

A PRELIMINARY GRAMMAR SKETCH
OF THE MÉKAAÏNOUN AND VERB MORPHOLOGY

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This description of the noun and verb morphology of the Mékaaïlanguage¹ is part of a larger grammatical sketch of the language. The authors have followed a model developed by Dr. James Roberts, linguistics consultant for SIL in Yaounde, Cameroon. This work is still incomplete, and as the title suggests this section on the noun and verb morphology should be considered preliminary.

4.1 NOUN

A noun is a word that denotes a person, place, thing or idea. It functions most often as the subject or the object of a clause or the object of a preposition in a clause. Every noun belongs to one of ten noun classes, so a word can be identified as a noun by the presence of a noun class prefix. The fact that nouns require concord markers in related parts of the clause helps further to identify a word as a noun.

4.1.1 NOUN CLASSES

Typical of Bantu languages, Makaa has a noun class system. It has ten classes as listed in the chart below. We use a numbering system similar that summarized by Welmers (p. 165). Classes 1a and 2a are classes that were added by Clement Doke (Welmers, p. 163) and are subclasses of classes 1 and 2 respectively. Classes 1 and 1a are grouped together as types of Class 1 because they take the same concord marking. They are, however, separated into subclasses because they have different prefixes. The same holds true for Classes 2 and 2a.

Similarly, Classes 5 and 6 could be separated into subclasses, with 5a and 6a having the prefixes *ø-* and *méé*, respectively, and 5 and 6 having the prefixes *d-/ j-*

¹ Mékaaï is a narrow Bantu language and is classified by Guthrie as part of the Maka-Njem group and is numbered as A83. It is spoken in the Eastern Province of Cameroon.

and *m-*, respectively. Since this is not done in the literature, this subdivision is not made here either.

The table below lists the noun prefixes according to their classes with an example for each. (Note that *L-* stands for a floating low tone prefix, *N-* stands for a nasal consonant, and \emptyset - stands for a zero prefix.)

Noun Classes	Noun Prefix	Example	
1	<i>muè</i>	<i>muèuè</i>	"person"
1a	\emptyset -	\emptyset - <i>kaïn</i>	"monkey"
	<i>N-</i>	<i>n-joñ</i>	"stranger"
2	<i>buè</i>	<i>buèuè</i>	"people"
2a	<i>oè</i>	<i>oèkaïn</i>	"monkeys"
		<i>oèjoñ</i>	"strangers"
3	<i>L-</i>	<i>L-laïn</i>	"heart"
4	<i>mìi-</i>	<i>mìi-laïn</i>	"hearts"
5	\emptyset -	\emptyset - <i>luuïn</i>	"hole"
	<i>d-</i>	<i>d-éïnd</i>	"home village"
	<i>j-</i>	<i>j-woïv</i>	"day"
6	<i>méè</i>	<i>méèluuïn</i>	"holes"
	<i>m-</i>	<i>m-woïv</i>	"days"
7	<i>L-</i>	<i>L-kaà</i>	"leaf"
8	<i>i</i>	<i>ì-kaà</i>	"leaves"
9	\emptyset -	\emptyset - <i>faè</i>	"machete"
10	<i>Né</i>	<i>m-puméà</i>	"seed"

Seven of the 413 nouns in gender 1a/2a listed in the lexicon have a *N-* (prenasalization) as the singular class prefix. Five of these are nouns derived from verbs (*m-boïd* "planter", *m-bugetaè* "believer", *m-bwémeè* "drummer", *m-byod* "fertile person", and *ñ-guùd* "assassin"). The other two nouns (*n-joñ* "stranger", and *ñ-guùm* "husband") could also be derived, but the derivation is not clear. The class 2a prefix for each of these nouns is *oè*.

In this grammar sketch, the class of a noun is given by the corresponding numeral in parentheses following the noun. Two numerals may be given to indicate the gender to which the noun belongs.

4.1.2 GENDER AND NUMBER

The ten noun classes can be grouped by pairs which involve the singular-plural distinctions. These pairs or genders are as follows: 1/2, 1a/2a, 3/4, 5/6, 7/8, 7/10, and 9/6. Generally, the singular nouns are found in the odd numbered classes, 1, 3, 5, 7, and 9, with their plurals found in classes 2, 4, 6, and 8. The genders are shown in the following chart:

Genders:		Examples:
Singular	Plural	
C1	C2	<i>muèdaḡ buèdaḡ</i> "woman"
C1a	C2a	<i>Ø-kam, oḡkam</i> "monkey"
C3	C4	<i>L-njoḡw, miḡ-njoḡw</i> "house"
C5	C6	<i>Ø-laḡmb, méè-laḡmb</i> "trap"
		<i>d-éḡnd, m-éḡnd</i> "native village"
C7	C8	<i>L-laḡḡ ḡ-laḡḡ</i> "glass"
		<i>L-buḡméḡ ḡ-buḡméḡ</i> "seed, seeds"
C7	C10	<i>L-buḡméḡ m-puḡméḡ</i> "seed (collective)"
C9	C6	<i>Ø-faḡ méè-faḡ</i> "cutlass"
none	C6	<i>méè-ciḡḡ</i> "blood"
none	C10	<i>m-pyoḡḡ</i> "progeny"

The 1/2 gender includes most nouns which refer to humans, and thus also has the full set of pronouns included in its concord system. Many nouns denoting animals are in this gender. Other genders have lost most semantic characteristics, although nouns denoting objects or tools often occur in 7/8, and nouns denoting body parts often occur in 5/6. Derived diminutives (formed by reduplication) are found in 7/8. New, borrowed words often occur in 1/2. Nouns may also change class membership between dialects in Makaa. For example, the word for tree which is a class 5 noun (*Ø-lḡḡ* with its plural *mé-lḡḡ* in class 6) in the Andjou sub-dialect, is a class 7 noun *L-lḡḡ* (with its plural *ḡ-lḡḡ* in class 8) in the Beul sub-dialect.

Number is marked in nouns by the noun class prefixes and concord markers. As described above, the singular classes are 1, 3, 5, 7, and 9, and the plural classes are 2, 4, 6, and 8. Since dual is marked in first person pronouns, but not in nouns, dual forms are given in the concord system in §4.1.5 and it will be treated below in §4.6.1 on personal pronouns.

Classes 6 and 10 include some words with the special meaning of mass or collectivity. Most mass nouns, which includes liquids and uncountable nouns, are found in class 6, and do not usually have a corresponding singular form. Examples are *méè-juḡvoḡ* "water", *méè-lwoḡ* "drink", *méè-buḡvaè* "poverty", and *méè-ncwoḡ* "sweets". Many abstract derived nouns are also found in class 6, such as *méè-laḡ* "hardness" (from *laḡ* "to be hard"), *méè-laḡḡ* "accounting" (from *loḡ* "to count"), and *méè-soḡḡyeḡ* "research" (from *soḡ* "to look for").

Collective nouns are often found in class 10, such as *mpyoḡḡ* "progeny". A collective noun refers to the items as a group rather than many individual items. Thus, *L-buḡméḡ* (7) "seed" refers to one seed, *ḡ-buḡméḡ* (8) "seeds" refers to seeds that may be counted, but *m-puḡméḡ* (10) "seeds" refers to seeds collectively, such as in the following English gloss "seed" which is unmarked for plural, as in "He does not have any seed left." Another example, *mpyoḡḡ* (10) "children" refers to one's children as a group and does not have a singular form.

4.1.3 CASE

The function of a noun in a clause is not indicated by any morphological marking in the noun. Since it is indicated instead by word order or prepositions, this will be discussed in §5.5, prepositional phrase structure, and in §6.2, word order.

4.1.4 REFERENTIALITY / DEIXIS

Distinctions of reference and deixis are usually made in the modifiers of the noun, rather than in the noun itself.

As to proper nouns, more research needs to be done to understand how common nouns are made into proper nouns. A person's proper name may come from a common noun. For example, some familiar names are *Mpa* which comes from *mpaè* "wild cat" and *Zhwog* from *zhwoḡ* "elephant".

4.1.5 CONCORD SYSTEM

Agreement between the noun and other parts of the clause results in a complex concord system. We have divided the discussion into two parts: primary and secondary concord. Primary concord refers to the prefix on the noun itself, which marks the noun as belonging to a specific class, and is presented above in §4.1.1, under the discussion of noun classes. Secondary concord involves all markers of agreement with the noun that appear on noun modifiers and other words besides the noun (i.e. pronouns, some adjectives, and certain grammatical markers).

For purposes of showing the whole concord system, we have listed both the primary and secondary concord system below. The constructions where secondary concord occurs will be described below in the appropriate sections.

Mékaaà Primary Concord System.

Singular. Classes	Noun Prefix	Plural Classes	Noun Prefix
1	<i>muè</i>	2	<i>buè</i>
1a	\emptyset <i>N-</i>	2a	<i>o-</i>
3	<i>L-</i>	4	<i>mì-</i>
5	$\emptyset-$ <i>d-/j-</i>	6	<i>méè</i> <i>m-</i>
7	<i>L-</i>	8	<i>i</i>
9	$\emptyset-$	10	<i>Nĕ</i>

Makaa Secondary Concord System.

Personal pronouns (described below in §4.6.1):

Noun Class	restrictive pronoun	Object pronoun
	<i>máíwoà</i>	<i>é</i>
1	<i>nyéémáíwoà</i>	<i>ny-éè</i>
2	<i>bwéámáíwoà</i>	<i>bw-éè</i>
3	<i>wéámáíwoà</i>	<i>w-éè</i>
4	<i>myéámáíwoà</i>	<i>my-éè</i>
5	<i>dwéámáíwoà</i>	<i>dw-éè</i>
6	<i>méámáíwoà</i>	<i>mw-éè</i>
7	<i>gwéámáíwoà</i>	<i>gw-éè</i>
8	<i>byéámáíwoà</i>	<i>by-éè</i>
9	<i>nywéámáíwoà</i>	<i>nyw-éè</i>
10	<i>nywéámáíwoà</i>	<i>nyw-éè</i>

Person	Subject Pronoun		Object Pronoun	
	C1	C2	C1	C2
1PL	<i>méè</i>	<i>séà</i> (excl) <i>sheà</i> (incl) <i>shwéà</i> (dual)	<i>méè</i>	<i>séà</i> (excl) <i>sheà</i> (incl) <i>shwéà</i> (dual)
2PL	<i>woè</i>	<i>bli</i>	<i>woè</i>	<i>bli</i>
3PL	<i>nyéè/ aè</i>	<i>bwoà</i>	<i>nyéè</i>	<i>bwéè</i>

Noun modifiers:

Possessives (described in §4. 8.4)

Noun Class	1SG	2SG	3SG	1PL excl.	1PL incl.	2PL	3PL
	<i>-aèn</i>	<i>-oò</i>	<i>-eà</i>	<i>-suà</i>	<i>-sheà</i>	<i>-iìn</i>	<i>-aǎ</i>
1	<i>w-aèn</i>	<i>w-oò</i>	<i>y-eà</i>	<i>wuàsuà</i>	<i>iùsheà</i>	<i>w-uìn</i>	<i>w-aǎ</i>
2	<i>b-aèn</i>	<i>bw-oò</i>	<i>b-áà</i>	<i>búàsuà</i>	<i>oàsheà</i>	<i>b-úìn</i>	<i>b-aǎ</i>
3	<i>w-aèn</i>	<i>w-oò</i>	<i>y-eà</i>	<i>wuàsuà</i>	<i>iùsheà</i>	<i>w-uìn</i>	<i>w-aǎ</i>
4	<i>my-aè</i> <i>m</i>	<i>my-oò</i>	<i>my-áà</i>	<i>miùsuà</i>	<i>miùsheà</i>	<i>m-iìn</i>	<i>my-aǎ</i>
5	<i>d-aèn</i>	<i>dw-oò</i>	<i>d-áà</i>	<i>dúàsuà</i>	<i>iùsheà</i>	<i>d-úìn</i>	<i>d-aǎ</i>
6	<i>m-aèn</i>	<i>mw-oò</i>	<i>m-áà</i>	<i>múàsuà</i>	<i>méàsheà</i>	<i>m-úìn</i>	<i>m-aǎ</i>
7	<i>j-aèn</i>	<i>gw-oò</i>	<i>j-eà</i>	<i>jùsuà</i>	<i>iùsheà</i>	<i>j-iìn</i>	<i>j-aǎ</i>
8	<i>by-aèn</i>	<i>by-oò</i>	<i>by-eà</i>	<i>biùsuà</i>	<i>iùsheà</i>	<i>b-iìn</i>	<i>by-aǎ</i>
9	<i>ny-aèn</i>	<i>nyw-oò</i>	<i>ny-áà</i>	<i>nyiùsuà</i>	<i>iùsheà</i>	<i>ny-iìn</i>	<i>ny-aǎ</i>
10	<i>ny-aèn</i>	<i>nyw-oò</i>	<i>ny-áà</i>	<i>nyiùsuà</i>	<i>iùsheà</i>	<i>ny-iìn</i>	<i>ny-aǎ</i>

Noun Class	Demonstrative		"each, all"	"that"	"a, another"	"the afore-mentioned"	"that"
	_ N	N _		with relative cl.	cataphoric	naphoric	switch reference
see	<i>gaè/ miü</i>	<i>gaè/ miü</i>	<i>-ásh</i>	<i>-añg</i>	<i>-lúḡaà</i>	<i>-oṅguà</i>	<i>-añ</i>
	(§4.8.3)	(§4.8.3)	(§4.8.6)	(§4.8.2)	(§4.8.5)	(§4.8.2)	(§4.8.2)
1	<i>nyiiḡaè</i>	<i>áḡaè</i>	<i>y-ásh</i>	<i>ny-añg</i>	<i>ñḡwoḡlúḡaà</i>	<i>w-oṅguà</i>	<i>ny-añ</i>
2	<i>búḡaè</i>	<i>oḡaè</i>	<i>b-ásh</i>	<i>b-añg</i>	<i>boḡlúḡaà</i>	<i>b-oṅguà</i>	<i>b-añ</i>
3	<i>wuḡaè</i>	<i>H-gaè</i>	<i>w-ásh</i>	<i>w-añg</i>	<i>wuḡlúḡaà</i>	<i>w-oṅguà</i>	<i>w-añ</i>
4	<i>miüḡaè</i>	<i>miüḡaè</i>	<i>my-ásh</i>	<i>my-añg</i>	<i>miüḡlúḡaà</i>	<i>my-oṅguà</i>	<i>my-añ</i>
5	<i>dúḡaè</i>	<i>H-gaè</i>	<i>d-ásh</i>	<i>d-añg</i>	<i>duḡlúḡaà</i>	<i>d-oṅguà</i>	<i>d-añ</i>
6	<i>múḡaè</i>	<i>méḡaè</i>	<i>m-ásh</i>	<i>m-añg</i>	<i>moḡlúḡaà</i>	<i>m-oṅguà</i>	<i>m-añ</i>
7	<i>jiüḡaè</i>	<i>H-gaè</i>	<i>j-ásh</i>	<i>j-añg</i>	<i>guḡlúḡaà</i>	<i>j-oṅguà</i>	<i>j-añ</i>
8	<i>biüḡaè</i>	<i>iüḡaè</i>	<i>by-ásh</i>	<i>by-añg</i>	<i>biüḡlúḡaà</i>	<i>by-oṅguà</i>	<i>by-añ</i>
9	<i>nyiiḡaè</i>	<i>H-gaè</i>	<i>ny-ásh</i>	<i>ny-añg</i>	<i>nyuḡlúḡaà</i>	<i>ny-oṅguà</i>	<i>ny-añ</i>
10	<i>nyiiḡaè</i>	<i>H-gaè</i>	<i>ny-ásh</i>	<i>ny-añg</i>	<i>nyuḡlúḡaà</i>	<i>ny-oṅguà</i>	<i>ny-añ</i>

Quantifiers: (see § 4.8.6)		
Noun Class	"how many"	"which"
	<i>-náà</i>	<i>-áyáà</i>
1		<i>y-áyáà</i>
2	<i>oḡnáà</i>	<i>b-áyáà</i>
3		<i>w-áyáà</i>
4	<i>miüḡnáà</i>	<i>my-áyáà</i>
5		<i>d-áyáà</i>
6	<i>méḡnáà</i>	<i>m-áyáà</i>
7		<i>j-áyáà</i>
8	<i>iüḡnáà</i>	<i>by-áyáà</i>
9		<i>ny-áyáà</i>
10		<i>ny-áyáà</i>

Syntactic Markers:

(The subject marker is discussed in §4.2.1 on verb structure. The copula will be discussed in §6.3.3 on equational clauses. The relative marker will be discussed in §4.9.3 and §7.2 which deal with relativizers and relative clauses. The associative marker will be discussed in §5.1.5 on the associative noun phrase construction.)

