

Title: Proposal for encoding the Mandombe script in the SMP of the UCS (revised)

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Preliminary proposal N3970 containing introductory information about the Mandombe script and details of character composition was submitted in 2010:

L2/11-053 “Proposal to add the Mandombe Script”

by David Wabeladio, Robert Wazi et Adrien Fwakasumbu

The present document largely incorporates the information given in

L2/15-118 “Preliminary proposal for encoding the Mandombe script in the SMP of the UCS”

by Andrij Rovenchak, Helma Pasch, Charles Riley, Nandefo Robert Wazi

Revisions address issues raised in [L2/15-312](#) and [L2/15-310](#)

1. Introduction. *Mandombe* (මංඩම්බ), which means “for the Blacks”, is a modern African script which was invented in 1978 by David Wabeladio Payi (*15.07.1957 – †04.04.2013). It is one of very few scripts which were invented south of the equator. It was first designed to write Kikongo and Lingala, the most important languages of Congo, and then developed further so that basically any language can be written with this script.

Unlike other modern African scripts, Mandombe does not imitate the type of letters from the Roman or Arabic alphabets, but the symbols are designed according to strong geometrical rules, on the basis of the stylized cyphers 2 (2) and 5 (5), which give the script an outstanding appearance. These shapes are based on the observation of the uncoated portion of the brick wall of the inventor’s room.

From the beginning, the Mandombe script was invented as a medium to write all types of texts, and there are documents of religious nature (see Figs. 1–4) and also secular texts, cf. Figs. 5–8, as well as in occasional public inscriptions (Fig. 9).

The inventor, David Wabeladio Payi was a member of the Kimbanguist church. He was given a professorship at the Kimbanguist University in Kinshasa, where he taught the script to numerous students. On December 22, 2011 he was granted the title Doctor honoris causa at the University of Kinshasa. Former students of Wabeladio teach the script at the Kimbanguist education centers in Kisangani, Brazzaville and Pointe Noire. The script is also taught in the Kimbanguist centers overseas, e.g. Brussels, Paris. There is hope among those who master the script that it will get a communicative function at least within the Kimbanguist church. The number of active Mandombe users is five to six thousand in Africa and a few hundred in diasporas. There are about 500 teachers who are trained by the Centre de l’Ecriture Négro-Africaine (CENA).

Apart from its function as a medium of writing, the Mandombe script is also the basis of graphical design: the letters whose shapes can be combined are used to create fascinating pictures.

There are published texts in and about Mandombe, one of which carries the title, *Mandombe: écriture négro-africaine* [Wabeladio Payi 1996]. It has been suggested that the copyright on at least some of these texts be voluntarily withdrawn, in order to allow for the encoding proposal to go forward in the UTC and with ISO, on the grounds that for implementation to proceed a script cannot be copyrighted. Putting aside the issue of whether the copyright should be withdrawn, it is an open question as to whether a copyright once asserted for a textual work can in fact be withdrawn. The closest that any publisher might be able to achieve in practice is to assign the work a CC0 license.

With respect to statements given on p. 29 of the previous proposal [L2/11-053](#), no requests for funding are currently being made to facilitate future utilization of the Mandombe script.

2. Structure. Mandombe is written left to right. Structurally, the script is an *abugida* or an alphasyllabary. A sign orientation is used as a distinguishing feature. For syllables having a more complex structure than CV a special set of diacritical signs and other marks are used.

3. Collating order. Collation order is that in the code chart. It is based on the arrangement according to letter shapes as given in the original inventor's book [Wabeladio Payi 1996]:

Les MAZITA du 1er groupe sont des Mazita composés des clés du 1er temps ou angle de 0°				
BA	BE	BI	BO	BU
DA	DE	DI	DO	DU
GA	GE	GI	GO	GU
FA	FE	FI	FO	FU

2. LES MAZITA DU 2ème GROUPE

Les MAZITA du 2ème groupe sont des MAZITA composées des clés du 2ème temps ou angles de 45°

MA	ME	MI	MO	MU
KA	KE	KI	KO	KU
PA	PE	PI	PO	PU
LA	LE	LI	LO	LU
RA	RE	RI	RO	RU

Les MAZITA Du 3ème GROUPE

Les MAZITA du 3ème groupe sont des MAZITA composées des clés du 3ème temps ou angles de 90°.

VA	VE	VI	VO	VU
WA	WE	WI	WO	WU

NA	NE	NI	NO	NU
TA	TE	TI	TO	TU
SA	SE	SI	SO	SU

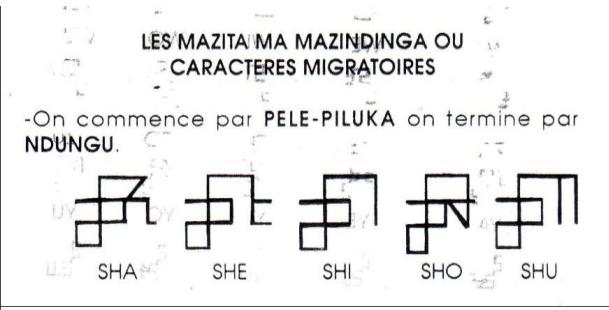
LES MAZITA DU 4ème GROUPE

Les MAZITA du 4ème groupe sont composées des clés du 4ème temps ou angles de 135°.

RA	RE	RI	RO	RU
WA	WE	WI	WO	WU
ZA	ZE	ZI	ZO	ZU
YA	YE	YI	YO	YU

This is the main set of characters containing sixteen series.

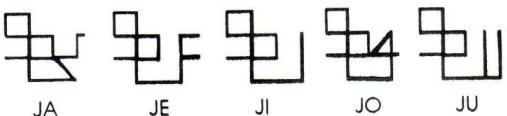
Afterwards, additional characters follow:



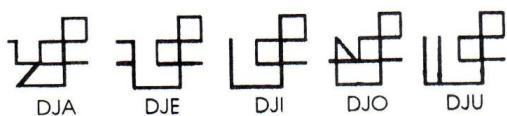
-Pour les syllabes TSHA, TSHE, TSHI, TSHO, TSHU, on commence par **PAKU-PILUKA** on termine par **KETE**.



