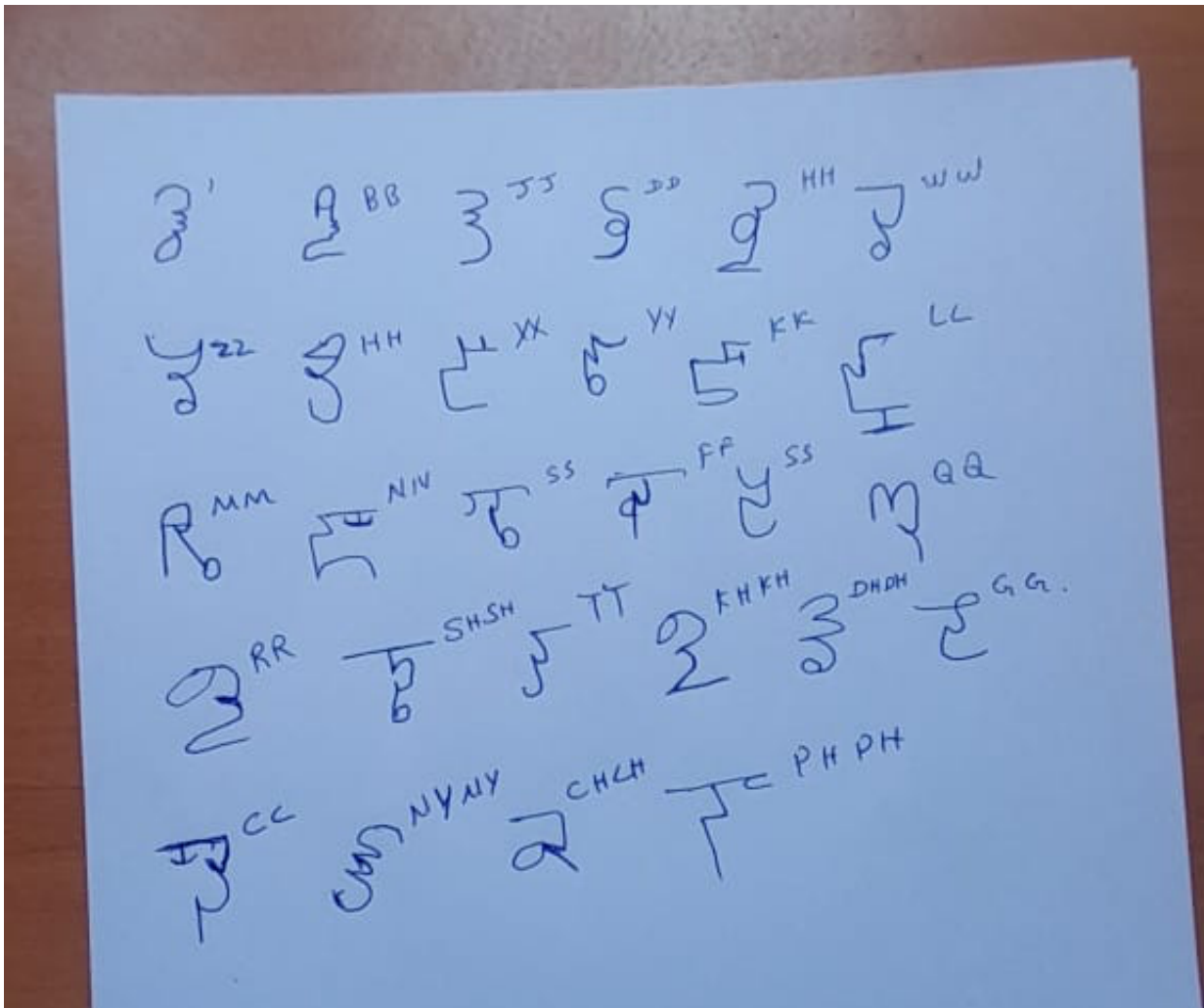


Figure 59. Handwritten geminated base glyphs for native Oromo phonemes.

Handwritten text in Shaaldaa script on lined paper. The text is arranged in approximately 12 horizontal lines, with some lines containing multiple words or phrases. The script is a form of Arabic calligraphy adapted for the Shaaldaa language. The handwriting is fluid and consistent throughout the page. At the bottom right corner of the page, there is a small green logo with the word 'ONLINE' visible.

Figure 60. Shaaldaa-script manuscript written by Sheikh Nuradin Ahmad in 1957.

Handwritten text in Shaaldaa script on lined paper. The text is arranged in approximately 15 horizontal lines. The script is a form of Arabic calligraphy adapted for the Shaarda language. The lines of text are written in a consistent, flowing style across the page.

Figure 61. Shaaldaa-script manuscript written by Sheikh Nuradin Ahmad in 1957.

Handwritten text in Shaaldaa script on lined paper. The text is arranged in approximately 15 horizontal lines, with some lines containing multiple words or phrases. The script is a form of the Khazax language. At the bottom right of the page, there is a logo for 'SIN ALINE'.

Figure 62. Shaaldaa-script manuscript written by Sheikh Nuradin Ahmad in 1957.

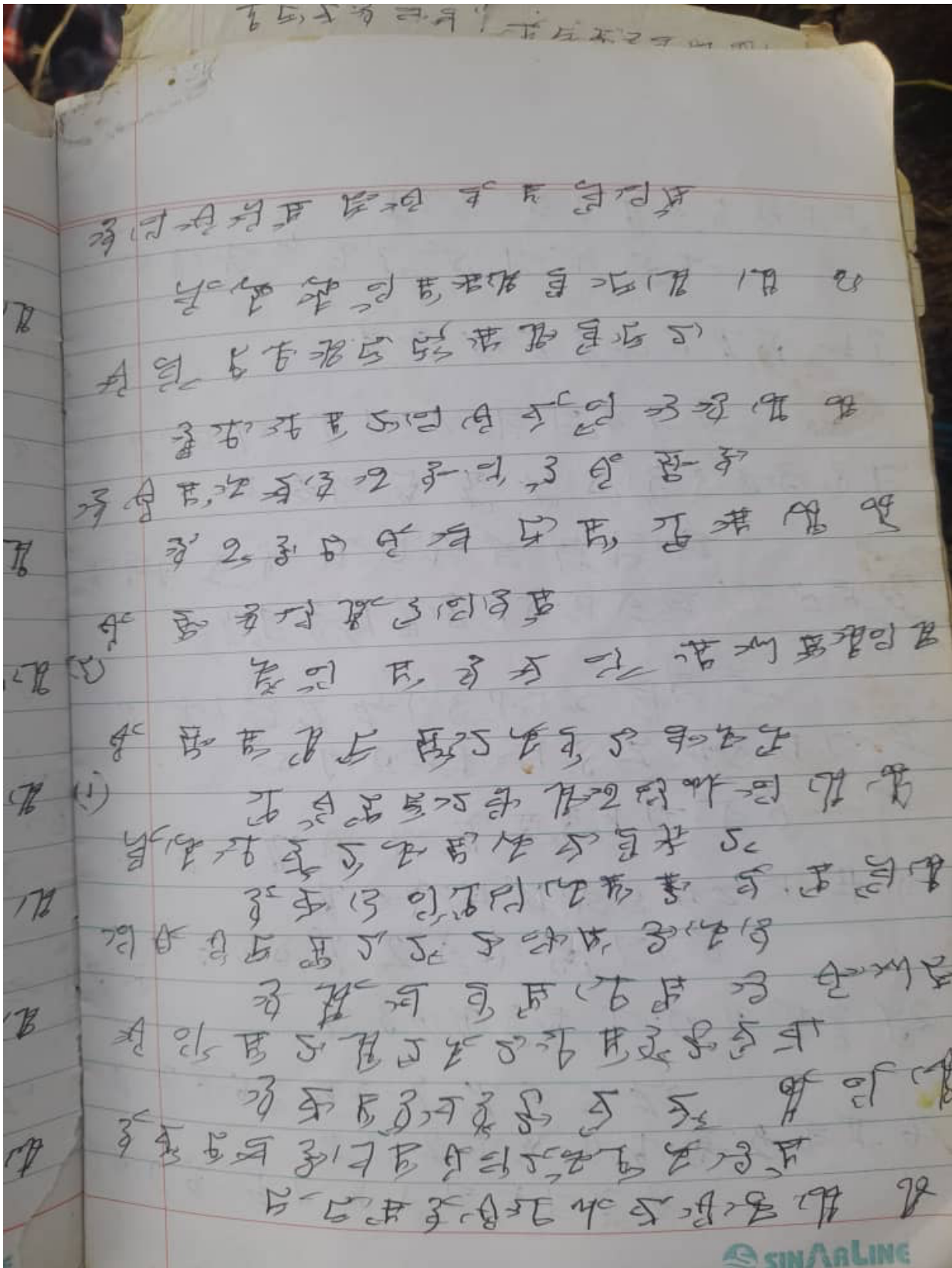


Figure 63. Shaaldaa-script manuscript written by Sheikh Nuradin Ahmad in 1957.



Figure 64. Shaalda-script manuscript written by Sheikh Nuradin Ahmad in 1957. Sheikh Mahammadmansur Sheikh Bakri Saphaloo is holding the manuscript.



Figure 65. Sheikh Mahmaddmansur Sheikh Bakri Saphaloo (a son of Sheikh Bakri Saphaloo) being interviewed by chemist and Shaaldaa-script teacher Aneso Mohammed.

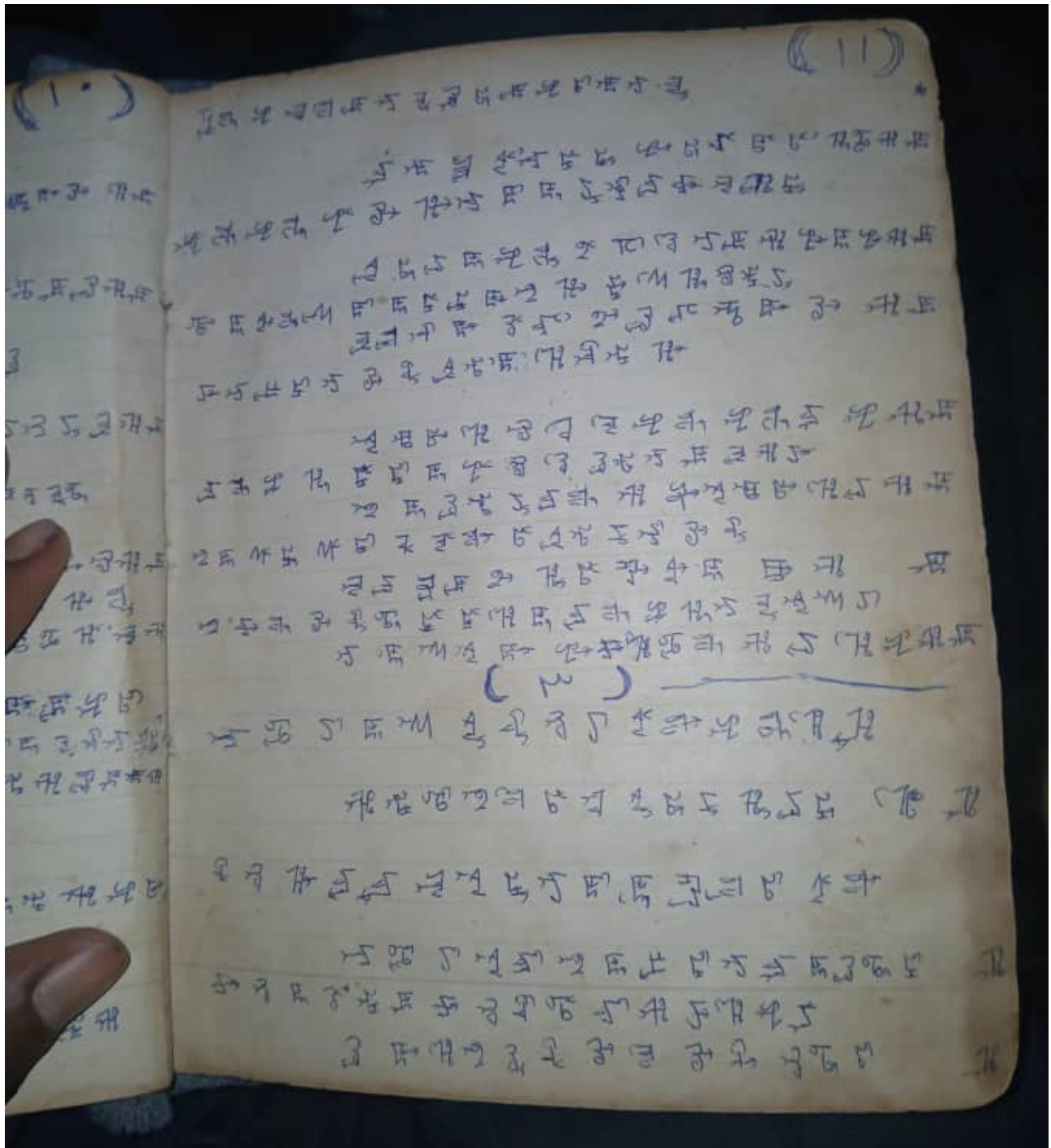


Figure 66.1. Page from Sheikh Bakrii's "Shaaldaq" manuscript written by Sheikh Bakrii circa 1968. Figures 66.2-66.18 are from the same manuscript.