Noun Class	Sbj mkr	Copula séè	Rel. Mkr.	Assoc. Mkr.
1		<i>jì-séè</i>	<i>y-áà</i>	∅
2	<i>à</i>	<i>bù-séè</i>	<i>w-aà</i>	<i>oà</i>
3	<i>ìù</i>	<i>wù-séè</i>	<i>y-ìù</i>	<i>H</i>
4	<i>miù</i>	<i>mi-séè</i>	<i>my-aà</i>	<i>miù</i>
5	<i>ìù</i>	<i>dù-séè</i>	<i>y-ìù</i>	<i>lùà</i>
6	<i>méà</i>	<i>mù-séè</i>	<i>m-aà</i>	<i>méà</i>
7	<i>ìù</i>	<i>jì-séè</i>	<i>y-ìù</i>	<i>H</i>
8	<i>ìù</i>	<i>bì-séè</i>	<i>y-ìù</i>	<i>ìù</i>
9	<i>ìù</i>	<i>nyì-séè</i>	<i>y-ìù</i>	∅
10	<i>ìù</i>	<i>nyì-séè</i>	<i>y-ìù</i>	∅

Cardinal Numbers: (discussed in §4.7)					
Noun Class (plural only)	<i>baà</i> "two"	<i>loòl</i> "three"	<i>noì</i> "four"	<i>toòñ</i> "five"	<i>séman</i> "six"
2	<i>oèbaà</i>	<i>oèloòl</i>	<i>oènoì</i>	<i>oètoòñ</i>	<i>oèséman</i>
4	<i>mìim-baà</i>	<i>mìi-loòl</i>	<i>mìi-noì</i>	<i>mìi-toòñ</i>	<i>mìi-séman</i>
6	<i>méèbaà</i>	<i>méèloòl</i>	<i>méènoì</i>	<i>méètoòñ</i>	<i>méèséman</i>
8	<i>ìi-baà</i>	<i>ìi-loòl</i>	<i>ìi-noì</i>	<i>ìi-toòñ</i>	<i>ìi-séman</i>
10	not applicable				

4.1.6 NOMINALIZING AND DENOMINALIZING DERIVATIONAL PROCESSES

Nouns may be derived either from action verbs or from other nouns by adding various derivational affixes. These derived nouns are found in all 10 noun classes. The noun classes of some of these fit into a pattern as shown below. First, we describe the different types of nouns formed from action verbs. Then we describe the nouns formed from other nouns.

Nominalization of action verbs: The type of noun derived from a verb corresponds to the type of affix added to the verb stem. This verb stem may include vowel shifts or extensions added to the verb root, which comes from earlier verbal derivations. The choice of nominal derivational suffix often indicates whether the derived noun indicates agent, result, or the object of the action, or the activity itself. There are exceptions, but general patterns are presented here.

The derivational affix is added to a verb stem and the derived noun is assigned to a class. If it is assigned to classes 3/4 or 9/6, it is prenasalized as part of the derivation. This prenasalization (derivational prefix) is lexicalized as part of the noun stem. After the derived noun is assigned to a class, then the noun class prefix is added as an inflectional prefix.

Nouns which indicate the agent of the action are formed by adding a low tone suffix *-èè* or *-yeè* to action verbs. Because they indicate humans, these derived nouns are usually in classes (1/2). Examples are as follows:

	<u>Verb</u>		<u>Noun</u>
	<i>mpuè</i> "to know"	→	<i>ø-mpuèyeè</i> "wise person" (1/2)
	<i>wèsh</i> "to reveal"	→	<i>ø-wèsh-eè</i> "revealer" (1/2)
Exceptions			
	<i>fáán</i> "to wedge in a fork"	→	<i>L-fiind-yeè</i> "fork of a tree" (3/4) - not an agent
	<i>jaand</i> "to walk"	→	<i>L-njeend-yeè</i> "traveler" (3/4) - not class (1)

Nouns which indicate the instrument of the action are formed by adding a low tone suffix *-aè* to action verbs. These nouns usually belong to classes 7/8, because they denote objects or tools. Examples are as follows:

	<u>Verb</u>		<u>Noun</u>
	<i>fafuléè</i> "to blow on"	→	<i>L-faful-aè</i> "fan" (7/8)
	<i>fyaf</i> "to winnow"	→	<i>L-fúf-aè</i> "winnowing instrument" (7/8)
	<i>laañgúléè</i> "to surround"	→	<i>L-luñgúf-aè</i> "fence" (7/8)
	<i>guuè</i> "to kill"	→	<i>L-guug-aè</i> "object that kills" (7/8)

Nouns which indicate the result or object of the action are formed from action verbs by adding a high tone vocalic suffix (such as *-iì -eà -uà* or *-aà*). Sometimes there is also a vowel change in the stem. Though the majority of these nouns (perhaps 75%) are in the class 3/4 gender, the noun class is not predictable. Nouns of this kind may be found in every class. When such derived nouns are assigned to classes 3, 4, 9 and 10, they become prenasalized, as is common for these classes, as described above.

	<u>Verb</u>		<u>Noun</u>
with high tone vocalic suffix:			
	<i>gwiiimb</i> "to play"	→	<i>ø-gwiiimbii</i> "game" (7/8)
	<i>caam</i> "to destroy"	→	<i>ø-ceemii</i> "havoc" (7/8)
	<i>wèsh</i> "to reveal"	→	<i>ø-wèsheà</i> "exit" (5/6)
	<i>soà</i> "to search"	→	<i>mé-soñgyeà</i> "research" (6)
	<i>té</i> "to place"	→	<i>L-tiìeà</i> "stand, place for putting" (7/8)
with high tone vocalic suffix and prenasalization:			
	<i>blii</i> "to be surprised"	→	<i>ø-mbúguà</i> "surprise" (3/4)
	<i>bwoimàè</i> "to meet"	→	<i>m-pwoimà</i> "meetings" (10)
	<i>gwañgúléè</i> "to annoint"	→	<i>ø-ñgwañgúlaà</i> "annointed one" (3/4)
	<i>jaamb</i> "to cook"	→	<i>ø-njeimbyaà</i> "prepared food" (3/4)
Exceptions			
	<i>báivudii</i> "hurt oneself"	→	<i>ø-báivuléè</i> (sg) "wound" (5/10) <i>m-páivuléè</i> (pl)

When nouns which indicate the result of the action are abstract or mass nouns, the verb takes no suffix. It is put into class 6 by the addition of the prefix *méè*.

<u>Verb</u>		<u>Noun</u>
<i>dúgyaè</i> "to see each other"	→	<i>méèdúgya</i> "look" (6)
<i>kwóòlāè</i> "to be/become difficult"	→	<i>méèkwóòlāè</i> "difficulties" (6)
<i>ncwoñ</i> "to be sweet"	→	<i>méèncwoñ</i> "sweets" (6)

Nouns which indicate action are formed from action verbs in two ways. Some derived nouns have tone spreading, where the high tone of the verb root spreads right. This high tone usually spreads onto the whole verb stem. The noun class of these nouns is not predictable.

<u>Verb</u>		<u>Noun</u>
<i>kpañ</i> "to call with drum"	→	<i>L-kpoñ</i> "the call (by drum)" (7/8)
<i>baè</i> "to marry"	→	<i>ø-baà</i> "marriage" (5/6)
<i>jaambúléè</i> "to concoct"	→	<i>ø-jaambúléá</i> "concoction" (5/6)
<i>bwiññ</i> "to shatter"	→	<i>L-bwiññ</i> "broken object" (7/8)
Exception		
<i>caǵúléè</i> "to tease, mock"	→	<i>L-caǵúléá</i> "a kind of bird" (3/4)

The second type of nouns which indicate action or result of the action have no derivational suffix. Most of these nouns are assigned to class 7/8, which has a low tone noun class prefix in the singular class 7. Thus in the singular these nouns have a form very similar to the verbs from which they are derived, except for the low tone prefix. Similarly, for the nouns assigned to classes 5/6, the singular form of the noun is the same as the verb, except for the zero prefix. Some others of this kind of derived nouns are assigned to classes 3/4 or 9/6, which typically have prenasalized stems. Thus these derived nouns take prenasalization which distinguishes them from the verb more clearly than the noun prefix (floating low tone for class 3, zero for class 5 and 9).

<u>Verb</u>		<u>Noun</u>
<i>juwoè</i> "steal"	→	<i>L-juwo</i> "theft" (7/8)
<i>káñ</i> "be shrewd"	→	<i>L-káñ</i> "shrewdness" (7/8)
<i>kédúgāè</i> "coagulate"	→	<i>L-kédúgāè</i> "coagulated object" (7/8)
<i>cii</i> "to forbid"	→	<i>L-ci</i> "prohibition" (7/8)
<i>bwiññg</i> "to tell, recount"	→	<i>ø-mpwiññg</i> "palaver, discussion" (9)
<i>jaənd</i> "to walk"	→	<i>L-njoənd</i> "journey" (3/4)
Exceptions		
<i>laəð</i> "to sew"	→	<i>ø-laəð</i> "sewing" (5/6)
<i>jaəmb</i> "cook"	→	<i>ø-jaəmb</i> "cooking" (5/6)

The processes for deriving nouns from action verbs are summarized in the following chart.

Noun Class Prefix	Affixation:		Noun type	Examples:	
	Derivational Suffix or Process			verb	noun
cl. 1/2	ROOT	-eè	agent	<i>wèsh</i> "reveal"	\emptyset - <i>wèsh</i> -eè "revealer" (1)
cl. 7/8	ROOT	-aè	instrument	<i>fafuléè</i> "to blow on"	L- <i>fafulaè</i> "fan" (7)
not predictable	ROOT	-Vá	result or object	<i>caáí</i> "to love"	L- <i>caáííù</i> "love" (7)
				<i>jiíngúíí</i> "to learn"	L- <i>njiíngúíí</i> "teaching" (3)
cl 6	ROOT	\emptyset	result	<i>laí</i> "to be/become hard"	<i>méélaí</i> "hardness" (6)
				<i>ncwoñ</i> "to be sweet"	<i>mééncwoñ</i> "sweets" (6)
not predictable	ROOT	spreading high tone	action	<i>baè</i> "to marry"	\emptyset - <i>baè</i> "marriage" (5)
cl. 3/4; 5/6; 7/8	ROOT	\emptyset	action	<i>juívoè</i> "to steal"	L- <i>juívoè</i> "theft" (7)
				<i>káí</i> "to be shrewd"	\emptyset - <i>káí</i> "shrewdness" (5)
				<i>kédúgaè</i> "to coagulate"	L- <i>kédúgaè</i> "coagulated object" (7)
				<i>jaánd</i> "to walk"	L-n- <i>joónd</i> "journey" (3)

The choice of which affixes are used (especially to indicate the action) depends on the semantics of the verb, as well as its phonological characteristics. Before being nominalized, the verb may have undergone a verbal derivation process, which caused a vowel shift or added an extension. The use of derivational affixes is complex and hard to predict in many cases. As Comrie and Thompson (1985:357) say for languages in general, there is "low predictability with respect to the noun formation processes" and "it is very common to find a deverbal noun which takes on special and unpredictable meanings precisely because it is a noun and is as susceptible to idiosyncratic semantic change as any other lexical item." Thus there are nouns that do not seem to fit the patterns, such as *luíéè* "to forge (metal)" becomes *aèluíéè* "blacksmith" (1/2), and *saè* "to do" becomes *saáí* "work" (5/6) and *soóí* "worker" (1/2), and *déè* "to eat" becomes *í-dúúv* "food" (7/8), and *yañ* "to fry/roast" becomes *yañáñ* "fried food" (3/4), or *yañyañ* "old pan for frying seeds" (7/8) and *lwoá* "to whistle" becomes *luíwoñ* (7/8) "a whistle".

Nominalization of one noun to another: There are two types of processes for deriving nouns from other nouns: a simple change of class membership and diminutive formation.

A new noun may be formed simply by assigning it to a different class. As mentioned above in §4.1.2 under noun number, some nouns may take on a different meaning when they belong to a different class. The nouns in different classes have a slightly different. For example *méèjuivoi* (6) "water" refers to water as a mass, while *ø-juivoi* "river" (7/8) refers to a body of water. Thus, a new noun is formed by changing its class membership.