-Pour les syllabes JA, JE, JI, JO, JU, on commence par **NDUNGU-PILUKA** on termine par **PELE**.



-Pour les syllabes DJA, DJE, DJI, DJO, DJU, on commence par **KETE-PILUKA** on termine par **PAKU**.



That is, the order is as follows:

B-, D-, G-, F-, M-, K-, P-, L-, V-, N-, T-, S-, R-, W-, Z-, Y-,
SH-, CH-, J-, DJ-,
GB-, KP-, KT-.

The last set of characters (GB-, KP-, and KT- series) are mentioned in the original inventor's book (note a typo PKA instead of KPA):

MAZITA MA KIBABA ou SYLLABES OCCLUSIVES

Ce sont des Mazita produites par un blocage momentané du canal bucal.

Par exemple :

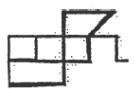
GBA



PKA



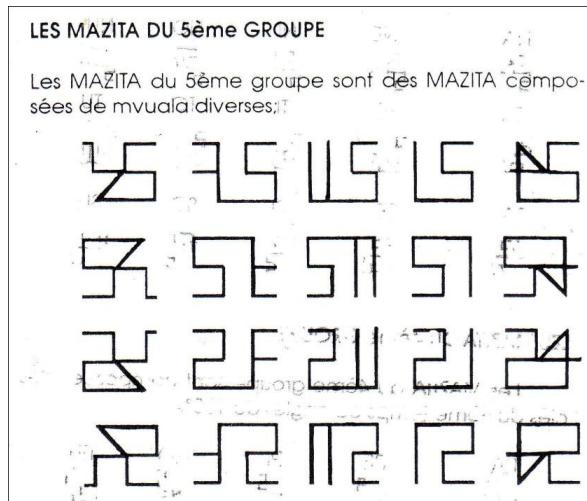
NGBA



KTO



Additional characters are used to represent bare vowels, as well as H + <vowel> and <vowel> + H series, in the original book they are allocated in the so-called 5th group:



As the main set of characters contains sixteen rows corresponding to sixteen initial consonants, we suggest using this property in order to facilitate script encoding. Additional seven rows of consonants are then complemented by one row from the 5th group shown above. Further rows from this group are added after 16+7 rows of more complex syllables (prenasalized and containing intervening R or L).

Syllables in Mandombe are composed from a number of basic elements as demonstrated below.

A. Syllables consisting of a single vowel are formed by adding the basic vowel shape to <⠼>:

a	⠼ + ⠼	⠼⠼
o	⠼ + ⠼	⠼⠼

e	⠼ + ⠼	⠼⠼
u	⠼ + ⠼	⠼⠼

i	⠼ + ⠼	⠼⠼
ü	⠼ + ⠼	⠼⠼

B. Glyphs for syllables are obtained by joining vowel symbols to respective consonants at a certain point only, for instance,

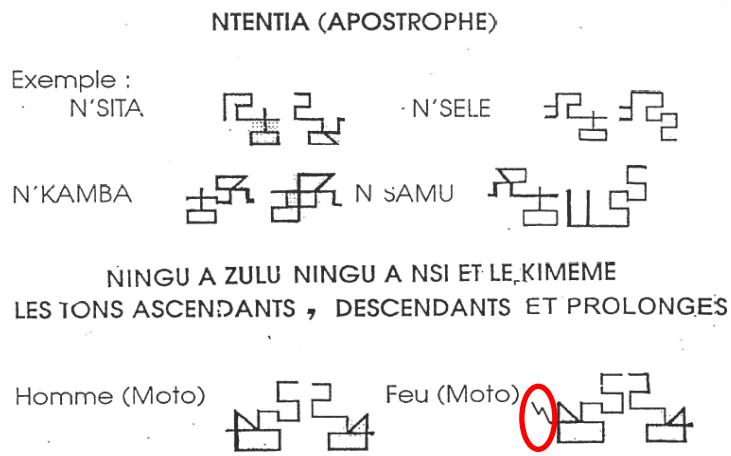
ba	⠼ + ⠼	⠼⠼
bi	⠼ + ⠼	⠼⠼
bu	⠼ + ⠼	⠼⠼
le	⠼ + ⠼	⠼⠼
lo	⠼ + ⠼	⠼⠼

da	⠼ + ⠼	⠼⠼
di	⠼ + ⠼	⠼⠼
du	⠼ + ⠼	⠼⠼
pe	⠼ + ⠼	⠼⠼
po	⠼ + ⠼	⠼⠼

C. More complex syllables (containing diphthongs, pre- and post-nasalization as well as intervening R or L) are formed in the following fashion:

lua	ሉ + ອ + ໂ	ລູ້	pro	ໂ + ສ + ດ	ໂສດ
gue	ກ + ເ + ອ	ກອ	plo	ໂ + ຢ + ດ	ໂຢດ
sio	ສ + ອ + ໂ	ສູ້	dri	ດ + ຢ + ດ	ດຢດ
muo	ມ + ອ + ພ	ມູ່ພ	nso	ນ + ໂ + ສ	ນໂສ
bon	ບ + ດ + ອ	ບອນ	mbi	ມ + ພ + ປ	ມປິ

Two additional marks are used to represent apostrophe and high-tone vowels (the latter is optional):



Note low-tone *moto* ('man') versus high-tone *móto* ('fire'), the tonal mark is encircled in red.

4. Character names. The usual UCS conventions are used, with SH representing /ʃ/, CH representing /tʃ/, DJ representing /dʒ/, and UE representing the round front vowel /y/ (French <u> or German <i>).

