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A COMPARATIVE-HISTORICAL STUDY OF THE MANENGUBA LANGUAGES

(BANTU A.15, MBO CLUSTER) OF CAMEROON

by

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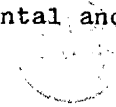
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### ABSTRACT

The Manenguba languages are a group of closely related Bantu languages spoken on the north-western edge of the Bantu area. The main goals of this study are to reconstruct Proto-Manenguba (PM) from which the present day languages have developed and to examine how they are related to each other.

In chapter two, the correspondences for consonants, vowels and tones are established and proto-phonemes proposed. In chapter three, the sound changes that have apparently taken place between PM and the different languages are presented and discussed. Several diagrams are included to highlight the kinds of splits and mergers that have occurred.

Chapter four is devoted to a comparison and partial reconstruction of the morphology of the noun class and concord system.

In chapter five, PM roots are compared with Proto-Bantu (PB) reconstructions in order to examine the sound correspondences between the two proto-languages. Special attention is given to the apparent double reflexes of voiceless PB stops in North West Bantu languages which have recently been attributed to a former lenis/non-lenis distinction. Apparent non-productive morphophonemic alternations in one of the languages (Akoose) are brought to light involving reflexes of the above stops, although we are not able to provide a satisfactory answer as to their origin.

Chapter six is concerned with the classification of the Manenguba languages. Previous classifications and some recent lexicostatistical classifications are surveyed. We then present and discuss our own lexicostatistical sub-grouping of the Manenguba languages plus their relationship to some adjacent languages. This classification is then related to the previous classifications and to shared sound and morphological changes established in chapters three and four.

The data on which the main part of this study is based is appended comprising some 700 comparative word lists from fourteen languages/dialects. Also included where possible are PB and proposed PM reconstructions of the lexical items.

To  
the people who speak the  
Manenguba languages

### ACKNOWLEDGEMENTS

Ek'ää àh'òg èk'ää'è dyòm.

One hand cannot tie a bundle.

Akoose proverb.

The above proverb expresses very well the fact that this study would have been impossible by exclusively my own efforts. I would therefore like to express my thanks to all those who, in one way or another, were instrumental in bringing this study to fruition.

I would like first of all to express my gratitude to the many speakers of the Manenguba languages who made this study possible by their enthusiasm, their encouragement, by making houses available to us and patiently working through lengthy lists of words with me.

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I also wish to express my thanks to the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom for granting an Award under the Overseas Research Students Fees Support Scheme for the academic years 1981/82 and 1983/84.

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In order not to omit my ultimate appreciation, I would like to end with the Psalmist's words:

"To you alone, O Lord, to you alone, and not to us,  
must glory be given because of your constant love  
and faithfulness." Psalm 115:1.

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ABBREVIATIONS AND SYMBOLSAbbreviations of language names used in this study

AKO	Akɔɔse, Bakossi
BBO	Babong
BFU	Bafun
BKM	Bakem
BLN	Belon, Balondo
BLO	Balong
BNK	Bongkeng
ELU	Elug, Elung
KIT	Kitchui
KNY	Kenyang
LEF	Lefɔ?, Bafaw
LEK	Lɛkɔŋɔ, Nkongho
MBA	Mba?, Bareko
MBE	Mbo of Ekanang, Mbouroukou
MBM	Mbo of Mboébo, Kekem
MBN	Mbo of Ngwatta
MHE	Mwahɛd, Manehas
MKA	Mkaa?, Bakaka
MNG	Manenguba, Manengouba
MWK	Mwaneka, Baneka
MWM	Mwamenam, Mouamenam
MYE	Myɛngɛ, Mbo of Nguti, Mienge
NGE	Ngemengɛ, Ngemengoe
NGW	Ngwe, Bangwa
NNE	Nnɛnɔŋ, Nninong
NSW	Nswasɛ, Basossi

Other Abbreviations

A.15, A.44, etc.	Guthrie's referential classification of Bantu languages
(A1)-(A709)	numbers referring to comparative word lists in appendix I
AssNP	associative noun phrase
BCCW	Benue-Congo Comparative Wordlist
CB	Common Bantu
CS	Comparative Series of Guthrie (1967-71)
IPA	International Phonetic Alphabet
M	Meeussen (1967, 1969)
PB	Proto-Bantu
PBC	Proto-Benue-Congo
PBK	Proto-Benue-Kwa
PEK	Proto-Ekoid
PI	Proto-Ijɔ
PM	Proto-Manenguba
PNC	Proto-Niger-Congo
ps	"partial series" of Guthrie (1967-71)
SCNC	South Central Niger-Congo
adj.	adjective
cl.	class
n.	noun
pl	plural
ps	person
sg	singular
v.	verb

## Numbers after morphemes:

1	noun class one
2	noun class two
1/2	noun class gender 1/2
[ant]	anterior
[cons]	consonantal
[cont]	continuant
[cor]	coronal
[fr]	front
[hi]	high, height
[lab]	labial
[lat]	lateral
[nas]	nasal
[rd]	round
[son]	sonorant
[syll]	syllabic
[voil]	voiced

Symbols used

C	consonant
V	vowel
VV	long vowel
:	vowel length
G	glide
N	nasal
N, ṃ	syllabic nasal
T	tone
[ ]	phonetic brackets
/ /	phonemic brackets
b	voiced bilabial fricative [β]
g	voiced velar fricative [ɣ]
ph, th, kh	in language data: aspirated stops, or in reconstructions: lenis stops
't, 'd, etc.	in reconstructions: lenis stops
bh	voiced bilabial aspirated stop
C'	unreleased stop
C?	consonant ending in a glottal stop
y	palatal glide [j]
w̄	rounded palatal glide [ɥ]
ny	palatal nasal [ɲ]
ʔ	glottal stop
š	voiceless palato-alveolar fricative [ʃ]
ž	voiced palato-alveolar fricative [ʒ]
c	voiceless palato-alveolar affricate [tʃ] (or voiceless palatal stop [c])
j	voiced palato-alveolar affricate [dʒ] (or voiced palatal stop [ɟ])
o	open back vowel
a	open front vowel [a]
ə	half open central vowel
ø	half close central vowel
ü	close rounded front vowel [y]
ö	half close rounded front vowel [ø]
∅	zero
*	asterisks indicate hypothetical reconstructions

H	high tone
ˊ	high tone
ˊˊ	high tone on long vowel
L	low tone
ˋ	low tone
ˋˋ	low tone on long vowel
HL	high-low tone glide
ˊˋ	high-low tone glide on short vowel
ˊˋˊ	high-low tone glide on long vowel
LH	low-high tone glide
ˋˊ	low-high tone glide on short vowel
ˋˊˊ	low-high tone glide on long vowel
ˋ	downstep
HˋH	high followed by downstepped high tone
ˊˋ	high followed by downstepped high tone
X > Y	X has become Y
Y < X	Y is derived from X
X → Y	X becomes Y
/_	in the environment of
+	morpheme boundary
/_+Ø	morpheme boundary pre-pause

Conversion of vowels and consonants

<u>This study</u>	<u>Meeussen</u>	<u>Guthrie</u>
i	ɨ	ɨ
e	i	i
ɛ	e	e
a	a	a
ɔ	o	o
o	u	u
u	ʉ	ʉ
ny	ɲ	ny

## CHAPTER ONE

INTRODUCTION1.1 The aim of this study

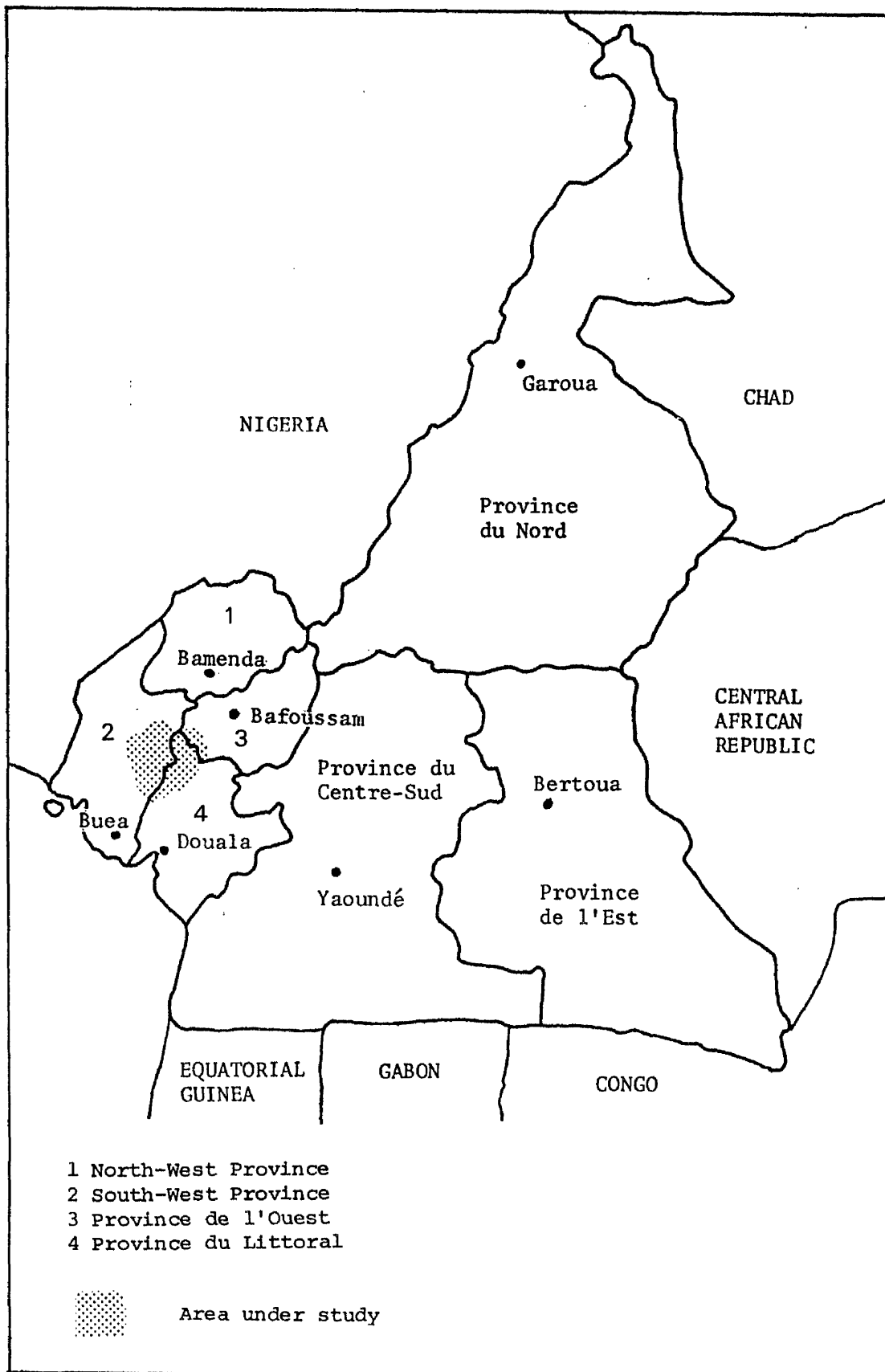
The Manenguba languages are spoken on and around the Manenguba mountain range situated in the south-western part of the Republic of Cameroon.

The aim of this study is to compare the different languages and dialects with a view to reconstructing aspects of the phonology, the noun class concord system and vocabulary of the common proto-language, and to make a classification of the languages and dialects which expresses the relationships between them and their development from the proto-language.

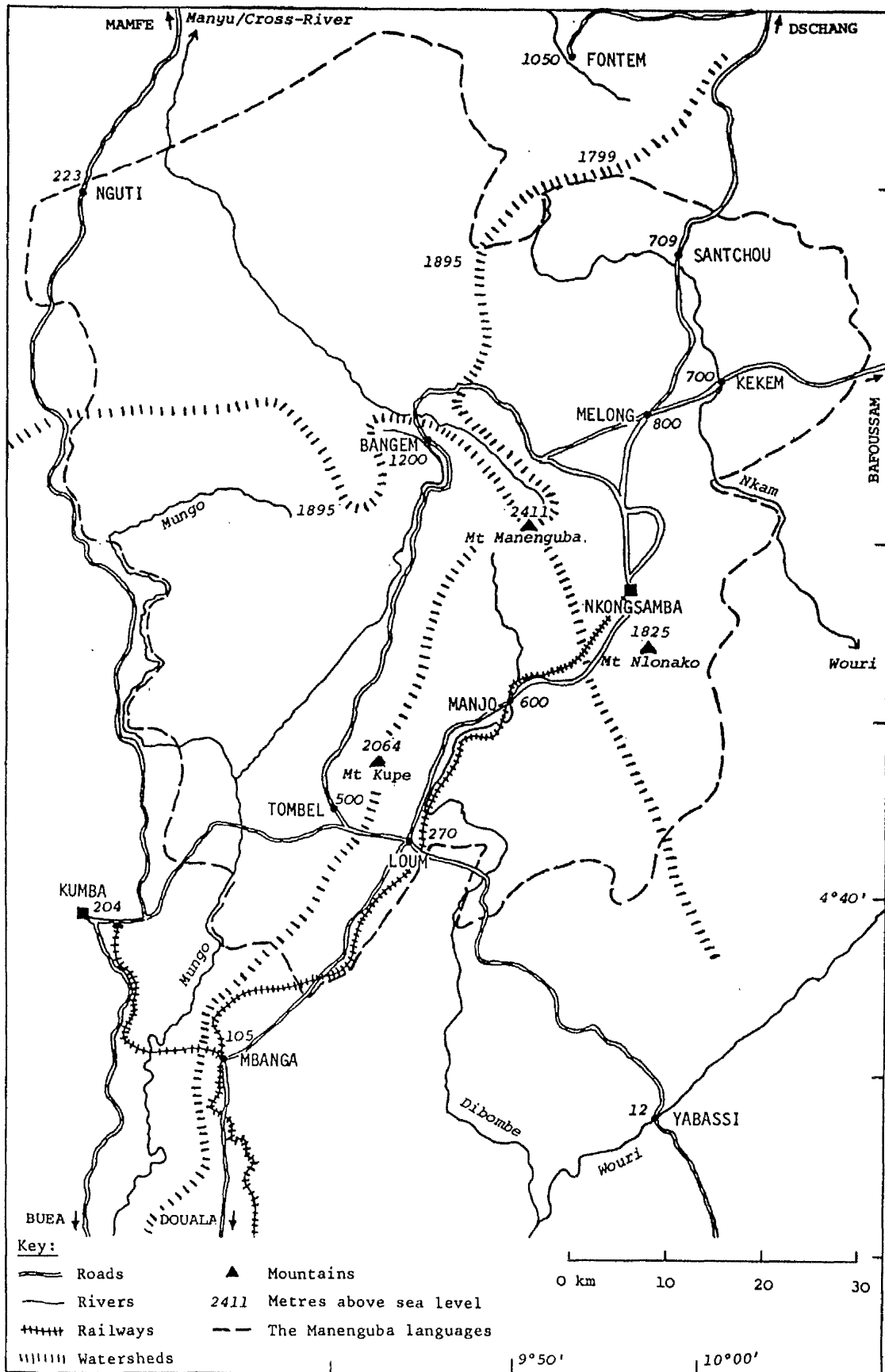
1.2 The location

The Manenguba languages are spoken in the area between longitudes 4°30' and 5°30' north of the equator and latitudes 9°20' and 10°10' east of Greenwich (cf. map 1) with Mount Manenguba at the centre (cf. map 2). Mt. Manenguba is the highest peak in the area (2411m), followed by Mt. Kupe (2064m) and Mt. Nlonako (1825m). They are all part of a chain of volcanic outcrops beginning with a group of islands in the Atlantic Ocean, followed by Mt. Cameroon near the coast and stretching far inland north-eastwards.

Map 1: The location of the Manenguba languages within Cameroon [1]



Map 2: The Manenguba area



The whole area lies within the region of tropical rain forest and large parts are covered by forest. On the slopes of Mt. Manenguba, savannah type vegetation is found. In many places the forest has been cleared for subsistence farming and large plantations.

There is a rainy season and a dry season with rainfall being heaviest from July to September and lowest from November to February. The highest annual rainfall has been measured in Nyasoso on the western slope of Mt. Kupe with 4045mm per year. Nkongsamba has an average annual rainfall of 2762mm (Ejedepang-Koge 1971:13). The area divides into three watershed areas, Mt. Manenguba being at the centre. The north-western part drains off into the Manyu and Cross rivers, the south-western part into the Mungo river and the eastern part into the Nkam and Dibombe rivers which, in turn, carry their water into the Wouri river (cf. map 2).

Two major roads traverse the area in a south-north direction: the Kumba-Mamfe road in the west and the Douala-Bafoussam road in the east. The only west-east connection by major road is the Kumba-Loum road. Many other minor roads provide motorable access to different villages, some of them becoming impassable during the rainy season. During German times, a railway was built between Douala and Nkongsamba which has been operating since 1911. There is also a branch to Kumba on the south-western edge of the area.

### 1.3 The people

Oral history of the Manenguba people begins with the ancestor Ngoe roaming the plains on Mt. Manenguba. There, while hunting, he met a young woman called Sunediang whom he married. They settled on the western slopes from where their offspring later migrated to different parts of the area [2].

There appears to be no recollection of history going back further than the ancestral figure to where the people originally came from.

The more recent history which has been accompanied by tremendous changes begins with the coming of the Europeans to the area. In 1886, two years after Cameroon became a German colony, the first explorer arrived in the southern area reaching Nyasoso [3] just north of Tombel. In 1893, the first Basel missionary arrived in Nyasoso marking the beginning of mission work there.

German administration ended during World War One and Cameroon was divided up to be administered by France and Britain. The dividing line went right through the middle of the Manenguba people following more or less the watershed line from north to south. After independence in 1960, this division is still reflected in provincial boundaries and the predominant use of English and French on the western and eastern side respectively.

The people speaking the various Manenguba languages belong to the following clans or ethnic groups: Mienge, Mbo, Basossi, Bakossi, Elung, Nninong, Mouamenam, Manengouba, Bareko, Manehas, Bakaka, Balondo, Babong and Bafun. Nkongho, Bafaw, Upper and Lower Balong, Bongkeng and Bakem are



sometimes included as part of this group (Ngoula n.d.), but we exclude them on linguistic grounds (cf. 6.3.2.3 and map 3).

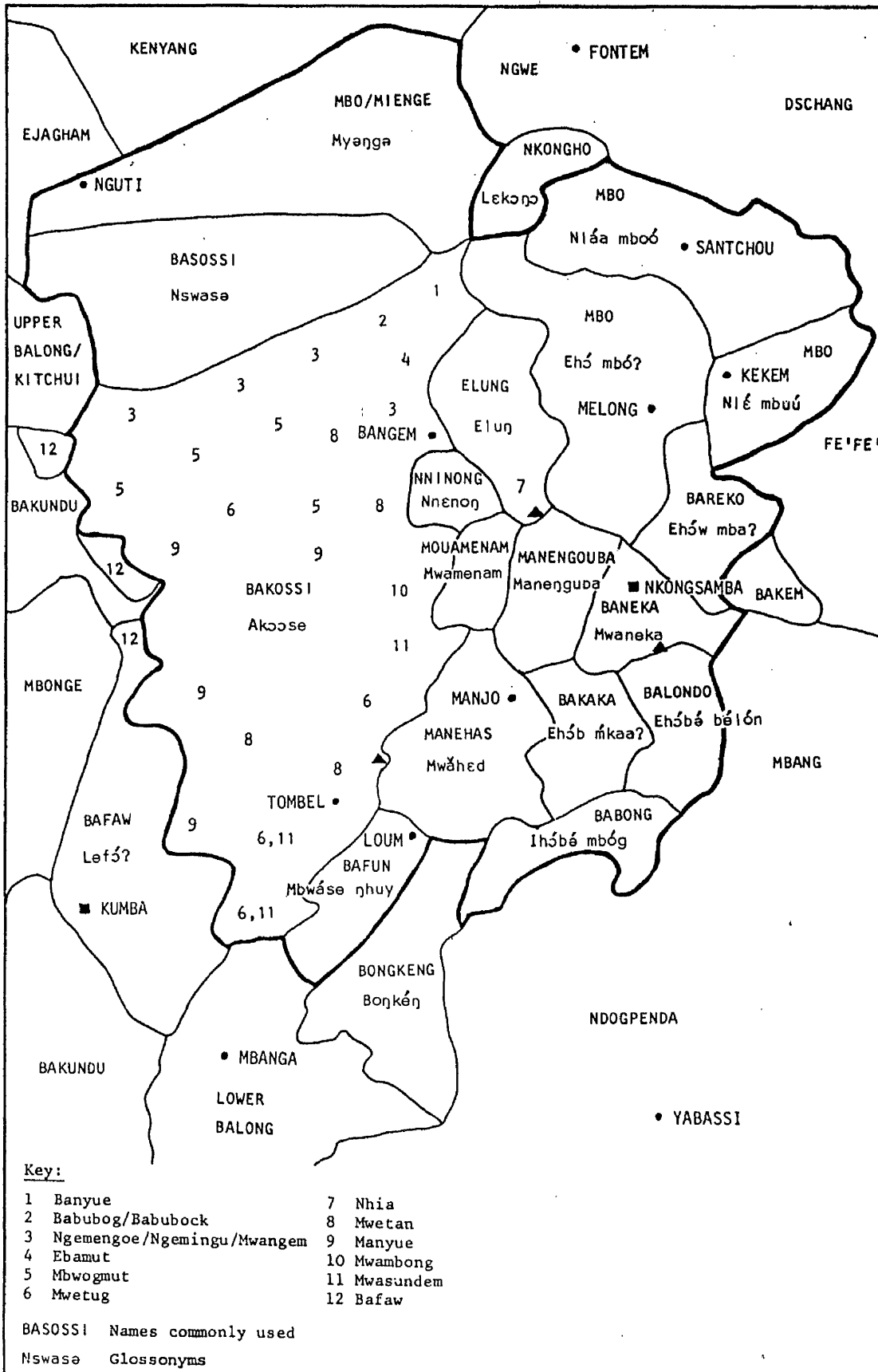
Population figures are estimated at somewhere around 200,000 people. It is, however, difficult to be certain of precise figures because the most recent survey made no difference between the native population and people from other ethnic groups who live in the territory of the people speaking the Manenguba languages [4]. Ngoula (1980) refers to Nloungh who estimated that the population including Upper and Lower Balong, Bafaw, Bakem and Bongkeng, was 230,000 in 1971 [5]. Adding up the figures given in Franqueville (1971:89-90) and the Dictionnaire des villages de la Meme (1973:9-10) leads to a similar conclusion.

Traditionally the people have been farming, hunting and fishing in the various small rivers. The introduction of cash crops such as coffee and cocoa as well as modern education has brought many changes to traditional life. Many people left their villages and are now working in different parts of Cameroon as teachers, pastors, civil servants, doctors, etc.

They used to build round houses with low walls and a high conical roof which is unique in this area. The women carry their loads in baskets on their backs with a band suspended over their heads. This is another feature which distinguishes them from most of their neighbours, the exceptions being the Bangwa and the Mundani to the north who use the same method.

The social organization has been based on family and descent groups expressed in such terms as àbòm á ndáb

Map 3: Ethnonyms and glossonyms

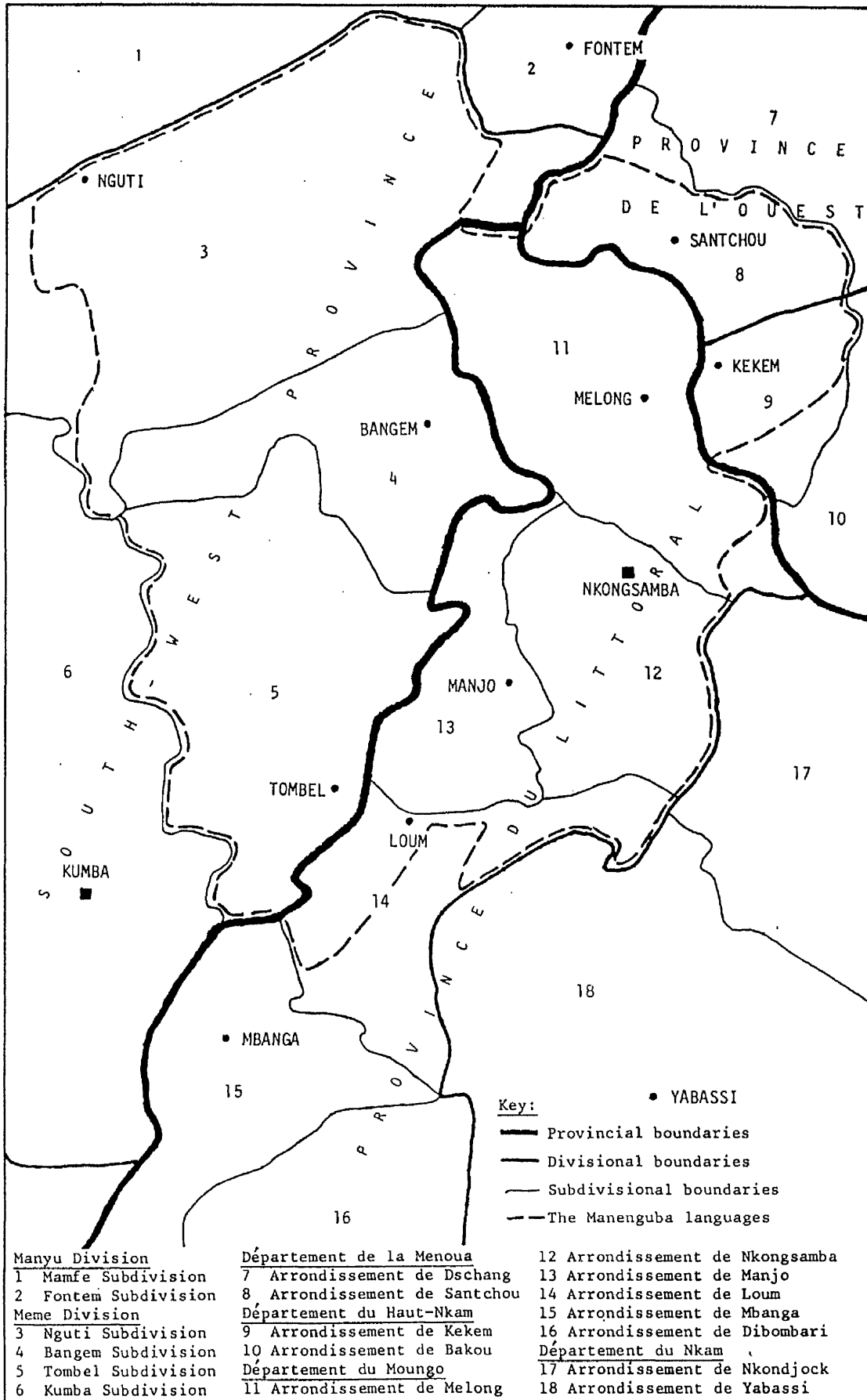


based on *Dictionnaires des Villages, Ejedepang-Koge (1971), Ngoula (n.d.), etc.*

"family" (lit. 'abdomen of house'), túmbé "family" and the different clan names. Village organization was egalitarian with the elders, who were also members of the various traditional societies being the decision makers, rather than hierarchical with a chief at the top as is found in the Grassfields area to the north. Although there are chiefs at village level and for larger groupings, these chieftaincies do not have the same status and power as those found in the Grassfields. It is very likely that the concept of a chief was absent before the colonial period [6].

The clan was probably conceived of as the largest definable unit since each clan has its own name (e.g. Mwetan, Manehas, Mbwogmut, etc.). There was clearly cooperation between clans in pre-colonial times (e.g. trade, marriage, etc.) and there is a certain feeling of oneness. This may be due to a shared common ancestry claimed by all, but there is no evidence that there was any larger political organisation embracing several clans. It was largely along clan lines that administrative boundaries were established during colonial times. Therefore, the modern divisions into various administrative units appear to largely [7] reflect the traditional divisions into groups of common descent but help to reinforce existing divisions [8]. Clearly it is the international boundary, which was placed through the middle of these related groups at the end of World War One, which had the most far-reaching influence. Not only did it stop trade and marriage between traditional partners, it also produced a previously non-existent language barrier. On the western side, people now speak English and on the eastern side, French (cf. maps 4 and 6). Other cultural influences

Map 4: Administrative divisions



Manyu Division

- 1 Mamfe Subdivision
  - 2 Fontem Subdivision
- Meme Division
- 3 Nguti Subdivision
  - 4 Bangem Subdivision
  - 5 Tombel Subdivision
  - 6 Kumba Subdivision

Département de la Menoua

- 7 Arrondissement de Dschang
  - 8 Arrondissement de Santchou
- Département du Haut-Nkam
- 9 Arrondissement de Kekem
  - 10 Arrondissement de Bakou
- Département du Moungo
- 11 Arrondissement de Melong

Key:

- Provincial boundaries
- Divisional boundaries
- Subdivisinal boundaries
- The Manenguba languages

Département du Nkam

- 12 Arrondissement de Nkongsamba
- 13 Arrondissement de Manjo
- 14 Arrondissement de Loum
- 15 Arrondissement de Mbanga
- 16 Arrondissement de Dibombari
- 17 Arrondissement de Nkondjock
- 18 Arrondissement de Yabassi

based on Map of Cameroon

can be observed. For example, on the western side it is common to be served tea for breakfast whereas on the eastern side, to be offered a glass of red wine with a meal is not at all unusual. The division is also reflected in the form of loanwords in the various Manenguba languages from English and French.

The colonial administrative divisions were continued after independence and after some modifications are now as on map 4 [9]. The Manenguba languages are therefore now spoken in three different provinces (cf. maps 1 and 4).

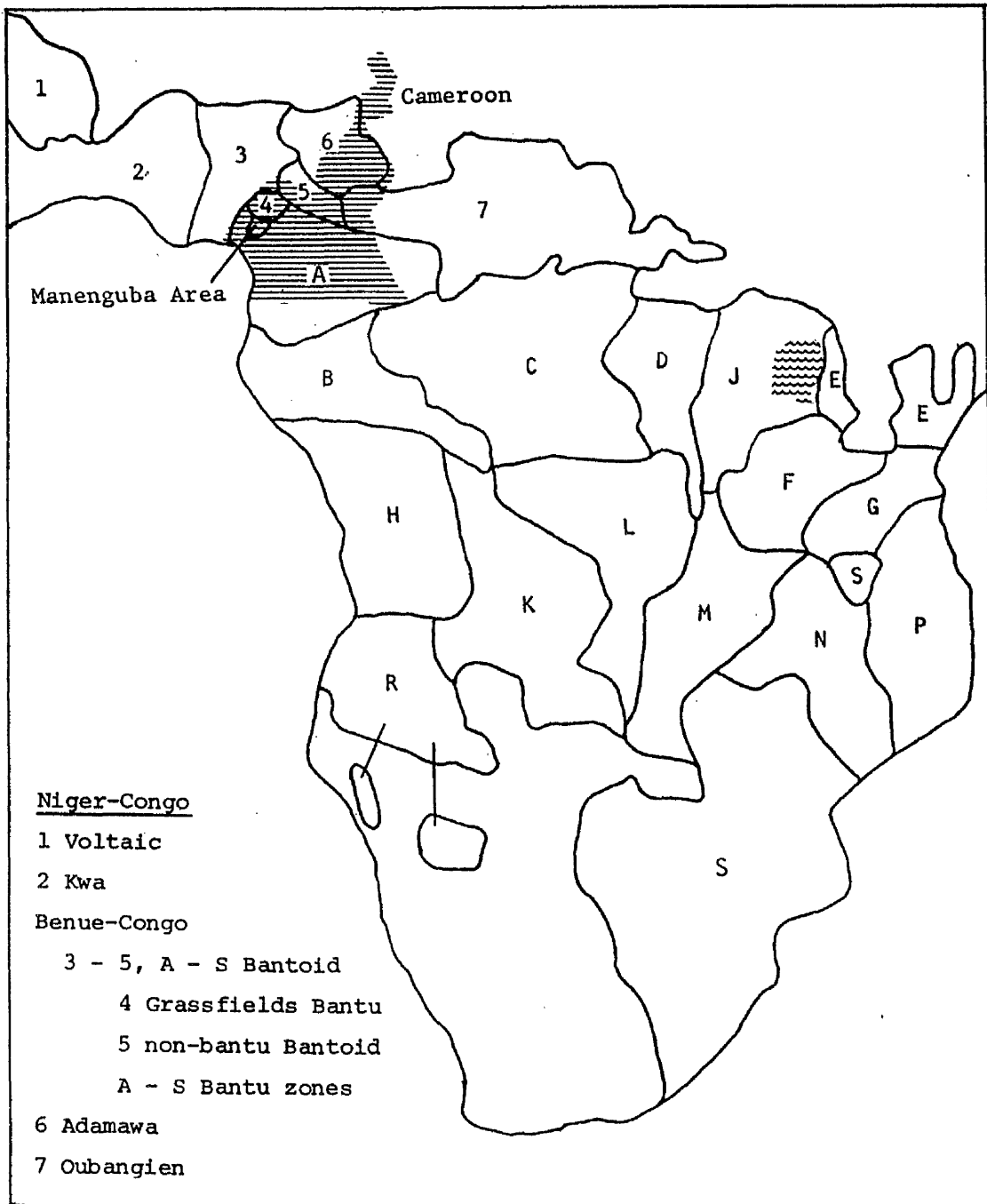
#### 1.4 The languages

##### 1.4.1 General comments

The Manenguba languages belong to the large group of Bantu languages spoken over most of Southern Africa (cf. map 5). The Bantu languages are in turn classified as Bantoid, Benue-Congo and Niger-Congo with Niger-Kordofanian as the highest category in the classification (Greenberg 1963). Geographically, the Manenguba languages are surrounded by other Bantu languages. To the west, south and east, languages of Guthrie's (1948, 1953, 1967-71) zone A are spoken. To the north-west, north and north-east are found languages classified as Ekoid Bantu, Mamfe Bantu (Williamson 1971:276) [10], and Grassfields Bantu, or more specifically, Eastern Grassfields or Mham-Nkam. More details of classification are given in chapter 6.

In the area of Mbanga, Loum and Nkongsamba, there are now many people who are of Bamileke origin, i.e. who speak Eastern Grassfields languages. This influx from the

Map 5: Manenguba within Niger-Congo and Bantu



based on Bastin (1978) and Barreteau (1978)

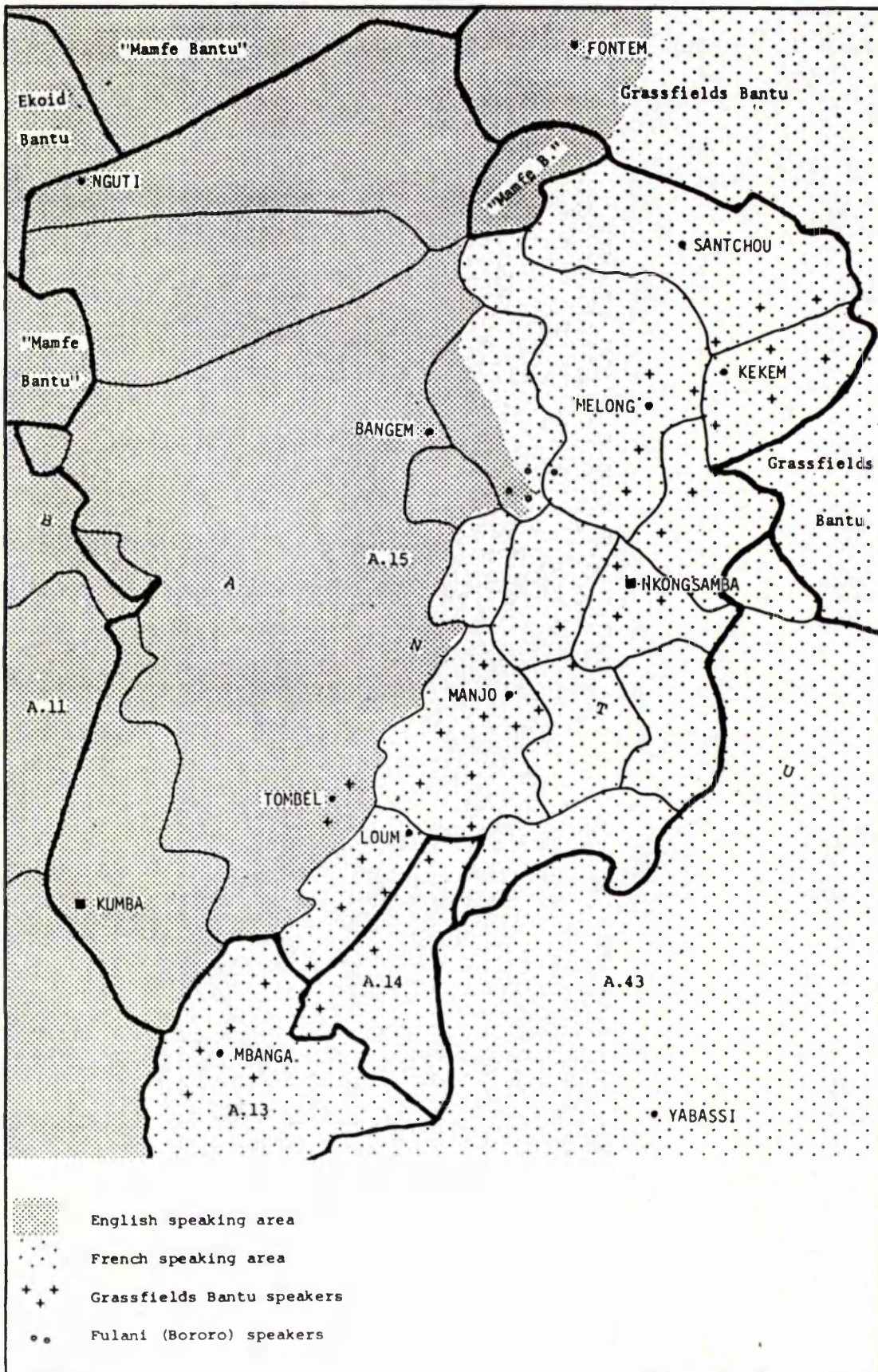
area to the north started early this century when they left their heavily populated homeland to come and work on the cocoa farms of the autochthonous population. They began to settle permanently in the early thirties when the economic crisis forced the native planters to pay their immigrant labourers by giving them part of their plantations (Dugast 1949b) (cf. map 6).

On the top of Mt. Manenguba, there are some small settlements of Fulanis, also called "Bororos", who speak a dialect of Fulfulde. They are Moslems and graze their herds of cattle and horses on the upper slopes and on the large crater plain of Mt. Manenguba, having come to the area in the 1950's (Balz 1984:135).

#### 1.4.2 The Manenguba languages

Turning now to the Manenguba languages more specifically, two questions need to be raised. The first is whether each different clan speaks a separate language or whether they are only dialects of one single language. The situation may be described as follows. Clearly not every form of speech dealt with in this study is a separate language if mutual intelligibility is taken as the main criterion. Several are mutually intelligible and therefore can be considered as dialects of one language (e.g. Bakaka and Manehas). Others are not mutually intelligible and therefore have to be considered separate languages (e.g. Bafaw and Bakossi). The intelligibility relationship is not, however, always clearcut but is rather a matter of degree. This makes it difficult to draw the dividing lines as absolute language boundaries. The lexicostatistical study in

Map 6: General linguistic map





chapter 6 will provide at least a partial answer to this question. The above issue also raises the question of when to use the term "dialect" or "language" when referring to any of the forms of speech under consideration. We have chosen to use the term language throughout this study, except when specifically discussing the distinction between the two, thus using the term in the sense of "form of speech" without prejudging the question of where to draw dialect and language boundaries.