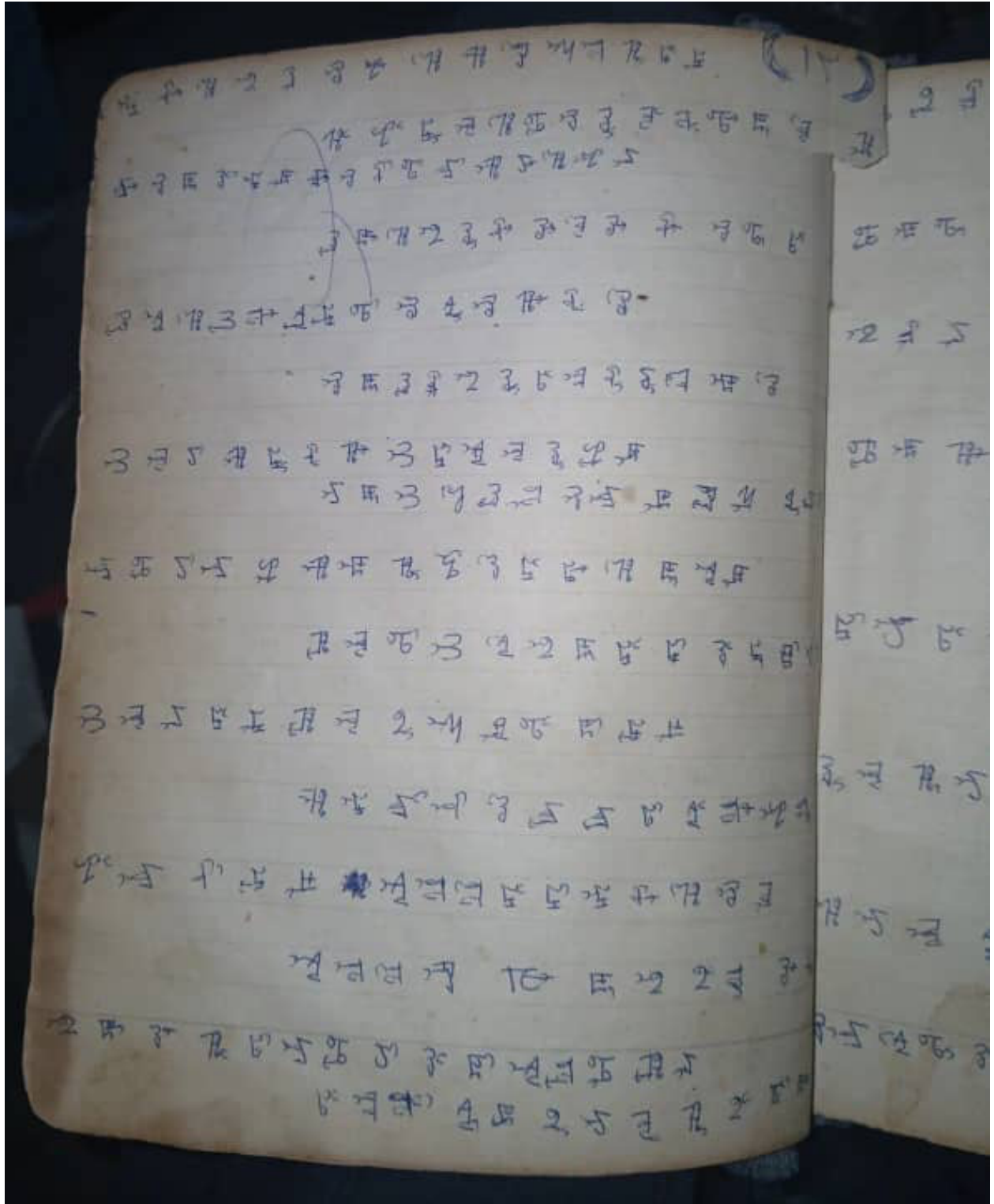


Figure 66.2. The “Shaaldaa” manuscript continued.

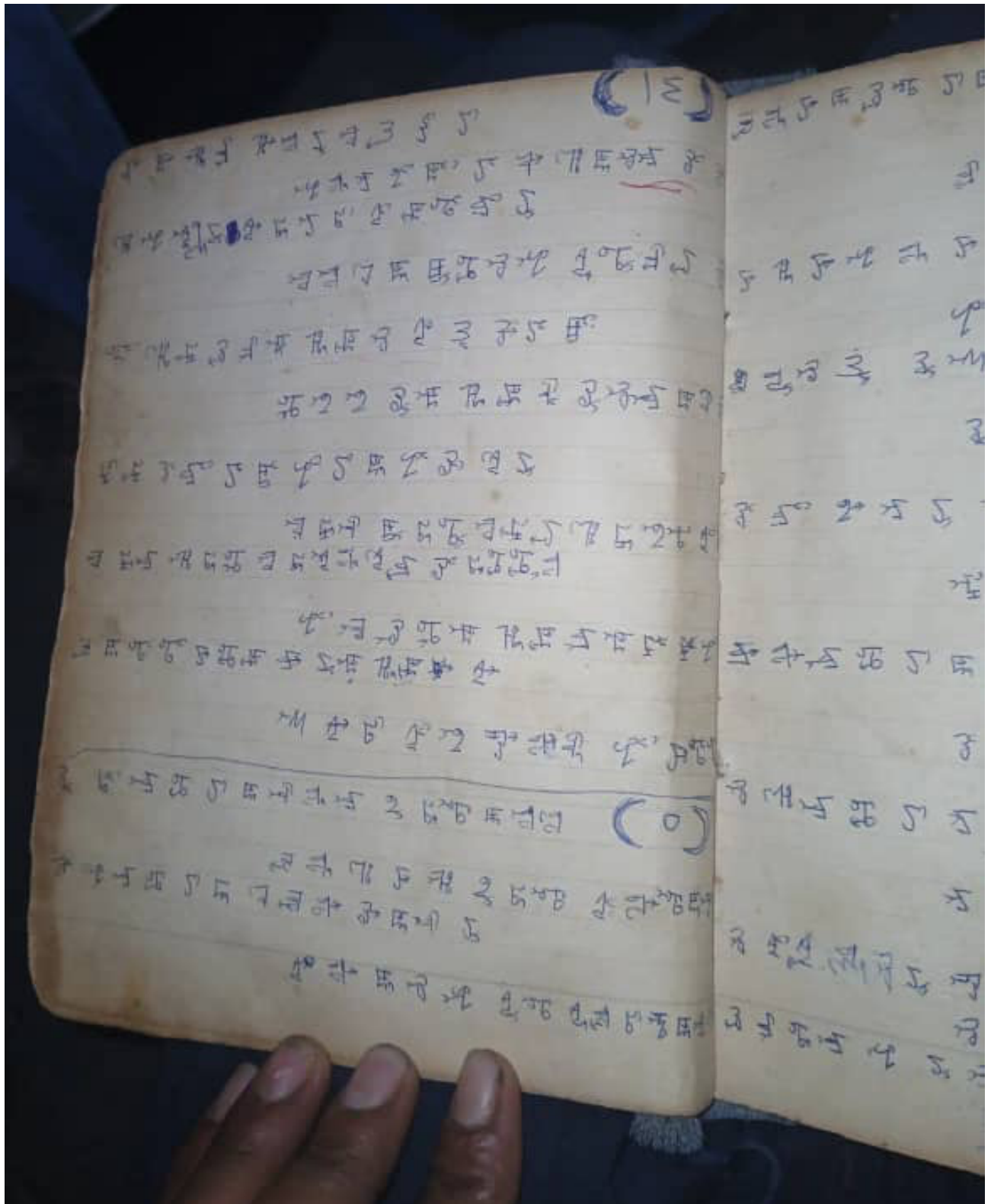


Figure 66.3. The "Shaaldaa" manuscript continued.

Handwritten text in an ancient script, likely Tamil, on a manuscript page. The text is arranged in approximately 15 horizontal lines, with some lines starting with a small symbol resembling a 'U' or 'V'. The script is dense and cursive. At the top right, there is a circular stamp or mark containing the number '10'. The page is slightly aged and shows some wear.

Figure 66.4. The "Shaaldaa" manuscript continued.

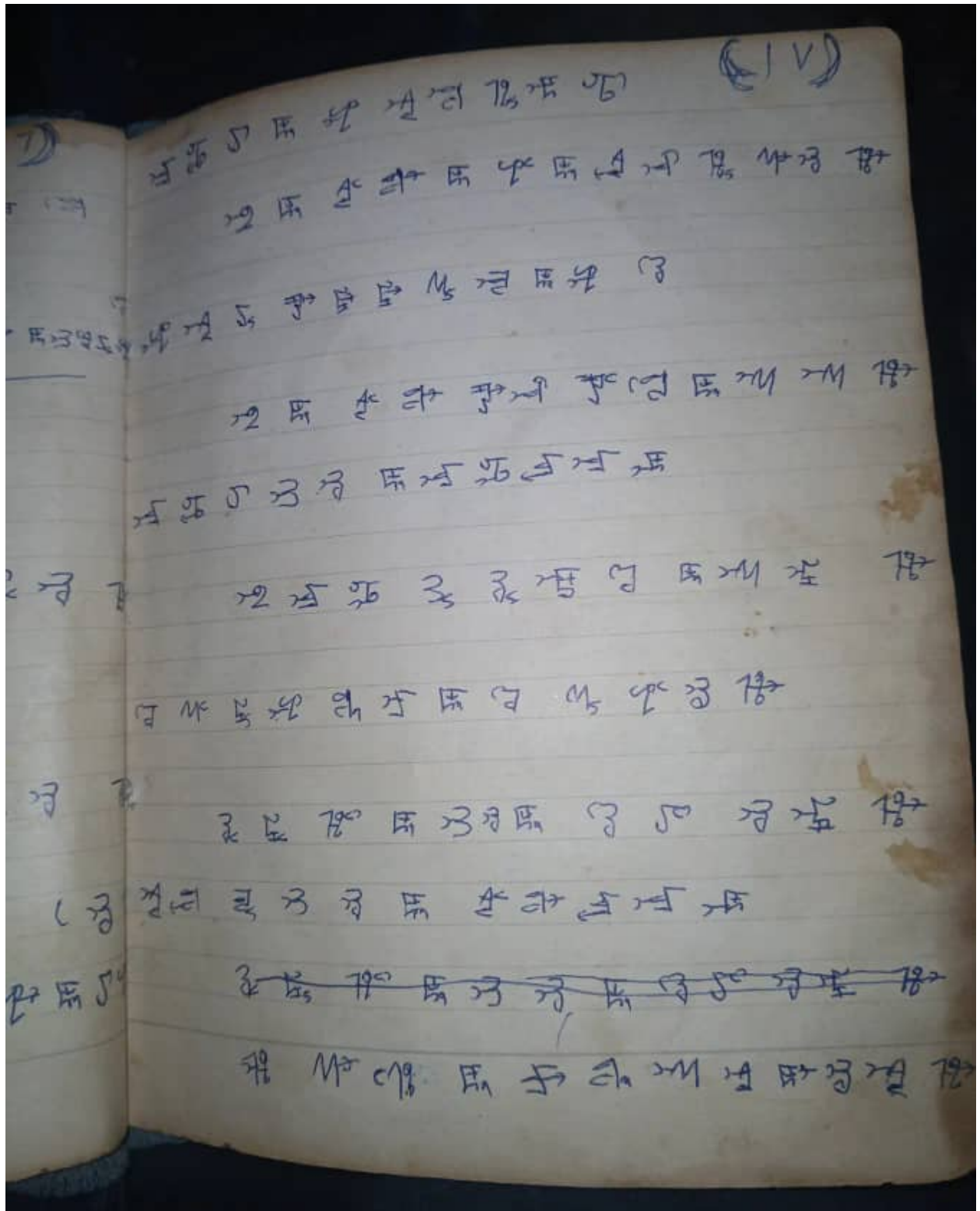


Figure 66.5. The “Shaaldaa” manuscript continued.

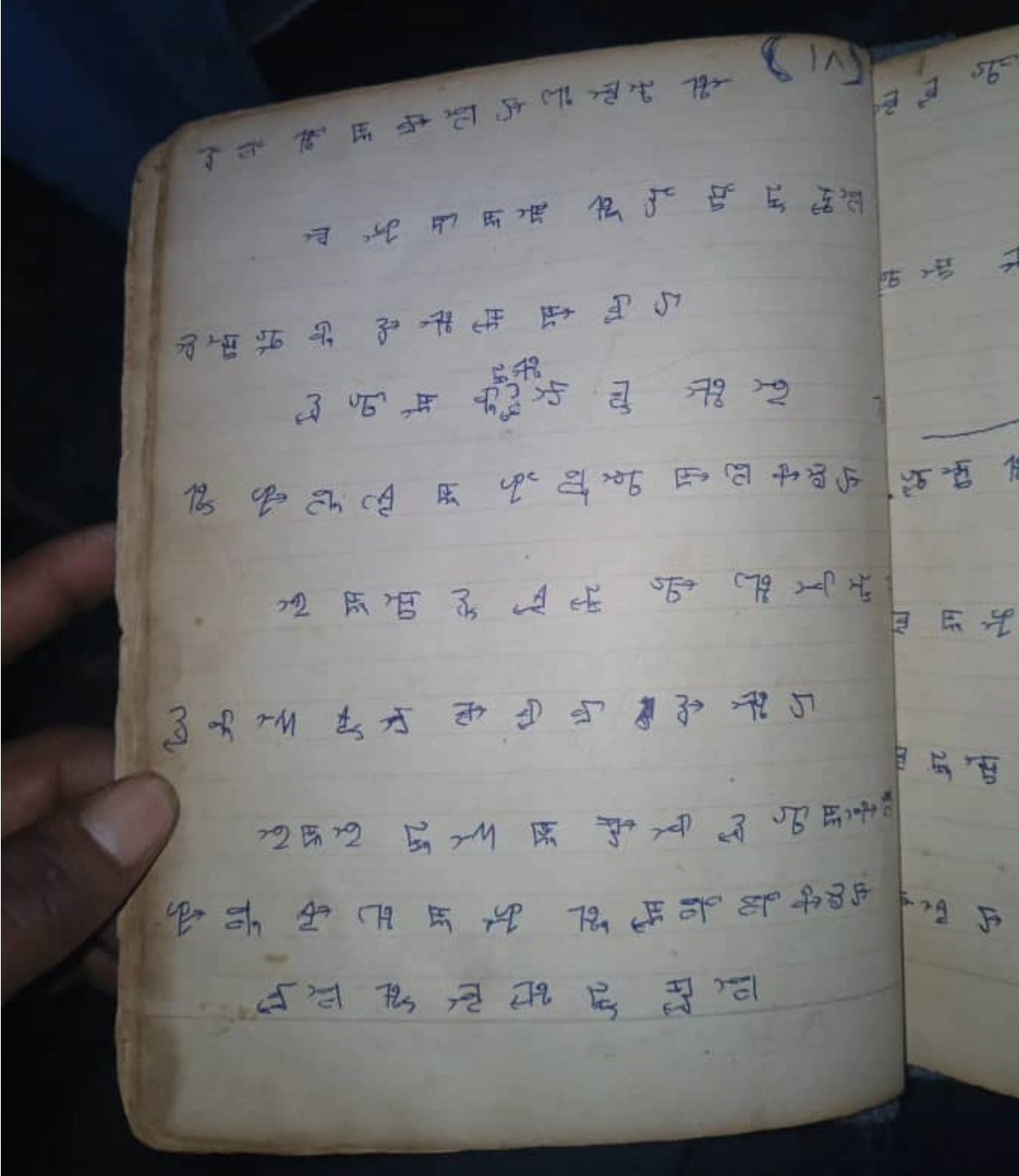


Figure 66.6. The “Shaaldaa” manuscript continued.

