

# Revised Proposal for Encoding the Mwangwego Script in the UCS

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

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**Subject:** Mwangwego

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## General Overview:

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

- [L2/12-251](#): "Preliminary proposal to encode the Mwangwego script in the UCS"
- [L2/12-311](#): "Proposal to encode the Mwangwego script in the UCS"
- [L2/24-241](#): "Proposal for Encoding the Mwangwego Script in the UCS"

This version differs from the most recent version, L2/24-241, due to the following reasons and updates:

- 42 additional images in Section IX showing evidence of use of the script.
- "Mutuyo glyph uniqueness" under the "Additional information on characters" subsection.
- Updated character properties for Mutuyo and Mituyo based on SEWG feedback.

## I Background

The Mwangwego script was first devised in 1979 by Nolence Moses Mwangwego of Malawi, and is designed for writing the languages of Malawi. Some of these languages include the following, along with their *ISO 639 code* and speaker count: Chewa (*nya*, 2 million), Lomwe (*ngl*, 2.5 million), Sena (*swk* in Malawi, *seh* in Mozambican, *bwg* for the divergent Barwe dialect; 2.9 million), Tonga (*tag*, 170,000), Tumbuka (*tum*, 2.3 million), Yao (*yao*, 3.1 million), Nyakyusa (*nyy*, 1.4 million). The majority of these languages are also spoken in parts of nearby countries such as Mozambique, Tanzania and Zambia.

Additional letters were created up until April 7, 1997 and launched to the public. The script has not changed significantly over time and is not related to any other script. In 2003 the script received notable publicity, including an audience with Minister Kamangadzai Kingsley Chambalo, the Malawian Minister of Youth, Sports and Culture at the time.

The users of the community are students of the script, some of which are school-aged children. There was an initial community of 200-300 adherents of Mwangwego script in 2001. The number of people who have learned the script since 2001 is between 2,500-3,000. Many are training to be teachers themselves. The script has been continuously learned and taught since 2001 in all 3 regions of Malawi: Northern, Central and Southern Regions. The script has been taught informally since 2001. The distribution of January 2023 cohort of students is broken down as follows: 10 in Karonga, 15 in Mzuzu, 10 in the Malawian capital of Lilongwe, and 5 in Blantyre. The script is also included in primers and learning exercise materials for students. As of mid-2024, another cohort of teachers are being trained.

There has only been 1 full book officially published in the script, by the creator, as cost is a major obstacle for the majority of past and current learners. However, the script has taken on a life beyond

the script creator and his social circle. The author proposals have even introduced previously unknown script users to the creator. Every image of handwritten text in Section IX showing evidence of use comes from users other than the script creator. There is no government support for the script. There are at least 4 fonts: one made by Tapiwanashe Sebastian Garikayi, one by Andrij Rovenchak, one by Enzo Bicudo Pepi (MetrikEnzyme), and one by Jana Reddemann and Jenna Leich, the latter of which is used in this proposal. Under consultation with the script creator, the authors have developed a keyboard that applies the character model described in this proposal. The keyboard has been developed with the well-known “Keyman” software and a Microsoft Windows executable is available here: <https://bit.ly/4e11h3D>.

While the Malawian government endorses the Latin script for the languages mentioned above, there are no other scripts in competition among the Mwangwego script community, and the character repertoire has been stable for decades. There is also a current project to digitize Nolence Mwangwego’s Chichewa language book “*ᖃ ᖃᖃᖃ ᖃᖃ ᖃᖃ?*” (Latin transliteration: “*A Malawi Tili Pati?*”; English translation: “*Malawians, where are we?*”), which was written in the Mwangwego script.

## II Script Name

The proposed script name is “**MWANGWEGO**”, which is named after the creator, Nolence Mwangwego. This is the name used by the script community.

On 3 April 2024, Nolence Mwangwego stated on Facebook that the script “*in Malawian languages is called ‘musitu wa Mwangwego’*. The word ‘musitu’ comes from three parts of the script: musisi, siri, mutuyo. Mwangwego script was invented in April 1979 and was inaugurated on April 7, 1997. These are dates to remember” (see Reference 6 in Section VII).

## III Structure

The Mwangwego script is an abugida written left-to-right in horizontal lines, from the top to the bottom of a page. The basic grapheme inventory accounts for 31 consonants and 5 vowels – /a/, /ɛ/, /i/, /ɔ/, and /u/. Each basic grapheme represents a syllable composed of a consonant and a vowel (CV), or a vowel (V) by itself. Students first learn the graphemes that have an inherent /a/ vowel (e.g., /a/, /ba/, /tʃa/, etc.). These inherent /a/ vowel graphemes, as shown in the chart below under the column labeled “/a/”. Any single one of these graphemes is called a **Musisi**. All Musisi (i.e., the plural) is collectively called **Misisi**. Misisi can be slightly altered in 1 of 4 graphically consistent ways to change the grapheme’s vowel from an inherent /a/ to /ɛ/, /i/, /ɔ/, or /u/. Any single one of these 4 vowel modifiers is called a **Siri**. All Siri (i.e., the plural) is collectively called **Masiri**. Attaching Masiri to Misisi will yield a total of 160 basic V or CV syllabic graphemes. Any single one of these new graphemes with a vocalic value of /ɛ/, /i/, /ɔ/, or /u/ is called a **Musiri**. All Musiri (i.e., the plural) is collectively called **Misiri**.

IPA	/a/	/ɛ/	/i/	/ɔ/	/u/
/vowel/	ᖃ	ᖄ	ᖅ	ᖆ	ᖇ
/b/	ᖈ	ᖉ	ᖊ	ᖋ	ᖌ
/tʃ/	ᖏ	ᖐ	ᖑ	ᖒ	ᖓ
/d/	ᖔ	ᖕ	ᖖ	ᖗ	ᖘ
/f/	ᖛ	ᖜ	ᖝ	ᖞ	ᖟ
/g/	ᖠ	ᖡ	ᖢ	ᖣ	ᖤ
/ɣ/	ᖦ	ᖧ	ᖨ	ᖩ	ᖪ
/h/	ᖬ	ᖭ	ᖮ	ᖯ	ᖰ
/dʒ/	ᖲ	ᖳ	ᖴ	ᖵ	ᖶ

/ɜ/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/k/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/l/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/m/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/n/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/ɲ/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/p/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/r/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/s/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/ʃ/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/t/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/ts/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/p'/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/v/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/w/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/j/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/z/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/dz/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/dɬ/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/t/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/ʎ/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/ɰ/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ
/ð/	ᵇ	ᵇ	ᵇ	ᵇ	ᵇ

Table 1. Inventory of the basic V and CV syllabic graphemes in the Mwangwego script.

To change the inherent /a/ vowel of Misisi to /ɛ/, /i/, /ɔ/, or /u/, you fuse Masiri (vowel modifiers) to the bottom-right of Misisi:

Emwa: ᵇ Example: ᵇ (ba) + ᵇ (-ɛ) = ᵇ (be)

Ima: ᵇ Example: ᵇ (ba) + ᵇ (-i) = ᵇ (bi)

Ota: ᵇ Example: ᵇ (ba) + ᵇ (-ɔ) = ᵇ (bo)

Uyu: ᵇ Example: ᵇ (ba) + ᵇ (-u) = ᵇ (bu)

## Mutuyo & Mituyo:

In addition to these vowel modifiers, some consonant (or tone) modifiers appear to the left (spacing) of the basic grapheme, or above or below (non-spacing) the basic grapheme. These can also be used in combination with one another to further extend the repertoire of consonant onsets or, in one case, to mark high-tone to distinguish between homographs. Not all of these modifiers can be used with all basic graphemes. Section X show which marks are possible for the Misisi. All valid possibilities are possible for the Misiri counterparts.

Any one of these marks is called **Mutuyo**. You can attach multiple Mutuyo onto a single basic grapheme. The plural of Mutuyo is **Mituyo**. Some Mituyo configurations produce more complex spacing characters.

The script's previous proposal (Section 4, [L2/12-311](#)) proposed to encode all spacing Mituyo configurations due to the constraints of ligation at the time. For compound consonant modifiers one could use the 'rlig' or 'ccmp' OpenType features to replace a sequent of modifiers with a precomposed stacked version. 'ccmp' would be the most reliable across platforms. Therefore, we propose to only encode the standalone modifiers (i.e., Mutuyo). The set of combinations (i.e., Mituyo) is finite, as is the order in which combinations are combined. It is never correct (i.e., legible) to string them horizontally, and making them "ligatures" may easily fail in many rendering environments, which is unnecessary and undesirable. Readers do not parse the stacks per se, but read the whole cluster as a whole.

1. **MUTUYO** (spacing):

- 1.1 WAYA. - labializes consonants. There is a unique, non-spacing counterpart of Waya that appears under a letter instead of to the left; see Mutuyo 2.1 below.

Examples of use:

$$-(\text{waya}) + \text{U}(\text{ba}) = \text{U}(\text{bwa}) \quad -(\text{waya}) + \text{Q}(\text{ma}) = \text{Q}(\text{mwa})$$

Example words:

-ᖃᖅ (bwato) -ᖃᖅ (mwala)

- 1.2 NI. " is primarily used for homorganic palatalization (which may not be reflected in the transliterated romanization).

Examples of use:

"(ni) + 3(da) = "3(nda) – tip of the tongue touches the front part of the palate

$${}^{\text{u}}(\text{ni}) + \text{ʃ}(\text{ta}) = {}^{\text{u}}\text{ʃ}(\text{nta})$$
$${}^n(\text{ni}) + \text{ʃ}(\text{tsa}) = {}^n\text{ʃ}(\text{ntsa})$$
$${}^n(\text{ni}) + f(\text{dza}) = {}^n f(\text{ndza})$$

"(ni) + 𐌆 (a) = "𐌆 (ng'a) – rear of the tongue touches the palate

$${}^n(\text{ni}) + \text{C}(\text{ga}) = {}^n\text{C}(\text{nga})$$

"(ni) + ʒ (cha) = "ʒ (ncha) – middle of the tongue touches the palate

$${}^{\text{u}}(\text{ni}) + \text{ʈ}(\text{ja}) = {}^{\text{u}}\text{ʈ}(\text{nja})$$

"(ni) + 9(sa) = "9(nsa) – tongue slightly touches the palate

$${}^{\text{u}}(\text{ni}) + \text{ḡ}(\text{sha}) = {}^{\text{u}}\text{ḡ}(\text{nsha})$$
$$[n] + [f] = [mf] - \text{labiodentalization}$$
$${}^n(\text{ni}) + \text{A}(\text{va}) = {}^n\text{A}(\text{mva})$$

Example words:

"ᑭᑦ (ndati), "ᑭᑦ (ng'ona), "ᑭᑦ (nsapato), "ᑭᑦ (nchalo)



1.3 HI.  $\text{h}$  aspirates consonants. Its use may be limited to only a few consonants.

Examples of use:

$\text{h}(\text{hi}) + \text{t}(\text{cha}) = \text{th}(\text{tcha})$ ,  $\text{h}(\text{hi}) + \text{k}(\text{ka}) = \text{kh}(\text{kha})$ ,  $\text{h}(\text{hi}) + \text{p}(\text{pa}) = \text{ph}(\text{pha})$   
 $\text{h}(\text{hi}) + \text{t}(\text{ta}) = \text{th}(\text{tha})$        $\text{h}(\text{hi}) + \text{t}(\text{tsa}) = \text{th}(\text{tsha})$

Example words:

$\text{th}(\text{thasu})$   $\text{th}(\text{thama})$   $\text{ph}(\text{phala})$   $\text{th}(\text{thobwa})$   $\text{th}(\text{thimo})$

1.4 MI.  $\text{m}$  pre-nasalizes labial consonants. It is described as “used when both lips meet heavily.” It is used with 2 Misiri (and of course their corresponding Misiri):  $\text{m}(\text{ba})$  and  $\text{m}(\text{pa})$ .

Examples of use:

$\text{m}(\text{mi}) + \text{b}(\text{ba}) = \text{mb}(\text{mba})$        $\text{m}(\text{mi}) + \text{p}(\text{pa}) = \text{mp}(\text{mpa})$

Example words:

$\text{mb}(\text{mbala})$   $\text{mb}(\text{mbiri})$   $\text{mb}(\text{mbatata})$   $\text{mp}(\text{mpaka})$

1.5 MYU.  $\text{m}$  pre-nasalizes non-labial consonants. It is described as “used when pronouncing a word which involves a slight meeting of both lips.” Myu occurs with many Misiri.

Examples of use:

$\text{m}(\text{myu}) + \text{t}(\text{cha}) = \text{mt}(\text{mcha})$        $\text{m}(\text{myu}) + \text{k}(\text{ka}) = \text{mk}(\text{mka})$        $\text{m}(\text{myu}) + \text{m}(\text{ma}) = \text{mm}(\text{m'ma})$   
 $\text{m}(\text{myu}) + \text{t}(\text{ta}) = \text{mt}(\text{mta})$        $\text{m}(\text{myu}) + \text{f}(\text{dza}) = \text{mf}(\text{mdza})$

Example words:

$\text{mt}(\text{mkaka})$   $\text{mk}(\text{mkanda})$   $\text{mm}(\text{m'dziko})$   $\text{mf}(\text{m'mudzi})$

1.6 SISA.  $\text{s}$  prefixes ‘s-’ to consonants. Very few words use Sisa as it is mainly used for foreign loan words (e.g., English; see 7:16 of reference 3 in Section VII below).

Examples of use:

$\text{s}(\text{sis}) + \text{k}(\text{ka}) = \text{sk}(\text{ska})$        $\text{s}(\text{sis}) + \text{m}(\text{ma}) = \text{sm}(\text{sma})$        $\text{s}(\text{sis}) + \text{t}(\text{ta}) = \text{st}(\text{sta})$

Example words:

$\text{st}(\text{stima})$   $\text{sk}(\text{sketi})$

1.7 TUMBU.  $\text{n}$  causes prenasalization. It is only used for Yao and Nyakyusa/Ngonde.

Examples of use:

$\text{n}(\text{tumbu}) + \text{d}(\text{da}) = \text{nd}(\text{n'da})$   
 $\text{n}(\text{tumbu}) + \text{y}(\text{nya}) = \text{ny}(\text{n'nya})$   
 $\text{n}(\text{tumbu}) + \text{y}(\text{ya}) = \text{ny}(\text{n'ya})$  – in Yao  
 $\text{n}(\text{tumbu}) + \text{w}(\text{wa}) = \text{nw}(\text{n'wa})$

Example words:

$\text{nd}(\text{ndu})$ ,  $\text{ny}(\text{nyu})$ ,  $\text{ny}(\text{nyu})$

2. **MUTUYO** (non-spacing):

- 2.1 WAYA-BELOW. ◌ adds a following y-glide (palatalization) to consonants. This is the non-spacing counterpart of WAYA in 1.1 above.

Examples of use:

ᄃ (da) + ◌ (waya) = ᄃᄃ (dya)

ᄆ (ma) + ◌ (waya) = ᄆᄃ (mya)

Example words:

ᄆᄃᄃ, ᄃᄃᄃ, ᄆᄃᄃ

- 2.2 MURA. ◌ adds a following r-glide to consonants. This Mutuyo is also used for foreign words (e.g., English).

Examples of use:

ᄃ (ba) + ◌ (mura) = ᄃᄃᄃ (bra)

ᄆ (ka) + ◌ (mura) = ᄆᄃᄃ (kra)

ᄃᄃ (ta) + ◌ (mura) = ᄃᄃᄃᄃ (tra)

Example words:

ᄆᄃᄃᄃ, ᄃᄃᄃᄃ

- 2.3 MULA. ◌ adds a following l-glide to consonants. This Mutuyo is also used for foreign words (e.g., English).

Examples of use:

ᄃ (ba) + ◌ (mula) = ᄃᄃᄃᄃ (bla)

ᄆ (ka) + ◌ (mula) = ᄆᄃᄃᄃ (kla)

ᄃᄃ (ta) + ◌ (mula) = ᄃᄃᄃᄃᄃ (tla)

Example word:

ᄃᄃᄃᄃᄃ (translation: Blantyre)

- 2.4 PEWA. ◌ serves a variety of purposes, indicating affrication and other consonant modifications. It is particularly used a lot in Tumbuka, Kyangonde (a dialect of Nyakyusa; possibly other Nyakyusa dialects as well), and Yao.

Examples of use:

ᄃ (ba) + ◌ (pewa) = ᄃᄃᄃᄃ (Chichewa Latin transliteration is w̥a;

Tumbuka Latin transliteration is ba; IPA: /βa/)

ᄆ (va) + ◌ (pewa) = ᄆᄃᄃᄃ (bva)

ᄃᄃ (za) + ◌ (pewa) = ᄃᄃᄃᄃ (bza)

ᄃᄃᄃ (fa) + ◌ (pewa) = ᄃᄃᄃᄃᄃ (pfa)

ᄃᄃᄃᄃ (tha) + ◌ (pewa) = ᄃᄃᄃᄃᄃᄃ (IPA: /θa/) – in Lomwe

Example words:

ᄃᄃᄃᄃᄃ, ᄃᄃᄃᄃᄃ

2.5 KWANTHU. ́ marks high tone, at least on words which might otherwise be misread. It is very important in Chichewa because there are 2 tones (in contrast to a language like Tumbuka having no tones).

Examples of use:

ᐃ (di) + ́ (kwanthu) = ́ᐃ (ndi)

Example words:

ᐃᐃ (mtengo; translation: tree) to distinguish from ́ᐃᐃ (mtengo; translation: price)

### 3. MITUYO “stacks”:

As Mituyo is the plural of Mutuyo, any combination of 2 individual Mutuyo on a single grapheme can be considered a Mituyo combination. For example, “ᐃ and ́ᐃ both combine a spacing Mutuyo (NI” and WAYA”, respectively) with a non-spacing Mutuyo (WAYA-BELOW ́ and PEWA ́, respectively). These are considered Mituyo combinations. However, it is worth specifically highlighting how the *spacing* Mutuyo (described in 1.1-1.7 above) can create spacing Mituyo “stacks” that are written on the left of a grapheme. There are 16 possible Mituyo stacks:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ	ᐃ
MYU NI	MYU HI	MYU WAYA	MI HI	MI WAYA	NI HI	NI WAYA	HI WAYA	SISA NI	TUMBU WAYA	MYU NI HI	MYU HI WAYA	MI HI WAYA	NI HI WAYA	SISA NI HI	MYU NI HI WAYA

Table 2. Inventory of the 16 spacing Mituyo “stacks”.

Similar to the (individual) Mutuyo, not all Mituyo are used for all languages. For example, the Mituyo stack TUMBU+WAYA (numbered 10 in Table 2) is only used in Nyakyusa/Ngonde.

#### 3.1. MYU-NI. ́

Examples of use:

́ MYU-NI + 3 (da) = ́3 (mnda)

́ MYU-NI + ʔ (ka) = ́ʔ (mnka)

Example words:

́3ʔ3, ́3ʔ3

#### 3.2. MYU-HI. ́

Examples of use:

́ MYU-HI + ʒ (cha) = ́ʒ (mchha)

́ MYU-HI + ʔ (ka) = ́ʔ (mkha)

Example words:

́ᐃᐃ, ́ᐃᐃ

#### 3.3. MYU-WAYA. ́

Examples of use:

́ MYU-WAYA + ʔ (ba) = ́ʔ (mbwa)

́ MYU-WAYA + ʒ (cha) = ́ʒ (mchwa)

Example words:

́ʔ, ́ᐃᐃ, ́ᐃᐃ

### 3.4. MI-HI. ၵ

Examples of use:

ၵ MI-HI + ၵ (pa) = ၵၵ (mpha)

Example words:

ၵၵၵ, ၵၵၵၵ

### 3.5. MI-WAYA. ၵ

Examples of use:

ၵ MI-WAYA + ၵ (ba) = ၵၵ (mbwa)

ၵ MI-WAYA + ၵ (pa) = ၵၵ (mpwa)

Example words:

ၵၵၵ, ၵၵၵ, ၵၵၵ

### 3.6. HI-WAYA. ၵ

Examples of use:

ၵ HI-WAYA + ၵ (ka) = ၵၵ (khwa)

ၵ HI-WAYA + ၵ (ta) = ၵၵ (thwa)

Example words:

ၵၵၵ, ၵၵၵ

### 3.7. NI-HI. ၵ

Examples of use:

ၵ NI-HI + ၵ (cha) = ၵၵ (nchha)

ၵ NI-HI + ၵ (ka) = ၵၵ (nkha)

Example words:

ၵၵၵ, ၵၵၵ, ၵၵၵ

### 3.8. NI-WAYA. ၵ

Examples of use:

ၵ NI-WAYA + ၵ (a) = ၵၵ (nwa)

ၵ NI-WAYA + ၵ (da) = ၵၵ (ndwa)

Example words:

ၵၵၵ, ၵၵၵ, ၵၵၵ

### 3.9. SISA-NI. ၵ

Examples of use:

ၵ HI-WAYA + ၵ (da) = ၵၵ (snda)

ၵ HI-WAYA + ၵ (ga) = ၵၵ (snga)

Example words:

ၵၵၵ

3.10. TUMBU-WAYA. ᵀ

Examples of use:

ᵀ TUMBU-WAYA + ᶑ (gha) = ᶑᶑ (n'ghwa) ᵀ TUMBU-WAYA + ᶒ (ha) = ᵀᶒ (n'hwa)

Example words:

ᵀᶑᶑ

3.11. MYU-NI-HI. ᵀᶑ

Examples of use:

ᵀᶑ MYU-NI-HI + ᶑ (ka) = ᵀᶑᶑ (mnkha) ᵀᶑ MYU-NI-HI + ᶑ (ta) = ᵀᶑᶑ (mntha)

Example words:

ᵀᶑᶑᶑ

3.12. MYU-HI-WAYA. ᵀᶑ

Example of use:

ᵀᶑ MYU-HI-WAYA + ᶑ (cha) = ᵀᶑᶑ (mchhwa)

Example words:

ᵀᶑᶑᶑ

3.13. MI-HI-WAYA. ᵀᶑ

Examples of use:

ᵀᶑ MI-HI-WAYA + ᶑ (pa) = ᵀᶑᶑ (mphwa)

Example words:

ᵀᶑᶑᶑ

3.14. NI-HI-WAYA. ᵀᶑ

Examples of use:

ᵀᶑ NI-HI-WAYA + ᶑ (cha) = ᵀᶑᶑ (nchhwa) ᵀᶑ NI-HI-WAYA + ᶑ (ka) = ᵀᶑᶑ (nkhwa)

Example words:

ᵀᶑᶑᶑ ᵀᶑᶑᶑ

3.15. SISA-NI-HI. ᵀᶑ

Examples of use:

ᵀᶑ SISA-NI-HI + ᶑ (ka) = ᵀᶑᶑ (snkha) ᵀᶑ SISA-NI-HI + ᶑ (ta) = ᵀᶑᶑ (sntha)

Example words:

ᵀᶑᶑᶑ

### 3.16. MYU-NI-HI-WAYA. 𑌶

Examples of use:

𑌶 MYU-NI-HI-WAYA + 𑌶 (ka) = 𑌶𑌶 (mnkhwa)      𑌶 MYU-NI-HI-WAYA + 𑌶 (ta) = 𑌶𑌶 (mnthwa)

Example words:

𑌶𑌶      𑌶𑌶

In summary, there are 32 Misisi (inherent /a/ vowel graphemes), 4 Masiri (vowel modifiers), 12 Mutuyo (11 consonant modifiers; 1 tone modifier), and 16 Mituyo (“stacks”) to encode.

- It is worth mentioning that the WAYA Mutuyo and the WAYA-BELOW Mutuyo *must* be encoded as two symbols and not only one. This is because if one were to process plain text (e.g., transliteration) one needs to be able to interpret the bytes as being “wa” (from WAYA) and “ya” (from WAYA-BELOW), which one couldn’t do with a single character point as position information is lost in plain text.

