

**A PHONOLOGICAL SKETCH OF THE
MMEN LANGUAGE**

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Abbreviations

N	Nasal consonant
N ¹	The first noun in an associative noun phrase
N ²	The second noun in an associative noun phrase
C	Consonant
V	Vowel
G	Glide
[...]	Phonetic representation
/.../	Phonemic representation

Tone

L	˘	Low	LM	˘	Low-mid rising
LF	˘˘	Low falling	ML	˘	Mid-low falling
M	ˉ	Mid	MH	˘	Mid-high rising
H	˘	High	HM	˘	High-mid falling
HL	˘ˆ	High-low falling	MHM	˘	Rising-falling

1 INTRODUCTION

This paper provides a phonology sketch for the Mmen language, spoken by the people in the village of Bafumen, which is situated in the Menchum Division, Wum Subdivision, along Fundong Road northwest of Fundong in the North West Region in the Republic of Cameroon. The number of Mmen speakers is estimated at 35 000 (SIL 2001). Since the population growth is rather high in Cameroon one must expect that more than 50,000 people now speak Mmen locally and elsewhere¹. Alternative names of the village are Bafmen, Bafmeng, Bafoumeng, Bafumen and Mme.

The Ethnologue (Lewis 2009) gives the following classification for Mmen: Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Wide Grassfields, Narrow Grassfields, Ring, Center.

Bafumen is surrounded by areas with related languages: Kom to the south, Kuk to the west, Bum to the east and Kung to the north, all of them belonging to the Center Ring languages. Concerning common understanding between Mmen and Kom speakers, Mmen speakers are reported to understand Kom better than vice versa. This might be due to the fact that Kom is a much bigger language than Mmen. The same is true about the relation between Mmen and Kuk, where Kuk speakers understand Mmen better than vice versa, Kuk being the smaller language. According to Troyer, Huey and Mbongue (1995) in their rapid appraisal survey Mmen is also spoken at Fungom, Kam-Nyos and Cha'-Yemgeh but with slight differences. Some informants in Bafumen said in 2010 that people in Fungom and Cha' speak the same language as they do, but that people in Nyos speak a mixture between Mmen and other languages.

¹ Estimate given by Father Fru Isaiah in 2009

Mmen is used in Bafumen at home, at work in the fields and in the main and local markets. Pidgin is, however, used as a language of wider communication with people of other mother tongues, for example in the clinic.

In schools English is used while in the churches English and Pidgin are spoken, since the priests and pastors are non-Mmen speakers. Sometimes there is interpretation into Mmen. In the Catholic Church some songs are sung in Mmen and prayers are read from a prayer book in Mmen, written by Fathers Bonaventure and Cosmas. Even in the Baptist Church some songs are sung in Mmen.

The only published linguistic research on Mmen consulted during this analysis is the above mentioned rapid appraisal survey and the paper of Roland Kiessling, Hamburg University. I have also consulted his unpublished research on the Mmen language². Other publications consulted are listed in the References.

The Fon of Bafumen, Fon Aneng Francis, has all the time been very supportive and welcomed the project with open arms. Several visits to the palace have been payed during the period.

Among the many other people who have made this study possible there are those who deserve a special mention:

Mr Muh Gabriel, chairman of the Language Committee

Mrs Mua Christina, vice chairman of the Language Committee

Father Isaiah Fru, of the Catholic Church, chairman of the Inter Church Committee

Pastor Njung Promise, of the Baptist Church, vice chairman of the Inter Church Committee

Mr Benjamin Mua Ngong, student of linguistics

² Shared with me by the author in 2009

For the actual work with the phonological analysis Dr Robert Hedinger has been extremely helpful to me. His patient support and input has made this phonological study possible.

Without the thorough mobilisation work carried out in Bafumen by Mr Chia Zebedee prior to and during my stay in the village, I would not have been able to achieve much.

2 METHOD

This paper is based on extensive interviews with local Mmen speakers in Bafumen during 2009-2010. The word list comprising approximately 1700 Mmen words collected during the work period forms the basis for the analysis. All words have been transcribed using the International Phonetic Alphabet (IPA) and phonetic pitch has been marked.

During a period I regularly met groups of informants of different ages and from both sexes who discussed and chose the correct Mmen word corresponding to the English word in the list. In this way many people were involved.

When all words were collected the list was revised by groups of elderly people appointed by the Fon of Bafumen.

3 CONSONANTS

3.1 Consonant phoneme inventory

Table 1 Consonant phoneme chart

	Labial	Alveolar	Postalveolar	Velar	Labio- velar	Glottal
Plosives vl	p	t		k ³	kp	
Prenasalised Plosives vd	mb	nd		ŋg		
Affricates vl	pf	ts	tʃ			
Prenasalised Affricates vd	mbv	ndz	ndʒ			
Fricatives vl	f	s	ʃ			
Fricatives vd	v	z	ʒ	ɣ		
Nasals	m	n	ɲ	ŋ		
Liquid		l				
Approximants			j		w	

3.1.1 Plosives

There are seven plosives in Mmen: /p/, /t/, /k/, /kp/, /mb/, /nd/ and /ŋg/. The three voiced ones are prenasalized. The sections below treat the various cases.

3.1.1.1 Bilabial plosives

The bilabial voiceless plosive /p/ occurs root initially and root finally.

³ /ʔ/ is in complementary distribution with /k/. See 3.1.1.3 and 3.1.1.5.

Root initially:

/pìŋ/	<i>year</i>
/pās/	<i>calabash</i>
/pê/	<i>two</i>
/āpí ⁴ /	<i>thigh</i>
/āpôŋ/	<i>jaw</i>
/ēpó/	<i>tired</i>
/ēpāŋ/	<i>red</i>

Root finally:

/sēfāptè ⁵ /	<i>to diminish</i>
/sēpōpsē/	<i>to destroy</i>
/tēptē/	<i>advice</i>

When /p/ occurs before the voiced /l/, it is pronounced voiced: [b]. The only voiced consonant that follows a /p/ is /l/.

There are two such examples:

/sēŋgāplè/	→ [sēŋgāblè]	<i>to twist</i>
/āfāplè/	→ [āfāblè]	<i>full</i>

If these examples are representative for the language the following rule may be formulated (See also 3.1.3.1):

C [voiceless] → [voiced] / _l

The bilabial voiced plosive /mb/ is very rare in the material and occurs only root initially, except for once, in the word for seven, which is a very old borrowing, where it is found root medially. There are no examples of /b/ not being prenasalised.

⁴ An initial vowel in a noun is a noun class prefix.

⁵ /se/ is the infinitive marker.

Root initially:

- /mbyāʔā/ *shoulder*
 /mbēlé/ *caterpillar*
 /mbóηné/ *bell* (onomatopoetic)

Root medially:

- /sēmbê/ *seven*

3.1.1.2 Alveolar plosives

The alveolar plosive /t/ occurs only root initially. Below are some examples:

- /tē/ *healthy*
 /tā/ *three*
 /tōfǐ/ *wise*
 /tūfǐ/ *six*
 /tōtō/ *crevice*
 /sētām/ *to set a trap*

The alveolar plosive/nd/ occurs only root initially:

- /ndāŋ/ *today*
 /ndōm/ *dry season*
 /ndēmbvīŋ/ *camp*

The following minimal pair illustrates that the alveolar plosives /t/ and /nd/ are different phonemes.

- | | |
|-------------------|---------------------|
| /t/ | /nd/ |
| /tāŋ/ <i>five</i> | /ndāŋ/ <i>today</i> |

3.1.1.3 Velar plosives

There are two velar plosives in Mmen, /k/⁶ and the prenasalized one /ŋg/.

⁶ /ʔ/ is in complementary distribution with /k/ and appears root medially and root finally. See 3.1.1.5

/k/ occurs root initially:

/kām/	<i>one thousand</i>
/ēkì/	<i>colour</i>
/kēvà/	<i>nothing</i>
/ākè/	<i>basket</i>
/kō/	<i>only</i>
/kúnó/	<i>club</i>
/kōf/	<i>bald</i>

The velar plosive /ŋg/ occurs root initially:

/sēŋgētē/	<i>to fold</i>
/sēŋgəs/	<i>to limp</i>
/ēŋgè/	<i>giraffe</i>
/ēŋgé/	<i>wrinkle</i>
/ŋgāŋnēsí/	<i>eyebrow</i>
/ēŋgòm/	<i>banana</i>

3.1.1.4 Labiovelar plosive

The labiovelar plosive /kp/ occurs only root initially in the data. Below are some examples:

/ēkpīŋ/	<i>tail</i>
/kpēsē/	<i>again</i>
/kpēŋ/	<i>enough</i>
/fēkpās/	<i>pimple</i>
/ēkpāŋ/	<i>frontier</i>
/kpū/	<i>dead</i>
/ēkpùl/	<i>string</i>

These findings partly disagree with Kiessling (unpublished:4) who claims that “pf, kp and mbv occur only before front and central vowels (ɪ, ə, i, e)”. My examples also include /kp/ before the back vowel /u/.