... (19) ...
 ...
 ...
 ...
 ... (V) ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...
 ...

Figure 66.7. The "Shaaldaa" manuscript continued.

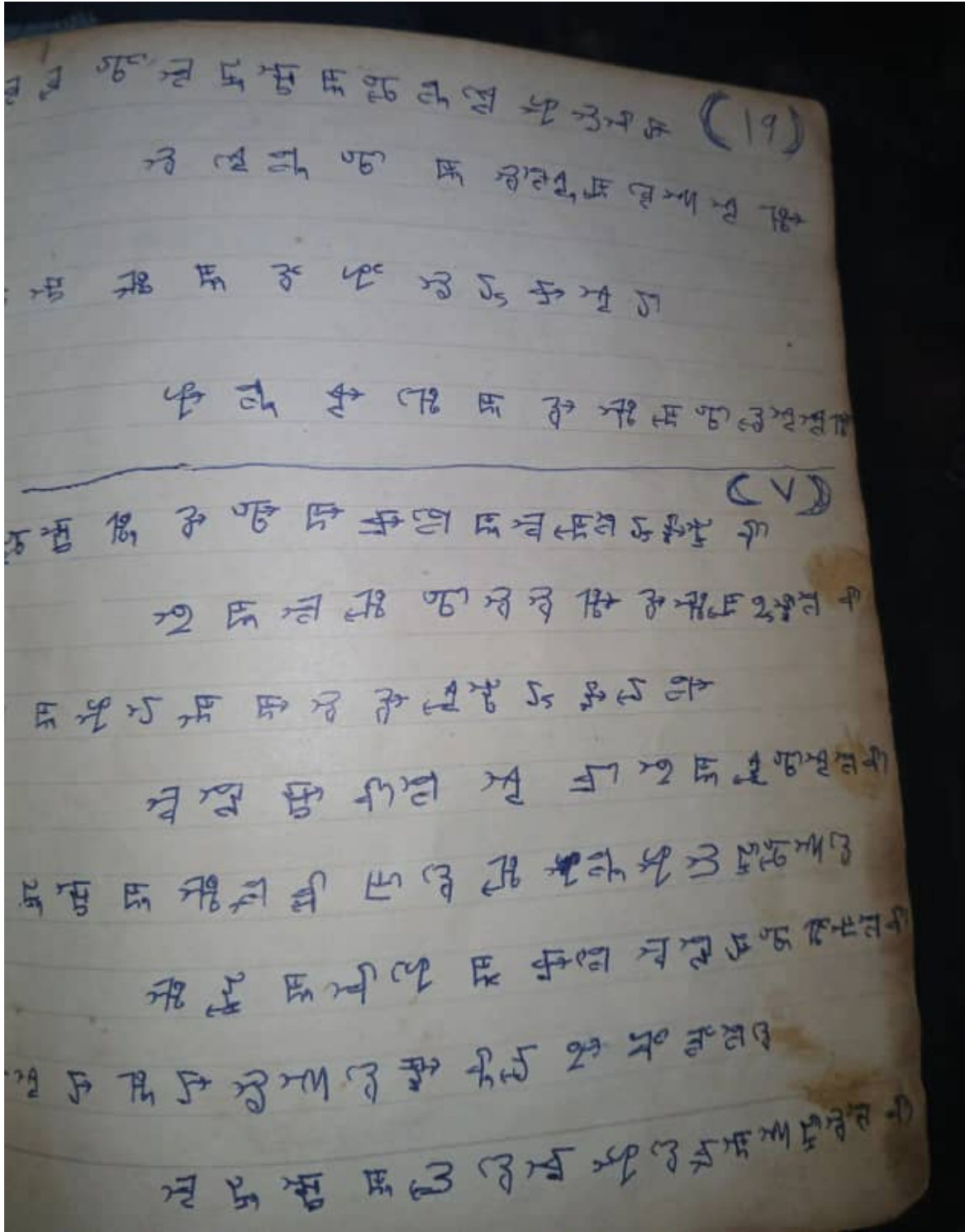


Figure 66.8. The “Shaaldaa” manuscript continued.

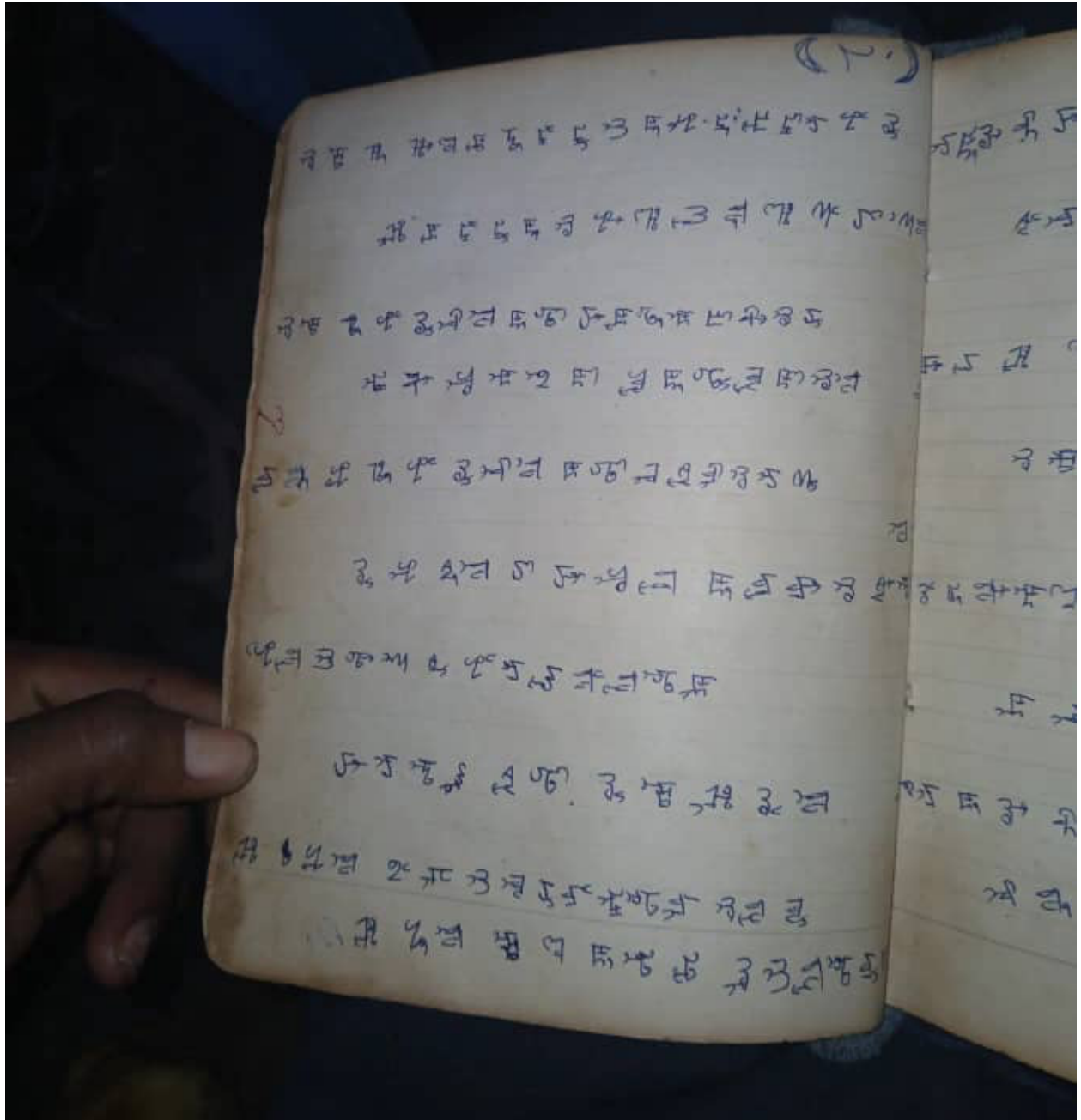


Figure 66.9. The “Shaldaa” manuscript continued.

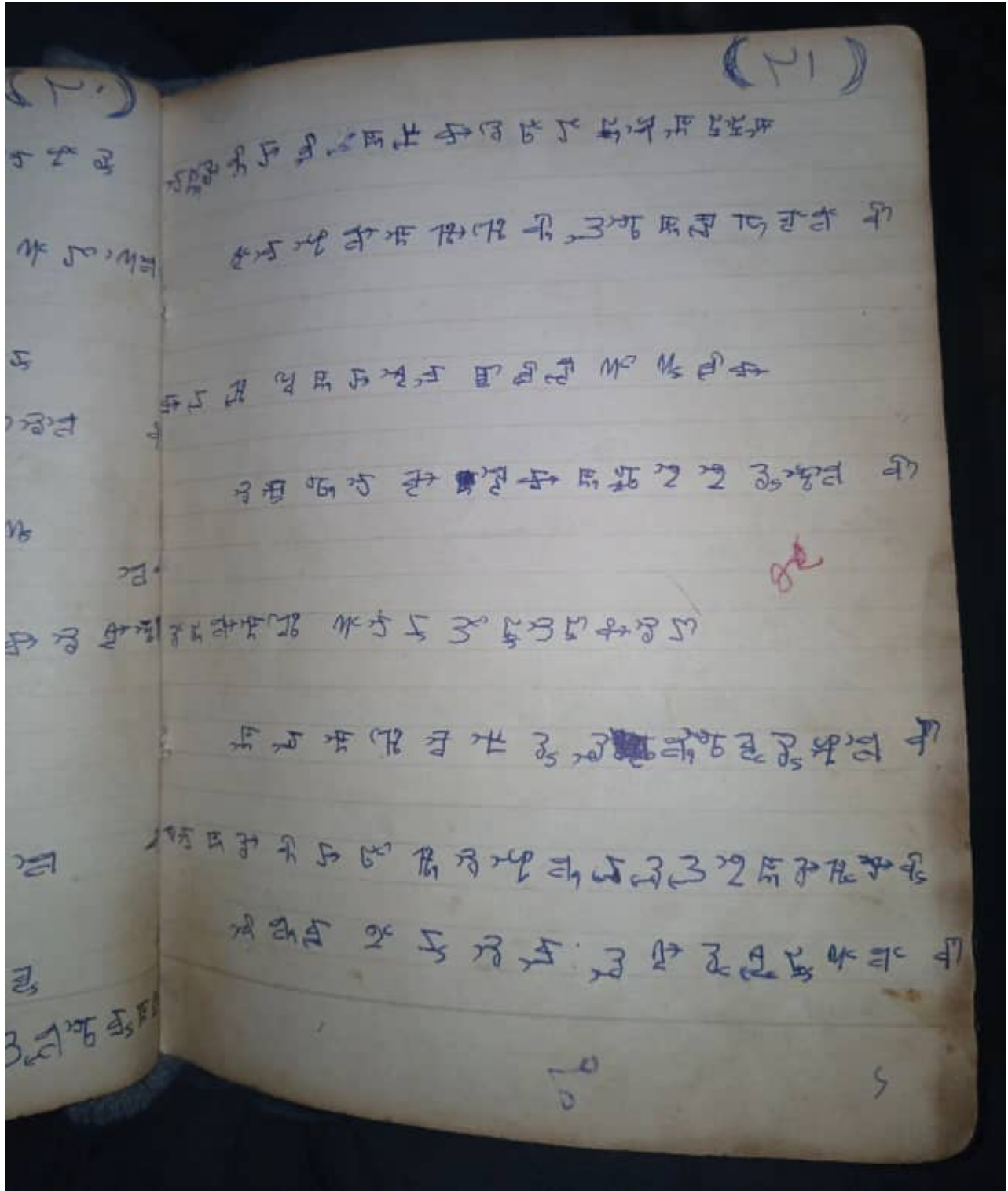


Figure 66.10. The “Shaaladaa” manuscript continued.