### Punctuation and Numerals/Digits:

There are no script-specific digits in the script; Hindu-Arabic digits (i.e., 0123456789) are used. There are no script-specific punctuation marks. Words are separated using U+0020 SPACE .

## IV Character Repertoire

Table 3 presents the character names for the 32 Mwanwego Misisi (singular Musisi; inherent -/a/ graphemes/letters), 4 Masiri (singular Siri; vowel marks), 12 Mutuyo (consonant/tone modifiers), and 16 Mituyo (complex Mutuyo combinations). The Chichewa language terms for the orthographic elements have been employed to clearly and distinctly identify the characters by their encoded names.

𑌶	U+16E00 MWANGWEGO MUSISI A
𑌷	U+16E01 MWANGWEGO MUSISI BA
𑌸	U+16E02 MWANGWEGO MUSISI CHA
𑌹	U+16E03 MWANGWEGO MUSISI DA
𑌺	U+16E04 MWANGWEGO MUSISI FA
𑌻	U+16E05 MWANGWEGO MUSISI GA
𑌼	U+16E06 MWANGWEGO MUSISI GHA
𑌽	U+16E07 MWANGWEGO MUSISI HA
𑌾	U+16E08 MWANGWEGO MUSISI JA
𑌿	U+16E09 MWANGWEGO MUSISI ZHA
𑍀	U+16E0A MWANGWEGO MUSISI KA
𑍁	U+16E0B MWANGWEGO MUSISI LA
𑍂	U+16E0C MWANGWEGO MUSISI MA
𑍃	U+16E0D MWANGWEGO MUSISI NA

































































Ƴ	U+16E0E MWANGWEGO MUSISI NYA
ɔ	U+16E0F MWANGWEGO MUSISI PA
ɐ	U+16E10 MWANGWEGO MUSISI RA
ḡ	U+16E11 MWANGWEGO MUSISI SA
ḥ	U+16E12 MWANGWEGO MUSISI SHA
ɿ	U+16E13 MWANGWEGO MUSISI TA
ɿ	U+16E14 MWANGWEGO MUSISI TSA
ɦ	U+16E15 MWANGWEGO MUSISI PSA
ɦ	U+16E16 MWANGWEGO MUSISI VA
ɛ	U+16E17 MWANGWEGO MUSISI WA
ɔ̣	U+16E18 MWANGWEGO MUSISI YA
ɿ	U+16E19 MWANGWEGO MUSISI ZA
ɸ	U+16E1A MWANGWEGO MUSISI DZA
ɸ	U+16E1B MWANGWEGO MUSISI DHLA
ɸ	U+16E1C MWANGWEGO MUSISI HLA
ɸ	U+16E1D MWANGWEGO MUSISI XA
ɸ	U+16E1E MWANGWEGO MUSISI QA
ɸ	U+16E1F MWANGWEGO MUSISI THA
◌̣	U+16E20 MWANGWEGO SIRI EMWA
◌̣	U+16E21 MWANGWEGO SIRI IMA
◌̣	U+16E22 MWANGWEGO SIRI OTA
◌̣	U+16E23 MWANGWEGO SIRI UYU
‘	U+16E24 MWANGWEGO MUTUYO MYU
“	U+16E25 MWANGWEGO MUTUYO MI
"	U+16E26 MWANGWEGO MUTUYO NI
..	U+16E27 MWANGWEGO MUTUYO HI
-	U+16E28 MWANGWEGO MUTUYO WAYA
◌̣	U+16E29 MWANGWEGO MUTUYO WAYA BELOW
’	U+16E2A MWANGWEGO MUTUYO SISA
◌̣	U+16E2B MWANGWEGO MUTUYO MURA
◌̣	U+16E2C MWANGWEGO MUTUYO MULA
◌̣	U+16E2D MWANGWEGO MUTUYO PEWA
’	U+16E2E MWANGWEGO MUTUYO TUMBU
◌̣	U+16E2F MWANGWEGO MUTUYO KWANTHU
ɿ	U+16E30 MWANGWEGO MITUYO MYU-NI

𐌲	U+16E31 MWANGWEGO MITUYO MYU-HI
𐌳	U+16E32 MWANGWEGO MITUYO MYU-WAYA
𐌴	U+16E33 MWANGWEGO MITUYO MI-HI
𐌵	U+16E34 MWANGWEGO MITUYO MI-WAYA
𐌶	U+16E35 MWANGWEGO MITUYO NI-HI
𐌷	U+16E36 MWANGWEGO MITUYO NI-WAYA
𐌸	U+16E37 MWANGWEGO MITUYO HI-WAYA
𐌹	U+16E38 MWANGWEGO MITUYO SISA-NI
𐌺	U+16E39 MWANGWEGO MITUYO TUMBU-WAYA
𐌻	U+16E3A MWANGWEGO MITUYO MYU-NI-HI
𐌼	U+16E3B MWANGWEGO MITUYO MYU-HI-WAYA
𐌽	U+16E3C MWANGWEGO MITUYO MI-HI-WAYA
𐌾	U+16E3D MWANGWEGO MITUYO NI-HI-WAYA
𐌿	U+16E3E MWANGWEGO MITUYO SISA-NI-HI
𐍀	U+16E3F MWANGWEGO MITUYO MYU-NI-HI-WAYA

































Table 3. Character Names of the Mwangwego Orthography







The Mwangwego script is used for the languages of Malawi, which include Chewa (*nya*), Lomwe (*ngl*), Sena (*swk* in Malawi, *seh* in Mozambican, *bwg* for the divergent Barwe dialect), Tonga (*tog*), Tumbuka (*tum*), Yao (*yao*), Nyakyusa (*nyy*).

	16E0	16E1	16E2	16E3
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				













## Musisi

16E00		MWANGWEGO MUSISI A
16E01		MWANGWEGO MUSISI BA
16E02		MWANGWEGO MUSISI CHA
16E03		MWANGWEGO MUSISI DA
16E04		MWANGWEGO MUSISI FA
16E05		MWANGWEGO MUSISI GA
16E06		MWANGWEGO MUSISI GHA
16E07		MWANGWEGO MUSISI HA
16E08		MWANGWEGO MUSISI JA
16E09		MWANGWEGO MUSISI ZHA
16E0A		MWANGWEGO MUSISI KA
16E0B		MWANGWEGO MUSISI LA
16E0C		MWANGWEGO MUSISI MA
16E0D		MWANGWEGO MUSISI NA
16E0E		MWANGWEGO MUSISI NYA
16E0F		MWANGWEGO MUSISI PA
16E10		MWANGWEGO MUSISI RA
16E11		MWANGWEGO MUSISI SA
16E12		MWANGWEGO MUSISI SHA
16E13		MWANGWEGO MUSISI TA
16E14		MWANGWEGO MUSISI TSA
16E15		MWANGWEGO MUSISI PSA
16E16		MWANGWEGO MUSISI VA
16E17		MWANGWEGO MUSISI WA
16E18		MWANGWEGO MUSISI YA
16E19		MWANGWEGO MUSISI ZA
16E1A		MWANGWEGO MUSISI DZA
16E1B		MWANGWEGO MUSISI DHLA
16E1C		MWANGWEGO MUSISI HLA
16E1D		MWANGWEGO MUSISI XA
16E1E		MWANGWEGO MUSISI QA
16E1F		MWANGWEGO MUSISI THA

















## Siri

16E20		MWANGWEGO SIRI EMWA
16E21		MWANGWEGO SIRI ITA
16E22		MWANGWEGO SIRI OTA
16E23		MWANGWEGO SIRI UUY

## Mutuyo

16E24		MWANGWEGO MUTUYO MYU
16E25		MWANGWEGO MUTUYO MI
16E26		MWANGWEGO MUTUYO NI
16E27		MWANGWEGO MUTUYO HI
16E28		MWANGWEGO MUTUYO WAYA
16E29		MWANGWEGO MUTUYO WAYA BELOW
16E2A		MWANGWEGO MUTUYO SISA
16E2B		MWANGWEGO MUTUYO MURA
16E2C		MWANGWEGO MUTUYO MULA
16E2D		MWANGWEGO MUTUYO PEWA
16E2E		MWANGWEGO MUTUYO TUMBU
16E2F		MWANGWEGO MUTUYO KWANTHU

## Mituyo

16E30		MWANGWEGO MITUYO MYU-NI
16E31		MWANGWEGO MITUYO MYU-HI
16E32		MWANGWEGO MITUYO MYU-WAYA
16E33		MWANGWEGO MITUYO MI-HI
16E34		MWANGWEGO MITUYO MI-WAYA
16E35		MWANGWEGO MITUYO NI-HI
16E36		MWANGWEGO MITUYO NI-WAYA
16E37		MWANGWEGO MITUYO HI-WAYA
16E38		MWANGWEGO MITUYO SISA-NI
16E39		MWANGWEGO MITUYO TUMBU-WAYA
16E3A		MWANGWEGO MITUYO MYU-NI-HI
16E3B		MWANGWEGO MITUYO MYU-HI-WAYA
16E3C		MWANGWEGO MITUYO MI-HI-WAYA
16E3D		MWANGWEGO MITUYO NI-HI-WAYA
16E3E		MWANGWEGO MITUYO SISA-NI-HI
16E3F		MWANGWEGO MITUYO MYU-NI-HI-WAYA

## Additional information on characters

### Phonetic value

The Mutuyo TUMBU ' is only used for Yao, and Nyakyusa/Ngonde. The Mutuyo PEWA ̂ is mostly used in Tumbuka, Kyangonde (a dialect of Nyakyusa; possibly other Nyakyusa dialects as well), and Yao.

### Joining information

Masiri (e.g., Vowel modifiers; singular: Siri) are attached to base letters as described above, but letters themselves do not join at all like they do in Arabic.

For the MUSISI BA (U), and the Misiri counterparts (U, U, U, U), placement of the Mutuyo PEWA ̂ should be above the right-side vertical line (U U U U), instead of directly above the grapheme as it is for all other graphemes (e.g., A, A). See line 3 of Figure 42 in Section IX.

**Note for typographers/font designers:** the placement of the Mutuyo/Mituyo in relation to the graphemes (Misisi/Misiri) should be done the same as in Figures 10-31 and 42-50 in Section IX. These images should be the reference when making basic letterforms and relative position of most Mutuyo/Mituyo to the graphemes. The following are exceptions to this based on input by the user community:

- When Mutuyo/Mituyo that appear on the left of MUSISI PA ɗ, MUSISI TA ʃ, MUSISI TSA ʃ, and MUSISI DHLA ɗ, and their Misiri counterparts ( ), should make use of the empty space available for these graphemes. They should “fill up”/utilize the empty space. Again, this logic extends to the Misiri counterparts for these 4 graphemes.
  - See Figure 46 for MUSISI PA ɗ. Same for Misiri ɗ, ɗ, ɗ, ɗ.
  - See Figures 49-50 for MUSISI TA ʃ. Same for Misiri ʃ, ʃ, ʃ, ʃ.
  - See Figure 50 for MUSISI TSA ʃ. Same for Misiri ʃ, ʃ, ʃ, ʃ.
  - See Figure 51 for MUSISI DHLA ɗ. Same for Misiri ɗ, ɗ, ɗ, ɗ.
- The stacked Mituyo combinations on the left of graphemes should be perfectly symmetrical as requested by the user community:
  - Symmetrical examples: ʃ ʃ ʃ ʃ ʃ ʃ ʃ ʃ ʃ ʃ ʃ ʃ
  - The font used in Figures 42-50 doesn't have some aspects of a Mituyo stack centered, such as Mutuyo MYU ' . The examples above should be the reference for this aspect of the script/future fonts.

### Punctuation

Latin punctuation is used in the script. This includes the “ASCII punctuation and symbols” subheading of Basic Latin Unicode Block (U+0020 to U+002F, U+003A to U+0040, U+005B to U+0060 and U+007B to U+007E) and the “Latin-1 punctuation and symbols” subheading of the Latin-1 Supplement Unicode Block (U+00A0 to U+00BF).

### Numbers

Numbers are represented with Hindu-Arabic numerals: 0123456789.

### *Mutuyo glyph uniqueness:*

Many Mutuyo glyphs are visually similar to existing diacritical marks presently in the Unicode inventory. The authors have considered utilization of the graphically similar marks with the Mwangwego letters and determined that doing so is not in the best interests of the user community. While the marks are graphically similar, the abstract characters that the graphs are referents for are distinctly different; which in turn would lead to cognition difficulties in their Mwanwego utilization. A discussion and comparison of the diacritic and Mutuyo marks is given in the following.

The Chichewa and other languages of Malawi use a Latin-based orthography that includes “*w*” to denote the voiced bilabial fricative /β/. Accordingly, the user community is already familiar with the shape of the mark and its phonetical augmentation to /w/. Circumflex applied to letters of the Mwangwego script would *not* signal the *same* phonetic change. Not only might this inconsistency in the use of the symbol be confusing to users, but visually the Latin circumflex is not optimal for publishing in Mwanwego script. The visual difference between the symbols is depicted in the following tables:

<b>Reference Typeface</b>	Ŵ ŵ	Ŷ ŷ
<b>Sans Serif Typeface</b>	Ŵ ŵ	Ŷ ŷ

Table 4. Comparison of Chichewa Latin Circumflex on Ŵ to Mutuyo Pewa.

<b>Reference Typeface</b>	Ū Â	Ŭ Ǻ
<b>Sans Serif Typeface</b>	Ū Â	Ŭ Ǻ

Table 5. Comparison of Circumflex to Mutuyo Pewa applied to similarly shaped base letters.

Visible differences between the shapes of Circumflex and Pewa in the above examples include: stroke weight, stroke taper, inner angle, top angle, and mark positioning.

It can be expected that materials, particularly educational, will be produced that render Malawi languages in both orthographies. For these readers we believe that not conflating Circumflex and Pewa, for example, would better facilitate reading comprehension and the visual quality of publications. Maintaining the visual distinction between the symbols is also advantageous in any pain text context.

Unlike the practice with Latin diacritic, the combining Mutuyo do not change the phonetic value of a consonant letter (e.g. n + ͡ → ñ , phonetically /n/ → / ɲ/ ). Rather, they either append or prefix a phoneme to the consonant (note that with a single exception, the *non*-combining Mutuyo will prefix a phoneme).

For example:

- Ƀ (da) vs Ƀ̣ (dya)
- Ʉ (ba) vs Ʉ̣ (bra)
- Ɂ (ka) vs Ɂ̣ (kla)
- Ɇ (za) vs Ɇ̣ (bza)
- ɉ (di) vs ɉ̣ (ndi)

A noteworthy distinction between the application of the combining Mutuyo, that is unprecedented for the diacritical marks, appears in the last example above. The Mutuyo mark is the third glyph in the composition sequence. In keeping with the handwritten practices, the Mutuyo is written *after* the Masiri vowel mark while it visually appears above the consonant glyph -no different than when a Masiri is not present. Thus, the combining Mutuyo may be either the 2<sup>nd</sup> or 3<sup>rd</sup> codepoint in composed character (e.g. <C><M> or <C><V><M>). This is believed to be a different combining behavior than that exhibited by comparable diacritical marks which will always be the 2<sup>nd</sup> codepoint in a composition sequence (unless combining with another combinable mark).

This last point helps highlight that Latin based combining marks may be inherently unsuitable for Mwanwego script which, being an Abugida script, is not sufficiently *Latin-like*. Review of the Unicode Character Database's "NormalizationTest.txt" finds the comparable marks applied only to the more closely related scripts Latin, Greek, and Cyrillic. Applying the marks outside of this family may also be problematic for existing text processors that make the assumption that the marks are erroneously applied when found elsewhere.

A degree of internal similarity to the Mutuyo mark is readily observed. For example: ˆ (MYU) with ˆˆ (MI), ' (TUMBA) with " (NI), and ˆ̣ (MULA) with ˆ̣̣ (MURA). Discussion with the user community and educators we find that users embody a phonological understanding of the glyphs and do not apply the visual similarity in any practical way. For example, MI (ˆˆ) is not perceived as a "Double MYU" (ˆˆ) which is not logical phonetically. Education of the marks also does not follow what would logically be the "stroke order" of the glyphs (ˆ̣̣ NI precedes ˆ̣̣ TUMBI, ' MURA precedes " MULA). Thus we have proposed encoding the marks distinctly in keeping with the user communities perception and practices. Doing so also avoids entirely the inevitable problem of text editing where during a "copy & paste" operation, one mark is selected and pasted but not the other, or a deletion is incomplete, or a second keystroke missed in their composition.

## V Properties

### General Category and other properties

The Mwangwego inventory in this proposal includes the Misisi syllable bases as type Letter Other, their combining Masiri and Mutuyo diacritic marks.

16E00;MWANGWEGO	MUSISI	A;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E01;MWANGWEGO	MUSISI	BA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E02;MWANGWEGO	MUSISI	CHA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E03;MWANGWEGO	MUSISI	DA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E04;MWANGWEGO	MUSISI	FA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E05;MWANGWEGO	MUSISI	GA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E06;MWANGWEGO	MUSISI	GHA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E07;MWANGWEGO	MUSISI	HA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E08;MWANGWEGO	MUSISI	JA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E09;MWANGWEGO	MUSISI	ZHA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E0A;MWANGWEGO	MUSISI	KA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E0B;MWANGWEGO	MUSISI	LA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E0C;MWANGWEGO	MUSISI	MA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E0D;MWANGWEGO	MUSISI	NA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E0E;MWANGWEGO	MUSISI	NYA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E0F;MWANGWEGO	MUSISI	PA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E10;MWANGWEGO	MUSISI	RA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E11;MWANGWEGO	MUSISI	SA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E12;MWANGWEGO	MUSISI	SHA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E13;MWANGWEGO	MUSISI	TA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E14;MWANGWEGO	MUSISI	TSA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E15;MWANGWEGO	MUSISI	PSA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E16;MWANGWEGO	MUSISI	VA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E17;MWANGWEGO	MUSISI	WA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E18;MWANGWEGO	MUSISI	YA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E19;MWANGWEGO	MUSISI	ZA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E1A;MWANGWEGO	MUSISI	DZA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E1B;MWANGWEGO	MUSISI	DHLA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E1C;MWANGWEGO	MUSISI	HLA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E1D;MWANGWEGO	MUSISI	XA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E1E;MWANGWEGO	MUSISI	QA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E1F;MWANGWEGO	MUSISI	THA;Lo;0;L; ; ; ; ;N; ; ; ; ;
16E20;MWANGWEGO	SIRI	EMWA;Mc;204;L; ; ; ; ;N; ; ; ; ;
16E21;MWANGWEGO	SIRI	IMA;Mc;204;L; ; ; ; ;N; ; ; ; ;
16E22;MWANGWEGO	SIRI	OTA;Mc;204;L; ; ; ; ;N; ; ; ; ;
16E23;MWANGWEGO	SIRI	UYU;Mc;204;L; ; ; ; ;N; ; ; ; ;
16E24;MWANGWEGO	MUTUYO	MYU;Lm;0;ON; ; ; ; ;N; ; ; ; ;
16E25;MWANGWEGO	MUTUYO	MI;Lm;0;ON; ; ; ; ;N; ; ; ; ;
16E26;MWANGWEGO	MUTUYO	NI;Lm;0;ON; ; ; ; ;N; ; ; ; ;
16E27;MWANGWEGO	MUTUYO	HI;Lm;0;ON; ; ; ; ;N; ; ; ; ;
16E28;MWANGWEGO	MUTUYO	WAYA;Lm;0;ON; ; ; ; ;N; ; ; ; ;
16E29;MWANGWEGO	MUTUYO	WAYA BELOW;Mn;220;ON; ; ; ; ;N; ; ; ; ;
16E2A;MWANGWEGO	MUTUYO	SISA;Lm;0;ON; ; ; ; ;N; ; ; ; ;
16E2B;MWANGWEGO	MUTUYO	MURA;Mn;230;ON; ; ; ; ;N; ; ; ; ;
16E2C;MWANGWEGO	MUTUYO	MULA;Mn;230;ON; ; ; ; ;N; ; ; ; ;
16E2D;MWANGWEGO	MUTUYO	PEWA;Mn;230;ON; ; ; ; ;N; ; ; ; ;
16E2E;MWANGWEGO	MUTUYO	TUMBU;Lm;0;ON; ; ; ; ;N; ; ; ; ;