The second question to be raised is, which languages are to be included in or excluded from the Manenguba languages? One purpose of this study is to provide an answer to this question. The languages used in this study are indicated on map 7. The languages defined lexico-statistically as the Manenguba languages in 6.3 are surrounded by a solid line on the map.

#### 1.4.3 Ethnonyms and glosonyms

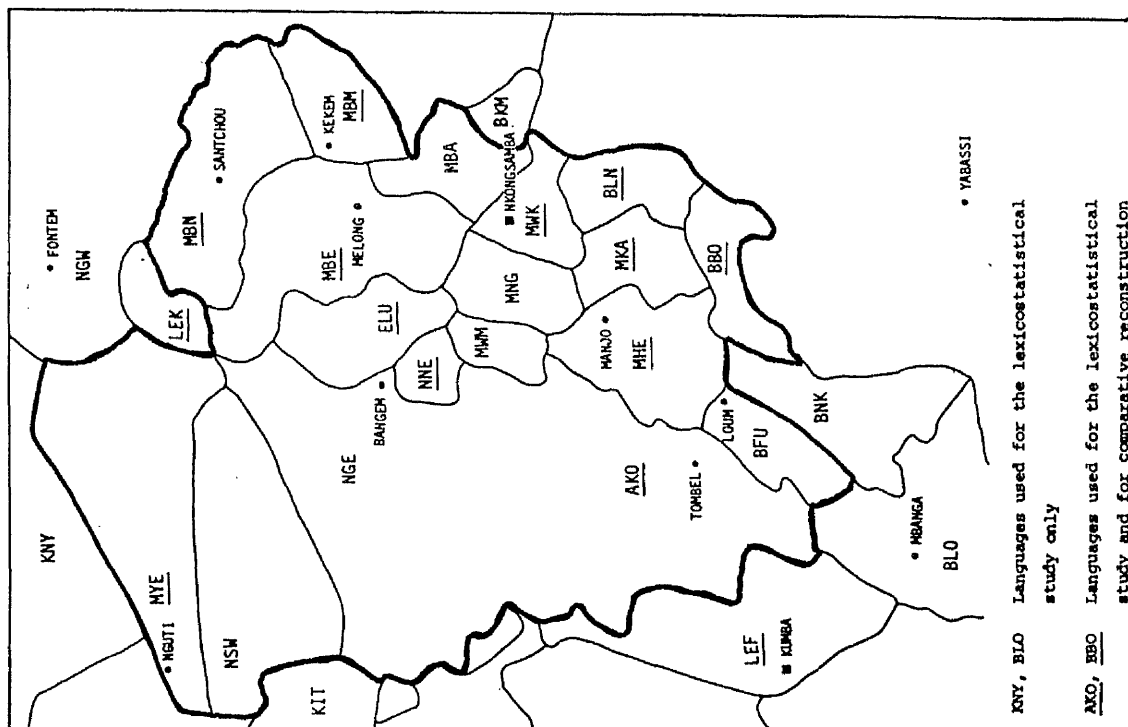
The area of nomenclature both for ethnic entities (ethnonyms) and for referring to the various languages (glosonyms) is very complex due to a variety of factors. In the different languages there are usually ethnonyms but there is not always a glosonym. In some cases, instead of a single word, there is a descriptive phrase used as a glosonym, e.g. èhó mbó? 'speech of the village' or èhóbé bélón 'speech of the Balondo people'. In many cases, there are Europeanized versions of the ethnonyms and glosonyms which are either distortions of the real pronunciation going back to when they were first written down in German, English or French, or they may reflect the form given by

Map 7: Languages/dialects used in this study

<u>Place of origin of speaker(s)</u>
Nyasoso
Badjoki, Ngondo, Salaka/Wkongbasi
Loum
Ndom
Nlonako
Mbanga
Njombe/Bonandam
Nkikoh
Manyemen
Tali II
Kumba
Mbeta
Ebouh
Ekanang, Mbouroukou
Mboôbo, Kekem
Ngwatta
Manjo
Ebone
Manengouba
Nkongasamba
Nsoung
Nguti
Babubock
Fossong Elieleg I
Nkack
Ekenge

Abbreviations of Glossonyms

AKO Akose, Bakossi
BBO Babong
BFU Bafun
BKM Bakem
BLN Belon, Balondo
BLO Balong
BNK Bongkeng
ELU Eluo, Elung
KIT Kitchui
KNY Kenyang
LEF Lefo?, Bafaw
LEK Lekoo?, Nkongho
MBA Mba?, Bareko
MBE Mbo
MBM Mbo
MBN Mbo
MHE Mwehd, Manchas
MKA Mkaa?, Bakaka
MNG Manenguba, Manengouba
MWK Mwaneka, Baneka
MMM Mamenam, Mousamenam
MYE Myeje, Mbo, Mienge
NCE Ngenge, Ngemengoe
NGW Ngwe, Bangwa
NNE Nncno?, Nninong
NSW Nswase, Basossi



KNY, BLO Languages used for the lexicostatistical study only

AKO, BBO Languages used for the lexicostatistical study and for comparative reconstruction

neighbouring groups. Some authors use the glossonyms with the noun class prefix, others for some reason omit them (cf. 1.4.3.1). Jacquot and Richardson (1956) used a detailed phonetic transcription which is found in modified form in later authors. A list of names bringing together as many of the variations as possible is given below.

#### 1.4.3.1 List of ethnonyms and glossonyms

The list below is a summary of the nomenclature found in the literature as far as the languages used in this study are concerned. First, the name by which the group or language is commonly known in English or French is given. The rest of the information is organized as follows:

- 1) glossonym (as recorded from native speakers)
- 2) ethnonym (as recorded from native speakers)
- 3) abbreviation used in this study
- 4) linguistic classification
- 5) alternative names and spellings found in the literature

If 1) or 2) is absent, this indicates that I do not have the relevant information.

Babong 1) ìhóbbě mbóg 3) BBO 4) Bantu A.15a/f 5) Babong, Kaka-Babong.

Bafaw 1) lèfɔ? 2) bāfɔ? (sg. m̄fɔ?) 3) LEF  
4) Bantu A.15a 5) Bafo, Bafɔ, Bafɔ, Fɔ, Fo, Nho.

Bafun 1) mbwāsè ghuy 2) myámíɔ?, bāfùn 3) BFU  
4) Bantu A.14 or A.15f? 5) Miamilo, Bongkeng, Penda.

- Bakaka** 1) èhɔ́ m̀kàà? 2) mkàà? 3) MKA 4) Bantu A.15f  
5) Kaa, Kaka.
- Bakem** 3) BKM 4) Bantu A.43a.
- Bakossi** 1) àkɔ́'ɔ́sɛ́ 2) bèkɔ́'ɔ́sɛ́ (sg. òkɔ́'ɔ́sɛ́) 3) AKO  
4) Bantu A.15b 5) Bakosi, Akose, Akɔ́sɛ́, Nkɔ́si,  
Nkosi, Kɔ́si, Kossi, Kosse, Koose, Bafaramani.
- Balondo** 1) èhɔ́bɛ́ bɛ́lɔ́n 2) bèlɔ́n (sg. m̀lɔ́n) 3) BLN  
4) Bantu A.15 a/g 5) Balondo (but not Lundu or  
(Ba-)Londo (Kuperus 1982) which is Bantu A.11a).
- Balong** 3) BLO 4) Bantu A.13 5) Balung, Balug,  
S. Balong, Balon, Balon, Balong Bayi, Bai, Long,  
Loung?, Melong?, Bilong?.
- Baneka** 1) mwaneka 3) MWK 4) Bantu A.15g 5) Mboo,  
Mūaneka, Muaneka.
- Bareko** 1) èhɔ́w mbà? 2) mbà? 3) MBA 4) Bantu A.15g  
5) Mbo, Mbo, Bareko-Baneka, Minahe.
- Basossi** 1) nswasə, ngǎn 3) NSW 4) Bantu A.15c  
5) Basosi, Bassossi, Sosi, Nswosə, Nswosə, Nswose,  
Swose.
- Bongkeng** 3) BNK 4) Bantu A.14 5) Bonken, Bonkeng,  
Bonkenge, Bonken, Bonken, Bonken, Bongkeng-Pendia.
- Elung** 1) akɔ́sɛ́ 2) élɔ́ŋ 3) ELU 4) Bantu A.15d  
5) Elong, Elɔ́ŋ, Elɔ́ŋ, Long, (but not Balong,  
cf. above).
- Kenyang** 3) KNY 4) "Mamfe Bantu", Bantu A. 5) Banyang,  
Banyangi, Banjangi, Nyang.
- Kitchui** 3) KIT 4) "Mamfe Bantu", Bantu A. 5) Kitwii,  
Twii, Kitchoue, North Balong, Bakoni.
- Manehas** 1) mwāhèd', mwāhès, mwāhèy? 3) MHE 4) Bantu  
A.15f 5) Mwahed, Wahet, Wahet, Mvae.

- Manengouba 3) MNG 4) Bantu A.15 5) Manenguba, Mwanenguba.
- Mbo 1) ṅlǎǎ mbòǒ 3) MBN 4) Bantu A.15g 5) Mbo, Mbo of Dschang.
- Mbo 1) ṅlǎǎ mbòǒ 3) MBM 4) Bantu A.15.
- Mbo 1) èhǎ mbòǒ, èhǎ mbò 3) MBE 4) Bantu A.15g 5) Mbo, Mbo, Sambo, Mbo of Mbouroukou.
- Mienge 1) myǎngǎ, èhwǎ ngǎn 2) myǎngǎ 3) MYE 4) Bantu A.15g 5) Mien'ge, Miengge, Miyangen, Mangen, Ngén, Ngen, Mbo, Lower Mbo, Mbo, Mbo Mi-or, Bug.
- Mouamenam 1) akòǒse 2) mwamenam 3) MWM 4) Bantu A.15f/b 5) Mwamenam, Muamenam, Akòǒsə.
- Ngemengoe 3) NGE 4) Bantu A.15 5) Ngemingu, Mwangem, Bangem.
- Nowe 3) NGW 4) Eastern Grassfields, Mbam-Nkam 5) Bangwa.
- Nkongho 1) lekòǒ 2) ñkòǒ 3) LEK 4) Bantu A ("Mamfe Bantu") 5) Nkongwa, Nkongoa, Mbo, Upper Mbo, Mbo, Kongoa, Mbo-Kongoa, Kinkwa, Nkinkwa, Nkwa, Mangen Konkwa.
- Nninong 1) akòǒse 2) ṅnǎnòǒ 3) NNE 4) Bantu A.15e 5) Ninong, Nnenǎ.

#### 1.4.3.2 The term "Manenguba"

Although there is considerable variation of names at the lower level, there is generally no argument about what a particular group or language should be called. However, as soon as one is looking for a term to refer to several groups together or to the group as a whole, no agreement can be found as to what term should be used. Terms such as Mbo (Etame 1981), Mòvo (Ebu n.d.), Mi-or, Min-or, Mine-eh (Njang

1972), Mwanengoe (Ejedepang 1971) have been proposed but none has found universal popular acceptance. Part of the explanation seems to lie in that

"no 'tribal' consciousness among the Bamileke or Mbo could be said to have existed before colonial occupation... It should be remembered that Bamileke, Mbo, ..., Bantoid, North-West Bantu are all names and concepts introduced by European linguists or administrators. It was the colonial and modern situation which in most cases made Cameroonian cultural groups aware of themselves." (Eyongetah and Brain 1974:8).

Several proposals have been made to date but they have usually been met with indifference or rejected. This is not totally surprising especially when an attempt is made to use the name of one sub-group to cover several sub-groups or the Manenguba group as a whole.

One problem encountered against this background was what name to adopt for the purpose of this study.

"Mine-eh", and related terms, which are based on the expression "I say" have been rejected by Ebu (n.d.) and have not found acceptance even amongst the closely related groups Baneka, Bakaka, Manehas, etc.

"Mwanengoe", which literally means the 'son' or 'offspring of Ngoe' has been rejected on the grounds that Ngoe, according to some tradition, is the founder of only one part and not of the group as whole. As Ebu (n.d.:3) states, "The Mbo people consider him as their son or at best their brother since he emigrated from them."

The term "Mbo" was first used by Guthrie (1953) in

the expression "Mbo Cluster" to refer to the Manenguba languages as a whole. The earliest reference to the term "Mbo" [11] appears to be the one in Manenguba-Expedition (1905) where it is used to refer to the people north-east of Nninong. Tessmann (1932a) extended its use southwards to include the populations to the east of the Kupe-Manenguba mountain range right down beyond Loum. Both Tessmann and Guthrie extended the use of the term for one sub-group to several sub-groups and the group as a whole. It is this extended application that is objectionable to people from a different sub-group (cf. Ejedepang-Koge 1971:313). In the most recent publication on what we term the Manenguba group, Balz (1984:1) uses the term "Bakossi" for the group as a whole, which clearly will not be acceptable to the people in the north and east.

Etame (1981) argues for the use of the term "Mbo" and Ebu (n.d.) for the cognate term "Mbvo" on the basis that they are terms found in all the sub-groups with meanings such as 'home', 'village', 'country', etc. (cf. (A182-5) in appendix 1). This is obviously an attempt at looking for a shared feature which is unique to these languages and marks them off from all other languages which did not have this item. The main problem with this proposal is that this term is not exclusive to the Manenguba group but is found in many other surrounding languages. Equivalent words are used in Douala: mbôâ 'chez soi, maison, famille' (Helmlinger 1972:277), 'homestead, home' (Ittmann 1976:325); in Ewondo: mvôg 'chez soi, village' (Abega n.d.); and in Bakoko: mbôh [= mbôg R.H.] 'maison, famille, groupe, lineage, clan, tribu, ethnie' (Buhan 1979:402). In fact, these cognate

terms go back to Proto-Bantu for which the common root has been reconstructed as \*-bǒgà 'village' (Guthrie 1967-71.III:63) [12].

Another problem with any word of this type is the fact that the forms vary from language to language which calls for a choice of one over another "spelling" as expressed by the difference between Mbo, Mbvo, Mbwo, etc.

Because of the difficulties associated with all the above terms, we have chosen the term "Manenguba" as a cover term for the group as a whole.

The term "Manenguba" was first used by Johnston (1919 and 1922) to refer to approximately the same languages. It is taken from the mountain which is at the geographical centre of the whole group and being a geographical term, it is therefore more neutral than the ones discussed so far. Cook (1969) set out some general principles for choosing names for sub-groups of languages:

"When possible it seems best to choose names which refer to some obvious and permanent geographical feature. In this respect, the names of rivers, seas, deserts, etc., are preferable to purely political names ... or names of towns, because they are less likely to change."

The term "Manenguba" therefore, fits into the set of linguistic terminology which includes terms such as Niger-Congo, Benue-Congo, Sanaga, Mbam-Nkam, Grassfields, etc.

One potential objection to the geographical term "Manenguba" would be that it is homophonous with the name of a clan living on the southern slopes of Mt. Manenguba. The



relationship of the two homophonous names is best explained by assuming that the name for the mountain is derived from the people living on its slopes rather than the other way round [13].

Throughout this study, the term "Manenguba" will be used to refer to the languages spoken in the geographical area at the centre of which lies Mt. Manenguba. By this choice, we do not assume that this will be the last word on this subject.

#### 1.4.4 The sociolinguistic situation

There is considerable complexity with regard to the number of languages used in different contexts. In the home and between speakers of the same clan, the mother tongue is used as it is between different groups or clans as long as intelligibility permits. For example, Nninong, Elung, Mouamenam and Bakossi readily use their own language to communicate with each other. Similarly, the Manehas, Bakaka, Balondo and Babong would not switch to another language. On the other hand, a person from Nguti does not understand someone from Nkongsamba and so has to switch to French or English.

German was introduced in the early colonial days as a means of communication but this came to a halt when Germany lost her colony in 1916. Today, only very few old men are living who can still speak it.

Duala, a related Bantu language spoken at the coast, was introduced as the language of education and for church use by some protestant missions and enjoyed widespread use as a lingua franca both in the South-west and Littoral

Provinces. After independence in 1960, Duala was abandoned for use in schools in favour of English and French. Duala has therefore gradually lost ground in this area with the young generation no longer learning it. It is to varying degrees still being used in the church services of the Presbyterian Church and the Eglise Evangélique for hymns and the liturgy, but it appears to be more so in the latter church than in the former. It is being replaced in the churches by various combinations of the local language plus English, French or Pidgin English.

Pidgin English is spoken in the whole area. Kisop (1963) mentions that 75% of the population speak it. Feral (1978:352) points out that there are two distinct kinds, one spoken by the anglophones, one by the francophones. Pidgin English was introduced as a lingua franca during the German colonial period, not as a chosen policy but rather spontaneously in spite of the fact that the authorities of that time wanted to see everyone use the German language (Stumpf 1979:37).

Today, children are educated in English or French, resulting in an increasing number of people who speak one or both of these languages with varying degrees of competence.

In several border areas, people are bilingual in their own and the neighbouring language. In Nguti, where there is considerable intermarriage with Banyang women, virtually everybody speaks both Myəŋgə and Kenyang. In a village called Bayang, south of Kekem, it was found that the Mbo minority was totally bilingual with Fe?fe?, an Eastern Grassfields language. We have heard reports that people in Santchou speak two languages but we have not been able to

ascertain the truth of this. Brain (1967:4) states that the Nkinkwa, here called Nkongho, "linguistically related to the Mbo, but ... intermarrying with the Bangwa ... all speak nwe from an early age". In the Nkongho village of Mbetta, this was denied and so Brain's comment may refer to villages further north.

In urban centres such as Nkongsamba, Tombel, etc., a variety of other languages are spoken in informal contexts. However, in more formal contexts, (government offices, banks, hospitals, etc.) either French or English is used, or where the person lacks competence in either of these, Pidgin English. The choice of language always depends on who is addressed, who else is present, whether the topic spoken about is private or official, whether other listeners are to be included or excluded from the topic of conversation, etc.

### 1.5 Previous linguistic work

The first published written record of material on the Manenguba languages dates back to 1828. This pre-dates the arrival of European explorers in the Kupe-Manenguba region by about sixty years. There are three published works from the pre-colonial period which are discussed below. Each is a collection of vocabularies collected from freed slaves living in Sierra Leone (Kilham 1828 and Koelle 1854) or collected "in the West Indies, Fernando Po, Cameroons (and occasionally elsewhere on the West African coast)" (Clarke 1848).

Kilham's Specimens of African languages (1828) is a collection of vocabularies from 30 different languages, each

vocabulary containing up to 79 words. The purpose of the book was to serve as a guide for children in Sierra Leone in learning to write their own language as well as English. Unfortunately, no details about the informant(s) are given making identification of their origin difficult. However, the list labelled "No. 23 Moko" [14] was identified by Hair (1966:216) as part of Bantu A.10. It seems most closely related to the languages from the south-east of the Manenguba area. On the basis of the word dis 'eye' MHE, MKA, BLN and BBO seem to be the most likely candidates. Kilham's list is reproduced as appendix 3.

Clarke's Specimens of dialects (1848) was the next collection of words to be published containing samples from the Manenguba languages. It contains vocabularies from several hundred languages, but not all collected by him. Because the lists are so short, containing only either the numerals 'one' to 'ten' or ten nouns, identification is not easy. Clarke lists languages with names such as Moko [14], 'Mwanjo, 'Ndiang, Abunggen [15], Bakumkum, Lomlom, Kosse, Kikke, Maneboki and Barihoh, and Hair (1966:216) identifies lists with these names as Bantu A.10. The ones which appear to have a close resemblance to the Manenguba languages have been reproduced as appendix 4. 'Mwanjo, and Barihoh resemble the modern place names Manjo and Barehock, and Kosse the glossonym Akosse.

Koelle's Polyvalotta Africana (1854) is the best known early collection of vocabularies. It went beyond Kilham and Clarke in several respects. Each of his lists contains nearly 300 words or phrases. He employed a method of transcription which allowed him to include many phonetic

details. In addition to listing the words, Koelle attempted to classify the languages on the basis of linguistic features and geographical distribution. He also included valuable biographical information about the freed slaves, their places of origin and how they originally became slaves (cf. appendix 6).

Koelle collected three word lists from speakers of Manenguba languages labelled Ngɔtɛŋ, Melonɔ or Melommesie and Nhaalemooɛ. They were correctly identified as belonging to the group of Manenguba languages by Johnston (1919:630, 1922:9) [16]. Tessmann (1932a:185) and Guthrie (1964:60) [17] agreed with Johnston's identification but were using the term "Mbo" or "Mbo-Cluster". Tessmann came closest to a precise identification referring to them as "Southern-Mbo". Koelle included them under the "Mokoo" [14] languages, a term which has not been used in the literature since.

On the basis of Koelle's geographical description (cf. appendix 6) both Ngɔtɛŋ and Melonɔ [18] come from the Manehas area but a linguistic comparison of these word lists (reproduced in appendix 5) with the lists in appendix 1 makes MHE, MKA and BLN possible candidates.

The geographical description places Nhaalemooɛ [19] clearly into Mouamenam. Linguistically, it is closest to AKO and NNE with which it forms a closely-knit unit (cf. (MWM) in chart 6.16).

Our conclusion is that Koelle's first two lists (Ngɔtɛŋ and Melonɔ) come from what we define in chapter 6 as the Eastern cluster, probably MHE, and the third (Nhaalemooɛ) from our Western cluster, most likely MWM.

The following authors who have been mainly concerned

with language classification have included the Manenguba languages in their work: Johnston (1919 and 1922), Talbot (1926), Tessmann (1932) and Meyer (1942) as well as Doke (1945), Guthrie (1948, 1953), Jacquot and Richardson (1956), Richardson (1957) and Bryan (1959) (cf. chapter 6.2).

Descriptive work began with Basedow (Dorsch 1910/11:241) and was continued by Dorsch who completed his Grammatik der Nkosi-Sprache in 1900/01, published as Dorsch (1910/11). Dorsch also produced a vocabulary Akosse-German (Dorsch 1911-1913) and a vocabulary German-Akose (Dorsch 1915). The first contains about 1,500 entries including illustrative sentences, the second has about 2,800 entries without example sentences.

Ittmann made numerous contributions in the area of linguistics and of the social and cultural anthropology of several peoples in this part of Cameroon, including Bakossi. Many of his publications have transcriptions of texts and songs, etc., and notes on the vocabulary and grammar showing his keen interest in the languages. Of interest to the student of the Manenguba languages are, for example, his collections of Bakossi riddles (Ittmann 1930) and proverbs (Ittmann 1936). His collection of games (Ittmann 1961) also contains ten pages of comments on the vocabulary contained in the transcribed text.

The Benue Congo Comparative Wordlist (Williamson and Shimizu 1968 and Williamson 1973) contains a partial word list of Mbo of Nguti (= MYE).

Ejedepang-Koge (1971:317) "put down a few aspects of [the Bakossi] language" with a wish to "throw a challenge to

linguists to study the language." In his 23 page sketch (316-339), he looks at language classification, the relationship to Proto-Bantu, and presents a sketch of the grammatical structure, morphology and tone, etc. Njang (1972) published a "Key to the Mienge language" as a guide to the alphabet.

Both these last two contributions are significant in that they were the first to have been produced by native speakers rather than by outsiders. Unfortunately, vowel length and tone distinctions are not marked which makes it difficult to determine the exact pronunciation of the words and sentences.

Angenot et al. (1973) is best described as a contribution to a certain type of generative semantics using data from Akɔɔse to illustrate the rules.

Wamunshiya (1973) is a study based on a variety of Akɔɔse close to Nninong. It presents the phonology and morphophonology in an early generative phonology framework. The author uses very abstract underlying forms. The underlying forms of the noun class concord prefixes and the vowel system, for example, are virtually identical with Proto-Bantu (PB) reconstructions. Had he worked from his language data only without knowledge of PB, his underlying forms and the underlying vowel system would, no doubt, have looked less like PB.

Our own work on the Manenguba languages began in 1974 with a preliminary survey of the western area. This was followed by a detailed study of Akɔɔse while resident in Ndom and Nyasoso until 1978. Work on Mwaneka (Mboo) began in 1980 with a speaker from Nkongsamba. The material for this

study (presented in appendix 1 and chapter 4) was collected in 1982/83 on field trips throughout the Manenguba area while resident in Ekanang-Mbouroukou. (The names of the various informants are given in footnote [20] to this chapter and their places of origin beside map 7.)

Our previous work on Akɔɔse (AKO) and Mwaneka (MWK) may be summarized under three headings: descriptive, lexicographical and practical works.

1. Descriptive works on Akɔɔse are papers on the phonology (Hedinger and Hedinger 1977), the noun classes (Hedinger 1980), the pronouns (1981), locatives (1983a), the verb morphology (1983b) and reported speech (1984).
2. Lexicographical work has resulted in a preliminary draft of an Akɔɔse-English dictionary (Hedinger and Hedinger 1983), and an English-Akɔɔse word list (Hedinger and Hedinger 1982).
3. Practical items intended for the speakers of Akɔɔse are (Hedinger, Hedinger and Metuge (1977a)), a guide to reading and writing Akɔɔse, and (1977b), a collection of traditional stories with English translation. Hedinger and Hedinger (1980) is an introduction to the alphabet of several Mbo varieties and Hedinger et al. (1981) is a brief summary of aspects of Mwaneka grammar.

As will have been noticed, almost all the descriptive and practical work has focussed on Akɔɔse with the few exceptions mentioned above. This situation has been slightly rectified by Nzanga (1980) and Atioge (1983). Both are theses written at Yaoundé University [21]. The first is based on Mbo of Mbouroukou (cf. MBE), the second on Mbo of Santchou (cf. MBN). Thomas and Behaghel (1980:34) indicate



that M. Dieu is engaged in research on "A.15f mwahet (= mvae)" but so far no results of this have come to our attention.

#### 1.6 This study

For many years, linguists have been explicit about the fact that the north-western area of Bantu is less well known than the rest of the Bantu area. In 1923, Bourquin limited the scope of his work in the following words "mit Ausnahme der Nordwestecke und der Mitte des Kongostaates [ist] fast jeder grössere Teil des Bantugebietes irgendwie vertreten" (1923:3). (With the exception of the north-western area and the Congo state, nearly every larger part of the Bantu area is represented in some way. My translation R.H.)

Bastin (1978:132) remarks that "les langues du nord-ouest sont encore mal connues". Such sentiments are frequently echoed in recent works. Dalby, commenting on Guthrie's comparative work on Bantu, points out that the languages of the north-west are insufficiently represented in his work (Dalby 1975:488). This under-representation is surprising since it has long been recognized that there is considerable diversity between the languages in the north-west.

In 1977, this situation led to a call for action by the following resolution:

"...compte tenu, également, de l'importance capitale des langues de la zone A pour la reconstruction du proto-bantou; les participants au Colloque du CNRS

sur L'EXPANSION BANTOUE, réunis à Viviers (France) du 4 au 16 avril 1977 ... soulignent l'urgence d'entreprendre une étude approfondie des langues de la zone A et souhaitent qu'un libre échange d'idées et de données s'établisse entre les organismes scientifiques concernés." (Hyman and Voorhoeve 1980:27)

As for the Manenguba languages which belong to this linguistic area, there is not only a lack of synchronic descriptions but also a lack of knowledge of the precise nature of the relationships between these languages. The relationship of these languages to the adjacent ones also needs further clarification.

This study is intended to make a contribution to the knowledge of the Manenguba languages. The first aim is to reconstruct the phonology, aspects of the noun class morphology and part of the lexicon of the proto-language from which the present day languages are derived. To achieve this aim, the comparative method will be applied to fourteen languages.

The second aim is to define what constitutes the Manenguba languages as well as producing a classification which shows both the relationships internal to the Manenguba group of languages as well as their relationship to some adjacent languages. The method employed for this is the lexicostatistical method, supplemented by taking into consideration changes in the phonology and morphology.

For data collection, three questionnaires were used. The first contained Swadesh's first and second hundred basic vocabulary items, to be used for the lexicostatistical

analysis. The second was a word list of 770 items specially compiled for this study to form the basis for the comparative reconstruction of Proto-Manenguba phonology and vocabulary. The third was a questionnaire containing material needed to elicit the information on the noun class concord system.

Chapter two presents the sound correspondences as found in cognate items of the fourteen languages underlined on map 7. On the basis of the sound correspondences, the consonants, vowels and tones of Proto-Manenguba (PM) are reconstructed. This chapter may be viewed as a projection backwards in time based on the languages spoken today.

Chapter three focusses on the sound changes that must have occurred between the reconstructed PM sounds and the individual languages.

Chapter four contains the material on the noun class concord system. An attempt is made at reconstructing some of its morphology. There, the relationship between noun prefix shape and stem initial sound is also discussed.

In chapter five, Proto-Manenguba is compared with Proto-Bantu (PB). Special attention is given to the alleged "double reflexes" of PB stops in PM which have been reinterpreted by some writers as reflecting an earlier lenis/non-lenis distinction. Lexical items of Akose apparently related by a non-productive morphophonemic relationship are examined in this context as well. These relationships had previously gone unnoticed and no satisfactory explanation has yet been found.

Chapter six is concerned primarily with language classification. First, classifications of different authors

are presented and discussed. In 6.3, we focus on classifications arrived at by the lexicostatistical method. The results arrived at by previous authors help to place the Manenguba languages in the larger context of the zone A languages. The results of our study provide largely an internal classification of the Manenguba languages. In the remaining sections, shared sound and morphological changes and lexical isoglosses are examined in order to evaluate the classification arrived at lexicostatistically.

## FOOTNOTES TO CHAPTER ONE

[1] The North and Centre-South Provinces have recently been divided into three and two new provinces respectively. I have not yet seen an official map with these new administrative divisions and so have given this now partially outdated map.

[2] There is another tradition according to which Ngoe is a descendant of Mbo (Balz 1984:56) (Mbo is also the name of the descendants in the north and north-east). According to this tradition, Ngoe would be the father of some but not all the descendants as claimed in the other tradition. Balz thinks that "its truth seems more to be in the early co-existence of a Mbo-group and a Ngoe-group than in Mbo having the priority and being the "father" of Ngoe." (Balz 1984:57)

[3] The first spellings of this name appear to be Nyánsoso (Zintgraff 1895:map) and N'yánsosso (1895:30).

[4] Balz, whose study covers the same group (he uses the term "Bakossi" for the group as a whole) estimates that they "number not more than 100.000 and not less than 80.000 people." (1984:23)

[5] Ngoula actually has the date 1917, which must be a mistake.

[6] Ejedepang (1971:86-88) thinks that chiefs go back to the pre-colonial period, being called "keng" (87). However, there is evidence which would call this into question. There are the words kɛn or kin and nhɛn and variants used to refer to a chief. If chieftaincy were an old institution, then it would be strange that two different terms were used. kan/kin is most certainly derived from the English word 'king' and probably introduced via Pidgin English early during the German period, (cf. 1.4.4) or possibly even before that time through contact with the coastal Duala people. Nhɛn also means 'rich man' and a member of the powerful ahɛn society and so it is not unreasonable that this term acquired the meaning of 'chief'. In the north of the area, the influence of the Grassfields term for chief fon which is cognate with nhɛn should not be ruled out. Early published vocabularies also appear to speak against a pre-colonial institution. Koelle (1854:27) has the following entries under 'King': ngiunmood [lit: old man, R.H.], moangiom-paa (i.e. chief, old man) [lit: big, i.e. important man, R.H.], and tetsɛ (i.e. father). Koelle's three informants used neither of the modern terms nor did they respond with the same term which one would expect if there were a term for chief. Dorsch (1911-13) does not have the term kan and only lists 'Reicher, Reichtum' [= rich man, riches, R.H.] under nhɛn (42). Dorsch (1915) gives 'Hauptling' [= chief, R.H.] as san e-ɔkɔn [= father of village, R.H.] and nowona diaad [= owner of village, R.H.]. And Ittmann (1936) has only one proverb about chiefs with the words kin and ngumna [= governor or government, R.H.] as alternatives. Perhaps it is also

significant that Ejedepang does not have a section on chieftaincy under his "Institutions of Bakossi" but discusses it under the heading of "The European Rule".

[7] Cf. maps 3 and 4. Note especially the relationship of the broken line to the administrative boundaries.

[8] Ndi (1980:1) expresses the sentiment that breaking up the Mbo people into small administrative units by the colonial powers was the cause of disintegration, "déséquilibre", and a minority complex leading to a lack of initiative, etc. However, it should be noted that what the Germans on their first visits to the area found was considerable fragmentation as seen from the following expedition reports.

"Ebensowenig ... bildet (die) Bevölkerung (des Manenguba-Gebirges) ein politisch in sich geschlossenes Staatswesen. Vielmehr besteht eine Menge unabhängiger, durch gleiche Interessen keineswegs verbundene Stämme. ... eine solche Zersplitterung." Manenguba-Expedition (1905:502). [Neither does the population of the Manenguba mountain range constitute a politically united state-like unit. Rather, there is a multiplicity of independent tribes, which are not even linked through common interests. ... such a fragmentation. (my translation, R.H.)]

"Bemerkenswert ist hier ferner die Zersplitterung der Bevölkerung in viele kleine, voneinander unabhängigen Dorfschaften ..." Mbo-Expedition (1906:775). [Notable here in addition is the fragmentation of the population into many small, mutually independent village entities ... (my translation, R.H.)]

[9] Recently, the administrative boundaries east of Santchou have been modified. However, I have not yet seen these adjustments in print.

[10] Mamfe Bantu is said to be a geographical classification without any claim to precise linguistic relationships.

[11] The term "Mbo" most probably has its origin in expressions for family quarters inside a village, such as Mbojɛlam, Mbóábí and Mbóànkí frequently found in the north-east and which gave rise to village names like Mbokambo, Mboango and Mboassoum (Map of Cameroon, Mamfe). It is conceivable that the first explorers were struck by the frequent occurrence of Mbo in these names and might, therefore, have started to refer to the people of that area as "Mbo".

[12] There are two further problems connected with the term "Mbo". First, what is the relationship with the alleged common ancestor Mbo? Two, we have recorded the term with three different tone patterns: mbó?, mbò and mbòó. To date, we have not been able to define the reasons for the differences.

[13] Etymologically, the term "Manenguba" is derived from mwan e nguba, lit. 'child/son of Nguba' meaning the 'offspring of Nguba'. The Manenguba clan lives on the slopes of the mountain facing the side where the Germans built the railway. It is conceivable that the mountain received the name from the people who lived on its side during that period.

[14] The term "Moko" or "Mokoo" is used by Kilham (1828) and Clarke (1848) for individual languages. Koelle (1854) used it as a cover term for several languages. It was apparently used in Sierra Leone to refer to people speaking those languages (Koelle 1854:11) and Curtin and Vansina (1964:208) refer to it as "the generic term for people from Cameroon". I have not come across this term in more modern times except as the name for a village and a river south of Mundemba near the coast in an area where Cross River languages are spoken (Map of Cameroon, Buea-Douala). According to Hair (1966:211, 215), the term is attested in the West Indies in 1767 for referring to a language of the Ibibio-Efik group (a Cross River language). Moco, which may be the Portuguese spelling for Moko, appears south of Oron in Nigeria on a map (in Bouchaud 1952) drawn by DeL'Isle who lived between 1675 and 1726 (1952:210).

[15] Abunggen is perhaps Bonkeng prefixed by the locative marker a-.

[16] Johnston identified Ngotɛŋ with Bangante, Melonj with Balun and Nhaalemoos with Bakosi (1919:630, 112; 1922:150-151), the first two identifications being incorrect. Bangante, as was pointed out to Johnston by Bernhard Struck (Johnston 1922:172) is a Grassfields Bantu language. Struck stated that Ngotɛŋ is "the dialect of a small tribe called 'Mane Ngotɛŋ'", but Johnston did not appear to have accepted Struck's comment.

[17] Guthrie (1964:60) suggested that Melonj may be identified with Elung (A.15d) but recognized that he did not have enough information available to identify it with any certainty. Curtin and Vansina (1964:202) identify Melonj with Bongkeng which is strange since Koelle reported that "Melonj is situated west of Bonkenj" (Koelle 1854:13, cf. appendix 6).

[18] Ngotɛŋ must be from Manehas. There is today a village called Manengoteng containing the same root. Other neighbouring places mentioned by Koelle's informant are 'Nkooat (= Bakwat ?), Ekanate (= Ekangte ?) and Mansoog (= Manjo ?), all place names in Manehas. According to the statement of Koelle's informant, Melonj lies between Nkaa (most likely Bakaka) and Bonkenj. This is where Manehas is found today.

[19] Nhaalemoos is said to be spoken in the Ndjumpaŋ district which lies between Nkooat and Moanehat. Njoumbeng (= Ndjumpaŋ ?) is the modern name of a Mouamenam village, Bakwat (= Nkooat ?) of a Bakaka village to the south-east. Moanehat must refer to Manehas which lies to the south of

the Mouamenam area. Koelle's two informants travelled to the coast via Koaase/Nkoaase/Nkooase, which must refer to Bakossi, the western neighbours of Mouamenam.

[20] The following people very kindly cooperated in the collection of the material used in this study.

AKO Godfred Elong Metuge Roggy  
 BBO Songuë David, Etoubé Samuel, Ngondo Ewane Emmanuel, Matike Fénélon Silas, Ekobo Ndima Manfred, Komo Ekwelle Paul  
 BFU Njoumé Komlé Samuel (Conseiller Municipal), Enongué Guillaume  
 BKM Essongo Marcel Florian  
 BLN Billé François, Ekouelle Madjike Maurice (chef supérieur)  
 BLO Ndando Ewane Fabien (chef supérieur), Essembe Ndike David  
 BNK Ngoh Lebe Robert, Sonne Jean, Mpacko Lebe Valentin  
 ELU Ngulle Nkolime Emmanuel  
 LEF Prince Ndoki Esoka Mukete  
 LEK Foka Andrew Fontem, Fontem Nicholas  
 MBA Ndoki Mbangue Christine, Motto Essebe Jacqueline  
 MBE Nnoko Ehobouel Thomas, Penda Abel, Ebene Eso Francois, Ndjalla Ewane Duhamel, Nnoko Mbondian Issac, Ngoh Njalla Caroline  
 MBM Langa Laurent and the village chief plus other men, Chef Maya, Ngange Nzale Rigobert, Mfondong Raymond, Amongue Eugene  
 MBN Assoute Mila (chef supérieur), Nsamin Jean, Essampe Ewane, Nkop Séraphin, Assoug Denis, Mila Polycarp, Sakam Gerard  
 MHE Ebang Charles (chef), Elalé Ekonlé Eugène  
 MKA Ebongue Ekobe (chef supérieur)  
 MNG Ekoume Etienne  
 MWK Ekandjoum Joseph  
 MWM Nguebe François  
 MYE Rev. Samuel Nyatua Njang  
 NGE Joseph E. Njume  
 NNE Chief Lucas Nzuonkwelle, Ebongekane Wang  
 NSW Max Akpo Anang

[21] Alobwede d'Epie (1982) is another recent study by a speaker of Akooase but I have not been able to read it. However, I am told that it does not focus strictly speaking on the linguistic side of Akooase but rather on language in traditional medicine.