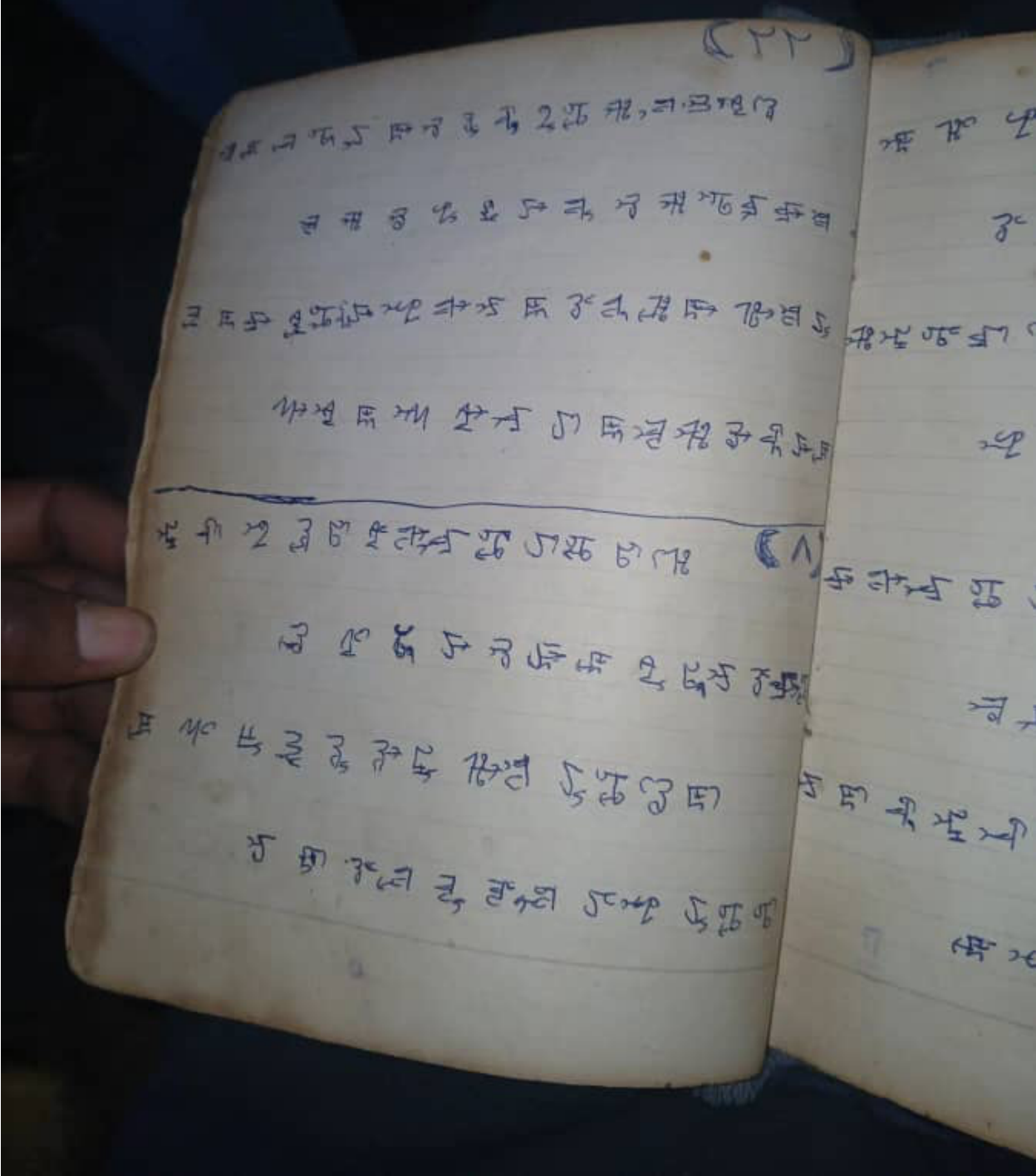


Figure 66.11. The “Shaalada” manuscript continued.

(111)

ॐ नमो भगवते वासुदेवाय ॥ ३ ॥

श्री कृष्णाय नमः ॥ ४ ॥

श्री कृष्णाय नमः ॥ ५ ॥

श्री कृष्णाय नमः ॥ ६ ॥

श्री कृष्णाय नमः ॥ ७ ॥

श्री कृष्णाय नमः ॥ ८ ॥

श्री कृष्णाय नमः ॥ ९ ॥

श्री कृष्णाय नमः ॥ १० ॥

श्री कृष्णाय नमः ॥ ११ ॥

श्री कृष्णाय नमः ॥ १२ ॥

श्री कृष्णाय नमः ॥ १३ ॥

श्री कृष्णाय नमः ॥ १४ ॥

श्री कृष्णाय नमः ॥ १५ ॥

श्री कृष्णाय नमः ॥ १६ ॥

श्री कृष्णाय नमः ॥ १७ ॥

श्री कृष्णाय नमः ॥ १८ ॥

श्री कृष्णाय नमः ॥ १९ ॥

श्री कृष्णाय नमः ॥ २० ॥

Figure 66.12. The "Shaaldaa" manuscript continued.

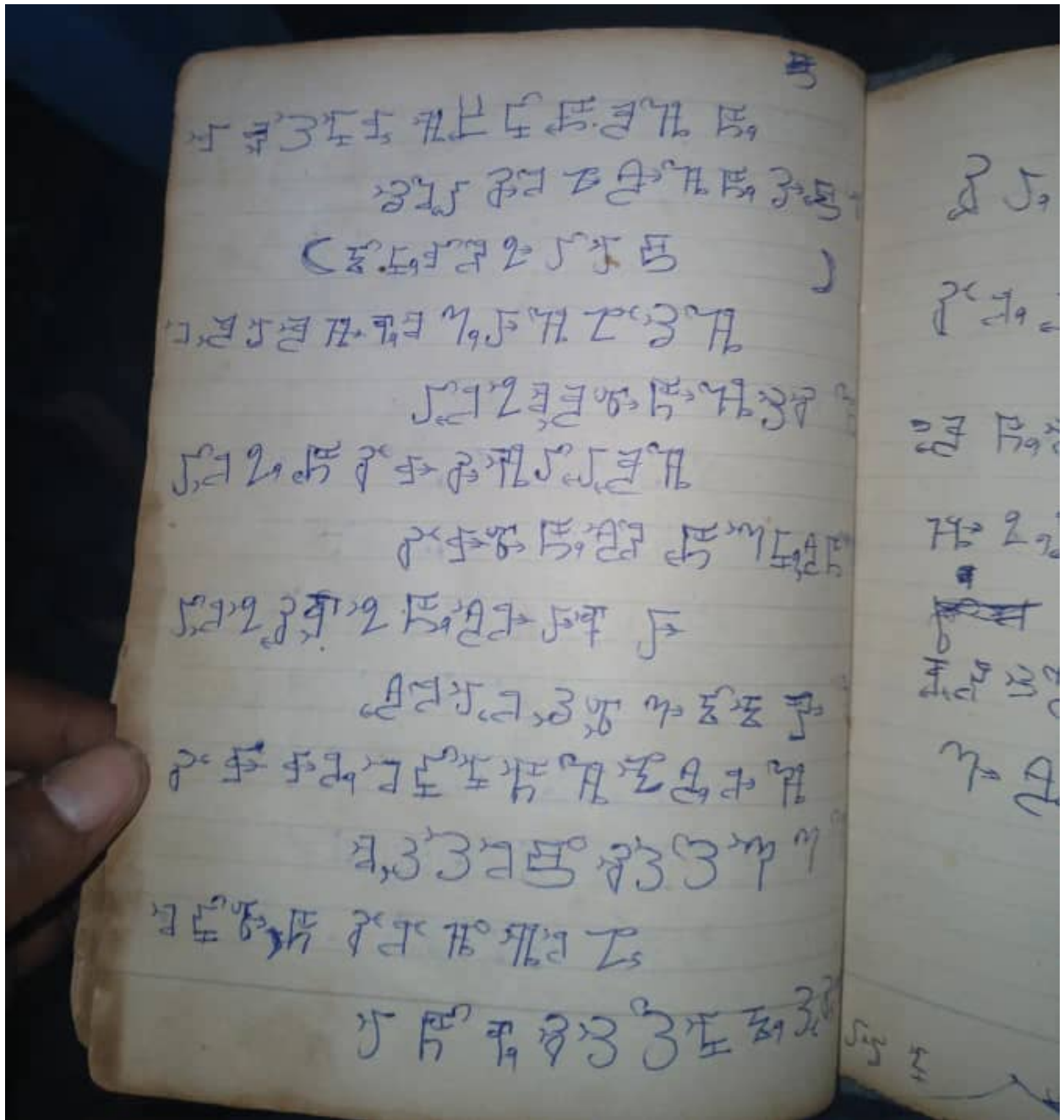


Figure 66.13. The “Shaaldaa” manuscript continued.

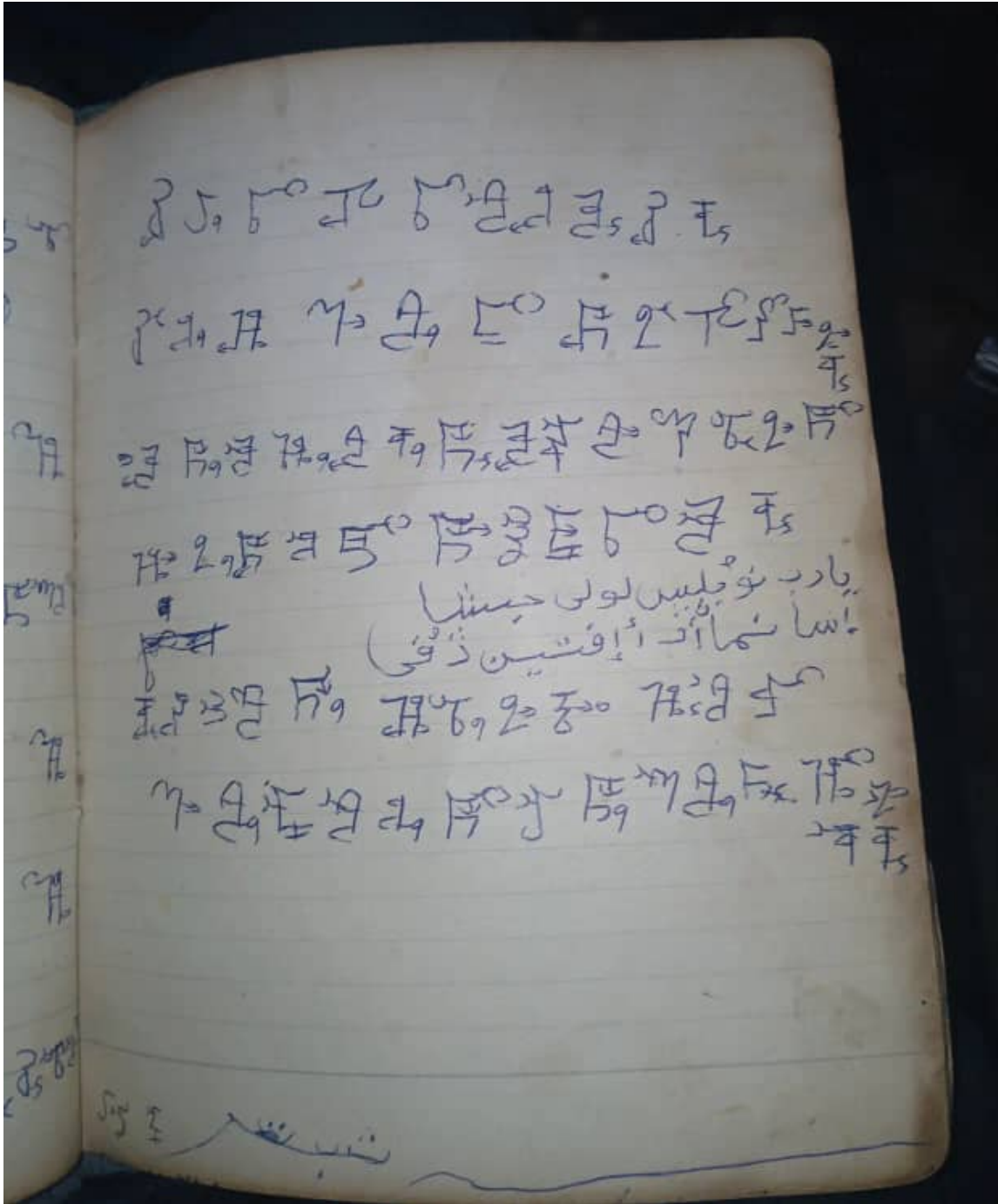


Figure 66.14. The "Shaalada" manuscript continued.