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16E2F;MWANGWEGO MUTUYO KWANTHU;Mn;230;ON;;;;;N;;;;;
16E30;MWANGWEGO MITUYO MYU-NI;Lm;0;L;;;;;N;;;;;
16E31;MWANGWEGO MITUYO MYU-HI;Lm;0;L;;;;;N;;;;;
16E32;MWANGWEGO MITUYO MYU-WAYA;Lm;0;ON;;;;;N;;;;;
16E33;MWANGWEGO MITUYO MI-HI;Lm;0;ON;;;;;N;;;;;
16E34;MWANGWEGO MITUYO MI-WAYA;Lm;0;ON;;;;;N;;;;;
16E35;MWANGWEGO MITUYO NI-HI;Lm;0;ON;;;;;N;;;;;
16E36;MWANGWEGO MITUYO NI-WAYA;Lm;0;ON;;;;;N;;;;;
16E37;MWANGWEGO MITUYO HI-WAYA;Lm;0;ON;;;;;N;;;;;
16E38;MWANGWEGO MITUYO SISA-NI;Lm;0;ON;;;;;N;;;;;
16E39;MWANGWEGO MITUYO TUMBU-WAYA;Lm;0;ON;;;;;N;;;;;
16E3A;MWANGWEGO MITUYO MYU-NI-HI;Lm;0;L;;;;;N;;;;;
16E3B;MWANGWEGO MITUYO MYU-HI-WAYA;Lm;0;ON;;;;;N;;;;;
16E3C;MWANGWEGO MITUYO MI-HI-WAYA;Lm;0;ON;;;;;N;;;;;
16E3D;MWANGWEGO MITUYO NI-HI-WAYA;Lm;0;ON;;;;;N;;;;;
16E3E;MWANGWEGO MITUYO SISA-NI-HI;Lm;0;ON;;;;;N;;;;;
16E3F;MWANGWEGO MITUYO MYU-NI-HI-WAYA;Lm;0;L;;;;;N;;;;;

```

## Line breaking information

Line Breaking rules for the Mwangwego script are as follows:

- Words are separated with U+0020 SPACE. There are no other word separators in historical documents.
- Line breaks only occur at word boundaries.
- There is not a special mode found that allows line 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.

The Mwangwego script is likely to occur with the Latin script.

## VI Collation

### Misisi/Musiri

The sorting order of the basic syllabic graphemes of the script follows the ordering used in education and is shown in Table 1, starting with 𞞀, 𞞁, 𞞂, 𞞃, 𞞄, then 𞞅, 𞞆, 𞞇, 𞞈, 𞞉, ..., all the way to 𞞊, 𞞋, 𞞌, 𞞍.

However, attaching Mutuyo/Mituyo to Misisi/Musiri significantly influences the ordering of said Misisi/Musiri; see directly below.

### Mutuyo

When Mutuyo (i.e., a single modifying mark as defined in Section III) are attached to Misisi/Musiri the collation adheres to the following order:

MYU ' < MI " < NI " < HI " < WAYA - < WAYA BELOW ̣ < SISA ' < MURA ̣ < MULA ̣ < PEWA ̣ < TUMBU ' < KWANTHU ̣.

As previously mentioned, not all Mutuyo/Mituyo attach to all Misi/Musiri as some letter+modifier combinations are not linguistically attested. For example, the valid Mutuyo for the Musiri ʔ /ka/ are MYU ʔ, NI ʔ, HI ʔ, WAYA ʔ, WAYA BELOW ʔ, SISA ʔ, and KWANTHU ʔ. See Section X for all valid Misi and Mutuyo/Mituyo combinations.

As an example, if one is given the Musisi ꞑ /ka/ and the Musiri ꞑ /kɛ/, and all valid Mutuyo attachments for ꞑ, which are ꞑ, ꞑ, ꞑ, ꞑ, ꞑ, and ꞑ the order of these characters would be as follows:

2, '2, "2, ..2, -2, 2, '2, 2̂, 2́, 2

The basic Musisi ꞑ /ka/ is ordered first, then each base-ꞑ letter is ordered according to the Mutuyo order mentioned above. Only after all letters of the same base (ꞑ in this example) are ordered, can the next vocalized letter (i.e., Ꞓ /kε/) be ordered.

To provide another example: if one is given the Musisi  $\mathcal{U}$  /ba/ and the Misiri  $\mathcal{U}$  /bɛ/,  $\mathcal{U}$  /bi/,  $\mathcal{U}$  /bɔ/, and  $\mathcal{U}$  /bu/. The valid Mutuyo for  $\mathcal{U}$  /ba/ (which are also ***always*** valid for the Misiri counterparts) are MYU ' , MI " , WAYA ˘ , WAYA BELOW ˘˘ , MURA ˘˘˘ , MULA ˘˘˘˘ , and PEWA ˘˘˘˘˘ (see Section X). If you attach all Mutuyo to Musisi  $\mathcal{U}$  /ba/ and all Misiri, the ordering of all of these characters, including the base Musisi and Misiri, would be as follows:

[illegible]

## Mituyo

Graphemes with only one Mutuyo are ordered before any instances of a grapheme with Mituyo (i.e., multiple Mutuyo).

There are only three ways to configure a Mituyo combination around a Musisi/letter:

1. **Left** and Bottom (example: " $\hat{f}$ ")
2. **Top** and Left (example: " $\hat{f}$ ")
3. **Top** and Bottom (example: " $\hat{f}$ ")

You cannot have a Mituyo configuration where all three positions (top, left, and bottom) are occupied by a Mutuyo (i.e., it is linguistically impossible for these languages). The Mutuyo that is written first, and therefore considered first when ordering is in **bold** above for each of the three configurations.

Furthermore, if there are multiple Mutuyo stacked on the left of a grapheme (e.g., 𐎶𐎶𐎶) ordering of the left stack is decided by reading the individual Mutuyo from the top of the stack (first) to the bottom of the stack(second), and adhering to the general ordering of individual Mutuyo

## 2-part Mituyo

Below are all 19 linguistically possible 2-part Mituyo combinations. This is also their order (from left to right):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
𐄂	𐄃	𐄄	𐄅	𐄆	𐄇	𐄈	𐄉	𐄊	𐄋	𐄌	𐄍	𐄎	𐄏	𐄐	𐄑	𐄒	𐄓	𐄔

Table 6. Order of all 2-part Mituyo.

For convenience, the order of individual Mutuyo is: MYU ' < MI " < NI " < HI " < WAYA - < WAYA BELOW 𐄅 < SISA ' < MURA 𐄏 < MULA 𐄐 < PEWA 𐄑 < TUMBU ' < KWANTHU 𐄒.

Therefore, we can see in Table 6 that all 2-part Mituyo that contain a MYU ' are ordered first before 2-part Mituyo that "start with" a MI ", etc.

Furthermore, as we can see in Table 6, the 2-part Mituyo combinations that are labeled as 1, 2, and 3 are all "stacks" that would appear on the left side of a grapheme. Stacks 1, 2, and 3 all have a MYU ' at the top of their stacks. The ordering of these 3 stacks is determined by parsing the stacks' Mutuyo components from top to bottom. They each start with MYU ', which can be ignored. The second Mutuyo in stacks 1, 2, and 3 are NI ", HI ", and WAYA -, respectively. As NI " comes before HI " and WAYA - in the Mutuyo ordering, 𐄂 is ordered before 𐄃 and 𐄄. Then, as HI " comes before WAYA - in the Mutuyo ordering, 𐄃 is ordered before 𐄄.

Another example are the 2-part Mituyo combinations labeled under 14, 15, and 16 in Table 6 ( 𐄏, 𐄐, and 𐄑). They have top-left, top-left, and top-bottom configurations around a grapheme, respectively. They each begin with a PEWA 𐄑. Their order is also determined by looking at the second Mutuyo in the Mityuo combination. Combination 14 has a NI ", 15 has a WAYA -, and 16 has a WAYA BELOW 𐄅 as their second Mutuyo (according to the order of reading their respective configurations). As NI " comes before WAYA - in the Mutuyo ordering, and WAYA - comes before WAYA BELOW 𐄅, their order as 𐄏 < 𐄐 < 𐄑.

## 3-part Mituyo

Below are the 7 linguistically possible 3-part Mituyo combinations. This is also their order (from left to right):

1	2	3	4	5	6	7
𐄂	𐄃	𐄄	𐄅	𐄆	𐄇	𐄈

Table 7. Order of all 3-part Mituyo

The exact same logic applies to 3-part Mituyo.



## 4-part Mituyo

There is only one linguistically possible 4-part Mituyo combination. It is ordered after 3-part Mituyo combinations.

1
⋮

Table 8. The sole 4-part Mituyo combination.

The exact same logic applies to 4-part Mituyo.

## Complete collation example

1. A basic grapheme (Misisi) is ordered first.
  - a. Example: ᵀ /ka/
2. Then all valid Mutuyo for that basic grapheme are ordered.
  - a. Example: ᵀ ᵀᵀ ᵀᵀᵀ ᵀᵀᵀᵀ ᵀᵀᵀᵀᵀ
3. Then all valid 2-part Mutuyo for that basic grapheme are ordered.
  - a. Example: ᵀᵀᵀ ᵀᵀᵀᵀ ᵀᵀᵀᵀᵀ ᵀᵀᵀᵀᵀᵀ ᵀᵀᵀᵀᵀᵀᵀ ᵀᵀᵀᵀᵀᵀᵀᵀ
4. Then all valid 3-part Mituyo for that basic grapheme are ordered.
  - a. Example: ᵀᵀᵀᵀᵀ ᵀᵀᵀᵀᵀᵀᵀ ᵀᵀᵀᵀᵀᵀᵀᵀᵀ
5. Then all valid 4-part Mituo for that basic grapheme are ordered.
  - a. Example: ᵀᵀᵀᵀᵀᵀᵀ
6. Then the next vocalization for that basic grapheme is ordered.
  - a. Example: ᵀᵀᵀᵀᵀᵀᵀᵀ
7. Then the ordering continues for all the same Mutuyo, and 2/3/4-part Mituyo for that new vocalized grapheme.
8. Then the next basic grapheme (Misisi) continues the entire cycle.

Section X shows every possible Mutuyo/Mituyo combination attached to the Misisi (i.e., all inherent /a/ syllabic graphemes).

## VII References

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## VIII Acknowledgements

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[illegible]

Figure 1. Handwritten Chichewa letter.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

Figure 2. Handwritten Chichewa letter.





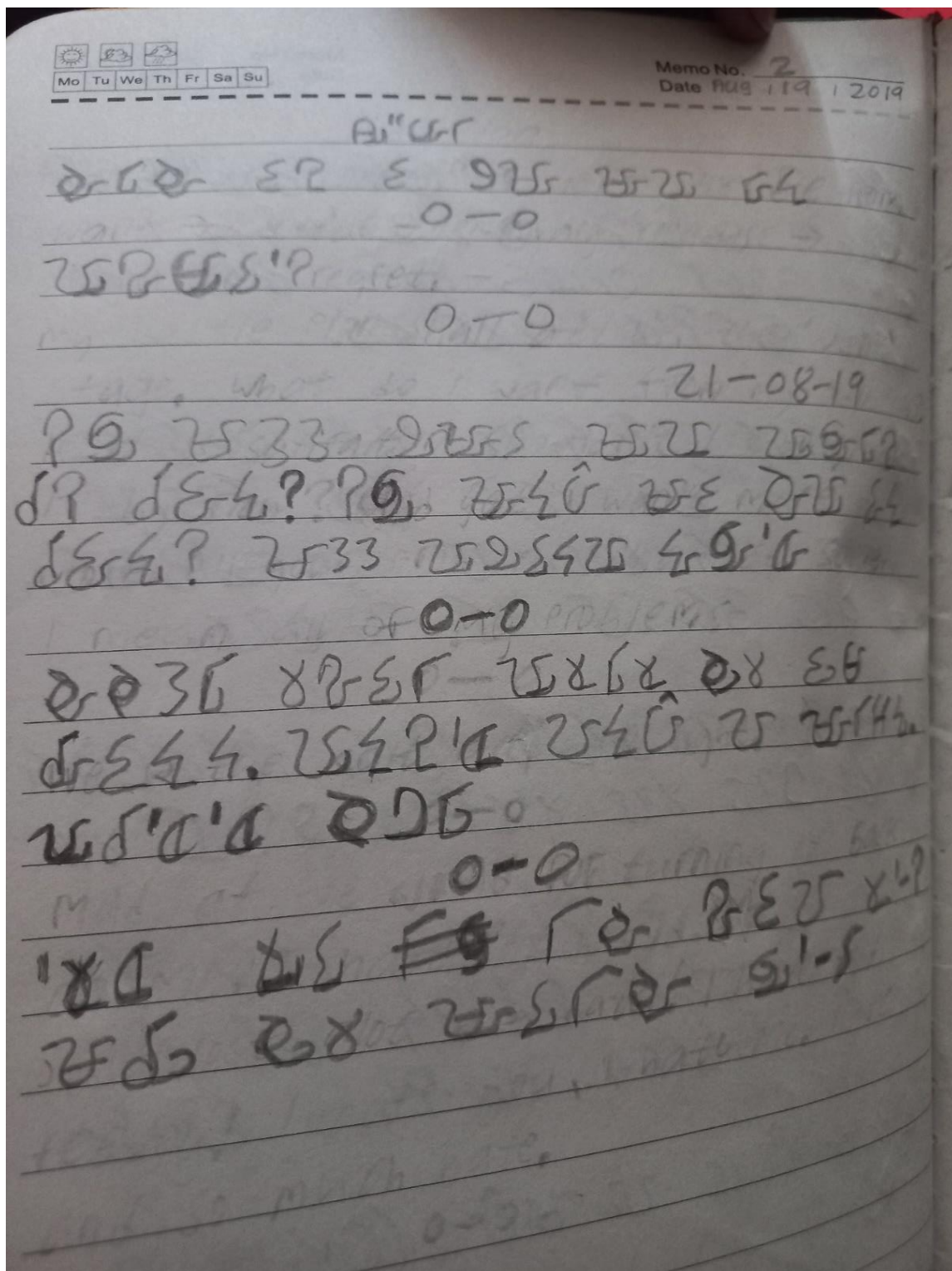


Figure 4. August 19, 2019 Tumbuka-language journal entry from a Malawian user.

Please note, the last word on this image,  $\text{U}^{\text{U}}$ , has the Mituyo stack deconstructed, with the Tumbu Mutuyo incorrectly written on the left of the Waya Mutuyo, instead of properly placing it on top of the latter. This is an error the student made, which is part of the learning curve. There are several instances of the user *correctly* constructing this same Mituyo in these journal entries in Figure 4.6 (twice in paragraph 3; again in paragraph 4).