The optional rule below expresses what often takes place when /kp/ is pronounced.

Optional rule: /kp/ → [kw] / _ i, ə a, u, ɔ/

Examples:

/ēkpāŋ/ → [ēkwāŋ] *frontier*

/kpū/ → [kwū] *dead*

This agrees with Watters (2003:235), who points out that the double plosive /kp/ becomes [k^w] in some Grassfield Bantu languages.

The following examples show contrast between /k/, /ŋg/ and /kp/ before /u, ə, a, ε/.

/k/	/ŋg/	/kp/
/ākū/ <i>forest</i>	/āŋgús/ <i>bend</i>	/ēkpú/ <i>death</i>
/kə/ <i>only</i>	/ēŋgómǎ/ <i>awe</i>	/ēkpǎmǎ/ <i>bed bug</i>
/ēfēkāŋ/ <i>gravel</i>	/ŋgāŋnēsí/ <i>eyebrow</i>	/ēkpāŋ/ <i>boundary</i>
/sēkèsè/ <i>to thresh</i>	/sēŋgētē/ <i>to fold</i>	/kpēŋsē/ <i>again</i>

3.1.1.5 Glottal plosive

The glottal plosive [ʔ] occurs root finally and also rarely root medially. Word initially, after pause, there is an optional non-phonemic glottal stop. [ʔ] is in complementary distribution with [k].

Below are some examples of /ʔ/ occurring root finally:

/ātʃáʔ/ *mud*

/ēsāʔ/ *needle*

/sēpǎʔ/ *to bake*

⁷ I write the glottal in phonemic brackets with the phonetic glottal sign.

/ēmúʔ/ *yolk*

/tāʔ/ *village*

Below are some examples of /ʔ/ occurring root finally before the verbal extensions /se/, /te/ and /le/.

/sēkóʔsē/ *to respect*

/sēmàʔtè/ *to offer*

/sēpāʔlé/ *to sell*

Below are some examples of /ʔ/ occurring root medially:

/sēmàʔà/ *to throw*

/sōyāʔá/ *to be big*

/sēpáʔā/ *to perch*

/āmbùʔè/ *vulture*

/āmwáʔá/ *beehive*

The example below shows that [ʔ] is optional word initially.

Rule:

/ēpá/ → [ʔēpá] ~ [ēpá] *grassland, field*

3.1.2 Affricates

There are six affricates in Mmen, three voiceless ones,

/pf/, /ts/, /tʃ/

and three voiced ones,

/mbv/, /ndz/ and /ndʒ/.

As with the plosives, the voiced affricates are prenasalized. There are three sets, two labial ones, /pf/ and /mbv/, two alveolar ones, /ts/ and /ndz/ and two post-alveolar ones, /tʃ/ and /ndʒ/. The sections below treat the various cases.

3.1.2.1 Labial affricates

The labial voiceless affricate /pf/ only occurs root initially. /pf/ only occurs before the non-back vowels /i/, /e/ and /ə/.

Below are some examples:

/əpfɪŋ/ *mountain*

/əpfɪŋ/ *corpse*

/pfɛitʃó/ *lip*

/pfəŋāmō/ *thirsty*

/āpfɛ/ *hut*

/əfəpfəm/ *python*

/p/ and /pf/ are in contrast which is illustrated by the following minimal pair:

/əpáf/ *wicked*

/əpfáf/ *request (n)*

The labial voiced affricate /mbv/ only occurs root initially in two words – in the word for hen and in the word for bush (countryside). It only occurs before the high front vowel /i/ and the central vowel /ə⁸. There are compounds based on these words as shown below:

/mbvə/ *fowl*

/əmbvɪŋ/

bush country

/əŋnəmbvə/ *hen (female fowl)*

/ndəmbvɪŋ/

camp (house in the bush)

/əndūməmbvə/ *rooster (male fowl)*

/əwəmbvɪŋ/

bush dweller

/əvāmbvə/ *chick (child of fowl)*

/əfətāmūʔfəmbvɪŋfə/ *wild cat*

The examples below show that both /mb/ and /mbv/ occur before the vowels /i/ and /ə/, so they are not in complementary distribution:

/əmbi/ *world*

⁸ Kiessling has found “mbv... before front and central vowels (i, ə, i, e)” (Kiessling II:4)

/ɛ̃mbvɨ̃j/	<i>bush country</i>
/mbóŋné/	<i>bell</i>
/mbvə̃/	<i>fowl</i>

3.1.2.2 Alveolar affricates

The alveolar voiceless affricate /ts/ occurs only root initially.

Examples:

/tsāmtāndé/	domestic servant
/tsōm/	<i>big drum</i>
/tsɔ̃fókā/	<i>before</i>
/ātsō/	<i>pestle</i>
/ɛ̃tsɨ̃tɛ̃/	<i>marriage</i>

The following minimal pairs illustrate the contrast between /t/ and /ts/:

/sētē/	<i>to sting</i>
/sētsè/	<i>to blow</i> (of wind)
/sētām̄tè/	<i>to prevent</i>
/sētsām̄tè/	<i>to help</i>

For contrast between /ts/ and /tʃ/ see section 3.1.2.3.

The alveolar voiced affricate /ndz/ occurs only root initially. Below are some examples:

/ɛ̃sēndzés/	<i>clothes</i>
/ēndzós/	<i>knee</i>
/āndzèkò/	<i>hyena</i>
/ɛ̃ndzè/	<i>sheep</i>

No minimal pairs are found in the data for /ndz/ and /nd/, but they both can appear before front and central vowels:

/ɛ̃ndzè/	<i>sheep</i>
/ndɛ̃mbvɨ̃j/	<i>camp</i>
/ndāj/	<i>today</i>
/ēndzós/	<i>knee</i>

3.1.2.3 Postalveolar affricates

The postalveolar voiceless affricate /tʃ/ only occurs root initially.

Below are some examples:

/tʃāʔsè/ *amusing*

/tʃūŋ/ *kind*

/ɛtʃáʔ/ *clay*

/fètʃǝ/ *bow (noun)*⁹

/ātʃi/ *wound (noun)*

The minimal pairs below show that /ts/ and /tʃ/ are different phonemes:

/sétsǝ/ *many*

/sētʃǝ/ *slow*

/sētsǝʔ/ *to stab*

/sētʃǝʔ/ *to heal*

/sētsitè/ *to congratulate*

/sētʃitè/ *to choose*

The postalveolar voiced affricate /ndʒ/ only occurs root initially.

Below are some examples:

/sēndʒi/ *to enter*

/sēndʒisè/ *to lose*

/ɛndʒóŋ/ *moon; month*

/ɛndʒàŋ/ *song; music*

/āndʒinē/ *bladder*

Both /ndz/ and /ndʒ/ occur before front and central vowels. However, /ndʒ/ is also found before back vowels. The following pairs can be used to show contrast:

/ndz/

/ndʒ/

/ɛndzání/ *balafone*

/ɛndʒàŋ/ *song*

/ɛndzè/ *sheep*

/ɛndʒó/ *penalty, fine*

/ēndzəs/ *knee*

/āndʒinē/ *bladder*

⁹ /afè/ is a noun prefix. Sometimes the /a/ is dropped.

Summary of the affricates:

Labial affricates	Alveolar affricates	Postalveolar affricates
	Voiceless	
/pf/	/ts/	/tʃ/
/āpfā/ <i>hut</i>	/ētsûs/ <i>penalty</i>	/tʃũŋ/ <i>kind, good</i>
/ēpfīŋ/ <i>mountain</i>	/sētsðs/ <i>hit</i>	/sētʃðŋ/ <i>steal</i>
	Voiced	
/mbv/	/ndz/	/ndʒ/
/mbvā/ <i>fowl</i>	/ēndzán/ <i>balafone</i>	/ēndʒàn/ <i>song, music</i>
/ēmbvīŋ/ <i>bush country</i>	/ēndzè/ <i>sheep</i>	/ēndʒó/ <i>penalty (money)</i>
	/ēndzás/ <i>knee</i>	/sēndʒì/ <i>to take</i>

3.1.3 Fricatives

There are three sets of fricatives and a single one: one labial set, the voiceless /f/ and the voiced /v/, one alveolar set, the voiceless /s/ and the voiced /z/, one postalveolar set, the voiceless /ʃ/ and the voiced /ʒ/ and one voiced velar fricative, /ɣ/.

3.1.3.1 Labiodental fricatives

The voiceless labial fricative /f/ occurs root initially, root medially and root finally.

Below are some examples of /f/ occurring root initially:

/fē/	<i>there</i>	/fāŋ/	<i>here</i>
/fāf/	<i>blind</i>	/āfóf/	<i>wind</i>

There is only one example of /f/ occurring root medially:

/tūfó/	<i>six</i>
--------	------------

Below are some examples of /f/ occurring root finally:

/ēzáf/	<i>illness</i>
--------	----------------

/ɛ̃kāf/ *armpit*

/sɛ̃lāf/ *to dress*

In the plural for giant some people insert an /l/ which causes the /f/ to become voiced
(See also section 3.1.1.1):

/wūtjāfɛ̃/ *giant*

/ɣ̃ɛ̃tjáfɛ̃/ → [ɣ̃ɛ̃tjáfɛ̃] *giants*

/ɣ̃ɛ̃tjáfɛ̃lɛ̃/ → [ɣ̃ɛ̃tʰávɛ̃lɛ̃] *giants*

The voiced labial fricative /v/ occurs root initially. It only occurs before the front and central vowels /i/, /e/, /ɛ/, /ə/ and /a/.