A diminutive may be formed by reduplicating the onset of the first syllable of the noun stem, including any segmental class prefix, and assigning it to gender 7/8. The type of reduplication involved is modified reduplication, as described below in section § on participles formed from process verbs. In both cases, the vowel of the first syllable is not duplicated, even though the tone is duplicated. The vowel in the reduplicant is usually an epenthetical *ú*. If the first consonant of the stem (which is duplicated) is labialized, the labialization is realized by the epenthetical vowel becoming a *u*. If the first consonant of the stem is palatalized, the palatalization is realized by the epenthetical vowel becoming an *i*. The new, derived noun belongs to the 7/8 gender and noun class prefix is adjoined to the reduplicant. Examples are as follows:

<i>mw-añ</i>	"child" (1/2)	→	L-	"small child" (7/8)
			<i>muñwañ</i>	
<i>L-njow</i>	"house" (3/4)	→	<i>L-njúñjow</i>	"small house" (7/8)
<i>ø-luñ</i>	"hole" (5/6)	→	<i>L-luñluñ</i>	"small hole" (7/8)
<i>L-cwoḡuà</i>	"pond" (7/8)	→	L-	"small pond" (7/8)
			<i>cucwoḡuà</i>	
<i>L-kagéi</i>	"child" (7/8)	→	<i>L-kúkagéi</i>	"small child" (7/8)

Denominalization of nouns The only example of nouns in Mékaaà that are denominalized are nouns that are made into adjectives, by adding the prefix *a-* with polar tone. This new form expresses a quality of the noun it modifies. It takes the same concord prefix as the associative marker, described in § 5.1.3, the associative noun phrase construction.. They resemble adjectives derived from process verbs, such as *abúbwaagéi* "big", from *bwaag* "to become big". Examples of adjectives derived from nouns appear are *isaiiñabuñdai* "womanly things."

4.1.7 NOUN COMPOUNDING

Makaa compound nouns are made up of two or more lexemes. Lexemes of different grammatical classes may be included, such as nouns (derived or underived), verbs, adverbs or conjunctions. The following combinations of components have been attested in compound nouns:

- N + N,
- N + V,
- V + N,
- V + V,
- N + Conj + N, and
- V + Adv.

A V + V compound noun consists of either two different verbs, or one verb that has been reduplicated. A N + N or V + V compound often has a high tone added at

the juncture of the two lexemes. When compounds are formed and two consonants are contiguous, an epenthetical vowel *ú* is inserted between the two consonants.

Many compounds take the prefix *a-* with polar tone, that is, opposite to the following tone. This prefix may signal that the noun, such as *ø-ampañébaḡ* "vaccination" (1/2), is a compound or derived noun. This prefix is similar to the prefix on many class 1/2 nouns, such as *ø-akpaḡ* "bark clothing" and *ø-akowɔlañḡ* "stalk of bananas with very few bananas," where we cannot explain how they were derived, or where we cannot identify the individual lexemes. Because most noun stems begin with a consonant, this prefix seems to have been added at some time and then lexicalized. It is a derivational prefix, to which an inflectional prefix is added. In the class 1 the zero prefix is added and in class 2 the prefix *oɛ* is added and then becomes *w-* because of the vowel *a-*.

This *a-* prefix also resembles the associative marker, which indicates that the second noun in the associative construction expresses a quality of the first noun. But the compound nouns with the *a-* prefix occur in many contexts other than the associative construction.

A compound can be distinguished from two lexemes that have not been joined into one in several ways. 1) A N+ N compound has its noun class prefix before the first root of the compound only, and never additionally before the second root. (Thus, *mi-njoiv miù buàud* "families" or literally "houses of the people" is an associative phrase with an associative marker between the two nouns and is not a compound noun.) 2) When a N+ N compound seems to have a noun class prefix on the second lexeme, this becomes a fixed part of the derived noun stem and is no longer an inflectional prefix and no longer requires concord in any other part of the clause (as in *ø-zhwogúéméjuivoi* "hippopotamus" (1/2), where the class 6 noun class prefix *méé* does not cause class 6 secondary concord). 3) Also, the new compound has a noun class unrelated to the noun classes of the component parts (as illustrated in the chart below). 4) A V+ V compound or a compound consisting of V+ any another lexeme has the structure of a derived noun and function of a noun, not of a verb or verb phrase.

N + N	<i>ø-zhwogúéméjuivoi</i> "hippopotamus" (1/2)	<i>ø-zhwog</i> "elephant" (1/2)	<i>mééjuivoi</i> "water" (6)
	<i>L-kakwoñ</i> "spinal column" (7/8)	<i>L-kaè</i> "cane, vine" (5/6)	<i>L-kwoñ</i> "back" (3/4)
	<i>mw-aimudum</i> "boy" (1/2)	<i>mw-añ</i> "child" (1/2)	<i>muèdum</i> "man" (1/2)
	<i>ø-ampañébaḡ</i> "vaccination" (1/2)	<i>mpañéa</i> "vaccine" (9)	<i>ø-baḡ</i> "shoulder" (5/6)
	<i>ø-añkuúnimbaḡ</i> "donkey" (1/2)	<i>ø-ñkuú</i> "strength" (9)	<i>miimbaḡ</i> "loads" (4)

V + N	<i>ø-kélamilésuà</i> "interpreter" (1/2) <i>i-caamúkooḡ</i> "breakfast" (8)	<i>kélaè</i> "to transmit" <i>caam</i> "to destroy"	<i>mi-lésuà</i> "discussions" (4) <i>ø-kooḡ</i> "state of the mouth on waking up" (5)
V + V V ₁ + V ₂ (where the two verbs differ)	<i>ø-ajélaçii</i> "person with authority to talk" (1/2) <i>ø-aḡwazhuè</i> "foreigner" (1/2)	<i>jélaè</i> "to suffice" <i>gwaè</i> "to be distant"	<i>cii</i> "to say" <i>zhuè</i> "to come from"
V ₁ + V ₁	<i>ø-fááúfááii</i> "explanation" (1/2) <i>ø-mpiyowu</i> "hated person" (1/2)	<i>fááú</i> "to explain" <i>mpiyow</i> "to be hated"	<i>fááú</i> "to explain" <i>mpiyow</i> "to be hated"
N + V	<i>ø-mpwoombatii</i> "white man" (1/2) <i>ø-ḡwagúléwuà</i> "deaf person" (1/2)	<i>ø-mpwoombuà</i> "forehead" (9) <i>L-ḡwagúléè</i> "hearing" (3)	<i>tii</i> "to be red" <i>wuà</i> "to leave"
N + Conj + N	<i>ø-ayoñúnéyoñ</i> "malaria" (1/2)	<i>ø-yoñ</i> "the cold" (5)	<i>néè</i> "and" <i>ø-yoñ</i> "the cold" (5)
V + Adv.	<i>ø-toiveshwoḡ</i> "leader" (1/2)	<i>toiv</i> "to stand"	<i>shwoḡ</i> "in front"
redup	<i>kélamúkélám</i> "funeral drum"	unknown derivation	

4.1.8 STRUCTURE OF THE NOUN

The Makaa noun is made up of a noun class prefix and a stem (Welmers, 1973:160). Thus the stem is the basic unit to which the noun class prefix is attached. This prefix is considered an inflectional prefix. The noun class prefixes are listed above in §4.1.1, under the discussion of noun classes.

Noun stems may be simple or complex. Simple stems are composed of a single morpheme, the noun root. The stems of most nouns, in fact, are simple roots. The stem of a derived or compound noun, on the other hand, is a complex unit. In a derived noun, the stem is made up of a root and from one to three derivational affixes, which serve to change either a verb into a noun or a noun into another noun. For example, *L-ḡwagúlé* "anointed one" has the verb stem *gwaḡuléè* "to anoint" and the nominalizing affixes *ḡ-* and *-aè*. This is further described above in §4.1.6 on nominalizing processes.

In a compound noun, the stem consists of more than one root and may also have derivational affixes. For example, *ø-ampañébaḡ* "vaccination" includes the roots *ø-mpañéè* "vaccine" and *ø-baḡ* "shoulder" and the nominalizing prefix *aḡ*. This is further described above in §4.1.7 on noun compounding.

The order in which the stem and affixes occur is shown in the following chart. Every noun must have a noun class prefix and a stem. In the case of a noun derived from a verb, the verb stem occurs in place of the noun root, and the nominal affixes convert it to a noun. A noun is made up of an inflectional prefix (noun class prefix),

an optional derivational prefix, the noun root and an optional derivational suffix. This is described in more detail in 4.1.6 above on noun derivations.

Structure of Makaa Noun			Resulting word
noun class pfx	+ stem		
simple nouns	+ root		
<i>mii</i>	<i>kuɗ</i>		<i>mii-kuɗ</i> "drums" (C4)
derived nouns	(deriv. pfx)	+ root + (deriv. sfx)	
<i>mi-</i>	<i>n-</i>	<i>jiŋgúli</i>	<i>mi-njiŋgúli-a</i> "teachings" (C4)
<i>∅-</i>		<i>wɛsh</i>	<i>wɛsh-e</i> "revealer" (C1a)
<i>L-</i>	<i>m-</i>	<i>baagúlé</i>	<i>m-baagúlé</i> "keeper" (C3)
compound nouns	(deriv. pfx)	+ stem + stem (+ stem)	
<i>i-</i>		<i>caəm</i> "to destroy"	+ <i>koɔg</i> "state of mouth on waking up"
			<i>i-caəm-úe koɔg</i> "breakfast" (C8)
<i>∅-</i>	<i>a-</i>	<i>mpañéa</i> "vaccine"	+ <i>bag</i> "shoulder"
			<i>∅-a-mpañéa bag</i> "vaccination" (C1a)
<i>∅-</i>	<i>a-</i>	<i>yoñ</i> "cold" (5)	<i>néé yoñ</i> "and" "cold" (5)
			<i>∅-ayoñúnéyoñ</i> "malaria" (1)

4.2 VERB

Abbreviations used:

ADV	adverb	IMP	imperative	PERFCT	perfect
ASP	aspect	INDIC	indicative	PERF	perfective
CONJ	conjunction	Infl	Inflecton	PL	plural
C	class	Mach	Macrostem	PRES	present
			High tone		
DU	dual	NEG	negative	PROG	progressive
F1	near future	Obj	object	REL MKR	relative marker
F2	distant future	P1	recent past	SJUNCT	subjunctive
HABIT	habitual	P2	distant past	SG	singular
HORT	hortative			Sbj	subject

A verb is a word that generally expresses a state, process or action. In Mékaaꝯ a verb can also be defined morphologically and syntactically. Morphologically a word can be identified as a verb because it has affixes that mark it for tense, aspect or mood. Syntactically, the verb can be identified by its position. It occurs following the subject in the clause, and usually the verb is followed by any complements it requires or can take.

The base form of the verb can be taken as the stem, that is, the root plus its relational and/or derivational extensions, which are described below in §4.2.6.

Sometimes a final vowel is added to the base form. The base form is used as the citation form of the verb in the lexicon and is also considered the infinitive.

Examples:

gwaŋ "to hear/understand" (no extensions)

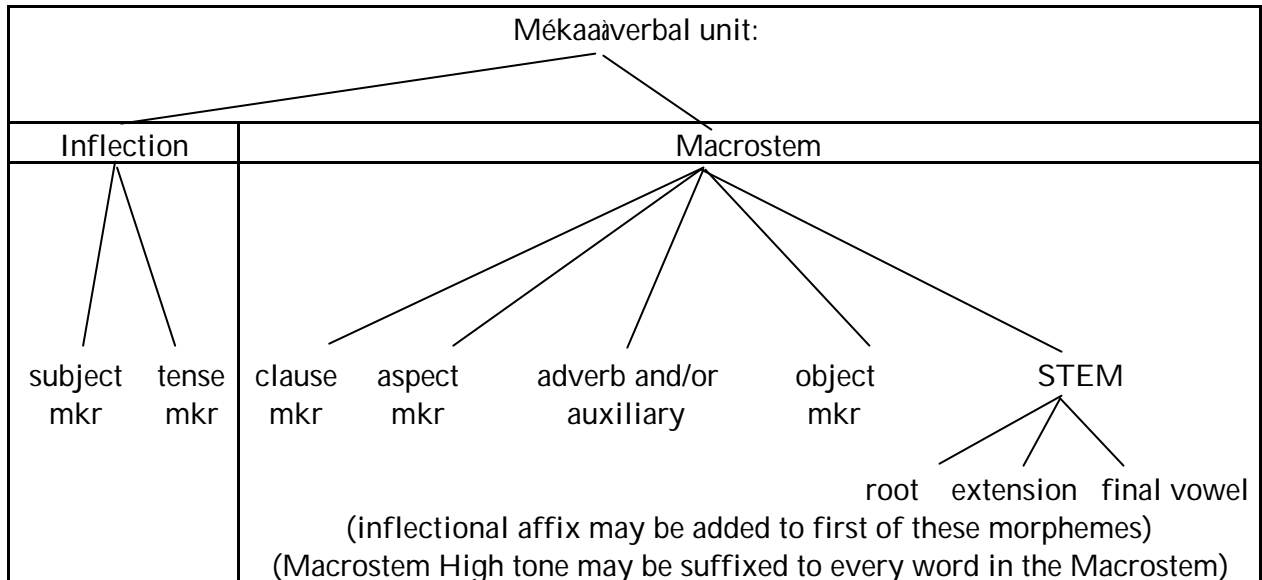
gwaŋ-úŋ-éè "to listen hard" (root with *úŋ* "intensifier" extension)

dúŋ "to see/look" (no extensions)

dúŋ-yaè "to see/look at each other" (root with *yaè* reciprocal extension)

4.2.1 STRUCTURE OF THE VERB

The Makaa verbal unit, as shown in the chart below, consists of two parts; the Inflection and the Macrostem, which in turn may be composed of various morphemes. Two morphemes that may appear in the verbal unit are not displayed directly in the chart: the inflectional affix and the Macrostem High tone. After the chart, some examples of verbal units in sentences are given. Then, the verb stem and the other morphemes in the verbal unit are described briefly. Then the Macrostem High tone is described. Finally, the reasons for dividing the verbal unit into Inflection and Macrostem are explained.



A few examples of verb units are given below, first in sentences to show their context (with the verbal units underlined and the verb stem is in bold), and then in chart form to show their structure:

1. *iüa**béènéà*** "It **happened** that..."
2. *nyéemusé**zéájút*** *bwéeshiü* "He **then seated** them."
3. *bwoà**baŋ** dúè**dúŋ*** *blügwoŋv*. "They **will look** at you, from above (with scorn)."
4. *méè**aeshiŋgáàé**dúŋ*. "I **didn't see** him."