## CHAPTER TWO

RECONSTRUCTION OF PROTO-MANENGUBA2.1 Introduction

In this chapter, my reconstruction of the consonants, vowels and tones of Proto-Manenguba will be presented. These reconstructions form the basis for the reconstructed PM roots in appendix 1. The focus in this chapter is on the present day sounds from which we can project back into the past to establish what the original PM sounds probably must have been. In chapter 3, the reverse perspective will be in focus: taking the reconstructed sounds as the starting point, we will look at the sound changes that have taken place between PM and the present day languages.

The following method was used in the reconstruction: First, the data was collected in the field with the aid of a word list containing about 770 words. A near phonemic transcription was used. With the exception of AKO and MWK, no thorough phonemic analysis was made. Then, for each gloss, the words given by the speakers of the different languages were collated, as presented in appendix 1. This provided sets of cognate items from which recurrent sound correspondences could be abstracted. The sets of sound correspondences were then examined to determine which proto-phoneme they probably represent, and each

correspondence set given a label in the form of a starred symbol. Care was taken to ensure that similar correspondence sets were not set up as representing different proto-phonemes if they are clearly in complementary distribution.

## 2.2 The consonants

In this section, the consonant sound correspondences as well as the reconstructed sounds will be presented. The reconstructions are primarily based on noun and verb roots, a large number of which have the structure CVC. Other structures are CVV, CV and CVCV, CVCV being limited to nouns only [1]. A distinction is made between the root initial consonant (labelled C1) and the second consonant (labelled C2) for the following reason. In morpheme final position, there is no voicing contrast and no nasal/prenasalised stop contrast. It is clear from a comparison with Proto-Bantu that such contrasts existed but disappeared before PM where C2 is morpheme finally (/\_\_+). Such contrasts in C2 position are still found in noun roots which have retained a final vowel, i.e. which have the structure CVCV. The range of sounds occurring in C2 is generally more restricted compared with C1.

In each chart below, the top row labelled PM represents the phonemes reconstructed for Proto-Manenguba. Below each starred proto-phoneme are listed the set of sounds corresponding from language to language and on which the reconstruction at the top is based. In a number of cases, the proto-phoneme is identical with the reflex in

most or all of the languages. However, in others, what should be set up as the proto-phoneme for the set of correspondences is not so clear. These will be discussed where necessary.

### 2.2.1 Consonants in C1 position

Chart 2.1: Voiceless stops and fricatives

PM	*p	*t	*k	*s	*f	*fy
MRM	p	t	k	s	f/š	(šy/šw/ɣ)
MBN	p	t	k	s/š	f	(šw/s)
MYE	p	t	k	s	h	(sw/sy/s)
MBE	p	t	k	s/š	h	s/šw/šy
ELU	p	t	k	s	h	hy/hw
NNE	p	t	k	s	h	hy
AKO	p	t	k	s	h	hy
MHE	p	t	k	s	h	y
MWK	p	t	k	s	h	š/sy
MKA	p	t	k	s	h	y
BLN	p	t	k	s	h	y
RBO	p	t	k	s	h/f/v	y
LEF	p	t	k	s/š	f	fy
LEK	p	t	k	s	f	šw

The s/š set has been reconstructed as \*s because the main reflex is an alveolar s. A few of the languages also have the palato-alveolar š in some roots. The phonemic status of š is not clear: it may be allophonic, either due to the environment or in free variation with s as one example in MBE appears to indicate. The uncertainty here

might be explained if one takes into consideration the corresponding PB reconstruction which is the palatal stop \*c [2]. The development from a palatal stop to s was probably via intermediate steps including a palatal or palato-alveolar affricate and fricative. It appears not unreasonable to think that in PM \*s might still have been palato-alveolar or that [s] and [ʃ] were in free variation in all or some contexts. At this point, it is not possible to come to a more definite conclusion. Perhaps only a thorough phonemic analysis of each language could shed more light on this point.

The set with mainly h is reconstructed as \*f because the sound change f > h is phonetically more plausible than h > f. Also, there is a correspondence of this PM \*f with PB \*p which suggests that there was a labial sound in the ancestor language which developed into h via f. The BBO sounds h/f/v are further dealt with in 3.2.2.

The \*fy sequence consisting of f plus the glide y is included here because of the variety of reflexes which have come from this sequence. The sounds or sound sequences in MBM, MBN and MYE are put in brackets to indicate that we have only one or two examples each. This sequence of C + G (glide) is an example of the fact that the morpheme structure given above is somewhat more complex. A glide y or w may be present in the position C\_\_V. For more details, see 2.4.

Chart 2.2: Voiced stops

PM	*b	*d	*j		*g	
			/m+__ /n+__	/__ /n+__	/__ /n+__	/n+__
MBM	b	d	z	z	y	g
MBN	b	d	j/z	z	y/ž	g
MYE	b/bh	d	j	z	j	g
MBE	b	d	j	z/ž/d	j/ž	g
ELU	b	d	j	z	j	g
NNE	b	d	j	z	j/c	g
AKO	b	d	j	z	c	g
MHE	b	d	j	z	j	g
MWK	b	d	j	z	j	g
MKA	b	d	j	j	j	j
BLN	b	d	j	j	j	g
BBO	b	d	j	z	j	g
LEF	b	d	j/y	ž/j	y/j	g
LEK	b/p	d	z/ž	z	z/š	g/k

The reconstruction of \*b, \*d and \*g appears to be clear except that LEK has a b in some correspondence sets and p in others where all the other languages have b, and similarly with g and k. So far, we have no explanation for this. The possibility that there was an earlier distinction which has disappeared in all other languages should not be ruled out, especially in the light of the discussion in 5.2 - 5.3. Since we exclude LEK from our definition of Manenguba, what we find in LEK does not affect the PM reconstructions. The \*g set only occurs following the class 9 and 10 nasal prefix [3] but contrasts in that context with \*b, \*d and \*j. The limited occurrence of \*g in C1 is due to

an earlier rule \*g > \*k which applied in all environments except following the class 9/10 prefix (cf. 5.3.3).

There are three correspondence sets, each reconstructed as \*j in PM. The three sets are in complementary distribution. The first set is found following the class 3 and 4 nasal prefix  $\tilde{m}$ -, the second set following the class 9 and 10 nasal prefix  $\tilde{n}$ -, and the third set elsewhere.

Chart 2.3: Nasals, laterals and \*w

PM	*m	*n	*ny	*l	*w
MBM	m	n	ny	l/d	(w)
MBN	m	n	ny	l/d	g/w
MYE	m	n	ny	l	w
MBE	m	n	y	l	w
ELU	m	n	ny	l	w
NNE	m	n	ny/y	l	w
AKO	m	n	ny/y	l	w
MHE	m	n	ny/y	l	w
MWK	m	n	y	l	w
MKA	m	n	ny/y	l	w
BLN	m	n	ny/y	l	w
BBO	m	n	ny(y)	y	w
LEF	m	n	ny	l/d	w
LEK	m	n	ny	l/d	g

The evidence for the nasals is straightforward except in the case of the palatal set [4] where there is variation in the sets of correspondences with no regular pattern determining the presence of palatal nasal ny versus

palatal glide *y*. A reconstruction of these as *\*ny*, however, does not seem unreasonable.

The lateral set presents a problem. MBM, MBN, LEF and LEK have in some cases *l* and in others *d*. At the moment it is not possible to come to a conclusion as to whether the presence of *d* in this set is due to a conditioned split and merger of *\*l* with *d*, or whether two separate proto-phonemes are responsible for the presence of *l* and *d*. If two phonemes were set up, it would not be possible in many cases to determine which of the two phonemes is present in a given proto-root because of the frequent absence of a cognate in all the four languages. For the moment, therefore, the two sets are reconstructed as one proto-phoneme with the realization that it may eventually be necessary to set up two proto-phonemes.

In the set reconstructed as *\*w*, the majority of the languages have *w*. Only LEK and MBN (and occasionally MYE) have a *g*. Comparison with PB suggests that *\*w* has come from a voiceless velar stop (cf. 5.3.1) which raises the question of what the phonetic value of *\*w* was, especially in the light of the presence of *g* in some present day languages. The fact that Atioge (1983:98,99) has both /gɔ̃n/ and /wɔ̃n/ for 'to plant' in his version of MBM shows that it is possible that both [g] and [w] might have coexisted in PM.

There is no *\*y* as CI at the PM stage to parallel the *\*w*. The latter derived from a velar stop whereas there has been no parallel development from a stop to a *\*y* (cf. 5.3.1).

### 2.2.2 Consonants in C2 position

Consonants found morpheme finally in CVC-roots (/\_\_+) are displayed in charts 2.4 and 2.5. Consonants in C2 position in CVCV-roots are relatively rare and are discussed at the end of this section.

Chart 2.4: Stops and laterals in morpheme final position

PM	*b	*d	*j	*g	*l
MBM	b'	d'	d'	k/g'	n/l
MBN	b'	l/d'	yg'/y?/Ø	?/g'	l
MYE	Ø/?	?	?/Ø	?	n
MBE	Ø/?	?/Ø/l	?/Ø	?	l
ELU	Ø/?/b'	?/d'/Ø	k/?	?/k	l/Ø
NNE	b'/?	d'/?	g'	?/g'	l
AKO	b'	d'	d'	g'	l
MHE	b'	d'/l/?	d'/y?/s	g'/?	l
MWK	w	l	y?	?	l
MKA	b'	d'	y?/s	g'/?	l
BLN	b'	d'	y?/d'/s	g'/?	l
BBO	b'	t/d	t'/s	k/g	y
LEF	Ø/?	?/Ø/l	?	?	?/Ø
LEK	?	?	?	k	∅/Ø

Due to the nature of the elicitation process, the consonants in chart 2.4 represent the pre-pause realizations of the respective phonemes with the exception of s in MHE, MKA, BLN and BBO, which is the sound found when followed by a vowel. Stops, in most cases, are unreleased (b', d', etc.) and devoiced before pause but they are voiced when followed by a vowel and there is close transition when followed by a



consonant. Intervocally, *d* is frequently realized as a flapped [ɾ]. Glottal stop often drops out when followed by a vowel. However, more work would need to be done to determine when the glottal stop is not deleted.

PM \*b is reconstructed for the set where there is predominantly an unreleased [b̚]. In ELU, some words have ∅, others have [ʔ] and still others [b̚]. It seems to be typical for ELU to have dropped final consonants in some words but not (yet?) in others (cf. also the nasals below).

As for \*d, the correspondences are all alveolar sounds with the exception of the glottal stop. The [t] versus [d] in BBO is allophonic (free variation) since there is no voicing opposition between root final stops. The presence of *l* versus *d* has no explanation so far, nor is it possible to separate the one set into two different sets representing two different PM sounds.

The set reconstructed as \*j contains both alveolar and velar sounds plus a palatal glide and glottal stop, and so a palatal stop seems the best choice as the proto-phoneme from which all the present day sounds are derivable. \*j occurs following any vowel.

The /s/ in MHE, MKA, BLN and BBO represents the morpheme final variant when occurring intervocally and is found in these four languages only. The /s/ is a separate phoneme both in the present day languages as well as at PM level. The question this raises is whether \*s should be posited as an alternant to \*j in morpheme final position in PM. My answer would be negative since no trace of such an alternation is found in the other languages. The question

then is how this alternation arose in MHE, etc. This point will be discussed in 3.2.1.

The reconstructions of \*g and \*l do not present any problems.

Chart 2.5: Nasals in morpheme final position

PM	*m	*n	*ny	*ŋ
MBM	m	n(∅)	∅	ŋ
MBN	m	n	ŋ	ŋ
MYE	m/∅	n/∅	ŋ/n	ŋ
MBE	m	n(∅)	∅	ŋ
ELU	∅/m	∅/n	∅/ŋ	∅/ŋ
NNE	m	n(∅)	ŋ	ŋ
AKO	m	n	n	ŋ
MHE	m	n	:∅	ŋ
MWK	m	n	:∅	ŋ
MKA	m	n	:∅	ŋ
BLN	m	n	:∅	ŋ
BBO	m	n	:∅	ŋ
LEF	m	n	n	ŋ
LEK	∅/n	∅		ŋ

On the whole, nasals do not present any problems. Zero in brackets after n indicates that the nasal has been dropped in the numerals 'three' to 'five'.

A palatal nasal is reconstructed even though no palatal nasal is found in this position in the present day languages (but cf. C1 nasals). As a set of correspondences, it clearly contrasts with the \*n-set and the \*ŋ-set and there does not appear to be any distributional restriction.

Since both alveolar and velar nasals occur in this set paralleling the palatal oral stop, the reconstruction of a palatal nasal is the most reasonable solution. Colons in MHE etc. indicate compensatory lengthening of the vowel preceding the lost palatal nasal.

ELU is interesting because it has dropped some of the nasals at each point of articulation. There appears to be a connection between the loss of nasal and a preceding open vowel. For more details, see 3.2.3.

Certain roots (non-verbal) are in some languages CVCV, i.e. C2 is followed by a vowel rather than occurring in final position. On the basis of such morphemes, it is possible to reconstruct some additional consonants for C2 position: voiceless stops and prenasalised voiced stops. There also appears to be \*s and \*f, but these may be due to reduplication of the root. Voiceless stop correspondences are the same as in C1 position. Prenasalised stops, on the other hand, do not otherwise exist [5]. The problem for reconstruction of sounds in non-final C2 position is that there are relatively few such roots due to the loss of earlier final V's and correspondence sets are often incomplete. Therefore, instead of giving a chart of sound correspondences, a list of references to individual cognate sets in appendix 1 is given here which may be referred to:

\*p (A51?, A426?) \*t (A150, A159, A319) \*k (A64, A217, A512) \*s (A84?, A393?) \*f (A76?) \*mb (A42, A157) \*nd (A96, A198) \*nj (A171?) \*ng (A15, A121).

There is no medial \*j set and evidence for \*p, \*s, \*f, \*ny, \*ŋ and \*nj is minimal or problematic.

2.2.3 The PM consonants

The consonants reconstructed above may be arranged as in the following chart:

Chart 2.6: PM consonant phonemes

	<u>labial</u>	<u>alveolar</u>	<u>palatal</u>	<u>velar</u>
voiceless stops	*p	*t		*k
voiced stops	*b	*d	*j	*g
continuants	*f	*l	*s	*w
nasals	*m	*n	*ny	*ŋ
prenasalised stops	*mb	*nd	(*n.j)	*ŋg

There are four points of articulation: labial, alveolar, palatal and velar. Consonants at the different points of articulation can be further classified as voiceless and voiced stops, continuants, nasals and prenasalised stops. There are only three voiceless stops in the set compared with four voiced stops. The absence of a voiceless palatal stop makes the system non-symmetrical. This is surprising since for PB a symmetrical system with a voiceless palatal stop [ç] has been reconstructed. The PB \*c has become PM \*s, but why PB \*j has not changed in parallel fashion is not apparent.

There are two voiceless continuants \*f and \*s, a voiced lateral \*l and a labio-velar glide \*w. There is a nasal at each point of articulation and either three or four prenasalised stops. The evidence for the palatal prenasalised stop is rather slim, the reason for the brackets around it in the chart.

There are several restrictions in the distribution

of these reconstructed consonants, which can be best seen by taking into consideration the different positions in the word roots. In chart 2.7, the PM consonants are shown according to their occurrence in the first or second consonant positions in word roots.

Chart 2.7: PM consonant phonemes in different positions

C1-position

\*p    \*t            \*k  
 \*b    \*d    \*j    \*g  
 \*f    \*l    \*s    \*w  
 \*m    \*n    \*ny

C2-position: root finally

\*b    \*d    \*j    \*g  
 \*l  
 \*m    \*n    \*ny    \*ŋ

C2-position: root medially

(\*p)   \*t            \*k  
 \*b    \*d            \*g  
 (\*f)   \*l    (\*s)  
 \*m    \*n    (\*ny)   (\*ŋ)  
 \*mb   \*nd   (\*nj)   \*ŋg

In C2 position before a root final vowel, the largest range of consonants occurs. It is only in this position that the prenasalised stops are found. However, it should be noted that the number of examples for many of these consonants is extremely small due to the loss of the final V in many roots [7].

In root final position, on the other hand, the smallest range of consonants is found. This is due to the fact that the voiceless stops have merged with the voiced stops and the prenasalised stops have merged with the nasals prior to PM in this context (cf. 5.3.2). This must now be

considered a morpheme structure constraint to which all roots which do not have a final vowel have to conform. In C1 position, the voicing distinction for stops is fully retained. Of the continuants, \*w occurs in C1 position only whereas \*l occurs in both C1 and C2 position. Whether \*f and \*s should be included as C2 is not certain. The velar nasal does not occur in C1 position. Not apparent from both charts 2.6 and 2.7 is the fact that the occurrence of \*g in C1 position is restricted to the position after the nasal prefix in nouns of classes 9 and 10 as pointed out above (cf. 2.2.1). It does not occur morpheme initially in any other context.

It was stated above that prenasalised stops only occur in C2 position root medially. However, some nouns of classes 9 and 10 have a nasal prefix preceding the initial voiced stop, e.g. n-dáb 'house' (cf. 4.5). The existing combinations are the following: \*n-b, \*n-d, \*n-j and \*n-g. The nasals are in the present day languages phonetically non-syllabic. These sequences could equally well be regarded as a series of prenasalised stops in C1 position with a zero prefix rather than considering them as two elements with a morpheme boundary between them. This would parallel the nouns in these classes beginning with voiceless stops which have a zero prefix: e.g. `Ø-kúb 'hen'. This is a common synchronic analysis for related languages (e.g. Bot Ba Njock (1970) and Dimmendaal (1976) which are quoted in Janssens (1982:12-13) and Renaud (1976)). Under this analysis, the prenasalised stops would then also occur in C1 position. As a consequence, the proto-phoneme \*g would only occur in C2 position. However, the distribution of prenasalised stops in

C1 position would be strictly limited to nouns of classes 9 and 10. I will not adopt this analysis here in order to facilitate the comparative study. For further discussion, see 4.5.

### 2.3 The vowels

Short and long vowels are reconstructed for PM. The long vowels are mainly found in roots of type CVV. Short vowel correspondences which allow for reconstruction with any certainty are found mainly in (V1 position of) roots with the structure CVCV, CVC and CV. First, the sound correspondences for short vowels are presented and then those for the long vowels. V2 of CVCV roots have in many cases been lost (cf. 3.3.4 and 6.4.2) or have undergone a variety of changes since PM, such as assimilation to the quality of V1, raising, lowering, etc., making the reconstruction of their quality impossible. Also, the reconstruction of vowels in affixes presents considerable difficulties (cf. 4.4.2ff for class prefixes) and affixes are therefore not taken into consideration here.

2.3.1 Short vowelsChart 2.8: Short front vowels and \*a

PM	*i	*e	*ɛ	*a	*a	*a	*a
				/__*j	/__*ny	/+C__+	/__
MBM	e/i	e	ɛ/e/i	ɛ	i	e/ee	a
MBN	e/i	ɛ/e/e	ɛ/c/e	ɛ	ɛ	e(e)/ɛɛ	a
MYE	i	e/i	e/c	ɛ	ɛ	ɛ/e	a/a
MBE	i/e	e/e	ɛ/e/ɛ	ɛ	e	ɛ/e	a/a
ELU	e/ɛ	e/e/ɛ	ɛ/e/ɛ	ɛ	ɛ	ɛ/e	a/a
NNE	ɛ/e	e/i/ɛ	e/i/e/ɛ	ɛ	ɛ	ɛ/e	a
AKO	i/e/e	e/i/e/ɛ	ɛ/e/i/e	ɛ	e	ɛ	a
MHE	i	e/ɛ	ɛ/e/e	ɛ	a	ɛ/a	a/a
MWK	i(i)	e	ɛ/e	ɛ	a	a	a
MKA	i	e	ɛ	a	a	a	a
BLN	i	e	ɛ	a	a	a	a
BBO	i	e	ɛ	a	a	a	a
LEF	i	e/e/i	e	ɛ	ɛ	a	a
LEK	i	e/ɛ		ɛ	e	a	a

On the basis of some of the languages (e.g. BBO), it is relatively easy to group the different vowel sets and reconstruct the proto-vowels. Where two or more vowels are present in a correspondence set separated by a slash, this indicates different reflexes of the same PM sound. The conditioning factors for these are dealt with in chapter 3. Four clearly distinct sets of vowels are reconstructed as \*a. The first set occurs before \*j, the second set before \*ny, the third set in CV roots and the fourth set elsewhere. The underlined a represents a low front vowel.



Chart 2.9: Short back vowels

PM	*ɔ	*ɔ	*ɔ	*o	*u
	/__*g	/__*ŋ	/__		
MBM	ɔ	ɔ	ɔ	o/u/wɔ	u/o
MBN	ɔ	ɔ	ɔ	o/ø/u	u/ə/ø/e
MYE	ɔ	ɔ	wo	wɔ/o/ɪ	u/o/i
MBE	ɔ	ɔ	o/ɔ	o/ø/ə/u	u/o/ü/i
ELU	ɔ	ɔ	ɔ/wɔ/wɛ	o/ø/ü/u	u/o/ə/ɔ
NNE	ɔ	o	ɔ/ə/wɛ	o/ø/ə/wɔ/a/ɛ	u/ɛ/ə/wɔ/a/ɔ
AKO	ɔ	o	ɔ/ə/wɛ	o/ə/wɔ/yɔ	u/o/i
MHE	ɔ	ɔ	ɔ	o/ø/ə	u
MWK	ɔ	ɔ	ɔ	o/u	u/i
MKA	ɔ	ɔ	ɔ	o	u
BLN	ɔ	ɔ	ɔ	o	u
BBO	ɔ	ɔ	ɔ	o	u
LEF	ɔ	ɔ	ɔ/wɛ	o	u/i
LEK	ɔ	ɔ	ɔ	u/o	ø/ɔ/i

There are three sets of correspondences reconstructed as \*ɔ, the first set occurring before \*g, the second before \*ŋ and the third set elsewhere.

In several languages, a glide (mostly w but also y) is found in the correspondences of back vowels. The conditions under which these were introduced are discussed in 3.3.2.5ff. The introduction of these glides essentially made the syllable structure more complex, changing CV... to CGV... (cf. also 2.4).

2.3.2 Long vowelsChart 2.10: Long front vowels and \*aa

PM	*ii	*ee	*ɛɛ	*aa
MBM	ii	i/i	ii/i	ɛɛ/ə/ee
MBN	ii	yə	yə/yɛ	əə/ɛɛ/ə
MYE	ii	yə	yə/əə	ə/ə/ə
MBE	ii/i	e/ee	e/ye	ə/ɛ
ELU	ii/i	ii/i	i/ii	ə
NNE	ii	ii	ii	aa
AKO	ii	ii	ii	aa
MHE	ii	ee	ee/e/ye	aa/aa
MWK	ii	ee	ɛɛ	aa
MKA	ii	ee	ɛɛ	aa
BLN	ii	ee	ɛɛ	aa
BBO	ii	ee	ɛɛ	aa
LEF	ii			ɛ
LEK	ii/i	ii/i	yɛ/ɛɛ	ya/a

The long vowels are relatively easy to reconstruct because some of the languages seem to have kept, with few exceptions, the original vowel quality. In MBN, etc., some long VV's have become glide plus short vowel, thus restructuring the syllable pattern from CVV to CGV. In the case of front vowels (and LEK < \*aa), the glide is y; in the case of back vowels, it is w. As can be seen from the correspondence sets, some languages have a short vowel where the reconstruction is long.

Chart 2.11: Long back vowels

PM	*ɔɔ	*oo	*uu
MBM	ɔɔ	u/uu/ɔ(ɔ)/ii	uu
MBN	wə	uu/wə	uu/wə
MYE	wɔɔ/wɔ	wə/w̃ə	uu/u
MBE	əə	ɔ	uu/ü
ELU	wə/ə	u	u/wi/uu
NNE	ɔɔ	uu	uu
AKO	ɔɔ	uu	uu
MHE	ɔɔ	oo/uu/üü	uu
MWK	ɔɔ	oo/o	u/u
MKA	ɔɔ	oo	uu
BLN	ɔɔ	oo	uu
BBO	ɔɔ	oo	uu
LEF	wɛ	wɛ	u
LEK	wɔ	ɔ/ugu	

In LEK, a velar stop is found in some reflexes of long \*VV the origin of which is not clear.

2.3.3 The PM vowels

In spite of the great variety of vowels in these languages (cf. Richardson 1957:8), a simple seven vowel system emerges when working comparatively.

Chart 2.12: PM vowel phonemes

<u>Short vowels</u>		<u>Long vowels</u>	
*i	*u	*ii	*uu
*e	*o	*ee	*oo
*ɛ	*ɔ	*ɛɛ	*ɔɔ
*a		*aa	

Two sets of vowels, short and long, need to be recognized. In each set, there are three front vowels, three back vowels and one low central vowel. This is exactly parallel to what different authors have reconstructed for Proto-Bantu (Meinhof 1910:20ff, Guthrie 1967-71.I:46, 61 and Meeussen 1967:82). We know from wider range comparison that in many cases, the long vowels of PM are the result of a disyllabic root in which C2 has been lost, for example, PB \*-bèdú corresponds to PM \*-bèè 'colanut' showing that at some point in the past there was a C2 (cf. 5.3.2). Other long vowels probably were long in the common proto-language (cf. PB \*-táànǎ and PM \*-táàn 'five'). Still other long vowels are the result of compensatory lengthening in CVC-roots where the C2 was dropped, e.g. PM \*-fíny > MHE -híí 'pus'.

There are very few roots where it might be possible or necessary to reconstruct two unlike short V's rather than one long V: CV1V2 (cf. (A277) \*súè 'fish').

#### 2.4 Glides between C and V

There are roots in which a \*w or a \*y glide can be reconstructed for PM between C1 and V1, e.g. \*-bwá 'dog', but never between C2 and V2.

These glides also occur in some of the noun class prefixes with the structure consonant plus glide: CG-. Prefixes with this structure occur exclusively before V-initial roots, e.g. \*dy`-ém 'pregnancy' (cf. 5.6). In some cases, such prefixes were later reanalysed as part of the

root to which another prefix was added, cf. (A70) PM \*mw<sup>h</sup>-<sup>h</sup>ēē  
> MHE ē<sup>h</sup>-mwēē 'finger'.

The reconstruction of these glides consequently makes the structure of PM morphemes more complex. Instead of the syllable onset consisting of a simple C, it may be complex consisting of C plus G, thus giving patterns like: CGVC, CGVV, CGVCV and CGV.

Since PM, certain roots in several languages have acquired a glide where previously there was none (cf. 2.3.1, 2.3.2 and 3.3.2.5ff), and some glides have undergone various changes (cf. (35) - (38) in 3.2.2).

## 2.5 Tone

The reconstruction of tones is, fortunately, relatively straightforward. Phonetically, there are level and contour tones or tone glides. There is downdrift, which means that when a H follows a L, the H is always lower than a H which precedes the L. The L tones are also gradually lowered. This means that phonetically there is a large number of different pitches. However, if only adjacent tones are considered, then there are very few options. Following a L, there can only be the same or a higher pitch (cf. (1a)). Following a H, there are three possibilities: the same pitch, a slightly lower pitch and a low pitch (cf. (1b)).

(1) a. [       ]                      b. [       ]

This means that phonologically there are only H and L tones which follow each other. The "mid" tone is explained in two

ways. In some of the languages, a lowering of H after H before pause is clearly an intonational feature. Within an utterance, it is not found. This may be expressed as (2).

(2) H → 'H /H\_\_pause

A H becomes downstepped high ('H) after H and before pause. The lowered final H in example (A13) in MBE and MKA is due to this intonational lowering.

The second explanation of the "mid" tone is that it is due to the loss of L between two H tones.

(3)  $\left[ \begin{array}{c} \text{—} \\ \text{—} \end{array} \right] \rightarrow \left[ \begin{array}{c} \text{—} \\ \text{—} \end{array} \right]$  or: H L H → H'H

There is probably a connection between the downdrift rule mentioned above and this phenomenon termed "downstep". Downstep usually results where two or more morphemes fuse thereby reducing the number of tone bearing syllabic elements. This is a synchronic process, but downstep has also been lexicalized in some items such as (A289).

There are falling and rising contour tones, the common ones being /<sup>^</sup>/ and /<sup>~</sup>/. The first is interpreted as a combination of H + L, the second as L + H. There are two much rarer contour tones /<sup>^^</sup>/ and /<sup>~^</sup>/. The first is a combination of L + H + L and has been observed as alternating with the simpler contours given above on the word for "cotton tree" (cf. (A310) AKO). The second is a combination of H + 'H (high plus downstepped high). One example of this contour is found in the ethnonym and glossonym for 'Bakossi' (cf. 1.4.3.1).

Against the background of the tonal phenomena discussed above, it is not surprising that there was the occasional mishearing and therefore mistranscription of tone.

Tone was transcribed using a limited number of accent marks to reflect the tonal system. This is necessarily a near phonemic transcription rather than a precise phonetic one.

In chart 2.13 the sets of tone correspondences plus tone reconstructions are given.

Chart 2.13: Tone correspondences

PM	*H	*H H	*L	*L L	*L H	*L H	*L H	*H L	*H L
MBM	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MBN	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MYE	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MBE	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
ELU	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋ	ˋˊ	ˊˋ	ˋˋ
NNE	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋ	ˋˊ	ˊˋ	ˋˋ
AKO	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MHE	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MWK	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋ	ˋˊ	ˊˋ	ˋˋ
MKA	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
BLN	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
BBO	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
LEF	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
LEK	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋˊ	ˋˊ	ˊˋ	ˋˋ

Correspondence sets with one level or contour tone represent monosyllabic roots, sets with two tones represent disyllabic roots. When a set of cognate roots consists of both mono- and disyllabic roots (e.g.(A362)), then the tone correspondences are partly from one and partly from the other related set.

On long vowels, written as two single vowels (VV), L and H tones have always been written doubly, e.g.  $\tilde{a}\tilde{a}$ . No claim is implied by this convention that this vowel carries two like tones. Usually it is interpreted as just one tone but it may come historically from two separate but like tones. Contour tones on a long vowel are written as two separate tones, e.g.  $\tilde{a}\tilde{a}$ .

There are three sets reconstructed as \*L H and two as \*H L. The rising glides in some of the languages occasionally have simplified to a L and the falling glides to a H tone. This is indicated by the presence of a contour tone and a level tone separated by a slash.

There are two distinct sets with rising tone glides on monosyllables. The first set reconstructed as \*L H which has a rising tone throughout is found predominantly on words analysable into prefix plus V-initial root: C(G)-V(C) e.g.  $mw-\tilde{a}n < mw\tilde{-}\tilde{a}n$  'child'. The best interpretation of this is to consider the L as belonging to the prefix and the H as part of the root both for historical and distributional reasons. In PB, noun prefixes had low tone (Meeussen 1967:97) (cf. chart 5.13). This appears to be confirmed by the fact that all nouns with a CG- prefix plus V-initial root never have a H as first tone in the overall tonal structure.

There are several nouns of the same type (CG-VC) with which the second rather than the first set of \*L H tones is associated (A160, A379, A397 and A415). There are also CVV roots with either the first or the second \*L H set. So far, we have no explanation to account for the difference



between the two sets, both of which we have reconstructed as \*L H.

To conclude, PM clearly had \*H and \*L tones which combined on morphemes in various patterns. Downdrift and downstep were probably also present in PM.

#### FOOTNOTES TO CHAPTER TWO

[1] Other structures are VC and V for nouns as well as more complex ones which are due to compounding and reduplication.

[2] There is no certainty as to the manner and place of articulation of PB \*c and \*j. Meeussen (1967:83) said that \*c could equally well be represented as \*s and \*j as \*z or \*y. Reflexes range from dental to velar and glottal articulation and include stops, fricatives and affricates (Guthrie 1967-71.1:51,62,76,77). The reflexes of PB \*c differ considerably from those of \*j, with s being the most common reflex of \*c. It is only \*j which has a palatal stop among its reflexes.

It would go beyond the scope of this study to resolve this issue. However, it appears possible that \*c and \*j were palatal stops or palato-alveolar affricates from which all the other sounds have developed.

[3] For details of the noun class system, see chapter 4. For classes 9 and 10, see 4.5, 5.3.4 and 5.3.5.

[4] For typographical reasons, we use ny to represent IPA ŋ.

[5] Except, of course, if the sequence of class 9/10 nasal prefix plus root-initial stop is reanalysed as a prenasalised stop (see below and 4.5).

[6] Cf. footnote 2 above.

[7] One or two examples of \*mp and \*nt are also found but there are too few examples to warrant their inclusion.

## CHAPTER THREE

SOUND CHANGES AND REFLEXES OF PM SOUNDS3.1 Introduction

Between Proto-Manenguba and the present day languages, a considerable number of sound changes have taken place, both in consonants and in vowels. Tone has changed relatively little. The purpose of this chapter is to spell out the changes as well as to present the resulting consonant and vowel systems as compared with the proto-system.

For both consonants and vowels, we will use a set of distinctive features to characterize the proto-sounds and the sound changes that must have occurred, as well as the environments in which the changes took place.

Some of the sound changes have clearly taken place in a specific phonetic context and are due to that context. Others cannot be attributed to context and have to be considered as changes which have taken place independently of the context. Abbreviations after the rules indicate in which language(s) a particular rule has taken place. Some changes are shared by two or more present day languages and may therefore indicate a closer genetic relationship between them. This topic will be taken up in chapter 6.

The number and kind of features have been chosen in order to specify both the PM sounds as well as their

development into the sounds of the present day languages. It is clear that for the PM sounds alone, or for the sounds of the individual languages alone, the number of features could be reduced. The aim here is not to work with the smallest number possible, but rather to be able to account for all the sounds and sound changes.

Most of the features used are introduced by including them in the feature charts for consonants (chart 3.1) and vowels (chart 3.17), but some less important ones in the text only.

With most of the rules, ordering does not appear to be necessary. However, there are some cases where the order of their application is important. Or, in other words, one sound change must have taken place before another since the reverse order would have produced a different result. Such cases will be discussed where appropriate.

The inclusion of LEF and LEK which we exclude from our definition of PM is in one sense inconsistent. However, we have done so because the relevant information is available to us and also because it appears that PM and the ancestor language of LEF and LEK were identical in most respects.



Chart 3.1: Feature chart for PM consonants (continued)

	m	n	ny	ŋ	mb	nd	nj	ng	y	w	ɱ
cons(onantal)	+	+	+	+	+	+	+	+	-	-	+
syll(abic)	-	-	-	-	-	-	-	-	-	-	+
son(orant)	+	+	+	+	-	-	-	-	+	+	+
ant(erior)	+	+	-	-	+	+	-	-	-	-	+
hi(gh)	-	-	+	+	-	-	+	+	+	+	-
back	-	-	-	+	-	-	-	+	-	+	-
cor(onal)	-	+	+	-	-	+	+	-	+	-	-
lab(ial)	+	-	-	-	+	-	-	-	-	+	+
voi(ce)	+	+	+	+	+	+	+	+	+	+	+
cont(inuant)	-	-	-	-	-	-	-	-	+	+	-
nas(al)	+	+	+	+	+-	+-	+-	+-	-	-	+
lat(eral)	-	-	-	-	-	-	-	-	-	-	-
r(oun)d	-	-	-	-	-	-	-	-	-	+	-

The feature [labial] is necessary to classify [b] and [w] as well as [kw] and [kp] as a natural class since [b] and [kw] have become [w] and [kp] respectively. [+high] is equivalent to [+height] and [-high] equals [+height] in the vowels (cf. 3.3.1). The feature [coronal] is used to specify both alveolar and palatal consonants (cf. Schane 1973:37, Schachter and Fromkin 1968:9 and Stewart 1976b:96). This has the advantage that the two sound changes \*j > d and \*j > g can be specified as C[+hi +cor] > [-hi] and C[+hi +cor] > [-cor] respectively (cf. (11) and (18) below). If palatals were specified as [-cor], the change \*j > d would need to be specified as involving many more feature changes than the change \*j > g. The first would have to be given as

C[+hi -back -cor -ant] > [-hi +cor +ant] whereas the second would be C[+hi -back] > [+back].

Another reason for specifying palatals as [+cor] is that it makes it possible to specify /k, g, ŋ, w/ and /h/ as [-ant -cor], i.e. as a natural class. That this is a natural class is shown by the fact that nasals become [ŋ] (i.e. [-ant -cor]) before this class of sounds. The feature [anterior] appears to be redundant but it is needed to specify the assimilation of nasals to velars and h as discussed above. If [ant] were dropped, the feature [lab] would have to be substituted for it. However, since in the above class of sounds w is [+lab] and the rest [-lab], a disjunctive specification would be the result. It therefore seems better to retain the feature [ant].

The uncertainty of the phonetic value of \*s and \*w in PM is expressed by question marks besides the feature specification. \*w is repeated in the second part of chart 3.1 for the following reason. The first \*w represents the sound reconstructed in root initial position which has a different origin from the second \*w (cf. (11) in 5.3.1 and (68) - (69) in 5.6). The second \*w, as well as the \*y, represents the glides in the position C\_\_(+)VC (cf. 2.4).

The prenasalised stops are specified as [+nas] which indicates that the segment is complex (Sommerstein 1977:104), it being first [+nas], then [-nas]. There are clearly other theoretical approaches to such complex segments such as introducing a feature [prenasalised]. However, it is not our aim here to discuss the merits or demerits of these different theoretical stances.

The last segment is a syllabic m. This has not been

one of the segments introduced in chapter 2 where the focus is on root morphemes, but it is required to account for various tone bearing prefixes (cf. for example, 4.4.5).

In the discussion of the sound changes, frequent reference will be made to morpheme boundaries, both morpheme initial and morpheme final. The classification of consonants as C1 and C2 is based on their position in roots with C1 being equivalent to C after morpheme initial boundary (/+\_\_) and C2, in the majority of cases, being equivalent to C before morpheme final boundary (/\_\_+). It appears to be easiest to state some of the phonological processes with reference to morpheme structure rather than in purely phonological terms. However, there is probably a connection between morpheme final position (/\_\_+) and pre-pause position (/\_\_+0) since unsuffixed forms of verbs and noun roots ending in a C frequently occur pre-pause, i.e. morphological and phonological contexts coincide.

### 3.2.1 Sound changes involving stops

The voiceless stops \*p, \*t and \*k in C1 position, i.e. morpheme initially (/+\_\_) have not undergone any sound change in any of the languages.

In C2 position, the voiceless stops have merged with their voiced counterparts where V2 has been lost since PM (cf. 3.3.4 below).

(1) \*p, \*t, \*k > b, d, g /\_\_+

In terms of features, this is C[-cont -nas -voil] > [+voil] [l]. This morpheme final merger is best explained in terms of a morpheme structure condition which disallows voiceless stops in morpheme final position. This constraint must have

been introduced before the PM stage as it is found in other NW Bantu languages, in Ekoid, etc. (cf. 6.4.1) and the reason for its introduction must be sought there. It is also expected to provide an innovation which might be important in the classification of the NW Bantu languages in relation to the languages which are related, such as the Ekoid and Grassfields Bantu languages, but not traditionally considered Bantu.

The intervocalic position (V\_\_V) cannot provide the answer since it is precisely there that the voicing distinction is maintained.

An explanation which takes the position within the syllable into account also has its difficulties. It could be said that the voicing distinction is maintained in syllable initial position but was lost in syllable final position.