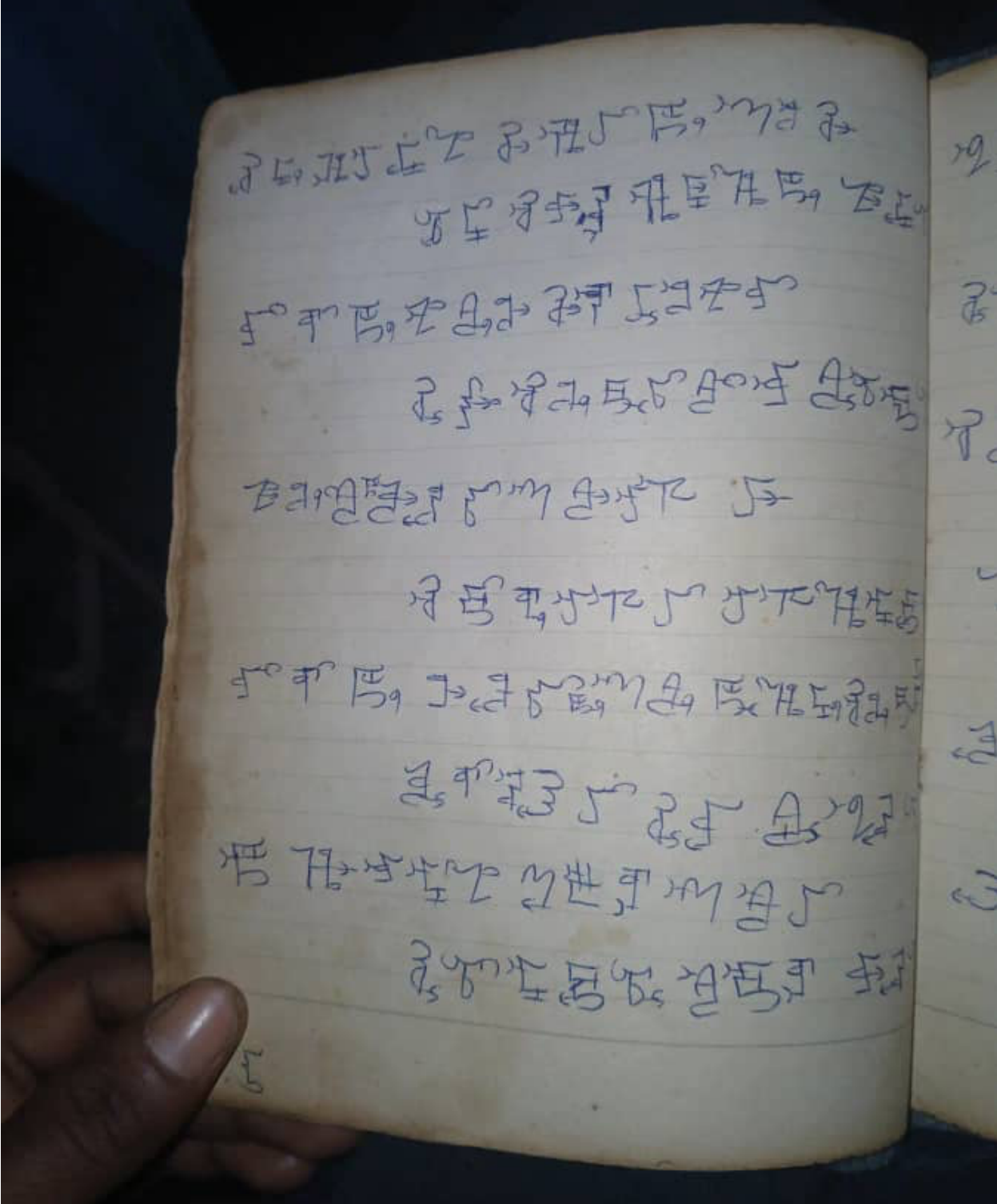


Figure 66.15. The “Shaaldaa” manuscript continued.

Handwritten text in an ancient script, likely Brahmi, on a palm leaf manuscript. The text is arranged in approximately 12 horizontal lines across the page. The script is dense and characteristic of early Indian writing systems. The leaf shows signs of age, including some staining and wear at the edges.

Figure 66.16. The "Shaaldaa" manuscript continued.

Handwritten text in an ancient script, likely Brahmi, on a palm leaf manuscript. The text is arranged in approximately 12 horizontal lines across the page. The script is finely etched into the surface of the leaf. The lines of text are roughly as follows:

1. ॐ नमो भगवते वासुदेवाय
2. ॐ नमो भगवते वासुदेवाय
3. ॐ नमो भगवते वासुदेवाय
4. ॐ नमो भगवते वासुदेवाय
5. ॐ नमो भगवते वासुदेवाय
6. ॐ नमो भगवते वासुदेवाय
7. ॐ नमो भगवते वासुदेवाय
8. ॐ नमो भगवते वासुदेवाय
9. ॐ नमो भगवते वासुदेवाय
10. ॐ नमो भगवते वासुदेवाय
11. ॐ नमो भगवते वासुदेवाय
12. ॐ नमो भगवते वासुदेवाय

Figure 66.17. The "Shaaldaa" manuscript continued.

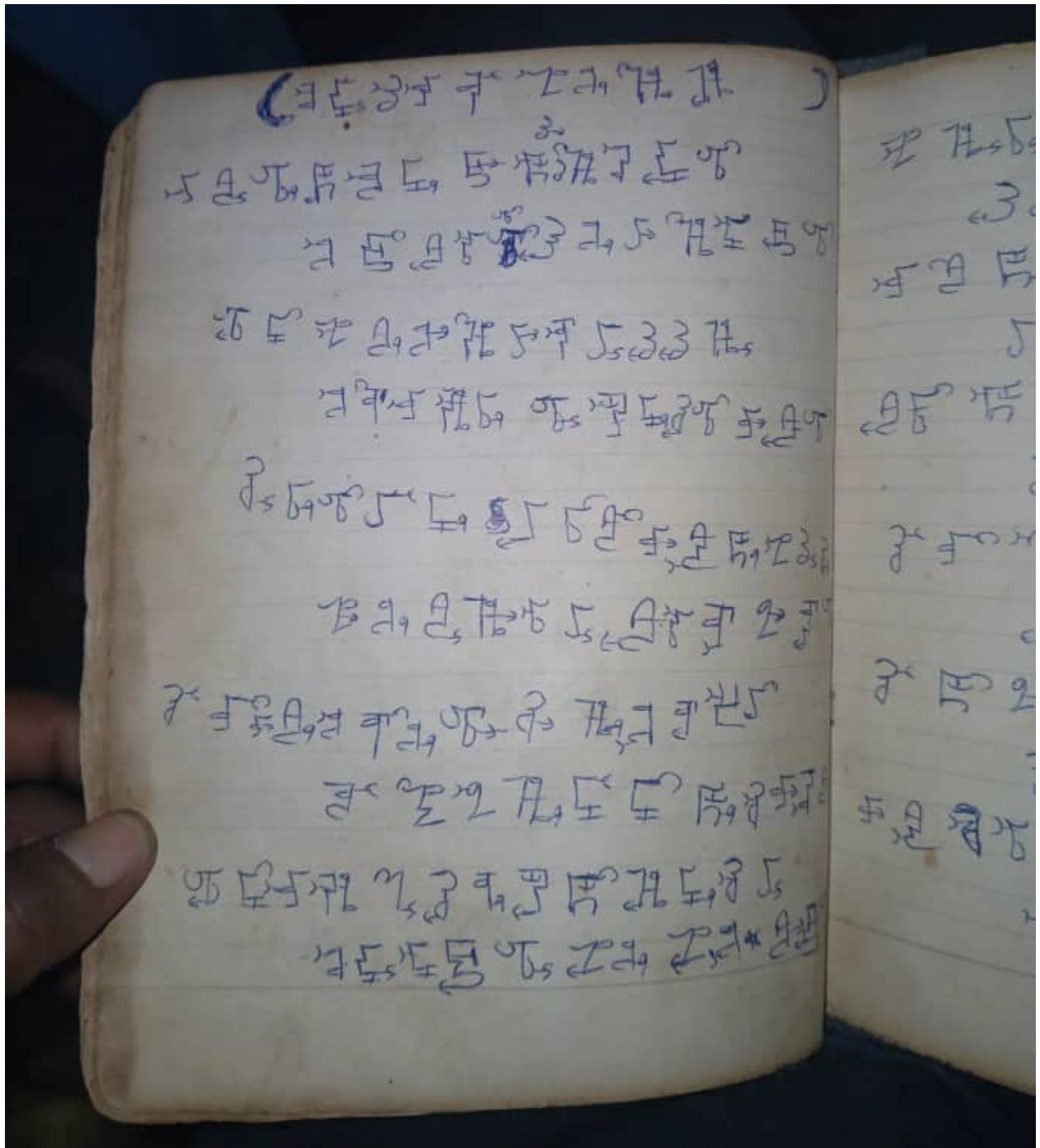


Figure 66.18. The “Shaaldaa” manuscript continued.

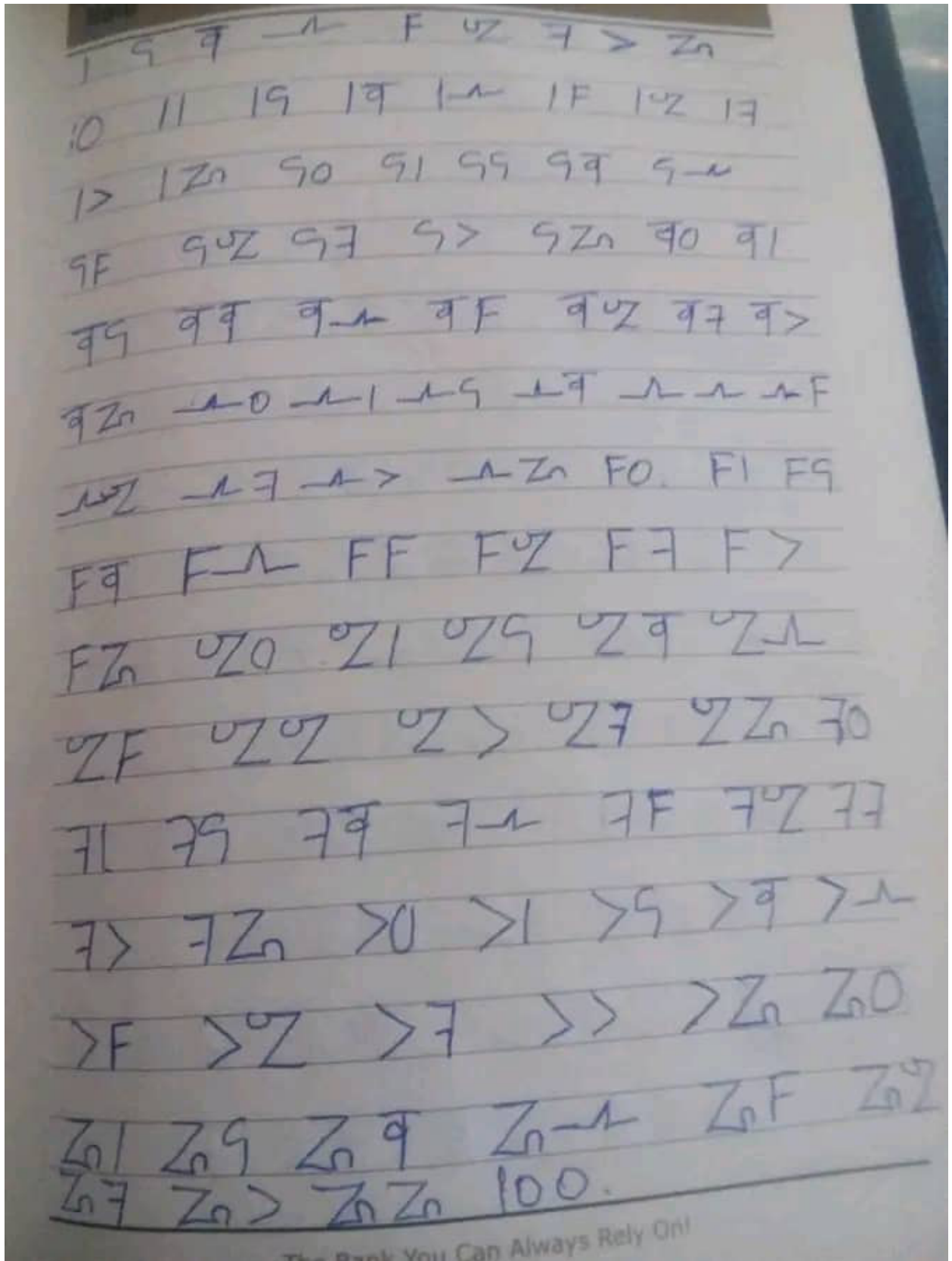


Figure 67. Shaaldae numbers by Ibsa Sheikh Mahammadsiraac.

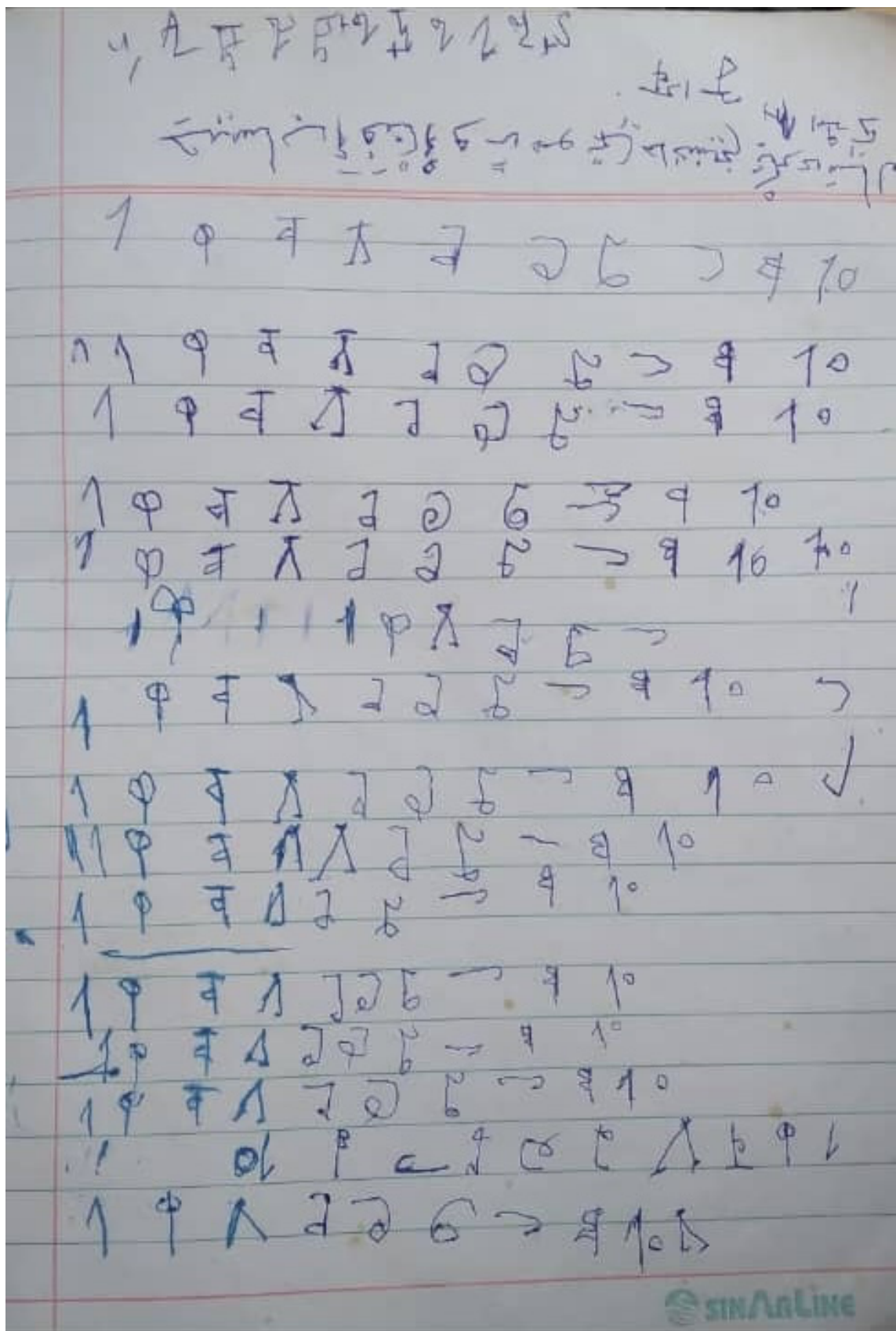


Figure 68. Shaldaq numbers by Sheikh Nuradin Ahmad.