Example:

/vā/ *never*

/vāɲpó/ *baby*

/və̃ndīnāndò/ *rough*

3.1.3.2 Alveolar fricatives

The alveolar voiceless fricative /s/ occurs root initially and root finally.

Below are examples of /s/ occurring root initially:

/sóɲ/ *friend*

/sɛ̃pì/ *to say*

Below are some examples of /s/ occurring root finally:

/ātàs/ *spoon*

/ə̃ɣàs/ *we*

/sɛ̃tsɛ̃s/ *be seated*

Before /i/ there is one case of free variation between /s/ and /ʃ/:

/ɛ̃sí/ → [ɛ̃sí] ~ [ɛ̃ʃí] *eyes*

Optional rule: $s \rightarrow \text{ʃ} / _i$

The alveolar voiced fricative /z/ occurs root initially. Below are some examples:

/zɪŋ/ *when*

/zɑŋ/ *how*

/ēzáf/ *illness*

/ēzós/ *name*

Before /ə/ there is one case of free variation between /z/ and /ʒ/:

/ɪzəvāŋ/ → [ɪzəvāŋ] ~ [ɪʒəvāŋ] *naming ceremony*

Optional rule: /z/ → [ʒ] / _ə

3.1.3.3 Postalveolar fricatives

The post-alveolar voiceless fricative /ʃ/ occurs root initially. Below are some examples:

/ʃɪŋəməðʔ/ *once*

/ʃɪŋəfɪtē/ *sometimes*

/ēʃí/ *game*

/əʃəʔ/ *agama lizard*

These pairs show contrast between /s/ and /ʃ/:

/s/ /ʃ/

/ēsí/ *eye* /ēʃí/ *game*

/ēsàs/ *low* /ēʃāʔ/ *goiter*

The postalveolar voiced fricative /ʒ/ occurs root initially. Below are some examples:

/sēʒō/ *to sow*

/sēʒī/ *to inherit*

/sēʒōŋ/ *to buy*

/ēʒósŋ/ *market*

The following pairs indicate that /z/ and /ʒ/ are two different phonemes.

/z/		/ʒ/	
/sēzàtè/	<i>to rest</i>	/sēʒàtè/	<i>to begin</i>
/sēzàʔ/	<i>to quarrel</i>	/sēʒóʔ/	<i>to buy</i>
/sēzèilè/	<i>to smear</i>	/sēʒī/	<i>to eat</i>

3.1.3.4 Velar fricative

The only velar fricative is the voiced /ɣ/¹⁰, which occurs root initially:

/ɣēm/	<i>barren (of land)</i>
/ɣā/	<i>people</i>
/ɣáʔ/	<i>where</i>
/ēɣól/	<i>rain</i>
/āɣē/	<i>what</i>
/ɣāsā/	<i>with</i>

3.1.4 Nasal consonants

There are four nasal consonants in Mmen: the bilabial /m/, the alveolar /n/, the palatal /ɲ/ and the velar /ŋ/. They can occur root initially and root finally, except for /n/ which only occurs root initially:

/m/

Examples of /m/ occurring root initially:

/māʔ/	<i>one</i>
/sēmì/	<i>to swallow</i>
/sēmàʔtè/	<i>to offer</i>

¹⁰ See also 3.2.1.2

Examples of /m/ occurring root finally:

/āndām/ *iron*

/ɲām/ *meat*

/sēkām/ *to squeeze*

/n/

Examples of /n/ occurring root initially:

/nēŋ/ *alone*

/āfōnóŋ/ *bird*

/ānáj/ *rock*

/ɲ/

Examples of occurring root initially:

/ɲām/ *meat; animal*

/ēfēɲí/ *knife*

/āɲóŋɲóŋ/ *mosquito*

Examples of /ɲ/ root finally:

/fōɲ/ *chief*

/ēvāɲ/ *he*

/ēváj/ *child*

There is free variation between /ɲ/ and [j] in the word for child.

/ēváj/ → /ēváj/ ~ /ēváj/ *child*

/ŋ/

Examples of /ŋ/ occurring root initially:

/ŋāʔsé/ *open*

/ŋwāʔlēmāʔá/ *tax, tribute*

Below are some examples of /ŋ/ occurring root finally:

/ēfĩŋ/	<i>bruise</i>
/ēlĩŋ/	<i>dirt, soil</i>
/ʒsētàŋ/	<i>spider's web</i>
/ēwìŋ/	<i>grasshopper</i>
/ālāŋ/	<i>command</i>

The following pairs indicate that /n/ and /ɲ/ are two different phonemes.

/n/		/ɲ/	
/nēŋ/	<i>alone</i>	/ɲóŋ/	<i>run!</i>
/ānōŋ/	<i>crowd</i>	/āɲóŋɲóŋ/	<i>mosquito</i>

3.1.4.1 Syllabic nasals

Syllabic nasals occur word initially¹¹. The only clear syllabic nasal is /m/. In the nouns below [ṁ] is a noun class prefix.

Examples of syllabic /ṁ/:

[ṁŋgúl]	<i>oil</i>
[ṁjǵ]	<i>milk</i>
[ṁtsəl]	<i>pus</i>
[ṁmòm]	<i>taste</i>
[ṁkâɲ]	<i>oath</i>

3.1.5 Liquid

The alveolar liquid /l/ occurs:

Root initially:

/lājntè/	<i>late</i>
/sēlésē/	<i>to deceive</i>

¹¹ In the word /sēmʒ/ *to drink* the pronunciation is frequently heard as [sēm].

/sēlāf/ *to dress*
 /ēlín/ *dirt, soil*

Root finally:

/āndəl/ *pool*
 /ēyól/ *rain*
 /sēmòl/ *to swell*

3.1.6 Approximants

There are two approximants in Mmen: the labiovelar /w/ and the palatal /j/.

3.1.6.1 Palatal approximant

/j/ only occurs in a few words, always root initially and only before the front vowel /i/.

Below are the examples:

/ējisəʔə/ *tomorrow*
 /ējín/ ~ /əjín/ *breast*
 /jíə/ *some (person)*
 /m̄jín/ *milk*

The following minimal pair shows that /j/ and /ʒ/ are different phonemes:

/ējín/ *breast* /əʒín/ *the sound of something*

The following near minimal pair shows that /j/ and /z/ are different phonemes:

/ējín/ *breast* /zíjín/ *when*

3.1.6.2 Labiovelar approximant

/w/ occurs only root initially:

/sēwàmnè/ *to speak*
 /sēwāŋ/ *to scatter*
 /əwà/ *cup*

In C_V position /w/ and /ɣ/ are often interchangeable (3.2.1.2). When used as C¹ in CVC or CV syllables they are distinct phonemes. No minimal pair is found in my material, but in the words below the sounds are not interchangeable.

/w/		/ɣ/	
/ēwás/	<i>chaff</i>	/ēɣāsɣàsè/	<i>ringworm</i>
/ēwéɲsē/	<i>patient</i>	/āɣē/	<i>what?</i>
/ēwólé/	<i>drizzle</i>	/āɣóf/	<i>bone</i>

3.2 Consonant modifications

3.2.1 Labiovelar glide

A labiovelar glide after a root initial consonant features in Mmen. Table 2 shows after what consonants it appears. This glide is sometimes realized as C_ɣV, C_ɥV or exceptionally as C_jV, which is described below.

Table 2 Glides interpreted as basically labiovelar

	Labials (C)				Alveolars (C)			Postalveolars (C)				Velars (C)				Lab vel
	p	mb	f	m	t	nd	l	tʃ	ndʒ	ʃ	ʒ	k	ŋg	ŋ	ɣ	
CwV	x	x	x	x	x	x	x	--	--	--	--	x	x	x	x	x
C _ɣ V	x	x	x	x	--	--	--	--	--	--	--	--	--	--	--	--
C _ɥ V	--	--	--	--	x	x	x	x	x	x	x	x	--	--	--	--
C _j V/ C _j VC	x	--	x	--	(x)	--	--	--	(x)	(x)	--	(x)	(x)	--	--	--

The occurrences of C^jV(C) with labials in Table 2 are realizations of the /w/- glide which are treated in 3.2.1.3. The occurrences within brackets are /j/-glides and treated in 3.2.2.

CyV only occurs with labials. This confirms Kiessling's (2010:8) observation that the velar [ɣ] frequently occurs with labials and the labial [w] frequently occurs with velars.