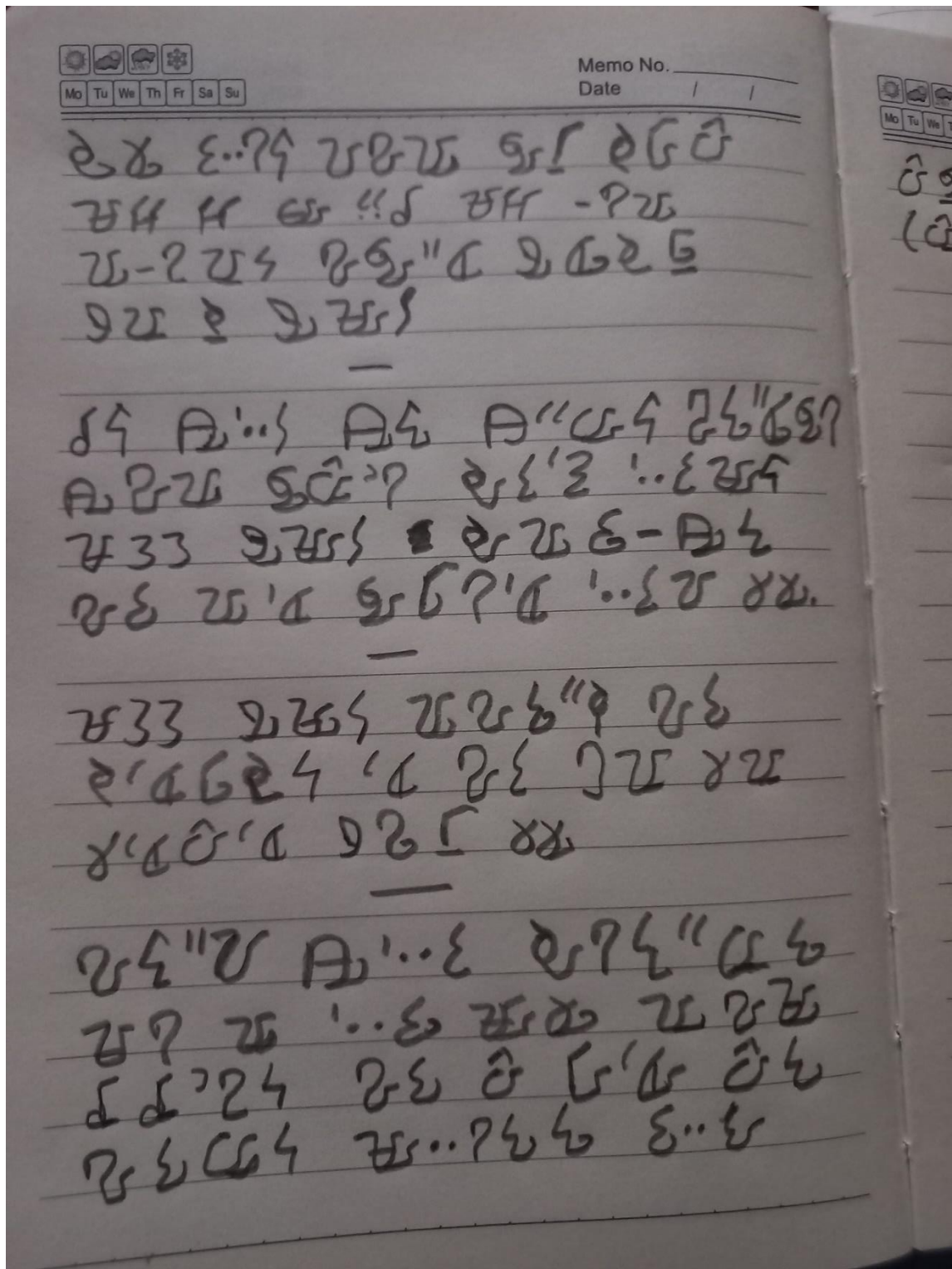


Figure 5. Tumbuka-language journal entry from a Malawian user.

Please note, the Mituyo sequence of TUMBU 'HI', as seen in paragraphs 2 and 4 in Figure 4.1, is *not* possible. This was a mistake by the learner.



|    |    |    |    |    |    |    |  |  |  |  |
|----|----|----|----|----|----|----|--|--|--|--|
|    |    |    |    |    |    |    |  |  |  |  |
| Mo | Tu | We | Th | Fr | Sa | Su |  |  |  |  |

Memo No. \_\_\_\_\_  
Date     /     /     .

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 ၁၃၆    ဖာ    ဖာ    ဖာ    ၁၃-၁၄  
 ၁၃၆    -၁    ဖာ    ဖာ    ?

၁၃၆    ဖာ    ဖာ    ဖာ    ၁၃-၁၄  
 ၁၃၆    ဖာ    ဖာ    ဖာ    ၁၃-၁၄  
 ၁၃၆    ဖာ    ဖာ    ဖာ    ၁၃-၁၄

၁၃၆    ဖာ    ဖာ    ဖာ    ၁၃-၁၄  
 ၁၃၆    ဖာ    ဖာ    ဖာ    ၁၃-၁၄

Figure 6. Tumbuka-language journal entry from a Malawian user.







Mo Tu We Th Fr Sa Su

Memo No. \_\_\_\_\_

Date      /      /

ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀ  
ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀ  
ᄀᄀᄀ-ᄀᄀ ᄀᄀ ᄀᄀᄀ

ᄀᄀ ᄀᄀ ᄀᄀᄀ ᄀᄀᄀ  
ᄀᄀᄀ ᄀᄀ ᄀᄀᄀᄀ.

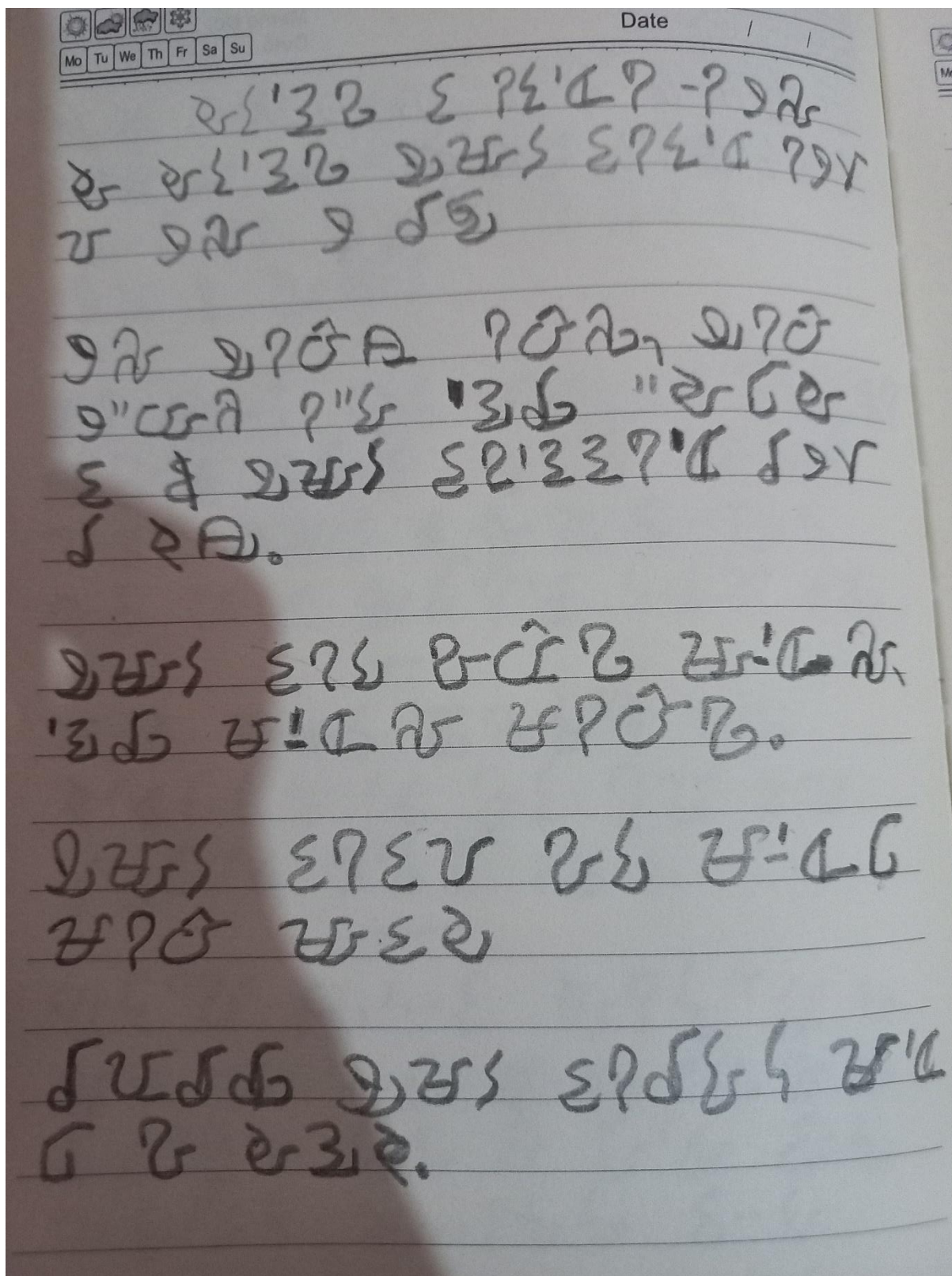
ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀᄀᄀᄀ  
ᄀᄀᄀ ᄀᄀ ᄀᄀ ᄀᄀ ᄀᄀᄀᄀᄀ  
ᄀᄀ ᄀᄀᄀᄀ.

ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀᄀᄀᄀ  
ᄀᄀᄀᄀᄀᄀᄀ.

ᄀᄀᄀ ᄀᄀᄀ ᄀᄀᄀᄀᄀᄀᄀ  
ᄀᄀᄀᄀᄀ.

Figure 8. Tumbuka-language journal entry from a Malawian user.





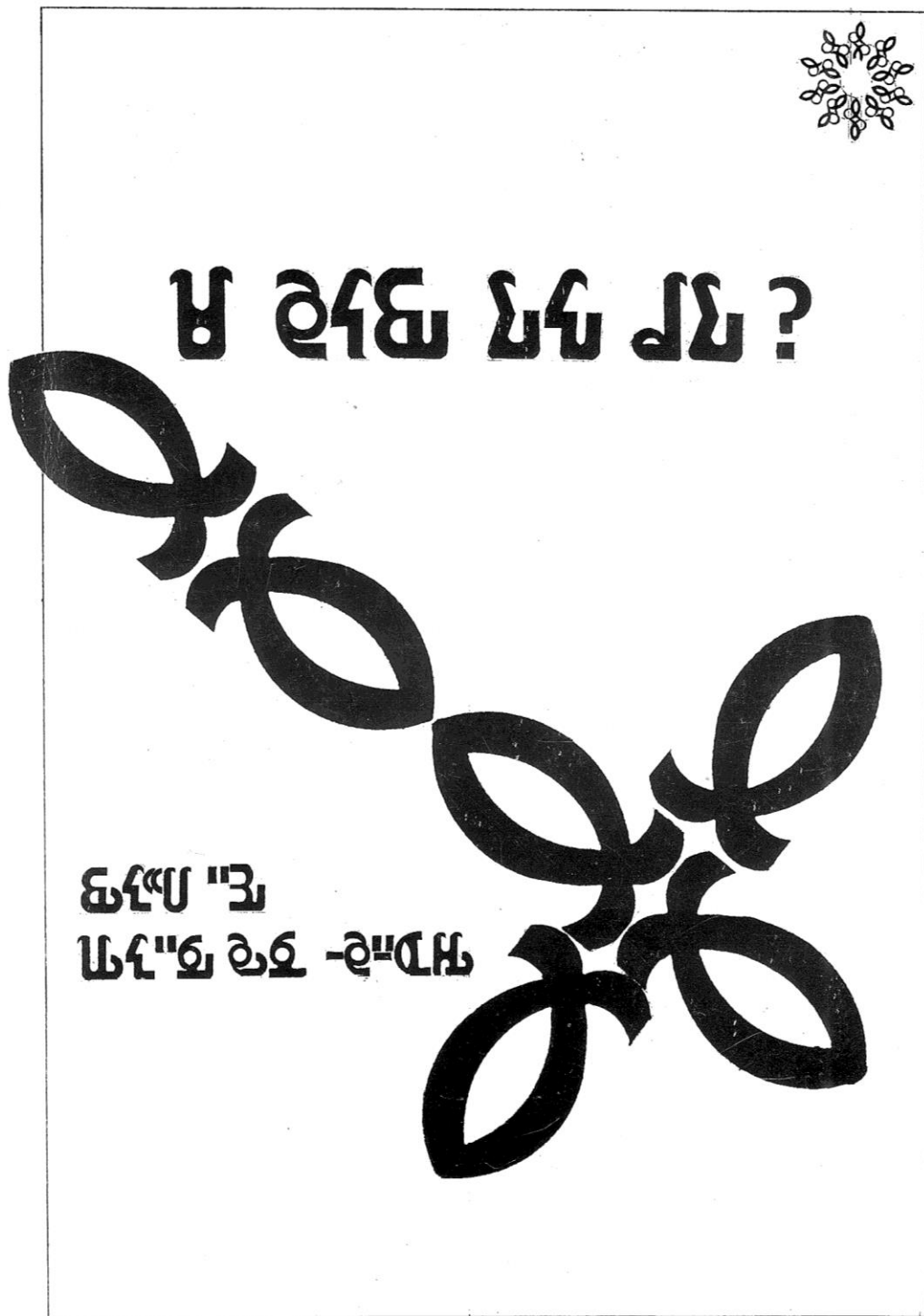


Figure 10. Cover page of the Chichewa language book “ᖃ ᑭᖅ ᖅᖅ ᖅᖅ ?” (transliteration: “A Malawi Tili Pati”; translation: “Malawians, where are we?”)

ፊደላዊነ

-ቶ ዘላ ለ "፩ ይታዩሉ" ሪፖርት ለፋ-3  
ታይም ሰሌዳ, ለፋ-4 ዘላ ለ "፩ ይታዩሉ" ሪፖርት  
-ቶ ይፈታ ፊደላዊነ ሪፖርት ለፋ-3.  
"፩ ይታዩሉ" ሪፖርት ለፋ-3 ሪፖርት, ሪፖርት  
ገላ "፩ ይታዩሉ" ሪፖርት ለፋ-3 ሪፖርት  
ፈፅሎ ለፋ-3.

"፩ ይታዩሉ" ሪፖርት ለፋ-3 ሪፖርት  
ፋ-3 ሪፖርት "፩ ይታዩሉ" ሪፖርት ለፋ-3  
ፋ-3 ሪፖርት. "፩ ይታዩሉ" ሪፖርት ለፋ-3  
ፋ-3 ሪፖርት ለፋ-3 ሪፖርት ለፋ-3.  
ፈፅሎ ለፋ-3.

"፩ ይታዩሉ" ሪፖርት


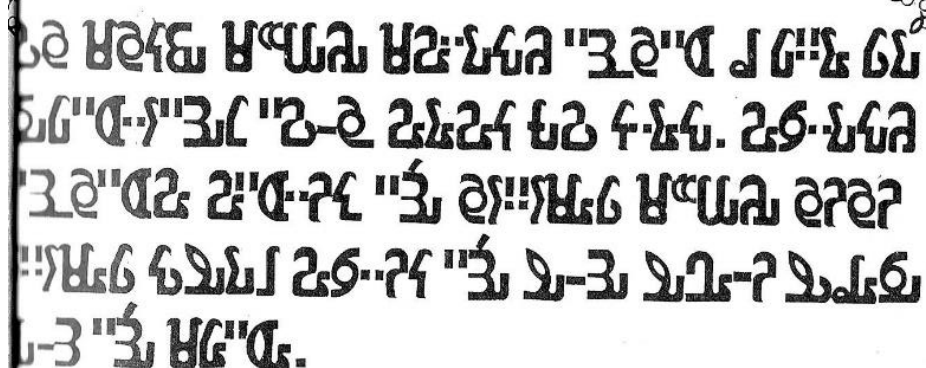
| <b>፲ ርዕሰ ክፍል</b> |           |  |
|------------------|-----------|---|
| <b>፲፱</b>        |           |   |
| 1                | ፲፱ ክፍል    | 1   |
| 2                | ዘ፲፱ ክፍል   | 10  |
| 3                | "፲፱" ፲፱   | 18  |
| 4                | ፲፱ ፲፱     | 21  |
| 5                | ፲፱        | 23  |
| 6                | ፲፱        | 25  |
| 7                | ዘ፲፱       | 34  |
| 8                | ፲፱        | 35  |
| 9                | ፲፱ ፲፱     | 37  |
| 10               | ፲፱-፲፱     | 39  |
| 11               | ፲፱        | 40  |
| 12               | ፲፱        | 54  |
| 13               | ዘ፲፱ ፲፱-፲፱ | 55  |
| 14               | ዘ፲፱ ፲፱    | 59  |
| 15               | ዘ፲፱ ፲፱    | 61  |
| 16               | ፲፱ ፲፱     | 63  |
| 17               | ፲፱ ፲፱     | 66  |

Figure 12. Table of contents of "ዘ ፲፱ ፲፱ ፲፱", page iv.

| <div> <div>ገጽ</div> <div>ጥያቄ</div> <div>ጋራ</div> </div> |          |    |     |
|---|----------|----|-----|
| ገጽ  | ጥያቄ      | ጋራ |     |
| 18  | ገጽ       | -  | 68  |
| 19  | ገጽ       | -  | 70  |
| 20  | ገጽ       | -  | 71  |
| 21  | ገጽ       | -  | 72  |
| 22  | ገጽ-ገጽ ገጽ | -  | 80  |
| 23  | ገጽ-ገጽ-ገጽ | -  | 94  |
| 24  | ገጽ       | -  | 95  |
| 25  | ገጽ ገጽ    | -  | 97  |
| 26  | ገጽ ገጽ    | -  | 100 |
| 27  | ገጽ ገጽ    | -  | 118 |

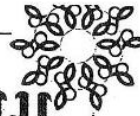
ኃ.፡ፖሪታሊህ ፖሎሊ-ጌ ፖ -ፊ፡ፒዚ, ዘፊፍ ዘ  
 ሞሊዝ ዘ.፡ፖፋ ዘፊ፡ፓ ፈ ፎሊፍ "ፊ፡ፖዚ"ፍ ፈ ፎ  
 ፎሊፍ ፊ ፖሊፊ, ፍ.፡ፖ፡ፖ ፖሎሊ-ጌ, ፊፊ "ፊ፡ፖ፡ፖ  
 ፊ፡ፖ ፊ.፡ፖ ዘፊህ ፍ.፡ፖ፡ፖ "ፊ፡ፖ፡ፖ ፈ ፡፡ፊ፡ፖ.



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 ၁၈။ ၂၃-၂၂ ၂၃-၂၂ ၂၃-၂၂ ၂၃-၂၂ ၂၃-၂၂ ၂၃-၂၂ ၂၃-၂၂ ၂၃-၂၂





ԲԱՆՈՒՄ ԿՐԻՄ ԵՎ ԵՎԼԱՆԻ ԵՎ ԵՎԼԱՆԻ  
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Figure 17. Page 4 of "ԵՎԼԱՆԻ ԵՎԼԱՆԻ"

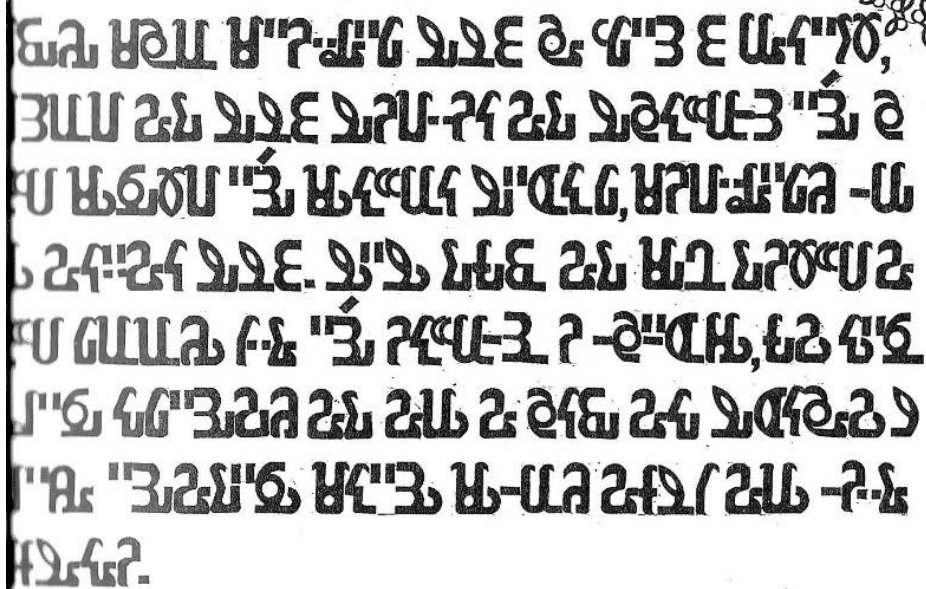
[illegible]

Figure 18. Page 5 of “*ከ ዕለጅ ሂሳ ፈረደ?*”

[illegible][illegible]







8

Page 43 of 135

22

11

25



[illegible]

Figure 23. Page 10 of “**ዘ ቅጽ ስራ ምዕራፍ**”

𐌸𐌹𐌺 𐌸𐌵𐌹𐌺 𐌸𐌺𐌹𐌺, 𐌹𐌺𐌹 𐌲𐌹𐌺 𐌸𐌹𐌺  
 "𐌹𐌺 𐌲𐌺𐌹𐌺 - 𐌹𐌺. 𐌸𐌹𐌺 - 𐌲𐌺𐌹𐌺 𐌹𐌺 "𐌹𐌺 - 𐌲𐌺  
 𐌹𐌺𐌺 𐌸 𐌹𐌺𐌹𐌺 𐌹𐌺𐌺 𐌹𐌺 𐌹𐌺. 𐌹𐌺𐌹 𐌲𐌹𐌺 𐌸  
 𐌹𐌺 𐌸𐌹𐌺" 𐌹𐌺𐌺 𐌸𐌹𐌺 𐌹𐌺𐌺 𐌹𐌺 𐌸𐌹𐌺 𐌸𐌹𐌺 𐌸𐌹𐌺  
 "𐌹𐌺" 𐌹𐌺𐌺 𐌸𐌹𐌺 𐌸𐌺𐌹𐌺. 𐌹𐌺 𐌸𐌹𐌺 𐌸𐌹𐌺 "𐌹𐌺 𐌹𐌺"  
 𐌹𐌺 𐌸𐌹𐌺 𐌹𐌺 𐌹𐌺 𐌹𐌺 𐌸𐌹𐌺 "𐌹𐌺 𐌹𐌺-𐌹𐌺 𐌹𐌺  
 𐌹𐌺 𐌸𐌹𐌺 𐌹𐌺 𐌹𐌺 𐌹𐌺 𐌹𐌺 𐌹𐌺. 𐌹𐌺 𐌹𐌺𐌹𐌺  
 𐌹𐌺 𐌹𐌺𐌹𐌺 𐌹𐌺𐌹𐌺 𐌹𐌺𐌹𐌺 "𐌹𐌺 𐌹𐌺𐌹𐌺" 𐌹𐌺𐌹𐌺

[illegible]

ዘብረኤል ወይ ድረፍ ለጭጭጭ ልብረኤል /  
 ሰላም ስጥኝሁኝ፣ ዘብረኤል ድረፍሁኝ -ገገ ር  
 ሰላምህ፡፡ ኃይል ወይሰላም ልብረኤል ሰላም ሰላም፣ "ኃይል ዘ  
 ሰላም ወይሰላም-፡፡" ወይ ስ፡፡ ድረፍሁኝ ድረፍ ሰ  
 ሰላም ዘብረኤል ድረፍሁኝ -ገገ -ገ ሰላምሁኝ፡፡  
 ወይሰላም ሰላም ድረፍሁኝ-፡፡ ሰላም-ገ ዘሰላም  
 ሰላም "ኃይል-ሰላም-ገሰላም፡፡"

൧-3 ൧൧-൧൧ ൧൧-2 74 ൧൧, ൧൧-൧൧ ൧൧ 25 "3 ൧ ൧ ൧ ൧ 3" 3 ൧ 3 ൧ ൧ ൧, ൧ ൧ ൧, ൧ ൧ ൧ ൧ "3 ൧" 3 ൧-3 "3 ൧-3 ൧.

Figure 25. Page 12 of “ዘ ቅጥፍ ስሩ ፈነ?”







ጋ"ገሌ ጋህ ዘፀፍኡ ዘ"ጣ"ጣ ሓፋ"ጋ ዘፍ"ጣ. ፊደ  
ፊደ"ግ ጋህ ግህ-ጌጽ "ጌ ግህ"ጌ ጋህ ጋህ  
-ጌ. ግህ"ጌ?

ዘህፍ ሓህፋ"ጌ ዘፀፍኡ ዘግህ"ጌ ዘህፍ  
"ግ ግህ-ጌ-ፀ"ጣ ሓፋ"ጌ ግህ ግህ ግህ ግህ  
-ጌ "ጌ ግህ-ጌ ግህ. ዘግ ግህ ግህ ግህ  
ዘፀፍኡ ዘግህ.

ዘህፍ ዘፀፍኡ ዘፈፍ, ሓህፍ/ዘ ጋህ"ጌ ግህ  
ግህ ዘፀፍኡ ዘ ፀፍ ጋህ ጋህ ግህ ግህ ግህ ግህ  
"ጌ ግህ"ጌ ግህ ግህ ግህ. ዘህፍ ሓህፋ-ፀ"ጌ ግህ  
ጋህ ግህ-ጌ ጋህ ጋህ ግህ ግህ ግህ "ጌ ግህ"ጌ ግህ  
ግህ ግህ ግህ ግህ ዘግ ጋህ "ጌ ግህ ዘፀፍኡ ዘ-ጌ  
"ጌ ግህ ግህ.

ዘ"ጌ ዘፀፍኡ "ጌ ግህ"ጌ ዘፀፍኡ ዘፀፍኡ  
"ጌ. ዘፀፍኡ ጋህ ጋህ ግህ ግህ ግህ ግህ-ጌ  
"ጌ ግህ ግህ ግህ ግህ ግህ ግህ ግህ ግህ  
ግህ ግህ ግህ ግህ ግህ ግህ ግህ ግህ ግህ  
-ጌ ግህ ግህ ግህ ግህ ግህ ግህ ግህ ግህ  
ዘፀፍኡ "ጌ ግህ"ጌ ዘፀፍኡ ዘፀፍኡ ጋህ "ጌ

Figure 28. Page 15 of "ዘ ፀፍኡ ግህ ግህ"

ዘይኸኸረኩም ከሆነ ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።

እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።

እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።

እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።

እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።  
እኔም ለእኔ ይህን ጥያቄ ይግባኝ።

ԿԵՆԱ ԿԵՐԵ ԶՆ ԿԱ "ՅԱ ԸՆԾ ԿԶԼԸ  
 Գ-Դ ԵԾ Գ ԸԳԵ. ԿԵՆԱ"Ճ ԿԵՐԵ ԶՆ ԿԵ"Ճ Կ  
 ԾՄԱԾ ԶԶԿՅԱՆ-Ը ԴՅԼԿԼ ԶԵ-Դ ԶՆ-ԸԿ  
 ԱՂ ԿԸՈ ԶՆ ԸԳ "Յ" "ԸԸ. ԿԵՆԱ ԿԵՐԵ Զ  
 Ն "ԸԸ ՈԱ ԸԾ ԸԶՂԱ ԸՄԱՆ Կ-ԱՆ "Յ"Ճ  
 "Զ"Յ Բ-ԱՆ ԸԶԶՈ ԸԾԾ Ծ Կ"Ն "Յ ԶԿԱՂ  
 ՎԾԿ ԶԶԶԾ Զ Կ"Յ ԿԵԿՃ.

ԿՅՈԱ ԶԼԾԳ-ԴԱ, ԿՅՈԱ "ԸԸ ՈԱ, ԿՅ  
 ՈԱ Ն"Ճ Ն-ԶԻ ԿԱ ԸԸԱ ԸԶԶԱՂ ԶՆ Կ"ՈԱ  
 ԿԸԶԶԿՈԱ. ԿՅՈԱ ԶԶԱԶՈ-ԴԱ ԶԵ-Դ Զ  
 Ն"ՃԱ ՄԿ Գ "ՅԾ ԸԶԶԳԵԾ Գ-ԶԿ. ԿՄ Ա ԴԸԴԴ  
 Ը-ԴԳ ԿԵՐԵ ԿԸԸԸԸԸ ԴՄԱՆ "ՅԱ"Ճ ԿՅԿ  
 Ա-Յ "ՆԸ Ն"Ճ Ը ԸԾԾ ՈԱ Ծ ԱԶ "Յ ԱԶ.

ԿԱԿՈԱ Զ-ՄՈ "ՅԾ ԸԶԱԶՈՃ "Ճ-ԴԸ Ը  
 ՆԳ ԸՈԱ. ԸԾ"ԸՂ Կ"Ն ԿԸԱ ԿԶԱՆ ԸԸՂԱ  
 "Յ ԶԼԾԳ-ԴԱ. ԸԾԿԸԸ ԶՆ Կ"Ն ԿՂԿՈ "Յ  
 Կ"Ծ"Կ "ՆԸ Ն"Ճ. Գ"ՃԱ Զ-ԸՄ ԶՆ ԸԸԸԱ Ա  
 "Ճ ԿԱ ԿԼԾԳ. Դ"ՅՈԱ ԸՄԱՆ ԶՆ ԸԸԸ  
 "ԿՈ ԸԿՄԱԶՈ ԿԸԸ ԸԱ.

Figure 30. Page 17 of "Կ ԸԳԵ ՆԳ ԺՆ?"





Exercise 1: Misi words

- |               |              |
|---------------|--------------|
| 1. aba =      | 17. makata = |
| 2. adafa =    | 18. mazaza = |
| 3. ajawa =    | 19. namata = |
| 4. akana =    | 20. nyama =  |
| 5. bacha =    | 21. paja =   |
| 6. balaka =   | 22. sabata = |
| 7. chada =    | 23. sakala = |
| 8. chagada =  | 24. tadana = |
| 9. fatsa =    | 25. zafala = |
| 10. jama =    |              |
| 11. jana =    |              |
| 12. kadacha = |              |
| 13. kalata =  |              |
| 14. kanafa =  |              |
| 15. madala =  |              |
| 16. magawa =  |              |

Figure 32. Exercise material of Misi words for students to transliterate into the Mwangwego script.

**Exercise 2: Misiri words**

- |                  |                  |
|------------------|------------------|
| 1. bekete =      | 17. malamulo =   |
| 2. beseni =      | 18. masewera =   |
| 3. bokosi =      | 19. musiyeni =   |
| 4. chasowadi =   | 20. namadzi =    |
| 5. chidani =     | 21. petulo =     |
| 6. chikoka =     | 22. sekani =     |
| 7. chilole =     | 23. sizikukoma = |
| 8. chimenechi =  | 24. timalima =   |
| 9. chipatala =   | 25. tisamalire = |
| 10. chuma =      |                  |
| 11. galimoto =   |                  |
| 12. ganizani =   |                  |
| 13. kenaka =     |                  |
| 14. kulakatula = |                  |
| 15. litsiro =    |                  |
| 16. madzi =      |                  |

Figure 33. Exercise material of Misiri words for students to transliterate into the Mwangwego script.

### Exercise 3: Mituyo words

- |                 |                    |
|-----------------|--------------------|
| 1. atwimisya =  | 17. nsabwe =       |
| 2. bwanthu =    | 18. ntcheu =       |
| 3. bwanje =     | 19. sitiloledwa =  |
| 4. bwenkha =    | 20. tidzalandira = |
| 5. chakudya =   | 21. tikambe =      |
| 6. chakufwa =   | 22. tinkhani =     |
| 7. chingale =   | 23. usandiyambe =  |
| 8. khondowe =   | 24. zinthu =       |