- (2) a) .CV.CV.  
       ↓  
       b) .CVC.

The loss of final V in (2a) causes C2 to change from syllable initial to syllable final position (2b). Voicing contrasts are only present in syllable initial but not in syllable final position. It is conceivable that in syllable final position, especially pre-pause, voicing could have been lost. However, it is not the voiced stops that have become inherently voiceless but rather the voiceless stops which have become voiced. A further fact, which leads away rather than towards a solution, is that CVC roots frequently occur before another vowel (CVC+V...) synchronically and in PM, the V being either a suffix or the initial V of the following word. This is phonologically comparable to the structure in (2a) where there was a voicing distinction



before V. However, here the merger of voiceless with voiced stops took place before V which is separated by a morpheme or word boundary (/\_\_\_+V). The above discussion also applies to the parallel merger of prenasalised stops with nasals (cf. 3.2.3). We do not know what the ultimate explanation is. However, it is conceivable that the lenis/non-lenis distinction discussed in chapter 5 might have something to do with it. We will not be able to pursue this point any further.

In general, the voiced stops have undergone few changes in C1 position with the exception of the palatal stop \*j which indicates that palatals are the most unstable stops.

(3) \*b, \*g > p, k /n(cl. 9/10)+\_\_\_ LEK

There are several examples of devoicing of \*b and \*g but not of \*d in LEK following the nasal prefix of classes 9 and 10. It is not clear why devoicing should have taken place in this environment.

(4) \*b > bʰ /n(cl. 9/10)+\_\_\_ MYE

In MYE, in the same environment, \*b has become aspirated, the aspiration being voiced: C[-cont -nas +lab +voi] > [+aspiration] [2]. We have noted this sound also in the Western dialect of AKO. Aspirated bʰ is also recorded by Wamunshiya (1973) for a northern dialect of AKO.

It should be pointed out that the phonetic realization of /b/ in most other contexts is imploded [ɓ], but there is no phonemic contrast with the non-imploded [b] [3].

The most common change of \*j in C1 position is (5).

- (5) \*j > z /n(cl. 9/10)+\_\_ MBM, MBN, MYE, (MBE), ELU,  
NNE, AKO, (MHE), BBO, (LEF), LEK.

Brackets around language names indicate that there are some exceptions to the rule, the details of which we have not been able to work out. (5) may be formalized as C[-cont -nas +cor +hi +voil] > [-hi +cont] /C[+nas +cor -hi]+\_\_. This is, in one sense, an assimilation rule in that the stop becomes like the nasal in respect to point of articulation. \*j might already have been affricated in PM, which is not unnatural for [+cor +hi] stops. For it then to have become (completely) [+cont] can be regarded as a weakening of the affricate to a fricative.

- (6) \*j > y /[-nas]+\_\_ MBM, MBN, (LEF)

(6) can be formalized as C[-cont -nas +cor +hi +voil] > [+cont +son]. This appears to have taken place in non-nasal environments.

- (7) \*j > c /[-nas]+\_\_ (NNE), AKO

(7) is implied in chart 2.2 as a historical sound change taking place in non-nasal environments. However, since [j] and [c] do not contrast in AKO (compare A118 with A672), it is better to consider the relationship between \*j and c in (7) to be \*j > j plus the allophonic rule /j/ --> [c] in the environment given [4].

- (8) \*j > ž /+\_\_ (MBN, MBE, LEF, LEK)

(8) which is C[-cont -nas +cor +hi +voil] > [+cont] appears to have occurred in several words in different languages.

However, it is not clear whether [ž] is a phoneme in those languages or whether (8) should rather be \*j > j plus an allophonic rule /j/ --> [ž] in the appropriate environment.

In morpheme final C2 position (/\_\_+) \*b, \*d and \*g often have as reflexes b, d, and g. \*j on the other hand, does not have /j/ as a reflex and therefore has undergone change in every case.

(9) \*b > w /\_\_+ MWK

C[-cont -nas +lab +voil] > [+cont +son +rd +hi] morpheme finally in MWK without exception (cf. the discussion of (13) below).

(10) \*d > l /\_\_+ (MBN, MBE, MHE) MWK and (LEF)

C[-cont -nas +cor -hi +voil] > [+cont +son +lat] in every case in MWK but only in some cases in the other four languages. It is not clear why some but not all \*d's have undergone this change. Other reflexes are d, ? and Ø. Two possible explanations suggest themselves and would need further investigation. One, there was more than one proto-sound, and they have merged irregularly (cf. 5.3.2) and two, rule (10) only applied to some instances of \*d and not to others for as yet unknown reasons.

(11) \*j > d /\_\_+ MBM, AKO, (MHE, BLN), RBO

C[-cont -nas +cor +hi +voil] > [-hi] morpheme finally in the above languages. This represents a simplification of the articulation of the palatal sound and resulted in a merger of \*j with /d/. In MHE and BLN, the output of (11) varies with the output of the following rule.

(12) \*j > y /\_\_+ (MBN, MHE,) MWK, MKA, (BLN)

C[-cont -nas +cor +hi +voil] > [+cont +sonl] morpheme finally primarily in MWK where it applied without exception. The relationship between (11), (12) and (14) in MHE, MKA, BLN and BBO will be further elaborated after (14). First, a comment on MWK is in order. In MWK, (9), (10) and (12) have applied without exception which distinguishes MWK from the other languages. What is common to the three rules is (13).

(13) C[-cont -nasl] > [+sonl]

[+sonl] is by implication also [+cont] which could be expressed by a redundancy rule. In the case of the labial (cf. (9)), C > [+rd +hil] was also involved, and in the case of the alveolar (cf. (10)), C > [+latl].

This is one of the few cases where a more general rule applying to several segments could be said to have applied. The question here needs to be raised whether the velar stop \*g was also affected by this rule. (In MWK, \*g > ? /\_\_+.) The question can only be affirmed if the glottal stop is defined as [+sonl]. An alternative analysis of the reflex of MWK \*g is to consider that the application of rule (13) C[-cont -nasl] > [+sonl] led to the complete loss of the \*g and the presence of ? has its origin in (21) which applied prior to (13).

(14) \*j > s /\_\_+V MHE, MKA, BLN, BBO

C[-cont -nas +cor +hi +voil] > [+cont -hi -voil] when the root final sound occurs intervocalically. This sound change requires several comments. First, (14) is not a very natural sound change. Intervocalically, it would be expected that

sounds become or remain voiced, but not that they devoiced. We would also expect the change to have occurred in stages something like  $j > \bar{z} > z > s$ .

There is, however, another aspect which needs to be taken into account and which hopefully will point to an eventual solution. It is the relationship between (14), (11) and (12) that needs some more close examination. The output of (11) and (12) appears to be in free variation in MHE and BLN. Whereas there is a morphophonemic relationship between  $d$  when from (11) and  $y$  when from (12) on the one hand and  $s$  when from (14) on the other: the same morpheme when followed by a vowel has  $s$ , and  $d$  or  $y$  when pre-pause. The question to be answered is how this morphophonemic relationship developed. One hypothesis is as follows.

- (15) /V\_\_(+V) : \*c > c > s > s  
                   \*j > j > d/y     ↓  
   s
- (16) /V\_\_+Ø : \*c > j > d/y > d/y  
                   \*j > j > d/y > d/y

In intervocalic position (15), voiceless palatal PM(?) stops became [s] parallel to the C1 position. The voiced palatal stop became alveolar or a palatal glide (d/y) in all environments. In pre-pause position (16), the \*c became voiced due to the morpheme structure constraint mentioned earlier, and then merged with d/y. The result was that morphemes with the original voiceless stop (\*c) contained an alternation  $s$  /V\_\_(+V) and  $d/y$  /V\_\_+Ø. This alternation was then introduced by analogy into the morphemes with an original voiced stop (\*j).

This hypothesis has several weaknesses. We do not have a \*c reconstructed for PM in C2 position. This would necessitate placing such a scenario before PM implying an alternation with \*s in PM. However, there appears to be no evidence for such an alternation in PM [5]. Also, since the morpheme structure constraint which disallows a voicing distinction in morpheme final position is assumed to have been in operation already in PM, \*c and \*j would have had to have merged by then, thereby blocking the development of the alternation observed. The second hypothesis is the simpler one.

- (17) /V\_\_+V : \*j > (c? >) s  
 /V\_\_+Ø : \*j > d/y

In (17), it is already assumed that there is no \*c/\*j distinction in morpheme final position in PM. The morphophonemic alternation arises due to the separate development of \*j in intervocalic versus pre-pause environment. On the surface, this appears to be the simpler hypothesis but there are also some problems. There is no explanation why \*j should have become a voiceless sound intervocalically. This is even more surprising against the background of the morpheme structure constraint which disallows voiceless sounds in morpheme final position. What might speak in favour of this hypothesis is the fact that there is already a phoneme \*s. It is conceivable that as the palatal stop weakened intervocalically to fricative [ʃ] or [ʒ], it might have then merged with /s/ which was well established as a phoneme.

At the moment we are unable to choose between the two hypotheses.

(18) \*j > g /\_\_+ MBN, ELU, NNE

C[-cont -nas +cor +hi +voi] > [-cor] morpheme finally. This rule merged the palatal stops with the velar stops.

One could ask why it is that the palatal stops were eliminated. It is clear from the feature matrix that palatals are more marked than other stops, being both [+hi] and [+cor], and so the shift "backwards" (cf. (18)) or "forwards" (cf. (11)) is a simplification in its complexity. That \*j is palatal and a stop rather than an alveo-palatal affricate is of course an assumption but in the light of (11) and (18) not an unreasonable one.

All oral stops in final pre-pause position (/\_\_+Ø) are in most of the languages unreleased. This is clearly an allophonic rule in those languages.

(19) b, d, g --> b', d', g' /\_\_+Ø

To express (19), an extra feature [unreleased] appears to be necessary. C[-cont -nas +voi] --> [+unreleased]. However, there are also the "unreleased" glides y? and w?. Pre-pause, these glides end in a glottal closure. They are complex segments phonetically in that they consist of a sequence of two segments but might be called "post-glottalized". On the basis of these post-glottalized glides, it might be better to consider the unreleased stops, which occur in the same position, as post-glottalized as well.

(19a) C[-nas -lat?] --> [+postglott]

This has the advantage of providing an explanation for the next sound change.

(20) \*b, \*d, (\*j), \*g > ? /\_\_+Ø MYE, MBE, (NNE,  
MHE,) LEF, LEK

C[-cont -nas +voil] > [-lab -cor -hi -voil] pre-pause. Rather than proceeding by this one step approach, it is more likely that the process passed via the intermediate step of post-glottalized stops (cf. (19) and (21)).

(21) b, d, g --> b?, d?, g? /\_\_+Ø

The neutralization of the place features due to the presence of a glottal closure would appear to be a natural next step.

(22) b?, d?, g? --> ? /\_\_+Ø

C[-cont -nas +postglott] > [-lab -cor -hi]

In several of the languages, there is a Ø reflex of PM stops morpheme finally.

(23) \*b, \*d, \*j, \*g > Ø /\_\_+ (MYE, MBE, ELU, MWK,  
LEF, LEK)

There is no proto-stop which has Ø as the sole reflex. In most cases, Ø alternates with glottal stop. This is best interpreted as due to an allophonic rule which may delete root final glottal stop, especially intervocalically.

(24) ? --> Ø /...

The status of the glottal stop as a phoneme in some languages is well established, but it also has to be recognized that it is unstable in the sense that it is easily deleted.

There is another sound change which needs a comment.

(25) \*kw > kp / MYE

C[-cont -cor +hi -voil] C[+cont +son +lab +voil] > C[-cont -cor +hi +lab -voil].



In MYE, a sequence of consonant plus glide (CG) has occasionally become one labio-velar C. For an illustrative example, see (A281).

### 3.2.2 Sound changes involving continuants

It has been pointed out in 2.2.1 that it is not clear whether \*s was [+cor +hi] or [+cor -hi] or both at the PM stage. If it is assumed that it was [+cor -hi], then (26) took place in some undetermined environments.

(26) \*s > š /+\_\_ (MBN, MBE, LEF)

C[+cont +cor -hi -voi] > [+hi]

(27) \*f > h / MYE, MBE, ELU, NNE, AKO, MHE, MWK, MKA,  
BLN, BBO

C[+cont +lab -voi] > [-lab]

(27) is a very important consonant change and coincides with the lexicostatistical grouping of the Manenguba languages after MBM - MBN has split off (cf. chart 6.16 and map 8). Only in BBO are /f/ (and [v], an allophone of /f/ after nasals) still found in clearly definable contexts. It appears that /f/ was retained after a prefix ending in a stop.

(28) \*ə̀b-f... (> ə̀ʔ-f...?) > ì-f... cl.8 (cf.4.4.9)

\*ə̀-f... > ì-h... cl.7 (cf.4.4.8)

Cf. also (60) below.

(29) \*f > š /\_\_V[+front] MBM

In MBM, C[+cont +ant -cor -voi] > [-ant +cor +hi] before front vowels.

(30)  $h > \emptyset / \_y$  MHE, MKA, BLN, BBO

In the four languages indicated, after  $*f > h$  (cf. (27)), the  $h$  has been dropped before the palatal glide.

(31)  $*fy > \tilde{s}y/sy/\tilde{s}/s / (MBM, MBN, MYE, MBE, MWK, LEK)$

The changes in (31) may have arisen in two different ways: with or without passing via  $[hy]$ . In the first case,  $*f$  underwent the change in (27) and then the resulting  $[h]$  underwent the change (32).

(32)  $h > \tilde{s} / \_y$

$C[+cont -ant -cor -hi -voi] > [+cor +hi] / \_C[+cor +hi]$

Another explanation is to consider that there was no intermediate  $h$  as in (33):

(33)  $*f > \tilde{s} / \_y$  (cf. (29) above)

To account for all the reflexes in (31) the following additional rules are necessary.

(34)  $\tilde{s} > s / \_y$

$C[+cont +cor +hi -voi] > [-hi] / \_C[+son +cor +hi]$

(35)  $y > \emptyset / \tilde{s}\_, /s\_\_$

$C[+son +cor +hi] > \emptyset / C[+cont +cor -voi]\_\_$

When these rules did or did not apply is not yet clear. In MBM, MBN and LEK, (33) rather than (32) must have applied since (33) presupposes (27) which did not apply in those languages. In MYE, MBE and MWK, (27) and (32) probably applied.

In  $/C\_\_V$ , various cases of the application of (36), (37) and (38) have been observed in some languages without clear regularity.

(36) \*y > w /C\_\_V  
 C[+son +hi +cor] > [-cor +rd]

(37) \*w > y /C\_\_V  
 C[+son +hi -cor +rd] > [+cor -rd]

(38) \*y > ̄w /C\_\_V  
 C[+son +hi +cor] > [+rd]

(39) \*l > y / BBO  
 C[+son +cor +lat] > [-lat +hi]

In BBO every \*l has changed to y. Morpheme finally, y in turn frequently assimilated completely to the preceding vowel.

(40) y > Vx /Vx\_\_ (where Vx are identical)

(41) \*l > d /+\_\_ (MBM, MBN, LEF, LEK)

There are cases where \*l has d as reflex (cf. (41)). It is not clear, however, whether the two reflexes l and d are due to the environment or whether they require the reconstruction of an earlier distinction (cf. 2.2.1).

(42) \*l > n /\_\_+ (MBM), MYE  
 C[+son +cor +lat] > [+nas -lat] morpheme finally in MYE.  
 In MBM, (42) has affected only some \*l's.

(43) \*l > ∅ /\_\_+ (ELU, LEF, LEK)

The deletion of \*l in three languages is recorded in a few cases.

The \*w has almost exclusively a w reflex but there are also some g and gw reflexes. In the light of the fact that \*w appears to derive from an earlier voiceless velar stop, possibly from a lenis one (cf. 5.3.1), it is not impossible that \*w had the value [g] at the PM level. [w] could have been derived from it by (44) as follows:

(44) C[+cont +hi -cor +voil] > [+son +rd].

A velar stop [g] would have been derived by (45).

(45) C[+cont +hi -cor +voil] > [-cont]. [gw] could be due to (44) and (45). It is, of course, possible that \*w had a range of realizations before it became solely [w].

Cf. Atioge (1983:98, 99) who lists the verb 'to plant' as both gón and wón.

A phenomenon frequently encountered in connection with vowel changes (cf. 3.3.2.5ff and 3.3.5) is w-insertion (46) and y-insertion (47).

(46) Ø > w /C\_\_V

(47) Ø > y /C\_\_V

### 3.2.3 Sound changes involving nasals

Morpheme medial prenasalised stops have become nasal in roots which dropped the final root vowel.

(48) \*mb, nd, ŋg > m, n, ŋ / (V\_\_V+ >) V\_\_+

This is clearly due to a constraint similar to the one which disallows voiceless stops in morpheme final position. This constraint disallows morpheme final prenasalised stops and therefore caused the merger of prenasalised stops with the nasals.

The nasals have generally remained stable with the exception of the palatal \*ny. First, the bilabial nasal:

(49) \*m > n /\_\_+ LEK

C[+nas +ant -cor] > [+cor]

This sound change has no parallel in any of the languages, nor in the non-nasal consonants.

(50) \*m > Ø /\_\_+ (MYE, ELU, LEK)

The loss of final \*m appears to be random. No systematic condition has been found except in ELU where there appears to be a correlation between vowel height and the loss of nasals, but not without exceptions: after the lower vowels, nasals tended to drop but stayed after the high vowels.

(51) \*n > Ø /\_\_+ (MBM, MYE, MBE, ELU, NNE, BBO), LEK

The loss of final \*n seems random except in LEK where all final \*n's have disappeared. MBM, MYE and NNE apparently have dropped \*n in the numerals (cf. (A3) - (A5)).

(52) \*ny > y /+\_\_ MBE, (NNE, AKO, MHE) MWK,

(MKA, BLN, BBO)

C[+nas +cor +hi] > [-nas +cont]

(52) appears to have affected some but not all lexical items. Whether this change will eventually affect all these nasals as in MBE and MWK remains to be seen.

(53) \*ny > n /\_\_+ (MYE), AKO, LEF

C[+nas +cor +hi] > [-hi]

(53) is phonetically the same rule as (11) which affected the oral stops. (53) and (11), however, differ in that they did not apply in all the languages in parallel fashion

except in AKO where both nasal and oral stops became [-hi] (cf. charts 2.4 and 2.5).

(54) \*ny > ŋ /\_\_+ MBN, MYE, (ELU), NNE  
C[+nas +cor +hi] > [-cor]

(54) almost exactly parallels rule (18) which applied in the stops. MYE palatal oral stops, if they have undergone (18), were later reduced to Ø via (20) and (23) (cf. chart 2.4).

(55) \*ny > :Ø /\_\_+ MHE, MWK, MKA, BLN, BBO

This loss of the nasal plus compensatory lengthening may have proceeded as in (55a) or (55b).

(55a) Vny > Vy > VV

(55b) Vny > Ṽny > Ṽỹ > ṼṼ > VV

(56) \*ny > Ø /\_\_+ MBM, (MBE, ELU)

Deletion without compensatory lengthening is found in MBM as well as in isolated cases in MBE and ELU.

(57) \*ŋ > Ø /\_\_+ (ELU)

It appears that the velar nasal is the most stable, it being retained in all the languages except ELU where (57) has taken place in some lexical items. Compare also the 2nd sg. possessive stem for MYE and ELU in chart 4.2.

The bilabial nasal prefixes (cf. 4.4.3 and 4.4.5) have assimilated to the point of articulation of the following consonant in all languages except MKA, BLN and BBO.

(58) \*m >  $\left\{ \begin{array}{l} [-\text{ant} \text{ -cor} \text{ +hi}] / \_ \_ \text{C}[-\text{ant} \text{ -cor}] \\ [\alpha\text{ant} \text{ } \beta\text{cor} \text{ } \gamma\text{hi}] / \_ \_ \text{C}[\alpha\text{ant} \text{ } \beta\text{cor} \text{ } \gamma\text{hi}] \end{array} \right\}$

The first part of the rule indicates that before velars and /h/ (< \*f),  $\eta$  has become  $\eta$ , the velars being [+hil] and /h/ [-hil]. The second part of the rule takes care of the other cases. An alternative analysis would be to consider the historical change to be as (59).

(59) \* $\eta$  >  $\eta$  /\_\_C

C[+syll +nas +ant -cor] > [+cor] /\_\_C

The assimilation to the following C would then have to be a synchronic rule similar to (58).

### 3.2.4 Consonant systems resulting from the sound changes

Through the consonant sound changes presented in the last section, consonant systems with considerable differences emerged in the different languages. Seven of these are given below for illustrative purposes. The consonants in root medial position (+CV\_\_V+) have been excluded. For convenience, chart 2.7 is repeated in part as chart 3.2.

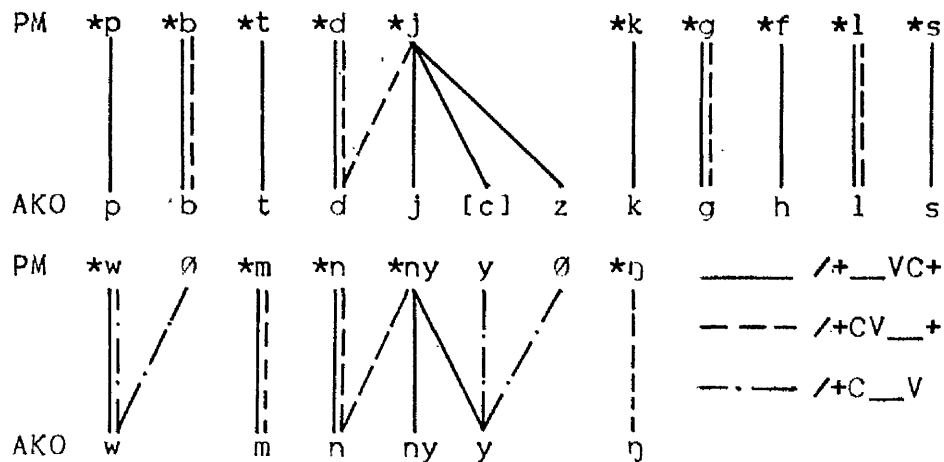
#### Chart 3.2: The PM consonant system

<u>C1 position</u>				<u>C2 position: root finally</u>			
*p	*t		*k				
*b	*d	*j	*g	*b	*d	*j	*g
*f	*l	*s	*w		*l		
*m	*n	*ny		*m	*n	*ny	*ŋ

#### 3.2.4.1 The AKO consonant system

Having done more work on AKO, the derivation of its consonant system is presented first.

Chart 3.3: Consonant changes between PM and AKO



In chart 3.3 and in the comparable charts below, consonants have been arranged in such a way as to facilitate the drawing of lines between PM and the sounds of the present day languages.

The changes in root initial position are indicated by a solid line, the changes in root final position by a broken line, changes in the position /C\_\_V by a broken line with dots.

PM \*j split into /d/, /j/, [c] and [z] (for [z], cf. (5) as well as 2.2.3 and 4.5). \*d and \*j merged with /d/ in final position as did \*n and \*ny. \*ny split into /ny/ and /y/ initially. \*f has become /h/. Some /y/'s and /w/'s in AKO come from ∅. These splits and mergers led to the following system with no palatal sounds in root final position.

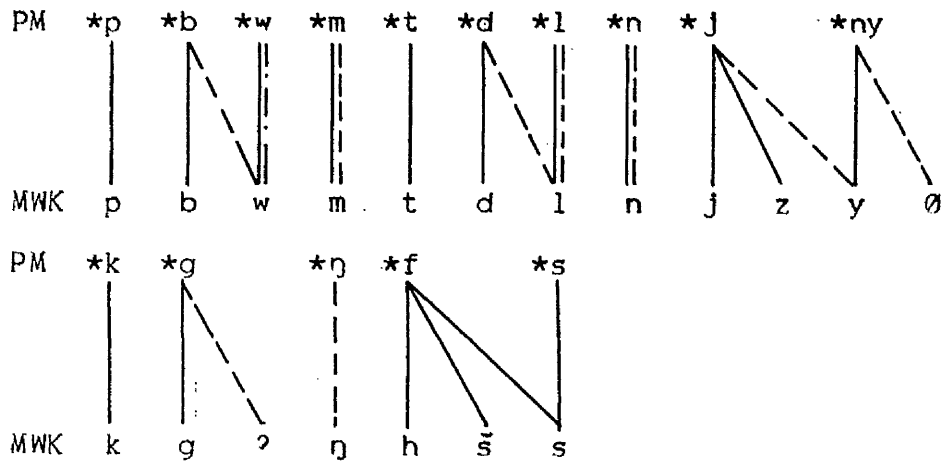


Chart 3.4: The AKO consonant system

p	t	[c]	k						ʔ
b	d	j	g		b	d		g	
	s			h					
	z'								
	l	y	w			l			
m	n	ny			m	n		ŋ	

In AKO, a glottal stop exists as a marginal phoneme in class prefixes (cf. 4.4.9 and 4.4.11) and in verbal suffixes (Hedinger 1983b:11). It is in complementary distribution with other stops but there is no obvious one to which it should be assigned as an allophone. Historically, it is derived from a labial stop in the prefixes and from a velar stop in at least one verb suffix.

The palatal and velar nasals are also in complementary distribution due to (53). However, it is not clear which of the two should be considered an allophone of the other.

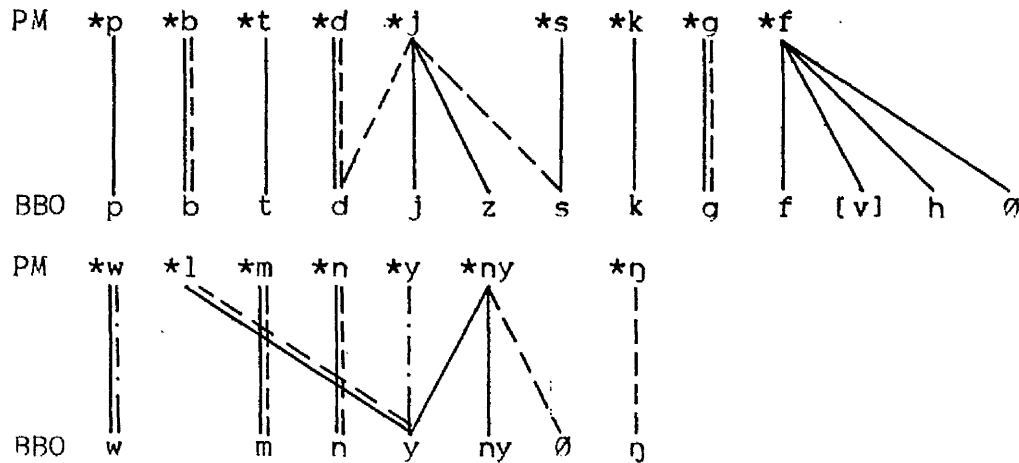
3.2.4.2 The MWK consonant systemChart 3.5: Consonant changes between PM and MWK

The consonant changes, splits and mergers in chart 3.5 led to the system presented in chart 3.6.

Chart 3.6: The MWK consonant system

p	t	k			ʔ		
b	d	j	g				
	s	š		h			
	z						
	l	y	w		l	y	w
m	n	ny			m	n	ŋ

This system is unique in that the morpheme final stops have become laterals and glides, or glottal stop in the case of \*g. The same has been noted in MBA, MWK's northern neighbour (cf. map 7). /š/ appears to have independent status as a phoneme besides /s/.

3.2.4.3 The BBO consonant systemChart 3.7: Consonant changes between PM and BBO

Due to the above changes, BBO has the following consonant system.

Chart 3.8: The BBO consonant system

p	t		k				
b	d	j	g		b	d	g
f	s			h		s	
[v]	z						
		y	w			y	
m	n	ny			m	n	ŋ

BBO is interesting because it has no laterals (cf. rule (39)). It is also the only language which has retained /f/ in some environments while in other environments \*f > h introducing a phoneme /h/. /f/ and /h/ are now contrastive because the environment where /f/ was retained has disappeared. Cf. singular/plural pairs of words with initial \*f such as in (60).

(60) ɪ-héd 'bone (cl. 7)', ɪ-fəd 'bones (cl. 8)'

The /s/ in C2 position is a morphophonemic alternant of /y/ when followed by a V-initial morpheme.

### 3.2.4.4 The MKA consonant system

Chart 3.9: Consonant changes between PM and MKA

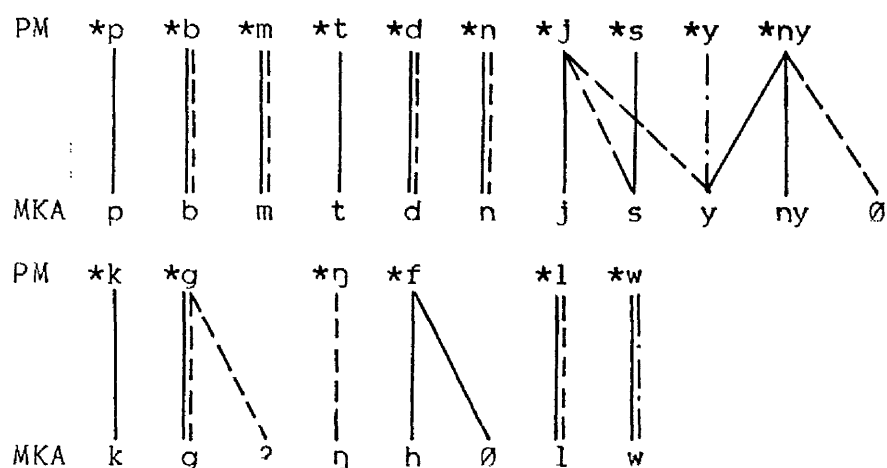
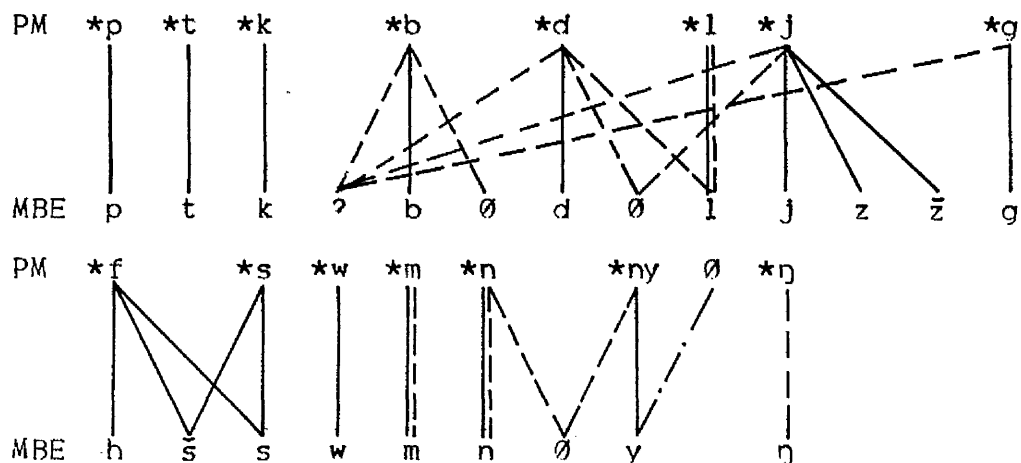
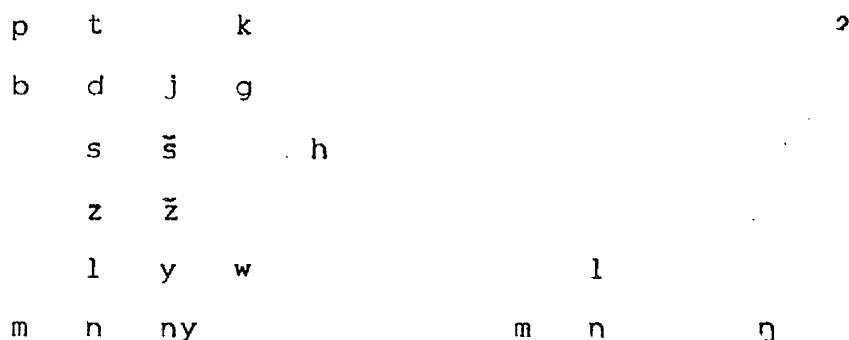


Chart 3.10: The MKA consonant system

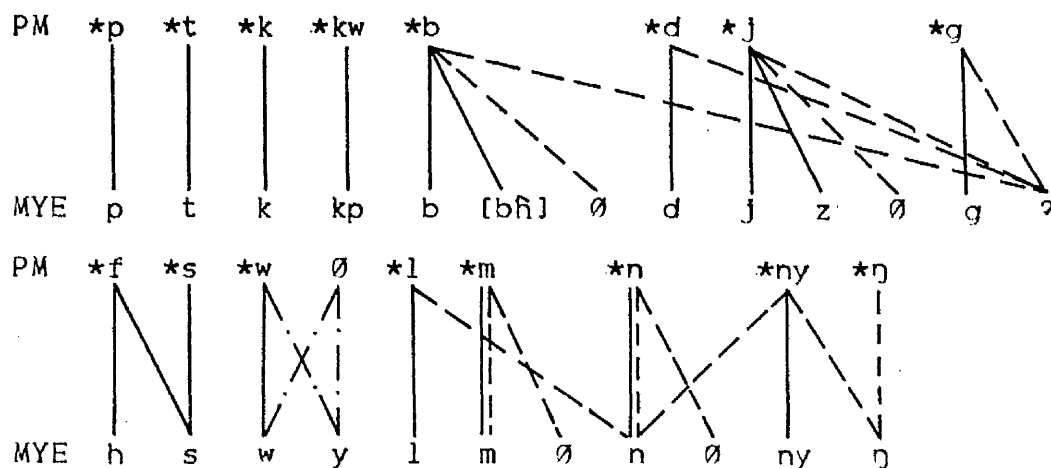
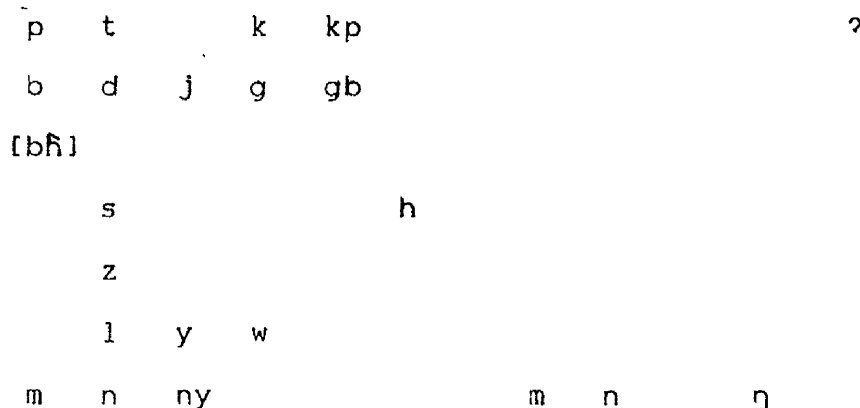
p	t		k					ʔ
b	d	j	g		b	d		g
	s			h		s		
	l	y	w			l	y	
m	n	ny			m	n		ŋ

MKA is conservative with respect to the palatal stop following the class 9 and 10 nasal, i.e. it did not change to [z] as in other languages.

The only palatal reflex of \*j morpheme finally is /y/, with /s/ as a morphophonemic alternant pre-vocalically.

3.2.4.5 The MBE consonant systemChart 3.11: Consonant changes between PM and MBEChart 3.12: The MBE consonant system

In MBE, morpheme final stops have become glottal or Ø and palatal nasals have disappeared. [š] and [ž] are perhaps allophones of /s/ and /j/ respectively, but it is not impossible that /š/ is now a phoneme in its own right.

3.2.4.6 The MYE consonant systemChart 3.13: Consonant changes between PM and MYEChart 3.14: The MYE consonant system

MYE has the most reduced set of C2 consonants with only three nasals and glottal stop. Due to the loss of final stops, there is now a contrast between the two vowels /a/ and /o/.

There is one relic of lost final stops in the locative expression a.....te 'LOC....inside' as illustrated in (61) (tones have been omitted).

- (61) ndaʔ (< \*-dab) 'house'      andapə 'in the house'  
 nzoʔ (< \*-jag) 'farm'      anzoka 'in the farm'

The locative expression, as exemplified in (61), is the only place where a reflex of the different proto-consonants has been observed. In an abstract synchronic analysis, one would posit an underlying labial stop for 'house', a velar stop for 'farm', etc., and delete these stops in every context except the one in (61). Here, I consider the locative morpheme *te* to have three different variants, each being associated with certain nouns which would require listing in the lexicon.

MYE has clearly developed labiovelar stops from /kw/ (and /gw/) (cf. (A104), (A107), etc., and Njang 1972 where more examples can be found). How much this has been due to the influence from the neighbouring Kenyang language is not certain. It does appear significant that there has been considerable intermarriage with Kenyang speaking women.

### 3.2.4.7 The MBN consonant system

Chart 3.15: Consonant changes between PM and MBN

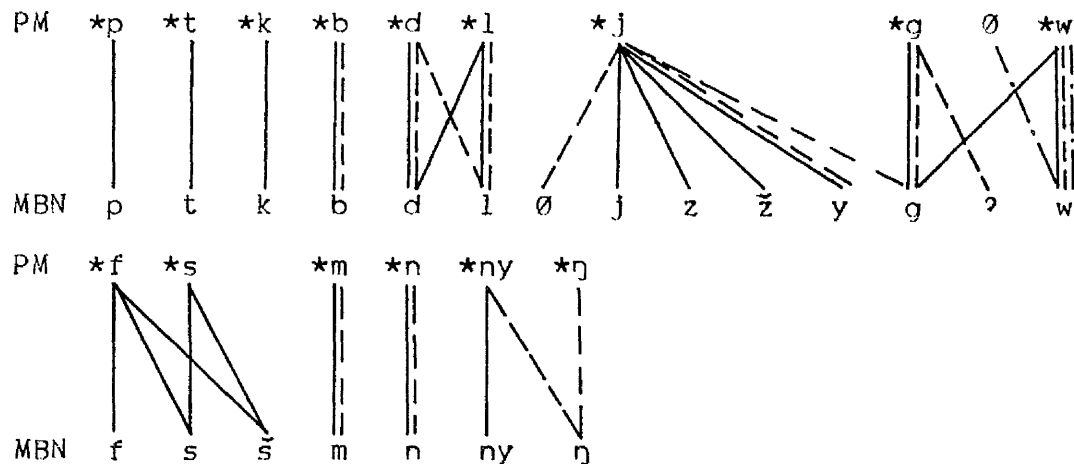


Chart 3.16: The MBN consonant system

p	t		k				ʔ
b	d	j	g		b	d	g
f	s	š					
	z	ž					
	l	y	w		l	yʔ	
m	n	ny		m	n		ŋ

MBN has retained /f/. The /y/ in root initial position has come from \*j. The /š/ is probably a separate phoneme but [ž] may be an allophone of /j/. More work would need to be done to determine the precise phonemic status of these sounds.

### 3.3 Vowel changes between PM and the present day languages

#### 3.3.1 Introduction

Between PM and the different languages, many vowel changes have taken place. The ones clearly attested will be presented below. Other changes have taken place in some of the languages but these have been ignored if only one or two examples were found in the data. The status of such changes can only be resolved by further research. A thorough phonemic analysis has only been done for AKO and MWK. It cannot, therefore, be ruled out that one or other of the vowel changes presented as historical changes may turn out on further investigation to be an allophonic rule in one or other of the languages.