It also seems that the palatal glide [ɥ] occurs especially with coronals. The only exception is the velar /k/ which, on the other hand, was heard from only one informant, but very clearly: [sɛkɥì] walk

Table 3 demonstrates before what vowels the various glides appear and gives examples. The examples in the third column are explained in section 3.2.1.4.

Table 3 /w/-glide realisations before vowels

CwV(C)	CyV	CɥV(C) / CyV	CjV(C)	
[sɛkwínnê] <i>change</i>		[sɛkɥì] <i>to walk</i>		i
[sɛpwɛ̃ntɛ] <i>sleepy</i>	[sɛpɣɛ̃ntɛ] <i>sleepy</i>			e
[ãpwéɲ] <i>compound</i> [õpwénã] <i>you slept?</i> [ãfwéɲ] <i>leg</i>	[ãpɣéɲ] <i>compound</i> [õp ^v énã] <i>you slept?</i> [ãfɣéɲ] <i>leg</i>		[õpjénã?] <i>you slept?</i> [ãfjéɲ] <i>leg</i>	ɛ
		[sɛkỳ] <i>to walk</i>		y
	[wũpyámá] <i>hunter</i>			ə
/sɛkpwɜ̃/ → [sɛkpũɜ̃] <i>to grind</i>	[sɛpyɜ̃fã] <i>to wither</i>	/ɜ̃tʃwìɜ̃/ → [ɜ̃tʃỹɜ̃] <i>point</i>		ɜ
[ã ^ɔ gwã] <i>blight</i>	[pɣà] <i>father</i> [ãfɣá?] <i>thing</i>	/sɛfwĩɜ̃/ → [sɛfjỹɜ̃] <i>to throw</i>	[ãfjá] <i>thing</i>	a
				u
				o
[ɛlwôɲ] <i>commands</i> [ɛtwòs] <i>spoons</i> [sɛtwòɲ] <i>to draw</i>		[ɛlɥôɲ] <i>commands</i> [ɛtɥòs] <i>spoons</i>		ɔ

3.2.1.1 The /w/-glide realized as [w]

This occurs before front, back and central vowels:

/sēpwēɲ/ *to sleep* /āŋgwā/ *blight*
 /ēmŵeɲ/ *fetus* /ēlwōŋ/ *commands*

In some rare cases the glide is pronounced as a vowel:

/éndwō/ → [éndúò] *pregnant*
 /ētŵō/ → [ētúō] *alive*
 /sēkpŵè/ → [sēkpùè] *to grind*

This takes place before the central /ɜ/ or the back /ɔ/ and after the alveolar plosives /t/ and /nd/ and the labiovelar plosive /kp/.

Optional rule:

CwV → CuV /when C (= t, n, d, kp) and V (= ɜ, ɔ)

3.2.1.2 The /w/-glide realized as [ɣ]

After labial consonants the /w/-glide is realized as [ɣ] in 90% of the cases:

/sēpwēɲtê/ → [sēpɣēɲtê] ~ [sēpwēɲtê] *sleepy*
 /pwà/ → [pɣà] *father* /āfwáʔ/ → [āfɣáʔ] *duty*
 /sēfwàsè/ → [sēfɣàsè] *to intercede* /ēmŵá/ → [ēmɣá] *generous*

Optional rule:

/w/ → [ɣ] /C[labial] _

3.2.1.3 The /w/-glide realized as [j]

Sometimes the [w]-glide can be realized as [j]. It occurs for example in the morning greeting [ōpɣénā] (*Did you sleep?*), where young people pronounce it [ōpjénā] and older people say [ōpɣénā] or [ōpwénā].

Examples:

/ōpwénā/ → [ōpwénā] ~ [ōpɣénā] ~ [ōpjénā] *Did you sleep?*
 /āfwéɲ/ → [āfwéɲ] ~ [āfɣéɲ] ~ [āfjéɲ] *leg*
 /āfwá/ → [āfɣá] ~ [āfjá] *thing*

Optional rule:

/w/ → [j] / [labial] [voiceless] _ε,a

3.2.1.4 The /w/-glide realized as [ɥ]

Rarely the /w/-glide is also realized as [ɥ] after alveolars, postalveolars and velar [k]:

/ɛlwôŋ/ → [ɛlɥôŋ] *commands*

/ɛtwòs/ → [ɛtɥòs] ~ [ɛtwòs] *spoons*

/sɛkwì/ → [sɛkɥì] ~ [sɛkỳ] *to walk, to move, to travel*

Optional rule:

/w/ → [ɥ] /C[alveolar/velar] _

/wi/ → [ɥi] ~ [yi]

3.2.2 The /j/-glide

The /j/-glide, indicated within brackets in Table 2 in section 3.2.1, occurs before front and central vowels with labials, coronals and velars as illustrated in Table 4 and Table 5 below:

Table 4 Consonants with /j/-glide with examples

	Following sound	Example
/pj/	/ɜ/	/sɛpjɜ/ <i>to give birth</i>
/mj/	/ɜ/	/mjɜ/ <i>Swallow!</i>
/tj/	/a/	/ãtjáʔ/ <i>strength</i>
	/ə/	/ɛtjə/ <i>bottom</i>
/kj/	All front and central vowels except /ɜ/	/kjĩnté/ <i>dizzy</i>
		/kjā/ <i>four</i>
		/kjósé/ <i>cough</i>
/ŋgj/	/ɛ/	/ãŋgjɛŋ/ <i>owl</i>
/ndzj/	/a/	/ɛndzjà/ <i>intestine</i>
/ʃj/	/ə/	/ɛʃjə/ <i>grave</i>
	/ɜ/	/ɛʃjɜ/ <i>in front of</i>
	/a/	/ɛʃjã/ <i>forward</i>

/tʃj/	/a/	/ēʃtʃjâ/	<i>rust</i>
/lj/	/ə/	/ālʃjê/	<i>comb of rooster</i>
/ʒj/	/ə/	/ō zhjǝ/	<i>You eat (habitual aspect)</i>

In some rare cases the glide is pronounced as a vowel. This happens before the central vowels /ə/ and /ɜ/ and after the bilabial plosive /p/ and the lateral approximant /l/:

/sepjɜ/ → [sēpēɜ] *to give birth*

/epjɜ/ → [ēpīɜ] *born*

/apjɜ/ → [āpīɜ] *womb*

/aljɜ/ → [ālīɜ] *comb of rooster*

Optional rule:

CjV → CiV / when C (= p, l) and V(=ɜ)

Table 5 shows the statistics for Table 4.

Table 5: Consonants with /j/-glide with statistics

	i	e	ɛ	ə	ɜ	a
pj	---	---	---	---	3	---
mj	---	---	---	---	1	---
tj	---	---	---	3	---	4
kj	11	3	1	6	---	11
ŋgj	---	---	2	---	---	---
ndʒj	---	---	---	---	---	1
ʃj	---	---	---	5	1	1
lj	---	---	---	1	---	---
zhj	---	---	---	---	1	---
tʃj	---	---	---	---	---	1

3.2.2.1 Discussion on /kj/

As can be seen in Table 5 above /kj/ stands out with many more occurrences than the others. No minimal pairs demonstrating contrast between /k/ and /kj/ have been found.

However, if the glide is omitted the word is not understood or sounds unnatural in Mmen ears. This is the closest I can come to analogous pairs:

/kj/		/k/	
/ĕkjāʔ/	<i>face</i>	/ĕká/	<i>head pad</i>
/kjā/	<i>four</i>	/sĕkāʔ/	<i>to cut</i>
/sĕkjīŋ/	<i>to look for</i>	/ĕkì/	<i>colour</i>
/ĕkjə/	<i>voice</i>	/ākóm/	<i>crab</i>

In two cases /kj/ can also be pronounced /k/ without misunderstanding:

/sĕkjósĕ/ ~ /sĕkásĕ/ *to cough*

/ĕkjílĕ/ ~ /ĕkílĕ/ *flying ant*

3.2.3 Palatalisation

Phonetic palatalisation is rare in Mmen. It occurs in front of back high /u/ in the word for head [āt^hú], but in the 11 compounds based on that word there are only slight hints at palatalisation three times.

Rule: /ātú/ → [āt^hú]~[ātú]

3.2.4 Labialisation caused by environment

In the following cases labialisation is only visible and caused by the following rounded vowel. In these cases the labialisation is hardly heard and is not contrastive¹²:

/m̄gúl/	→	[m̄g ^w úl]	<i>oil</i>
/ĕŋgùʔ/	→	[ĕŋ ^w gùʔ]	<i>canoe, talking drum</i>
/ĕŷóf/	→	[ĕŷ ^w óf]	<i>bones</i>
/ĕŷō/	→	[ĕŷ ^w ō]	<i>you (sg)</i>

¹² For the last two examples compare with Kiessling's observation: "Frequent cases of free variation of γw and w , e.g. in the plural $\bar{e}\text{-}\gamma w\acute{o}f \sim \bar{e}w\acute{o}f$ of the singular $\bar{a}\text{-}\gamma\acute{f}$ 'bone', suggest that there is a process of eliminating γw and reanalysing w as the labialised counterpart of γ ". Further analysis of this in relation to noun classes is needed.