| 9. kwazizila =  | 25. zithumwa =     |
| 10. mankhwala = |                    |
| 11. munthu =    |                    |
| 12. ndalama =   |                    |
| 13. njolomole = |                    |
| 14. nkhalango = |                    |
| 15. nsomba =    |                    |

Figure 34. Exercise material of Mituyo words for students to transliterate into the Mwangwego script.

## B) Same more examples of the uses of Mituyo

How to use Hi ( ʰ ), Ni ( ɰ ), Mi ( ɛɛ ) and Myu ( ɛ )

(1) Ni ( ɰ ) is used in the following cases

a) When the tip of the tongue touches the front part of the palate.

Nda "ɰ"      Nta "ɰ"      Ntsa "ɰ"      Ndza "ɰ"

b) When the rear part of the tongue touches the palate.

Nga "ɰ"      Ng'a "ɰ"

c) When the middle part of the tongue touches the palate.

Ncha "ɰ"      Nja "ɰ"

d) When the tongue slightly touches the palate.

Nsa "ɰ"      Nsha "ɰ"

e) When teeth of the upper jaw touch the lower lip:

Mfa "ɰ"      Mva "ɰ"

(2) Mi ( ɛɛ ) is used when both lips meet "heavily"

Mba "ɛɛ"      Mpa "ɛɛ"

(3) Myu ( ɛ ) is used when pronouncing a word which involves slight meeting of both lips.

Mkaka      Mtima      Mkanda      Mchenga.  
'ɰ'ɰ      'ɰ'ɰ      'ɰ'ɰ      'ɰ'ɰ

\* Although NYA (Y) has got its own symbol originally, it can also be written ( "ɰ" ) in some languages.

Figure 35. More exercise material for students to learn how to transliterate Mituyo words into the Mwangwego script.

# MWANGWECO SCRIPT

## LESSON 1

## MISISI

|   |      |   |     |
|---|------|---|-----|
| Ɔ | a    | ɣ | nya |
| U | ba   | ɔ | pa  |
| ɔ | cha  | ʌ | ra  |
| 3 | da   | ɔ | sa  |
| ɔ | fa   | ɔ | sha |
| ɔ | ga   | > | ta  |
| H | gha  | ɔ | tɕa |
| ɔ | ha   | h | psa |
| U | ja   | A | va  |
| ɔ | ja * | ɛ | wa  |
| ʌ | ka   | ɣ | ya  |
| 4 | la   | / | za  |
| ɔ | ma   | + | dza |
| U | na   |   |     |

\* ja pronounced like in measure, or treasure

Figure 36. Educational material for Misisi (lesson 1).

| MISIRI |   |   |   |   |   | LESSON 2 |     |     |     |     |   |
|--------|---|---|---|---|---|----------|-----|-----|-----|-----|---|
| Ɑ      | Ɱ | Ɐ | Ɒ | ⱱ | Ⱳ | a        | e   | i   | o   | u   |   |
| ⱳ      | ⱴ | Ⱶ | ⱶ | ⱷ | ⱸ | ba       | be  | bi  | bo  | bu  |   |
| ⱹ      | ⱺ | ⱻ | ⱼ | ⱽ | Ȿ | cha      | che | chi | cho | chu |   |
| Ɀ      | Ⳁ | ⳁ | Ⳃ | ⳃ | Ⳅ | da       | de  | di  | do  | du  |   |
| ⳅ      | Ⳇ | ⳇ | Ⳉ | ⳉ | Ⳋ | fa       | fe  | fi  | fo  | fu  |   |
| ⳋ      | Ⳍ | ⳍ | Ⳏ | ⳏ | Ⳑ | ga       | ge  | gi  | go  | gu  |   |
| ⳑ      | Ⳓ | ⳓ | Ⳕ | ⳕ | Ⳗ | gha      | ghe | ghi | gho | ghu |   |
| ⳗ      | Ⳙ | ⳙ | Ⳛ | ⳛ | Ⳝ | ha       | he  | hi  | ho  | hu  |   |
| ⳝ      | Ⳟ | ⳟ | Ⳡ | ⳡ | Ⳣ | ja       | je  | ji  | jo  | ju  |   |
| ⳣ      | ⳤ | ⳥ | ⳦ | ⳧ | ⳨ | ja       | je  | ji  | jo  | ju  | * |
| ⳩      | ⳪ | Ⳬ | ⳬ | Ⳮ | ⳮ | ka       | ke  | ki  | ko  | ku  |   |
| ⳯      | ⳰ | ⳱ | Ⳳ | ⳳ | ⳴ | la       | le  | li  | lo  | lu  |   |
| ⳵      | ⳶ | ⳷ | ⳸ | ⳹ | ⳺ | ma       | me  | mi  | mo  | mu  |   |
| ⳻      | ⳼ | ⳽ | ⳾ | ⳿ | Ⳡ | na       | ne  | ni  | no  | nu  |   |
| ⳡ      | Ⳣ | ⳣ | ⳤ | ⳥ | ⳦ | nya      | nye | nyi | nyo | nyu |   |
| ⳧      | ⳨ | ⳩ | ⳪ | Ⳬ | ⳬ | pa       | pe  | pi  | po  | pu  |   |
| Ⳮ      | ⳮ | ⳯ | ⳰ | ⳱ | Ⳳ | ra       | re  | ri  | ro  | ru  |   |
| ⳳ      | ⳴ | ⳵ | ⳶ | ⳷ | ⳸ | sa       | se  | si  | so  | su  |   |
| ⳹      | ⳺ | ⳻ | ⳼ | ⳽ | ⳾ | sha      | she | shi | sho | shu |   |
| ⳿      | Ⳡ | ⳡ | Ⳣ | ⳣ | ⳤ | ta       | te  | ti  | to  | tu  |   |
| ⳧      | ⳨ | ⳩ | ⳪ | Ⳬ | ⳬ | tša      | tše | tši | tšo | tšu |   |
| Ⳮ      | ⳮ | ⳯ | ⳰ | ⳱ | Ⳳ | psa      | pse | psi | pso | psu |   |
| ⳳ      | ⳴ | ⳵ | ⳶ | ⳷ | ⳸ | va       | ve  | vi  | vo  | vu  |   |
| ⳹      | ⳺ | ⳻ | ⳼ | ⳽ | ⳾ | wa       | we  | wi  | wo  | wu  |   |
| ⳿      | Ⳡ | ⳡ | Ⳣ | ⳣ | ⳤ | ya       | ye  | yi  | yo  | yu  |   |
| ⳧      | ⳨ | ⳩ | ⳪ | Ⳬ | ⳬ | za       | ze  | zi  | zo  | zu  |   |
| Ⳮ      | ⳮ | ⳯ | ⳰ | ⳱ | Ⳳ | dza      | dze | dzi | dzo | dzu |   |

\* ja pronounced like in measure or treasure

Figure 37. Educational material for Misiri (lesson 2).



# LESSON 3

## A) Mituyo and their uses

| SYMBOL / NAME |          | USE                                |                       |
|---------------|----------|------------------------------------|-----------------------|
| -             | WAYA     | bwato -vɔ                          | mwala -ɛɛ             |
|               |          | myala ɛɛ                           | kudya ɛɛ              |
| H             | Ni       | Ndati "ɔɔ                          | ng'ona<br>-n-gona "ɔɔ |
|               |          | nsapato "ɔɔ                        | Nchalo "ɔɔ            |
| "             | Hi       | khasu -ʔɛ                          | khama -ʔɛ phala ɛɛ    |
|               |          | thobwa -ʔɛ-U                       | tchimbo -ʔɛ           |
| "             | Mi       | mbala "uɛ                          | mbiri "uɛ             |
|               |          | mbatata "uɛ                        | mpaka "uɛ             |
| C             | Myu      | mkaka ʔɛ                           | mkanda ʔɛ ʔɛ          |
|               |          | m'dziko ʔɛ                         | m'mudzi ʔɛ            |
| )             | Sisa     | sma ʔɛ                             | sketi ʔɛ              |
|               |          | stima ʔɛ                           |                       |
| ⊙             | Mura     | bra ʔ kra ʔ tra ʔ                  |                       |
| ˘             | Mula     | Blantyre ʔ ʔ kla ʔ tla ʔ           |                       |
| ^             | Pewa     | ba ʔ (Tumbuka) wa ʔ (Chichewa)     |                       |
|               |          | bva ʔ bza ʔ pfa ʔ *tha ʔ           |                       |
| ı             | Tumbu    | n'da ʔ n'nya ʔ n'ya ʔ n'wa ʔ       |                       |
| ı             | Kwanthua | mtengo ʔ (tree) ; mtengo ʔ (price) |                       |

\*Pronounced like the English "th" in "thatch" (for Lomwe)

Figure 38. Educational material for Mituyo (lesson 3).

## 3

|        |       |       |       |        |
|--------|-------|-------|-------|--------|
| tcha ㄸ | kha ㄲ | pha ㅍ | tha ㅈ | thsa ㅊ |
|--------|-------|-------|-------|--------|

(i) nkha <sup>#</sup>ŋ khwa <sup>#</sup>ŋ nkhwa <sup>#</sup>ŋ nkya <sup>#</sup>ŋ khya <sup>#</sup>ŋ nkhya <sup>#</sup>ŋ

(ii) mka<sup>h</sup> mka<sup>h</sup> mka<sup>h</sup> mka<sup>h</sup> mka<sup>h</sup>

(iii) mbwa 𐌚𐌚𐌚      mbya 𐌚𐌚𐌚      mpha 𐌚𐌚𐌚      mpwa 𐌚𐌚𐌚      phwa 𐌚𐌚𐌚  
           mphwa 𐌚𐌚𐌚      phya 𐌚𐌚𐌚      mphyā 𐌚𐌚𐌚

(iv) snkha    𑀭𑀸𑀓𑀾𑀢𑀺

NOTE: Waya ( - ) cannot be used with  $\xi$  and  $\eta$ . It can however be used with "  $\eta$  " like in "  $\eta$  " (ng'wa).

ዓ ፩፻፱ ገጽ ፳፻፱

ይህ ደብዳቤ ለሰነድ ማረጋገጫ የሚያገለግል ነው። ለሌሎች ሰነዶች ማረጋገጫ የሚያገለግል አይደለም።

[illegible]

Figure 39. More educational material for Mituyo (lesson 3) and a reinforcement reading exercise.

# ᐃ ᐃ ᐃᐃ ᐃᐃᐃ ᐃᐃ

ᐃᐃᐃ ᐃᐃ ᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃ ᐃᐃᐃ, ᐃᐃᐃᐃ  
ᐃᐃᐃᐃᐃ ᐃᐃᐃ ᐃᐃᐃ ᐃ ᐃᐃᐃ, ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃ  
ᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃ ᐃ ᐃᐃᐃᐃᐃ, ᐃᐃᐃᐃᐃ, ᐃᐃᐃ ᐃᐃᐃᐃᐃᐃᐃ  
ᐃᐃᐃ ᐃᐃ, ᐃᐃᐃᐃᐃ ᐃᐃᐃ ᐃᐃᐃ ᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃ  
ᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃ ᐃᐃᐃ ᐃ ᐃᐃᐃᐃᐃ. ᐃᐃᐃ ᐃᐃᐃᐃᐃ  
ᐃᐃᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃ ᐃ ᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃᐃ,  
ᐃᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ, ᐃᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ  
ᐃ ᐃᐃᐃᐃ.

ᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ  
ᐃᐃᐃᐃ ᐃᐃᐃ ᐃ ᐃᐃᐃᐃᐃ, ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃᐃ ᐃᐃᐃ ᐃᐃᐃᐃᐃ.

ᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃ, ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ, ᐃᐃᐃᐃᐃᐃ  
ᐃᐃᐃᐃᐃᐃᐃ ᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃ ᐃ ᐃᐃᐃᐃᐃ. ᐃᐃᐃᐃᐃ  
ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ, ᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ  
ᐃᐃᐃᐃᐃᐃ, ᐃᐃᐃ.

ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃ ᐃ ᐃᐃᐃᐃᐃ, ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃ  
ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃ  
ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ.

ᐃᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃᐃᐃᐃᐃᐃ  
ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ  
ᐃᐃᐃᐃᐃᐃ. ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃ ᐃᐃᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ  
ᐃᐃᐃᐃ ᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃᐃᐃᐃ,  
ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ  
ᐃᐃᐃ. ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃ ᐃᐃ ᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃ ᐃᐃᐃ  
ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃᐃᐃᐃᐃᐃᐃ.

Figure 40. Educational material of paragraphs used for reading practice. Page 62 of 135

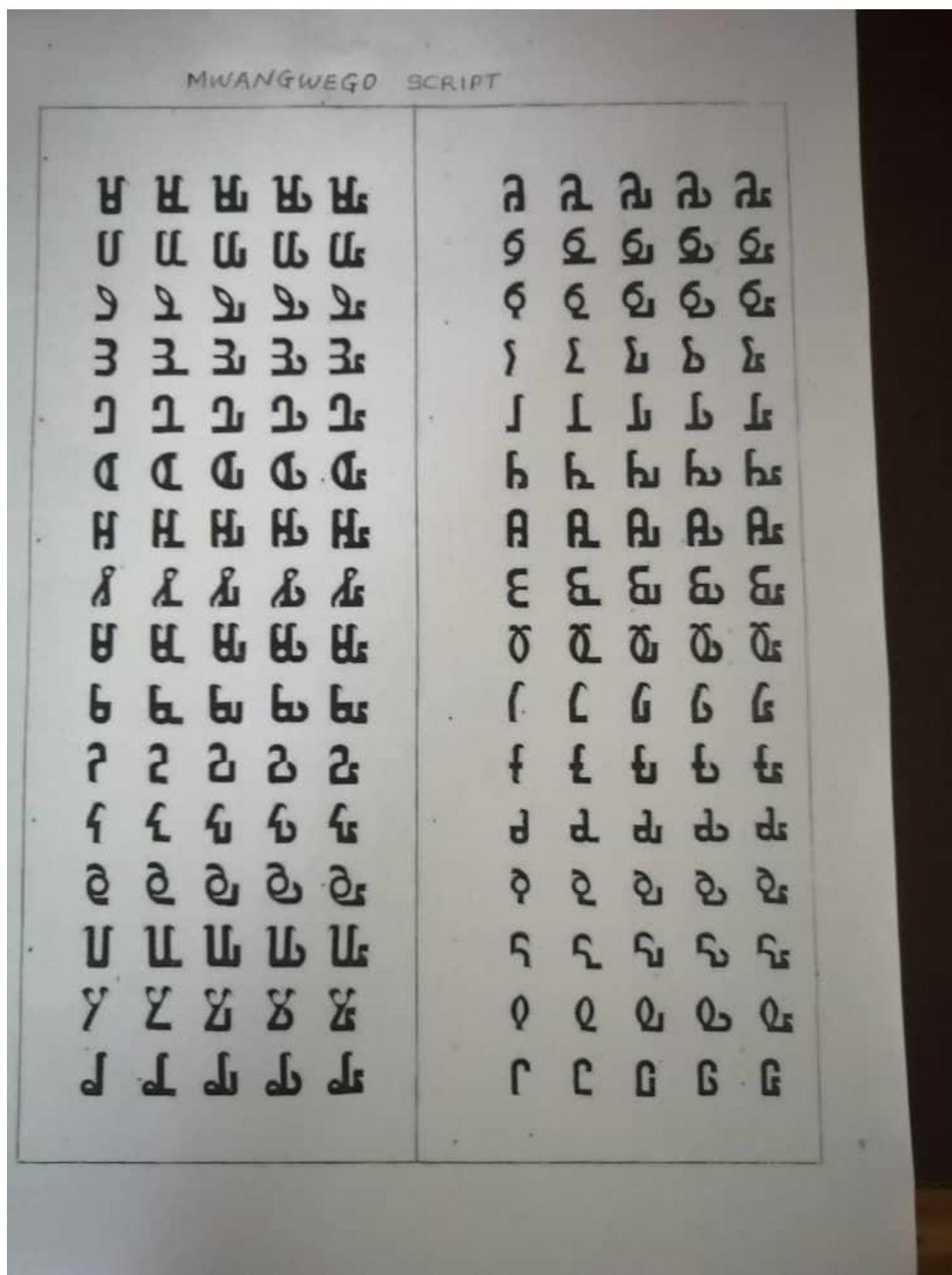


Figure 41. Educational material used to teach the basic syllabic graphemes of the Mwangwego script.



Figure 42. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering).



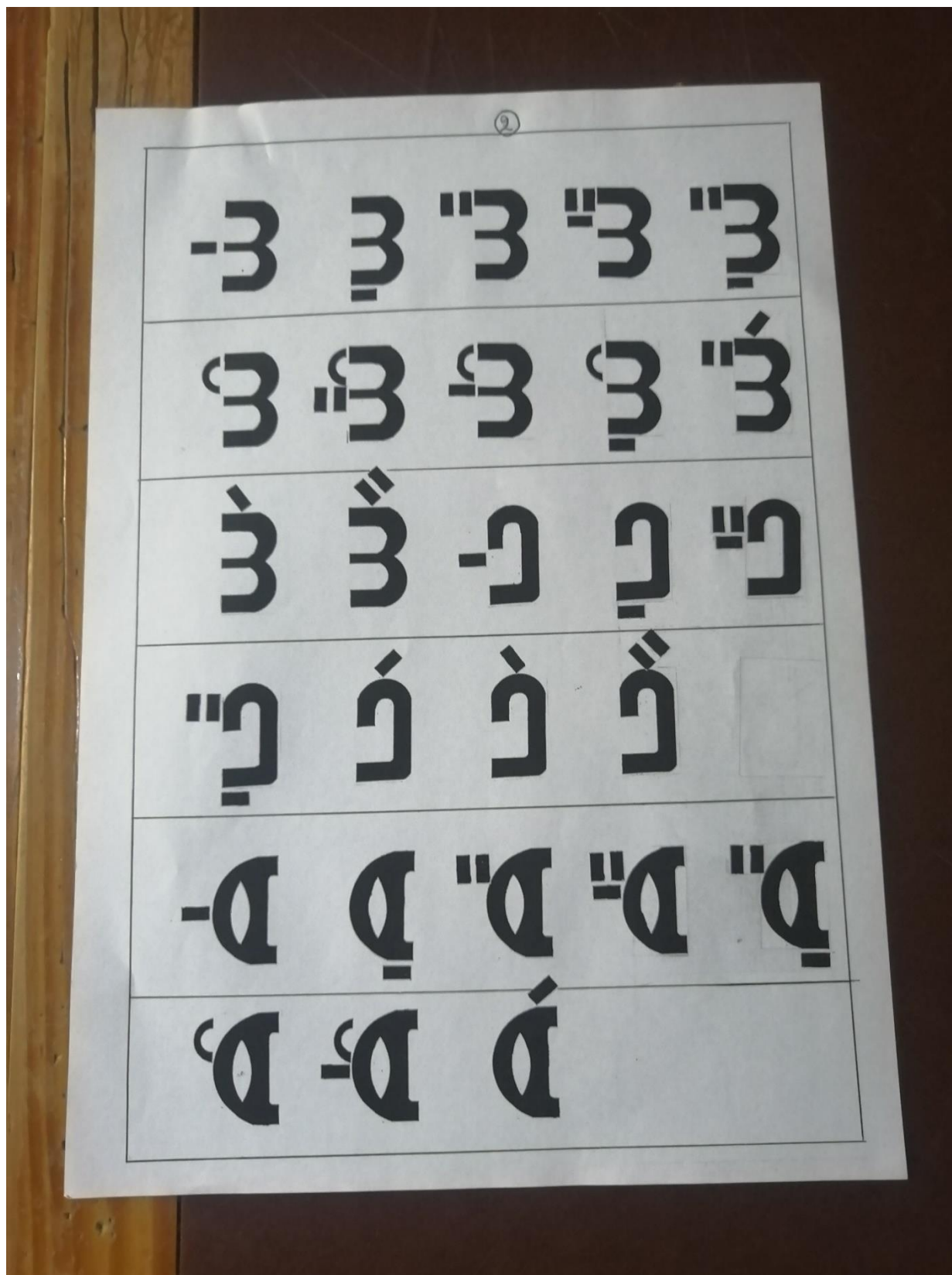


Figure 43. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering).

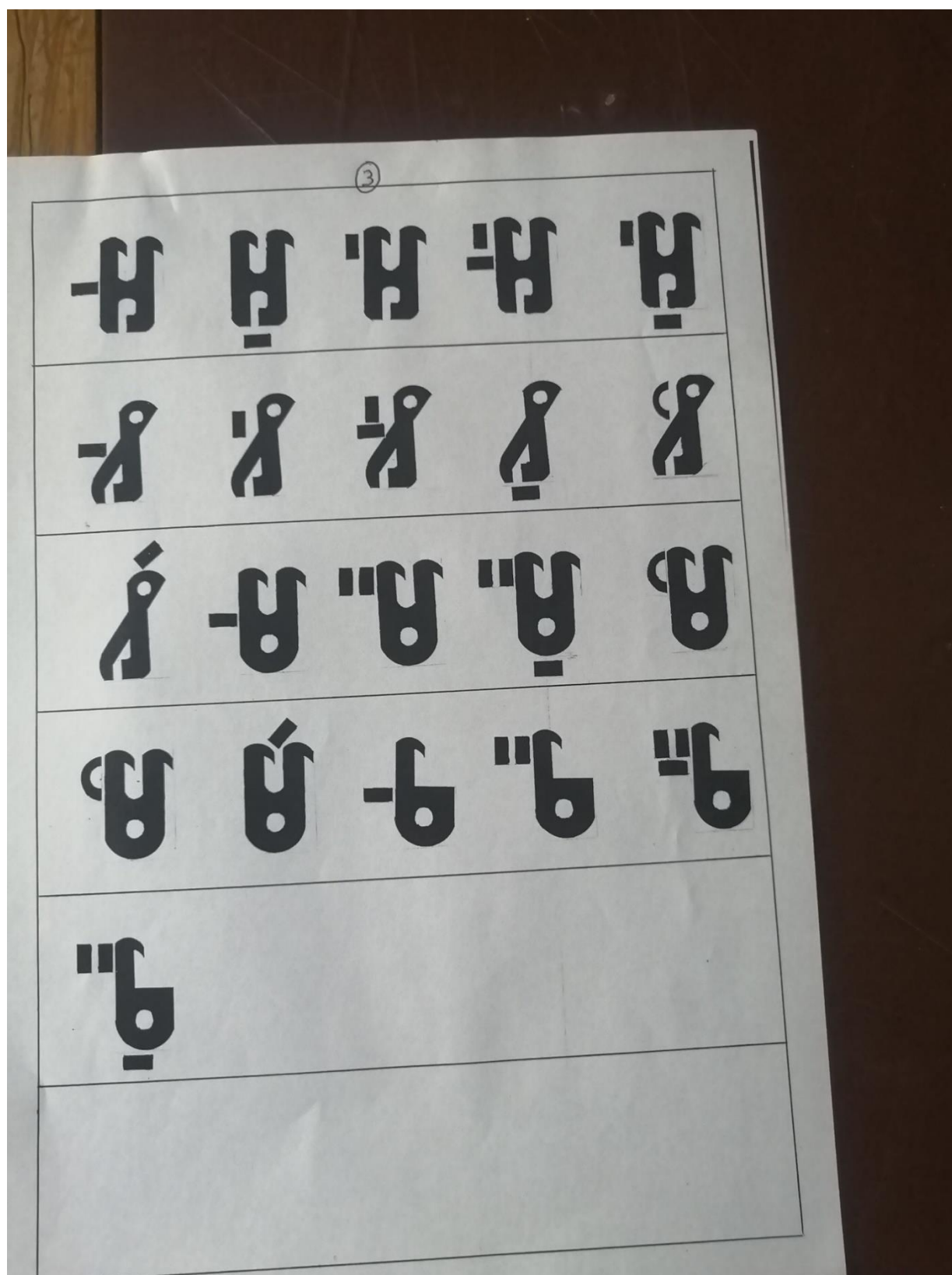


Figure 44. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering). 'Ų is accidentally repeated twice here.



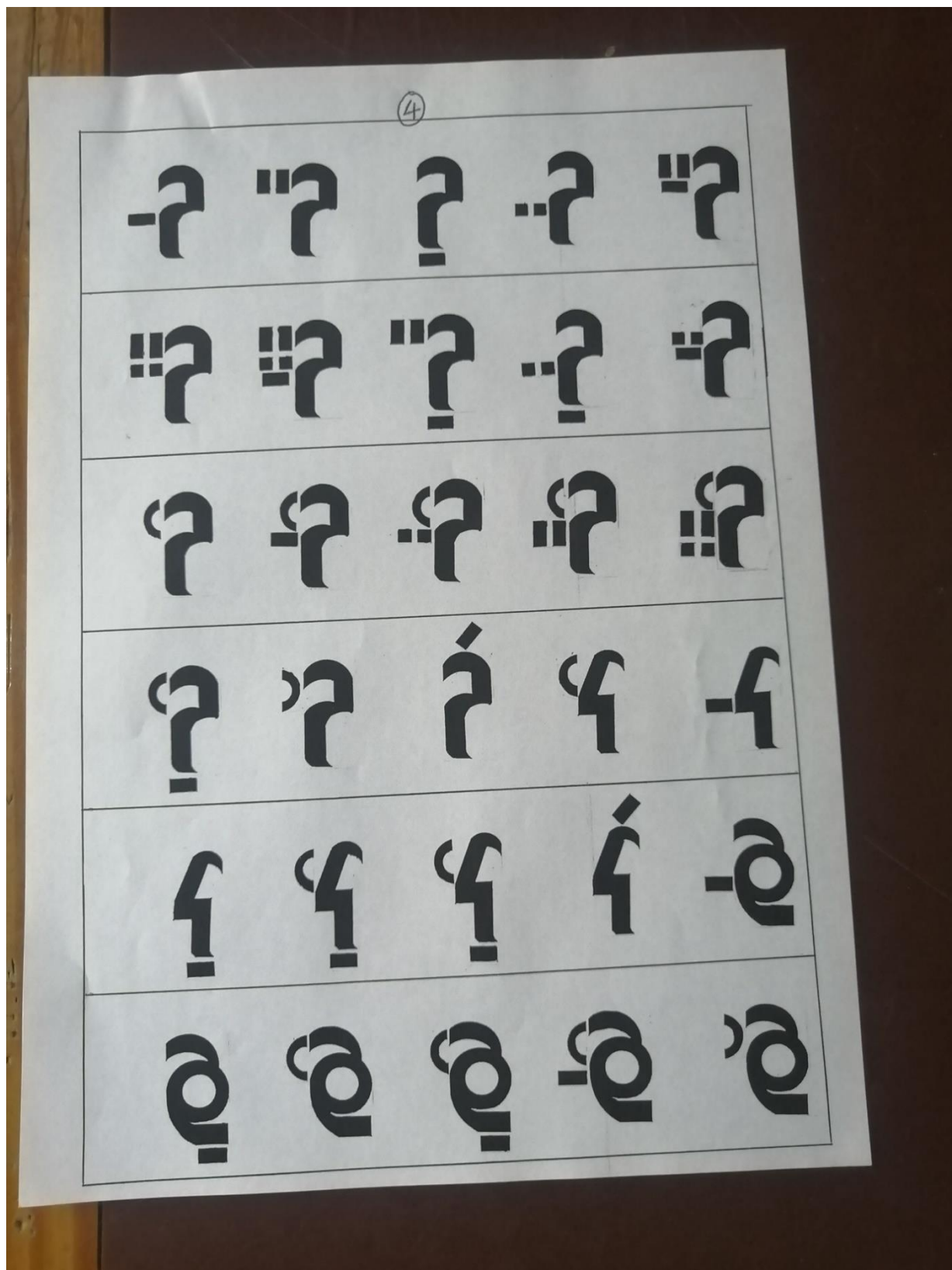


Figure 45. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering). 'ġ' is accidentally repeated twice here.

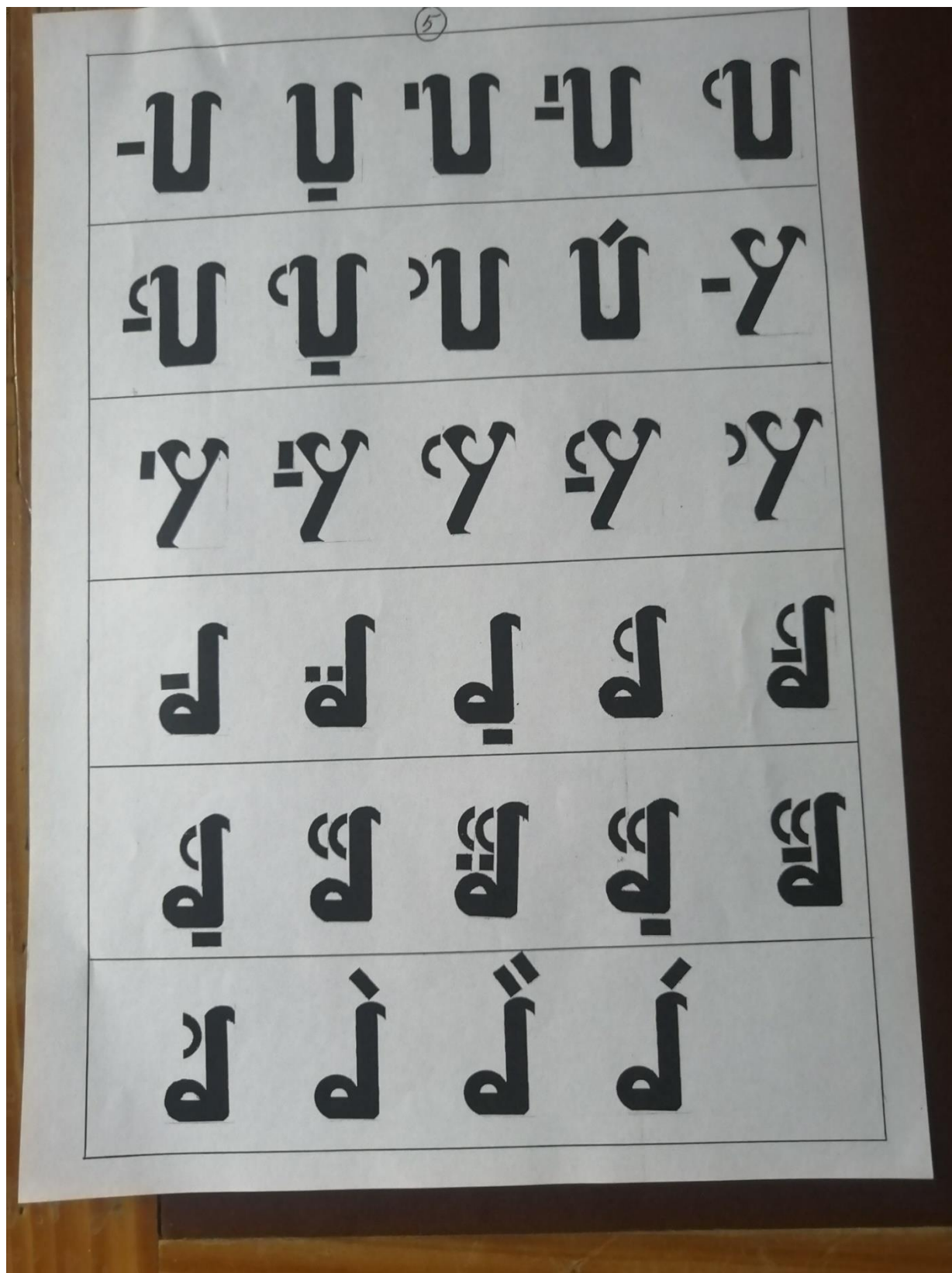


Figure 46. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering).

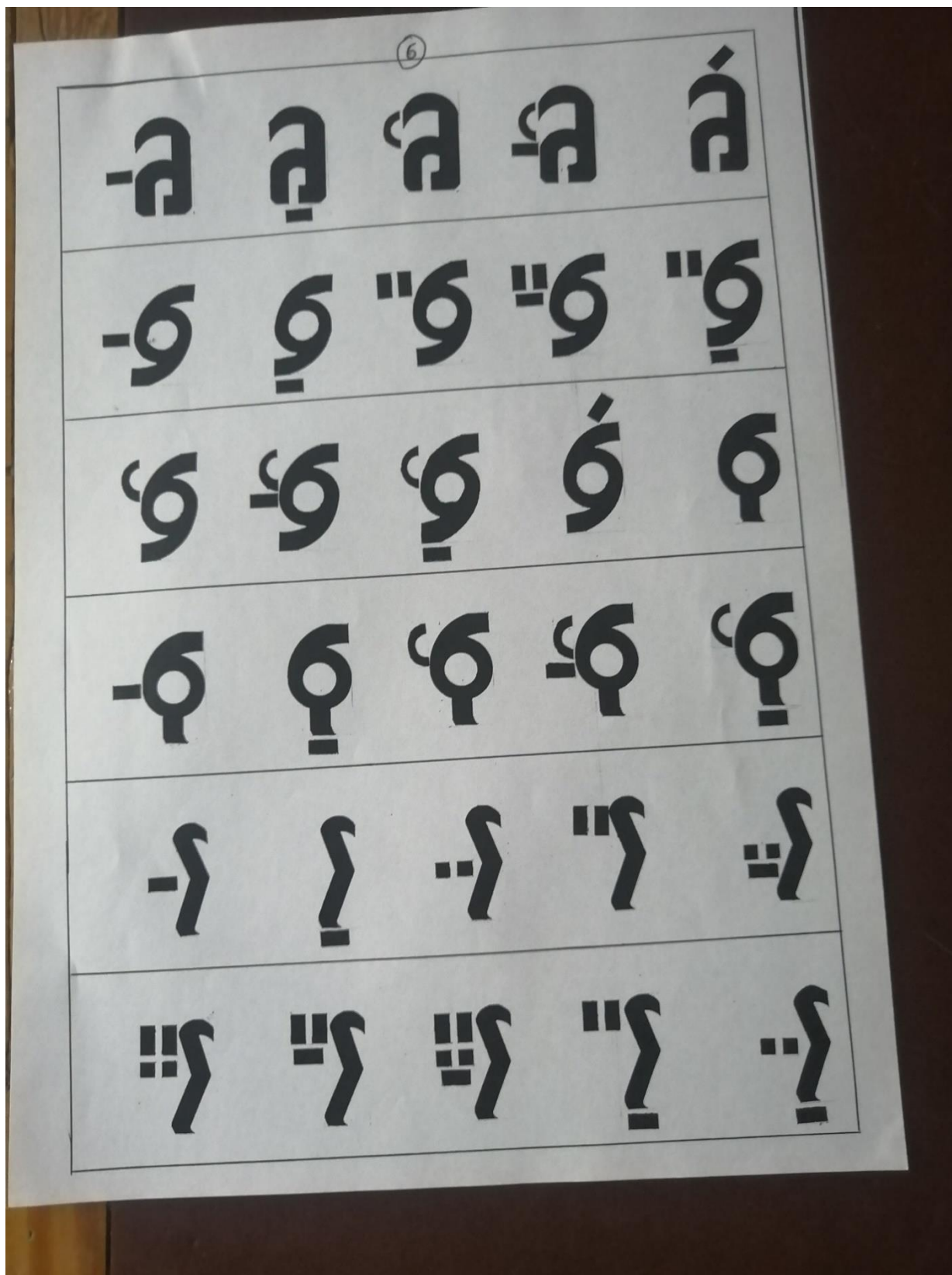


Figure 47. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering). A lone 6 Musisi was accidentally typed in this picture.

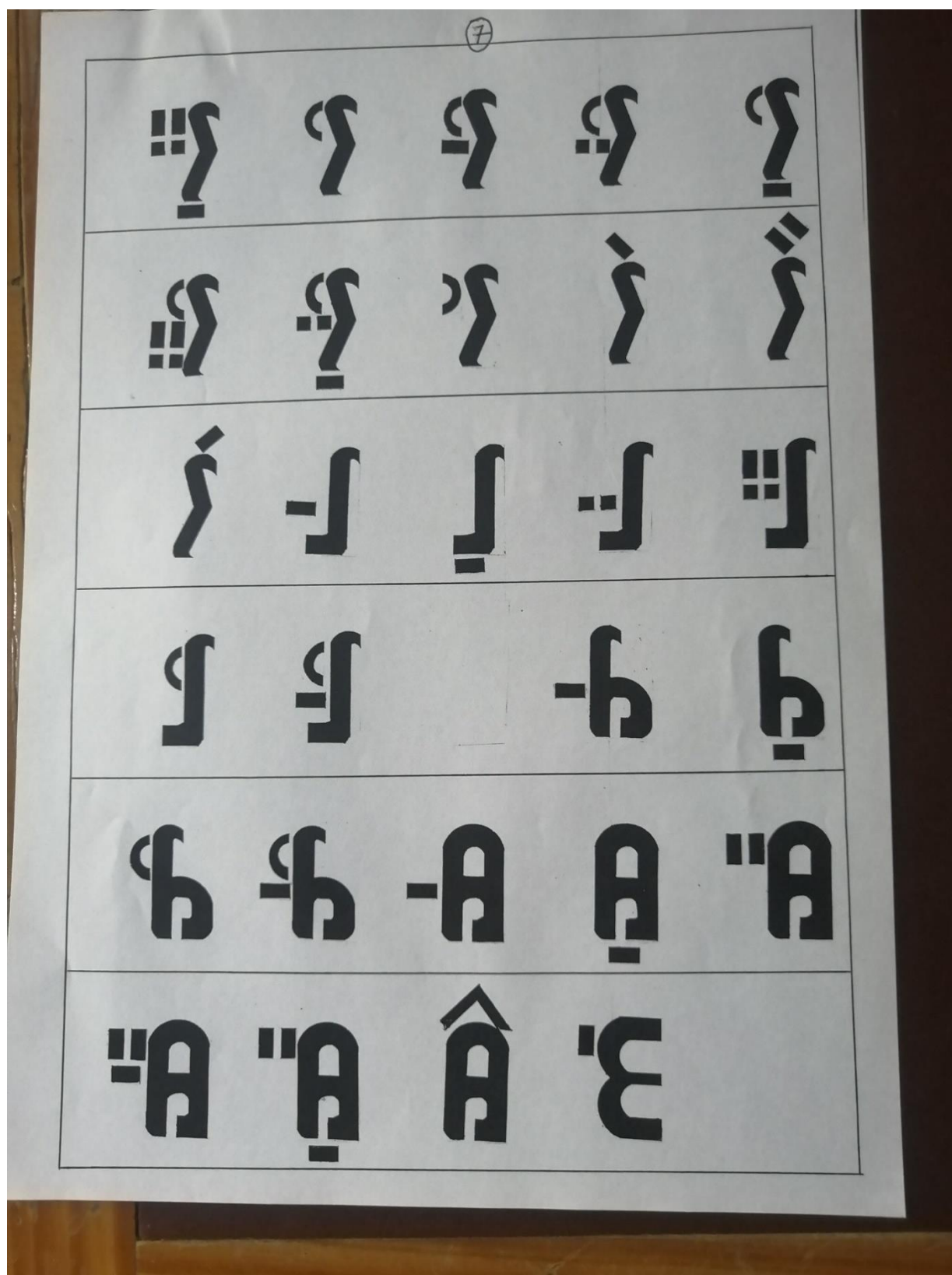


Figure 48. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering).



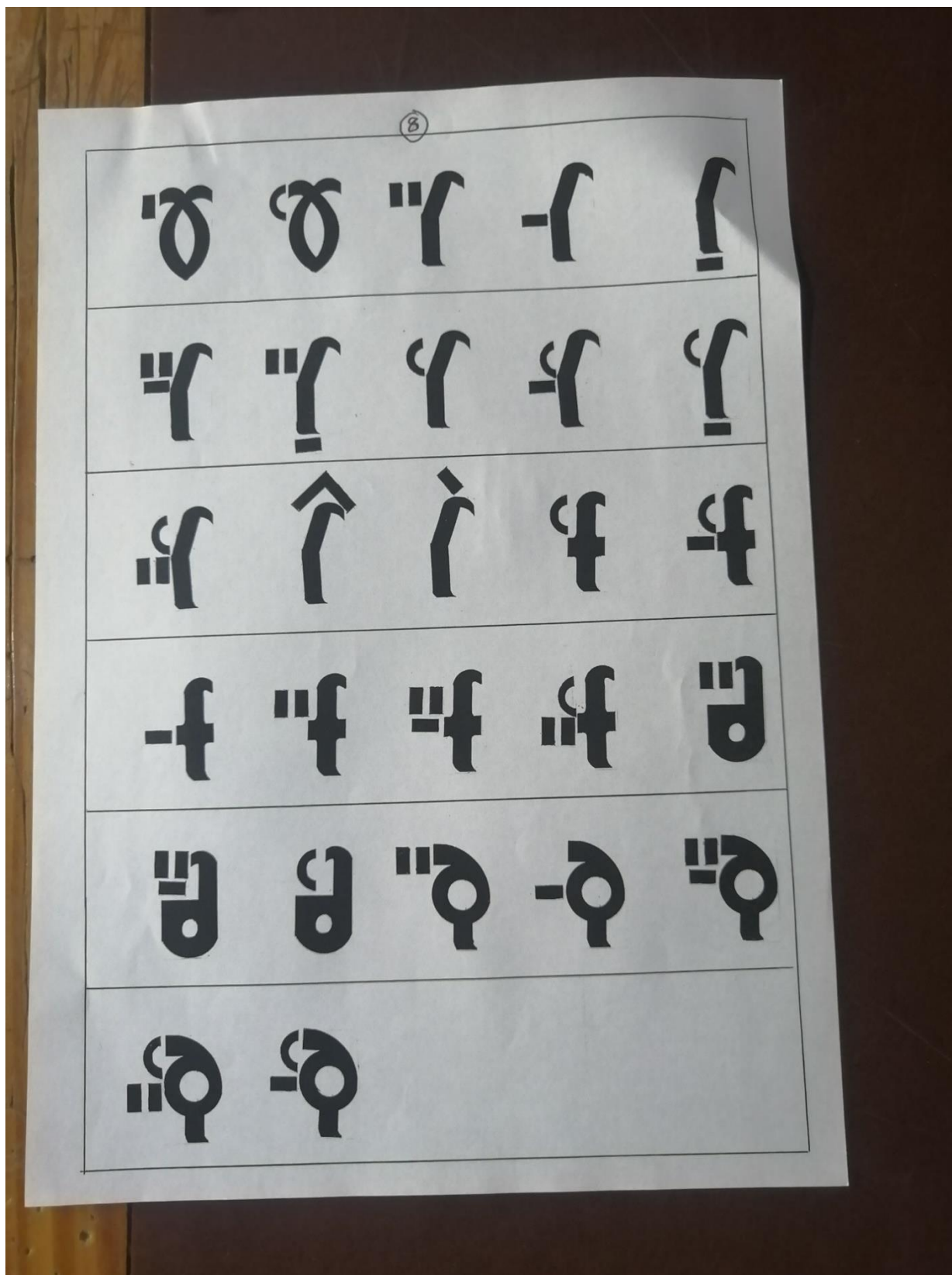


Figure 49. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering).

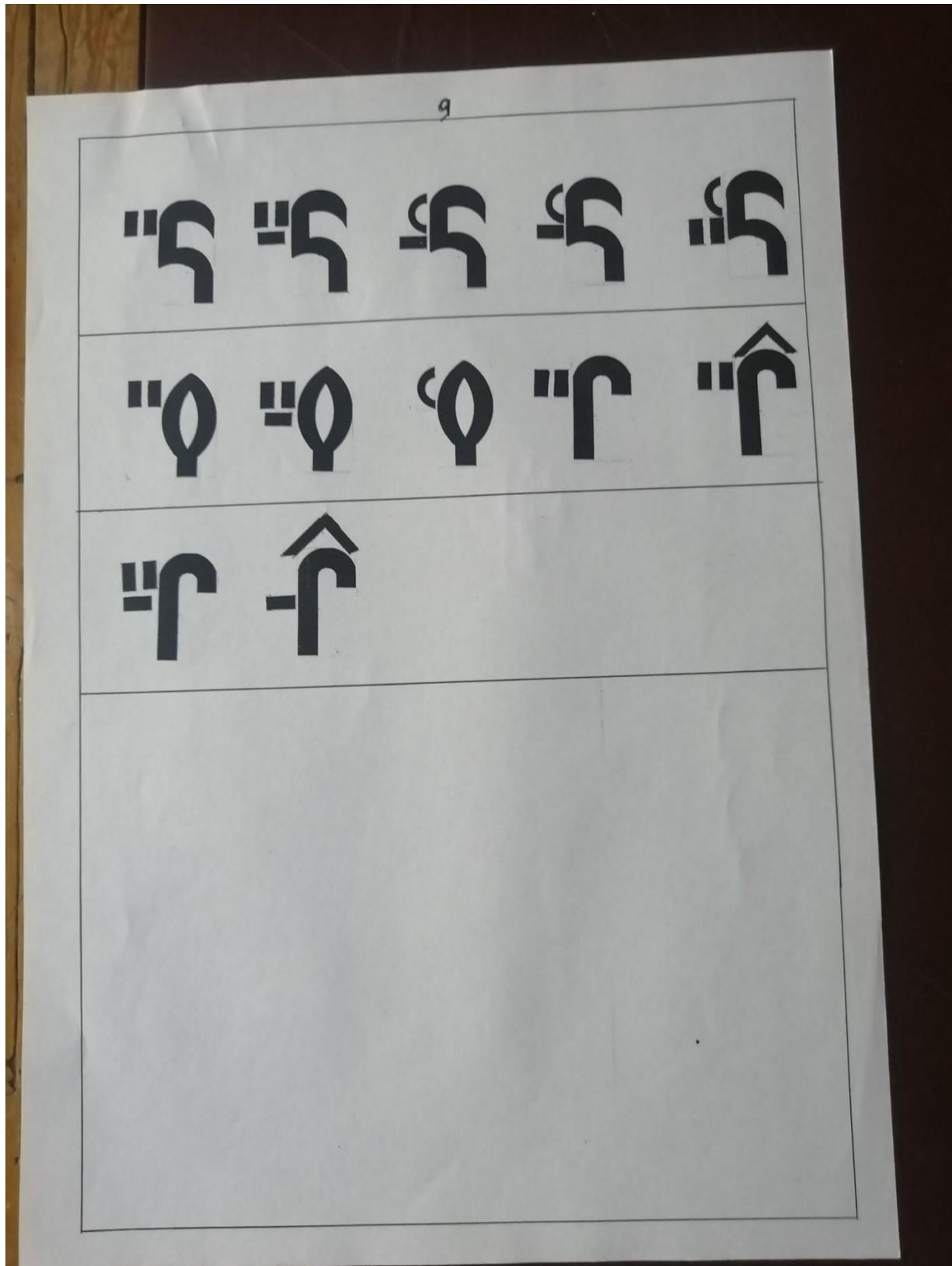


Figure 50. Most of the possible Mutuyo & Mituyo attachments onto Misisi (not according to collation/ordering). 𐌺𐌹 is accidentally repeated twice here.



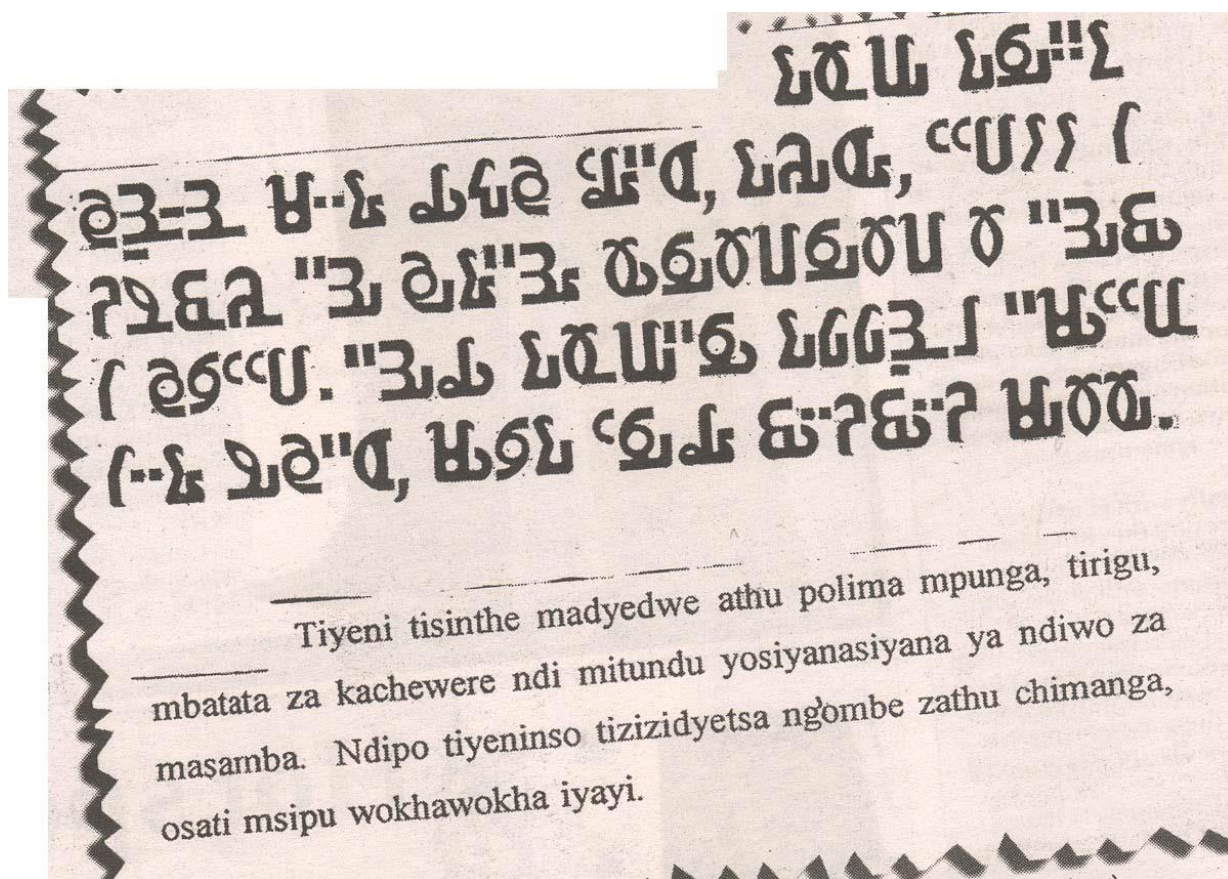


Figure 51. Typed material with Latin transliteration below. English translation: "Let's diversify our diet by growing rice, wheat, Irish potatoes and different types of vegetables. Let us feed our cattle with grains as well, not just fodder."



Figure 52. Nolerance Mwangwego teaching the Mwangwego script (center); a student (right); book cover of "H 966 66 66" (left).

08 de Outubro 2023  
 NANFEI  
 62127 1 d 2023 62127!! > "3...25.  
 2734 126 "34 d Serviço E aerolinas  
 6-2 >...661 gabinete 8 10 d 16 E 12-4  
 "3...74 "34 E Nanfei 626 -P E semana  
 4812 6...6 "62 1 27 "3 1-3 7 Serviço  
 621 212-422 62127, 212...74 "3 27322  
 62127222.  
 62127 6-2 212...74 "62 626, 2127  
 "62 62127 222 d QENASSE Domingo  
 62127-424. 212...74 62127 -621 621  
 212...74 62127 62127 62127 62127  
 62127 62127 62127 "3 62127 212-424.  
 62127 62127 62127: mudança 8 casa 62127 62127  
 "3127 62127 62127; 62127 62127 negócios 8  
 62127 62127; 62127 62127 investimentos 62127  
 62127 62127 "3 62127 -P 2...62, 62127  
 routine 62127 62127 62127 62127  
 6-2 212...74 "3 62127 62127  
 62127 62127 62127 62127  
 62127 "3127 62127 62127 62127  
 62127 62127 62127 62127

Figure 53. Chichewa-language handwriting by a Malawian user. This image showcases some intralinear Portuguese words in the Latin script (important to typographers) as the user is a businessman that conducts international business in Portuguese.

1' 36" wheelbarrow #4 (2 1/2" wheel)  
 2' 25.25 2 1/2" 8 "H-7 10/20

QUOTATION 7 Panels 25 1/2" 3 1/4 10 Panels 2  
 MDO -2914" d Panel 291-2930 MDO -2913 1  
 3 Panel 7 -2918 291-2930 3 Panel 10  
 3 1/2" 1 Trip 250 3 1/2" 1  
 Bridgman Wire 5 -2935-2910 3 1/2" 1  
 1 60mm Pipe (6m) -2935-2910 1 60mm Pipe  
 10 Cement bags -2912.5 13 Cement bags  
 "H-7 1 Trip -2912.5 "H-7 1 Trip  
 11/20 2 Cement

|         |          |          |
|---------|----------|----------|
| 1 Trip  | 3 1/2" 5 | 50       |
| 5 Roll  | Bridgman | 3.50     |
| 10 Bags | Cement   | 12.50    |
| 1 Trip  | "H-7     | 12.50.00 |
|         | MDO      | 98.00    |

Figure 54. Chichewa-language handwriting by a Malawian user. This image showcases intralinear English words in the Latin script (important to typographers).





Os Campuses  
15 Peru - 208  
06 Gggg d Lister - 2020  
06 GZ"37 34 321"3 - 293  
06 3"3 E d Camp - 2010 PA  
0 Wages Date !! 2021 - 2020

Figure 56. Chichewa-language handwriting by a Malawian user. This image showcases intralinear English words in the Latin script (important to typographers).





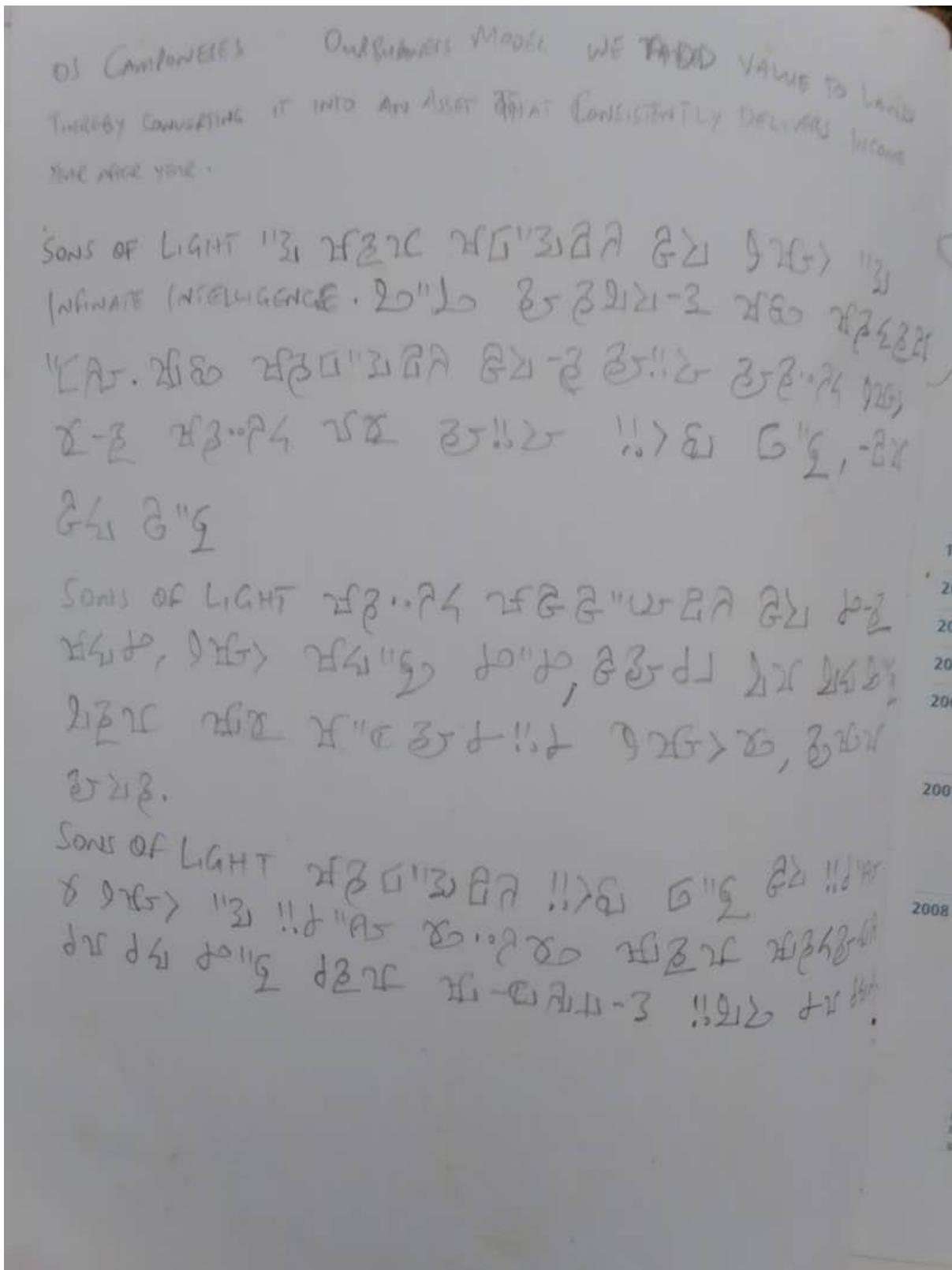


Figure 58. Chichewa-language handwriting by a Malawian user. This image showcases a few intralinear English phrases and words in the Latin script (important to typographers).

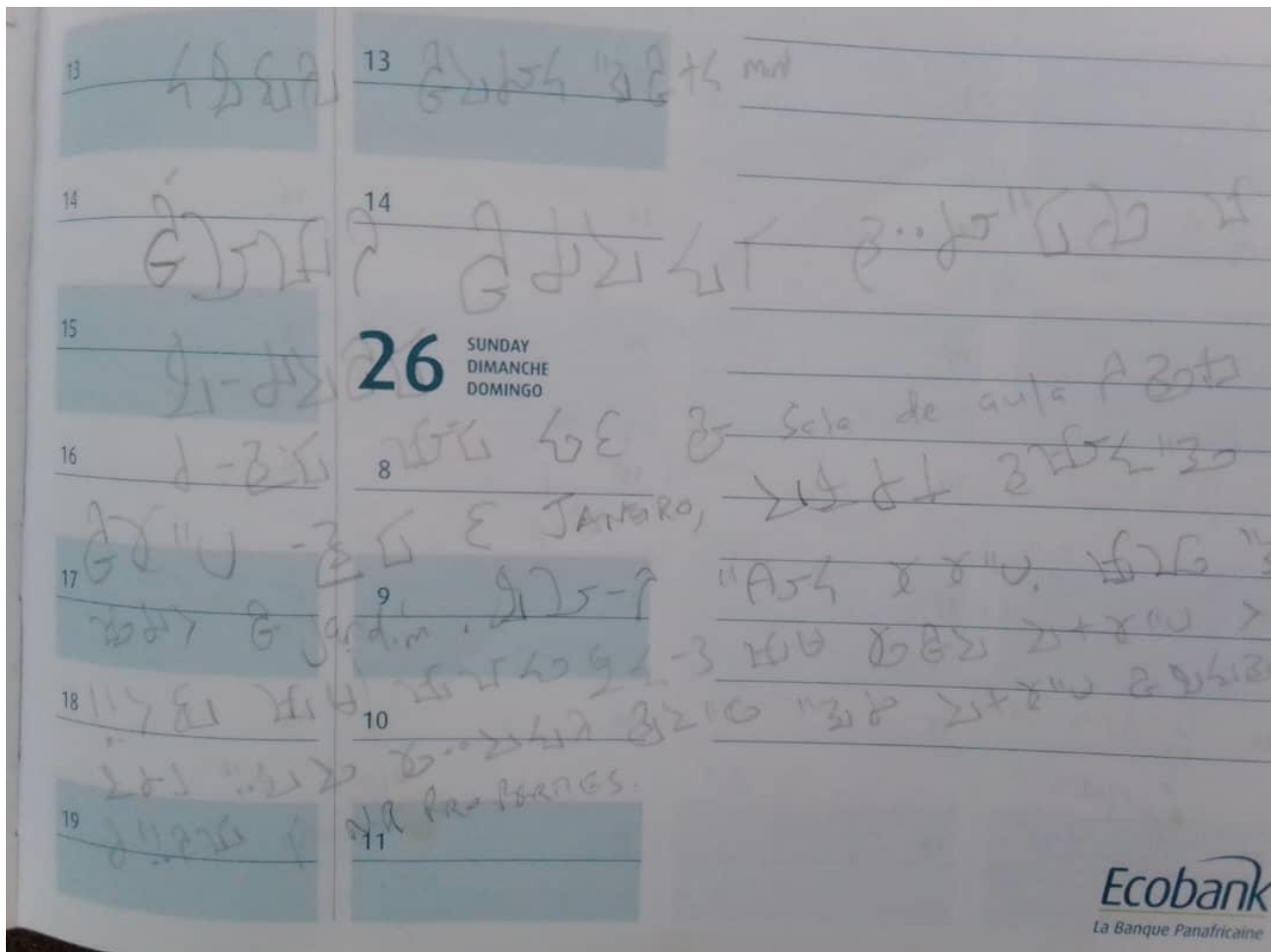
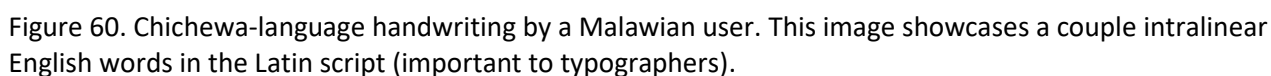


Figure 59. Chichewa-language handwriting by a Malawian user. This image showcases a couple intralinear Portuguese words in the Latin script (important to typographers).



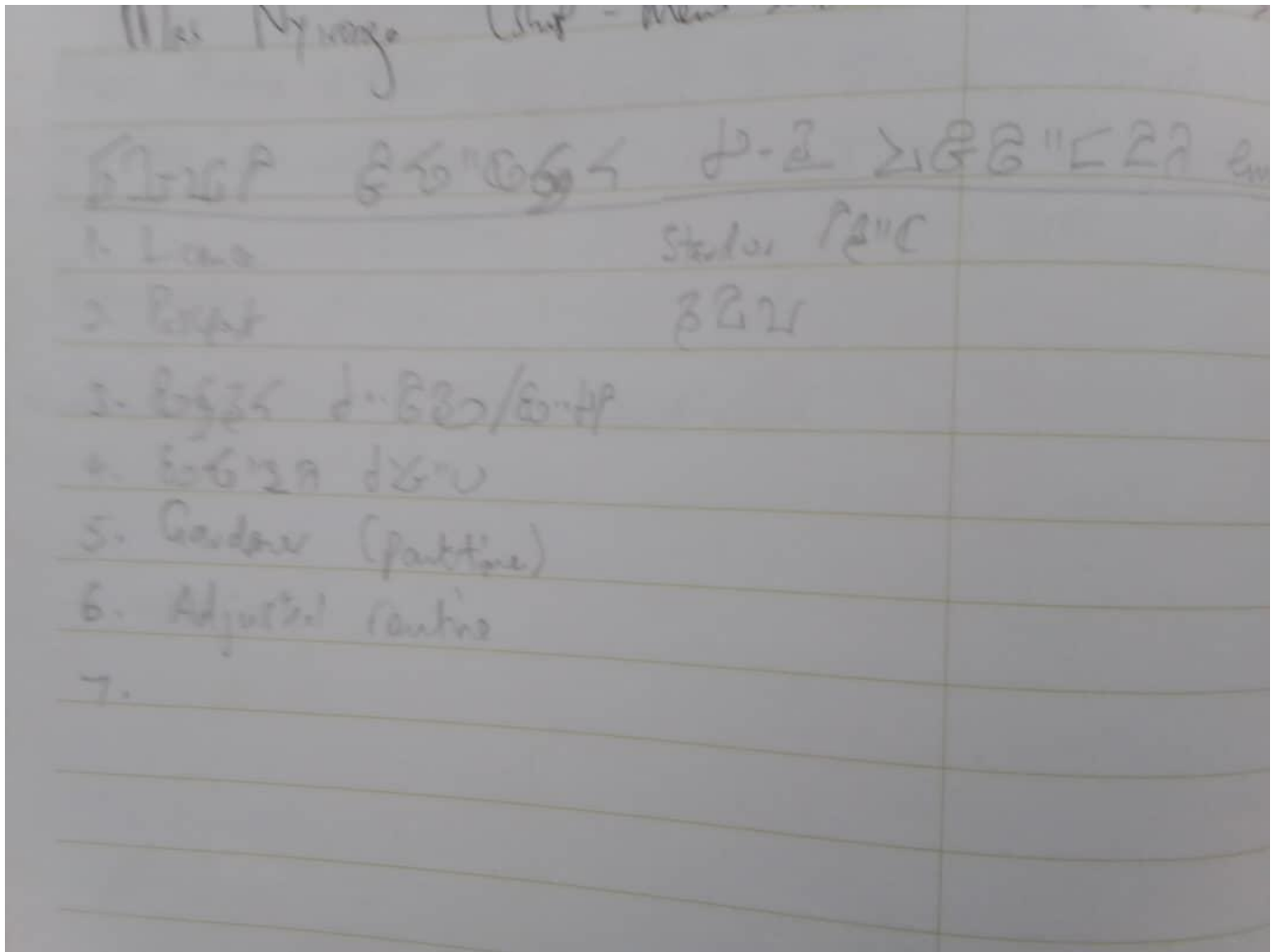


Figure 61. Chichewa-language handwriting by a Malawian user. This image showcases intralinear English in the Latin script (important to typographers).

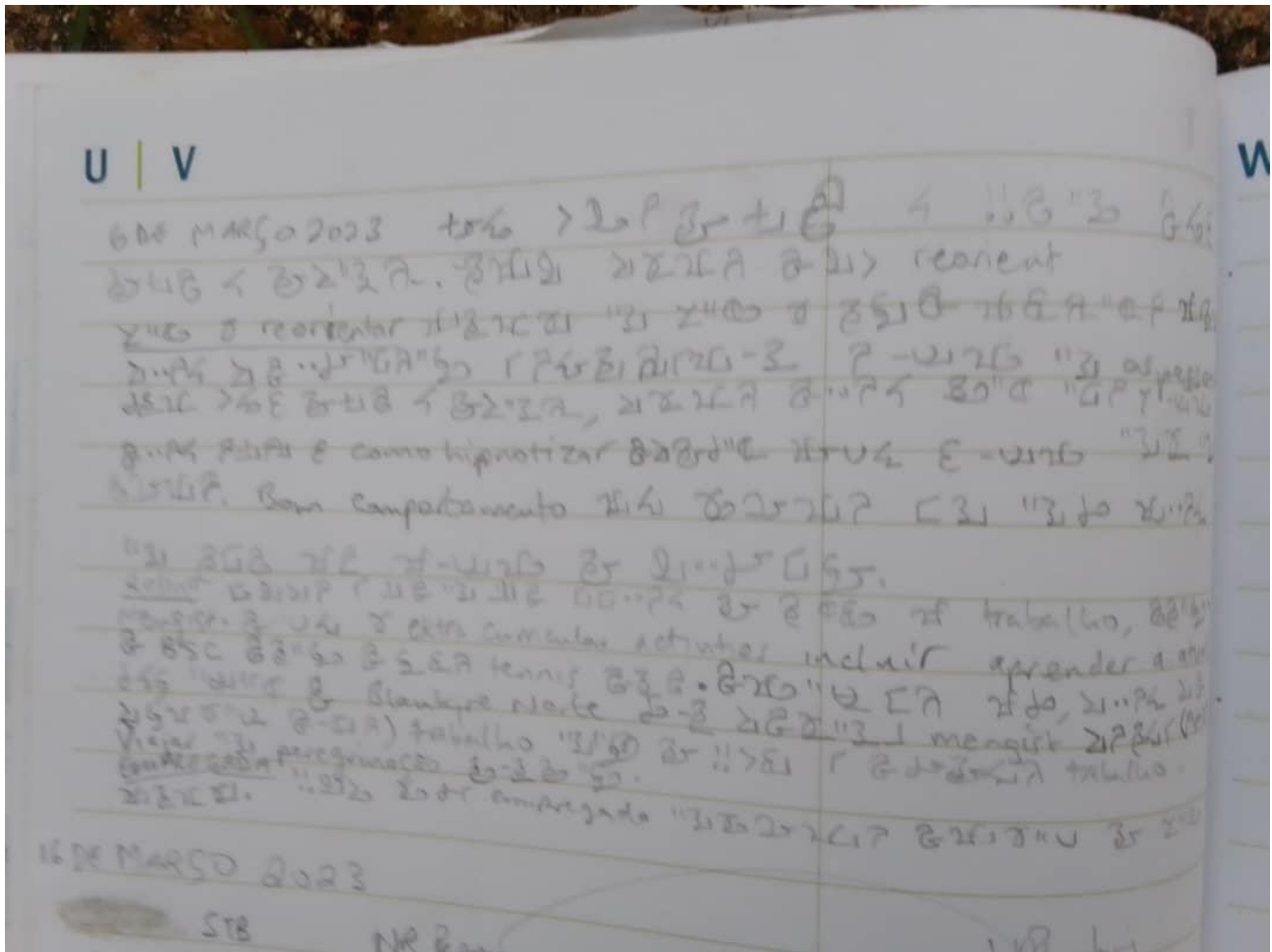


Figure 62. Chichewa-language handwriting by a Malawian user. These images showcases a couple intralinear Portuguese words in the Latin script (important to typographers).

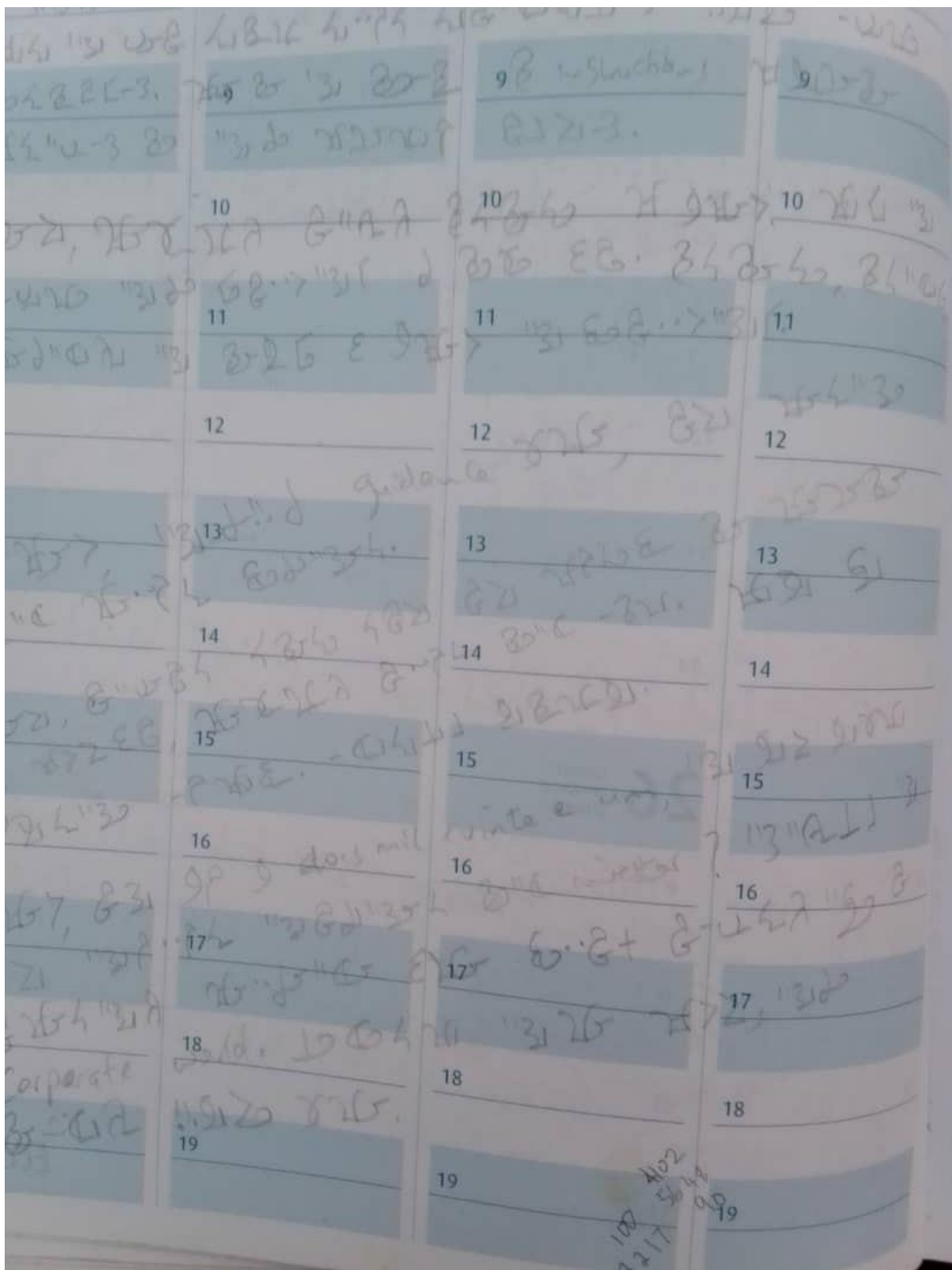


Figure 63. Chichewa-language handwriting by a Malawian user. This image showcases a couple intralinear Portuguese words in the Latin script (important to typographers).



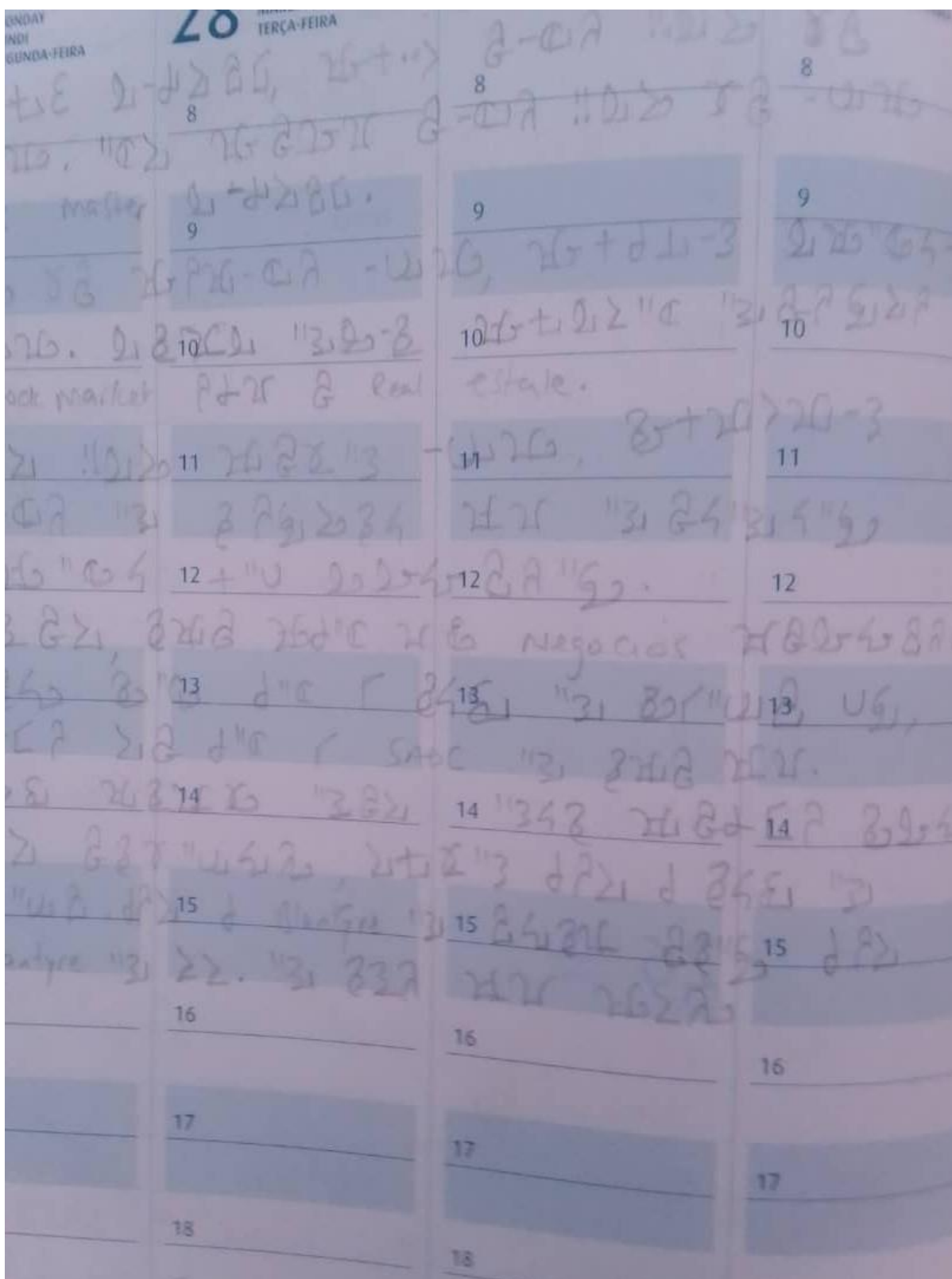


Figure 64. Chichewa-language handwriting by a Malawian user. This image showcases a couple intralinear Portuguese words in the Latin script (important to typographers).

18 2 04 JUL S  
 18 1 STB ✓ 876 -7943 office furniture Shepherd 0884523  
 18 1 18510 ✓ Receipt of Payment office furniture  
 18 1 18510 ✓ Transport of "H" - 7  
 18 1 18510 ✓ 84518151 Repair 876 45151  
 18 1 18510 ✓ 8210 GAA: 971341 890. 82101010  
 18 1 18510 ✓ Quote of STB25, NICO286, TWM10: 804 -724 Cash  
 18 1 18510 ✓ Mutual Funds, 8210 update email address of MF 834  
 18 1 18510 ✓ Documents of 8210

07 APR S E X T A  
 18 1 18510 ✓ Remuneration  
 18 1 18510 ✓ 84518151 d-7 Letter -7226 (incl transport)

18 2 05 JUL T E R S A  
 18 1 18510 ✓ 8761010 -7113  
 18 1 18510 ✓ 38-731 0985 653 381  
 18 1 18510 ✓ Recharge System update: Reference 802101010  
 18 1 18510 ✓ 8210 update source  
 18 1 18510 ✓ 82101010

08 APR 23 S A B A D  
 18 1 18510 ✓ 8210

Figure 65. Chichewa-language handwriting by a Malawian user. This image showcases intralinear English words in the Latin script (important to typographers) as the user is a businessman that conducts international business in English.









Figure 68. Nolence Mwangwego teaching a classroom the Mwangwego script sometime before late-2010.











# NOTES

05 JUL 2020

25th

25th "H 9th 1st "d. "31>"H 7th 2nd "d 1st 1st  
- 1st 1st "2E 1st 1st. 8th 7th 2nd 2  
PARTNERS 8th 2nd "d "d Business Music?

13 JUL 2020 "31st 1st 2nd 3rd 4th  
1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th  
"31 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th  
"31 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th  
"31 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th  
"31 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th  
"31 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th  
"31 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th  
"31 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

01 Aug 2020 Grace ching's Moffatt: 2nd 3rd

"U 1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th

Figure 72.

- ۲۴۲۲

NOTES

8:15 8-2 HWA 13 1 11:26 x

[illegible]

1. BEAUTIFUL THOUGHTS  
 2. ...  
 3. ...  
 4. ...  
 5. ...  
 6. ...  
 7. ...  
 8. ...  
 9. ...  
 10. ...

၁) အမည် - ဦးအောင်  
 ၂) ဖခင် - ဦးအောင်  
 ၃) မိခင် - ဒေါ်အောင်

CONFIDENCE LEVEL 8"  $\Phi$

[illegible]

Figure 73.









# NOTES

!!>76 8 H48 "3 Emperor THE WORKMAN IS WORTHY WORTHY OF HIS MEAT

H48 H48 H48 > E48 H48. H48 H48 H48 H48  