According to the recommendation given in [L2/15-204](#), we have changed the encoding model with syllable units being encoded instead of their elements. The names of such characters is

MANDOMBE SYLLABLE ...

Diacritical marks used to denote diphthongs are encoded separately to reduce the total number of proposed characters. The following are the names of these marks:

MANDOMBE COMBINING A DIPHTHONG MARK

MANDOMBE COMBINING A DIPHTONG MARK FLIPPED

...

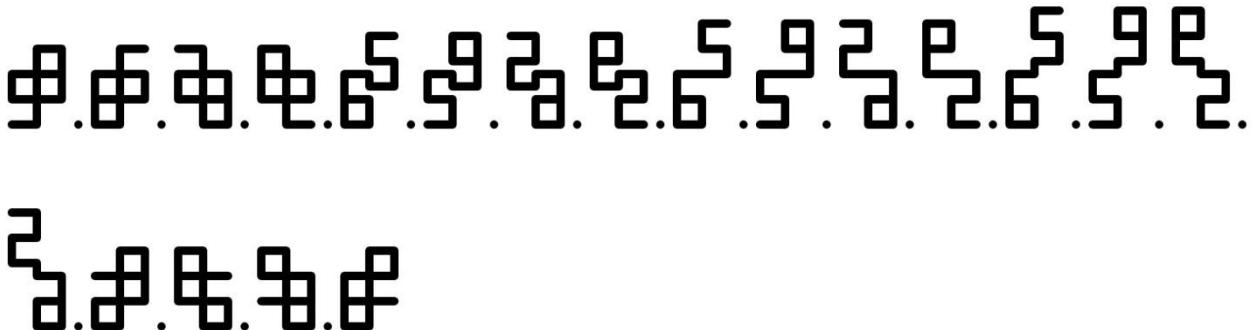
After Mandombe was initially used only to write Lingala and Kikongo, i.e. CVCV languages, the “joined” addition became necessary. It provides shapes for consonants in syllable coda (as opposed to syllable-initial consonants), which are useful for writing languages other than Kikongo or Lingala, e.g., for Wolof. For those syllable-final shapes the following names is suggested:

MANDOMBE CONSONANT B

MANDOMBE CONSONANT D

...

Here are the Mandombe characters for bare consonants:



They are given in the following order, used below as the collation order:

B, D, G, F; M, K, P, L; V, N, T, S; R, W, Z, Y; SH, CH, J, DJ

Note that some shapes can be used for syllable-initial foreign sounds (like the labio-velar plosives GB, and KP).

The sample of text in Wolof with final consonants in some words is shown in Fig. 4.

The total number of characters in the proposal is 1050.

6. Linebreaking. Linebreak can occur after a punctuation sign, including syllable separator and word separator. Characters forming a syllable cannot be broken.

7. Punctuation and digits. In Mandombe, script-specific punctuation is used, including a syllable separator, which is a blank space, and a word separator, which is a dot resting on the baseline.

Of ten Mandombe digits, five have the shape similar to vowels (I = 1, U = 2, E = 3, O ≈ 4, A = 5). {NB: this order can be an alternative for ordering vowels, instead of the A-E-I-O-U one}.

However, it seems that the vowels and digits require separate codepoints as – at least in some texts – the digits are taller than the respective vowels when resting on the baseline (see Fig. 1).

8. Additions and extensions. Possible additions include calendar characters for a recently devised Kimbanguist calendar (7 symbols for days of week and 12 symbols for combining days of week and months); such calendar characters can be named starting with KIMBANGUMUNA, not MANDOMBE.

There is a potential possibility that other symbols to reflect phonology of some other African languages will be introduced in future (tone marks, letters for click consonants, etc.), and they can be placed in the reserved codepoints.

9. Acknowledgement. This project was partly supported by a grant from the United States National Endowment for the Humanities (PR-50205-15), which funds the Universal Scripts Project (part of the Script Encoding Initiative at the University of California, Berkeley). Any views, findings, conclusions or recommendations expressed in this publication do not necessarily reflect those of the National Endowment for the Humanities.

10. Bibliography

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- Wabeladio Payi, David. 1996. *Mandombe* ⚡⚡⚡⚡⚡⚡ *Ecriture negro-africaine: Manuel d'apprentisage à l'usage des apprenants*. Editions du C.E.N.A., Kinshasa.

9. Character repertoire. Character names for syllables are as follows:

1x000	MANDOMBE SYLLABLE BA
1x001	MANDOMBE SYLLABLE DA
...	
1x00F	MANDOMBE SYLLABLE YA
1x010	MANDOMBE SYLLABLE BE
1x011	MANDOMBE SYLLABLE DE
...	
1x01F	MANDOMBE SYLLABLE YE
...	
1x050	MANDOMBE SYLLABLE BUE
1x051	MANDOMBE SYLLABLE DUE
...	
1x05F	MANDOMBE SYLLABLE YUE
1x060	MANDOMBE SYLLABLE SHA
1x061	MANDOMBE SYLLABLE CHA
...	
1x06F	MANDOMBE SYLLABLE HA
...	
1x0B0	MANDOMBE SYLLABLE SHUE
1x0B1	MANDOMBE SYLLABLE CHUE
...	
1x0BF	MANDOMBE SYLLABLE HUE
1x0C0	MANDOMBE SYLLABLE MVA
1x0C1	MANDOMBE SYLLABLE NNA
...	
1x0CF	MANDOMBE SYLLABLE NHA
...	
1x110	MANDOMBE SYLLABLE MVUE
...	
1x11F	MANDOMBE SYLLABLE NHUE
1x120	MANDOMBE SYLLABLE BRA
1x121	MANDOMBE SYLLABLE DRA
...	
1x12F	MANDOMBE SYLLABLE YRA
...	
1x170	MANDOMBE SYLLABLE BRUE
1x171	MANDOMBE SYLLABLE DRUE
...	
1x17F	MANDOMBE SYLLABLE YRUE
1x300	MANDOMBE SYLLABLE MVLA
...	
1x35F	MANDOMBE SYLLABLE NHLUE