4 VOWELS

4.1 Vowel phoneme inventory

Mmen has nine vowels as shown in Table 6.

Table 6 : Vowel phoneme chart

	Front	Central	Back
High	i		u
Close Mid	e	ə	o
Open Mid	ɛ	ɜ	ɔ
Low		a	

4.1.1 Contrast in open syllables

All vowel phonemes contrast in open syllables as demonstrated in the words below:

/sǎkí/ *to have*

/sǎkē/ *to know*

/ākè/ *basket (big)*

/kǎ/ *only*

/tǎfǎ/ *wise* (No example available where /ɜ/ is preceded by /k/)

/ēká/ *head pad*

/ākú/ *forest*

/sēkō/ *to catch (an object in the air)*

/ēkó/ *clan*

4.1.2 Front vowels

There are three front vowels in Mmen:

/i/

/e/

/ɛ/

/ētjí/ *stone (small)*

/ēfé/ *vision*

/ēfē/ *cutlass*

/sǎkí/ *to have*

/sǎkē/ *to know*

/sēfē/ *to peel*

/sēpì/ *to say*

/sēfē/ *to see*

/sēpē/ *to build*

According to Kiessling (unpublished:2) “The vowel /e/ has the tendency of diphthongisation to /e^j/, e.g. in *ésê* [é^jsê] ‘page’”. In the following examples from my material we see free variation between [e] and [ej]:

/ētīpì/ → [ētīpì] ~ [ējtīpì] *side*
 /ālē/ → [ālē:] ~ [ālēj] *abcess*
 /itōŋifē/ → [itōŋifē] ~ [itōŋifēj] *umbilical hernia*
 /pfētʃó/ → [pfētʃú] ~ [pfējʃú] *lip*

Optional rule:

/e/ → [ej]

This does never happen in the infinitive marker /se/.

In many words there is free variation between [e] and [i] word initially. Since there is an overwhelming majority of /e/ word initially I consider the underlying form to be /e/.

/ētjè/ → [ētjè] ~ [itjè] *under*
 /ēyé/ → [ēyé] ~ [iyé] *word*

Optional rule:

/e/ → [i] / #__

4.1.3 Central vowels

There are three central vowels in Mmen:

/ə/	/ɜ/	/a/
/sēkāmñē/ <i>to rub</i>	/sēkǎmnē/ <i>to contradict</i>	/sēkámñē/ <i>to squeeze</i>
/ētám/ <i>curious</i>	/itám/ <i>liver, heart</i>	/ātám/ <i>trap</i>
/sezəs/ <i>dried up</i>	/sēzəs/ <i>to sweep</i>	/sēzàʔ/ <i>to chew</i>
/sēfō/ <i>to go out</i>	/sefɜ/ <i>to work</i>	/sēfāŋ/ <i>to remain</i>
/ēfēzè/ <i>God; god</i>	/ēzì/ <i>defeated</i>	/āzì/ <i>feast</i>

The allophone [i]

Words with [i] occur also in my transcription. There are no minimal pairs showing that [i] and [ə] are in contrast. According to one informant it is possible to use either of them in free variation. [i] is more distinctly heard after the homorganic /ɣ/:

[ēɣĩ] *same* [ɣítépè] *two hundred* [ēɣĩɣōŋá] *army*

Because of this, and since [ĩ] is very rare compared to [ə], I consider [ĩ] to be an allophone of /ə/.

Optional rule:

/ə/ → [ĩ]

4.1.4 Back vowels

/u/	/o/	/ɔ/
/ākū/ <i>forest</i>	/sēkō/ <i>to catch</i>	/ēkó/ <i>clan</i>
/sēzúnjté/ <i>to condole</i>	/sēzóʔ/ <i>be smoked</i>	/sēzòʔ/ <i>to quarrel</i>
/sēfū/ <i>to burn</i>	/sēfō/ <i>to give</i>	/ēfóm/ <i>brain</i>
/ēfū/ <i>medicine</i>	/ēfó/ <i>gift</i>	/fōŋ/ <i>chief</i>
/ɛfètàmūʔ/ <i>cat</i>	/ɛmō/ <i>water</i>	/mōʔɔ/ <i>other (person)</i>

The allophone [ʊ]

As shown above /u/, /o/ and /ɔ/ are different phonemes. There are also in my transcription several occurrences of the back [ʊ]. This sound is often very close to /o/. At the same time there is a fairly large number where [ʊ] stand out.

Table 7 Environments of [o] and [ʊ]

Preceding consonants in common			Following consonants in common
Labials	p, f, m		o ʊ
Alveolars	t, nd, ts, s, z, l	t, s, l	
Postalveolars	tʃ, ndʒ, ʃ, ʒ, ɲ		ʒ, ɲ
Velars	k, ŋg, ɣ		ŋ
Labiovelar	w		
Glottal			ʔ

Table 7 illustrates that both sounds occur in the same environments. Both are equally frequent in open and closed syllables. However, there are no minimal pairs to prove

contrast between [ʊ] and [o] and the pronunciation of these sounds alters from one speaker to another.

Because of this I consider [ʊ] to be an allophone of /o/.

Examples:

/sētōm/ → [sētōm] ~ [sētūm] *to send*

Optional rule:

/o/ → [ʊ]

4.2 Variation in vowel length

4.2.1 Long vowels

Vowel length is not contrastive in Mmen. Phonetically long vowels exist, but are rare in the data. They occur with all front vowels and with the back /ɔ/.

The long pronunciation in the cases below is the most natural, but it is not contrastive. Different people tend to disagree on the necessity. I have found no minimal pairs.

/ālê/ → [ālê:] *stopper, plug (for air); abcess*

/tē/ → [tē:] *strong, healthy*

/sēsōlê/ → [sēsōlê:] ~ [sēsōlê] *to weed*

/sēkî/ → [sēkî:] ~ [sēkî] *to hold, to get*

/īʃōlè/ → [īʃ^wōlè] ~ [īʃ^wɔ:lè] *diarrhea*

/ēpósè/ → [ēpósè:] ~ [ēpósè] *blessing*

/āndê/ → [āndê:] *who?*

/sīsô/ → [sīsô:] *to bubble up*

All of the lengthened vowels appear in open syllables, most of them word finally. In most cases the lengthened vowel bears a contour tone which may have influenced the vowel length.

Optional rule:

V → V ~ V[lengthened] / C_ .

4.2.2 Short vowels

The vowels /ə/ and /i/ are frequently shortened. Less frequently /u/ is shortened. Sometimes the vowels are even elided. This happens both in closed and in open syllables.

Both shortened vowels and vowels with normal length are heard in open and closed syllables. The tone melody does not change if the vowel is shortened. Different people tend to pronounce the vowels differently.

Examples:

/āpâl/	→ [āpâl̥] ~ [āp̥l̥]	<i>dust</i>
/sétsə/	→ [sétsə̃] ~ [séts̥] ~ [sétsə̃]	<i>many; abundant</i>
/sēkpùl/	→ [sekp̥ül̥] ~ [sekp̥l̥]	<i>to pour libation</i>
/sezə/	→ [sēzə̃] ~ [sēz̥]	<i>to strip off bark</i>
/ēfíl/	→ [ēf̥íl̥]	<i>stinger</i>

Table 8 Environments of short vowels

	Vowel length occurring before various consonants		Vowel length occurring after various consonants	
	Short vowel	Normal length	Short vowel	Normal length
Labial	x	x	x	x
Alveolar	x	x	x	x
Postalveolar	x	x	x	x
Velar	x	x	x	x
Labio-velar	x	x	--	x
Glottal	--	--	--	--
	Short vowel	Normal length		
Word initial	--	x		
Word final	x	x		

Short and normal length vowels occur in the same contexts. However, no minimal pairs are found to show contrast. As the examples show there is free variation between short vowels and normal length vowels in many words. No definite rule can be set for the shortening of vowels.

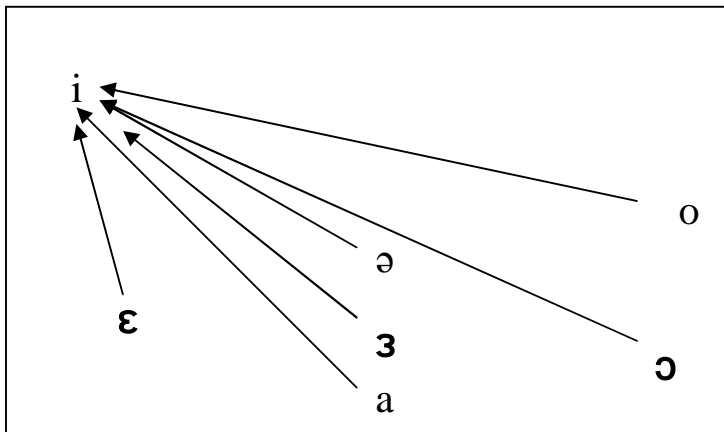
Optional rule:

/i,ə,u/ → [ĩ,ǎ,ũ][V¹ of the root]

4.2.3 Diphthongs

Diphthongs always start from a mid-high or low tongue position and end in the high front /i/.