H48, "H48 H48 H48 H48 - H48, H48 H48  
H48 H48 H48 H48 - H48 H48 H48.

H48 H48 H48 H48 H48 H48 H48 H48  
- H48 H48 H48 H48 H48 H48 H48 H48.

H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48.

H48 H48 H48 H48 H48 H48 H48 H48  
"H48 H48 H48 H48 H48 H48 H48 H48.  
"H48 H48 H48 H48 H48 H48 H48 H48.

H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48.

H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48.

H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48  
H48 H48 H48 H48 H48 H48 H48 H48.

Figure 76.



NOTES VERILY NO MAN SHALL TAKE AWAY THAT WHICH THE  
FATHER HAS GIVEN ME UNTO ANY SAVE HE WHO IS APPOINTED BY THE FATHER

[illegible]

06 AUGUSTO 2020

YLG HZ "3 d J ZH H. DZD Z B. B. d SA  
 54 v1-4. YLG Z DZH HZ "3 B. d ZG "CZ  
 "3 ZG "CZ -3 H. Z. Z. Z -Z "C "3 B. B. B.  
 Z. Z. Z -P. Z. Z. Z "3 B. B. Z. Z. Z.  
 Z. Z. Z.

25-11-1954  
 25-11-1954  
 25-11-1954  
 25-11-1954

2 4 "3 2 25 "2" 2 2-2 2-1  
 2 2 1 "2 2 2-2 2 "3 2 2 2.

በጋራ ለሁሉም ሰዎች ለሰላምና ለብሔራዊ ልማት ለሚገባው ምርጫ ማህበረ ባለሙያዎች ማህበረ ሰላማዊ ጥያቄዎችን ማቅረብ ይቻላል፡፡

12521,

1. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 2. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 3. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 4. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 5. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 6. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 7. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 8. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 9. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)  
 10. የሕግ ቅጂ ማጥፋት (የሕግ ቅጂ ማጥፋት)

Figure 78.

LOVED GIVETH, FOR THE WORD OF THE LORD WHO IS GOD, WILL NOT COME  
 NOTES

וְהָיָה כִּי יִשְׁמַע ה' אֶת הַקוֹל, וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. Barren woman.  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. Barren land,  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל

וְיִשְׁמַע ה' אֶת הַקוֹל. WE MAY BE CLOSER TO  
 THE TIME THAN WE MAY THINK. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל.

וְיִשְׁמַע ה' אֶת הַקוֹל. TELL ME WHO THOU ART,  
 AND THEN I WILL DO THY DESIRE.

וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל

וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל  
 וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל. וְיִשְׁמַע ה' אֶת הַקוֹל

Figure 79.



## NOTES

[illegible]

Figure 80.





NOTES 09 AUG 2020

9. 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 26

[illegible]

ዘገሬ ዝኾነ ልዕን ዘሓረፍ "ጌራ ይቅብሩ  
 ር-ጌ ርፋሊ-ዘገሬ ልዕን ጌራ ጌራ, "ጌራ ጌራ ዘገሬ.  
 ሂሂሬ ዘገሬ ሂሂሬ ልዕን ጌራ ጌራ ጌራ  
 ርፋሊ ዘገሬ ጌራ ጌራ - ጌራ ዘገሬ ልዕን  
 ጌራ ጌራ, "ጌራ ጌራ ጌራ ጌራ

Figure 82.



NOTES 11 AGOSTO 2020

1272, 1273 "312 804" C. HNC 2002  
1274, "312" C 6-2 1275. "312" C 6-2 1276-1277  
"312" C 6-2 1278 1279 "312 1280" C 1281-1282  
1283 1284 1285 1286. "312" C "312" C 1287  
1288 "312 1289" C 1290 1291 1292 1293.  
"312" C "312" C 1294 1295 1296 1297 1298 1299.  
"312" C 1300 1301 1302 "312" C 1303 1304 1305 1306  
"312 1307, 1308 1309 1310" C 1311 1312, 1313 1314  
1315 1316 1317 1318. 1319 1320 "312 1321" C 1322  
1323 1324 1325 1326 "312 1327 1328 1329" C 1330  
1331 1332 1333 1334 "312 1335 1336 1337" C 1338  
1339 1340 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350.

[illegible]













THE WORKMAN IS WORTH  
OF HIS MEAT

5) ԽՆԴ ԽՆԴ ԶՆԶՆ ԽՆԴ ԶՆԴ "3, Բ!!Ն ԶՆ Խ!!Ն  
 "ԶՆԴ ԶՆ "3, ԷԶՆ. ԽՆԴ Բ!!Ն ԶԿԷԲ. ԽԴԴԴԴ  
 "6ԶՆ.

[illegible]

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## ACCOUNTABILITY PARTNER

"3141 ዘይ"3 ርገገ ዘሰጠሉ ርገገገ ACCOUNTABILITY PARTNER  
 ርገገ "3141 ዘይ"3 ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ  
 ርገገ "3141 ዘይ"3 ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ  
 ርገገ "3141 ዘይ"3 ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ  
 ርገገ "3141 ዘይ"3 ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ ርገገ

So far, so good

2761

*[Faint handwritten notes]*

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13. 11

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4-3

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2.  $\frac{1}{2} \times 10^{-10}$

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1924

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## 23TOM

23TOM

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Figure 96.



## NOTES

18 SEP 2020 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34).

2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34).

2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34).

2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34).

2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34). 2nd day 2nd day "3" Cubes (E2, "3" 34).

Figure 97.

NOTES 22 SEP 2020 DECLARATION OF FREEDOM  
 - 22 ዓ. - 22  
 4-2 ደህን ልሳ ልግሳ ልግሳ - 22 ተገቢ  
 - 2 session 8 ልግሳ 8 ተገቢ ልግሳ, ልግሳ ልግሳ  
 ልግሳ 4 Declaration of freedom day, 4-2 ልግሳ ልግሳ.  
 ልግሳ ልግሳ ልግሳ - 22 ልግሳ ልግሳ - 3  
 ልግሳ ልግሳ - 3 ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ  
 ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ  
 ልግሳ ልግሳ - 22.  
 MAKE THE PLACE LOOK GOOD, MY BROTHER - WINSTONE ROONEY  
 ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ  
 ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ  
 ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ ልግሳ

Figure 98.





NOTES OUMA "3 OUPA  
 ቅዱስ ዘኁ ዘኁን ቅዱስ ዘኁን ቅዱስ ዘኁን  
 ቅዱስ ዘኁ OUPA. U"ዐ ዘኁ ዘኁን "3 ዘኁን ዘኁን-  
 ቅዱስ!! ዘኁ ቅዱስ ዘኁ. ዘኁ ዘኁን ቅዱስ!!  
 "3 ቅዱስ"U "3 ቅዱስ ቅዱስ ዘኁን"3 ዘኁን ዘኁን.  
 ዘኁን ቅዱስ ቅዱስ-3 ዘኁን"3 4 ቅዱስ-3 "3  
 ቅዱስ official documents.  
 ቅዱስ 4 OUPA ዘኁን 4 ዘኁን-3 ዘኁን, ዘኁን  
 ዘኁን ቅዱስ ቅዱስ OUPA FUNNY.  
 ቅዱስ-3, ሂሂፍ ቅዱስ"3 ዘኁን-3 ቅዱስ ዘኁን  
 ዘኁን-3 "3 ቅዱስ ቅዱስ OUPA, "3 ቅዱስ ሂሂፍ  
 ዘኁን-3"3 ቅዱስ OUMA "3 ዘኁን ዘኁን.  
 ቅዱስ ዘኁን OUMA ቅዱስ OUPA "3 ቅዱስ  
 ዘኁን-3 ዘኁን-3. ቅዱስ"3 ዘኁን ዘኁን-3  
 ቅዱስ ዘኁን E. ቅዱስ ቅዱስ ቅዱስ, ቅዱስ  
 ዘኁን OUMA "3 OUPA "3 ዘኁን-3.  
 ቅዱስ ቅዱስ-3 ቅዱስ-3 "3 ቅዱስ "3-!!  
 ቅዱስ ቅዱስ "3 ሂሂፍ?

Figure 100.







feeling  
 "Ooh heaven is a place on earth..." "32 22  
 HE+IE 11"61"61. 2"75 621 85 heaven -8"8  
 858-85 8>8"85 (2222 22812 2222) "32  
 821 it should be done on earth as it is in heaven  
 22222 "32 balance 8 85 oracles 8 EYESUS  
 KRISTOS

4. 35 E-27 School bus & 25-25 & 10026  
 35 H-27 & 10026. "35 & 25, 25" & 10026  
 balance & order, 35 & 25 & 10026 - 6.

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# NOTES

898 ዓ.ም. ሂሳብ ለሀገር ለማስገባት ሲሆን  
 ለገቢ ለማግኘት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

ዓመቱን ለማስገባት ሲሆን ለሀገር  
 ለማስገባት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

ሀገርን ለማስገባት ሲሆን ለሀገር  
 ለማስገባት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

ሀገርን ለማስገባት ሲሆን ለሀገር  
 ለማስገባት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

ሀገርን ለማስገባት ሲሆን ለሀገር  
 ለማስገባት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

ሀገርን ለማስገባት ሲሆን ለሀገር  
 ለማስገባት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

ሀገርን ለማስገባት ሲሆን ለሀገር  
 ለማስገባት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

ሀገርን ለማስገባት ሲሆን ለሀገር  
 ለማስገባት ይረዳል። በዚህ ዓመት  
 ስለሚገኝ ስሜት ለሀገር ለማስገባት  
 ይረዳል።

Figure 104.



IF WE ARE A MATCH MADE IN HEAVEN

NOTES - 22 13 225 2+2A 2213 1312 221

h. 70 "3, LG 60"U 4 - 2.5 4E Outlets

85 2020. "3.25+57" "3.8-9||.3421" "31  
XZG. "3.2541" "3.27869E 756,8 E">65.

24 26 " 28 29 30 31

9125"457 24321 -> 8265"7637. 24326

21322 1131222 213 49+7 25-22

VITAMIN T 80-2 24340 G L Bactumelo

85-18 - 8114, "3, 22" 104-1 8422 11

உரன் - பி.சி

47 13, 6x24 8d "CG!! 2- 200

1. 24E 85 59 3 424, "24" 2... 424

2.  $2500 \times 10^{-6}$  !! 220

3 804 623

$\beta_5 \lambda''_{\text{eff}} = \frac{\lambda}{2} \left( \frac{1}{\cos^2 \theta} - 1 \right) \approx \frac{\lambda}{2} \tan^2 \theta$

23.11.2019 11:20:42 35.11.2019

8 - מגב-מגב, לחץ מבין ה שני

11.74 1131 352132 353233. 31148 241

Y P Z Y P Z X-2 Et "3" GA131.

የጥቅም ሆኖ የሚያገለግል የሥራ ስልጣን ሲሰጥ ማህበረሰቡ ለሥራው የሚያስፈልገውን ሥልጣን ማሳደግ ይችላል፡፡

3, 10, 4, 8, 11, 2, 2, 3, 5, 6, 2, 5, 4, 6, 11, 3, 2

$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

577.07 2d "101 30 25 84"10, 8276 25.7

2022 2<sup>nd</sup> & 2-24 to 2-28

Figure 106.



THEN -ይህ ዝ -ይህ"ፎ  
 NOTES ዘይብ"ፎ multiply ፎ-ይ ደ ል-ይ  
 ሂሳብ ዘይገብ"ህ ትህ ደ"ጌ ት"ጌ "ጌ ደብ"ፎ  
 ት"ጌ ት"ጌ "ጌ ሂሳ . ትህ ደብገብ"ህ ሂሳ-ጌ ለ  
 "ጌ?  
 ደብገብ ደብገብ"ህ-ጌ ትህ ደብገብ ሂሳ  
 "ፎ ደብገብ "ጌ ደብገብ"ህ ደብገብ ፎ-ይ  
 ደብገብ.  
 "ፎ ሂሳ ሂሳ ሂሳ ደብገብ ትህ ትህ "ጌ  
 ትህ "ጌ "ፎ ደብገብ ደብገብ -ጌ ደብገብ"ህ "ጌ  
 ሂሳ "ጌ ትህ ትህ ትህ ደብገብ  