Inflection		Macrostem				
subject mkr	tense mkr	clause mkr	aspect mkr	adverb and/or auxiliary	object	stem
1.	<i>iü</i> it (C7)	<i>aà</i> P2				<i>béè</i> be
® <i>iüaàbéènéà</i> "it was/happened (that)"						
2.		(a) (P2)	<i>muséè</i> then		<i>zéà</i> inceptive	<i>jút</i> seat
® <i>nyéèmuséèzéàjút</i> <i>bwéèshüü</i> ® " (he) then seated (them)"						
3.			<i>baàg</i> F2-IMP	<i>dú</i> HABIT		<i>dúg</i> see
® <i>bwoàbaàg dúèdúg</i> <i>blügwów</i> . " (they) will look at (you with scorn)"						
4.		<i>aà</i> P2	<i>shügáà</i> NEG		<i>áè</i> him (C1/ 3SG)	<i>dúg</i> see
® <i>méèaèshügáàaàdúg</i> " (I) did not see him"						

Verb stem

Only the verb stem in the Macrostem is obligatory, although the minimal construction will usually include subject and tense morphemes, and sometimes an inflectional affix. As mentioned above in the introduction (§4.2), the verb stem consists of a root that may have one or two extensions, such as derivational (augmentative or intensive) and/or relational (passive, reciprocal, reflexive, stative, or causative). These extensions may or may not be followed by a final vowel. The verb *gwañ-úí-éè* ("to listen attentively"), is composed of the root *gwañ*, the extension *-úí* (meaning hard to determine - possibly "intensifier") and the final vowel *-éè*. The root *gwañ*, however, also occurs. It is a complete stem with no extensions and no final vowel, and means "to hear/understand".

Subject marker

A subject marker occurs when the subject belongs to class 3-10 (as illustrated in the first example above). This marker follows the noun to which it refers and it begins the verbal unit. It may, however, be omitted in certain contexts, such as in the middle of a discourse, where the reference is very clear. This is to be discussed further in the section on discourse below.

When the subject belongs to class 1 or 2 (as illustrated in the second, third, and fourth example sentences above), a subject pronoun is used. (Subject pronouns are discussed below in §4.6.1.) This is analyzed as a pronoun rather than a subject marker, occurring outside the verbal unit, because it usually replaces the noun in the subject. Both the pronoun and the noun occur together in the subject only to show emphasis or to clarify the reference. However, the third person plural pronoun (*bwo*) does occur more often than the other class 1 or 2 subject pronouns, without indicating much emphasis. The different forms of the subject markers are listed in the chart below:

Noun class	Sbj. mkr.
3	<i>iü</i>
4	<i>miü</i>
5	<i>iü</i>
6	<i>méà</i>
7	<i>iü</i>
8	<i>iü</i>
9	<i>iü</i>
10	<i>iü</i>

Tense marker

The tense markers occur in the Inflection, immediately following the subject marker. The indication of tense is in some cases the use of certain other markers, such as one negative marker used to express negative in the present and a different negative marker to express negative in the future. This is explained below in §4.2.3 on tense.

Inflectional Affix

Different inflectional affixes indicate imperative, hortative, or negative. The inflectional affix is added to the first morpheme of the Macrostem.² The negative affix is described below in §4.2.3.2 on tense. The imperative and hortative affixes are described below in §4.2.5.2 and §4.2.5.3, respectively.

Clause marker

Clause markers are morphemes inside of the verbal unit that may function more on the clause or sentence level than on the phrase level. For example, the negative marker (such as *shügáà* in example 4 above) negates the whole clause (discussed in §4.2.3 on tense). The morpheme, *shü* is counter-assertive, indicating that the clause it marks is affirmative and contradicts a previous negative clause, which may either have been implied or stated. But these clause markers are part of the verbal unit because they take the inflectional affix, such as the negative affix.

The distant future marker *baà* is included in the Macrostem, as a clause marker, because it takes the inflectional affix whenever they both occur. The other tense markers (*aè améè eè*) are included in the Inflection, because they have a different phonological structure, beginning with a vowel, rather than a consonant, and they do not take the inflectional affix. In addition, the distant future marker *baà* does have modal functions, as do some of the verbal auxiliaries also found in the Macrostem (discussed in §4.2.5). It is true that other tense markers (P2 and F1) also have modal functions. At this point, however, *baà* is labeled as F2 in the examples even though it may have more of a modal than temporal function. The marker *baà* occurs in example 3 above.

There exists a small number of other morphemes that can occur in this position but which may never take the inflectional suffix. Such morphemes have special functions on the discourse level. For example, the morphemes *kaè muéèè* and *muà* all mean "then", but each morpheme functions differently on the discourse level (to be

² Another possible analysis is to say that the inflectional affix occurs in the first position of the Macrostem and that it shifts into the position of a suffix on the next available word.

discussed in §8 on discourse). The morpheme *mušéè* occurs in example 2 above. Another morpheme, *mbéà* "if", indicates the conditional counterfactual (to be discussed in §7.3.8 on conditional clauses). Thus these are not considered part of the verbal unit, but rather as discourse markers that interrupt the verbal unit.

Aspect marker

The aspect markers *ñgéè* (progressive) and *dú* (habitual) occur in the Macrostem, to indicate different aspects, as described below in §4.2.4 on Aspect.

Adverbs and Auxiliaries

Adverbs and auxiliaries that occur inside the verbal unit, in the Macrostem, are considered part of the verbal unit because they take the inflectional affix when they are the first morpheme in the Macrostem, as described below in §4.2.4 on Aspect.

Object marker

An object marker only occurs in the Macrostem when the noun it refers to belongs to class 1 (as illustrated in the fourth example sentence, repeated below), and then only in some dialects. Otherwise, the object occurs as a noun or pronoun following the verb. The object marker is the only morpheme in the Macrostem that cannot take an inflectional affix. Therefore, it could be considered a prefix on the verb stem.

méè *àèshìḡááàè* *dúḡ*. "I didn't see him."

Inflection		Macrostem			
subject mkr	tense mkr	clause mkr	aspect mkr	adverb and/or auxiliary	object stem
4.	<i>àà</i> P2	<i>shìḡáá</i> NEG			<i>áè</i> him (C1/ 3SG)
" (I) did not see him "					

The different forms of the object markers are listed in the chart below:

Noun class	(person)	Obj mkr
1	1s	<i>méè</i>
	2s	<i>woè</i>
	3s	<i>áè</i>

Macrostem High Tone

The Macrostem floating high tone (MacH) occurs after each word in the Macrostem, in certain tense/aspect/mood constructions. A summary chart in §4.2.6 shows where it occurs. It is sensitive to the tone to its right. When the following associated tone is H, the MacH coalesces with it and may not be noticed. This is illustrated in the two occurrences of the MacH in the following example:

Subj Infl. Macrostem
Mé mé wiĩng ø-cucudu ® *mééméà'wiĩngúècucuduà*

L H L H H H L H H H
 I PERF Mach chase Mach C7-little animal
 "I (just) chased the little animal away."

When the following associated tone is L, the Mach is associated with the preceding word. If that preceding word ends in a consonant, an epenthetical vowel (*ú*) is suffixed on to it and the Mach is realized on that vowel, as seen in the examples below. It fits the pattern in Mékaaì that an epenthetical vowel is created where two consonants come together, but this vowel would normally have a low tone.

Inflection Macrostem
méè aiméè wiĩng L-ncwoĩmb ® *méèaiméèwiĩngúàncwoĩmbáè*
áè
 I P1 chase Mach C7-sheep
 "I chased the sheep away"

Inflection Macrostem
méè aiméè caĩ L-kwaàgèà ® *méèaiméècaĩúàkwaàgèà*
 I P1 cut Mach C3-fallen tree
 "I cut the fallen tree."

Inflection Macrostem
mé aiméè nyiĩngéè dúg ø-ncwoĩmbáè ® *méèaiméènyiĩngéèdúg úà*
 I P1 again Mach see Mach C7-goat *ncwoĩmbáè*
 "I saw the sheep again"

If the word preceding the Mach ends in a vowel, the Mach is realized on the vowel. If the tone on the vowel is H, the Mach coalesces with it, as illustrated in the first example below. If the tone on the vowel is L, the addition of the Mach results in a LH tone pattern on the vowel, as seen in the second example below.

Inflection Macrostem
méè aiméè coi ø-fambéà ® *méèaiméècoĩfambéà*
 I P1 pass Mach C7-field
 "I passed a field."

Inflection Macrostem
méè aiméè guè ø-gwoòà ® *méèaiméèguàgwoòà*
 I P1 pick Mach C7-mushroom
 "I picked a mushroom."

Inflection		Macrostem			
<i>méè</i>	<i>áméè</i>	<i>nyĩngéè</i>	<i>guè</i>	<i>ø-gwoòà</i>	® <i>méèáméènyĩngéè</i>
I	P1	again	MacH pick	MacH	C7-mushroom
"I again picked a mushroom."					

An exception to the rule (that the MacH associates with the preceding word when the following word has an associated L tone) occurs when the word following the MacH is a noun of class 1, 2, 4, 5, 6, 8 or 9. These are the plural classes (2, 4, 6, and 8), which have a syllabic L tone prefix, plus the singular classes 1, 5, and 9, which have a zero prefix. In this environment, the MacH spreads (associates) right, disassociating the L tone in the prefix, or the first tone in the stem after the zero prefix. The MacH is realized on the first vowel to the right (syllabic plural prefix or first syllable of the stem), which had a L tone but now becomes H. The L tone disappears without causing downstep. This is illustrated in the following examples:

(MacH before a zero prefix with an associated high tone following)

Inflection		Macrostem			
<i>Méè</i>	<i>áméè</i>	<i>wĩĩng</i>		<i>ø-mpyéè</i>	® <i>Méèáméèwĩĩng mpyéè</i>
I	P1	chase	MacH	C1-dog	
"I chased the dog away."					

(MacH before a Low tone associated to the segmental Class 2 noun class prefix)

Inflection		Macrostem			
<i>Méè</i>	<i>áméè</i>	<i>wĩĩng</i>		<i>ømpyéè</i>	® <i>Méèáméèwĩĩng ompyéè</i>
I	P1	chase	MacH	C2-dog	
"I chased the dogs away."					

(MacH before a Low tone associated to the segmental Class 1 noun class prefix)

Inflection		Macrostem			
<i>Méè</i>	<i>áméè</i>	<i>dúg</i>		<i>muèuèl</i>	® <i>Méèáméèdúg muuèl</i>
I	P1	see	MacH	C1-person	
"I saw the person."					

(MacH before a zero prefix with associated Low tone following)

Inflection		Macrostem			
<i>Méè</i>	<i>áméè</i>	<i>dúg</i>		<i>ø-kuùs</i>	® <i>Méèáméèdúg kuùs</i>
I	P1	see	MacH	C1-parrot	
"I saw the parrot."					

(same example as above except with plural object - i.e. segmental low tone prefix and low tone root)

Inflection		Macrostem			
<i>Méè</i>	<i>áméè</i>	<i>dúg</i>		<i>økuùs</i>	® <i>Méèáméèdúg okuùs</i>
I	P1	see	MacH	C2-parrot	
"I saw the parrots."					

Inflection versus Macrostem

The verbal unit has been separated into two main parts, the Inflection and the Macrostem. The terms Inflection and Macrostem are borrowed from the paper describing boundary tones in Kinande, author as yet unknown. (Still need to look up published source for chart of verbal unit.)

The verbal unit has been separated into these two main parts (Inflection and Macrostem) for two reasons. First, as mentioned above, an inflectional affix may be added to the first morpheme of the Macrostem, but it is never added to a morpheme of the Inflection. Secondly, a floating high tone, labeled Macrostem High (MacH) occurs in certain tense/aspect/mood constructions. This tone occurs after every word in the Macrostem, but not after the morphemes in the Inflection (subject marker or the tense morpheme). These two elements, the inflectional affixes and the floating high tone, occur in many but not all constructions. The subject marker and the tense morpheme never take either this tone or an inflectional affix, and are therefore separated out and labeled the Inflection.

The Inflection consists of the subject marker and the tense marker. The Macrostem consists of the verb stem and various markers, namely, an inflectional affix, a clause marker, aspect marker(s), adverb(s), auxiliary(ies), and an object marker. The conjunction *néè* may be inserted in the Macrostem following a very limited number of morphemes (an affixed progressive marker (such as *aè-ñgèè-áà néè* - present indicative negative) and the auxiliary *jé!aè* "must").

The clause marker, aspect marker, adverbs, auxiliaries, and verb stem in the Macrostem are considered words because they can consist of more than one morpheme, when an inflectional affix or an extension has been affixed. The fact that a floating high tone (MacH, described in next paragraph) occurs after the affix, and not between the affix and the morpheme it is affixed to, confirms the analysis that the morpheme and affix together form a unit, a word. Also, some of the adverbs and auxiliaries can also be found in other constructions as words, such as adverbs with adjectives, and auxiliaries as the stem of another verbal unit where they function as words rather than affixes. Since these morphemes are words, they could be treated on the verb phrase level. But they are described here in the verb section because they are part of the description of tense, aspect and mood. (The subject marker and tense marker in the Inflection are also considered separate words.) All of these words, however, form one verbal unit which then combines with complements to form the verb phrase, as will be described in §5.2 below.

4.2.2 VERB CLASSES AND SUBCLASSIFICATION

Mékaaiverbs can be grouped into classes for phonological purposes according to whether their first syllable has a high or a low tone, or whether the verb stems end in an open or closed syllable. This division is relevant for example to the formation of the imperative (section 4.2.5). This is why examples in this sketch often show what happens in the context of both a high and a low tone verb. No special classes of verbs in Makaa are recognized for grammatical purposes, however.

4.2.3 TENSE

Makaa has five absolute tenses, the distant past, recent past, present, near future, and distant future. These were first described in Heath (1991: 3-10). These tenses will first be described as they occur in the indicative affirmative construction. Then tenses in the indicative negative are described.

The absolute tenses are described in the perfective aspect, since it has no segmental marking. Aspect will be discussed in §4.2.4 below. Tenses in the hortative and imperative are more limited than in the indicative; they will be described below in §4.2.5 on Mood.

The absolute tenses are signaled by different tense markers. However, certain tense markers express some types of modality as well as time. This will also be described below in §4.2.5 on Mood.

The occurrence or absence of the Macrostem High is linked to the tense, but also to the aspect and mood. Therefore a summary chart that shows where the Macrostem High occurs will be given after the discussion on mood, in a separate section, §4.2.6.

In addition to absolute tense, Mékaaà has two verb constructions, the past perfect and present perfect, which are not pure tenses or pure aspects, but include both time and aspect in the meaning. They are marked by the perfect marker *méà*. They will be described in §4.2.4 under aspect, because the perfect marker occurs in the same position as the aspect markers and can co-occur with a tense marker.

The following chart gives an overview of the tenses which are described in detail below:

Absolute Tenses in the Indicative Mood						
Tense	Affirmative			Negative		
	tense mkr ³	clause mkr	Macrostem High?	tense mkr	clause mkr	Macrostem High?
P2	<i>a + H</i>		no	<i>a + H</i>	<i>shigáà</i>	yes
P1	<i>áméè</i>		yes		<i>shigáà</i>	yes
PRES	<i>H</i>		yes		<i>a-L + H + -áà</i>	yes
F1	<i>e + H</i>		yes		<i>a-H + + -áè</i>	yes
F2		<i>baà</i>	yes		<i>abúáè</i>	yes

4.2.3.1 Tense in the Affirmative

Distant past (P2), used for situations which existed or took place earlier than yesterday morning, is marked by the P2 tense marker. This marker occurs in the Inflection and consists of the toneless segment *a* followed by a floating high tone. What happens to this floating high tone is determined by the tone of the following the tense marker. This floating high tone associates left onto the toneless segment *a* when the tense marker is followed by a low tone. But the floating high tone coalesces with the following tone when it is high. Then the tone of the preceding morpheme spreads onto the toneless segment.