1x000

Mandombe

1x41F

	1x00	1x01	1x02	1x03	1x04	1x05
	A	E	I	O	U	UE
0	ᴹ	ᴱ	ᴵ	ᴼ	ᵁ	ᵁᴱ
B-	ᴹ	ᴱ	ᴵ	ᴼ	ᵁ	ᵁᴱ
1	₮	₯	₷	₸	₹	₺
D-	₮	₯	₷	₸	₹	₺
2	₮	₯	₷	₸	₹	₺
G-	₮	₯	₷	₸	₹	₺
3	₮	₯	₷	₸	₹	₺
F-	₮	₯	₷	₸	₹	₺
4	₮	₯	₷	₸	₹	₺
M-	₮	₯	₷	₸	₹	₺
5	₮	₯	₷	₸	₹	₺
K-	₮	₯	₷	₸	₹	₺
6	₮	₯	₷	₸	₹	₺
P-	₮	₯	₷	₸	₹	₺
7	₮	₯	₷	₸	₹	₺
L-	₮	₯	₷	₸	₹	₺
8	₮	₯	₷	₸	₹	₺
V-	₮	₯	₷	₸	₹	₺
9	₮	₯	₷	₸	₹	₺
N-	₮	₯	₷	₸	₹	₺
A	₮	₯	₷	₸	₹	₺
T-	₮	₯	₷	₸	₹	₺
B	₮	₯	₷	₸	₹	₺
S-	₮	₯	₷	₸	₹	₺
C	₮	₯	₷	₸	₹	₺
R-	₮	₯	₷	₸	₹	₺
D	₮	₯	₷	₸	₹	₺
W-	₮	₯	₷	₸	₹	₺
E	₮	₯	₷	₸	₹	₺
Z-	₮	₯	₷	₸	₹	₺
F	₮	₯	₷	₸	₹	₺
Y-	₮	₯	₷	₸	₹	₺

	1x06	1x07	1x08	1x09	1x0A	1x0B
	A	E	I	O	U	UE
0						
SH-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
1						
CH-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
2						
J-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
3						
DJ-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
4						
GB-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
5						
KP-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
6						
KT-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
7						
—	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
8						
MB-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
9						
ND-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
A						
NG-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
B						
MF-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
C						
MM-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
D						
NK-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
E						
MP-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙
F						
H-	𠂔	𠂕	𠂖	𠂗	𠂘	𠂙

1x000

Mandombe

1x41F

	1x0C	1x0D	1x0E	1x0F	1x10	1x11
	A	E	I	O	U	UE
0						
MV-	ᴹ	ᴹ	ᴹ	ᴹ	ᴹ	ᴹ
1						
NN-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
2						
NT-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
3						
NS-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
4						
-H	ᴴ	ᴴ	ᴴ	ᴴ	ᴴ	ᴴ
5						
NW-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
6						
NZ-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
7						
NY-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
8						
NSH-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
9						
NCH-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
A						
NJ-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
B						
NDJ-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
C						
NGB-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
D						
NKP-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
E						
NKT-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ
F						
NH-	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ	ᴺ

1x000

Mandombe

1x41F

	1x12	1x13	1x14	1x15	1x16	1x17
	A	E	I	O	U	UE
0						
BR-						
1						
DR-						
2						
GR-						
3						
FR-						
4						
MR-						
5						
KR-						
6						
PR-						
7						
LR-						
8						
VR-						
9						
NR-						
A						
TR-						
B						
SR-						
C						
RR-						
D						
WR-						
E						
ZR-						
F						
YR-						

1x000

Mandombe

1x41F

	1x18	1x19	1x1A	1x1B	1x1C	1x1D
	A	E	I	O	U	UE
0						
SHR-						
1						
CHR-						
2						
JR-						
3						
DJR-						
4						
GBR-						
5						
KPR-						
6						
KTR-						
7						
HR-						
8						
MB-						
9						
NDR-						
A						
NGR-						
B						
MFR-						
C						
MMR-						
D						
NKR-						
E						
MPR-						
F						
NLR-						

1x000

Mandombe

1x41F

	1x1E	1x1F	1x20	1x21	1x22	1x23
	A	E	I	O	U	UE
0						
MVR-						
1						
NNR-						
2						
NTR-						
3						
NSR-						
4						
NRR						
5						
NWR-						
6						
NZR-						
7						
NYR-						
8						
NSHR-						
9						
NCHR-						
A						
NJR-						
B						
NDJR-						
C						
NGBR-						
D						
NKPR-						
E						
NKTR-						
F						
NHR-						

1x000

Mandombe

1x41F

	1x24	1x25	1x26	1x27	1x28	1x29
	A	E	I	O	U	UE
0						
BL-						
1						
DL-						
2						
GL-						
3						
FL-						
4						
ML-						
5						
KL-						
6						
PL-						
7						
LL-						
8						
VL-						
9						
NL-						
A						
TL-						
B						
SL-						
C						
RL-						
D						
WL-						
E						
ZL-						
F						
YL-						

1x000

Mandombe

1x41F

	1x2A	1x2B	1x2C	1x2D	1x2E	1x2F
	A	E	I	O	U	UE
0						
SHL-						
1						
CHL-						
2						
JL-						
3						
DJL-						
4						
GBL-						
5						
KPL-						
6						
KTL-						
7						
HL-						
8						
MBL-						
9						
NDL-						
A						
NGL-						
B						
MFL-						
C						
MML-						
D						
NKL-						
E						
MPL-						
F						
NLL-						