It will be seen below that in NNE, for example, a large number of vowel changes have taken place whereas in



MKA, the proto-vowel system is retained virtually unchanged. MBM and LEK take up a medium position with relatively few changes. For some languages such as MBM and MBN, there are probably more changes than the ones indicated, but because these languages often did not share cognate items with the rest of the languages under study, it was impossible to investigate the vowel changes in such items.

In chart 3.17 below, the vowels of PM and the present day languages involved in the vowel changes are given with their distinctive feature specifications.

Chart 3.17: Feature chart for the vowels

	i	e	ɛ	ū	ø	ə	a	ɔ	o	u
syll(abic)	+	+	+	+	+	+	+	+	+	+
cons(onantal)	-	-	-	-	-	-	-	-	-	-
h(e)i(ght)	4	3	2	4	3	2	1	1	2	3
back	-	-	-	-	-	-	-	+	+	+
fr(ont)	+	+	+	o	o	-	-	-	-	-
r(oun)d	-	-	-	+	+	-	-	-	+	+
long	-	-	-	-	-	-	-	-	-	-

Instead of using the SPE features [high], [low] and [back] of Chomsky and Halle (1968) which allow for only three vowel heights and no central vowels, I have chosen the multi-valued feature [height] ranging from 1 for the lowest to 4 for the highest vowel (Sommerstein 1977). That four heights are necessary is clear from the presence of the low back vowel [ɔ] in several languages.

The feature [front] is used for the following reason: in the SPE framework, the change \*a > o cannot be

easily characterized. With \*a being [+back -rd], the change would have to be specified as \*a becoming [+round]. If \*a were specified as [-back -rd], then the change would be \*a > [+back] in velar environment. The first solution does not express the fact that the vowel is backed. The second solution creates a problem in that it rules out the possibility of /a/ being phonetically fronted in certain environments as is clearly the case. The above problems are avoided by the use of the two features [front] and [back]. This also allows the [ə] to be specified as [-front -back -round] which expresses the fact that it is less marked than the other vowels.

Another advantage of using the feature [front] is that [ū] and [ø] when specified as [-back] but leaving [front] unspecified, may range phonetically from a central to a front vowel, which is occasionally the case.

The disadvantage of having two features for the horizontal dimension is that it introduces more redundancy.

### 3.3.2 Changes of short vowels

In charts 2.8 and 2.9, the vowel correspondences and the reconstructed vowels for the first vowel of the root are tabulated. Implicit there are the vowel changes from PM to MBM, etc. In this section, the changes of short vowels will be presented with the environments in which they have taken place. It will be noted that some of the changes were clearly motivated by the environment, mainly the following one, but occasionally also by the preceding one. In many other changes, no influence by the environment on the sound change can be detected.

3.3.2.1 Vowel changes of PM \*i

(62) \*i &gt; e /\_\_l AKO

V[+fr 4hi] &gt; [3hi] /\_\_C[+lat]

(62) says that front vowels of [4hi] were lowered to [3hi] in the environment of following laterals in AKO. (62) is related to (63), (64) and (66) in that they all lower front vowels. The different environments, however, make it impossible to collapse these rules.

(63) \*i &gt; ɛ (a)/\_\_b NNE

(b)/\_\_C[+cor] ELU, NNE

V[+fr 4hi] &gt; [2hi]

(63) took place in NNE preceding a bilabial stop and in ELU and NNE before coronal consonants.

(64) \*i &gt; ə (a)/\_\_ ELU

(b)/\_\_C[-cor +hi +back] AKO, MBE

(c)/\_\_C[+lab] MBM, MBN

(d)/\_\_C[+nas] NNE

V[+fr 4hi] &gt; [-fr 2hi]

(64) may be characterized as lowering of \*i to [2hi] plus centralizing. In ELU, this took place in all environments except in alveolar and palatal environment where centralizing did not always take place (cf. (63b) above).

The vowel change in (64) also took place before velars (64b), before labials (64c) and nasals (64d). In NNE before coronal nasals, both (63) and (64) are attested. This ambiguous relationship may be resolved if it could be established that centralizing in NNE in this environment is allophonic.

3.3.2.2 Vowel changes of PM \*e

(65) \*e > i / \_\_C[+cor +hi] MYE, NNE, AKO

V[+fr 3hi] > [4hi]

Before palatal consonants, \*e has been raised to [4hi]. The palatal consonants in turn changed to non-palatal sounds (cf. (11) - (18) and (53) - (55)).

(66) \*e > ε (a) / \_\_l (MBE), ELU, NNE, AKO, MHE

(b) / \_\_m MBN, (MHE)

V[+fr 3hi] > [2hi]

Language abbreviations in brackets indicate that there are roots in those languages in which the change did not take place.

(67) \*e > ə (a) / \_\_C[+lab] MYE

(b) / \_\_m LEF, MBN

(c) / \_\_l (MBE)

(d) / \_\_C[+cor +hi] ELU

(e) / \_\_C[-cor +hi +back] AKO

V[+fr 3hi] > [-fr 2hi]

Both (66b) and (67b) are attested in MBN, (67d) is contrary to what might be expected, i.e. lowering preceding palatals. It should be noted, however, that the palatal consonants in ELU later became velars (cf. (18) and (54)).

3.3.2.3 Vowel changes of PM \*ε

(68) \*ε > i / \_\_C[+cor +hi] MBM, NNE, AKO

V[+fr 2hi] > [4hi]

(68) is related to (65) raising front vowels to [4hi], and the two rules could be collapsed into one for NNE and AKO.

(69) \*ɛ > e (a)/\_\_C[+ant] ELU, NNE, AKO

(b)/\_\_C[+cor +hi] MBE, MHE

V[+fr.2hi] > [3hi]

(69) differs from (68) in that vowels which are [2hi] are raised to [3hi] and [4hi] respectively.

(70) \*ɛ > ɔ /\_\_C[-cor +hi +back] MBN, MYE

V[+fr 2hi] > [+back +rd]

In velar environment, the front vowel has become [+back +rd]. This change suggests that velar consonants may also be characterized as [+back].

(71) \*ɛ > ə (a)/\_\_m MBM

(b)/\_\_m, l (MBN)

(c)/\_\_ MYE (but cf. (70))

(d)/\_\_C[+ant] ELU

(e)/\_\_C[+lab], /\_\_C[-cor +hi +back],

/\_\_l, /\_\_+ MBE

(f)/\_\_C[-cor +hi +back] NNE, AKO, MHE

V[+fr 2hi] > [-fr]

#### 3.3.2.4 Vowel changes of PM \*a

(72) \*a > ɒ /\_\_g MYE, MBE, ELU

V[-fr -back 1hi] > [+back] /\_\_C[-nas -cor +hi +back]

Where \*g has been dropped after (72) applied, /ɒ/ is now phonemic.

- (73) \*a > ε (a)/\_\_C[+cor +hi] MBM, MBN, MYE, ELU  
 NNE, AKO, LEF  
 (b)/\_\_J MBE, MHE, MWK, LEK  
 (c)/\_\_ŋ MBM  
 (d)/\_\_+ MBN, MYE, MBE, ELU, NNE, AKO,  
 MHE

V[-fr -back 1hi] > [+fr 2hi]

The vowel change in (73) applied before all palatals in (73a) but only before the oral palatal stop in (73b). In MBM, the velar nasal was later lost and the vowel lengthened. This may be represented as \*aŋ > εε. In several languages, the change occurred morpheme finally (cf. (73d)).

- (74) \*a > ə /\_\_+ MBM, MBN, MYE, MBE, ELU, NNE  
 V[-fr -back 1hi] > [2hi]

(74) may be viewed as a combination of (73) plus (71). In the languages where (74) alternates with (73d) the centralizing rule (71) could then be considered optional.

- (75) \*a > e /\_\_ny MBE, LEK  
 V[-fr -back 1hi] > [+fr 3hi]

(75) should be compared with (73b) which shows that in MBE and LEK \*a has been raised further in nasal environment than in non-nasal environment. It should also be noted that in MHE and MWK, \*a was raised only in non-nasal environment.

- (76) \*a > i /\_\_ny MBM  
 V[-fr -back 1hi] > [+fr 4hi] /\_\_C[+nas +cor +hi]

Raising of a vowel from [1hi] to [4hi] has only been

observed in MBM. The palatal nasal in turn was deleted.

### 3.3.2.5 Vowel changes of PM \*ɔ

(77) \*ɔ > ɔ /\_\_ŋ NNE, AKO

V[+back 2hi] > [3hi] /\_\_C[+nas -cor +hi +back]

(77) provides a clear isogloss for NNE and AKO.

(78) \*ɔ > ɒ /\_\_b, d MBE

V[+back 2hi] > [1hi]

The lowering of \*ɔ in MBE to [1hi] has been observed before some but not every /b/. A question remains whether [ɒ] is now phonemic in MBE.

(79) \*ɔ > wo /\_\_C[-cor +hi +back] MYE

V[+back 2hi] > C[+son -nas +hi +back] V[1hi]

The output of (79) may be interpreted in several different ways. Theoretically, there are at least four different possibilities: [wo] might be viewed as a vowel diphthong, a sequence of two vowels, a vowel plus labialization of the preceding consonant and glide plus vowel. We interpret it as the last because this fits best into the pattern already in existence in PM: \*CGV..., or more precisely \*CwV... and \*CyV... (cf. 2.4). (79) is therefore to be taken as a combination of vowel lowering (cf. (78)) and w-insertion (cf. (46)).

(80) \*ɔ > ə (a) /\_\_C[+lab] NNE

(b) /\_\_+ MBE, AKO

V[+back 2hi] > [-back -rd]

(81) \*ɔ > wə /\_\_+ MBN, MYE, ELU, NNE

(81) may be viewed as (80) plus (46) w-insertion. As w-insertion is associated exclusively with back vowels, it may be attributed to the rounding of those vowels. It is significant that it appears in, for example, (81) and (82) where the vowel itself became unrounded, but also where the vowel was lowered (cf. (86) and (94)).

(82) \*ɔ > wɛ /\_\_j ELU, NNE, AKO, LEF

V[+back 2hi] > C[+son -nas +hi +back] V[+fr -rd]

In (82), in addition to vowel fronting and unrounding, w-insertion has taken place.

### 3.3.2.6 Vowel changes of PM \*o

(83) \*o > u (a) /\_\_C[-cor +hi +back] MBM, MBN, MYE,  
ELU, MWK

(b) /\_\_C[+ant], /\_\_+ LEK

V[+back 3hi] > [4hi]

(83a) does not appear to have taken place in each item. The situation is somewhat confused since (92a) and (92d) is the exact reverse of (83a). This problem may find a possible answer when taking into consideration the fact that, for example, in AKO there is no /o/ - /u/ contrast in pre-velar environment. If the same is the case in other languages as well, then the above problem can be accounted for. If \*u and \*o have merged in that position and the resulting phoneme now has a wide allophonic range including [u] to [o], then the discrepancy between (83a) and (92a and b) may be resolved.



(84) \*o > ɔ /\_\_C[-cor +hi +back] MBE, NNE  
 V[+back 3hi] > [2hi]

(85) \*o > a /\_\_ŋ NNE  
 V[+back 3hi] > [-back 1hi -rd]

Cf. (85) with rule (95).

(85) and (84) are similar in that both are lowering rules. (85) in NNE applied to some but not all items where it might apply. An alternative would be to consider (85) to be (84) plus (85a) ɔ > a /\_\_ŋ NNE. However, it should be noted that PM \*ɔ has not undergone (85a) (cf. (77)).

(86) \*o > wɔ (a)/\_\_C[+ant] MYE  
                   (b)/\_\_d MBM  
                   (c)/\_\_g NNE  
                   (d)/b\_\_g AKO

V[+back 3hi] > C[+son -nas -cor +hi] V[2hi]

(86d) should be compared with (87).

(87) \*o > yɔ /C[+cor -hi]\_\_g AKO  
 V[+back 3hi] > C[+son -nas +cor +hi] V[2hi]

In AKO, y-insertion (47) occurred after alveolar consonants. This rule applied also in the environment of /\*C[+cor +hi]\_\_ after they have become [-hi]. An alternative to y-insertion here would be to consider that w-insertion first took place (cf. (86d)) followed by w > y (cf. (37)) in the environment of (87).

(88) \*o > ø /\_\_C[-back] MBN, MBE, ELU, NNE, MHE  
 V[+back 3hi] > [-back]

The ø sound which is due to (88) is found relatively frequently. It is not certain yet whether (88) is in some cases an allophonic rule.

(89) \*o > ə (a)/\_\_l NNE, AKO, MHE  
 (b)/\_\_C[+nas +ant], /\_\_l MBE  
 (c)/\_\_g NNE

V[+back 3hi] > [-back 2hi]

(89c) should be compared with (84) and (86c). In NNE, three different changes appear to have taken place in the same environment. (89) may be considered as (84) plus a centralizing rule (cf. (80)). (86) equals (84) plus w-insertion. Perhaps other environmental factors were responsible for the different developments of PM \*o to NNE vowels.

(90) \*o > ε /\_\_+ NNE  
 V[+back 3hi] > [+front 2hi -rd]

(90) is attested in about three cases. It is curious why lowering and fronting plus unrounding should have taken place before a morpheme boundary. It may be because ε is less marked than o.

(91) \*o > ü /C[+cor -hi]\_\_, /C[+cor +hi]\_\_m ELU  
 V[+back 3hi] > [+fr 4hi]

This rule is attested in ELU and represents fronting plus raising without unrounding.

3.3.2.7 Vowel changes of PM \*u

- (92) \*u > o (a) / \_\_C[-cor +hi +back] ELU, AKO  
 (b) / \_\_C[+lab] (ELU)  
 (c) / k\_\_l ELU  
 (d) / \_\_g MBM, MYE  
 (e) / \_\_ŋ MBE

V[+back 4hi] > [3hi]

The difficulty of reconciling (83a) with (92a) has already been discussed under (83).

- (93) \*u > ɔ (a) / \_\_n ELU  
 (b) / \_\_g NNE

V[+back 4hi] > [2hi]

- (94) \*u > wɔ /C[-cor +hi +back]\_\_C[+cor -hi] NNE

(94) is (93) plus w-insertion (cf. (46)).

- (95) \*u > a / \_\_ŋ NNE

V[+back 4hi] > [-back 1hi -rd]

Cf. (95) with a similar rule in (85).

- (96) \*u > ũ /C[+cor -hi]\_\_C[+cor -hi] MBE

V[+back 4hi] > [+fr]

In MBE, the high back vowel has become a rounded front vowel between two alveolar consonants.

- (97) \*u > ø (a) / \_\_C[+lab] LEK  
 (b) / \_\_m MBN

V[+back 4hi] > [-back 3hi]

(97) shows that the high back vowel was lowered to [3hi] and centralized in labial environment.

- (98) \*u > ə (a)/\_\_C[+lab] MBN  
 (b)/b,d\_\_l ELU  
 (c)/d\_\_l NNE  
 (d)/\_\_j ELU

V[+back 4hi] > [-back 2hi -rd]

The environment in (97b) overlaps with that in (98a) which may indicate that lowering was to [3hi] in some cases and to [2hi] in others, perhaps due to other environmental factors.

- (99) \*u > i /\_\_C[+cor +hi] MYE, MBE, AKO, MHE, MWK,  
 LEF, LEK

V[+back 4hi] > [+fr -rd]

- (100) \*u > e /\_\_C[+cor +hi] MBN, NNE

V[+back 4hi] > [+fr 3hi -rd]

(99) and (100) indicate that vowel fronting and unrounding, and in (100) also lowering to [3hi] took place before palatal stops. The latter in turn underwent changes as well (cf. 3.2.1).

- (101) \*u > ε /j,t\_\_n NNE

V[+back 4hi] > [+fr 2hi -rd]

Rule (101), which involves four feature changes is unique to NNE. This rule might conceivably be broken down into several sub-rules representing intermediate steps. However, none of the existing rules appear to represent intermediate steps in NNE (cf. also (98c)).

### 3.3.3 Vowel systems and vowel changes

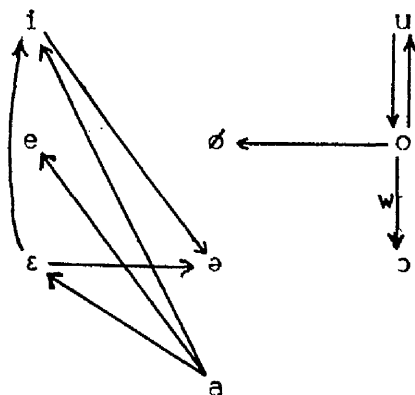
In the above section, we focussed on the vowel changes in relation to the individual proto-phonemes. We now turn our attention to the way in which these changes modified the original vowel system to the present day systems. There are striking differences between the languages as to how they have been affected by vowel changes. MWK, MKA, BLN and BBO have retained the original vowel system virtually unchanged and MHE has undergone only a few vowel changes. These are the languages of the Eastern cluster as defined lexicostatistically in 6.3.2.3. The languages where the largest number of vowel changes have occurred are MBE, ELU, NNE and AKO. These languages except MBE (cf. 6.4.4) make up the Western cluster.

The majority of vowel changes represent a split plus a merger with an existing phoneme leaving the overall system unchanged. Some of the vowel changes, however, resulted in new phonemes. AKO, for example, now has an additional /ə/ phoneme. MYE has an additional /ɔ/ and /ə/ phoneme. As previously indicated, it is not yet possible to say with certainty whether the central and front rounded vowels are in every case contrastive or allophonic.

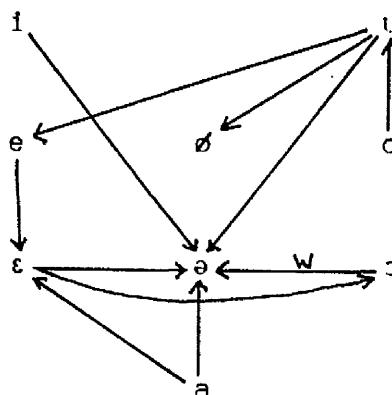
In charts 3.18 and 3.19, the vowels i, e, ε, a, ɔ, o and u represent at the same time the PM vowels and the vowels of the respective present day languages. The arrows indicate the vowel changes. A w or y beside an arrow indicates that w or y-insertion has also taken place.

Chart 3.18: Vowel changes between PM and MBM, MBN, etc.

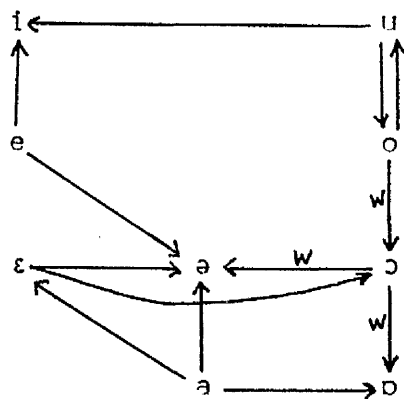
PM → MBM



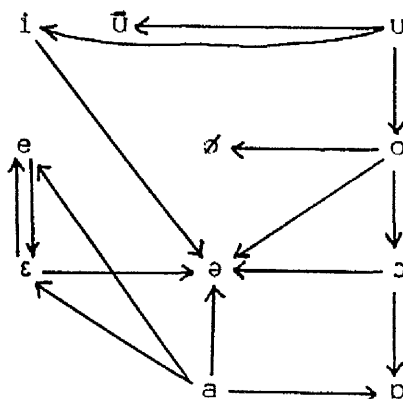
PM → MBN



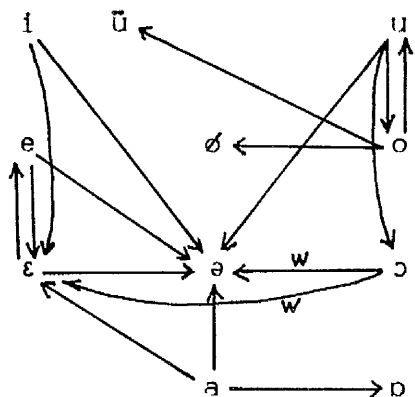
PM → MYE



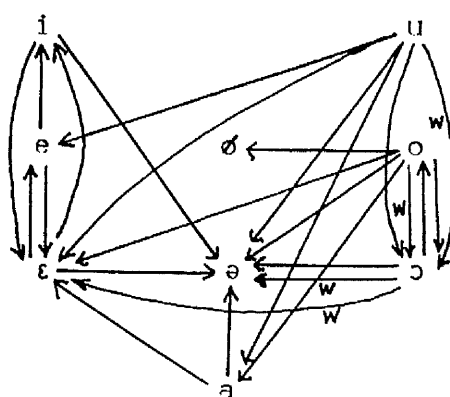
PM → MBE



PM → ELU



PM → NNE





### 3.3.4 The second root vowel

In the previous sections (3.3.2 and 3.3.3) we were concerned with the changes of V1 of the root. Although it is not possible to reconstruct the quality of V2 for PM, it is clear that some roots had a final vowel and that such vowels have been dropped since PM. This may be represented as (102).

(102) \*V > Ø /CVC\_\_+

(102) should probably be seen as a process which began before PM and gradually affected the vocabulary. In some Manenguba languages, the process appears to have been slower, as can be seen from chart 6.19 and it is probably not complete yet.

### 3.3.5 Changes of long vowels

There are less roots with long vowels than with short vowels. Therefore, the proposed developments of long vowels from PM to the present day languages is less certain.

Roots with long vowels are almost exclusively of the type \*CVV, but there are a few of the type \*CVVC, among which are several numerals. The PM roots of type \*CVV appear to have arisen from earlier \*CVC and \*CVCV types (cf. example pairs in 5.3.2). Some PM \*CVV roots appear to have developed from earlier \*CVC roots via loss of C2 and lengthening of the V. Other \*CVV roots could have developed from earlier \*CVCV in either or both of the following ways.

(103) a) \*CVCV > PM \*CVV

b) \*CVCV > \*CVC > PM \*CVV

(103a) represents loss of C2 plus assimilation of V2 to V1.

(103b) represents loss of V2, then loss of C2 plus lengthening of V1.



The changes of long vowels from PM have taken place with few exceptions without reference to environmental factors. In several languages, long vowels have become short in addition to the changes below.

(104) \*VV > V

V[+long] > [-long]

MBE and ELU especially display a strong tendency for (104), but there seems to be no rule to predict its application.

Conversely in AKO, NNE and ELU, the lengthening of some vowels since PM is also attested.

(105) \*V > VV

The conditions under which this took place have not been worked out.

### 3.3.5.1 Vowel changes of PM \*ii and \*ee

The high front vowel \*ii appears to have been the most stable vowel having not changed except in length.

(106) \*ee > ii / MBM, ELU, NNE, AKO, LEK

V[+fr 3hi +long] > [4hi]

(106) resembles (65) but the two rules differ in their range of application.

(107) \*ee > yə / MBM, MYE

V[+fr 3hi +long] > C[+son +cor +hi -nas] V[-back -fr 2hi -long]

(107) and similar rules below represent the change of long vocalic segments to a sequence of glide plus short vowel (cf. (79)).

3.3.5.2 Vowel changes of PM \*ɛɛ

(108) \*ɛɛ > iɪ / MBM, ELU, NNE, AKO

V[+fr 2hi +long] > [4hi]

In MBM and ELU, rule (104) also applied in some items. Rule (108) resembles (64).

(109) \*ɛɛ > yə / MBN, MYE

V[+fr 2hi +long] > C[+son +cor +hi -nas] V[-back -fr -long]

(109) is similar to (107).

(110) \*ɛɛ > əə / MYE

V[+fr 2hi +long] > [-fr]

It should be noted that in MYE both (109) and (110) are found.

(111) \*ɛɛ > e / MBE, MHE

V[+fr 2hi +long] > [3hi -long]

(111) represents raising and shortening (cf. (104)) of the vowels and resembles (69). In other items of the same languages, (112) has taken place.

(112) \*ɛɛ > ye / MBE, MHE

V[+fr 2hi +long] > C[+son +cor +hi -nas] V[3hi -long]

(112) may be considered as (111) plus y-insertion. In LEK, some items have undergone (113).

(113) \*ɛɛ > yɛ / LEK

V[+fr 2hi +long] > C[+son +cor +hi -nas] V[-long]

(113) may be viewed as a combination of (104) plus y-insertion.

3.3.5.3 Vowel changes of PM \*aa

(114) \*aa > εε / MBM, (MBE), LEF

V[-fr -back |hi +long] > [+fr 2hi]

(114) took place in MBM, and (114) plus the shortening rule (104) in MBE and LEF. (114) resembles (73).

(115) \*aa > ee / MBM

V[-fr -back |hi +long] > [+fr 3hi]

(115) occurred in some items of MBM. Compare (115) with (75).

(116) \*aa > əə / MBN, MYE

V[-fr -back |hi +long] > [2hi]

(116) with the occasional shortening rule (104) is found in MBN and MYE. (116) is similar to (74).

(117) \*aa > ya / LEK

V[-fr -back |hi +long] > C[+son +cor +hi -nas] V[-long]

In LEK, y-insertion plus vowel shortening is common.

3.3.5.4 Vowel changes of PM \*ɔɔ

(118) \*ɔɔ > wɔɔ / MYE

V[+back 2hi +long] > C[+son -cor +hi -nas] V

In MYE, w-insertion without vowel shortening is found in some items. In other items of MYE and in LEK, (118) plus shortening is found as in (119).

(119) \*ɔɔ > wɔ / MYE, LEK

(120) \*ɔɔ > ɔɔ / MBM  
 V[+back 2hi +rd +long] > [-back 3hi]

### 3.3.5.5 Vowel changes of PM \*oo

(121) \*oo > uu / MBM, MBN, ELU, NNE, AKO, MHE  
 V[+back 3hi +long] > [4hi]

(121) is found in several languages. In ELU, virtually all instances are also shortened. (121) resembles (83).

(122) \*oo > ūū /C[+cor]\_\_ MHE  
 V[+back 3hi +rd +long] > [+fr 4hi]

If ūū is not phonemic in MHE, then (122) would have to be split into (121) plus an allophonic fronting rule. Compare also (122) and (91).

(123) \*oo > ii / MBM  
 V[+back 3hi +rd +long] > [+fr 4hi -rd]

Some vowels in MBM have undergone (122). It is conceivable that \*oo first became ee which then underwent rule (106).

(124) \*oo > ɔ / MBM, MBE, LEK  
 V[+back 3hi +rd +long] > [-back -long]

(125) \*oo > we / LEF  
 V[+back 3hi +rd +long] > C[+son -cor +hi -nas] V[+fr -rd -long]

(126) \*oo > wə / MBN, MYE  
 V[+back 3hi +rd +long] > C[+son -cor +hi -nas] V[-back 2hi -rd -long]

(127) \*oo > ugu / LEK

Raising and g-insertion took place in several LEK items. Words with the ending VgV with identical vowels are, in fact, very common in LEK. It is, however, not clear how or why these endings should have arisen.

### 3.3.5.6 Vowel changes of PM \*uu

(128) \*uu > wə / MBN

Some items in MBN underwent (128) which is similar to (126).

(129) \*uu > ü /C[+cor]\_\_ MBE

V[+back 4hi +rd +long] > [+fr -long]

If ü in MBE would be found to be allophonic, (129) would have to be rewritten as an allophonic rule. Compare (129) with the similar rule (96).

(130) \*uu > wi / ELU

V[+back 4hi +rd +long] > C[+son -cor +hi -nas] V[+fr -rd -long]

On the basis of the above changes of long PM vowels, the following generalization can be made: w-insertion is associated with changes of [+back] vowels and y-insertion with changes of [-back] vowels.

### 3.3.6 Long vowel systems and vowel changes

The vowel changes presented above are summarized in charts 3.20 and 3.21. Vowel shortening has not usually been indicated. As many of the changes of long vowels applied without restriction, there are now in certain languages no direct reflexes of certain vowels. For example, in ELU, NNE

and AKO, \*ii, \*ee and \*εε have all become ii, and \*oo and \*uu have merged as uu, etc. (cf. charts 2.10 and 2.11).

Chart 3.20: Changes of long vowels between PM and MBM, etc.

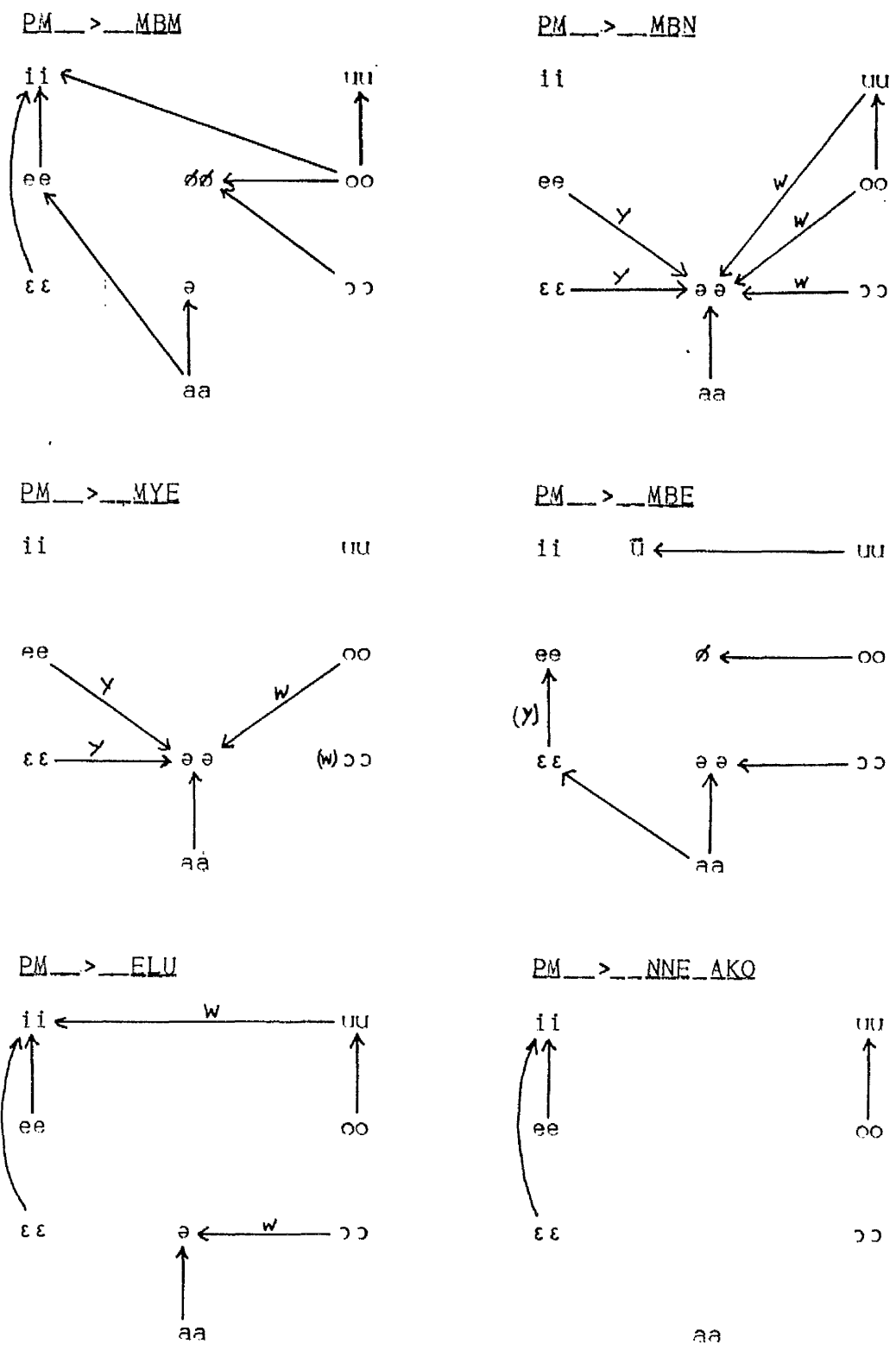
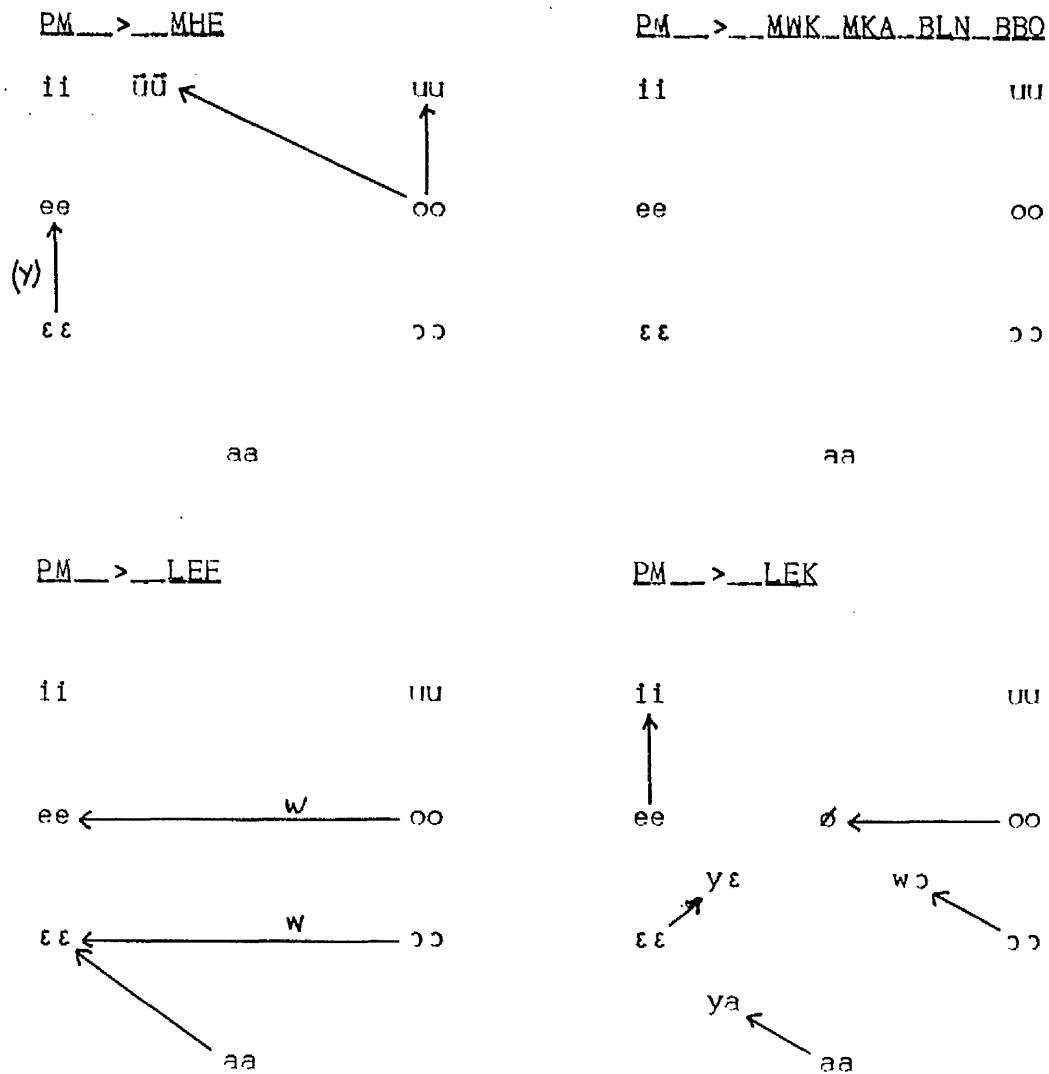


Chart 3.21: Changes of long vowels between PM and MHE, etc.

### 3.4 Tone changes between PM and the present day Languages

In general, tone has remained unchanged since PM. \*H and \*L on monosyllabic morphemes and \*H H, \*L L, \*L H and \*H L on disyllabic roots have identical reflexes in today's languages.

The evidence for \*L H and \*H L on monosyllabic roots is as follows. According to the correspondence sets in chart

2.13, (131) took place systematically in several roots, but not at all in others.

(131) \*L H > L / MBM, MBN, MYE, ELU, NNE, AKO, MHE, BBO

The same change appears sporadically in other roots, as in (132).

(132) \*L H > L / (MBM, MBN, MYE, MBE, AKO, MHE, BLN,  
BBO, LEF)

As has been pointed out in 2.5, the systematic application versus non-application of (131) has so far no explanation.

(133) and (134) are also found sporadically.

(133) \*L H > H / MKA, LEK

(134) \*H L > H / MBM, MBN, MBE, MWK, BLN, BBO, LEF, LEK

(131) to (134) may be viewed as tone simplification rules reducing the complex tones on single syllables to simple level tones. (131) appears to have led to a restructuring of the tonal pattern of the roots involved. This may also be the case for (132) to (134). On the other hand, it is possible that (132) to (134) have an explanation in a synchronic rule which simplifies complex tones in certain environments, e.g. utterance finally. Since the lexical items were given without context, this could well be the case. In order to come to any firm conclusion, more work would need to be carried out on the tonal analysis of these languages.



## FOOTNOTES TO CHAPTER THREE

[1] For typographical reasons, the features in square brackets are arranged horizontally rather than vertically which is the usual practice. There is clearly no theoretical reason against this.

[2] Njang (1972) uses the convention *bv* to represent this sound, probably because there is some bilabial friction.

[3] Stewart (1973:38) suggests that "the common Bantu voiced stops were realised as implosives in Proto-Bantu." In several Bantu languages of Cameroon including Duala (Ittmann 1939:25), [b] appears to occur before high vowels and following the nasal prefix of classes 9 and 10, and [β] elsewhere.

[4] Wamunshiya (1973:43) sets up underlying /z/ for AKO from which he derives [c] (1973:51) except after the nasal prefix of classes 9 and 10 where /z/ remains. His abstract analysis is clearly counter to the historical facts. Whether he was influenced by Meeussen who suggested that for PB one could equally well use *z* instead of *j* (1967:83) is not clear.

[5] On the other hand, it is conceivable that there was such an alternation with \*s in PM, and that the \*s merged with the other alternant (\*j) in those languages where it is not found today thereby removing all traces of a former \*s.

## CHAPTER FOUR

ASPECTS OF THE NOUN CLASS AND CONCORD SYSTEM4.1 Introduction

The Manenguba languages have a system of noun class concord typical of Bantu languages. Some aspects of the noun class system have a bearing on the classification of the languages under consideration and others raise issues for the reconstruction of morpheme initial consonants. We will present the data of the noun class morphology and give tentative reconstructions of the noun and concord prefixes. For some prefixes, the reconstruction presents few problems. For others, reconstruction is virtually impossible due to what appears to be analogical development and irregular sound change. First, the system will be briefly characterized.

In Bantu languages, there are usually about a dozen or more "noun classes". A "class" is characterized by a certain noun prefix which in turn requires the appropriate "concord" prefixes on such word classes as the verb, numeral, demonstrative, possessive, relative pronoun, associative (genitive) marker, etc.

(1)    áb-é    b`-án    bé-bè    bé-dyâg

      those children    two        they-are-eating

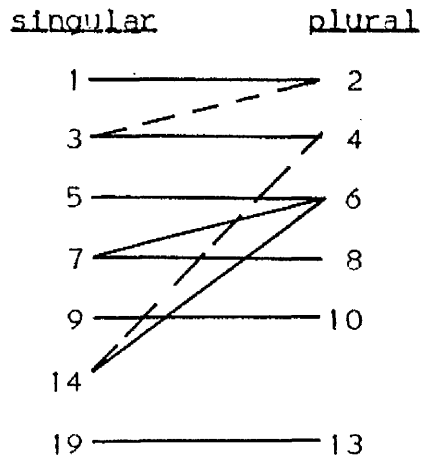
In (1), an example taken from AKO, the noun has the prefix b`- (class 2) which necessitates the presence of the

prefixes *áb-* and *bé-* on the demonstrative, numeral and verb. The class of the noun thus determines the choice of the prefixes on words within the same noun phrase, within the verb phrase of the same clause or sentence, as well as of coreferential pronouns and verb prefixes in following sentences.