In the following example the floating high tone spreads/coalesces with the high tone of the verb stem *wiĩĩng* and the tone of the preceding the subject *méè* spreads onto the toneless *a*.

³ The high tone occurring in the tense marker might look like a Macrostem High tone reanalyzed to occur before the Macrostem as well as after each morpheme in the Macrostem. But this tone is not realized in the same way as the Macrostem High, and it occurs in P2 whereas the Macrostem does not.

Mé a wiĩng o-mpyé ® Méèàwiĩng oĩmpyéè

L H H L HL
I P2 chase C2-dog

"I chased the dogs (before yesterday)."

In the following example the floating high tone associates leftward to the toneless *a* in the presence of an associated low tone to the right.

Mé a cal mé-léndu ® Méèàcal mélénduà

L H L L H H
I P2 chase C6-palm tree

"I cut down the palm trees. (before yesterday) "

Recent past (P1), used to refer to situations which existed or took place before the present moment, either earlier today or yesterday, is marked by the tense marker *améè* in the Inflection.

Subj Inflection Macrostem

mé amé wiĩng o-mpyé ® méèaméèwiĩng oĩmpyéè

L H L H H L -HL
I P1 chase MacH C2-dog

"I chased the dogs away" (earlier today or yesterday)

Present tense (PRES) is used to describe situations which are presently taking place or which will be taking place in the immediate future. It is marked only by a floating high tone in the Inflection. This tone is not the Macrostem High because it does not occur after a morpheme in the Macrostem.⁴

In the first of the two following examples, the floating high tone associates right onto the high tone of the verb stem *wiĩng*. In the second example, this floating high tone spreads left because of the following low tone on *cal*, creating a Low-High tone pattern on *méè*

Subj Infl Macrostem

Mé wiĩng o-mpyé ® Méèwiĩng oĩmpyéè

L H H H L HL
I PRES chase MacH C2-dog

"I chase the dogs."

⁴ If the high tone in the tenses is reanalyzed as a Macrostem High, as suggested in the previous footnote, then the present tense would be an unmarked, default tense.

Subj Infl Macrostem
Mé cal mé-léndu ® Méical mélénduà

L H L H L H H
 I PRES cut down MacH C6-palm tree
 "I cut down the palm trees. "

Near future (F1) is used to refer to situations which will occur subsequent to the present moment but during the same day. This tense is indicated in the Inflection by the tense marker which consists of the toneless segment *e* and a floating high tone. The same rule that applies to the P2 marker (i.e. toneless segment followed by floating high tone) also applies here to the F1 marker. When the tense marker is followed by a low tone, the floating high tone associates left onto the toneless segment *e*. However when the tense marker is followed by a high tone, the floating high tone coalesces with that following high tone and the tone of the preceding segment spreads right onto the toneless segment.

The near and distant future sometimes have a modal function, to indicate degrees of certainty. This will be discussed further under the section on mood below.

In the following example the floating high tone spreads/coalesces with the high tone of the verb stem *wiiñg* and the tone of the preceding the subject *mé* spreads right onto the toneless *e*.

Mé e wiiñg o-mpyé ® Méèèwiiñg oimpyéè

L H H H L HL
 I F1 chase MacH C2-dog
 "I will chase the dogs (later today)."

In the following example the floating high tone associates with the toneless *e* in the presence of an associated low tone to the right.

Mé e cal mé-léndu ® Méèèical mélénduà

L H L H L H H
 I F1 cut down MacH C6-palm tree
 "I cut down the palm trees. (later today) "

Distant future (F2), used to refer to situations which will occur after today, is indicated by the tense marker *ba* in the Macrostem. This is illustrated in the following examples:

Mé ba wiiñg o-mpyé ® Méèbaàwiiñg oimpyéè

L H H H L HL
 I F2 chase Mac C2-dog
 H
 "I will chase the dogs (tomorrow or later)."

Mé ba cal mé-lé^{du} ® Méèbaàcal mélé^{nduà}

L H L H L HH
I F2 cut MacH C6-palm tree

"I will cut down the palm trees (tomorrow or later)."

4.2.3.2 Tense in the Negative

Tense is marked quite differently in the negative indicative than in the affirmative described above. In each of the present and future tenses, negation is marked by a negative inflectional affix on the first morpheme of the Macrostem.

In both past tenses, negation is marked by the negative marker *shigáà*. This form is composed of the negative suffix *-áà* added to the counter-assertive morpheme *shii* in the clause marker slot. It is unclear where the consonant *g* comes from. This morpheme is preceded by the same tense marker for distant past as in the affirmative (*a* followed by a floating high tone). In the negative form of the recent past, there is no tense marker so the lack of the *a* is all that distinguishes the recent past from the distant past. The following two examples illustrate the distant past and the recent past, respectively, in the negative.

Sbj Infl Macrostem
Mé a shigá wiiñg o-mpyé ® Méèaèshigáàwiiñg ompyéè

L H HH H H H L HL
I P2 NEG Mac chase Mac C2-dog
(PAST) H H

"I did not chase the dogs (before yesterday)."

Sbj Infl Macrostem
Mé shigá wiiñg o-mpyé ® Méèshigáà
wiiñg ompyéè

L HH H H H L HL
I NEG (PAST) MacH chase MacH C2-dog

"I did not chase the dogs (yesterday)."

The negative affix in the present tense is a discontinuous morpheme, affixed to the first morpheme of the Macrostem. It consists of the toneless *a-* and a floating low tone in the prefix, plus a high tone as an infix, plus the suffix *-áà*. The toneless *a-* takes the same tone as the preceding subject marker or pronoun. If the *a-* takes a low tone, the floating low tone coalesces with it. If the *a-* takes a high tone, the floating low tone remains a floating low tone, that causes downstep in a high tone that immediately follows it. The following examples illustrate these processes in the present negative.

Sbj Infl Macrostem
Mé *a-* *cal* *-á* *mé-léndu* ® *Méèaàcaláàiméénduà*

L L L H H H L HH
 I NEG cut + NEG Mac C6-palm tree
 NEG H

"I do not cut down palm trees." (present)

Sbj Infl Macrostem
Sé *a-* *cal* *-á* *mé-léndu* ® *Séèaàcaláàiméénduà*

H L L H H H L HH
 We NEG cut + NEG MacH C6-palm tree
 NEG

"We do not cut down palm trees." (present)

Sbj Infl Macrostem
Mé *a-* *wiĩng* *-á* *o-mpyé* ® *Méèawiiĩngáàompyéè*

L L HH H H H L HL
 I NEG chase NEG Mac C2-dog
 + NEG H

"I do not chase the dogs." (present)

This does not yet explain the high tone on the prefix *a-* in the present habitual negative, as illustrated below. The *dú* is toneless, as described in §4.2.4.2 on habitual aspect. The *dú* does not take a H tone as expected, but the *a-* prefix does take a H tone.

Sbj Infl Macrostem
Mé *a-* *dú* *-á* *wiĩng* *o-mpyé*

L L H H H HH H L HL
 I NEG HABIT NEG Mac chase MacH C2-dog
 + NEG H

® *Méèaàdúààwiĩng oĩmpyéè* "I do not usually chase the dogs." (present)

The addition of the *-àà* suffix (or *-áè* below in the near future negative) causes vowel coalescence in mono-syllabic verb stems ending with the vowel *é*, such as *kéè* "go" becomes *a-káààà* "not go" and *déè* "eat" becomes *aèdà-áà* "not eat." Monosyllabic verbs ending in other vowels add an intervocalic *y* before the suffix, such as *saà* "do" becomes *aèsaày-áà* "not do." Verbs ending with the final vowel *-é* drop this final vowel, such as *cíil-éè* "write" becomes *aècíil-áà* "not write."

The negative affix in the near future tense is also a discontinuous morpheme, similar to the negative affix in the present tense, affixed to the first morpheme of the Macrostem. It consists of a toneless *a-* followed by a floating high tone in the prefix plus the suffix *-áè*. The floating high tone follows the same rules as does the floating high tone associated with the tense markers *a* (P2) and *e* (F1), described above as part of the tenses in the affirmative. In other words, the floating high tone associates

left onto the toneless segment when the tense marker is followed by a low tone. But the floating high tone coalesces with the following tone when it is high. Then the tone of the preceding segment (subject) spreads onto the toneless segment. The following examples illustrate two verbs (one low tone and one high tone) in the near future negative.

Sbj Infl Macrostem
Mé *a-* *cal* *-á* *mé-léndu* ® *Méè a cal à è mé l é ndu à*

L H L L H L HH
 I NEG cut NEG MacH C6-palm tree
 "I will not cut down palm trees (today)." (near future)

Sbj Infl Macrostem
Mé *a-* *wiiñg* *-á* *o-mpyé* ® *Méè a wiiñg à è o mpy é é*

L H H L H L HL
 I NEG chase NEG MacH C2-dog
 "I will not chase the dogs (today)." (near future)

Sbj Infl Macrostem
Sé *a-* *wiiñg* *-á* *o-mpyé* ® *Séè a wiiñg à è o mpy é é*

H H H L H L HL
 We NEG chase NEG MacH C2-dog
 "I will not chase the dogs (today)." (near future)

The negative affix in the distant future is identical to that in the near future, consisting of the toneless prefix *a-*, and the suffix *-áè*. This affix is always added to *baà* which is usually the distant future tense marker, and has been lexicalized to the unchanging form, *abúáàè* where the first vowel is toneless and takes the same tone as the preceding subject marker or pronoun.

Sbj Infl Macrostem
Mé *abúáà* *cal* *mé-léndu* ® *Méè abúáà cal mé l é ndu à*

L H L H L H L HH
 I NEG MacH cut MacH C6-palm tree
 (FUT)

"I will not cut down palm trees."

4.2.4 ASPECT

Makaa distinguishes between three different aspects, namely, perfective, progressive, and habitual. In addition, Makaa recognizes a perfect construction. This section concludes with a consideration of adverbs and auxiliaries with aspectual

meanings. (A fuller description of aspect in Makaa can be found in Heath (1991:10-13).

The following chart summarizes the way aspect is marked:

Aspect	aspect marker	presence of MacH?
perfective (PERF)	none	yes, except P2 indicative affirmative and PRES imperative plural affirmative
progressive (PROG)	<i>ñgéè</i>	no
habitual (HABIT)	<i>dú</i>	yes, except P2 indicative affirmative and PRES imperative plural affirmative
progressive-habitual (PROG HABIT)	<i>ñgéèdú</i>	no
perfect	<i>méà+ L</i>	yes

4.2.4.1 The perfective aspect

The perfective aspect looks at a situation as a whole, with no reference to the internal structure of the situation. The perfective is the unmarked or default aspect; it has no aspectual marker. All other aspects, such as habitual and progressive, are imperfective, and are marked overtly by a segmental marker. The examples in section §4.2.3 on tense have been given in the perfective aspect. An example is also given here.

Sbj Infl Macrostem
Mé *wiiñg* *o-mpyé* ® *Méèwiiñg ompyéé*

L H H H L HL
 I PRES chase MacH C2-dog
 "I do chase the dogs." (present tense, not habitual)

4.2.4.2 The progressive aspect

The progressive aspect, indicating continuous action, is marked by the aspect marker *ñgéè*. The progressive aspect occurs in all tenses, but the high tone that marks present tense in the affirmative in other aspects does not occur with the progressive aspect, as shown in the following example.

Sbj Infl Macrostem
Mé *ñgé* *wiiñg* *o-mpyé* ® *Méèñgéèwiiñg ompyéé*

L L H L HL
 I PROG chase C2-dog
 "I am chasing the dogs." (present)

The presence of the progressive marker seems to block the MacH (Macrostem floating high tone) from occurring on any part of the Macrostem that follows the progressive aspect marker. This is seen in the following example where the MacH is present in the Macrostem before the progressive marker, but absent following it. (Since the MacH usually occurs on every word in the Macrostem, one would expect

to find the MacH following every word from *kuà* through *waambúlé* as discussed and illustrated above in 4.2.1):

Sbj	Infl	Macrostem						
<i>Mé</i>		<i>ku</i>	<i>nyĩngé</i>		<i>ñgé</i>	<i>waambúlé</i>	<i>i-fambé</i>	
L		H+L	H	LL	H	L	HHLL	L LH
I		NEG	MacH	again	MacH	PROG	clear	C8-field
		HORT						

® *Méèkuànyĩngéáñgééwaambúlééifambéá*

"I am not again clearing the fields." (present hortative negative)

One solution to the absence of the MacH after *ñgéé* might be to posit a floating L tone which functions also on the Macrostem level, which in effect, blocks the MacH or perhaps replaces it.

When the progressive morpheme takes an inflectional affix (imperative, hortative or negative), the conjunction *né* is inserted in the Macrostem directly following the affixed progressive marker. This occurs in the present hortative, as well as the imperative singular and plural and in the present and near future indicative negative. The example below gives an example in the present progressive negative. (This same conjunction occurs in other rare constructions, such as after the verbal auxiliary *jélaa* "must," as illustrated in 4.2.5.1 below.)

Sbj	Infl	Macrostem						
<i>Mé</i>		<i>a-</i>	<i>ñgé</i>	<i>-á</i>	<i>né</i>	<i>wiĩng</i>	<i>o-mpyé</i>	
L		L	L+H	H	L	HH	L HL	
I		NEG	PROG	NEG	(CONJ)	chase	C2-dog	
		+ NEG						

® *Méèaãgáãánééwiĩng oãmpyéé*

"I am not chasing the dogs." (present progressive indicative negative)

4.2.4.3 The habitual aspect

The toneless marker *dú* expresses "a situation which is characteristic of an extended period of time" (Comrie 1976:27-28). This includes the notion of iterative, that is, a series of repeated actions within a relatively short period of time. The toneless marker takes a low tone, except in the formation of the gerund, described below in 4.2.9. The following three examples show the use of this morpheme with a habitual meaning:

Sbj Infl Macrostem
Mé *dú* *wiĩng* *o-mpyé* ® *Méàdúèwiĩng oĩmpyéè*

L H L H H H L HL
 I PRES HABIT Mac chase Mac C2-dog
 H H

"I usually chase the dogs." (present)

Sbj Infl Macrostem
Mé *ba* *dú* *wiĩng* *o-mpyé* ® *Méèbaàdúèwiĩng oĩmpyéè*

L H L H H H L HL
 I F2 HABIT Mac chase Mac C2-dog
 T H H

"I usually will chase the dogs." (distant future)

Sbj Infl Macrostem
Mé *a* *dú* *wiĩng* *o-mpyé* ® *Méèàdúèwiĩng oĩmpyéè*

L H L H L HL
 I P2 HABIT chase C2-dog

"I used to chase the dogs." (distant past)

The following two examples show the use of this morpheme with an iterative meaning:

Subject Infl Macrostem
0- tédúga *ye* *dú* *bul* *ké* *L-mpyé* *dí*

HHH H L H L H L L HL H
 C7-thought her HABIT Mac a lot Mac go C1-dog there
 H H

® *Tédúgààyeàdúàbul kéèmpyéàdí*

"Her thought was going a lot towards the dog." (She kept giving attention to the dog) (present, used in discourse for past tense.)