Figure 1 Diphthongs



Examples of each diphthong:

/ēj/	/ēj/	[ēj]	<i>yes</i>
/āj/	/sēvājtām/	[sēvājtām]	<i>to throb with pain</i>
/āj/	/āsājlē/	[āsājlē]	<i>beach</i>
/òj/	/sēsùjlè/	[sēsùjlè]	<i>to insult</i>
/ój/	/ēpójlē/	[ēpójlē]	<i>weak</i>

Most diphthongs carry level tones. In the data there are only two examples with diphthongs carrying a contour tone:

/ǎj/	/ǎj/	[ǎj]	<i>no</i>
/āj/	/ēpājtē/	[ēpājtē]	(be) <i>torn</i>

5 SYLLABLE STRUCTURES

5.1 Basic syllable types

There are four basic types of syllables in Mmen.

CV	/fó/	→	[fó]	<i>give!</i>
	/sēsàmà/	→	[sē.sà.mà]	<i>to float</i>
CVC	/ētóf/	→	[ē.tóf]	<i>wisdom</i>
	/sēmòl/	→	[sē.mòl]	<i>to swell</i>
V	/ē/	→	[ē]	<i>he, she</i>
	/ātám/	→	[ā.tám]	<i>heart</i>
N ¹³	/m̀pò/	→	[m̀.̀pò]	<i>I am tired</i>
	/m̀wám̀n̄/	→	[m̀.̀wám̀.n̄]	<i>I speak</i>

Syllabic [m̀] can be a verb prefix marking the first person singular:

/m̀dámā páp/ → [m̀.̀dámā páp] *I stir the fufu corn*

/m̀kájā p̄l̄ōŋ/ → [m̀.̀kájā p̄l̄.̀ōŋ] *I fry groundnuts*

Syllabic [m̀] is also a plural noun class marker:

/ēndwô/ *abdomen* [m̀.ndê] *abdomens*

/fētóm/ *calabash* [m̀.̀tóm] *calabashes*

[m̀.ká] *traditional beer*

[m̀.j́j́] *milk*

It may be noticed that the last two examples are uncountables.

¹³ [m̀] is the only syllabic nasal but in the word for axe the noun class marker [ɜ] has been dropped in the pronunciation: /ɜ̀ndzám/ → [n̄dzám]. This has produced a syllabic [n̄]. The same process has taken place in the following cases: /ɜ̀ndzán/ → [n̄dzán] balafon and in /ɜ̀ŋgán/ → [ŋgán] no, which results in a syllabic [ŋ] and a syllabic [ŋ] respectively. The omission of noun class markers is common. This area needs more research in relation to the noun class system.

5.2 Derived syllable types

These basic syllable types, with the exception of N can be modified by glides to give the following derived syllable structures:

VG	/ēj/	→ [ēj]	<i>yes</i>
	/ējtīpì/	→ [ēj.tī.pì]	<i>side</i>
CGV	/āŋgwā/	→ [ā.ŋgwā]	<i>blight</i>
	/pwà/	→ [pɣà]	<i>father</i>
	/sēkwì/	→ [sē.kwì]	<i>to walk</i>
	/ējǎ/	→ [ē.jǎ]	<i>grave</i>
CVG	/āsǎjlē/	→ [ā.sǎj.lē]	<i>beach</i>
	/ēsǎjlè/	→ [ē.sǎj.lè]	<i>insult</i>
CGVC	/sēpwēɲ/	→ [sē.pwēɲ]	<i>to sleep</i>
	/āfwáʔ/	→ [ā.fɣáʔ]	<i>duty</i>
	/sētǎf/	→ [sē.tǎf]	<i>to belch</i>

5.3 Verb roots and stems

Most verb roots in Mmen are monosyllabic and can be CV, CVC, CGV or CGVC:

CV	/sēʃì/	→ [sē.ʃì]	<i>to play (like a child)</i>
	/sēfō/	→ [sē.fō]	<i>to give</i>
CVC	/sētàm/	→ [sē.tàm]	<i>to forbid</i>
	/sēmòm/	→ [sē.mòm]	<i>to taste</i>
CGV	/sēpwā/	→ [sē.pɣā]	<i>to bark</i>
	/sēpjǎ/	→ [sē.pǎ]	<i>to give birth</i>
CGVC	/sēkwíɲnê/	→ [sē.kwíɲ.nê]	<i>to change</i>
	/sētǎm/	→ [sē.tǎm]	<i>to cease</i>

There are two cases when verb roots are disyllabic with the CV.CV syllable structure:

Verbs that end in the glottal plosive followed by a vowel which is the same as the vowel in the preceding syllable¹⁴:

/sēmàʔà/ → [sē.mà.ʔà] *to throw* /sēyāʔá/ → [sē.yā.ʔá] *to be big*
 /sēnáʔā/ → [sē.ná.ʔā] *to perch* /sēndàʔà/ → [sē.ndà.ʔà] *to announce*

Verbs that end in /ɜ/:

/sēwùlè/ → [sē.wù.lè] *to fly* /sēwúlè/ → [sē.wú.lè] *to spank*
 /sēnìŋè/ → [sē.nì.ŋè] *to lie down* /sētsósè/ → [sē.tsó.sè] *to sit*
 /sēzèfè/ → [sē.zè.fè] *to yawn* /sēsàmè/ → [sē.sà.mè] *to swim, to float*

Further studies are required to investigate the origin of the final vowel in these verbs.

When any of the verbal extensions (-te, -se, -ne, -le) is added to the roots the results are bisyllabic stems:

CV.CV /sēpósè/ → [sē.pó.sè] *to bless*
 CVC.CV /sētàmè/ → [sē.tàm.tè] *to prevent*

5.4 Nominal root structures

Most Mmen noun roots are monosyllabic¹⁵ and can have the following syllable structures:

CV /ɛ̄mô/ → [ɛ̄.mô] *water*
 CVC /ɛ̄tóf/ → [ɛ̄.tóf] *wisdom*
 CGV /pwà/ → [pɣà] *father*

¹⁴ Cf. Kenswey Nsey (Bamessing), Aaron DeVries 2008:6

¹⁵ Watters (2003:234) points out that this is common in Grassfields Bantu languages.

In words ending with a glottal plosive followed by /a/ or /ɜ/ the root is disyllabic.

CV.CV /āyáʔá/ → [ā.yá.ʔá] *cowrie shell*

/āmbùʔɛ/ → [ā.mbù.ʔɛ] *vulture*

CGV.CV /āmwáʔá/ → [ā.myá.ʔá] *beehive*

/ɜfēpwáʔā/ → [ɜ.fē.pýá.ʔā] *piece*

In the following cases the noun stems can have more than one syllable:

1. Nominalized verbs with any of the verbal extensions -te, -se, -ne or -le:

/ēpósè/ → [ē.pó:.sè] *blessing*

/ēpómɛ/ → [ē.pó.mɛ] *agreement*

/ākəmnè/ → [ā.kəm.nè] *paint*

2. When a noun root is reduplicated.

/āfíʔí/ → [ā.ʔí.ʔí] *sand*

/átáptáɲ/ → [ā.táɲ.táɲ] *box*

/ēyāsýàsɛ/ → [ē.yās.yàsɛ] *ringworm*

/ēyōŋyōŋɛ/ → [ē.yōŋ.yōŋɛ] *intestinal worm* Cf. /ēyōŋ/ *spear*

3. In loan words:

/ɜndzàkās/ → [ɜ.ndzà.kās] *jackass, male donkey*

/làpā/ → [là.pā] *wrapper (a piece of cloth)*

/ɜpòpó/ → [ɜ.pò.pó] *papaya*

5. In compound words:

/vāɲndōmɛ/ → [vāɲ.ndō.mɛ] *boy* [vāɲ] *child* + [ndōmɛ] *male*

/ēkēwūzōɲ/ → [ē.kē.wū.zōɲ] *brideprice* [ēkē] *price* + [wū.zōɲ] *woman*

6 DISTRIBUTION

This section presents the distribution of consonants, vowels and syllables in syllables and words.