A class is defined by a) the set of concord prefixes required by the noun, b) the form of the noun prefix, and c) the association of one class with another as a singular/plural pair (Kadima 1969:83, Hedinger 1980:2). Noun stems are usually associated with two classes in the case of countable nouns, one indicating the singular, the other the plural. Abstract and mass nouns are typically only found in one class [1].

It was Bleek who in 1851 first introduced the numbering system commonly used today to label Bantu noun classes (Kadima 1969:1-4). Only some minor modifications and additions have been made since then. Identification of noun classes in any given language as class 1, 2, etc., is based on whether the class and concord prefixes are cognate with PB reconstructions. Cf. chart 5.13 for the similarity of PM with PB noun prefixes.

For classes 1 to 10, usually the odd numbered classes are the singular of the even numbered classes which are the plural. For the Manenguba languages, this may be schematized as in chart 4.1.

Chart 4.1: Noun class pairings in the Manenguba languages

The majority of nouns in class 7 (singular) pair with class 8 (plural). Others pair with class 6 (plural). Class 14 nouns also take class 6 plurals. There are very few nouns which can be ascribed to class 19 (singular) and class 13 (plural).

The pairings indicated by solid lines reflect the PB situation (Meeussen 1967:100) with the exception of 7/6 which is said to have come from 15/6 (Doneux 1967:22) [2]. Dotted lines indicate that there are some nouns which pair as 3/2 (cf. (A104), (A112), (A113)) and 14/4. In several Manenguba languages, the class 14 concord has been replaced by the class 5 concord as can be seen by comparing chart 4.15 with chart 4.9. This had the effect of virtually merging gender 14/6 with 5/6, the difference now only being apparent from the noun prefixes.

Class 1 contains some nouns with zero noun prefix usually labelled as class 1a but with a regular plural of class 2.

Classes 3 and 4 appear to have neutralized to a large extent due to the loss of the distinguishing glide (mw-/my- > m-).

Singular/plural pairings are sometimes referred to as genders, e.g. gender 1/2, 3/4, etc. Similarly, nouns belonging to only one class are referred to as single class genders, e.g. gender 6. A class may serve as one of the pair in a two class gender and also as a one class gender. E.g. class 6 is plural of class 5 in gender 5/6 and denotes liquids, etc., in gender 6.

The genders are to a limited extent defined semantically. Nouns with a human referent are often found in gender 1/2 and many animals in gender 9/10. Liquids are found in gender 6 and some paired body parts in gender 7/6. Some verb roots take the class 1/2 prefixes to denote a person doing the action implied by the verb:

(2) wúú 'kill'            ñ-wúú 'killer'

Verbs taking the class 14 prefix denote the idea of the verb as an abstract concept:

(3) bíí 'know'            è?-bíí 'knowledge'

The infinitive is a nominal category in the sense that the class 5 prefix is attached to the verb root which then determines the choice of the concord prefix.

(4) à-pém    á'dé            á-pémé ... 'Carrying, he ...'  
5-carry    5-rel.pron.    he-carried

The locative marker (which resembles the class 5 prefix but has a high tone) may be prefixed to nouns of any class. Concording elements then take the concord prefix required by the locative (i.e. class 5) rather than the inherent class of the noun.

- (5) `n-dáb è-bóó 'the house is good'  
 9-house 9-is-good  
 á-`n-dáb á-bóó 'In the house it is good'  
 LOC-9-house 5-is-good

A full treatment of locatives and infinitives is beyond the scope of this study. For more details on locatives, see Hedinger (1983a).

Although noun stems typically belong to only one gender, there are some stems which occur in more than one gender. This is usually associated with a modification of the sense of a word.

- (6) è-díb, è?- 'river(s)' (7/8)  
 mè-díb 'water' (6)

Occasionally, speakers are not certain or disagree as to what the plural should be. For some nouns, class 6 may be used as a plural for class 3, 9 or 19 instead of the more typical plural class (4, 10 and 13 respectively).

There are a few cases where a noun has changed gender (cf. (A70)).

- (7) \*mw-èè, my-èè (3/4) > NNE à?-mwíí, mè-mwíí (14/6)

In (7), the prefix plus root appears to have been reanalysed as the new root to which the prefix is added.

In the following sections, we will first focus on the word classes which take the noun class and concord prefixes. The prefixes of the different classes will be discussed in turn.

## 4.2 Elements with noun class and concord prefixes

The elements carrying concord prefixes divide into two categories on the basis of whether they are governed by or govern the concord.

### 4.2.1 Elements governing concord

Nouns, including locative nouns and infinitives, control the concord of associated elements.

The noun stems with their prefixes are listed in appendix I and wherever possible their gender is indicated with the reconstruction. The noun prefixes are also included in summary form in charts 4.5 to 4.17 as columns IC and IV.

The locative prefix is found as (A511) in appendix I.

The numeral 'ten' is clearly nominal. It has a singular/plural prefix pair of gender 5/6 and controls the prefix of associated numerals (cf. (A10) and (A11) in appendix I).

#### 4.3 Elements governed by concord

The elements controlled by the nouns, locatives, etc., mentioned in 4.2.1 are as follows: possessive pronouns, relative pronouns, demonstratives, the reflexive pronouns, subject/object pronouns, the numerals 'one' to 'five', verb prefixes, associative (genitive) markers and qualifiers. Excluded are the 1st and 2nd person forms of the reflexive pronoun, of the subject/object pronoun and of the verb prefix. The choice of first and second person forms is determined by the speaker/hearer situation.

Relative pronouns, certain demonstratives, the associative markers and qualifiers [3] were not included in the lists to be elicited and therefore are not included here. For a survey of such elements in Akɔɔse, see Hedinger (1980).

What is common to all the governed elements is the fact that a particular stem occurs with a prefix from every class, the choice of which is determined by the governing noun.



4.3.1 Possessive pronouns

The possessive pronoun stems are given in chart 4.2. The concord prefixes of these pronouns are found in column 7 of charts 4.5 to 4.17.

Chart 4.2: Possessive pronoun stems

	1sg	2sg	3sg	1pl	2pl	3pl
PM	*-è̃m	*-ṣ̃ŋ	*-ĩb	*-ācĩ	*-ānyĩ	*-ābó
MBM	-è̃m/-ām	-óŋ	-ú/í	-ùsĩ/-ĩsĩ	-è̃nyĩ/ĩnyĩ	-āb/ĩbó
MBN	-è̃m/-ām	-ṣ̃ŋ	-í/wí	-è̃sĩ	-è̃nyĩ	-ābú
MYE	-è̃	-ṣ̃	-i/-u	-àsĩ	-ànĩ	-ābó
MBE	-è̃m	-ṣ̃ŋ	-ĩ	-è̃sĩ(nē)	-è̃yē	-ābā/-āā
ELU	-è̃	-ó	-ĩ	-ē?	-è̃nyē/ònyē	-è̃bú/-òbú
NNE	-im/em	-oŋ	-é	-éd/ēsē	-è̃nyē	-ā?
AKO	-em	-oŋ	-i	-ed	-en	-ab
MHE	-em	-ṣ̃ŋ	-ĩb	-è̃y?/-éd'	-āā	-āb
MWK	-è̃m	-ṣ̃ŋ	-ĩw/ũw	-è̃y	-āā	-āw
MKA	-em	-oŋ	-ib/-ub	-āy	-āā	-āb
BLN	-è̃m/-om	-ṣ̃ŋ	-ĩb	-ay/-ad	-āā	-ab
BBO	-em	-oŋ	-eb	-ad	-aā	-ab
LEF	myə	-wə	-mə	-sə	-nyə	-bɔ
LEK	-ɔ/-u	-ɔŋ	-ɛn	-ɛ?	nyɛ/mwɛ	bwɔ/bwɔ̃

The variants with front versus back vowels in, for example, 3sg for MBM, MWK and MKA are conditioned by the environment, the rounded back vowel occurring in the labio-velar environment of the class 1 prefix (cf. column 7, chart 4.5).

At the head of each column the proposed PM reconstructions are given. The reconstructions took into

account only the data from the first ten languages. LEF and LEK have been excluded for the following reasons. There are several forms in LEF and LEK which are clearly not cognate with the forms in the other languages. In our definition of PM (cf. 6.3.2.3) LEF and LEK are excluded. Since we are interested in this study primarily in PM, it is not inappropriate to leave these two languages aside.

The reconstruction of final vowels is very uncertain due to apparently irregular sound changes.

The singular forms are \*-VC in structure, the plural forms \*-VCV. Some languages have dropped the final C in the singular and some the final V in the plural. MHE to BBO also dropped the final palatal nasal (cf. 3.2.3).

There is clearly a formal link between the plural forms of the possessive stems, the plural person prefixes in chart 4.4 and the personal pronouns (A487 - A489). The plural possessive pronoun stems are probably best explained by assuming that they were derived by suffixing of independent pronouns.

The reconstruction of the consonant in *lpl* presents a problem. We have posited a \*c although we have not posited \*c for PM (cf. chart 2.6). On the basis of the reflexes, we could expect either \*s or \*j. Since PB \*c has given rise to PM \*s in morpheme (and syllable) initial position (cf. 5.3.1) and to \*j in morpheme (and syllable) final position (cf. 5.3.2), \*c seems to be the most adequate reconstruction. Cf. also the discussion of the palatal stops in 3.2.1 [4].

There are two sets of lexical items which are best discussed in connection with the possessive pronouns. Items

(A17), (A18), (A20) and (A21) are reconstructed as:

- (8) \*sǎŋ 'his father' \*sɔŋ 'your father'  
 \*nyǎŋ 'his mother' \*nyɔŋ 'your mother'

There appears to be a formal (-ɔŋ) and semantic (2nd person) relation between the kinship terms in (8) and the 2nd person singular possessive stems \*-ɔŋ. The \*-ɔŋ may have been a 2sg suffix with a more general distribution. This is further supported by the form of the AKO 2sg reflexive pronoun mɔŋ 'yourself'.

In AKO the lexical items in (9) are found.

- (9) wɛ́ɛ́d 'my friend' bɛ́ɛ́d 'my friends'  
 wɛ́ɛ́n 'your friend' bɛ́ɛ́n 'your friends'  
 wǎǎb 'his friend' bǎǎb 'his friends'

There is clearly a formal and semantic relationship between the "endings" in (9) and the plural possessive stems. It appears that a class 1 (sg) and class 2 (pl) noun prefix is used with the three possessive stems to make up these items. The w-prefix in the singular is significant because it is non-nasal (cf. chart 4.5, column 1V where there is always a nasal in class 1 prefixes). This raises the question whether there is any connection between this w- and the Proto-Benue-Congo \*ù- prefix for this class (De Wolf 1971:53). There may also be a connection between this w and the w in the possessive prefix (column 7, chart 4.5).

According to Meeussen, it has not yet been possible to reconstruct the possessives for PB because "the attested forms are so varied" (1967:107). This suggests that there has been considerable restructuring in this area since PB.

The syntactic position of the possessive pronouns is before the noun.

4.3.2 Pronouns, demonstratives and reflexive pronouns

In chart 4.3 the stems of the reflexive pronoun, the third person pronouns and three different demonstratives are listed. The gaps in the chart are due to lack of data.

Chart 4.3: Stems of pronouns and demonstratives

	reflexive pronoun	3rd ps pronoun	this	that (far)	that (near)
PM	*-ɛ̃n	*-ɔ̃	*-ɪn	*-ɪnɪɪ	*-ɪ
MBM					
MBN	(mən)	ɪ	ən	ɪnɪɪ	
MYE	ɛ̃n/ɛ̃n	ɔ̃/ɔ̃			
MBE	ɛ̃n/ɛ̃n	ɛ̃/ɔ̃	en/ən		i/e
ELU	ɛ̃	ɔ̃/ɔ̃	ɛn/ən	ɪnɪ	ɪ
NNE					
AKO	ɛ̃n	ɔ̃	ɛ̃n	ɪnɪɪ	ɛ̃
MHE	ɛ̃n		ɪn	ɪnɪɪ	ɪ
MWK	ɛ̃n	ɔ̃	ɪn		ɪ
MKA	ɛ̃n		ɪn/ɪn	ɪnɪɪ/ɪnɪɪ	ɪ/ɔ̃/ɔ̃
BLN	ɛ̃n	ɔ̃	ɪn	ɪnɪɪ	ɪ
BBO	ɛ̃n		ɪn/ɪn	ɪnɪɪ/ɪnɪɪ	ɪ/ɔ̃
LEF	(mɛ̃n)	ɔ̃	ɛ̃n/n/ne	ɪnɛ̃/ɪnɪɪ	ɛ̃
LEK	ŋgɛ̃ŋ	ɔ̃			

The reflexive pronoun in the first column is reconstructed as \*-ɛ̃n. It is usually glossed as 'himself', 'herself', 'themselves' [5], etc. It should be pointed out that it is never used predicatively as in "he cut himself", but only attributively as in "he himself cut down the tree". It is a constituent of the noun phrase and a kind of

emphatic pronoun co-referential with the head of the noun phrase which it always follows.

The pronoun stem for third person [6] taking the concord prefix of any class is reconstructed as \*-5.

There are three demonstrative stems. They occur in post-nominal position with one set of prefixes and in pre-nominal position with another related set (cf. column 5 in charts 4.5ff). The variants with high back vowels are conditioned by the phonetic shape of the concord prefix.

#### 4.3.3 Numerals

The numerals 'one' to 'five' and the question word 'how many' take concord prefixes (column 4 in charts 4.5ff) as required by the class of the head noun which they follow. The stems of the numerals with their reconstructions are found in appendix 1 as items (A1) to (A5) and the question word as (A501).

In AKO and MWK, numeral 'one' can be used with plural nouns in which case the meaning is 'some' (Hedinger 1980:21, Hedinger et al. 1981:27).

- (10) AKO: mōd ṅhōg (cl. 1) 'one person'  
           bād bēhōg (cl. 2) 'some people'  
           bād bēbē (cl. 2) 'two people'

We do not know how widespread or restricted this use is both inside and outside the Manenguba languages.

With the numeral 'one', the tone of the concord prefixes is low, with the numerals 'two' to 'five' and the question word 'how many', the prefix tone is always high, regardless to which noun class the prefix belongs (Cf. (10) above). This is different from the usual pattern of tone on

concord prefixes in Bantu languages: classes 1 and 9 usually have a low tone on the prefix and high tone for other classes (Meeussen 1967:97). The question raised is whether the tone on the numeral prefix should be considered to belong to the concord prefix or to the numeral stem. The simplest solution, the one we have adopted here, is to consider the prefix toneless and the numeral stems with an initial low floating tone for 'one' \*<sup>ˋ</sup>-hóŋ, and a high floating tone for 'two' \*<sup>ˋ</sup>-bà, etc. Historically, the change to the Manenguba situation is probably due to an analogical change.

#### 4.3.4 Verbs

Every verb form in a sentence has either a concord prefix (determined by the governing subject noun), an infinitive prefix (as required by certain grammatical contexts) or a person [7] prefix (chosen by speaker/hearer relations in particular discourse contexts or the pragmatic context of the speech situation). There is partial overlap between the concord prefixes and the person prefixes as explained in 4.4.1.

A verb here is defined as any stem which may take person/concord prefixes as well as affixes for tense, aspect and negation and function as a verb phrase in a clause. Therefore, more roots belong to the category of verb stems than would be the case if purely semantic criteria were applied. Besides stems referring to actions and processes (cf. items (A524ff)), stems referring to states, abstractions and qualities including colour terms (cf. items (A425ff)) belong to the category of verbs.

4.4 Noun concord and person prefixes

In this section, the person prefixes as well as the noun and concord prefixes will be presented and discussed. Chart 4.4 contains the person prefixes, charts 4.5 to 4.17 the noun and concord prefixes.

4.4.1 The person prefixesChart 4.4: Person prefixes

	1sg	2sg	3sg	1pl	2pl	3pl
PM	*m̄-	*wè-?	*à-	*sî-	*nyî-	*bé-/*bɔ̄-
MBM						
MBN	ñ-	è-	à-	sî-	nyî-	bú-
MYE	ñ-	ò-	à-	sî-	nɪ-	ó-
MBE	ñ-	ò-	à-	sɪ-	yɪ-	ɓɛ-
ELU	ñ-	ò-	à-	sɛ-	nyɛ-	ɓɔ̄-
NNE						
AKO	ñ-	è-/wè-	à-	sɛ-	nyɪ-	bé- [4]
MHE	ñ-	ò-	à-	sɛ-	nyɪ-	ɓɔ̄-
MWK	m̄-	ò-	à-	sé-	nyé-	bɛ-
MKA						
BLN	ñ-	ò-	à-	sɛ̄-	nyɛ̄-	ɓɔ̄-
BBO	m̄-	ò-	à-	sɛ̄-	nyɛ̄-	bɪ-
LEF	nnaán	ɛ̄ɛ̄-	àà-	síí-	nyí	ɓáá-
LEK	ñ-	ɔ-	ǎ-	sə-	nyə-	ɓɛ-

The person prefixes belong to the same position class as the verbal concord prefixes (given as column 6 in charts 4.5ff). There is partial overlap between person and

concord prefixes (cf. 3sg and 3pl with column 6 in charts 4.5 and 4.6). This may best be displayed as in (11).

(11) person

1sg	2sg	3sg = 1	class
1pl	2pl	3pl = 2	
		= 3	
		= 4	
		etc.	

There are two ways of looking at (11). First, it might be said that there is overlap in that the class 1 and 2 concord prefixes are homophonous with the 3rd person singular and plural person prefixes. Second, one might consider person distinctions to be relevant only for classes 1 and 2 (the person classes) and the other classes to have only 3rd person forms. The second view appears to best express the fact that humans speak and therefore need 1st and 2nd person forms to refer to speaker and hearer whereas non-human entities (primarily in classes 3, 4, etc.) are "spoken about" and referred to by the use of third person forms.

Looking at the overlap between person prefixes (chart 4.4) and the class prefixes (charts 4.5 and 6) more specifically, it is only between 3sg and class 1 that there is identity (excluding LEF and LEK for the reasons previously given). In 3pl/class 2, however, there appear to exist more than one form in some of the languages. AKO, for example, has only one form: b<sup>h</sup>é-, whereas MWK has two: b<sup>h</sup>é- and ó-. This discrepancy between languages is probably due to analogical developments: the ó- prefix is most likely due



to a copying of the noun prefix onto the verb. Variations in the 3pl person prefix must be due to still other factors such as the influence of the person pronoun (A489).

It is not clear what the reconstruction of the 2sg prefix should be. Also, the vowel in 1pl and 2pl is not certain. In 3pl, the presence of both front and back vowels might have an explanation in an analogical development as suggested above.

The plural person prefixes are apparently related to the plural possessive stems in 4.3.1 and the person pronouns (A487 - A489). They may ultimately all be derived from free forms, i.e. pronouns.

#### 4.4.2 The noun and concord prefixes

In the following pages, charts with the noun and concord prefixes will be presented. Each chart contains the prefixes for one class. The labels at the head of each column indicate the following:

- C prefixes occurring before consonant initial stems
- V prefixes occurring before vowel initial stems
- 1 noun prefixes
- 2 reflexive pronoun prefix
- 3 pronoun prefix
- 4 numeral prefix
- 5 demonstrative pronoun prefixes
- 6 verb prefix [8]
- 7 possessive pronoun prefix [9]

Two forms in a column separated by a slash indicate contextual or free variants. In column 2, the forms for MBN, LEF and LEK are the full form of the reflexive pronoun and identical for all classes. We have put an asterisk (\*) instead of repeating the form in every successive chart.

In column 5, we give two forms. Both do occur, the longer form apparently when the demonstrative precedes the noun, the shorter form when it follows the noun. This area has not been fully explored and so no definite statement can be made. At the bottom of column 5 (LEK), the full forms given by the informant are included because several stem forms appear to be involved.

The form of LEF in column 7 appears to be the associative marker [10] rather than the prefix comparable to the ones in the other languages.

Hyphens after the prefixes indicating bound morphemes have been omitted for reasons of space. There are several gaps in the charts for different reasons. In some cases, the informant was unable to complete work on a list. In the case of 5V, it was in some cases difficult to obtain both the pre- and the post-nominal form. Nouns with prefixes under 1V are relatively rare, which led to some gaps in that column.

There is considerable similarity between columns within the same class and occasionally between classes. Similarities between classes are due to similar proto-forms. Similarities between columns of the same class may be due to several factors. In some cases, it must be due to the concord being identical with the noun prefix. In others,

taking PB reconstructions into account, the noun prefix must have replaced the concord, particularly in classes 1, 3, 4 and 6.

Dissimilarities of form, especially between 1C and IV, are due to divergent development from one original form. The divergent development appears to be associated with the difference in position before consonant versus vowel initial stems (cf. 5.3.5).

#### 4.4.3 Class one

Chart 4.5: Noun and concord prefixes of class 1

	1C	IV	2V	3V	4C	5V	6C	7V
PM	*m̄	*mw̄	*mw̄	*m	*m̄	*n̄	*àn	*ā *āw
MBM	ñ	my/mw/m		m̄				āw
MBN	ñ	mw/my/m	mən	m	m̄	n	ā	āw/āg
MYE	ñ	my/m	m	m	ŋ̄		ā	āw
MBE	ñ	my/mw	mw	m	ŋ̄	n	àn	ā āw
ELU	ñ	mw/m	mw	m	ŋ̄	n	àn	ā āw
NNE	ñ	mw/m						āw
AKO	ñ	mw	mw	m	ŋ̄	n̄	àn	ā āw
MHE	ñ	mw	mw		ŋ̄		èn	ā ěw
MWK	ñ	mw	mw	m	ŋ̄	n	àn	ā āw
MKA	m̄	mw	mw		m̄		èn	ā ěw
BLN	m̄	mw	mw	m	ŋ̄		èn	ā ěw
BBO	m̄	mw	mw		m̄		ìn	ā ĩw
LEF	ñ	mw/m	m̄ən	m	m̄	ā	àn	ā m̄
LEK	ñ	mw/m	ŋgɛŋ	m	m̄	nyín, nyíí	è	gb/b/bw?

Noun prefix (1C) and numeral prefix (4C) are reconstructed as syllabic \*ṁ- and \*ṡ- respectively for PM (for the tone on the numeral prefix, cf. 4.3.3). These have become homorganic nasals in all languages except MKA, BLN and BBO. The [ŋ] reflects the glottal environment of the h-initial numeral 'one'. The ṡ in MBM, MBN, LEF and LEK is labiodental preceding /f/.

It appears that the forms in columns 1 to 4 are ultimately derivable from the form reconstructed by Meeussen (1967:97) for the class 1 noun prefix \*ṁḁ- via loss of syllabicity (before V in 1, 2 and 3) or loss of vowel (before C in 1 and 4). Tone has, however, remained (but cf. 4.3.3). The y in MBM, MYE and MBE is due to rule (37) in chapter 3.

The first form in 5V probably derived from the second via loss of the vowel but not loss of tone, which is still realized in certain contexts as a downstep. Whether the vowel in 5 and 7 is correctly reconstructed is not certain.

4.4.4 Class twoChart 4.6: Noun and concord prefixes of class 2

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*bè	*b`	*b`	*b	*be	*b	*bé	*áb
MBM	bè/bè	b/eb		b	ø			
MBN	ò/à	b/abw	*		é	b	á	áb
MYE	ò	b/ob	b	b	ó		á	ób
MBE	ò	b/ob	b	ò	ó	b ób	ó	ób
ELU	ò	b/ob	b	b	ó	b ób	ó	ób(áb)?
NNE	bè/bè	b/bɛb						áb
AKO	bè	b/beb	b	ò	bé	áb	bé	áb
MHE	bè	b	b		òé		bé	éb
MWK	ò	b/ob	b	b	ó	b	ó	áb
MKA	bè/bè	b	b		bʃ	b	bʃ	éb
BLN	bè	b	b	ò	bé	b	bé	éb/éb
BBO	bí	b	b		bé	b	bí	íb
LEF	bà	b	*	b	òá	b ha	bá	bá
LEK	bè/bè	b	*	bw	bé	bá, béé	bʃ	bw

Class 2 prefixes present a problem: the presence of ò- in MYE, MBE, ELU and MWK is not easily accounted for. The reconstruction of the noun prefix for both PB and PBC is \*bà- (Meeussen 1967, De Wolf 1971). And it appears that for PM we need a reconstruction like \*bè-, the front vowel being either e or ɛ.

A phonetic explanation of the ò- would be that the front vowel became rounded and backed in the labial environment and b was lost: \*bè > ò-.

An alternative explanation would be to assume that the PM prefix still had a low vowel: \*bà-. In different

dialects, the raising of the low vowel \*a then took two different routes in labial environment: \*a > e /C[+lab]\_\_ or \*a > o /C[+lab]\_\_. The labial later dropped before o. A third alternative, which is theoretically possible, is that another gender, which had a (C)ò- prefix as plural, merged with gender 1/2. The presence of the ò- in some plurals of the 1/2 gender would then have replaced the bè- prefixes in some languages whereas bè- extended to all the nouns with previous ò- in the other languages. The noun class envisaged as a possible source is PB cl. 13 \*tò- (Meeussen 1967:97) which is the only plural class with an o vowel. Also notable is the absence in Manenguba languages of a gender 12/13 reconstructed for PB (1967:102).

The objection to the first two hypotheses is that there are no such sound changes observed in comparable environments. The third hypothesis looks very attractive. An answer would, however, have to be found to the following questions. How many nouns were in gender 12/13 which allegedly merged with gender 1/2? Is there evidence of such roots in today's gender 1/2? How likely is it that a prefix of a small number of roots replaces the prefix of the majority? Perhaps the major obstacle is how the singular prefix \*kâ- would have provided the basis for a merger with class 1 which has PM \*m-/mw`-. It appears that a merger of 12/13 with 5/6 would be easier to explain for reasons elaborated in 4.4.6.

The question is at the moment best left open until conclusive evidence tips the balance in favour of one or the other hypothesis.

There is no question that the o- prefix is secondary

to the be- prefix. In item (A105) 'woman', some languages have simply a b- prefix but in others, the pre-consonantal bè- or ò- is added to the b- prefix. This addition clearly is of more recent origin than the b- prefix which must have been reanalysed as C1 of the root.

The vowel in different concord prefixes in MYE, MBE, ELU and MWK must have been replaced by o by analogy with the noun prefix. In MWK this has not (yet?) reached 7V.

The significance of the ā in MBM and MYE in 6C is not clear.

#### 4.4.5 Classes three and four

Chart 4.7: Noun and concord prefixes of class 3

	1C	1V	2V	3V	4C	5V	6C	7V	
PM	*m̃	*mw̃	*mw̃	*m	*m̃	*m	*ām	*m̃	*āmw
MBM	m̃	mw/m			m̃			m̃m	
MBN	m̃		*	m	m̃	m	ñ	m̃m	
MYE	m̃		m	m	ḷ̃		ñ	m̃m	
MBE	m̃	mw	mw	m	ḷ̃	m	m̃m	ñ	m̃m
ELU	m̃	mw	m	m	ḷ̃	m	m̃m	ñ	m̃m
NNE	m̃	mw							m̃mw
AKO	m̃	mw	m	m	ḷ̃	m	m̃m	ñ	m̃m(w)
MHE	m̃	mw	mw		ḷ̃	m		ñ	ḷ̃m(w)
MWK	m̃	mw	mw	m	ḷ̃	m		ñ	m̃m
MKA	m̃/ñ	mw	mw		m̃	m		m̃	ḷ̃m(w)
BLN	m̃	mw	mw	m	ḷ̃	m		ñ	ḷ̃m(w)
BRO	m̃	mw	mw		m̃	m		m̃	ḷ̃m(w)
LEF	m̃		*	m	m̃	m	mu	ñ	m̃
LEK	m̃		*	m	m̃	m	má, m'éé	ñ	m

Chart 4.8: Noun and concord prefixes of class 4

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*m̃	*my`	*m`	*m	*m̃	*m *ám	*m̃	*ám
MBM	m̃				m̃			m̃m
MBN	m̃		*	m	m̃	m	m̃	m̃m
MYE	m̃		m	m	m̃		m̃	m̃m
MBE	m̃		mw	m	m̃	m m̃m	m̃	m̃m
ELU	m̃	my	m	m	m̃	m m̃m	m̃	m̃m
NNE	m̃	my						m̃m
AKO	m̃		m	m	m̃	m m̃m	m̃	m̃m
MHE	m̃	my	m		m̃	m	m̃	ém
MWK	m̃	my	mw	m	m̃	m	m̃	m̃m
MKA	m̃/ñ	my	m		m̃	m	m̃	ém
BLN	m̃	my	m	m	m̃	m	m̃	ém(w)
BBO	m̃/ñ	my	m		m̃	m	m̃	ím
LEF	m̃		*	my/m	m̃	m/mi	m̃	m̃
LEK	m̃		*	m	m̃	má, miéé	m̃	m

Leaving out LEF and LEK, the PM noun prefix (1C) for classes 3 and 4 is \*m̃- and the numeral prefix (4C) is \*m̃-. Parallel to class 1, these have assimilated in point of articulation to the following C, except in the case of MKA, BLN and BBO. The m's in all the languages in 4C in chart 4.8 are due to the fact that numeral 'two', which has a bilabial C initially, was used to elicit these prefixes. Before vowels, class 3 has \*mw`- and class 4 has \*my`- (cf. 1V) in a small number of V-initial stems. Two items in gender 3/4, (A48) and (A236), have the word initial sequence m̃-pw../m̃-py... This may have come about by analogy: a root initial -Cw.. sequence becomes -Cy.. in the plural by analogy with the w/y



distinction of the prefix. This must go back to the time when the w/y distinction was still present in the prefixes.

In 2V, the class 3 prefix must have spread to class 4 in MBE and MWK.

6C is similar to 1C but has a high tone.

In 7V, a w is occasionally present in class 3, a feature which appears to be disappearing. MHE, MKA, etc., have a vowel where the others have a syllabic nasal before m in both class 3 and 4. This raises the question whether a vowel or a nasal should be reconstructed. It appears that it would be more natural for a vowel to become a syllabic nasal in nasal environment than the reverse. On the other hand, the nasal could have been introduced here by analogy with the noun prefix which is also a syllabic nasal before C. It probably is best to posit an \*á which became é in MHE, MKA and BLN, í in BBO and ĩ in the other languages. The \*a vowel which we have also posited for 7V in other classes, is perhaps equivalent to Meeussen's "link vowel" \*-a-, of his "possessives" (1967:107). It should be noted that this vowel has a low tone in classes 1 and 9 but high in all the other classes.

For PB, the noun prefixes have been reconstructed as \*mò- 'class 3' and \*mè- 'class 4'. In PM, these are only distinguished in pre-vocalic position (cf. 1V) but have neutralized to \*m̄- in pre-consonantal position (cf. 1C). It should be noted that in both LEK and LEF the distinction is maintained in that only in the singular class 3 has the original CV- prefix reduced to N̄-.

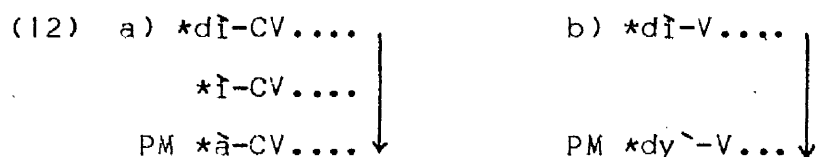
4.4.6 Class fiveChart 4.9: Noun and concord prefixes of class 5

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*à	*dy`	*dy`	*dy	*a	*d *ãd	*ã	*ãdy
MBM	à	d/du/dy			∅			ey
MBN	à	d/ju/j	*	d	à	d	ã	ãd/ãl
MYE	à	dw/dy/d	j	j	à		ã	íy
MBE	à	dy/d	d	d	à	ãd	ã	ãd(y)
ELU	à	d/dy	d	d	à	d ãd	ã	ãd
NNE	à	dy/d						ãd
AKO	à	dy/d	d	d	à	d ãd	ã	ãd
MHE	è	dy/d/j	d		è	d	é/ã	éd
MWK	à	dy/d	dy	dy	à	d ãd	ã	ãdy
MKA	è	dy/d	dy		è?	d	é?	éd(y)
BLN	è	dy/d	d	d	è?	d	é?	éd(y)
BBO	ì	dy/d	dy		ì	d	í	ídy[lll]
LEF	lè/lì	dy/d	*	y/d	dì	d di	dí	dí
LEK	lè	du/d	*	l	lè	dín, díí	lé	l

In class 5, the vowels present a difficulty. On the face of it, to reconstruct \*a in 1C and 4 to 7 seems to be the best course of action. This analysis faces a difficulty when the noun prefixes in 1C and 1V are considered together. LEF and LEK prefixes most probably have a single source. The question then is: do 1C and 1V have a single source in the other languages? Meeussen has \*ì- or \*dì- for PB (1967:97-99). De Wolf has \*lè- for PBC.

If we consider that the two sets of prefixes have

the same source, possibly \*dĩ-, then an explanation as in (12) will be necessary.



In (12b), the prefix vowel becomes non-syllabic. In (12a), the following processes are involved. Loss of initial \*d and lowering of the vowel from a high to a low vowel in PM. To account for the present day *ɛ* and *i* in some of the languages, the low vowel \*a would then need to be raised again, perhaps parallel with the low vowels in other classes. The crucial question appears to be why the high vowel became low in the first place. Of interest is the fact that Ewondo (A.72a) (Abega n.d.) and Bulu (A.74a) (Bates 1926:6) also have *ã-* as a class 5 prefix. This suggests either a parallel development or that Ewondo and Bulu are so closely related that they shared this innovation.

An alternative to the phonetic development suggested above is to consider a possible merger of PB gender 12/13 (\*ka-/\*to-) with gender 5/6 as hinted at in 4.4.4. The a- prefix could have PB \*ka- as source and the o- prefixes in class 6 (cf. chart 4.10) could have PB \*to- as source. The a- (< \*ka-) would have replaced the original class 5 vowel in preconsonantal environment and similarly for o- (< \*to-) in class 6. The situation as far as o- is concerned is different from a-. Whereas \*a- appears to have replaced the \*di/i- prefix in all languages, o- only replaced the \*me- prefixes in some languages. In other languages, it would have to be the reverse, i.e. that the me- prefix replaced all the o- prefixes.

This merger approach to the a-/o- prefixes is very attractive but its validity hinges on the question whether the evidence for it can be found in, for example, the presence of nouns of a former 12/13 gender in gender 5/6.

The vowel in 7V, largely identical with 1C, probably has a different origin as suggested in 4.4.5. The similarity between this vowel, the noun prefix and the other prefixes is probably best explained in terms of parallel phonetic development.

#### 4.4.7 Class six

Chart 4.10: Noun and concord prefixes of class 6

	1C	1V	2V	3V	4C	5V	6C	7V	
PM	*mè	*m(y)~	*m	*m	*me	*m	*ám	*m'é	*ám
MBM	ñ	m						ñm	
MBN	ñ/ò	m	*		ñ	m	ñ	ñm	
MYE	ò	m	m	m	ó		ó	óm	
MBE	ò	m	m	m	ó	m	óm	óm	
ELU	ò	m	m	m	ó	m	óm	óm	
NNE	mè/mè	m/my						ñm	
AKO	mè	m	m	m	m'é	m	ñm	m'é	ñm
MHE	mè/mè	m	m		m'é	m		m'é	ém
MWK	ò	m/my	mw	m	ó	m	óm	ó	óm
MKA	mè/mè/mè	m	m		ñ	m		m'é	ém
BLN	mí/mè/mè	m/my	m	m	m'é	m		m'é	ém
BBO	mí	m	m		m'é	m		mí	ím
LEF	mà	m	*	m	ma	m	ma	má	má
LEK	mè/mè/ñ	m	*	m	ñ	má, m'é	ñ		m

As in class 2, MYE, MBE, ELU and MWK have an o instead of forms more similar to the reconstructed forms. The discussion regarding possible phonetic developments of \*be- > o- in 4.4.4 could equally apply to \*mè- > o- and are therefore not repeated here. Cf. also 4.4.6 for an explanation in terms of a noun class merger.

LEF has retained the PB prefix \*mà- (Meeussen 1967:97). We have reconstructed it as PM \*mè- which in turn requires a lowering and a raising rule to account for the vowel quality in, for example, MKA and BBO. In MBM and MBN, the prefix has reduced to a homorganic nasal as in classes 1, 3 and 4. This gives an isogloss separating these two languages from the remaining languages of the Manenguba languages.

5V and 7V probably should be reconstructed as \*ám-, the different present day forms being accounted for by phonetic and analogical changes.

After having discussed several classes where nasals are predominant in the prefixes, the following comment is in order. For PB, only the noun prefixes are reconstructed with a nasal in classes 1, 3, 4 and 6. The concord prefixes are given as \*jo-, \*go-, \*ge and \*ga respectively. The widespread presence of bilabial nasals in PM is best explained in terms of a spread of the nasal of the prefix into the concord probably before PM.

4.4.8 Class sevenChart 4.11: Noun and concord prefixes of class 7

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*è	*jy`	*j`	*j	*e	*j *áj	*é	*áj
MBM	è/à	y/j			ø			éy
MBN	è	y	*	y	è	y	é	éy
MYE	è	j	j	jw̄	è		é	íy
MBE	è	j	j	j	è	j éj	é	éj
ELU	è	j	j	j	è	éj	é	éj
NNE	è	j/ky						éj
AKO	è	c/cy	c	c	è	c éc	é	éc
MHE	è/è/à	j/jy	j		è	j	é/é	éj
MWK	è	j	j	j	è	j éj	é	éj
MKA	è	j	j		è	j	é	éj
BLN	è/è	j	j	j	è	j	é	éj
BBO	ĩ(+h)	j	j		ĩ	j	í	íj
LEF	è/wù	y	*	y	è	y ye	é	é
LEK	è/lè	j	*	z	ø	zín, zíf	é	z

The class 7 prefix for PB is \*kè- (Meeussen 1967:97). The voiced palatal \*j which needs to be reconstructed for PM could thus derive from the voiceless velar stop via voicing and fronting in front vowel environment. The pre-consonantal form \*e- would then be explained by a C-deletion rule and the present day prefixes by a lowering or raising rule.

The vowel in 7V (and 5V) is never a low vowel and so, to reconstruct \*áj- is somewhat speculative. However, there seems to be a good reason for reconstructing \*a in other classes where in several cases a raising rule is

needed as well. Here, the raising of \*á to ε, e and i, could have several explanations. In MKA and BBO, for example, a raising rule is already needed. In MBE, ELU and MWK, the /a/ could have changed to /e/ by analogy with the noun prefix parallel to what happened in class 6. Then, there is also the following palatal stop which is an environment where low vowels have been fronted and raised (cf. 3.3.2.4).