 "ጌ ሂሳ ትህ ትህ ደብገብ ደብገብ ደብገብ  
 ደብገብ"ህ ትህ ሂሳ ትህ ደብገብ"ህ .  
 ትህ, ሂሳ "ጌ ደብገብ ደብገብ -ጌ-ሂሳ  
 ደብገብ ደብገብ"ህ ሂሳ ሂሳ ደብገብ ትህ.

Figure 107.





NOTES 06 OCTOBER 2020

"3A" A 66.1.21 3.1.21 - 3.1.21. YZG 11.1.21

11.1.21 11.1.21 11.1.21

"3.1.21 11.1.21 11.1.21 11.1.21. 11.1.21  
11.1.21 - 11.1.21.

11.1.21 11.1.21 11.1.21

"3.1.21 11.1.21 11.1.21 11.1.21 - 11.1.21

"3.1.21 11.1.21, YZG 11.1.21 11.1.21 11.1.21. 11.1.21

11.1.21 - 11.1.21 11.1.21, 11.1.21 11.1.21 11.1.21 11.1.21.

11.1.21 11.1.21, 11.1.21 11.1.21 11.1.21 11.1.21  
11.1.21 11.1.21.

11.1.21 11.1.21 YZG 11.1.21 11.1.21 11.1.21 11.1.21

11.1.21 "3.1.21 11.1.21 11.1.21 11.1.21 11.1.21

11.1.21 11.1.21 11.1.21 11.1.21 11.1.21.

"3.1.21 11.1.21 - 11.1.21 11.1.21 YZG 11.1.21

11.1.21 11.1.21 "3.1.21 11.1.21 11.1.21 11.1.21 11.1.21

11.1.21 11.1.21 11.1.21

YZG 11.1.21 - 11.1.21. 11.1.21 11.1.21 11.1.21 11.1.21

"3.1.21 11.1.21. 11.1.21 Chapter 11.1.21 "3.1.21

11.1.21 "3.1.21 11.1.21, 11.1.21 "3.1.21 11.1.21  
11.1.21. "3.1.21 11.1.21 Chapter 11.1.21

Figure 110.

## X Linguistically Realized Mutuyo and Mituyo Stack Pairings with Misisi

The following table presents the Mutuyo and Mituyo stack pairings with the Misisi letters as found in the primary languages of Malawi. The table is equally valid when any of the Masiri are present. The table is offered as a reference for developers working on lexical projects such as spelling validation and input methods.

[illegible]

[illegible]

## XI 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<sup>1</sup>

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

Please read Principles and Procedures Document (P & P) from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

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

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

#### A. Administrative

|  |  |  |            |
|--|--|--|------------|
| 1. Title:  | <b>Proposal for Encoding the Mwangwego Script in the UCS</b> |  |            |
| 2. Requester's name:   | <i>Oreen Yousuf, Daniel Jacob</i>                            |  |            |
| 3. Requester type (Member body/Liaison/Individual contribution): | <i>Individual Contribution</i>                               |  |            |
| 4. Submission date:  | <i>2024-11-08</i>  |  |            |
| 5. Requester's reference (if applicable):                        |  |  |            |
| 6. Choose one of the following:                                  |  |  |            |
| This is a complete proposal:                                     |  |  | <i>Yes</i> |
| (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):                       |                                     |   | <i>Yes</i>               |
| Proposed name of script:  |                                     | <i>Mwangwego</i>                        |                          |
| b. The proposal is for addition of character(s) to an existing block:           |                                     |   |                          |
| Name of the existing block:   |                                     |   |                          |
| 2. Number of characters in proposal:  |                                     |   | <i>64</i>                |
| 3. Proposed category (select one from below - see section 2.2 of P&P document): |                                     |   |                          |
| A-Contemporary  | <input checked="" type="checkbox"/> | B.1-Specialized (small collection)      | <input type="checkbox"/> |
| C-Major extinct   | <input type="checkbox"/>            | D-Attested extinct                      | <input type="checkbox"/> |
| F-Archaic Hieroglyphic or Ideographic   | <input type="checkbox"/>            | G-Obscure or questionable usage symbols | <input type="checkbox"/> |
| 4. Is a repertoire including character names provided?                          |                                     |   | <i>Yes</i>               |

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



|   |   |
|---|---|
| a. If YES, are the names in accordance with the “character naming guidelines”<br>in Annex L of P&P document?  |   |
| 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, <a href="mailto:yacob@geez.org">yacob@geez.org</a> , <a href="https://github.com/athinkra/mwangwego-book">https://github.com/athinkra/mwangwego-book</a> |
| 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)<br>of proposed characters attached?   | Yes   |
| 7. Special encoding issues:   |   |
| Does the proposal address other aspects of character data processing (if applicable) such as input,<br>presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?  | Yes   |
| A sorting description is enclosed.  |   |
| 8. Additional Information:  |   |
| <p>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 <a href="http://www.unicode.org">http://www.unicode.org</a> for such information on other scripts. Also see Unicode Character Database ( <a href="http://www.unicode.org/reports/tr44/">http://www.unicode.org/reports/tr44/</a> ) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.</p> |   |

### C. Technical - Justification

|  |   |
|--|---|
| 1. Has this proposal for addition of character(s) been submitted before?   | Yes                                       |
| If YES explain   | Latest proposal <a href="#">L2/12-311</a> |
| 2. Has contact been made to members of the user community (for example: National Body,<br>user groups of the script or characters, other experts, etc.)? | Yes                                       |
| If YES, with whom?   | Script creator, script users              |
| If YES, available relevant documents:  | Enclosed in the proposal                  |
| 3. Information on the user community for the proposed characters (for example:   |   |

|  |                          |
|--|--------------------------|
| size, demographics, information technology use, or publishing use) is included?  | Yes                      |
| Reference:   | Enclosed in the proposal |
| 4. The context of use for the proposed characters (type of use; common or rare)  | Rare                     |
| Reference:   | Enclosed in the proposal |
| 5. Are the proposed characters in current use by the user community?   | Yes                      |
| If YES, where? Reference:  | Malawi                   |
| 6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?                          | No                       |
| If YES, is a rationale provided?   |                          |
| If YES, reference:   |                          |
| 7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?  | Yes                      |
| 8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?                                | No                       |
| If YES, is a rationale for its inclusion provided?   |                          |
| If YES, reference:   |                          |
| 9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?       | No                       |
| If YES, is a rationale for its inclusion provided?   |                          |
| If YES, reference:   |                          |
| 10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character? | Yes                      |
| If YES, is a rationale for its inclusion provided?   | Yes                      |
| If YES, reference:   | Enclosed in the proposal |
| 11. Does the proposal include use of combining characters and/or use of composite sequences?   | No                       |
| If YES, is a rationale for such use provided?  |                          |
| If YES, reference:   |                          |
| Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?  |                          |
| If YES, reference:   |                          |
| 12. Does the proposal contain characters with any special properties such as control function or similar semantics?                                    | No                       |

|   |    |
|---|----|
| If YES, describe in detail (include attachment if necessary)                        |    |
|   |    |
|   |    |
| 13. Does the proposal contain any Ideographic compatibility characters?             | No |
| If YES, are the equivalent corresponding unified ideographic characters identified? |    |
| If YES, reference:  |    |