1x000

Mandombe

1x41F

	1x30	1x31	1x32	1x33	1x34	1x35
	A	E	I	O	U	UE
0						
MVL-						
1						
NNL-						
2						
NTL-						
3						
NSL-						
4						
NRL						
5						
NWL-						
6						
NZL-						
7						
NYL-						
8						
NSHL-						
9						
NCHL-						
A						
NJL-						
B						
NDJL-						
C						
NGBL-						
D						
NKPL-						
E						
NKTL-						
F						
NHL-						

The next set of characters for consonants is named according to the following scheme:

1x360	MANDOMBE CONSONANT B
1x361	MANDOMBE CONSONANT D
...	
1x36F	MANDOMBE CONSONANT Y
1x370	MANDOMBE CONSONANT SH
1x371	MANDOMBE CONSONANT CH
...	
1x377	<reserved>
1x378	MANDOMBE CONSONANT NB
...	
1x37F	<reserved>
1x380	MANDOMBE CONSONANT MV
...	
1x383	MANDOMBE CONSONANT NS
1x384	<reserved>
1x385	MANDOMBE CONSONANT NW
...	
1x3EF	MANDOMBE CONSONANT NHL

	1x36	1x37	1x38	1x39	1x3A	1x3B	1x3C	1x3D	1x3E
0	B	SH	MV	BR	SHR	MVR	BL	SHL	MVL
1	D	CH	NN	DR	CHR	NNR	DL	CHL	NNL
2	G	J	NT	GR	JR	NTR	GL	JL	NTL
3	F	DJ	NS	FR	DJR	NSR	FL	DJL	NSL
4	M	GB	[[[	MR	GBR	NRR	ML	GBL	NRL
5	K	KP	NW	KR	KPR	NWR	KL	KPL	NWL
6	P	KT	NZ	PR	KTR	NZR	PL	KTL	NZL
7	L	[[[	NY	LR	HR	NYR	LL	HL	NYL
8	V	NB	NSH	VR	NBR	NSHR	VL	NBL	NSHL
9	N	MD	NCH	NR	MDR	NCHR	NL	MDL	NCHL
A	T	NG	NJ	TR	NGR	NJR	TL	NGL	NJL
B	S	MF	NDJ	SR	MFR	NDJR	SL	MFL	NDJL
C	R	MM	NGB	RR	MMR	NGBR	RL	MML	NGBL
D	W	NK	NKP	WR	NKR	NKPR	WL	NKL	NKPL
E	Z	MP	NKT	ZR	MPR	NKTR	ZL	MPL	NKTL
F	Y	[[[	NH	YR	NLR	NHR	YL	NLL	NHL

1x000

Mandombe

1x41F

	1x36	1x37	1x38	1x39	1x3A	1x3B	1x3C	1x3D	1x3E
0	弔	弔	弔	弔	弔	弔	弔	弔	弔
1	弔	弔	弔	弔	弔	弔	弔	弔	弔
2	弔	弔	弔	弔	弔	弔	弔	弔	弔
3	弔	弔	弔	弔	弔	弔	弔	弔	弔
4	弔	弔	▨▨▨▨▨▨▨▨▨▨	弔	弔	弔	弔	弔	弔
5	弔	弔	弔	弔	弔	弔	弔	弔	弔
6	弔	弔	弔	弔	弔	弔	弔	弔	弔
7	弔	▨▨▨▨▨▨▨▨▨▨	弔	弔	弔	弔	弔	弔	弔
8	弔	弔	弔	弔	弔	弔	弔	弔	弔
9	弔	弔	弔	弔	弔	弔	弔	弔	弔
A	弔	弔	弔	弔	弔	弔	弔	弔	弔
B	弔	弔	弔	弔	弔	弔	弔	弔	弔
C	弔	弔	弔	弔	弔	弔	弔	弔	弔
D	弔	弔	弔	弔	弔	弔	弔	弔	弔
E	弔	弔	弔	弔	弔	弔	弔	弔	弔
F	弔	▨▨▨▨▨▨▨▨▨▨	弔	弔	弔	弔	弔	弔	弔

1x000

Mandombe

1x41F

	1x3F	1x40	1x41
0	Δ	^	•
1	˥	˧	˨
2	˥˥	˧˧	˨˨
3	˥˧	˧˥	˨˥
4	˧˥	˧˧	˨˧
5	˧˧	˧˥	˨˥
6	˧	˧	˨
7	˧	˧	˨
8	˧	˧	˨
9	˧	˧˧	˨
A	˧	→	•
B	˧	←	•
C	˧	↔	⚡
D	˧	██████	⚡
E	██████	•	⚡
F	██████	○	⚡

1x3F0	△	MANDOMBE DIGIT ZERO
1x3F1	ㄱ	MANDOMBE DIGIT ONE
1x3F2	ㄴ	MANDOMBE DIGIT TWO
1x3F3	ㄷ	MANDOMBE DIGIT THREE
1x3F4	ㄹ	MANDOMBE DIGIT FOUR
1x3F5	ㅁ	MANDOMBE DIGIT FIVE
1x3F6	ㅂ	MANDOMBE DIGIT SIX
1x3F7	ㅅ	MANDOMBE DIGIT SEVEN
1x3F8	ㅂ	MANDOMBE DIGIT EIGHT
1x3F9	ㅎ	MANDOMBE DIGIT NINE
1x3FA	܀	MANDOMBE MVUALA ZA PILUKA-1 <ul style="list-style-type: none"> • used in illustrations of Mandombe characters compositions • similar to MANDOMBE DIGIT SIX
1x3FB	܁	MANDOMBE MVUALA ZA PILUKA-2 <ul style="list-style-type: none"> • used in illustrations of Mandombe characters compositions • similar to MANDOMBE DIGIT NINE
1x3FC	܂	MANDOMBE MVUALA ZA PILUKA-3 <ul style="list-style-type: none"> • used in illustrations of Mandombe characters compositions • similar to MANDOMBE DIGIT SEVEN
1x3FD	܃	MANDOMBE MVUALA ZA PILUKA-4 <ul style="list-style-type: none"> • used in illustrations of Mandombe characters compositions • similar to MANDOMBE DIGIT EIGHT
1x3FE		<reserved>
1x3FF		<reserved>
1x400	܄	MANDOMBE DOT