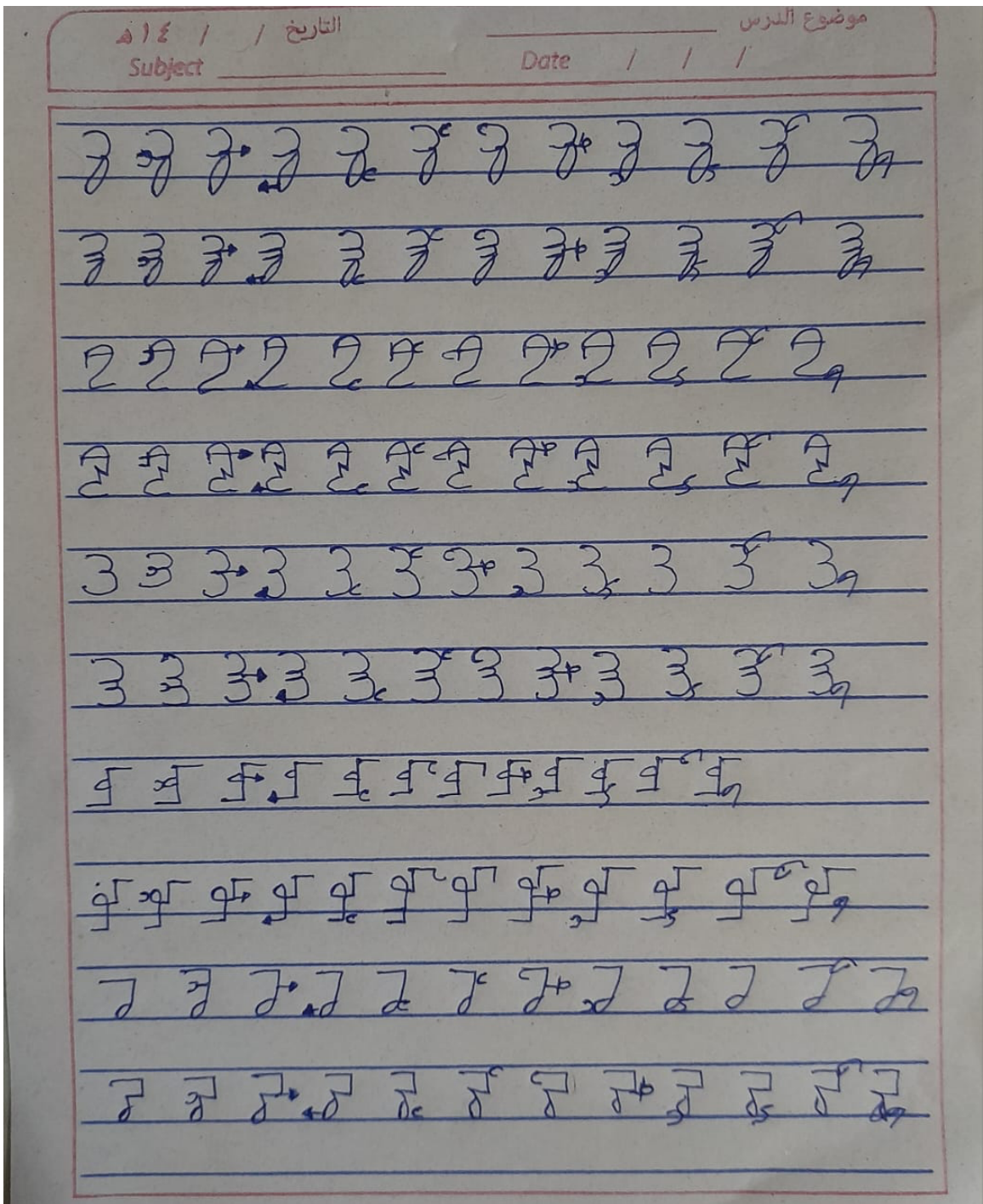


Figure 69.1. The Shaalmaa syllabary as written by Martu Si Malee Gadaa (1 of 8)

موضوع الكورس _____ التاريخ / / ١٤٤٥

Subject _____ Date / / /

The image shows ten horizontal staves of musical notation. Each staff contains a series of rhythmic symbols and notes, written in a cursive Arabic style. The symbols include vertical stems, horizontal lines, and various diacritics. The notation is organized into groups of three or four symbols per staff, with some symbols having arrows or other markings indicating direction or timing. The overall appearance is that of a handwritten musical score or a set of rhythmic exercises.

Figure 69.2. The Shaaldaa syllabary as written by Martu Si Malee Gadaa (2 of 8)

موضوع الدرس _____

التاريخ / / ١٤٤٥

Subject _____ Date / / /

Figure 69.3. The Shaldaa syllabary as written by Martu Si Malee Gadaa (3 of 8)

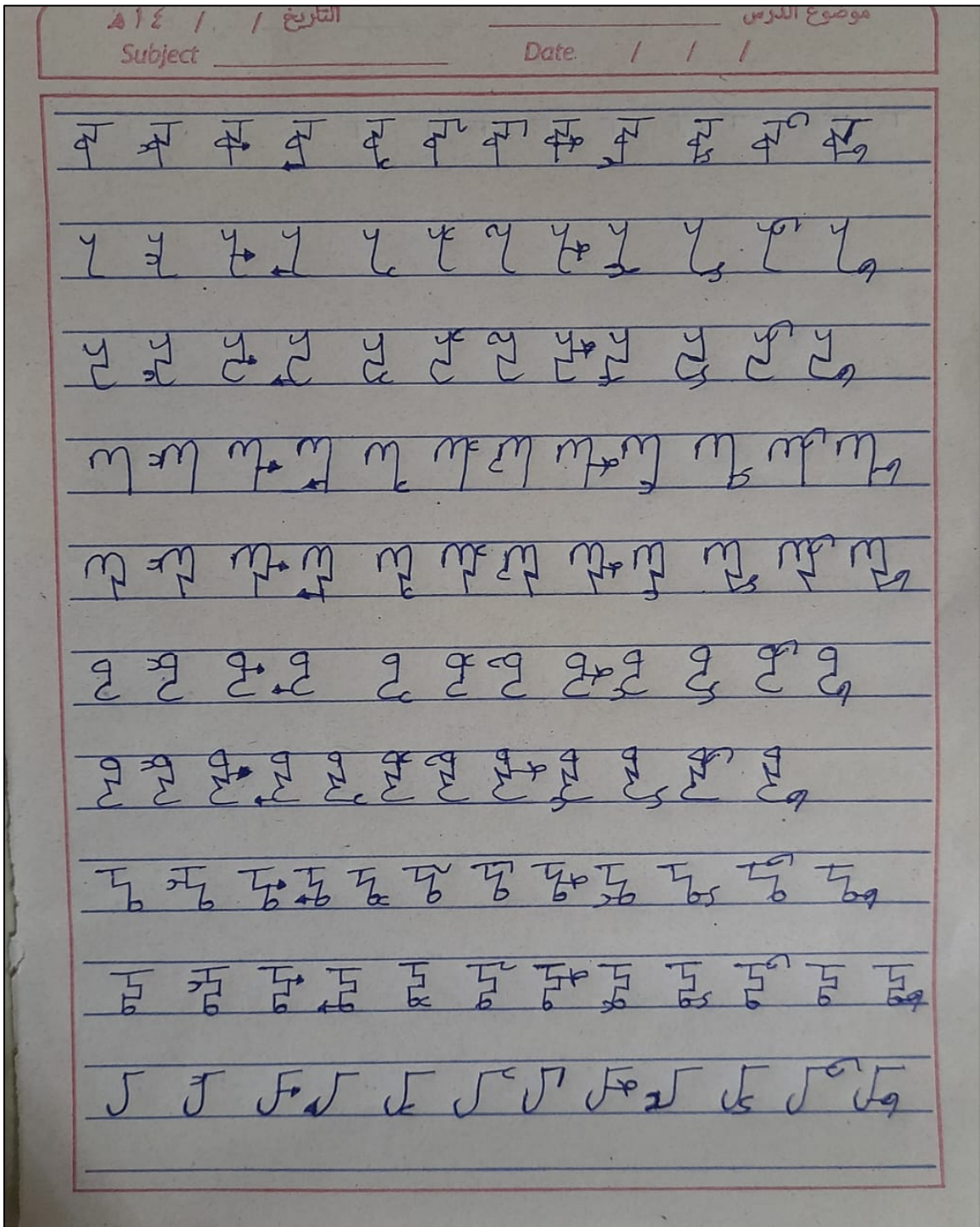


Figure 69.4. The Shaal daa syllabary as written by Martu Si Malee Gadaa (4 of 8)

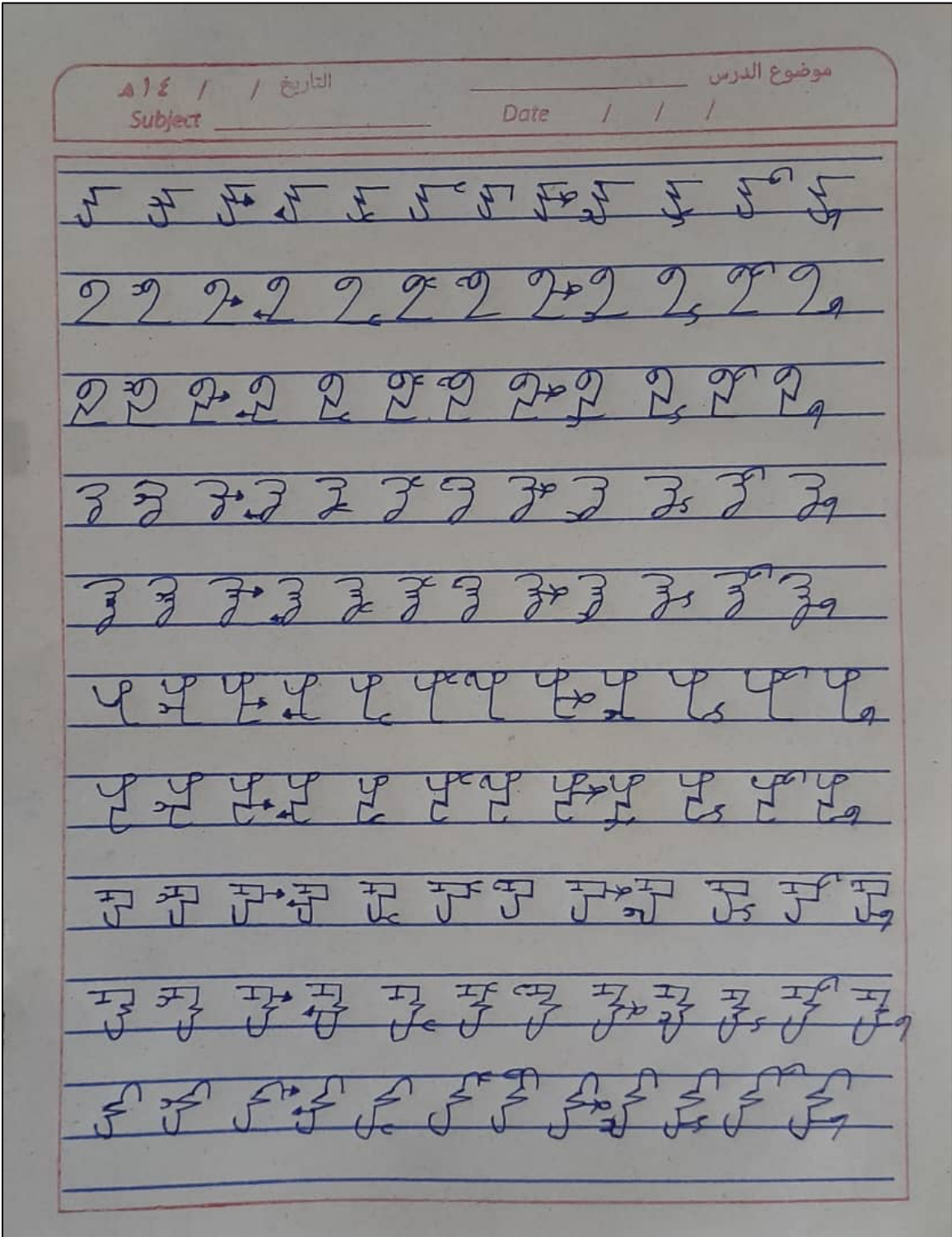


Figure 69.5. The Shaaldaa syllabary as written by Martu Si Malee Gadaa (5 of 8)