6.1 Consonant positions

6.1.1 Onset consonants

All consonants can occur in the onset of a syllable. Only the glottal plosive does not occur word initially:

Labials

/p/	/pɛ̄/	<i>two</i>
/mb/	/ɛ̄mbɪ̄/	<i>world</i>
/pf/	/ɛ̄pfɛ̄/	<i>hut</i>
/mbv/	/mbvə/	<i>fowl</i>
/f/	/fɛ̄ɲ/	<i>here</i>
/v/	/vɛ̄/	<i>never</i>
/m/	/mɔ̄ʔ/	<i>one</i>

Postalveolars

/tʃ/	/tʃɪ̄ɲ/	<i>kind</i>
/ndʒ/	/ɛ̄ndʒɛ̄ɲ/	<i>song</i>
/ʃ/	/ɛ̄ʃɪ̄/	<i>game</i>
/ʒ/	/sɛ̄ʒɪ̄/	<i>to eat</i>
/ɲ/	/ɲɛ̄m/	<i>meat</i>
/j/	/ɲjɪ̄ɲ/	<i>milk</i>

Alveolars

/t/	/tɛ̄/	<i>three</i>
/nd/	/ndɛ̄ɲ/	<i>today</i>
/ts/	/tsɔ̄m/	<i>drum</i>
/ndz/	/ɛ̄ndzɛ̄/	<i>sheep</i>
/p/	/sɛ̄pɪ̄/	<i>to say</i>
/z/	/zɪ̄ɲ/	<i>when</i>
/n/	/nɔ̄ɲ/	<i>alone</i>
/l/	/sɛ̄lɛ̄f/	<i>to dress</i>

Velars / Labiovelars

/k/	/kɛ̄m/	<i>thousand</i>
/ŋg/	/ɛ̄ŋgɛ̄/	<i>wrinkle</i>
/ɣ/	/ɣɛ̄ɲ/	<i>where</i>
/ŋ/	/ŋɛ̄ʔsɛ̄/	<i>open</i>
/kp/	/kpɛ̄ɲ/	<i>enough</i>
/w/	/ɛ̄wɛ̄/	<i>cup</i>

Glottal

/ʔ/ /sēmàʔà/ *to throw*

6.1.2 Coda consonants

These are the nine syllable final consonants:

/p/	/sēpōpsê/	<i>to destroy</i>
/t/	/sēkwittē/	<i>to wrap up</i>
/ʔ/	/tāʔ/	<i>village</i>
/f/	/ēzáf/	<i>illness</i>
/s/	/ātàs/	<i>spoon</i>
/m/	/ɲàm/	<i>animal</i>
/ɲ/	/ēwīɲ/	<i>body</i>
/ŋ/	/ēlíŋ/	<i>dirt, soil</i>
/l/	/ēyól/	<i>rain</i>

The consonants /p/ and /t/ only occur in the coda before the verbal extensions –se and –te. We also notice that /k/ does not occur in the coda at all.

6.2 Vowel positions

The table below shows in what kinds of syllables the vowels appear. For the CGV syllable also compare Table 3 in section 3.2.1.

Table 9 Vowel positions in syllables

	CV	V	VG	CGV	CVG	CVC	CGVC
i	x	x	--	x	--	x	x
e	x	x	x	x	x	x	x
ɛ	x	x	x	---	---	x	x
ə	x	---	---	x	x	x	x
ɜ	x	x	---	x	x	x	x
a	x	x	x	x	x	x	x
u	x	---	---	---	x	x	---

o	x	---	---	---	x	x	---
ɔ	x	---	---	x	x	x	x

All vowels appear in CV and CVC syllables. Back vowels and /ə/ never constitute a V or VG syllable.

The high and mid-high back vowels do not appear in CGV and CGVC syllables. The mid-high front vowel /ɛ/ does not appear in CGV and CVG syllables.

6.3 Syllable distribution

CV, CVC, CGV and CGVC syllables may occur anywhere in a word, except as in prefixes and extensions, where only CV or V occur.

V syllables occur word initially and word finally:

Initially:

[ē.pâm] *descendant* [ē.póf] *bad* (Lit. It bad)

Finally:

[ví.ɜ̃] *that* (person) [jí.ɜ̃] *those* (people)

N syllables occur word initially:

[m̄.g^wúl] *oil* [m̄.jíp] *milk*

[m̄.fé p^hū] *I see (the/a) dog.*

7 TONE

Grassfields Bantu languages have some of the most complex tone systems of any group of languages in Africa, according to Watters. This is because original di-syllabic roots have dropped their final vowels or syllables, but the tones of those lost elements still linger in the pronunciation of the words making the tone melodies complex (Watters 2003:236-237).

This presentation is by no means exhaustive. It is based on tone observations of words pronounced individually. Underlying tonemes will require further studies.

7.1 Lexical tone

There are nine phonetic pitches on single syllables in Mmen when words are pronounced in isolation¹⁶: high [á], mid [ā], low [à], high-low [â], high-mid [ã], mid-low [â], low-mid [ã], mid-high [ǎ] and low falling [à]. Low-mid and mid-high are rare. Low-falling tone only occurs word finally. All these are exemplified in table 10.

Table 10 Lexical tone

[tá] H <i>three</i>	[k ^j ā] M <i>four</i>	[pè] L <i>two</i>	[sē.tsì.tè] M L LF <i>to congratulate</i>	[tâp] HL <i>five</i>
[ē.wús]M.HM <i>fire</i>	[ⁿ dâp] ML <i>today</i>	[ā.ŋgò] M LM <i>stupid person</i>	[tʃwí] MH <i>open</i>	

Table 11 shows the minimal pairs that have been identified in the data. LM, HM, MH and LF do not occur in any pairs.

¹⁶ Cf. Kom which has eight. (Shultz 1993:15)

Table 11 Tonal minimal pairs

L	M	H	
[kàm] <i>juju leader</i>	[kām] <i>thousand</i>	[kám] <i>Squeeze!</i>	
[tʃɪŋ] <i>hungry</i>	[tʃīŋ] <i>cricket</i>	[tʃíŋ] <i>panic</i>	
[tàm] <i>a fathom</i>	[tām] <i>a male name</i>	[tám] <i>Set a trap!</i>	
[sēpàŋ] <i>to hate</i>	[sēpāŋ] <i>to shine</i>		
[ɛ̀pfè] <i>skin</i>	[ɛ̀pfē] <i>goat</i>		
L	HL	H	
[ɛ̀pàm] <i>after, behind</i>	[ɛ̀pām] <i>descendant</i>	[ɛ̀pám] <i>backwards</i>	
ML	HL		
[pè] <i>two</i>	[pê'] <i>father</i>		

7.2 Nouns

Noun roots are monosyllabic except for nouns where a glottal is followed by a final vowel (See 5.4). All of the nine phonetic pitches can be found in nouns as exemplified in Table 12.

Table 12 Tone in syllable types

		Basic syllable types				Derived syllable types		
		CV	CVC	V	N	CGV	CVG	CGVC
Level tones	H	ā.pé <i>leopard</i>	ā.kóŋ <i>arm</i>	ó.ndē <i>in the house</i>	---	---	---	ā.fwéŋ <i>leg</i>
	M	ā.ŋgē <i>antelope</i>	ā.kāf <i>armpit</i>	ā.wà <i>cup</i>	ŋ̄.jíŋ <i>milk</i>	---	ā.sǎj.lē <i>beach</i>	ē.ndwōm <i>birdlime</i>
	L	ā.kè <i>basket</i>	ē.ŋgòm <i>banana</i>	ví.è <i>that (person)</i>	---	ē.tjà <i>bottom</i>	---	---
Contour tones	HL	pê <i>father</i>	ā.lāŋ <i>command</i>	---	---	---	---	---
	HM	ā.sē.tʃí <i>amulets</i>	ā.fǎ.káʔ <i>wood</i>	---	---	---	---	ē.mwéŋ <i>fetus</i>
	ML	ā.fǎ.mbē <i>insect</i>	tsŭm <i>drum</i>	---	---	---	---	---
	LF	---	ŋàm <i>animal</i>	---	---	pyà <i>father</i>	---	---
	MH	pělīŋ <i>ground-nut</i>	---	---	---	---	---	---
	LM	ā.ŋgǒ <i>stupid person</i>	---	---	---	ē.ndǎjǎ <i>intestine</i>	---	---

The V-syllables that are noun class prefixes all have mid tone. As word final suffixes the two occurrences in the data carry low tone.

7.2.1 Nominal prefixes

All nominal prefixes, singular and plural, have mid tone (M).

7.3 Verbs

When collecting the data the infinitive form of the verbs (se- being the infinitive marker) was used to avoid possible emphatic stressing had the verbs been elicited in the imperative form. Verb roots are monosyllabic in Mmen except in two cases (See 5.3).

7.3.1 Monosyllabic verbs

There are two groups of verbs in Mmen: Those with high tone and those with low. This is common for Bantu languages.¹⁷ In the data these two are equally common.

Table 13 shows some tonal minimal pairs of high tone and low tone verbs.

Table 13 Minimal pairs of high and low tone verbs

HIGH TONE VERBS M M	LOW TONE VERBS M L
[sēfǎ] <i>to exit</i>	[sēfǎ] <i>to hoe</i>
[sēfē] <i>to see</i>	[sēfê] <i>to peel</i>
[sēkō] <i>to catch</i>	[sēkò] <i>to snore</i>
[sēkūl] <i>to tie</i>	[sēkùl] <i>to scratch</i>
[sēndām] <i>to dwell</i>	[sēndàm] <i>to invite</i>
[sēndzī] <i>to enter</i>	[sēndzì] <i>to take</i>
[sēpāɲ] <i>to shine</i>	[sēpàɲ] <i>to hate</i>

¹⁷ Stephen Anderson in Hyman (ed.) (1979:77)

The infinitive marker (se-) always carries a mid tone (M). In the infinitive form of high tone verbs even the roots get a mid tone¹⁸ as is illustrated in Table 13. There is, however, a limited number of verbs in the data, where monosyllabic verbs have the tone melody M H or M HL in the infinitive: /sēzúm/ *to harden*, /sēkî/ *to hold, to possess*.