Subject	Infl	Macrostem					
<i>L-mpyé</i>		<i>mé</i>		<i>ka</i>		<i>ñkány</i>	<i>-yasé</i>
L HL		H	H	H	H	L	H
C1-dog		PERFECT	MacH	then	MacH	a lot	-
		<i>dú</i>		<i>fugal</i>	<i>na</i>	<i>shi</i>	<i>O-túwuli</i>
		L	H	HL	L	H	-HLL
		HABIT	MacH	throw	there	down	C7-table

@Mpyèáméàkañkány yaséà dúèfugal naèshiiütúwulii

"The dog then took the bone, kept throwing it down under the table." (present, used in discourse for past tense.)

4.2.4.4 The habitual and progressive aspect together

The habitual and progressive markers may occur together, with the habitual preceding the progressive. This construction describes a situation which occurs often but less frequently than a situation described with the habitual alone.

Sbj	Infl	Macrostem				
<i>Mé</i>	<i>a</i>	<i>dú</i>	<i>ñgé</i>	<i>bwas</i>	<i>O-kwesh</i>	@Méààdúèñgéèbwas kwesh.

L	H	L	L	L	H
I	P2	HABIT	PROG	be sick	C7-cough

"I often was sick with a cough (but not all the time)." (distant past)

4.2.4.5 The perfect construction

The perfect verb construction is not pure aspect, but it includes both time and aspect in its meaning. A perfect construction refers to an action or situation which occurred in the past and whose result is relevant to the speaker at some later point of reference, after the action is completed. The result may be more relevant than the action itself. Thus a past perfect refers to an action or situation which was completed in the past but whose result was in effect at the point of reference, which is some time in the past. A present perfect refers to an action or situation which was completed in the very recent past, or may even be completed in the present. The result of the action occurs in the present, which is the point of reference here. Thus the focus in a perfect construction is on the result rather than on the action or situation expressed by the verb (Comrie 1976:52).

Perfect constructions in Makaa are indicated by the marker *mé* immediately followed by a floating low tone, which causes downstep of a following high tone. This marker occurs at the beginning of the Macrostem in the position of the aspect marker. The past perfect has a tense marker, the toneless morpheme *a* plus a floating high tone, in the Inflection. In contrast, the present perfect has no tense marker. These perfect constructions only occur in the affirmative indicative mood. The

following chart summarizes the markers of the perfect verb constructions in both tenses:

Perfect				
Tense	Affirmative			Negative
	tense mkr	aspect mkr	Macrostem High?	forms do not occur
Past	<i>a + H</i>	<i>méà + L</i>	yes	
Present		<i>méà + L</i>	yes	

The following three examples illustrate the perfect construction:

Sbj Infl Macrostem
Mé a mé wiĩng o-mpyé ® *Méèàéméàl wiĩng ompyéé*

L H H+L H H H L HL
 I P2 PERFECT Mac chase Mac C2-dog
 H H

"I had chased the dogs." (and that is why they were not here then) (past)

Sbj Infl Macrostem
Mé mé wiĩng o-mpyé ® *Mééméàl wiĩng ompyéé*

L H+L H H H L HL
 I PERFECT MacH chase MacH C2-dog

"I have chased the dogs." (and that is why they are not here now) (present)

Sbj Infl Macrostem
Mé mé cal mé-léndu ® *Mééméàcal. mélénduà*

L H+L H L H L HH
 I PERFECT MacH cut MacH C6-palm tree

"I have cut down the palm trees." (and that is why they are not here now) (present)

The perfect marker (*méà + L*) contrasts with the resumptive pronoun *méà* (discussed in §4.6.1), because the resumptive pronoun does not cause downstep. The perfective marker does not occur with *baà* the distant future marker, whereas the resumptive pronoun does, as in the example below.

Sbj Infl Macrostem
She mé ba zé baágya

H H H H L H HHL
 We (INCL) RESUMPTIVE F2 MacH INCEPTIVE MacH separate

® *Sheéméàbaàzébaágyaè*

"We are about to separate." or "We will soon separate." (distant future)

4.2.4.6 Adverbs and auxiliaries

Adverbs function similar to tense or aspect markers, in that they indicate how or when the action or state of the verb stem is carried out. Adverbs occur in the Macrostem, in the position immediately following the aspect marker, and before the object marker or verb stem. Adverbs and auxiliaries occur in the same position. Sometimes they occur together in any order; either one can precede the other.

Adverbs also function on the phrase level, but occur within the verbal unit. They are considered part of the verbal unit because an inflectional affix (negative, hortative or imperative) may be affixed to an adverb when it is the first morpheme of the Macrostem.

More than one adverb may occur at once, one following the other. Some of the adverbs attested are listed below, showing the variety of their meanings:

<i>báág</i>	"don't dare"	<i>yída</i>	"rather"
<i>yíga</i>	"don't dare"	<i>ñwaà</i>	"almost"
<i>fwo</i>	"first"	<i>jiíga</i>	"finally"
<i>bénda</i>	"certainly"	<i>kwo</i>	"again"
<i>bwéle</i>	"for the first time"	<i>jaǵ</i>	"very badly"
<i>láál</i>	"quickly"	<i>ndém</i>	"just" or "just now"
<i>ndaǵ</i>	"then, thus"	<i>kuñow</i>	"just" or "just now"
<i>táám</i>	"even"	<i>naà</i>	"still" or "not yet"
<i>wal</i>	"soon"	<i>je</i>	"might, be able to"

The following examples show how adverbs occur in the verbal unit. The first sentence has the adverb *naà* following the aspect marker. The second sentence shows the adverb in initial position of the Macrostem, with the imperative suffix attached to it.

Sbj	Infl	Macrostem							
<i>Mé</i>		<i>dú</i>	<i>na</i>	<i>cal</i>				<i>mé-léndu</i>	
L	H		H	H	H	L	H	L	HH
I	PRES	HABIT	Mach	still	Mach	cut	Mach	C6-palm tree	

@*Mé dúná cal mé léndu*.

"I am still in the habit of cutting down palm trees." (present)

Sbj	Infl	Macrostem							
		<i>nyíngé</i>	<i>-g</i>	<i>-a</i>		<i>wiíng</i>		<i>i-tow</i>	
		LL		H	H	HH	H	L-L	
		again	SJUNCT	IMP PL	Mach	chase	Mach	C8-goat	

@*Nyíngé ga wiíng i tow!*

"Chase the goats again." (present)

Auxiliaries may occur in the Macrostem preceding the object marker or the verb stem. They occur in the same position as the adverbs, either before or after an adverb. Auxiliaries are derived from verbal morphemes, and may function as the verb root in

other constructions. They function as part of the verbal unit because they can take an inflectional affix (such as negative). Examples of these follow:

Adverbs:		Verbs:	
<i>nyiĩngéè</i>	"again"	from <i>nyiĩngéè</i>	"return"
<i>zéè</i>	inceptive	from <i>zéè</i>	"come"
<i>kéè</i>	terminative	from <i>kéè</i>	"go"
<i>shiĩ</i>	"finish"	from <i>shiĩ</i>	"be finished"
<i>bwey</i>	"long ago"	from <i>bwey</i>	"take a long time"
<i>cáǎt</i>	"want to"	from <i>cáǎt</i>	"like"

An example sentence with both an auxiliary and an adverb follows.

Sbj	Infl	Macrostem							
<i>Nyé</i>		<i>nyiĩngé</i>		<i>kwo</i>		<i>sáy</i>		<i>mé-téla</i>	
L		LL	H	L	H	L	H	L	HL
He		again	Mac	repeat	Mac	spit	Mac	C6-saliva	
		(AUX)	H	(ADV)	H		H		

® *Nyényiĩngéákwoásáy mé-télaè*

"He again repeated spitting saliva.(giving his blessing)" (Present used as past in discourse)

4.2.5 MOOD

Makaa distinguishes between three moods: indicative, hortative and imperative. The indicative mood is the unmarked or default construction, since it has no special markings. It is used to express realis situations, that is, actual events.

The indicative mood is also used in irrealis situations, to express the epistemic mode. The use of indicative mood versus other moods for irrealis situations can be explained in terms of the traditional distinction between epistemic mode and deontic mode. The epistemic mode gives judgments signaling differing degrees of necessity or possibility of the assertions made about actual facts. In contrast, the deontic mode does not express an actual fact, but it expresses a wish, or it imposes an obligation or permission on a situation that is not yet an actual fact.

The epistemic mode is expressed by the indicative mood that is specially marked semantically and grammatically by certain auxiliaries, adverbs or clause markers. These additional words are the morphemes that indicate judgments of differing degrees of necessity or possibility. For example, conditions are expressed by the indicative with markers to show conditionality. The deontic mode is expressed by the hortative and imperative moods, which are subjunctive moods.

The subjunctive moods are signaled by the inflectional suffix *-g*. The hortative and imperative moods are further marked by a high tone that occurs on a different syllable depending on whether it is hortative or imperative.

The hortative mood expresses what one should do, would like to do, or has the permission to do. It is used in a simple sentence to express exhortation, what one should do. It is also used in complex sentences, in the complement of specific verbs such as *cáǎt* "want." The subject of a verb in the hortative can be first, second or third person.

The imperative mood is used when one commands some one else to do something. Thus it is always in the second person. It usually occurs in simple sentences. It only occurs in a complement clause when it expresses reported speech.

4.2.5.1 The indicative mood

The indicative mood, expressing an actual event, is illustrated in the example below:

Sbj	Infl	Macrostem			
<i>Mé</i>		<i>wiiñg</i>	<i>o-mpyé</i>	<i>@Méewiiñg</i>	<i>ompyéé</i>

L	H	H	H	L	HL
I	PRES	chase	MacH	C2-dog	

"I chase the dogs." (present tense)

The following example shows an adverb in the indicative construction that indicates a judgment, as to the possibility of the assertion:

Sbj	Infl	Macrostem					
<i>Mé</i>		<i>je</i>	<i>wiiñg</i>	<i>o-mpyé</i>	<i>@Méjeàwiiñg</i>	<i>ompyéé</i>	

L	H	H	H	H	H	L	HL
I	PRES	might	MacH	chase	MacH	C2-dog	
		(ADV)					

"I might chase the dogs." (present tense)

The following example shows an auxiliary in the indicative construction that indicates a judgment, as to the necessity of the assertion:

Sbj	Infl	Macrostem							
<i>mé</i>		<i>jéla</i>	<i>né</i>	<i>gumal</i>	<i>ny-añg</i>	<i>tél mé</i>	<i>shwog</i>	<i>yá</i>	

L	H	LH	L	HL	-L	H	L	H	H
I	PRES	must	CONJ	honor	C1-that	stand-	before	REL	
		(AUX)				me		MKR	

@méjélaànéégumal nyañg tél méshwog yá

"I must honor him that stands before me." (my elder) (present tense)

Some morphemes that were described above as tense markers, namely *èà*(F1), *baà* (F2), and *a* (P2), also add some modal dimension to a statement. It is true that anything future is by its very nature not actual, thus in some sense modal. More research needs to be done to determine when these also have a modal function, and when they only have a pure temporal function. The following sentence is an example where *èàbaà* indicates the certainty of the consequence, even though these morphemes are labeled as tense markers.

Subj	Infl	Macrostem						
Nyé		e	ba	mpu	me	®Nyéèàbaàmpuà mèè		
L		H H	H H	L	H	L		
he(3SG)		F1 MacH	F2 MacH	know	MacH	me		

"He will certainly know me." (The man who transgresses this command will certainly have to answer to me.) (distant future)

The following example is one long sentence, where the first two clauses (1 and 2) use *e* to indicate possibility, the third clause (3) use the hortative to express a desire or a sense of obligation, the fourth clause (4) uses the indicative to express a reality, and the fifth clause (5) again uses *e* with the indicative to express possibility.

1.

Sb	Infl	Macrostem						
j								
o	mé	e	fúde	né	bwas	ga	o,	®oàméèàfúdeénèè bwas gaèoè
H L		H LL	L L		L	H		
if I	F1	die	with	sickness	this	if,		

"whether I die because of this sickness," (near future)
2.

Sbj	Infl	Macrostem						
o	mé	e	yal	o,				®oàméèèyal oè
H L		H H	L					
if I	F1	heal	if,					

"or am healed," (near future)
3.

Sb	Infl	Macrostem						
j								
mé		lúg	-g	bí	né	mé-téla		®mèèlúgúg bíinèè métélaè
L		H	H	LH	L	L-HL		
I		HORT	SJNCT +	you	with	C6-saliva		
		+ leave	HORT	(2PL)				

"I should leave you with blessing," (present hortative)
4.

	Sbj	Infl	Macrostem					
néce	mé		a- mpu	-yá	jwow			®néceàméèàmpuyáá jwow
LH	L		L L+H	H	0 -H			
because	I		NEG know+ NEG	NEG	C7-day			

"because I do not know the day" (present tense)

5.	Sbj		Infl	Macrostem				
	<i>Zámbi</i>	<i>nyé</i>		<i>e yil</i>	<i>mé</i>	<i>0-cúg</i>	<i>j-oã</i>	<i>yi</i>
	LH	L		L HL	L L	H	H	
	God	he(3SG)		F1 remove	me	C7-life	C7-my	REL MKR

® *Zámbiünyéèèyil méécúg joãyiü*

"God might remove me from my life." (near future)

The uses of the indicative mood, as well as the imperative and hortative moods, are shown in the chart below, along with the auxiliaries that might be used to convey a similar modality in English given in parentheses.

EPISTEMIC MODE		DEONTIC MODE	
expressed by indicative mood plus auxiliaries and adverbs		expressed by subjunctive mood	
in simple sentences:		in simple sentences:	
possibility ("might, risks")	<i>jeè</i>	strong obligation ("shall, will")	imperative
necessity ("must")	<i>jélaènéà</i>	exhortation ("should")	hortative
certainty ("did")	<i>shiü</i>		

in complex sentences: in complements, reporting assertions: after verbs of cognition or utterance such as <i>dúŋ</i> "see" <i>cii</i> "say" <i>buŋútaè</i> "believe" <i>mpuè</i> "know"	in complex sentences: hortative in complements, expressing requirement ("ought to") after verbs of feeling or manipulation such as <i>jaəw</i> "tell"
expressing conditions (in subordinate clause) <i>mbéà kaà</i> expressing certainty* ("most likely will") <i>aàbaà</i> (in main clause) probability** ("could well") <i>eàbaà</i> (in main clause)	optative ("would like") <i>cáəi</i> "want" <i>bám̄b</i> "worry" permission ("may, can") <i>magúdeè</i> "allow" <i>bañ</i> "prohibit" purpose (complement beginning with <i>shuènéà</i> "so that")
reason manner concession	

*if you do X, Y will follow for sure.