1x401	|	MANDOMBE COMMA
1x402	—	MANDOMBE COMMA ROTATED
1x403	^ ^	MANDOMBE COLON
1x404	↓	MANDOMBE ALTERNATE COLON
1x405	↑	MANDOMBE SEMICOLON
1x406	/	MANDOMBE EXCLAMATION MARK
1x407	\	MANDOMBE EXCLAMATION MARK MIRRORED
1x408	\	MANDOMBE QUESTION MARK
1x409	^\^\^\^	MANDOMBE ELLIPSIS
1x40A	←	MANDOMBE MINUS SIGN
1x40B	→	MANDOMBE PLUS SIGN
1x40C	↔	MANDOMBE EQUAL SIGN
1x40D		<reserved>
1x40E	○	MANDOMBE NTENTIA MARK •this mark touches the character below it, unlike 1x414
1x40F	○	MANDOMBE NTENTIA MARK FLIPPED •this mark touches the character above it, unlike 1x415
1x410	○	MANDOMBE COMBINING A DIPHTONG MARK
1x411	○	MANDOMBE COMBINING A DIPHTONG MARK FLIPPED
1x412	○	MANDOMBE COMBINING E DIPHTONG MARK •these are short vertical strokes, not dots as in 1x418
1x413	○	MANDOMBE COMBINING E DIPHTONG MARK FLIPPED

1x414		MANDOMBE COMBINING I DIPHTONG MARK •this mark does not touch the character below it, unlike 1x41E
1x415		MANDOMBE COMBINING I DIPHTONG MARK FLIPPED •this mark does not touch the character above it, unlike 1x41F
1x416		MANDOMBE COMBINING O DIPHTONG MARK
1x417		MANDOMBE COMBINING O DIPHTONG MARK FLIPPED
1x418		MANDOMBE COMBINING U DIPHTONG MARK •these are dots, not short vertical strokes as in 1x412
1x419		MANDOMBE COMBINING U DIPHTONG MARK FLIPPED
1x41A		MANDOMBE COMBINING NASALIZATION MARK
1x41B		MANDOMBE COMBINING NASALIZATION MARK FLIPPED
1x41C		MANDOMBE ACUTE ACCENT-1
1x41D		MANDOMBE ACUTE ACCENT-2
1x41E		MANDOMBE ACUTE ACCENT-3
1x41F		MANDOMBE ACUTE ACCENT-4