#### 4.4.9 Class eight

Chart 4.12: Noun and concord prefixes of class 8

	1C	1V	2V	3V	4C	5V	6C	7V	
PM	*èb	*by <sup>~</sup>	*b <sup>~</sup>	*b	*eb	*b	*áb	*éb	*áb
MBM		by						eby	
MBN	à		*						
MYE	à	by	b	b	á		á	áb	
MBE	à	by/bw/b	β	β	á	b	áb	á	áb
ELU	∅	b	b	b	ḿ	b	ḿb	ḿ	ḿb
NNE	à?	by/b						á?b	
AKO	è?	by/b	b	b	é?	b	áb	é?	áb[12]
MHE	è?	by	b		é?	b		é/é	éb
MWK	à	by	β	β	á	b		á	áb
MKA	è?	by	b		é	b		é?	éb
BLN	è?	by	b	β	á?	b		é?	éb
BBO	í(+f)/íb	by	b		í?	b		í?	íb
LEF	bí	by/bi	*	by/b	bí	b	bi	bí	bí
LEK	bè	(py/b)	*	b	bé	bá, bǎé	bé		b(w)

Class 8 is interesting because 1C (and possibly 4C and 6C) have to be reconstructed as VC rather than the typical CV for PM (excluding LEF and LEK). In light of PB and column 1V which suggest an original CV prefix, we need to ask how this came about. The simplest explanation appears to be metathesis: the order of consonant and vowel has been reversed (be- > eb-). Another hypothesis to consider is the possibility that there was a so-called pre-prefix in addition to the prefixes (e.g. e-be-). The VC sequence would then be due to the loss of the second vowel of the VCV-sequence. However, there does not otherwise seem to be any evidence for pre-prefixes which would speak for the second hypothesis.

I have posited \*e as the vowel in 1C, 4C and 6C (cf. PB \*bî-). The lowering of the vowel to /a/ in several languages is curious. It may have been due to the presence of the glottal stop and/or by analogy with the V in 7V. The \*b has become ? (and Ø) with the exception of BBO where in some contexts the b is retained. ELU is unique in two respects: the noun prefix is zero (cf. 1C) and for unknown reasons, nasals are present in the set of concord prefixes. In BBO, the class 8 prefix has given rise to an f/h alternation root initially (cf. (27) in 3.2.2 and 3.2.4.3).



4.4.10 Classes nine and tenChart 4.13: Noun and concord prefixes in class 9

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*`n/`0	*ny`	*j`	*j	*0	*`n *èn	*è	*èj
MBM	n/0	ny			0			èy
MBN	n/0	ny	*	y	0	en	è	èy
MYE	n/0	ny	j	jw	0		è	iy
MBE	n/0	ny	j	j	0	n èn	è	èj
ELU	n/0	ny	j	j	0	n èn	è	èj
NNE	n/0	ny						èj
AKO	n/0	ny	c	c	0`	`n èn	è	èc
MHE	n/0	ny	j		0`	en	è	èj
MWK	n/0	y	j	j	0	n èn	è	èj
MKA	n/0	ny	j		0	èn	è	èj
BLN	n/0	ny	j	j	0	j?	è	èj
BBO	n/0	ny	j		0	in	ì	ìj
LEF	n/0	ny	*	y	0`	èn(i)	è	é
LEK	n/0	ny	*	z	0	nyín.nyíf	è	z

Chart 4.14: Noun and concord prefixes of class 10

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*n/∅	*ny`	*j`	*j`	*e	*j *éj	*é	*éj
MBM	n/∅	ny						éy
MBN	n/∅	ny	*	y	é	ey	é	éy
MYE	n/∅	ny	j	jw̃	é		é	íy
MBE	n/∅	ny	j	j	é	j éj	é	éj
ELU	n/∅	ny	j	j	é	j éj	é	éj
NNE	n/∅	ny						éy
AKO	n/∅	ny	c	c	é	c éc	é	éc
MHE	n/∅	ny	j		é	j	é/é	éj
MWK	n/∅	y	j	j	é	j éj	é	éj
MKA	n/∅	ny	j		é	j	é	éj
BLN	n/∅	ny	j	j	é	j	é	éj
BBO	n/∅	ny	j		í	j	í	íj
LEF	n/∅	ny	*	y	é	y ye	é	é
LEK	n/∅	ny	*	z	∅(by?)	nyín,nyíí	é	z

Columns 1C and 1V (the noun prefixes), 2V (the reflexive pronoun prefix) and 3V (the pronoun prefix) are identical for classes 9 and 10 [13]. 6C (the verb prefix) and 7V (the possessive prefix) are segmentally identical in the two classes but differ as to tone: In class 9, there is a low tone, in class 10 a high tone. The demonstrative prefix (5V) has an alveolar nasal and low tone in class 9 but a palatal stop and high tone in class 10. The reconstruction of a low floating tone in the noun prefixes (1C) and demonstrative prefix (5V of class 9) is necessary because its presence is manifested in a downstep when it is immediately preceded and followed by a high tone. For the low tone of the noun prefix

(IV), cf. 2.5. The presence of the low floating tone in 5V (class 9) suggests that there was an earlier vowel which was lost in post nominal position, leading to the two separate forms in 5V.

In 7V, we have reconstructed the vowel as \*e. Perhaps at an earlier stage, it was \*a as in the other classes with changes as described for class 7.

The range of consonants following class 9 and 10 prefixes is very restricted compared with other classes. For a discussion of this topic, see 4.5 below.

#### 4.4.11 Class fourteen

Chart 4.15: Noun and concord prefixes of class 14

	1C	IV	2V	3V	4C	5V	6C	7V
PM		*bw`	*b	*b				
MBM	à	bw/b						(by)
MBN	à	by/b		d	à	d	á	ád
MYE	à	by/b	b	b	à		á	áb
MBE	à	bw/b	d	d	à	ád	á	ád(y)
ELU	ø	bw/b	b	b	ñ	b mb	ñ	mb
NNE	à/à?	bw/b						á?b
AKO	è?	bw/b	b	b	è?	b áb	é?	áb
MHE	è/è?	bw/b	d		è	d	é	éd
MWK	à	bw/b	dy	dy	à		á	ády
MKA	è?/è	bw/b	dy		è?	d	é?	éd(y)
BLN	è?/è	bw/b	d	d	è?	d	é?	éd(y)
BBO	í	bw/b	bw		í(+f)	b	í?	íb(w)
LEF	wù/wò	bw/b		bw/b	wù	bu	bí	wí
LEK	bè	b/ž		b	bè	bá, hée	bé	b(w)

There are very few nouns which have the prefixes in IV. These prefixes are clearly related to PB \*bò-. For the prefixes in IC, it is difficult to suggest a reconstruction. The original \*bò- prefix may have had a similar development to the class 8 prefix, i.e. metathesis of CV- to VC-. The present day prefixes are now identical with the class 8 prefixes. This is probably due to analogical levelling with class 8 because of the formal similarity between the two classes. It should, however, be noted that class 8 is the plural of class 7, and class 14 a singular class with class 6 plurals.

MYE, ELU, AKO and BBO, as well as LEF and LEK, have retained the inherited class 14 concords as is indicated by the presence of forms with b. The other languages appear to have merged the nouns from class 14 with the nouns in class 5. This is indicated by the fact that they now take concord from that class (cf. the presence of concord prefixes with d). This merger is not totally unusual since both class 14 and class 5 have class 6 as plural class. However, it appears that the noun prefixes are kept distinct at least in some of the languages. As indicated in 4.4.9, the nasal in the ELU forms seems out of place in class 8 and 14 but it appears that these two classes had a similar development even though one is plural and the other singular.

4.4.12 Classes nineteen and thirteenChart 4.16: Noun and concord prefixes of class 19

	1C	1V	2V	3V	4C	5V	6C	7V	
PM		*hy <sup>h</sup>							
MBM		šw/šy						éy	
MBN		šw							
MYE		sw/sy/s						áb	
MBE		š	(d)	d	à	d	ád	á	ád
ELU		hw/hy							
NNE		hy						á?bw	
AKO		hy	b	b	è?	b	áb	é?	áb
MHE		y			ě				(ěd)
MWK		š	dy	dy	à		á		ády
MKA		y							ěd(y)
BLN		y	d	d	è?		é?		ěd(y)
BRO		y							
LEF		fy							
LEK		šw/šw̄		l		dín, díi			bw

Chart 4.17: Noun and concord prefixes of class 13

	1C	1V	2V	3V	4C	5V	6C	7V
PM		*l <sup>~</sup>						
MBM		l		d				
MBN		l			ã		ã	ãd/ãl
MYE								
MBE		l	(m)		õ	m õm	õ	õm
ELU		l						
NNE		l						ãd
AKO		l	d	d	ã	d ãd	ã	ãd
MHE		l						(ẽd)
MWK		l	dy	dy	á		ã	ãdy
MKA		l						ẽd(y)
BLN								
RBO		y						
LEF		du?						
LEK		l				bá, bée		l

Gender 19/13 contains only about half a dozen nouns, all of them being V-initial stems which is the reason why there are no prefixes under 1C. The answer to the question why there are no C-initial stems in this gender may lie in the different development of the prefixes before the two different stem types (cf. 5.3.5). The prefixes before C-initial stems probably lost the C (CV- > V-). Such nouns then might have merged with another gender leaving no trace at all.

It was extremely difficult to elicit material on the concord system of these two classes, which is reflected in the sparseness of material in the charts. From what has been

recorded, it appears that class 19 (singular) nouns in MYE, NNE and AKO have the same concord as class 14, whereas MBE, MHE, MWK, MKA and BLN have class 5 concord. The class 13 (plural) nouns have the same concord as class 5 (singular) with the exception of MBE which has class 6 concord. It would be too hazardous to guess what the original concord was for these classes. The noun prefixes on the other hand can clearly be related to the PB reconstructions \*pī- 'class 19' and \*tò- 'class 13' (Meeussen 1967:97).

#### 4.4.13 Traces of other classes

There are traces of two more PB classes found. In (A409), the h- "prefix" apparently comes from a PB class 16 prefix \*pa- (Grégoire 1975:115). In locative adverbs, AKO h- and w- appear to come from PB \*pa (cl. 16) and \*ku- (cl. 17) respectively (Hedinger 1983a:19).

#### 4.5 Classes 9 and 10 reconsidered

Classes 9 and 10 nouns have some peculiarities not found in other classes. In 4.4.10 the prefixes were reconstructed as \*`n-, \*`0- and \*ny`- where the first two occur before C-initial stems and the last before V-initial stems. To be more precise, the co-occurrence of prefix with stem initial C or V is as in chart 4.18.

Chart 4.18: Co-occurrence of class 9/10 prefixes with root  
initial consonant or vowel

classes 9,10 /\*<sup>h</sup>n-\_\_: \*b \*d \*j \*g

classes 9,10 /\*<sup>h</sup>∅-\_\_: \*p \*t \*s \*k (\*l)

classes 9,10 /\*ny<sup>h</sup>-\_\_: V

classes 1,3,4 /\*m̃-\_\_: \*b \*d \*j \*p \*t \*k \*f \*s \*l \*w

Chart 4.18 indicates that only voiced stops may follow the class 9/10 nasal prefix, whereas any consonant [14] may follow the nasal prefix of classes 1, 3 and 4. Only voiceless C's may have the ∅-prefix. Also notable is the absence in class 9/10 of stems with initial \*f, \*w and \*l. (There is just one item, (A367), with an initial l in gender 9/10.) There are no nasal-initial stems in classes 9 and 10, but these are rare in any class. There is a question whether the \*ny- should be considered as a prefix (e.g. ny<sup>h</sup>-ǎn 'fingernail') or rather as part of the stem (e.g. ∅-nyǎn), both synchronically and diachronically. Synchronically, one reason for separating the /ny/ from the stem is the fact that palatal nasals occur predominantly in class 9 and 10 nouns word initially which suggests it is a prefix. Another reason is that nouns in all other classes have a prefix, so it is natural to expect a prefix here as well. The argument from tone (see end of 2.5) also supports splitting of the ny<sup>h</sup>-. On the other hand, it would be equally defensible that the ny should be considered part of the stem because segmentation is only suggested by analogy with nouns of other classes, not because the putative prefix commutes with another prefix.



In PB reconstructions, we find a similar tension. Meeussen reconstructs the class 9/10 prefix as \*n- or \*ny- and the stem for 'animal' as \*-nyàmà in one place (1967:97, 101) and \*-(ny)àmà or \*-(j)àmà in another (1969:4.1). Guthrie (1967-71) has \*ny- as prefix and \*-yàmà/\*-nyàmà 'animal'.

One reason for considering ny- as prefix, at least historically, is the fact that it is always associated with an initial low tone, which suggests a prefix origin of the tone. By separating off ny- as prefix, we are left with a V-initial stem. It cannot, however, be ruled out that in some cases an ny- prefix merged with a ny-initial stem.

The nasal-stop sequences in chart 4.18 pose a similar problem for segmentation. Diachronically, they are clearly separable into prefix plus C1 of the stem. However, synchronically a case can be made for an analysis in which these sequences are interpreted as one C, i.e. as prenasalised stops mb, nd, nj and ng. There are several reasons for this analysis. Phonetically, these sequences differ from the similar sequences in classes 1, 3 and 4 where the nasal is syllabic and carries a low tone. Here, the nasals are not syllabic but a low tone can be perceived. T.L.Cook has reported a similar situation in Mbonge (A.11e).

"The nasals ... do not sound syllabic. However, they do seem to have their own tone, at least sometimes. Probably, they should not be considered syllabic, and the tone, where different from the following vowel, should be treated as a floating tone which comes before" (Williamson 1973:xvi).

And Hyman (1972:60), when referring to Ø-prefixes in his study of Fe?fe? (Eastern Grassfields Bantu) speaks of the impression of "a low tone breath".

I have not observed any additions of new lexical items to gender 9/10 by prefixing a nasal, which suggests that the  $\widehat{NC}$  clusters are not separable. The addition of loanwords with initial voiceless stop requiring a Ø-prefix on the other hand is very common.

It should also be noted that the [g], [z] and [bɥ] in some languages only occur in reflexes of these prenasalised stops in C1 position.

What is significant is the fact that there are always only four such  $\widehat{NC}$  clusters found in classes 9 and 10. This is actually so widespread in Bantu and related languages that it has to be considered a very old feature. Many linguists analyse these four prenasalised consonants as a set parallel to the oral and nasal stops (cf. 2.2.3).

By adopting such an analysis for each of the Manenguba languages, we would be led to reconstruct a set of  $\ast\widehat{NC}$  consonants for PM in C1 position (cf. chart 4.19 and chart 2.7).

Chart 4.19: C1 consonants of PM in two analyses

<u><math>\widehat{NC}</math> analysis</u>				<u>N-C analysis</u>			
*p	*t		*k	*p	*t		*k
*b	*d	*j		*b	*d	*j	*g
*f	*l	*s	*w	*f	*l	*s	*w
*m	*n	*ny		*m	*n	*ny	
*mb	*nd	*nj	*ng				

In the  $\widehat{NC}$  analysis, there is an extra set of four phonemes. The voiced stops of the N-C analysis are divided between the prenasalised stops and the voiced stop series of the  $\widehat{NC}$  analysis, except \*g which is only found in the  $\widehat{NC}$  series.

The presence of zero rather than a nasal prefix before voiceless stops is probably best explained via devoicing and loss of an earlier nasal:  $\text{`n-p...} > \text{`ŋ-p...} > \text{`∅-p...}$ . A low tone is still present in the form of a floating tone. This low tone may be analysed in either of two ways. Either the low tone is considered as the class prefix: e.g.  $\text{`-kú}b$  or  $\text{`∅-kú}b$  'chicken', or it could now be considered as totally integrated into the prefix-less stem form: e.g.  $\text{`kú}b$ . Similar options are available for  $\widehat{NC}$  initial nouns:  $\text{`n-dá}b$  versus  $\text{`-ndá}b$  or  $\text{`ndá}b$  'house'. We have chosen to segment the class 9/10 prefixes as given in chart 4.18 in order to facilitate comparison with PB forms. This does not mean that in a purely synchronic description a different analysis might not be chosen.

The above discussion has shown that between the proto-language (PB?) in which classes 9 and 10 clearly had a nasal prefix, and the present day languages, a restructuring has taken place. The problem faced in a study like this is at what point in history to place the restructuring process. Should restructured intermediate stages be reconstructed, or should the earliest state without the restructuring be carried right through to the present? This question is, of course, part of the abstractness debate and will not be pursued further here.

## FOOTNOTES TO CHAPTER FOUR

- [1] Mass nouns and liquids do occur in a plural class or with numerals. In such cases, reference is to different types of the entity in question.
- [2] Not attested in Manenguba languages are 11/10 and 12/13, cf. Meeussen (1967:100).
- [3] We have termed "qualifiers" a small number of words with adjectival meanings. Adjectival ideas are usually expressed by verbal forms taking concord and tense affixes, or by nominal forms not being controlled by the class of the head noun. What makes the qualifiers different is that they take no tense markers but take concord prefixes according to the class of the head noun.
- [4] AKO has two 1pl verb prefixes: *dè-* '1pl (inclusive)' and *sè-* '1pl (exclusive)' (Hedinger 1981:288-9). It is not clear whether these are historically derived from the same original form or from two separate proto-items.
- [5] I do not have data for the 1st and 2nd person except in AKO where they are as follows:  
*mmě̀n* '1sg', *mṑŋ* '2sg', *mw`-ě̀n* '3sg = class 1',  
*sě̀bě̀n* '1pl', *nyibě̀n* '2pl', *b`-ě̀n* '3pl = class 2'.
- [6] For 1st and 2nd person pronouns, see (A484, A485, A487 and A488). For more details on pronouns in AKO, see Hedinger (1981).
- [7] An exception to this is the (2nd person) singular imperative which has no prefix.
- [8] For AKO and probably for other languages as well, the situation as far as the verb prefixes is concerned is more complex. The prefixes given in the charts are those in pre-root position. AKO has another set occurring when the root is preceded by tense and negative markers. Cf. Hedinger (1980:1-2 and 21)
- [9] In AKO (and some or all the other languages?) the possessive pronoun prefix is also used as the concord prefix of the relative pronoun not covered in this study. It is not inconceivable that the possessive pronouns ultimately derive from a relative pronoun plus a person pronoun.
- [10] The associative (genitive) marker is also part of the noun class concord system. However, we have not included it in this study because of the fact that these markers are in many cases reduced to a tone only.
- [11] In BBO, the vowels recorded in prefixes ranged from [ɛ] to [e] and [i]. However, the informants repeatedly insisted that the vowel is [i].
- [12] The following example provides evidence that the noun prefix form is "intruding" into the concord. We recently

recorded AKO é²bàb è²-wándé instead of the more usual ábàb è²-wándé 'our wives/fiancées' (cf. áb- in 7V and è²- in 1C).

[13] There is only one noun in gender 9/10 which has a sg/pl distinction in the noun itself: mbwé/mbyé 'dog/dogs'. PB is \*-bóà. It is conceivable that a sg/pl distinction was introduced into this root by analogy with gender 3/4. Cf. the discussion of a similar case in 4.4.5.

[14] Nasal initial noun stems are extremely rare. Perhaps this supports Stewart who said that he knew "of no evidence from anywhere in the entire Volta-Congo area that the proto-language had nasal consonant phonemes" (1976a:15).

## CHAPTER FIVE

PROTO-MANENGUBA AND PROTO-BANTU5.1 Introduction

In chapter 2, we reconstructed the consonants, vowels and tones for Proto-Manenguba. This allowed us to propose proto-forms for PM morphemes as given in appendix 1 (and chapter 4). The question may now be asked about PM's resemblance to Proto-Bantu, especially as far as the phonology is concerned. The main purpose of this chapter is to compare the consonants, vowels and tones of PM with PB and draw certain conclusions from this comparison. The most interesting area of comparison is that of the consonants, especially as they relate to the PB stops (5.3). In 5.2, we will give a general introduction to the problem which is found in north-west Bantu languages and solutions put forward by different authors: double reflexes of PB stops versus two originally distinct stop series. In 5.4, we will consider pairs of lexical items in AKO which appear to reflect a former morphophonemic relationship involving the pairs of stops focussed on in 5.3. Certain observations about tone are discussed in 5.5. In the remaining sections (5.6 and 5.7), the vowels and tones of PM and PB will be discussed.

In treatments of Bantu languages in relation to PB, it is usually the case that PB is looked upon as the

ancestor language from which the particular language or group of languages in question (as for example PM) is derived. This may be diagrammed as in (1).



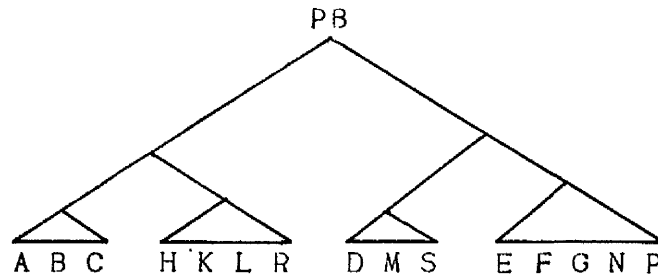
This concept of the relation between PB and PM appears quite adequate as far as vowels and tones are concerned. However, when considering the consonants of PM, a diagram like the following appears to be more adequate to depict the relationship between NW-Bantu languages and PB.



In other words, PM consonants cannot be predicted on the basis of PB (as usually conceived of) alone. Only from reconstructions for something like Pre-PB based on the Bantu languages of the north-west and PB will it be possible to predict the consonants of the languages in the north-west and of PB. It has been recognized for some time that the languages in the north-western part of the Bantu area are considerably different from the rest of the Bantu languages and it has become clear that earlier work had been heavily weighted in favour of central or eastern Bantu (Dalby 1975:488).

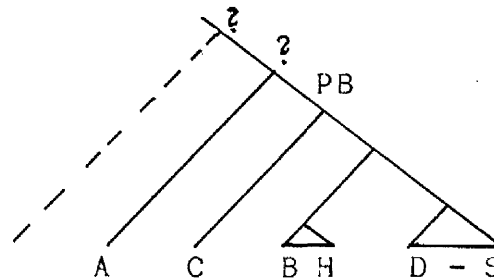
Guthrie (1967-71.II:27) thought the relationship of the Bantu languages to be in outline as follows (capital letters refer to his zones [1], cf. map 5).

(3)



The now generally accepted lexicostatistical classifications of Bantu languages by Henrici (1973) and Heine (1973) (cf. also Bastin et al. (1979 and 1983)) indicate on the other hand that the Bantu languages in the north-west were the first to have split off. This may, in simplified fashion, be represented as follows (based on Heine (1973) and Henrici (1973)) [2]. Dalby (1975:496), in fact, made the suggestion that Guthrie's PB represents a stage after the zone A languages became separate.

(4)



Against such a background it is not surprising to see renewed interest in the languages of Cameroon and their relationship to the rest of the Bantu languages (cf. 1.6). It is hoped that this chapter will make a contribution to this area of investigation.

## 5.2 north-west Bantu "Double reflexes" of PB in north-west Bantu

Taking his own reconstructions of PB as the starting point, Guthrie (1967-71.II:30ff) showed that languages from his zone A frequently have two reflexes for the voiceless



stop consonants \*p, \*t and \*k, and in one case also for the palatal \*c. This may be illustrated with the following examples:

Chart 5.1: "Double reflexes" in NW Bantu

PB		*p	*t	*c	*k
Duala (A.24)	a)	p	t	s	k
	b)	w	l	s	∅
Kombe (A.33b)	a)	p	t	s	k
	b)	b	l	g	∅
Banɛn (A.44)	a)	f	t		∅
	b)	h	l		∅

Cognate items reconstructed with, for example, \*p by Guthrie have either p or w in Duala, p or b in Kombe and f or h in Banɛn. Similarly for the other stops as presented in chart 5.1.

Theoretically, there are different possible explanations. Presented in the above form, a split of the original phoneme into two appears to be the obvious solution. One would naturally look for a conditioning factor in the environment responsible for the split of the proto-phoneme. This was Guthrie's solution.

5.2.1 The phonemic split solution

Guthrie (1967-71.I:58,II:30ff) considered a vowel length distinction in the environment of the consonants concerned to be the conditioning factor. He found that in some correspondence series there is a correlation between the occurrence of the two kinds of reflexes and long or

short vowels. The a)-sets in chart 5.1 occurred before and after long vowels and the b)-sets before (and after?) short vowels.

However, because of the apparent loss of the long/short distinction in many Bantu languages, including the ones which have the "double reflex", Guthrie reconstructed a long vowel where the reflexes in the a)-set occurred even when there was no long vowel present in the correspondence series due to lack of data from languages which have a long/short distinction (Guthrie 1967-71.I:58). There does not appear to be any objection to this if the vowel quantity was responsible for this putative split.

One possible objection to Guthrie's solution, however, is the question whether a split of the kind envisaged, e.g. \*p > p versus \*p > w, could have taken place in a long versus short vowel environment? Is it phonetically plausible that a short vowel should cause stop consonants to weaken? Do long vowels favour the retention of stops?

The validity of Guthrie's hypothesis depends also on the status of vowel length in PB. In this connection, the following statement by Meeussen may be quoted in full:

"Almost all the reconstructions with long vowels presented here [i.e. in Meeussen's article, R.H.] are verbs, and many of them are secondary, which suggests that long vowels in Proto-Bantu were not a completely independent phenomenon. But without further data it is impossible to decide whether this is indicative of a contrast in the process of being lost or whether it reflects an incipient development" (1979:6-7).

It appears that this state of affairs considerably weakens Guthrie's position.

As will be seen in 5.4, certain roots have alternants with both reflexes which would require the reconstruction of two roots for the same item, one with a long vowel and the other with a short vowel (cf. for example, (A1) \*`pɔ̃g/\*`-fɔ̃g 'one'). These appear to suggest that the cause of this apparent split has to be sought elsewhere.

Guthrie's hypothesis, however, does have the merit that it points to a certain correlation between vowel length and these sets of consonants. This correlation, if it is regular, certainly calls for an explanation.

#### 5.2.2 The lenis/non-lenis solution

Another approach to the "double reflex" problem has been taken by Leynseele and Stewart (1980) and Gerhardt (1983). Their approach may be termed the "lenis/non-lenis" solution. Under this approach, it is assumed that the two sets of reflexes go back to a lenis/non-lenis distinction in the proto-language.

It has been found necessary to reconstruct such a lenis/non-lenis distinction to account for the derivation of the synchronic systems of several Niger-Congo languages. Stewart concluded in 1973 as follows:

"It appears ... that proto-Volta-Bantu (the latest common ancestor of the Bantu languages, the Volta-Comoe [3] languages and the Potou Lagoon [4]

languages) had four sets of stops: unvoiced nonlenis ('aspirated'), unvoiced lenis ('unaspirated'), voiced nonlenis ('explosive') and voiced lenis ('implosive')" (1973:42).

He appears to have recognized at least the following stops.

Chart 5.2: Proto-Volta-Bantu stops

(Stewart 1973:34-36)

nonlenis	*p	*t	*k
lenis	*'p	*'t	*'k
nonlenis		*d	
lenis		*'d	

Interestingly, in 1973, Stewart did not yet think that PB had a lenis/non-lenis distinction, but rather that the lenis/non-lenis distinction "was neutralized in the process of change from proto-Volta-Bantu to proto-Bantu" (1973:37). More precisely, he considered that there was "a merger of the nonlenis stops with the lenis stops" (1973:39) resulting in PB lenis stops.

However, in an article published in 1980, this position was clearly revised. Based on Tunɛn (= Banɛn, A.44), which has the "double reflexes" mentioned above, Leynseele and Stewart (1980:428) reconstruct a fortis/lenis distinction for PB. The following chart shows the reconstructed stops and the corresponding reflexes in Tunɛn.

Chart 5.3: Proto-Bantu stops and reflexes in Tunɛn

(Leynseele and Stewart 1980)

	<u>Proto-Bantu</u>			<u>Reflexes in Tunɛn</u>		
fortis	*p	*t	*k	f	t	k
lenis	*'p	*'t	*'k	h	l	∅
fortis	*b	*d		b	l	
lenis	*'b	*'d		f	n	

It should be noted that in this approach the "double reflexes" are no longer double reflexes but rather a direct reflection of an earlier fortis/lenis contrast. Also, the distinction is not limited to the voiceless consonants as appears to be the case in Guthrie's discussion but extends to the voiced consonants as well. The absence of voiced velar stops is perhaps due to the limitation to only one language.

In a so far unpublished paper presented at the Conference on African Linguistics in Leiden in 1983 (at which I was not present), Gerhardt gave a reconstruction of "Pre-Bantu" stops apparently based on Tunɛn (A.44), Punu (H.43) and Mbe ("Nigerian Bantu"). His reconstructed roots are made up of the following stop consonants which include voiced velar stops. (Note the change in symbolization of lenis stops from Stewart's \*'p, \*'t, etc. to Gerhardt's \*ph, \*th, etc., which should not be confused with aspirated stops.)

Chart 5.4: Pre-Bantu stop consonants

(Gerhardt 1983)

fortis	*p	*t	*k
lenis	*ph	*th	*kh
fortis	*b	*d	*g
lenis	*bh	*dh	*gh

It is not clear from the paper what time depth is intended by the term "Pre-Bantu". However, these sets of stops are in effect comparable to Stewart's sets proposed for Proto-Volta-Bantu.

Elugbe and Williamson (1976:348-351), focussing primarily on the nasals, reconstruct a fortis/lenis distinction for nasals in Proto-Benue-Kwa (PBK). (PBK is introduced to combine the Benue-Congo and Kwa groups and is "equivalent in scope to Stewart's 'Volta-Bantu'" (1976:348)). The nasals reconstructed for PBK are m, mh, n, nh, ŋ, and they have the following distribution:

Chart 5.5: Nasals in Proto-Benue-Kwa

(Elugbe and Williamson 1976)

	<u>C1 position</u>	<u>C2 position</u>
fortis	*m    *n	*ŋ
lenis	*mh   *nh	*mh   *nh

A fortis/lenis distinction in nasals has been reported for Cross River languages (Bendor-Samuel and Spreda 1969) and Kwa languages (Elugbe 1980). I am not aware that a distinction in Bantu nasals which could be traced back to a fortis/lenis distinction has been discussed in the

literature. Material on the fortis/lenis distinction in PBK nasals is included here in order to provide a basis for raising certain questions on the PB nasals in 5.3.2 below.

In all the reconstructions of stops referred to above, no consideration seems to have been given to the question of the reconstruction of palatal stops. In each case, reconstructions are limited to labial, alveolar and velar stops. However, since palatal stops [ʃ] have been reconstructed for PB, and Kombe (A.33b) has a "double reflex" of the voiceless palatal stop (cf. chart 5.1), the question naturally arises as to the time depth for which palatal stops have to be reconstructed (i.e. Pre-Bantu or PBK, etc.) and whether the fortis/lenis distinction is also relevant at the palatal point of articulation.

Palatals in the different (proto-)languages considered by Stewart (1973) appear to be derived from velars, which makes it unnecessary to reconstruct palatals. Elugbe (1980:41), on the other hand, reconstructed at least the following palatals \*c, \*ch and \*j for Proto-Edoid (Kwa group). In this connection it is interesting to note that Meinhof (1910) used underlined velars and alveolars to represent reconstructed palatals. Whether there was any linguistic basis to this convention or a purely arbitrary choice due to the lack of appropriate symbols would need further study.

In conclusion, it appears that the lenis/non-lenis or fortis/lenis hypothesis to the "double reflexes" is to be preferred over Guthrie's vowel length hypothesis for at least the following reason: Since a fortis/lenis distinction can be reconstructed for a stage older than Proto-Bantu on

the basis of groups or sub-groups other than Bantu, it is not unexpected that there should be traces in either Proto-Bantu or even present day Bantu languages.

### 5.3 PM and PB consonants

In 5.1 it was expressed that normally, when studying a Bantu language in relation to Proto-Bantu, PB is taken as primary and the Bantu language in question considered as derived from it. In this section, our own reconstructions of Proto-Manenguba (PM) roots and the PB reconstructions by Guthrie (1967-71.III-IV) [6] and Meeussen (1967, 1969) will be used in order to establish the sound correspondences between the two. On the basis of these correspondences, reconstructions of consonants going further back in time than PB will be proposed.

Below, several examples for each different PM - PB correspondence are given with the PM roots on the left and the PB roots on the right. The numbers preceding each example have the following significance: For PM, the numbers refer to the sets of cognate roots and reconstructions given in appendix 1. The numbers preceding PB examples refer to Guthrie's "Comparative Series" in his Volumes III and IV. An (M) in brackets indicates that the PB root is taken from Meeussen (1969) or, in a few cases, from (1967). The additional numbers after each set of examples are references to further examples of that correspondence found in appendix 1.



5.3.1 PM - PB correspondences in CI position

First, we will focus on the root initial consonants.

(5) \*p - \*p correspondences

(A82) \*píḡ` 9/10 'kidney' (1549) \*-píḡḡ

(A233) \*pěé 9/10 'viper' (1513) \*-pědè 9/10

(A629) \*-pèb 'fan' (1489) \*-pèèp-

(A1, A48, A77, A139, A179, A221, A268, A411, A545, A594, A638, A700, A702)

(6) \*t - \*t correspondences

(A73) \*tól` 9 'chest' (1822) \*-tódḡ 9/10

(A481) \*-tón 5/6 'spot' (1785) \*-tóná (1786) \*-tónĩ

(A556) \*-tód 'pick up' (1773) \*-tḡḡd-

(A5, A6, A16, A49, A96, A313, A345, A350, A364, A473, A508, A568, A596, A599, A663, A671, A709)

(7) \*s - \*c correspondences

(A34) \*-sòn 3 'flesh' (416) \*-cònĩ 3/4

(A36) \*-sìj` 3/4 'vein' (349) \*-cìcá 3/4

(A657) \*-sìj 'frighten' (348) \*-cìc-

(A7, A18, A39, A43, A52, A56, A87, A154, A178, A277, A342, A406, A514, A523, A567, A602, A632, A650, A668, A531)

(8) \*k - \*k correspondences

(A60) \*kínḡ` 9 'neck' (1086) \*-kínḡḡ

(A214) \*kém 9/10 'monkey' (1058) \*-kémà

(A124, A166, A226, A237, A257, A259, A263, A280, A290, A330, A387, A393, A434, A588, A640, A691)

(9) \*f - \*p correspondences

(A25) \*-fáj` 1/2 'twin' (1407) \*-pácà

(A327) \*-fén 3/4 'handle' (1521) \*-pénĩ 3/4

(A535) \*-fèm 'breathe' (1468) \*-pèèm-

(A1, A37, A148, A204, A327, A394, A398, A425, A464, A475,

A498, A505, A539, A595, A606, A664)

(10) \*l - \*t correspondences

(A78) \*-lém 3/4 'heart' (1738) \*-témà

(A201) \*-lǎǎ 5/6 'stone' (1642) \*-tǎdè 5/6

(A639) \*-lú 'forge' (1861) \*-túd-

(A3, A38, A57, A162, A181, A314, A335, A367, A379, A455,  
A539, A566, A570, A591, A604, A621, A634)

(11) \*w - \*k correspondences

(A560) \*-wóm 'scratch' (1134) \*-kóm̃- 'scrape'

(A572) \*-wǎ 'die' (1249) \*-kú-

(A644) \*-wón 'sow' (1217) \*-kón-

(A641)

(12) ∅ - \*k correspondences

(A10) \*-óm` 5/6 'ten' (1208) \*-kóm̃ 5/6

(A299) \*-úl 6 'oil' (1278) \*-kútà

(A348) \*-ón 19/13 'firewood' (1218) \*-kóñ

(A31, A105, A161, A260, A334)

(13) \*b - \*b correspondences

(A9) \*-bùg' 5 'nine' (M) \*-bùkǎ ?

(A72) \*-búj 9/10 'back' (223) \*-búcà 9 (139) \*-bícà

(A95) \*-bóñ 5/6 'knee' (170) \*-bóñg 5/6

(etc.)

(14) \*d - \*d correspondences

(A177) \*-dǎb 9 'earth' (639) \*-dǎbǎ 'soil, world'

(A282) \*-dóñ 9 'pepper' (718) \*-dóñg 10

(A575) \*-dùl 'pull' (749) \*-dùt-

(A185, A282, A382, A423, A461, A525, A587, A617, A674)

(15) \*j - \*d correspondences

(A30) \*-jóm 1/2 'husband, male' (697) \*-dómè

(A55) \*-jém 7/8 'tongue' (572) \*-démí

(A551) \*-jùm 'smell, stink' (742) \*-dùm-

(A45, A59, A200, A207, A317, A369, A381, A451, A480, A482, A533, A551, A590, A598, A647, A655, A669, A701)

(16) \*i - \*j correspondences

(A199) \*-jèè 9/10 'path, road' (940) \*-jèdà

(A256) \*-jòò 14 'honey' (962) \*-jókè 14 (2159) \*-yókè

(A604) \*-jém 'sing' (M) \*-jém-

(2009) \*-yémb-

(A45, A118, A210, A375, A419, A483, A609, A672)

(17) ∅ - \*j correspondences

(A26) \*-án 1/2 'child' (M) \*-jānà

(A50) \*-íj 5/6 'eye' (M) \*-jícò 5

(2030) \*-yícò 5/6

(A231) \*ny`-ó 9/10 'snake' (M, 952) \*-jókà 9 (2112) \*-ny..

(A32, A41, A47, A101, A123, A138, A182, A205, A213, A255, A355, A371, A372, A377, A385, A409)

(18) \*k - \*g correspondences

(A35) \*-kíf 6 'blood' (824) \*-gĩdà 6

(A94) \*-kòò 7/6 'leg' (884) \*-gòdò 3/4

(A392) \*-kùl 'be sick' (M) \*-gud-

(A33, A108, A115, A147, A165, A175, A202, A269, A273, etc.)

(19) \*g - \*g correspondences

(A119) \*-gàn 9 'native doctor' (M, 786) \*-gàngà 1/2, 9/10

(A143/4) \*-gòn 9/10 'moon, month' (M, 855/6) \*-gòndè/ò 9

(A223) \*-gòó 9/10 'pig' (887) \*-gòdó

(etc.)

(20) \*Ø - \*g correspondences

- (A328) \*-óŋ 7/8 'hoe' (901) \*-góŋgò  
 (A372) \*-àm 5/6 'event, affair' (771) \*-gàmbò  
 (A121) \*-àŋgà 14/4 'medicine' (787) \*-gàŋgà 14

(-)

(21) \*m - \*m correspondences

- (A521) \*-mòj 'left side' (1316) \*-mócó  
 (A527) \*-mwá 'drink' (1332) \*-mú-  
 (A528) \*-mèè 'swallow' (1294) \*-mèd-  
 (A661, A685)

(22) \*n - \*n correspondences

- (A4) \*-nììn 'four' (1353) \*-nì  
 (A92) \*-nàm 5/6 'thigh' (1339) \*-nàmà 7/8  
 (A258?, A490)

(23) \*ny - \*ny correspondences

- (A20) \*nyàŋ 9 '(his) mother' (1389) \*-nyàŋgò 1a/2  
 \*nyàŋ-V 1a/2 '(his) mother'

The PM - PB correspondences (5) to (23) above may be displayed as follows:

Chart 5.6: PM - PB correspondences in C1 position

- |              |              |                |              |
|--------------|--------------|----------------|--------------|
| (5) *p = *p  | (6) *t = *t  | (7) *s = *c    | (8) *k = *k  |
| (9) *f = *p  | (10) *l = *t |                | (11) *w = *k |
|              |              |                | (12) Ø = *k  |
| (13) *b = *b | (14) *d = *d | (16) *j = *j   | (18) *k = *g |
|              | (15) *j = *d | (17) Ø = *j    | (19) *g = *g |
|              |              |                | (20) Ø = *g  |
| (21) *m = *m | (22) *n = *n | (23) *ny = *ny |              |

According to the hypothesis in 5.2.1 each PB root in (5), (6) and (8) would have to have a long vowel (VV). Conversely, the third example in (9) above should have a short V.