**if X happens (and it might not), then Y could well follow

4.2.5.2 The hortative mood

The hortative mood is characterized by two markers: 1) by the subjunctive (inflectional) suffix *-g*, on end of the first word of the Macrostem, and 2) by a replacive high tone, prefixed to the first syllable of the first word of the Macrostem. The high tone replaces the stem tone, or first tone of the word to which it is affixed. When the suffix *-g* is added to a word ending in a consonant, the epenthetical vowel *ú* is inserted and takes the same tone as the word had before the replacive high tone was added, as in the examples below.

H-tone verb:

Sbj	InfI	Macrostem		Sb	InfI	Macrostem	
<i>I</i>	<i>a</i>	<i>bé</i>	<i>né:</i>	<i>j</i> <i>mé</i>	<i>wiiñg</i>	<i>-g</i>	<i>o-mpyé</i>
H	H	L	H	L	H + HH		L-HL
it(C7)	P2	be	that:	I	HORT + chase	SJNCT	C2-dog

@ *liàbènéà méèwiiñgúŋ ompyé.*

"it was so that I should chase the dogs." (distant past indicative+ present hortative)

L-tone verb:

Sbj	Infl	Macrostem		Sb	Infl	Macrostem	
<i>l</i>	<i>a</i>	<i>bé</i>	<i>né:</i>	^j <i>mé</i>		<i>cal</i>	<i>-g mé-lé^{ndu}</i>

H	H	L	H	L		H + L		L-HH
it(C7)	P2	be	that:	I		HORT + cut	SJNCT	C6-palm tree

@ *liàbèènéà méècalúg mélé^{ndu}*

"it was so that I should cut down the palm trees." (distant past indicative+ present hortative)

L-tone CV verb:

Sbj	Infl	Macrostem	
<i>Nyé</i>	<i>a</i>	<i>ci</i>	<i>né:</i>

L	H	L	H
he	P2	say	that

Sbj	Infl	Macrostem					
<i>mé</i>		<i>dú</i>	<i>-g</i>	<i>nyĩngé</i>	<i>cal</i>	<i>mé-lé^{ndu}</i>	

L		H +		H	L L	H	L	H	L-HH
I		HORT + HABIT	SJNCT	MacH	again	MacH	cut	MacH	C6-tree

@ *Nyéèààcìi néàmédúg nyĩngéical mélé^{ndu}*.

"he said that I should again be in the habit of cutting down palm trees." (distant past indicative+ present hortative)

In the hortative mood, only present tense and distant future tense occur. These are distinguished by the presence of the distant future marker *baà* in the distant future, since there is no tense marking in the present hortative. (The high tone that marks hortative is realized differently than the high tone that marks present tense in the indicative affirmative, even though these two tones occur in almost the same position in the verbal unit.) The differences between the tenses are shown in the following summary chart:

Tenses in the Hortative Mood					
Tense	Aspect	Affirmative		Negative	
		clause mkr	MacH?	clause mkr	MacH?
Present	PERF	H-+ -g	no	kuà + L	yes
	PERF (with ADV)	H-+ -g	yes	kuà + L	yes
	PROG	H-+ -g	no	kuà + L	no
	HABIT	H-+ -g	yes	kuà + L	yes
Distant Future	PERF	baà+ -g	yes	kuàbaà+ L	yes
	PERF (with ADV)	baà+ -g	yes	kuàbaà+ L	yes
	PROG	baà+ -g	no	kuàbaà+ L	no
	HABIT	baà+ -g	yes	kuàbaà+ L	yes

The following example illustrates the tense markings in the distant future, since the above examples showed the present tense. The distant future hortative indicates stronger exhortation than the present hortative.

Sbj	Infl	Macrostem				
<i>bí</i>		<i>ba</i>	<i>-g</i>	<i>bya</i>	<i>bw-an</i>	
L		H + H	H	H	H	L-HL
you(2PL)		HORT + F2	SJNCT	MacH	bear	MacH
@ <i>bí baḡ byaàbwān</i>						
(he said that) "you must bear children." (distant future)						

The negative hortative is indicated by the negative subjunctive marker *kuàè* as the clause marker, at the beginning of the Macrostem. This negative marker *kuàè* causes downstep of a following high tone. The subjunctive marker *-g* plus replacive high tone that marks the hortative in the affirmative are not used in the negative. The present and distant future tenses in the negative are distinguished by the distant future marker in the future, just as in the hortative affirmative, illustrated in the following examples.

Sbj	Infl	Macrostem	Sb	Infl	Macrostem			
<i>nyé</i>	<i>a</i>	<i>ci</i>	<i>né</i>	<i>mé</i>	<i>ku</i>	<i>wiĩṅ</i>	<i>o-mpyé</i>	
L	H	L	H	L	H+L	H	HH	H
he	P2	say	that	I	SJNCT	Mac	chase	Mac
					NEG	H		H

@*Nyéaàci néáméèkuà' wiĩṅ ompyéè*
 "He said that I am not to chase the dogs." (present hortative)

Sbj	Infl	Macrostem			Sb	Infl	Macrostem				
<i>nyé</i>	<i>a</i>	<i>ci</i>	<i>né</i>	<i>mé</i>	<i>ku</i>		<i>ba</i>		<i>wiĩng</i>		<i>o-mpyé</i>
				j							
L	H	L	H	L	H+L	H	H	H	HH	H	LH \bar{L}
he	P2	say	that	I	SJUNCT	Mac	F2	Mac	chase	Mac	C2-dog
					NEG	H		H		H	

@*Nyéaàci néáméèkuà' baìwiĩng oĩmpyéè*

"He said that I will not have to chase the dogs." (distant future hortative)

The negative marker *kuà è* is itself downstepped when preceded by a plural pronoun (*šéà bwoà* not *bí*) and followed by the auxiliary *ñyiĩngéà* in the verb, not necessarily immediately following. This makes it seem that there is a floating L before *kuà è* perhaps a discontinuous constituent with *ñyiĩngéà*

Sbj	Infl	Macrostem				
<i>sé</i>		<i>ku</i>	<i>ñgé</i>	<i>nyiĩngé</i>	<i>waambúlé</i>	<i>i-fambé</i>

H	L	H+L	L	L L	H LL	L-L
we	(again)	NEG	PROG	again	clear	C8-field

@*Séà' kuàñgéènyiĩngéèwaambúléèifambéà*

"We should not again be clearing the fields." (present negative hortative)

Sbj	Infl	Macrostem				
<i>bwo</i>	<i>ku</i>		<i>dú</i>	<i>nyingé</i>	<i>cal</i>	<i>mé-léndu</i>

H	H+L	H	L	H	LL	H	L	H	L-HH
they	NEG	MacH	HABIT	MacH	again	MacH	cut	MacH	C6-palm tree

@*Bwoà' kuàdúanyiĩngéàcal mélénduà*

"They should not again be in the habit of cutting down palm trees." (present negative hortative)

Sbj	Infl	Macrostem				
<i>mé</i>	<i>ku</i>		<i>dú</i>	<i>nyingé</i>	<i>cal</i>	<i>mé-léndu</i>

L	H+L	H	L	H	LL	H	L	H	L-H H
I	NEG	MacH	HABIT	MacH	again	MacH	cut	MacH	C6-palm tree

@*Méèkuàdúanyiĩngéàcal mélénduà*

"I should not again be in the habit of cutting down palm trees." (present negative hortative)

When the progressive aspect occurs in the hortative and the progressive marker *ñgéè* is the first morpheme in the Macrostem, this marker takes the hortative tone and the subjunctive suffix, as expected. In addition, the conjunction *né* is inserted directly following it. (This also occurs in other constructions where the progressive marker is affixed, such as in the present and near future indicative negative, and the imperative singular and plural affirmative.) The progressive in the present hortative is shown in the following example:

Sbj	Infl	Macrostem						
Mé		<i>ñgé</i>	<i>-g</i>	<i>né</i>	<i>wiĩng</i>	<i>o-mpyé</i>	® <i>Méèñgéñ néà</i> <i>wiĩng òmpyéé</i>	
L		L+H		L	H	L	HL	
I		PROG+HORT	SJNCT	(CONJ)	chase	C2-dog		
"that I (should) continue to chase the dogs." (present progressive hortative)								

4.2.5.3 The imperative mood

The imperative mood is used to give a command, with the second person subject implied. It is characterized in three ways: 1) by the subjunctive (inflectional) suffix *-g* on the end of the first word of the Macrostem, 2) by a floating high tone with this suffix, and 3) by the absence of a subject.

The floating high tone of the imperative occurs on the final vowel of the first word of the Macrostem. (The hortative mood, in contrast, is characterized by a H tone on the first vowel of that word.) This high tone is realized differently, depending on the word's position in an utterance (final or non-final), as well as the syllable structure of the word it is affixed to (mono-syllabic or di-syllabic, final syllable open or closed).

If the high tone is affixed to a word that is utterance final (a verb stem), whether it ends in an open or closed syllable, the high tone occurs to the left of the suffix *-g*. If the suffix is added to an open syllable, the high tone attaches to the final vowel preceding it. If the suffix is added to a closed syllable, the high tone attaches to the epenthetical vowel *ú* that is created between the two consonants.

High Tone on utterance final imperatives:

open syllable	<i>yéè</i>	"to give"	<i>yéñg!</i>	"give!"
closed syllable	<i>jaand</i>	"to walk"	<i>jaandúñg</i>	"walk!"
	<i>wiĩng</i>	"to chase"	<i>wiĩngúñg</i>	"chase!"
	<i>caí</i>	"to cut down"	<i>caíúñg</i>	"cut down!"

If the high tone is affixed to a word that is not utterance final (whether a verb stem followed by a complement, or a word before the verb stem in the Macrostem), the high tone associates either to the left or right of the suffix *-g*, depending on syllable structure of the word to which it is affixed. If the word it is affixed to consists of one open syllable, the high tone associates with the vowel of that open syllable, to the left of the suffix. If the word it is affixed to consists of one closed syllable or of more than one syllable, (whether open or closed), the high tone is attached to the vowel to the right of the suffix. This will be the vowel beginning the following word, or an epenthetical vowel created because the following word begins with a consonant (created whenever two consonants come together at a word boundary).

High Tone on non-utterance final imperatives:

one open syllable	<i>yéé</i> "to give"	<i>yéguàmúúúú</i> kwas "give a person a pencil!"
one closed syllable	<i>caí</i> "to cut down"	<i>caíúguàméíéúú</i> # cut down the palm trees!"
multi-syllabic	<i>cííéé</i> "to write" <i>waámúúíéé</i> "to sweep"	<i>cííéúúkáíáá</i> "write a letter!" <i>waámúúíéúúfámbeá</i> "clean the field!" <i>waámúúíéúú ífámbeá</i> "clean the fields!"

Some examples of imperatives in sentences follow:

Macrostem

<i>yé</i>	-g	<i>mé</i>	<i>0-mbwool</i>
L + H		H	L
give+ IMP	SJUNCT	Mach	me
			-HL
			C3-trunk
@ <i>Yéguàméémbwoól</i> .			
"Give me the trunk."			

Macrostem

<i>wííng</i>	-g	<i>o-mpyé</i>
HH + H		H
chase+ IMP	SJUNCT	Mach
		L-HL
		C2-dog
@ <i>Wííngúúg ompyé!</i>		
"Chase the dogs!"		

Some verbs are irregular in the way they form the imperative, such as *ké* "go" becomes *kaí!* "go!" utterance final and *ka!* "go!" (without the subjunctive -g) when not utterance final.

The imperative mood differs from the hortative also in that it can take a plural suffix, -a, following the subjunctive suffix -g. This suffix indicates that the subject is plural (and is seen as a plural marker elsewhere, as in the complex subject pronoun described in 4.6.1). Thus where the hortative occurs with complete subject marking, the imperative only marks whether the subject is singular or plural, it being inherently second person. This plural suffix takes the floating high tone indicating imperative. The high tone on the suffix -a becomes -aé when the suffix is utterance final.

Macrostem

<i>gumal</i>	-g	-a	<i>o-cuumba</i>	<i>bu-ud</i>
H L + H	H		L-HHH	HH
honor+ IMP	SUBJ	PL	C2-older	C2-people
@ <i>Gumalúúgáíóúúcuumbaíbuúú.</i>				
"Honor (2PL) your elders."				

Macrostem

cal -g -a

L H HL

cut HORT + IMP PL

@ *Calúga!*

"Cut!" (you plural cut it down)

In the imperative mood as in the hortative mood, there is a two-way tense distinction between present and distant future. The present tense is unmarked. The distant future tense is marked by the distant future marker *baà* to which the imperative affixes are added. These tense distinctions are used to indicate the time in which the command is to be carried out and are summarized in the following chart:

Tenses in the Imperative Mood					
Tense	Aspect	Affirmative		Negative	
		clause mkr	Mach?	clause mkr	Mach?
Present	PERF	H(suffix) + -g	sg: yes pl: no	<i>kuà</i> + L	yes
	PROG	H(suffix) + -g	no	<i>kuè</i> + L	no
	HABIT	H(suffix) + -g	sg: yes pl: no	<i>kuè</i> + L	yes
Distant Future	PERF	<i>béḡ</i>	yes	<i>kuḡaàbaà</i>	yes
	PROG	<i>béḡ</i>	no	<i>kuḡaàba</i>	no
	HABIT	<i>béḡ</i>	yes	<i>kuḡaàba</i>	yes

The following example shows the future tense, in contrast to the previous example, which was in the present tense.