10. Figures

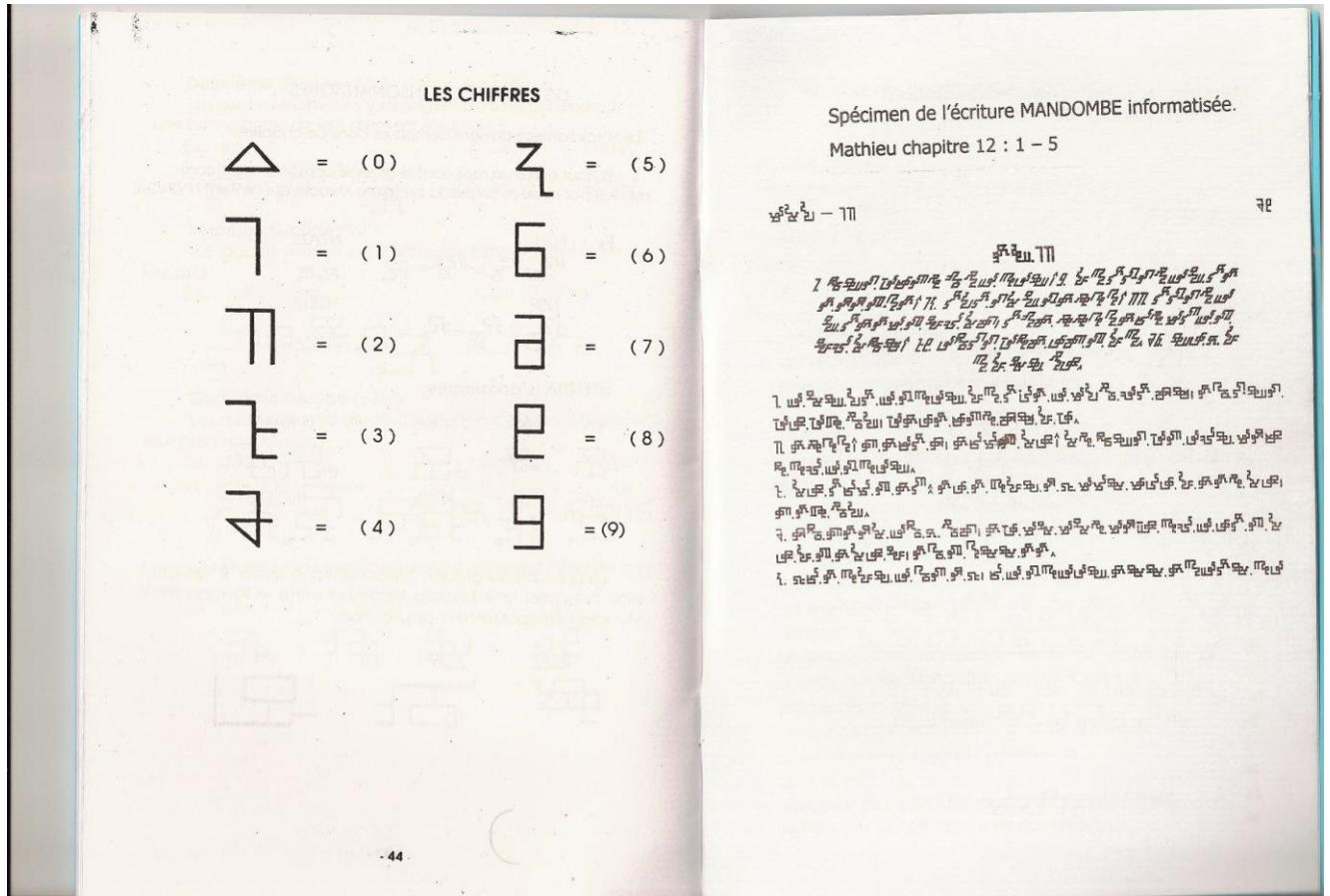


Figure 1: An excerpt from the book teaching Mandombe

॥
 ॥**জুজু.জুজু.ফ্রেন্ট.য়েন্ট.ফ্রেন্ট**
 ফ্রেন্ট.স্বাক্ষর.ক্ষেত্র.জুলুসুরু
 ফ্রেন্ট.নোক্যেন্ট.বৈন্দব.ক্ষেত্র
 ফ্রেন্ট.রূদ্ধি.রূদ্ধি.রূদ্ধি.চুক্ষ.ক্ষেত্র.মুশ.
 মুশ.চুরি.য়েন্ট.জুলু
 ফ্রেন্ট.নোক্যেন্ট.ক্ষেত্র.ক্ষেত্র.ক্ষেত্র.
 ক্ষেত্র.জুলু
 জুলু.জুলু.ক্ষেত্র.জুলু.ক্ষেত্র.জুলু
 ক্ষেত্র.জুলু.চুরি.য়েন্ট.ক্ষেত্র.ক্ষেত্র.
 ক্ষেত্র.জুলু.চুরি.য়েন্ট.ক্ষেত্র.ক্ষেত্র.
ঠক্কাঙ্গ

Figure 2a: Lord's Prayer in Kikongo written in the Mandombe script

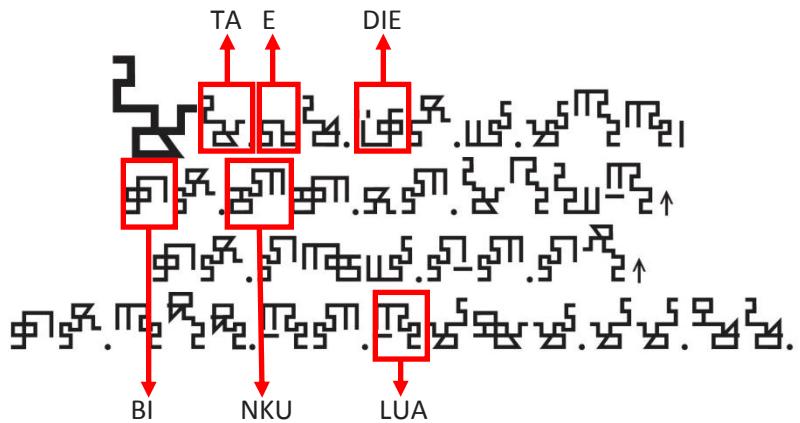


Figure 2b: Identification of characters in the Lord's Prayer in Kikongo written in the Mandombe script

A TETE NASU

A TETE NASU NE O MON !
DINA LONGO DI DUBABE ;
JANEA LONGO DI YE ;
JE MEA LONGO DI BOLABE O WASE KANA O MON ;
BOLA BISO DA WENGE KANA MINA MESE ;
NA LAKISE BISO MAWUSE MASU , KANA BISO PE DI
LAKISENO MAWUSE MA BA BA MAWUSANE BISO ;
O SI DIELE BISO O MAKEKISAN ;
NDE SUNGA BISO O BOBE .

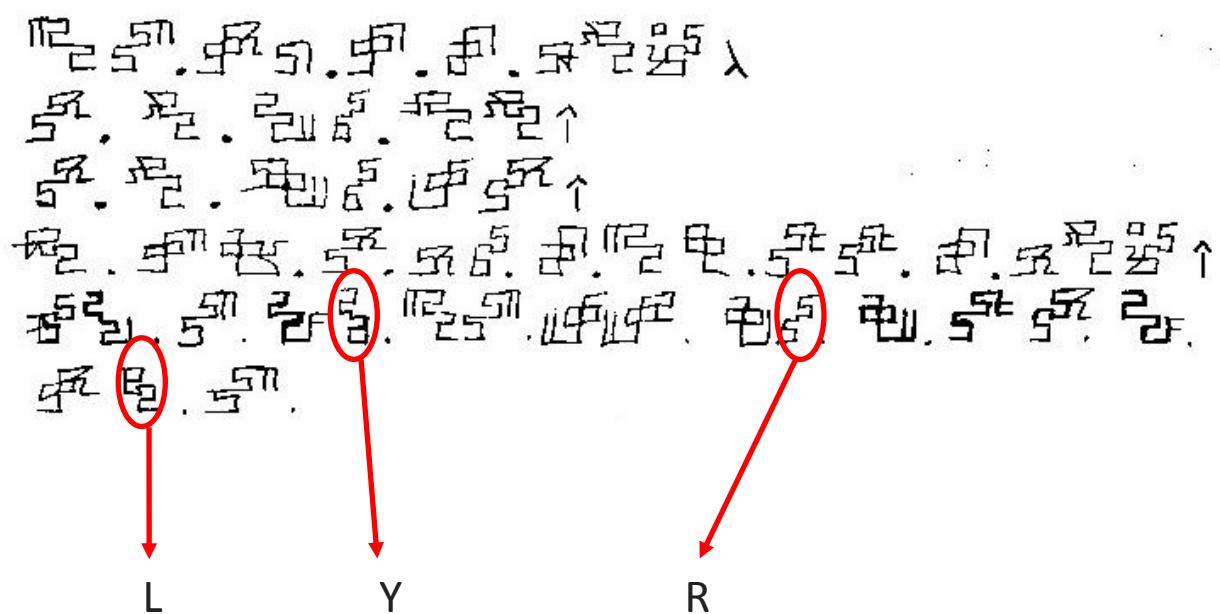
五. 雜記

Figure 3: Lord's Prayer in Duala written in the Mandombe script

MEI NU TEY SUNU DUNDU GIR GU NEKA TE BAL
 NU SUNU TON ;
 NAKA LE NU BALE NA NU TON ;
 TE BUL NU BAYI NU TABI CHI BOLIS, WANDE
 MUSAL NU CHI LU BON .