موضوع الدرس

التاريخ / / ١٤٤١
Date / / /

Subject _____

Figure 69.6. The Shaalmaa syllabary as written by Martu Si Malee Gadaa (6 of 8)

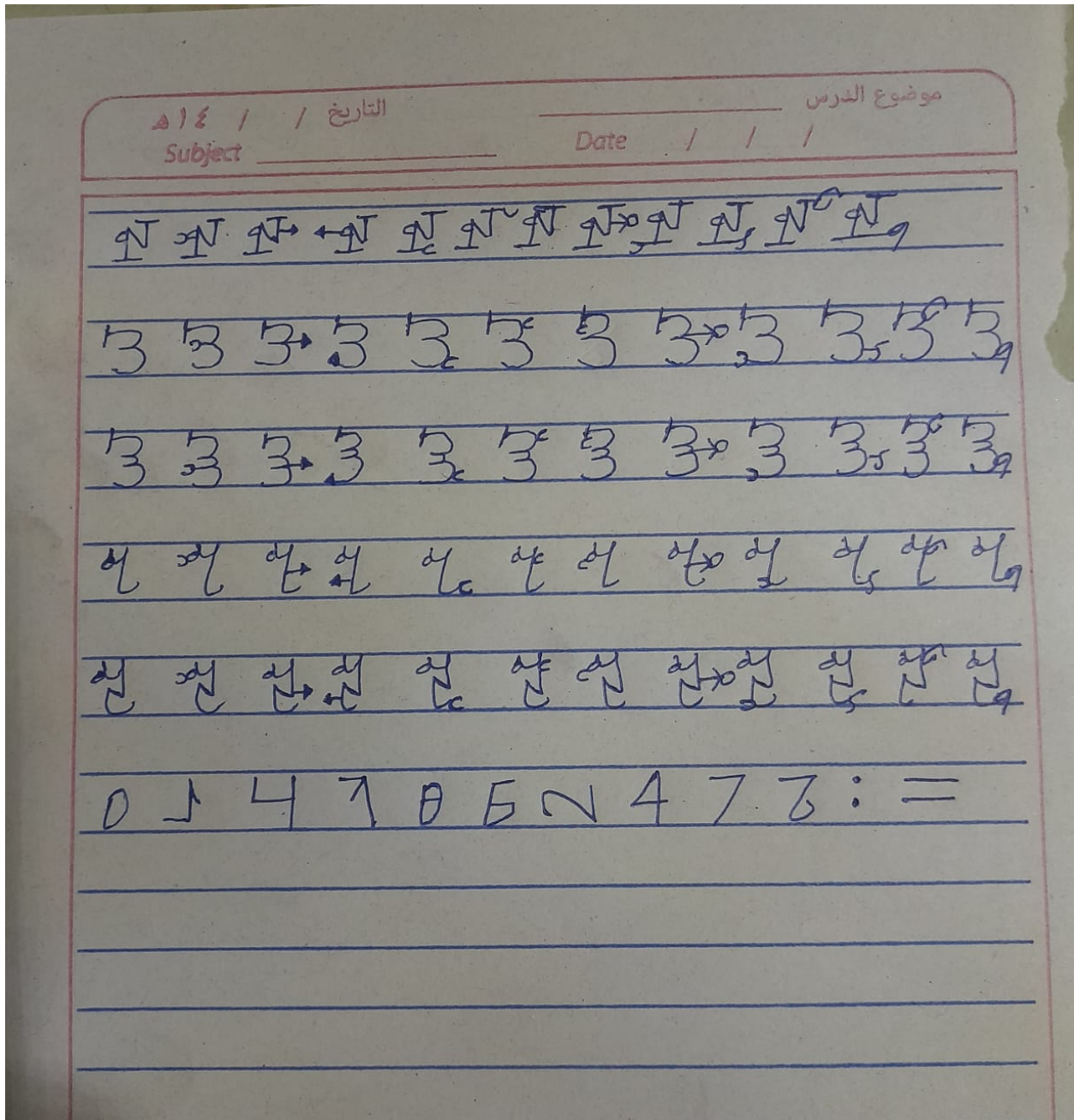


Figure 69.7. The Shaaldaq syllabary as written by Martu Si Malee Gadaa (7 of 8)

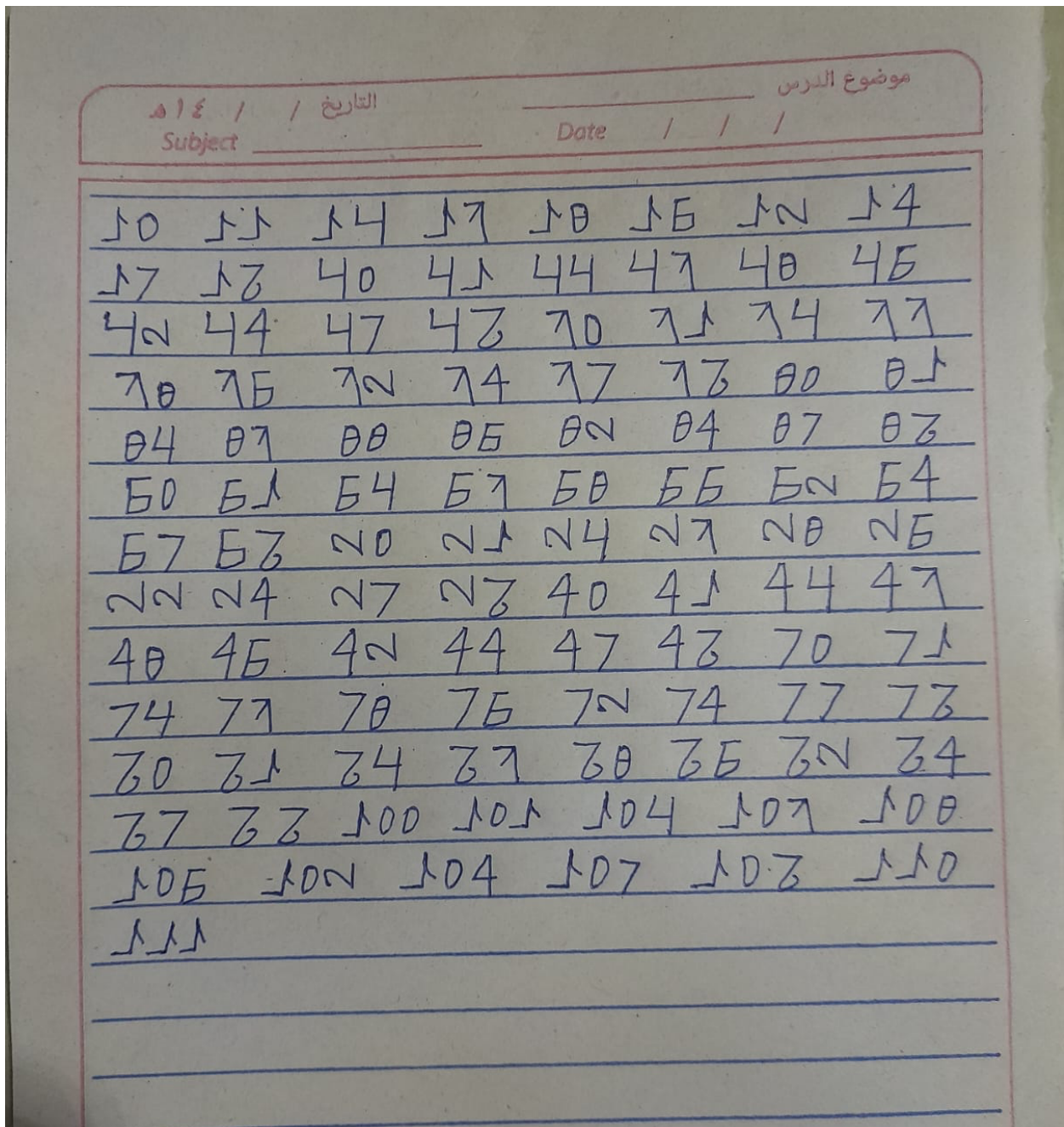


Figure 69.8. The Shaaldaa numeral samples for values “10” and above as written by Martu Si Malee Gadaa (8 of 8)

Graphic Irregularity in the Shaaldaa script

<p>Blue cells indicate the 26 cases where a typical left-side hook used for the majority of the <a> syllables has <i>not</i> been used, in favor of a right-side downward stroke or hook.</p>	<p>Orange cells indicate the 103 cases where the typical “c”, “j”, “s”-esque shape component of graphemes has an additional “-” stroke. The bottom stroke of the glyph body may also have bent upward to join the mark.</p>
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Current Oromo Orthography	Base Glyph	<a> /e/	<u> /u/	<i> /i/	<e> /ɛ/	<o> /ɔ/	<aa> /a:/	<uu> /u:/	<ii> /i:/	<ee> /e:/	<oo> /o:/	/C/
vowel / '	፩	፪	፫	፬	፭	፮	፯	፰	፱	፳	፴	፵
vowel / '	፶	፷	፸	፹	፺	፻	፼	፽	፾	፻	፿	፿
b	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
bb	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
j	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
jj	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
d	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
dd	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
h	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
hh	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
w	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
ww	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
z	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
zz	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
h	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
hh	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
x	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
xx	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
y	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
yy	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
k	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
kk	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
l	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
ll	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
m	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
mm	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
n	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾
nn	፺	፻	፼	፽	፾	፿	፺	፻	፼	፽	፾	፿
s	፻	፺	፻	፼	፽	፾	፻	፺	፻	፼	፽	፾

Table 6. Graphic irregularities in the Shaalada script.