Macrostem

bé -g -a *cal* *mé-léndu*

H H H L H L-HH

F2 IMP PL Mach cut Mach C6-palm tree

@ *Béḡaàcal mélénduà*

"(You(2PL) will) cut down the palm trees!" (future imperative, plural)

The negative imperative, like the negative hortative, is indicated by the negative marker *kuàè* as the clause marker, at the beginning of the Macrostem. This negative marker *kuàè* (and particularly, the floating low tone at the end) causes downstep of a following high tone. The subjunctive marker -g plus replacive high tone that marks the imperative in the affirmative is not used in the singular. The present negative imperative singular is illustrated in the following example:

Macrostem

ku *wiiñg* *o-mpyé*

H L HH H L-HL
 NEG chase MacH C2-dog

@*Kuà' wiiñg oimpyé!*

"Do not chase the dogs!" (present negative imperative, singular)

But in the negative imperative plural, the subjunctive suffix *-g*, the imperative H tone, and *-a* occur along with the negative marker *kuà* resulting in *kuàgà* at the beginning of the Macrostem. It is as if the *-ga* is inserted after the *kuà* and before the floating low tone. Thus the floating low tone causes downstep in any H tone directly following *kuàgà* as illustrated in the following example:

Macrostem

ku *-g* *-a* *wiiñg* *o-mpyé*

H L H HH H L-HL
 NEG SJNCT PL chase MacH C2-dog

@*Kuàgà' wiiñg oimpyé!*

"Do not chase the dogs!" (present negative imperative, plural)

The present and distant future tenses in the negative are distinguished by the distant future marker in the future, just as in the affirmative. Also, the negative marker is *kuà* when followed by the distant future marker *ba* no longer has the floating L tone after it that causes downstep of the following H tone, as illustrated in the following example:

Macrostem

ku *ba* *wiiñg* *o-mpyé*

H H HH H L-HL
 NEG F2 chase MacH C2-dog

@*Kuàbaàwiiñg oimpyé!*

"Do not chase the dogs!" (distant future negative imperative, singular)

Macrostem

ku *-g* *-a* *ba* *wiiñg* *o-mpyé*

H H H HH H L-HL
 NEG SJNCT PL F2 chase MacH C2-dog

@*Kuàgàbaàwiiñg oimpyé!*

"Do not chase the dogs!" (distant future negative imperative, plural)

4.2.5.4 SUMMARY OF PRESENCE OF MACROSTEM HIGH TONE

Since all the verbal constructions have now been described, a summary chart is given below to show which verbal constructions have the Macrostem High Tone and which do not have it.

Presence of Macrostem High Tone in the Indicative Mood						
Tense	Affirmative			Negative		
	perfective	progressive	habitual	perfective	progressive	habitual
P2	no	no	no	yes	no	yes
P1	yes	no	yes	yes	no	yes
PRES	yes	no	yes	yes	no	yes
F1	yes	no	yes	yes	no	yes
F2	yes	no	yes	yes	no	yes

in the Perfect		
Tense	Affirmative	Negative
Past	yes	forms do not occur
Present	yes	

in the Hortative Mood						
Tense	Affirmative			Negative		
	perfective	progressive	habitual	perfective	progressive	habitual
Present	yes/no ¹	no	yes	yes	no	yes
Future	yes	no	yes	yes	no	yes

in the Imperative Mood						
Tense	Affirmative			Negative		
	perfective	progressive	habitual	perfective	progressive	habitual
Present	sg: yes pl: no ²	no	sg: yes pl: no ²	yes	no	yes
Future	yes	no	yes	yes	no	yes

¹Note that the Macrostem High Tone is present in the present perfective affirmative when there are auxiliaries in the verbal unit, and the Macrostem High Tone is not present when no auxiliaries are in the verbal unit. This is the only context where the presence or absence of auxiliaries seems to affect the presence or absence of the Macrostem High Tone.

²In the present imperative affirmative, the plural forms do not have the Macrostem High Tone, whereas the singular forms do.

4.2.7 EXTENSIONS

As mentioned above in the description of the structure of the verbal unit, the Makaa verb stem consists of a root that may have extensions, either derivational or relational or both. A relational extension changes the valency of the verb, making it passive, reciprocal, reflexive, causative, or stative (Anderson, 1985:191-3). A derivational extension changes the meaning of the verb, such as intensifying the action. Two extensions may be added to one verb root, such as the causative followed by the passive.

Whether an extension can be used with a given verb is semantically determined. Since neither the occurrence of these extensions nor their exact form is predictable,

verb stems with these extensions are listed in the lexicon as separate entries from the corresponding verb stems without these extensions. Only the passive is highly productive, in that it can be added to many verbs. The reciprocal, reflexive, causative and stative extensions are used frequently. The intensive extension is not predictable, since its use depends so much on semantics rather than on grammatical relationships. The augmentative extension is unique in formation and meaning. Each of these extensions is discussed below.

Passive

The passive extension *-ow* is added to verb roots to form the passive construction. In this case, the patient becomes the subject, sometimes because the identity of the actor is irrelevant, but often, in order to hide or at least not state the identity of the actor. For example, the root *cil'éè* "write" takes the passive suffix *-ow* to result in *cil-ow*, meaning "be written." The agent can be expressed by the prepositional phrase, *néà* "by" plus a nominal referring to the agent.

Reciprocal and Reflexive

The *-yaè* or *ç/laè* extension gives either a reciprocal or reflexive meaning, as in *cil'éè* "to write" becoming *cil-ya* "to register" (really - "to enroll someone else"), and *dúŋ* "to see" becoming *dúŋ-ya* "to see each other". This suffix takes a different form, *-la*, after a vowel, as in *báññ/laè* "to resemble each other."

This reciprocal or reflexive extension indicates that the actor or actors are patient as well as subject. The reciprocal and reflexive constructions differ in number or in meaning more than in form. The reciprocal extension indicates that at least two actors are doing the action to each other, whereas the reflexive extension indicates that one actor is doing the action to him/her/itself. Thus the context shows whether it is reciprocal or reflexive. For example, *bwiññ-yaè* "to tell each other (stories)" takes a plural subject because it involves at least two people. Also, *cáál-ya* "love each other" involves at least two people. In contrast, *ciñgúè/laè* "to turn self" and *gwiññd-yaè* "to name after oneself" are reflexive and each take a singular subject. The verb *cilyaè* means "register self" in the reflexive, but it means "register (someone else)" when it is stated that the object is someone else than subject.

Causative

The causative extension normally indicates a valency of three, an actor, a patient and a third participant, who makes the actor do the action to the patient. But the action may be a process or state, where the actor and patient are the same, as in drying oneself or a door closing itself. Therefore, it seems better to describe the causative as indicating that an outside force is causing the action or process to happen or the state to exist, as in making something dry or closing a door.

The causative extension can be a suffix *-al*, or a change in the stem vowel. The following are examples:

		VERB STEM PLUS CAUSATIVE
<i>cilé</i> "to write"	becomes	<i>cil-al</i> "to register someone"
<i>jīg</i> "to be burned"		<i>jig-al</i> "to burn" (something)
<i>biil</i> "to fall"		<i>biil-al</i> "to make fall"
<i>fúla</i> "to mix"		<i>fúl-al</i> "to mix (food)"
<i>bwaad</i> "to clothe self"		<i>bwead</i> "to clothe (someone)"
		<i>bweadlow</i> "to be worn"
		<i>bweadya</i> "to be worn"
<i>bwag</i> "to be big"		<i>bweeg</i> "to enlarge"
<i>fand</i> "to braid hair"		<i>fendya</i> "to have someone else braid your hair"
<i>féd</i> "to be closed"		<i>fad</i> "to close" (something)

Stative

The stative extension indicates that an action or process is completed, and the patient is now in the resulting state. This extension is added to action verbs where the patient is non-human, and becomes the subject of the new stative verb, thus signaling a change in valency. Since this extension indicates a completion of an action or process, this extension could be considered a derivational extension, introducing new meaning. This extension has two parts, the suffix, *-ya*, identical to the reflexive or reciprocal suffix, as well as a vowel change in the stem, similar to that indicating causative. Some examples follow:

		VERB STEM PLUS STATIVE
<i>jaamb</i> "to cook"	becomes	<i>jeamb-yaè</i> "to be cooked, cook self"
<i>fad</i> "to close (something)"		<i>fead-yaè</i> "to be closed"
<i>cam</i> "to scatter"		<i>cem-yaè</i> "to be scattered"
<i>déè</i> "to eat"		<i>dli-yaè</i> "to be eaten"

Intensive

The intensive extension is the name given to derivational extensions that add new nuances to the meaning to the verb root and forms a new verb stem, in many different, unpredictable ways. Sometimes the derivation is no longer traceable. This intensive extension may take many different forms, such as *-la*, *-lé*, *-sa*, or *-wa*, or even a change in the vowel stem, as shown in the examples below:

VERB

cig "to cut"
zhimbaè "to push on"
juḡéè "to paddle"
bumb "to start up (humans), agitate"
gwaḡḡ "to swim"
byaè "to give birth"
waḡmb "to chase"
jiḡḡ "to teach"
bāi "to follow"
biḡéè "to put in suppository"
bwain "to beat drum"

VERB STEM PLUS INTENSIVE

becomes *ciḡ-úla* "to circumcise"
zhimb-úlaè "to be slow"
juḡ-úlaè "to be in last seconds of life"
bumb-úlaè "to start up (animals)"
gwaḡḡ-úléè "to anoint"
byaḡḡ-úlé "to cause a problem"
waḡmb-úléè "to sweep"
jiḡḡ-úlii "to learn"
bāi-saè "to answer"
biḡéè-waè "to take a suppository"
bwim "to hit oneself"
bwoim-aè "to meet a person"

Augmentative

The augmentative affix is a unique extension in its form and meaning, and has been difficult to label as well. It indicates how the action of the verb root is done, that the actor is doing the action indicated by the verb and only that action, not an action that might logically follow. The affix involves complete reduplication of the stem, and adding the suffix *-úḡ* to the end of the second stem, as shown in the examples below. There is a pause between the two stems, but no epenthetical vowel inserted between the two consonants.

aè ḡḡéè dúḡ dúḡúḡ "he is looking and only looking" (not making any comments, or not buying)

aè ḡḡéè laḡ laḡúḡ "he is only talking" (nothing else, he is not expected to follow through on any action discussed)

4.2.8 AGREEMENT PATTERNS

The Makaa verbal unit includes a subject and an object marker in some constructions. The subject marker is initial in the verbal unit, occurring as the first element of the Inflection. The object marker may occur directly before the verb stem of transitive verbs, within the Macrostem.

The subject marker agrees in noun class with the subject. It is obligatory with subjects of classes 3 through 10, not with classes 1 and 2. It may also be obligatory in some constructions with class 1 and 2 subjects, but further analysis needs to be done to determine the exact conditions under which it occurs. The subject markers are listed in §4.1.5 on agreement categories for nouns.

The object marker has a very restricted use, and is only used in some dialects. It can only be used when the object is human and in class 1 (thus in the singular, not in the plural, class 2). It replaces the object that normally occurs directly after the verb, and is identical in form with the object that normally occurs after the verb. In addition, the verb stem which follows it must be utterance final. In other words, one could say that the object, when it is a class one pronoun and the only complement of the verb, can be placed directly in front of the verb stem, making that verb stem utterance final.

4.2.9 DEVERBALIZING PROCESSES

Two deverbalizing processes are used in Makaa, namely, the formation of gerunds and the nominalization of an agent.

Gerunds

In the first deverbalizing process, gerunds are formed by adding the suffix - *lé* to the verb stem, or verbal morphemes as shown in the following examples.

Type of verb		Verb or Verbal Morpheme	Gerund
H tone verb	(closed final syllable)	<i>gwaŋ</i> "to hear"	<i>gwaŋ-úléé</i> "hearing"
	(open final syllable)	<i>baé</i> "to marry"	<i>baàléé</i> "marrying"
L tone verb	(closed final syllable)	<i>bám̄b</i> "to worry"	<i>bám̄b-úléé</i> "worrying"
	(open final syllable)	<i>jiī</i> "to cry" <i>déé</i> "to eat"	<i>jiīléé</i> "crying" <i>déá léé</i> "eating"
H tone verbal morpheme		<i>baà</i> distant future marker	<i>baàléé</i> "being in the future"
L tone verbal morpheme		<i>ŋgéé</i> progressive aspect marker	<i>ŋgéé léé</i> "being in the act of"
Toneless verbal morpheme		<i>dú</i> habitual aspect marker	<i>dú- léé</i> "being in the habit of"

These gerunds retain some verbal characteristics, such as the possibility of taking an object or other complement, and even a subject. However, they are nominals, since they function as nouns, occurring as subject or object of a verb. Also, they require secondary concord agreement in other parts of the clause, such as with the copula -*séé* "be" in the first example below. But, they are not considered full nouns, since they do not have noun class prefixes.

The following example sentences show gerunds functioning as objects and as subjects of clauses. When functioning as the subject of a clause, the verb is often a form of *ji* "to be," as in the first example below.

loó léé ji ñki-kwoola @Ló léé ji ñki-kwoola "Reading is difficult."

HHL L H-LLL
reading is difficult

Some verbs always take gerunds as the object, such as the verb *táád* "to begin" and *kaáá* "to be unable," in the first example below. The second example contrasts with the first, because the same structure is expected but *cááá* "to want" does not take a gerund.

bwo a kaad bug-élé mbwoomb

H H H HHL LL
 they P2 be unable break-GERUND SUFFIX bundle

@*Bwoiaakaad bugélembwoomb.*

"They could not break the bundle."

bwo a cáál bugé mbwoomb

H H LL HL LL
 they P2 wanted break (INFINITIVE) bundle

@*Bwoiaacáál bugémbwoomb.*

"They wanted to break the bundle."

This last example shows an aspect marker in gerundive form.

*mé ñgé-lé woos njow o ga @Méëñgélewoos
 njow oagè*

L HL L H H HL
 I PROG- arrive house COPULA this
 GERUND SUFFIX

"This is my arrival" (literally, "I arriving is this")

Nominalization of Verbs

Another common deverbalizing process is the formation of nouns, indicating the agent of the action, the action itself, or the result of the action. This deverbalizing process may involve one or more of the following changes to the verb stem: 1) adding a nasal prefix, 2) changing the stem tone from low to high, or 3) adding a suffix. The deverbalizing process may occur on a verb stem that already has an extension, such as a causative or stative affix. It is not predictable which of the changes will be used to indicate agent, action or result of action. Thus the resulting nominal forms are listed separately in the lexicon. These are described in detail in §4.1.6 on nominalization. Some examples are repeated here:

Verb	Noun
<i>wésh</i> "reveal"	<i>wésh-e</i> "revealer" (1)
<i>fafulé</i> "to blow on"	<i>fafula</i> "fan" (7/8)
<i>wésh</i> "to reveal"	<i>wésh-eà</i> "exit" (5,6)
<i>cáál</i> "to love"	<i>cááliù</i> "love" (7/8)
<i>jiigúli</i> "to learn"	<i>njiigúlaa</i> "teaching" (3/4)
<i>laì</i> "to be/become hard"	<i>méilaì</i> "hardness" (6)
<i>ncwoñ</i> "to be sweet"	<i>méncwoñ</i> "sweets" (6)
<i>baé</i> "to marry"	<i>baé</i> "marriage" (5/6)
<i>juwoè</i> "to steal"	<i>juwoè</i> "theft" (7/8)
<i>káá</i> "to be shrewd"	<i>káá</i> "shrewdness" (5/6)
<i>kédúgà</i> "to coagulate"	<i>kédúgà</i> "coagulated object" (7/8)