ମନ୍ଦମୋବେ ଶର୍ମିତା

ମନ୍ଦମୋବେ ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା
 ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା
 ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା
 ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା
 ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା
 ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା ଶର୍ମିତା



↓ ↓ ↓
 L Y R

Figure 4: Lord's Prayer in Wolof written in the Mandombe script with some bare consonants shown



Figure 5: Book page in Kikongo written in the Mandombe script

ଫୁଲକାଳୀ



ତୁମ୍ଭେ ତୁମ୍ଭେ ମୁଦ୍ରଣ ଅନ୍ତର୍ଗତ
 ହାତକର୍ମ ହାତକର୍ମ କୌପିଦିତ ହାତକର୍ମ
 ହାତକର୍ମ । ହାତକର୍ମକୁ ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ
 କୌପିଦିତ ହାତକର୍ମ ହାତକର୍ମ । ହାତକର୍ମ କୌପିଦିତ
 ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ । ହାତକର୍ମ ହାତକର୍ମ
 ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ । ହାତକର୍ମ ହାତକର୍ମ
 ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ । ହାତକର୍ମ ହାତକର୍ମ
 ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ ।
 [ଜ୍ଞାନଶକ୍ତିର ପାତା] । ହାତକର୍ମ ହାତକର୍ମ । ହାତକର୍ମ ହାତକର୍ମ
 ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ ହାତକର୍ମ ।

Figure 6: Book page written in the Mandombe script

ମାନ୍ଦମୋବେ ମାନ୍ଦମୋବେ ମାନ୍ଦମୋବେ
 ମାନ୍ଦମୋବେ ମାନ୍ଦମୋବେ ମାନ୍ଦମୋବେ

Figure 7: A specimen of the Mandombe handwriting

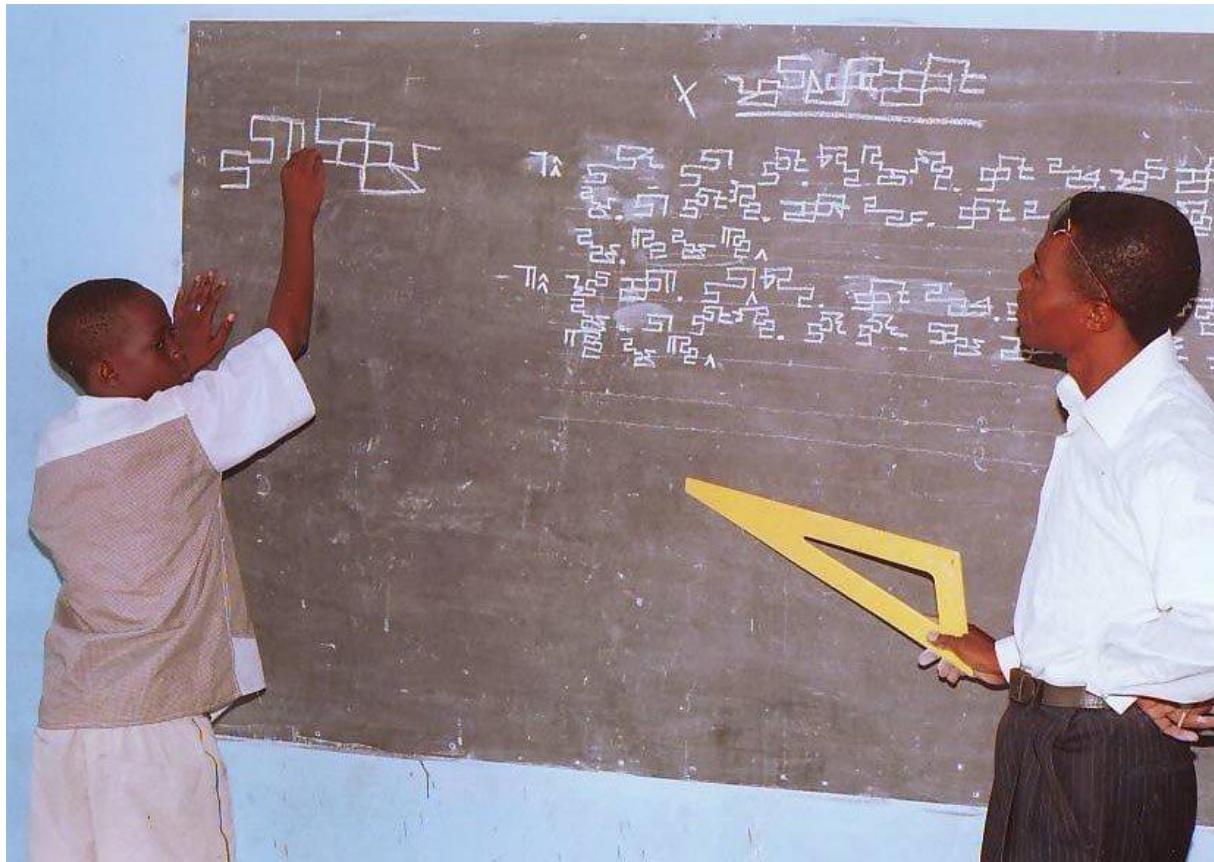


Figure 8: Mandombe class (source: Script Mandombe at Facebook, 30 December 2013)



Figure 9: Mandombe used in a public inscription (from Pasch 2010).