ss	ꠄꠄ	ꠄꠅ	ꠄ꠆	ꠄꠇ	ꠄꠈ	ꠄꠉ	ꠄꠊ	ꠄꠋ	ꠄꠌ	ꠄꠍ	ꠄꠎ	ꠄꠏ
f	ꠅ	ꠅꠁ	ꠅꠂ	ꠅꠃ	ꠅꠄ	ꠅꠅ	ꠅ꠆	ꠅꠇ	ꠅꠈ	ꠅꠉ	ꠅꠊ	ꠅꠋ
ff	ꠅꠁ	ꠅꠂꠁ	ꠅꠃꠁ	ꠅꠄꠁ	ꠅꠅꠁ	ꠅ꠆ꠁ	ꠅꠇꠁ	ꠅꠈꠁ	ꠅꠉꠁ	ꠅꠊꠁ	ꠅꠋꠁ	ꠅꠌꠁ
s	ꠇ	ꠇꠁ	ꠇꠂ	ꠇꠃ	ꠇꠄ	ꠇꠅ	ꠇ꠆	ꠇꠇ	ꠇꠈ	ꠇꠉ	ꠇꠊ	ꠇꠋ
ss	ꠇꠁ	ꠇꠂꠁ	ꠇꠃꠁ	ꠇꠄꠁ	ꠇꠅꠁ	ꠇ꠆ꠁ	ꠇꠇꠁ	ꠇꠈꠁ	ꠇꠉꠁ	ꠇꠊꠁ	ꠇꠋꠁ	ꠇꠌꠁ
q	ꠈ	ꠈꠁ	ꠈꠂ	ꠈꠃ	ꠈꠄ	ꠈꠅ	ꠈ꠆	ꠈꠇ	ꠈꠈ	ꠈꠉ	ꠈꠊ	ꠈꠋ
qq	ꠈꠁ	ꠈꠂꠁ	ꠈꠃꠁ	ꠈꠄꠁ	ꠈꠅꠁ	ꠈ꠆ꠁ	ꠈꠇꠁ	ꠈꠈꠁ	ꠈꠉꠁ	ꠈꠊꠁ	ꠈꠋꠁ	ꠈꠌꠁ
r	ꠉ	ꠉꠁ	ꠉꠂ	ꠉꠃ	ꠉꠄ	ꠉꠅ	ꠉ꠆	ꠉꠇ	ꠉꠈ	ꠉꠉ	ꠉꠊ	ꠉꠋ
rr	ꠉꠁ	ꠉꠂꠁ	ꠉꠃꠁ	ꠉꠄꠁ	ꠉꠅꠁ	ꠉ꠆ꠁ	ꠉꠇꠁ	ꠉꠈꠁ	ꠉꠉꠁ	ꠉꠊꠁ	ꠉꠋꠁ	ꠉꠌꠁ
sh	ꠊ	ꠊꠁ	ꠊꠂ	ꠊꠃ	ꠊꠄ	ꠊꠅ	ꠊ꠆	ꠊꠇ	ꠊꠈ	ꠊꠉ	ꠊꠊ	ꠊꠋ
shsh	ꠊꠁ	ꠊꠂꠁ	ꠊꠃꠁ	ꠊꠄꠁ	ꠊꠅꠁ	ꠊ꠆ꠁ	ꠊꠇꠁ	ꠊꠈꠁ	ꠊꠉꠁ	ꠊꠊꠁ	ꠊꠋꠁ	ꠊꠌꠁ
t	ꠋ	ꠋꠁ	ꠋꠂ	ꠋꠃ	ꠋꠄ	ꠋꠅ	ꠋ꠆	ꠋꠇ	ꠋꠈ	ꠋꠉ	ꠋꠊ	ꠋꠋ
tt	ꠋꠁ	ꠋꠂꠁ	ꠋꠃꠁ	ꠋꠄꠁ	ꠋꠅꠁ	ꠋ꠆ꠁ	ꠋꠇꠁ	ꠋꠈꠁ	ꠋꠉꠁ	ꠋꠊꠁ	ꠋꠋꠁ	ꠋꠌꠁ
kh	ꠌ	ꠌꠁ	ꠌꠂ	ꠌꠃ	ꠌꠄ	ꠌꠅ	ꠌ꠆	ꠌꠇ	ꠌꠈ	ꠌꠉ	ꠌꠊ	ꠌꠋ
khkh	ꠌꠁ	ꠌꠂꠁ	ꠌꠃꠁ	ꠌꠄꠁ	ꠌꠅꠁ	ꠌ꠆ꠁ	ꠌꠇꠁ	ꠌꠈꠁ	ꠌꠉꠁ	ꠌꠊꠁ	ꠌꠋꠁ	ꠌꠌꠁ
dh	ꠍ	ꠍꠁ	ꠍꠂ	ꠍꠃ	ꠍꠄ	ꠍꠅ	ꠍ꠆	ꠍꠇ	ꠍꠈ	ꠍꠉ	ꠍꠊ	ꠍꠋ
dhdh	ꠍꠁ	ꠍꠂꠁ	ꠍꠃꠁ	ꠍꠄꠁ	ꠍꠅꠁ	ꠍ꠆ꠁ	ꠍꠇꠁ	ꠍꠈꠁ	ꠍꠉꠁ	ꠍꠊꠁ	ꠍꠋꠁ	ꠍꠌꠁ
g	ꠎ	ꠎꠁ	ꠎꠂ	ꠎꠃ	ꠎꠄ	ꠎꠅ	ꠎ꠆	ꠎꠇ	ꠎꠈ	ꠎꠉ	ꠎꠊ	ꠎꠋ
gg	ꠎꠁ	ꠎꠂꠁ	ꠎꠃꠁ	ꠎꠄꠁ	ꠎꠅꠁ	ꠎ꠆ꠁ	ꠎꠇꠁ	ꠎꠈꠁ	ꠎꠉꠁ	ꠎꠊꠁ	ꠎꠋꠁ	ꠎꠌꠁ
c	ꠏ	ꠏꠁ	ꠏꠂ	ꠏꠃ	ꠏꠄ	ꠏꠅ	ꠏ꠆	ꠏꠇ	ꠏꠈ	ꠏꠉ	ꠏꠊ	ꠏꠋ
cc	ꠏꠁ	ꠏꠂꠁ	ꠏꠃꠁ	ꠏꠄꠁ	ꠏꠅꠁ	ꠏ꠆ꠁ	ꠏꠇꠁ	ꠏꠈꠁ	ꠏꠉꠁ	ꠏꠊꠁ	ꠏꠋꠁ	ꠏꠌꠁ
ny	ꠐ	ꠐꠁ	ꠐꠂ	ꠐꠃ	ꠐꠄ	ꠐꠅ	ꠐ꠆	ꠐꠇ	ꠐꠈ	ꠐꠉ	ꠐꠊ	ꠐꠋ
nyny	ꠐꠁ	ꠐꠂꠁ	ꠐꠃꠁ	ꠐꠄꠁ	ꠐꠅꠁ	ꠐ꠆ꠁ	ꠐꠇꠁ	ꠐꠈꠁ	ꠐꠉꠁ	ꠐꠊꠁ	ꠐꠋꠁ	ꠐꠌꠁ
ch	ꠑ	ꠑꠁ	ꠑꠂ	ꠑꠃ	ꠑꠄ	ꠑꠅ	ꠑ꠆	ꠑꠇ	ꠑꠈ	ꠑꠉ	ꠑꠊ	ꠑꠋ
chch	ꠑꠁ	ꠑꠂꠁ	ꠑꠃꠁ	ꠑꠄꠁ	ꠑꠅꠁ	ꠑ꠆ꠁ	ꠑꠇꠁ	ꠑꠈꠁ	ꠑꠉꠁ	ꠑꠊꠁ	ꠑꠋꠁ	ꠑꠌꠁ
ph	ꠒ	ꠒꠁ	ꠒꠂ	ꠒꠃ	ꠒꠄ	ꠒꠅ	ꠒ꠆	ꠒꠇ	ꠒꠈ	ꠒꠉ	ꠒꠊ	ꠒꠋ
phph	ꠒꠁ	ꠒꠂꠁ	ꠒꠃꠁ	ꠒꠄꠁ	ꠒꠅꠁ	ꠒ꠆ꠁ	ꠒꠇꠁ	ꠒꠈꠁ	ꠒꠉꠁ	ꠒꠊꠁ	ꠒꠋꠁ	ꠒꠌꠁ
a	ꠓ	ꠓꠁ	ꠓꠂ	ꠓꠃ	ꠓꠄ	ꠓꠅ	ꠓ꠆	ꠓꠇ	ꠓꠈ	ꠓꠉ	ꠓꠊ	ꠓꠋ
aa	ꠓꠁ	ꠓꠂꠁ	ꠓꠃꠁ	ꠓꠄꠁ	ꠓꠅꠁ	ꠓ꠆ꠁ	ꠓꠇꠁ	ꠓꠈꠁ	ꠓꠉꠁ	ꠓꠊꠁ	ꠓꠋꠁ	ꠓꠌꠁ
p	ꠔ	ꠔꠁ	ꠔꠂ	ꠔꠃ	ꠔꠄ	ꠔꠅ	ꠔ꠆	ꠔꠇ	ꠔꠈ	ꠔꠉ	ꠔꠊ	ꠔꠋ
pp	ꠔꠁ	ꠔꠂꠁ	ꠔꠃꠁ	ꠔꠄꠁ	ꠔꠅꠁ	ꠔ꠆ꠁ	ꠔꠇꠁ	ꠔꠈꠁ	ꠔꠉꠁ	ꠔꠊꠁ	ꠔꠋꠁ	ꠔꠌꠁ
v	ꠕ	ꠕꠁ	ꠕꠂ	ꠕꠃ	ꠕꠄ	ꠕꠅ	ꠕ꠆	ꠕꠇ	ꠕꠈ	ꠕꠉ	ꠕꠊ	ꠕꠋ
vv	ꠕꠁ	ꠕꠂꠁ	ꠕꠃꠁ	ꠕꠄꠁ	ꠕꠅꠁ	ꠕ꠆ꠁ	ꠕꠇꠁ	ꠕꠈꠁ	ꠕꠉꠁ	ꠕꠊꠁ	ꠕꠋꠁ	ꠕꠌꠁ
zy	ꠖ	ꠖꠁ	ꠖꠂ	ꠖꠃ	ꠖꠄ	ꠖꠅ	ꠖ꠆	ꠖꠇ	ꠖꠈ	ꠖꠉ	ꠖꠊ	ꠖꠋ
zyzy	ꠖꠁ	ꠖꠂꠁ	ꠖꠃꠁ	ꠖꠄꠁ	ꠖꠅꠁ	ꠖ꠆ꠁ	ꠖꠇꠁ	ꠖꠈꠁ	ꠖꠉꠁ	ꠖꠊꠁ	ꠖꠋꠁ	ꠖꠌꠁ
ts	ꠗ	ꠗꠁ	ꠗꠂ	ꠗꠃ	ꠗꠄ	ꠗꠅ	ꠗ꠆	ꠗꠇ	ꠗꠈ	ꠗꠉ	ꠗꠊ	ꠗꠋ
tsts	ꠗꠁ	ꠗꠂꠁ	ꠗꠃꠁ	ꠗꠄꠁ	ꠗꠅꠁ	ꠗ꠆ꠁ	ꠗꠇꠁ	ꠗꠈꠁ	ꠗꠉꠁ	ꠗꠊꠁ	ꠗꠋꠁ	ꠗꠌꠁ

Handwriting Dissemination of the Shaaldaa Script

The following diagram depicts the transfer of knowledge of the Shaaldaa script along with the glyph preferences of the educators. Table 3 is reproduced here for convenience and the numeral sets are given labels *N1-N4* which are then applied in the diagram to show their origin and propagation.

	0	1	2	3	4	5	6	7	8	9
N1 Sheikh Mahamadsiraac Sheikh Bakrii	o	ʃ	4	ʌ	o	ɛ	~	4	7	ʒ
N2 Sheikh Mahammad Rashad	o	5	4	ʌ	ʌ	ɛ	2	ɔ	ɔ	ʒ
N3 Ibsa Sheikh Mahamadsiraac	o	l	ɸ	ʌ	ʌ	F	Z	ɸ	>	Z.
N4 Sheikh Nuradin Ahmad	o	1	ɸ	ʌ	ʌ	ɔ	ɔ	ɛ	ɔ	ɸ

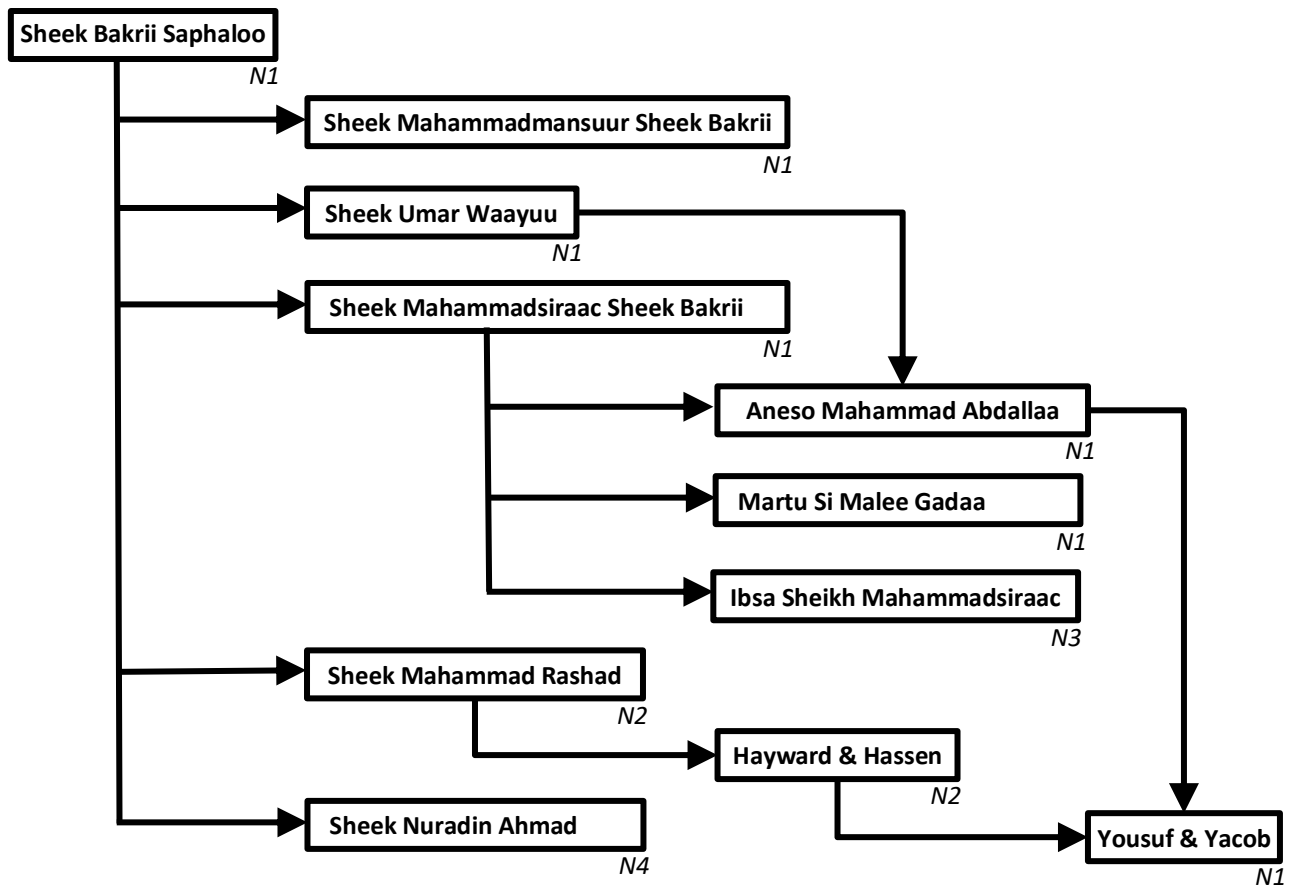


Figure 70. Shaaldaa glyph dissemination through educators from their origin to the authors.

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 10646
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.
 See also <http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

A. Administrative

1. Title: Proposal to Encode Shaaldae script in the USC

2. Requester's name: Oreen Yousuf, Daniel Jacob

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

4. Submission date: 2025-11-07

5. Requester's reference (if applicable): _____

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: Shaaldae

b. The proposal is for addition of character(s) to an existing block: _____

Name of the existing block: _____

2. Number of characters in proposal: 804

3. Proposed category (select one from below - see section 2.2 of P&P document):

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

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? Athinkra

b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.): Athinkra, LLC, yacob@geez.org, https://github.com/athinkra/sheek-bakrii-saphaloo

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)? Yes

A sorting description is enclosed.

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 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? If YES explain	No
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.)? If YES, with whom? If YES, available relevant documents:	Yes <i>Teachers/students of the script, academic experts</i> <i>Enclosed in the proposal.</i>
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? Reference:	Yes <i>Enclosed in the proposal.</i>
4. The context of use for the proposed characters (type of use; common or rare) Reference:	Rare <i>Enclosed in the proposal.</i>
5. Are the proposed characters in current use by the user community? If YES, where? Reference:	Yes <i>Oromia Region, Ethiopia; Dire Dawa, Ethiopia; and likely elsewhere</i>
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? If YES, is a rationale provided? If YES, reference:	No
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? If YES, is a rationale for its inclusion provided? If YES, reference:	No
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? If YES, is a rationale for its inclusion provided? If YES, reference:	No
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? If YES, is a rationale for its inclusion provided? If YES, reference:	Yes Yes <i>Enclosed in the proposal</i>
11. Does the proposal include use of combining characters and/or use of composite sequences? 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:	No
12. Does the proposal contain characters with any special properties such as control function or similar semantics? If YES, describe in detail (include attachment if necessary)	No
13. Does the proposal contain any Ideographic compatibility characters? If YES, are the equivalent corresponding unified ideographic characters identified? If YES, reference:	No