7.3.2 Disyllabic verb stems

When a verb gets a verbal extension and thus gets three syllables in the infinitive form, the tone melody is affected for the high tone verbs, but not for the low tone verbs.

The following comparison contains some minimal, or near minimal, pairs:

High tone verbs	Low tone verbs
[sētʃáʔtē] <i>to plead</i>	[sētʃàtè] <i>to spread</i>
[sēkpáʔtē] <i>to cackle</i>	[sēkpàʔtè] <i>to think</i>
[sēpyáʔtē] <i>to pack</i>	[sēzèʔtè] <i>to unwrap</i>
[sēpəʔlé] <i>to sell</i>	[sēsìtè] <i>to congratulate</i>
[sēlāfsê] <i>to decorate</i>	[sēwàmnè] <i>to speak</i>

When a verbal extension is affixed to a high tone verb either the root or the extension gets a high tone. There are four different outcomes as seen above. In the low tone verbs the low tone on the root is retained and the extension gets a low tone as well: M L L. This area needs more investigation.

8 MORPHOPHONEMIC AND OTHER ALTERNATIONS

Morphophonemic alternations often involve both vowel and consonant changes in one and the same process. In this section some initial observations concerning these are

¹⁸ The same is true about Kom (Shultz 1993:15)

mentioned. The underlying processes for these changes are not fully investigated in this paper. This field needs more studies.

8.1 Three vowels become one lengthened vowel

In these compound words the final nasal of N¹ is deleted and the root vowel of the same noun is lengthened:

/ɛ́vájɲ/ + ɛ́ + ɛ́pfɛ́/ → [ɛ́vâ:pfɛ́] *the child of a goat*

child of goat

I interpret the process in this way: In the example there are three vowels coming together: The root vowel of N¹, an associative marker between N¹ and N² and the noun class prefix of N², the last ones both being /ɛ́/. The vowel of N¹ is the vowel that is pronounced and has become lengthened, not any of the two /ɛ́/'s, since the /a/ is carrying more information than the others.

This is taking place in all of the combinations below:

/ɛ́vájɲ/ + /ɛ́pū/ → [ɛ́vâ:p^hū]

child dog puppy, child of dog

/ɛ́vájɲ/ + /ɛ́ndzè/ → [ɛ́vâ:ndzè] (/ɛ́ndzè/ *sheep*)

child sheep lamb, child of sheep

/ɛ́vájɲ/ + /ɛ́ɲàmzɛ́ɲ/ → [vâ:ɲàm]

child cow calf, child of cow

Concerning the tonal processes going on here no research has yet been undertaken.

8.2 Morphophonemic alternations before verbal extensions

In a number of verbs with root final /l/ or /s/ a double process takes place. When the liquid and the fricative merge with the verbal extensions /te/ and /le/, which indicate repeated action, they are assimilated with the respective extension consonant which is then lengthened. Simultaneously a /j/ appears before the extension:

/sēsàs/	to pour	/sēsàjllè/	to spill
/sēzàs/	to sweep	/sēzèjllè/	to sweep repeatedly
/sētās/	to sew	/sētájttē/	to sew repeatedly
/sētsàs/	to strike, beat	/sētsàjllè/	to strike many times
/sēmò/	to swell	/sēmòjllè/	to swell repeatedly

Rule:

l, s → j + doubling of the verbal extension consonant /__-le,-te

This happens after the vowels /ə/, /ɜ/, /a/ and /ɔ/.

If we interpret the lengthened consonant as a geminate consonant we get a new syllable pattern: CVGC

This pattern for forming repeated action goes through the whole paradigm for these verbs.

It is also worth noting that when the root vowel is /u/ or [ʊ] it turns into /w/ and the inserted item is pronounced as a vowel, /i/:

/sēkōl/	to fasten, to bind	/sēkwíttē/	to wrap up, to tighten
/sēŋgūs/	to bend	/sēŋgwíllē/	to fold many times
/sētōl/	to pick up sth heavy	/sētíttē/	to pick up repeatedly
/sēkpùl/	to pour libation	/sēkwíllè/	to pour libation rep.
/sēpūs/	to beat	/sēpwíttē/	to beat repeatedly

Rule:

/ol/, /us/ and /ul/ → /wi/ + doubling of the verbal extension consonant/ __ -le and -te

8.3 Vowel coalescence

In order to obtain the optimal syllable structure of the language, which is CV, coalescence of vowels in speech is common when two vowels meet:

/m̄ ndámá āpáŋ/	→ [m̄.ndá.mā.páŋ]
I stir fufu	I stir fufu corn

/sē tsósē sá áʃɪŋē tjákē/ → [sē.tsó.sē.sá.ʃi.ŋē.tjá.kē]
to sit for time long *to sit for time long*

/m̄ kúmt̄s̄ ēlíŋ ndōm̄s̄ ākāŋ/ → [m̄.kúm.tē.líŋ.ndō.mā.kāŋ]
I pick up dirt put plate. *I pick up dirt put plate*

/ē n̄ p̄éʔl̄s̄ ɪŋḡòm/ → [ē.n̄.p̄éʔ.li.ŋḡòm]
He will sell bananas *He will sell bananas*

/kí ēw̄ɪŋ v̄ē/ → [kí.w̄ɪŋ.v̄ē]
Hold body yours *Hold body yours!; Calm down!*

In these examples of vowel coalescence we can see that the vowel that in the phrase is the weakest, i.e. carrying least meaning, gives way to the other vowel. In the two first sentences /ə/+ /a/ becomes /a/ because the beginning of the words /āpáŋ/ fufu corn and /áʃɪŋē/ time are carrying more information than the end of the preceding words. The same is true for the two following examples, whereas the opposite is true for the last example where the vowel in /kí/ hold is more important than the first sound of /ēw̄ɪŋ/ body.

8.4 Vowel insertion

In speech epenthetic vowel insertion takes place between a verb and an object or a verb and an adverb in order to conform to the optimal syllable structure:

/sēl̄əm pí/ → [sē.l̄ə.m̄.pí]
to smell bad *to smell bad*

/sēl̄āf p̄óps̄ē/ → [sē.l̄ā.f̄.p̄óp.s̄ē]
to dress badly *to dress badly*

/sēndām gārī/ → [sē.ndá.m̄.gà.rī]
to stir gari *to stir gari (a dish)*

/sēkām mjín/ → [sē.kā.mē.mjín]
to squeeze milk *to milk*
 /sēzōṅ ṁjín/ → [sē.ʒó.nē.mjín] (Cp. 8.5 for ṁ → n)
to buy milk *to buy milk*

/sēkjīṅ pēlāṅ/ → [ṁ.kjí.ṅē.pē.lāṅ]
to want groundnut *I want a groundnut.*

/sēkjín sēkō/ → [ṁ.kjí.ṅē.sē.kū]
to want palm kernel *I want a palm kernel*

/sētām fwtā/ → [sē.tā.mē.fwé.tā]
to knit sweater *to knit a sweater (loan word)*

Compare the following example where no insertion is needed:

/sētām ākálēkā/ → [sē.tā.mā.kí.lē.kā]
to knit sweater *to knit a sweater*

8.5 Depalatalisation between vowels

Sometimes /ɲ/ becomes /n/ between vowels:

The /ɲ/ in /ēvájɲ/ *child* becomes /n/ in /ākúlāváná/ *baby sling*.

The /ɲ/ in /sēndōɲ/ *to beg* becomes /n/ in /wūndóná/ *beggar*.

The /ɲ/ in /ējín/ *breast* becomes /n/ in /ējīnṅāṁ/ *udder*.

8.6 Reduplication

Reduplication of the root or part of the root occurs in both nouns, verbs, prepositions, adjectives and adverbs. Below are some examples:

With nouns the reduplication is often followed by an extra /ə/:

/ēʃēʃə/ *hiccough* (n)

/ēγōηγōηə/ *intestinal worms*

/ēγāsγàsə/ *ringworm*

/āʃíʃí/ *sand*

/ātáptáp/ *box*

Adjectives, adverbs and prepositions may be formed by simple reduplication:

/tʃítʃí/ *perfect*

/pāsəpāsə/ *very early*

/fōtēɲfōtēɲ/ *inside* (“really inside”) Cf. /ɜfətēɲ/ *inside; between*

/ātùàtù/ *above* Cf. /ātù/ *top*

Verb:

/sēkāŋkāŋánèɲ/ *to pretend; to compromise* (Lit. to act a lie lie) Cf. /sēnèɲ/ *to act* and /ākāŋ/ *a lie*

Here an extra /a/ is added after the last lie.

9 CONCLUSION

Only an initial basic study of the phonology of Mmen has been presented in this paper. More research is needed, especially when it comes to tone, since this study is almost exclusively based on pronunciation of words in isolation. Also the morphophonemic alternation processes will need more elaboration.

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