In the light of 5.2.2, it appears that the correspondences (5), (6) and (8) (cf. chart 5.6) as contrasting with the correspondences (9), (10) and (11)-(12) are best reconstructed as non-lenis and lenis proto-sounds respectively. The correspondence sets (11) and (12) are in complementary distribution, with (11) occurring almost exclusively in verbs and (12) only in nouns [7]. They are, therefore, probably the reflexes of the same proto-phoneme.

The distinction "noun" versus "verb" is made here on the basis of the fact that it is only the initial consonant of nouns but never of verbs that has been lost in PM (cf. (12), (17) and (20)). The loss of C1 must be attributed, in part, to the fact that the noun prefixes (singular or plural) are never separated from the stem, i.e. are strongly tied to it. In verbs, on the other hand, a large range of affixes may precede the stem, including tense and negative markers, or there is no prefix at all as in the case of the 2nd ps sg imperative. To put it more formally, one might say that the root initial boundary of nouns is weaker than that of verbs.

Whether (14) and (15) should be viewed as reflexes of one or of two phonemes in the proto-language is not clear from the evidence on hand. It almost appears as if (14) only occurs following the class 9/10 nasal prefix or preceding high vowels and (15) elsewhere. But there are exceptions to

this as can be seen from the illustrative material given in (14) and (15) above (note especially the verbs).

Another difficulty with (15) is to find a plausible explanation for the apparent change from an alveolar to a palatal in the "elsewhere" environment. Placing (15) into the palatal column, i.e. assuming the original sound to have been palatal, would have created another difficulty: why would the palatal have become \*d in PB in (15) but not in (16)? It would therefore seem safer to keep (14) and (15) distinct at least until the exceptions can be explained.

(16) and (17) are clearly distinct and taken to be reflexes of non-lenis and lenis proto-phonemes respectively.

(19) is in complementary distribution with both (18) and (20), with (19) being limited to the position following the class 9/10 nasal prefix. (18) and (20) are clearly contrastive in that both occur in the same noun classes. (18) and (19) are grouped together as separate reflexes of the same non-lenis proto-phoneme. It should be noted that example (A119) in (19) and (A121) in (20) involve the same proto-root. The presence of this root in both (19) and (20) may be explained in terms of our discussion in 5.4, or a merger of non-lenis and lenis \*g after the class 9/10 nasal prefix.

Nasals in C1 position are relatively rare.

After the preceding discussion, correspondences in chart 5.6 may now be rewritten as lenis and non-lenis stops and nasals.

Chart 5.7: Pre-PB consonants in Cl position

non-lenis	*p	*t	*c	*k
lenis	*'p	*'t		*'k
non-lenis	*b	*d	*j	*g
lenis		*'d	*'j	*'g
nasals	*m	*n	*ny	

The convention "Pre-PB" is used to indicate that these reconstructions are based on correspondences between PM and PB and are therefore meant to go further back than PB.

Whether \*c should be in the lenis or non-lenis row is not possible to determine. If it is assumed that the lenis sounds are more likely to become continuants, then the palatal would have to be in the lenis row. There is of course also a possibility that there was a lenis/non-lenis contrast for voiceless palatal stops, the difference having disappeared before Pre-PB.

The voiced stops require several comments. There is no lenis/non-lenis contrast for the labials and so there is the choice of placing the \*b in either of the two rows. On the evidence in charts 5.3 and 5.4, one would have to assume that the distinction between \*b and \*'b neutralized in both PM and PB.

The most difficult issue here is whether (15) should be considered the reflex of \*'d.

There is an apparent  $\emptyset$  - \*d correspondence in (A80) which, if the PM and PB items are truly cognate, would be another example of the lenis \*'d.

Besides the above correspondences, there are the

following examples of somewhat less usual correspondences which call for an explanation.

(24) \*ny - \*j correspondences

- |                              |                            |
|------------------------------|----------------------------|
| (A549) *-nyén 'see'          | (1969) *-yén-              |
| (A654) *-nyég-.. 'learn'     | (1994) *-yég- (M) *-jég-   |
| (A692) *-nyán-V 'dry in sun' | (1924) *-yáneK (M) *-jáneK |

(25) \*w - \*j correspondences

- |                             |                         |
|-----------------------------|-------------------------|
| (A550) *-wóg 'hear'         | (2152) *-yóg-           |
| (A651) *-wóg 'wash'         | (2107) *-yóg- (M) *-jóg |
| (A658) *-wǝǝ 'laugh'        | (948) *-jǝǝ-            |
| (A694) *-wál 'warm oneself' | (2136) *-yǝt-           |

(cf. also A660)

(26) \*ny - \*k correspondences

- |                     |              |
|---------------------|--------------|
| (A597) *-nyǎŋ 'fry' | (1009) *kǎŋ- |
|---------------------|--------------|

In (24) and (25), the PB reconstructions have either an initial \*y or \*j. It appears that the two are to some extent equivalent and therefore we consider these to be PB \*j [8].

The correspondence sets (24) to (26) most likely do not represent any new proto-phonemes but may be regarded as reflexes of existing sounds in chart 5.7. (24) and (25) are probably reflexes of the lenis palatal \*'j which became  $\emptyset$  in nouns in PM but became a palatal sonorant before becoming [+hi +back] before back vowels (cf. (25)), and nasal elsewhere (cf. (24)). The nasal in C2 may have also played a role in the development of \*'j > PM \*ny. However, the second example in (24) has no nasal as C2. Therefore, another reason for \*'j to have become nasal may be attributed to the fact that \*ny was an already existing palatal sonorant with



which the weakening palatal \*'j could merge [ɟ].

The correspondence in (26) for which we have only one example may be a special case of (11) above, i.e. a lenis velar \*'k > w. The w (= C[+son +hi +back -nas]) then became [-back] (/\_\_V[-back]?) and [+nas], with the final nasal also exercising an influence.

### 5.3.2 PM - PB correspondences in C2 position

In second consonant position, the following correspondences are found.

#### (27) \*p correspondences: \*p - \*p correspondences

(A139) \*-pũb 7 'wind' (1606) \*-põõpõ

(A154) \*-sèb 7/8 'dry season' (342) \*-cèpõ

(A594) \*-pèb 'to fan' (1489) \*-pèèp-

(etc.)

#### (28) \*b - \*b correspondences

(A177) \*-dõb 9 'earth' (639) \*-dõbã 'soil, world'

(A568) \*-tũb 'pierce' (1814) \*-tõb- (1860) \*-tũrb-

(A587) \*-dĩb 'close' (601) \*-dĩb- 'shut'

(etc.)

#### (29) \*d - \*t correspondences

(A213) \*(ny`)-ád 9 'buffalo' (M) \*-jãtè

(A434) \*-kõd 'be satiated' (1276) \*-kũt-

(A382) \*-dõd 9 'dream' (673/4) \*-dõõtõ

( - )

#### (30) \*l - \*t correspondences

(A168) \*-bõl 9 'seed' (211) \*-bõtõ 9/10

(A299) \*-ũl 6 'oil' (1278) \*-kũtã

(A575) \*-dũl 'pull' (749) \*-dũt-

(A32, A160, A355, A379, A422/3, A609)

(31) \*d - \*d correspondences

(A52) \*-sɔ̀d 5/6 'tear' (368) \*-cɔ̀dɪ

(A218) \*-bɔ̀d 9/10 'goat' (185) \*-bɔ̀dɪ

(A685) \*-mād 'finish' (1281) \*-mād-

(A31, A45, A57, A87, A175, A260, A279, A341, A539, A556, A664)

(32) \*l - \*d correspondences

(A73) \*tɔ̀l` 9 'chest' (1822) \*-tɔ̀dɔ̀

(A237) \*kɔ̀l` 9/10 'tortoise' (1259) \*-kɔ̀dɔ̀

(A384) \*-gɔ̀l 9 'strength' (ps249) \*-gɔ̀dɪ (890) \*-gɔ̀dɪ

(A124, A392, ?A640)

(33) ∅ - \*d correspondences

(A74) \*-bɛ̀ɛ̀ 5/6 'breast' (71) \*-bɛ̀ɛ̀dɛ̀ 5/6

(A419) \*-jā̀ 9 'hunger' (917) \*-jā̀dā

(A602) \*-sɪ̀ 9 'grate' (350) \*-cɪ̀d- 'grind'

(A35, A47, A65, A94, A130, A147, A199, A200, A201, A202, A223, A233, A257, A262, A269, A298, A305, A315, A377, A449, A460, A464, A482, A516, A528, A639, A655, A658, A674, A675, A684, A693, A698, A705)

(34) \*j - \*c correspondences

(A25) \*-fāj` 1/2 'twin' (1407) \*-pā̀cā̀

(A50) \*-íj 5/6 'eye' (M) \*-jícɔ̀ 5

(A657) \*-sɪ̀j 'frighten' (348) \*-cɪ̀c-

(etc.)

(35) \*g - \*k correspondences

(A650) \*-sɔ̀g 'wash' (435) \*-cùk

(A599) \*-tɔ̀g 'boil' (1778) \*-tɔ̀k-

( - )

(36) Ø - \*k correspondences

(A178) \*-sɛ́ɛ 3 'sand' (314) \*-cɛ́kɛ́ 3

(A533) \*-jɔ́o 'vomit' (695) \*-dɔ́k-

(A701) \*-jɔ́ 'rain' (650) \*-dɔ́k-

(A221, A226, A255, A256, A545)

(37) \*g - \*g correspondences

(A82) \*píḡ 9/10 'kidney' (1549) \*-píḡɔ́

(A182) \*-bɔ́ḡ 9/10 'village' (192) \*-bɔ́ḡà 9/10

(A705) \*-bɔ́ḡ 'break' (227) \*-búḡ- 'break, snap'

(etc.)

(38) \*m - \*m correspondences

(A55) \*-jém 7/8 'tongue' (572) \*-démì 11/10

(A92) \*-nàm 5/6 'thigh' (1339) \*-nàmà 7/8

(A566) \*-lúm 'shoot' (M) \*-tum- 'throw, shoot'

(etc.)

(39) \*m - \*mb correspondences

(A108) \*-kòm 7/8 'barren woman' (894) \*-gòmbà

(A590) \*-jóm 'beg' (653) \*-dóm- 'ask for'

(A604) \*-jém 'sing' (M) \*-jémb-

(etc.)

(40) \*n - \*n correspondences

(A101) \*-ín 5/6 'name' (M) \*-jínà 5

(A115) \*-kèn 1/2 'stranger' (805) \*-gènì 1/2

(A644) \*-wón 'plant' (1217) \*-kón-

(etc.)

(41) \*n - \*nd correspondences

(A143) \*-gòn 9 'moon' (855/6) \*-gòndè/ò

(A425) \*-fín 'black' (1555) \*-pínd-

(A669) \*-jàn 'buy' (490) \*-dànd-

(etc.)

(42) \*ny - \*ny correspondences

- (A398) \*-fíny 5 'pus' (1556) \*-pínyà (1547) \*-pínà  
 (A661) \*-míny 'squeeze' (1313) \*-míny- \*míni-  
 (A702) \*-pàny 'shine' ?(M) \*-pény- (1479) \*-pèni-  
 \*-pèn 'flash (as lightning)'

( - )

(43) \*ny - \*nj correspondences

- (A75) \*-bàny 9/10 'rib' (56) \*-bàn jé/é  
 (A164) \*-bàny 9/10 'bamboo' (54+) \*-bàn jâ (57) \*-bàn jé/é  
 'midrib of palm frond'

( - )

(44) \*ŋ - \*ŋg correspondences

- (A56) \*-sòŋ 5/6 'tooth' (ps131) \*-cũŋgǎ  
 (386) \*-cũŋgǎ 'point'  
 (A60) \*-kíŋ 9 'neck' (1086) \*-kíŋgǒ  
 (A591) \*-lǎŋ 'read' (1672) \*-tǎŋg-  
 (etc.)

The consonant correspondences presented in (27) to (44) above are arranged as to place and manner of articulation in the following chart:

Chart 5.8: PM - PB correspondences in C2 position

- |              |                 |               |              |
|--------------|-----------------|---------------|--------------|
| (27)*b = *p  | (29)*d = *t     | (34)*j = *c   | (35)*g = *k  |
|              | (30)*l = *t     |               | (36) Ø = *k  |
| (28)*b = *b  | [ (31)*d = *d ] |               | (37)*g = *g  |
|              | [ (32)*l = *d ] |               |              |
|              | (33) Ø = *d     |               |              |
| (38)*m = *m  | (40)*n = *n     | (42)*ny = *ny |              |
| (39)*m = *mb | (41)*n = *nd    | (43)*ny = *nj | (44)*ŋ = *ŋg |

For the correspondence (35), there are only two examples. There are no good examples for the palatal nasal correspondence (42). In two of the example pairs the presence of two roots, one with \*ny, the other with an \*n plus \*i sequence suggests that these palatal nasals might have developed from a root final \*n plus an \*i suffix. For the first example Guthrie (1967-71.IV:63) suggests that \*n is original and \*n > \*ny under the influence of the preceding \*i. However, as palatals are more marked, it could also have been the reverse.

The correspondences (31), (32) and (33) present a problem in that it is difficult to envisage that there were three contrasting proto-phonemes here and not at the other points of articulation [10]. To reduce the three to two proto-phonemes by establishing the different contexts in which a split occurred has the following difficulty. The nouns in (31) have a high vowel as V2 whereas in both (32) and (33), the nouns have non-high vowels as V2. There appears, therefore, to be complementary distribution which allows (31) to be grouped with either (32) or (33). However, there is one exception in each case which weakens the case for this complementary distribution. The strongest argument against it and in favour of three different proto-phonemes are the verbs. The reconstructions of verb roots in both PM and PB have no V2, which in nouns provides the putative conditioning environment [11]. A dotted line is drawn around (31) and (32) to indicate that (32) potentially groups with (31) rather than with (33). However, the evidence at hand is

not conclusive and so the question has to be left open.

There are many examples for the nasals in C2 position except for the palatals as already indicated. At each point of articulation there are two sets of correspondences: a set of plain nasals and a set with prenasalised stops in PB. The velar position has only one nasal set [12]. Guthrie treats the prenasalised stops (mb, etc.) as a simple C in his morpheme structures which makes them directly comparable to single consonants.

One may now ask where these two different sets of nasals come from. In other words, what should be reconstructed as the original difference between the two nasal sets? The easiest solution would be to reconstruct the same difference as for PB, e.g. \*m versus \*mb, etc. However, this would simply leave the question unanswered. Different possible origins for the prenasalised stops can be envisaged.

One, they may come from a sequence of nasal plus stop with an intervening vowel, the vowel having dropped out. This may be schematized as follows: CVnVb > CVnb > CVmb, i.e. vowel loss plus assimilation of the nasal to the following stop in point of articulation could be one possible scenario.

Williamson, when discussing Proto South Central Niger-Congo (PSCNC) stems, proposes the following

"controversial hypothesis ... that ... stems were often as long as three or four syllables, and that in particular stems which show -C-NC- [= -CVNCV R.H.] in Ijò and Bantu originate from a proto-language which had -C-C-N- [= -CVCNV R.H.].

"An alternative suggestion by Stewart ... was that the original form of such stems was -C-C<sup>̃</sup> [= -CVC<sup>̃</sup> R.H.]. Nasal metathesis was then produced, in both PI [Proto-!jɔ] and Bantu, by metathesis and segmentalization of nasality, resulting in -C-NCV [= -CVNCV R.H.]." (1979:90-91)

Another proposal, which I have not seen mentioned in the literature, is one which fits into the lenis/non-lenis hypothesis. It is conceivable that the nasal-nasal correspondences are reflexes of lenis nasals and the nasal-prenasalised stop correspondences of non-lenis nasals. The non-lenis nasals would then have developed to prenasalised stops in some cases and merged with the lenis stops in others. A merger of the two nasal sets seems to be easier to explain under the lenis/non-lenis hypothesis than under the one which would need to drop the voiceless stop element in a prenasalised stop without leaving a trace in any environments. On the other hand, for a prenasalised stop to develop from a non-lenis nasal, especially where the contrast with lenis nasals has to be maintained, appears to be reasonable [13].

Although adopting for the sake of argument the lenis/non-lenis approach to the nasals, the possibility that prenasalised stops came about via different routes can, of course, not be ruled out. It is hoped that comparative work of wider scope will eventually resolve this issue [14].

The consonant system in C2 position emerging from the foregoing discussion is as presented in chart 5.9.

Chart 5.9: Pre-PB consonants in C2 position.

non-lenis	*p	*t	*c	*k
lenis		*'t		*'k
non-lenis	*b	*d		*g
?		*d2		
lenis		*'d		
non-lenis	*m	*n	*ny	*ŋ
lenis	*'m	*'n	*'ny	

For \*p, \*b, \*c, \*g and \*ŋ, it cannot be determined whether they should be considered lenis or non-lenis, although, if \*p is paralleled with \*p in C1, it would possibly have to be considered as non-lenis since it does not have \*f as a reflex in PM which derives from lenis \*'p.

\*d2 has been put on the chart to indicate that there are three sets of correspondences for voiced alveolar stops which cannot be further collapsed. Perhaps the number of alveolars could be reduced if one of the three reconstructed sounds could be shown to be palatal rather than alveolar. At this point there is nothing which would indicate this [10].

It should be noted that the nasal rows have been reversed compared with the order in chart 5.8. The row with (39), (41), etc., correspond to the non-lenis set in chart 5.9.

Charts 5.7 and 5.9 may now be combined into chart 5.10.



Chart 5.10: Pre-PB consonants

non-lenis	*p	*t	*c	*k
lenis	*'p	*'t		*'k
non-lenis	*b	*d	*j	*g
lenis		*'d	*'j	*'g
?		*d2		
non-lenis	*m	*n	*ny	*ŋ
lenis	*'m	*'n	*'ny	

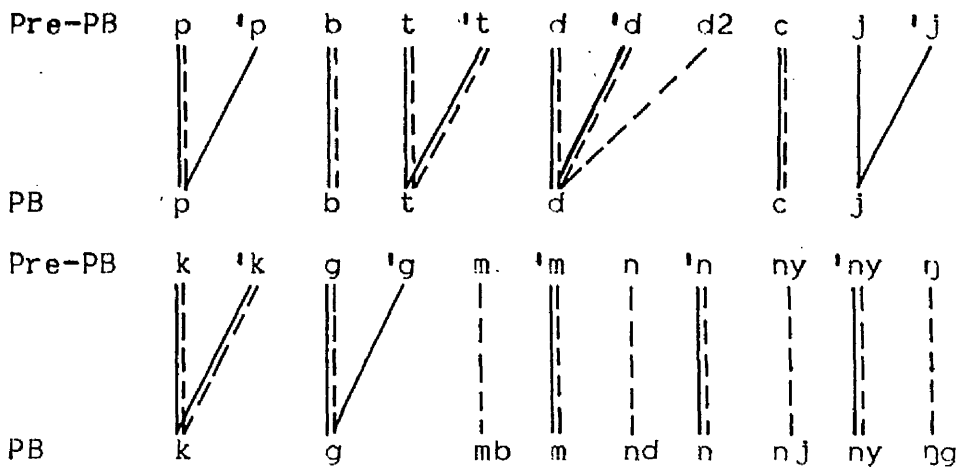
This comes very close to Gerhardt's reconstruction of Pre-Bantu non-nasal stops (cf. chart 5.4 above). The additions here are the palatals [15]. The lenis \*'b, however, is lacking in our reconstruction, or alternatively, if \*b is placed into the lenis column as \*'b, then non-lenis \*b is lacking.

If the palatal nasals are left apart, then the reconstructed nasals are comparable to Elugbe and Williamson's nasals reconstructed for Proto-Benue-Kwa (cf. chart 5.5 above). However, it should be noted that in their PBK there is a fortis/lenis distinction in C1 position and no such opposition in C2 whereas in our Pre-PB proposals the reverse is the case.

Clearly, the above results are tentative and much more work would need to be done on other sub-groups of zone A and beyond in order to come to firmer conclusions.

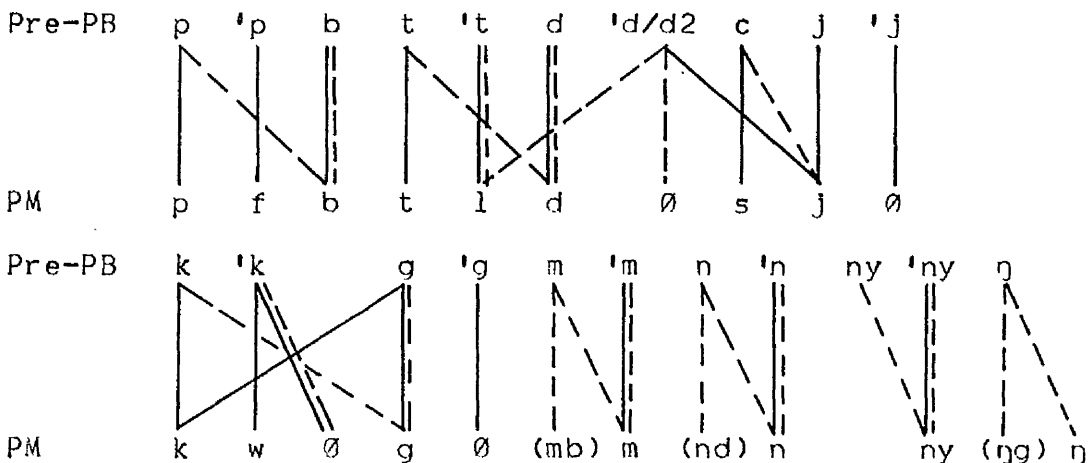
### 5.3.3 Consonant developments after Pre-PB

The sound correspondences and reconstructions for Pre-PB imply the following sound changes between Pre-PB and PB.

Chart 5.11: Consonant changes between Pre-PB and PB

The most outstanding feature in chart 5.11 is the merger of the lenis and non-lenis stops. (The solid lines indicate C1 changes, the broken lines C2 changes.)

The hypothetical sound changes between Pre-PB and PM may be represented as in chart 5.12.

Chart 5.12: Consonant changes between Pre-PB and PM

The developments to PM are more complex. Voiceless stops in C2 position merged with the voiced stops except \*'t which became \*l. The voiceless lenis stops in C1 have not merged with the non-lenis ones as in PB but have become

continuants or  $\emptyset$  in certain noun roots. However, there is evidence that the voiceless lenis stops have merged with the non-lenis ones following the class 9/10 prefix (cf. (A572)  $*'k > w$  and (A387)  $*'k > k$  as well as (A388)  $*'k > \emptyset$ ) (cf. also 5.3.4). The split of  $*g$  and merger with  $*k$  is apparently widely attested and includes Ekoid, Kenyang, Bantu zones A, B, C as well as language H.16 (Voeltz 1980:487) [16]. Lenis and non-lenis nasals merged in PM except where followed by a root final vowel.

#### 5.3.4 Classes 9 and 10 and the lenis/non-lenis distinction

Earlier in this section, we have seen that  $*f$ ,  $*l$  and  $*w$  may be best accounted for by positing an earlier lenis set of oral stops. Interestingly, in nouns of classes 9 and 10, no reflexes of lenis  $*'p$ ,  $*'t$  and  $*'k$  are apparently found, i.e. PM roots of classes 9/10 do not contain  $*f$ ,  $*l$  or  $*w$ . How is this to be explained? At first sight, one might think that this would give support to the traditional reconstruction of one series of stops plus a phonemic split (cf. 5.2.1) which in the environment of class 9 and 10 prefixes did not take place. However, both the non-lenis and lenis palatal correspondence sets (16) and (17) include class 9/10 nouns. It therefore appears that there was such a distinction which in class 9/10 now has only a trace in the distinction between j-initial and V-initial stems. Assuming that a lenis/non-lenis distinction was once present in C's following the class 9 and 10 prefix, a merger of lenis with non-lenis stops in that environment would then account for the absence of separate reflexes of the lenis stops.

5.3.5 Noun prefix variants and the loss of (lenis) C1

Noun prefixes as presented in 4.4 are of basically two types in PM, a syllabic and a non-syllabic type. One type has a syllabic element (either a vowel or a syllabic nasal) and occurs before C-initial stems and the other type consists of a consonant or consonant plus glide (C(G)-) and occurs before V-initial stems. The exception to this is the non-syllabic noun prefix \* $\tilde{n}$ -/ $\tilde{\emptyset}$ - of classes 9 and 10 [17].

For PB, only one type has been reconstructed, almost all of a CV- type (cf. chart 5.13).

Chart 5.13: PM and PB noun class prefixes

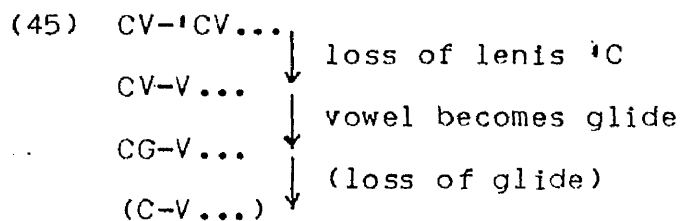
Class	PM: /__V	PM: /__C	PB (Meeussen 1967:97-9)
1	*mw`-	*m̃-	*mò-
2	*b`-	*bè-	*bā-
3	*mw`-	*m̃-	*mò-
4	*my`-	*m̃-	*mè-/mĩ-
5	*dy`-	*ā-	*ĩ-/dĩ-
6	*m`-	*mè-	*mā-
7	*jy`-	*è-	*kè-
8	*by`-	*èb-	*bĩ-
9/10	*ny`-	* $\tilde{n}$ -/ $\tilde{\emptyset}$ -	*ñ-/(ñy-)
13	*l`-	--	*tò-
14	*bw`-	*èb-?	*bò-
19	*fy`-	--	*pĩ-

The PB prefixes clearly represent a more conservative stage than the PM forms. In pre-consonantal position, the prefixes of classes 1, 3 and 4 have lost the vowel resulting in a syllabic nasal in PM. In the same

position, the prefixes for class 5 and 7 have lost their consonant [18]. In 8 and probably in 14, metathesis has taken place (cf. 4.4.9 and 4.4.11). There are no nouns with C-initial stems in classes 13 and 19.

In pre-vocalic position, the earlier vowel has become a glide or has been lost (cf. classes 2, 6 and 13).

What is it that gave rise to two separate sets of prefixes? It is clearly the loss versus retention of the stem initial consonant. Why did some stem initial consonants drop out and others remain in apparently identical environment? Our thesis is that it was the lenis stops that dropped out first, which then led to the desyllabification of the prefixes (cf. (45)).



As pointed out above, before stems which have retained the initial C, the PM prefixes for classes 5 and 7 appear to have lost the consonant. This immediately raises the question whether those consonants were lenis \*<sup>h</sup>d and \*<sup>h</sup>k respectively. The same question may be asked with regard to the prefixes of classes 13 and 19. The PM - PB correspondences (cf. (10) and (9) respectively) suggest that the C in these prefixes was lenis.

#### 5.4 The lenis/non-lenis distinction in lexical relations

##### 5.4.1 Introduction

The first item in appendix 1, the numeral 'one', has two PM forms: \*`p5g 'one (cl. 9)' and \*`-f5g 'one (other classes)'. The two forms are clearly related both formally and semantically, the difference consisting of \*p versus \*f. Such a relationship, if productive, would be termed morphophonemic and normally be given one underlying form from which the two surface forms are derived by a phonological rule. However, in the above pair the relation is not productive but no doubt was at an earlier stage.

In the data used in this study (as presented in appendix 1), the example just given is the only clear one [19] and so it is not possible to pursue the implications of apparent morphophonemic relationships for the lenis/non-lenis issue any further with this set of data.

Fortunately, having previously collected over 3,000 words in Akɔɔse (AKO) (Hedinger and Hedinger 1983), it was possible to draw up a list of what appear to be clearly related items both in form and meaning.

Below, the evidence is presented giving the paired items in two columns, one column containing the words with the reflex of one proto-sound, the other the words with the reflex of the other proto-sound. The semantic relationship is usually very clear but in some cases there is some doubt as to whether the two items should be considered a related pair. Occasionally, instead of a pair, there is a cluster of several related items (cf. (46b)).

5.4.2 Reflexes of lenis and non-lenis proto-phonemes in AKO lexical relations

First, the evidence from AKO involving reflexes of the lenis/non-lenis distinction is given.

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| (46) <u>p (&lt; *p)</u>            | <u>h (&lt; *f &lt; *'p)</u>         |
| a) póg 9 'one'                     | -hóg 'one' (other classes)          |
| b) píndé àsáá 9/10<br>'black plum' | -hín 'be black'                     |
| kúb è píndé 9/10<br>"black fowl"   | è?-hín 14 'blackness'               |
|                                    | è-híndè 7 'blackness'               |
|                                    | è-híntén 7 'darkness'               |
|                                    | àhíndèè kém 1a/2 "black<br>monkey"  |
| c) péd é mbàŋ 9/10<br>'twin fruit' | ŋ-héd 1/2 'twin'                    |
|                                    | à-héd 5/6 'twin (plantain)'         |
| d) pèmè 9 'wind'                   | hém 'to blow'                       |
| e) páŋ 'scatter'                   | hàŋted átè 'scatter, spread<br>out' |
| f) à-pùd 5/6 'peelings'            | hùd 'remove'                        |
| g) pèb 'to fan, blow'              | hébe 'to blow'                      |
| h) pínɛn 'to pinch'                | hínɛn 'to squeeze'                  |
| i) píned 'bring for'               | híned 'bring for'                   |
| (47) <u>t (&lt; *t)</u>            | <u>l (&lt; *'t)</u>                 |
| a) tàg 'suffer'                    | làg 'suffer'                        |
| tàged 'give trouble'               | làged 'deal badly with'             |
| b) tùmned 'meet (unexpectedly)'    | lúm 'bump into, meet'               |
| c) tùm 'to beat'                   | lúmtɛn 'cause pain, hit'            |
| d) tóg 'play trumpet, whistle'     | è-lòŋ 7/8 'trumpet'                 |
| e) à-tín 5/6 'butt of gun'         | à-lín 5/6 'trunk/bottom<br>of tree' |

(48) <u>k</u> (< *k)	<u>w</u> (< *k)
a) kènèd 'transplant, graft'	wén 'to plant'
ŋ-kènnèd 3 'graft, animal pregnancy'	wénted 'to plant'
b) kòm 'to whet'	wòme 'make smooth'
c) kátɛn 'cling to, hold fast'	wáɛɛn 'carry in arms'
d) kààd 'line a pot with leaves'	wààd 'wrap around, put on clothing'
e) kàndààm 'unexpectedly (ideophone)'	wàn 'to come suddenly, unexpectedly'
f) kòòn (<kòɔ+ɛn) 'to put together, collect'	wòɔ 'to join'
g) kúmbè 9 'pride'	wúmɛn 'bent back with pride'
kúmɛn 'boast of, drum with'	è-wúmɛ 7 'respect, honour'
h) kóm 'tired'	è-wòm wòm 7 'laziness'
ŋ-kómè 3 'rest'	

In (46) - (48), there does not seem to be any regular pattern: nouns and verbs occur in either column providing no simple derivational pattern such as nouns deriving from verbs.

While investigating the relationships between pairs of words such as those presented above, it was found that such relationships are not limited just to the lenis/non-lenis set. They extend to voiceless and voiced consonants as well. The remaining material is found in the next section.



5.4.3 Reflexes of voiced and voiceless proto-phonemes in AKO lexical relations

In addition to the pairs involving reflexes of the voiceless stops above, reflexes of the voiced stops are found in related pairs (cf. (49) to (58)).

- |  |  |
|--|--|
| (49) <u>p</u> (< *p)                               | <u>b</u> (< *b)                                  |
| a) pàle 'tell the truth'                           | mbálè 10 'truth'                                 |
| b) pèn 'to plait'                                  | mbèndè 9/10 'plait'                              |
| c) pàg 'chase with stick<br>or broom'              | mbag 9/10 'stick used to<br>harvest by throwing' |
| d) pèg 'bore holes in beans<br>(by insect)'        | mbèg 9 'insect (sucks<br>blood)'                 |
| m-pèg 3 'insect'                                   |  |
| e) pìd 'cause to pass'                             | bìd 'pass through hole'                          |
| f) è-pèg 7 'early'                                 | bwège 'be early'                                 |
| g) pùlten 'urge, rush to<br>meet need to defecate' | bùl 'enter head first,<br>escape, run away'      |
| (50) <u>t</u> (< *t)                               | <u>d</u> (< *d)                                  |
| tàmbé 9/10 'cap, big hat'                          | ndàm èkàlè 9 'juju hat'                          |
| (51) <u>s</u> (< *s)                               | <u>z/c</u> (< *j)                                |
| a) sàà (< sàŋ+e) 'buy some-<br>thing together'     | nzààŋgè 9 'collection,<br>contribution'          |
| b) sòŋ 'save life'                                 | nzòŋ 9 'talisman'                                |
| c) syèŋ 'abuse someone'                            | nzyèŋ 10 'abuse'                                 |
| d) sínàg 9 'wart'                                  | nzín 9 'thorn on leg of<br>cock or palm tree'    |
| e) sòŋ 'save life'                                 | còŋ 'survive'                                    |
| f) sùbed 'soak in water'                           | cùb 'soak, put water for<br>soaking'             |





ideally want to establish which one in a pair of phonemes was the original sound and which one was derived by rule and in what context. At the moment, we have no answers to these questions.

There is, however, one generalization that can be made in regard to the AKO material above: nouns in classes 9 and 10 are found exclusively with reflexes of non-lenis consonants in initial position. It follows from this that in nouns with a class 9 and 10 prefix, whatever its shape may originally have been, lenis sounds must have merged with non-lenis sounds (cf. 5.3.4).

#### 5.4.4 Conclusion

We have found that AKO has fossilized morphophonemic relationships. No clue has been found as to which of each pair represents the underlying and which the derived form, nor is there any indication as to what could be the conditioning environment. Since all the relationships apparently involve (Pre-PB) phonemes rather than allophones, a split plus merger rather than a simple split of original phonemes must be envisaged.

Clearly, more research needs to be done in this area and hopefully work on other languages of zone A would bring us closer to a solution. Such a task is complicated by several factors: formally similar but not identical items have to be compared. In addition, the semantic relationships holding between the two forms are not always apparent, especially to a non-native speaker. Because these relationships are non-productive, a rather large body of vocabulary has to be available to the researcher.

5.5 Some observations about tone discrepancies in related lexical items

In the pairs of related words in (46) to (58), the first stem tone is usually identical in both stems. In some cases, however, where one item has a high tone, the other has a low tone and vice versa. This discrepancy calls for an explanation. We would expect that at a certain stage in the past, the related morphemes have had one single form without tonal alternation. Since they exist now, these tonal alternations must have a cause. There are at least three possible explanations:

One, the tonal alternations are purely accidental. This explanation should not be considered until all others failed.

Two, the tonal alternations are due to the tonal influence of adjacent morphemes. Because we do not know what the putative morphological environment was, it is at present not possible to come to any conclusion regarding this explanation.

Three, another line of investigation would be to consider the influence consonants may have had on the tones. It is well known that some consonant types have a lowering influence on the tones. There is also a clear relationship between consonant types and tone-genesis. Because of this correlation between consonant types and tone, the following preliminary investigation was undertaken.

From word pairs in (46) - (48), it appeared that there are more low tones with one type of consonant than with the other, pointing in the direction of a relationship

between consonant type and tone. However, since the sample was very small and therefore inconclusive, a count of tones in relation to root initial consonants in a sample of about one thousand AKO words was made which gave the following results.

Chart 5.15: Co-occurrence of H and L tones with AKO

		<u>consonants</u>						
C1		p	t	k	h	l	w	
high tone		44	79	133	73	74	47	
percent		33%	55%	38%	55%	62%	53%	
low tone		88	64	216	59	46	41	
percent		66%	45%	62%	45%	38%	47%	
total		132	143	349	132	120	88	964

Chart 5.15 indicates that following t, h, l and w, high tones are more frequent than low tones. Following p and k, low tones predominate. (Low tones also predominate following voiced stops, the figures for which are not included in chart 5.15.) An interpretation in terms of a link between consonants and tone poses several problems. To find predominantly L tones after p and k is just the opposite of what is expected. Voiceless and presumably non-lenis sounds tend to raise tones. To find predominantly high tones after h, l and w also does not fit into what is expected. Voiced and presumably lenis sounds tend to lower tone. At the moment, therefore, no plausible explanation can be given.

To end this section, the following note may be added. When examining Guthrie's Index B (1967-71, II:146-156) over ten related pairs of starred forms can be found with

the same meaning but with a H versus L discrepancy. Interestingly, a V-length distinction is also present, but there does not appear to be a systematic pattern of, for example, long V being associated with a specific tone.

To conclude, an attempt to find an unambiguous correlation between tone and other phenomena such as consonant types has not led to any significant result but it is clear that more work should be done in this area. It is hoped that some of the questions raised may be eventually answered.

#### 5.6 PM and PB vowels and glides

After the digression in 5.4 and 5.5 where we focussed on one language (AKO), we now return to our comparison of PM and PB.

Correspondences between VI vowels of PM and PB are, with few exceptions, straightforward.

##### (59) \*i - \*i correspondences

- |                     |                           |
|---------------------|---------------------------|
| (A36) *-sìj' 'vein' | (349) *-cìcǎ              |
| (A101) *-fín 'name' | (2068) *-yínǎ, (M) *-jínǎ |

##### (60) \*e - \*e correspondences

- |                       |               |
|-----------------------|---------------|
| (A214) *kém 'monkey'  | (1058) *-kémǎ |
| (A327) *-fén 'handle' | (1521) *-pénǐ |

##### (61) \*ɛ - \*ɛ correspondences

- |                         |               |
|-------------------------|---------------|
| (A115) *-kèn 'stranger' | (805) *-gènǐ  |
| (A178) *-sɛ́ɛ 'sand'    | (314) *-cɛ́kɛ |

##### (62) \*a - \*a correspondences

- |                        |               |
|------------------------|---------------|
| (A201) *-lǎǎ 'stone'   | (1542) *-tǎdè |
| (A669) *-jǎn 'to cook' | (490) *-dǎnd- |

(63) \*ɔ - \*ɔ correspondences

- (A341) \*-kɔ̀dɔ́ 'rope' (839) \*-gɔ̀dɔ́ 'string'  
 (A329) \*-gɔ̀m 'drum' (844) \*-gɔ̀m̃

(64) \*o - \*o correspondences

- (A34) \*-sɔ̀n <sup>correspondences</sup> <sub>'riesn'</sub> (416) \*-cɔ̀nɪ  
 (A37) \*-óm 'thing' (2164) \*-yóm̃, (M)\*-(j)óm̃

(65) \*u - \*u correspondences

- (A299) \*-úɪ 'oil' (1278) \*-kút̃  
 (A551) \*-jùm 'smell, stink' (742) \*-dùm-

Examples in (59) to (65) show that the V2 of an earlier stage, as seen in the PB reconstructions, did not have any lowering or raising influence on V1 [20].

For V2 vowels, no correspondences exist because it is not possible to reconstruct the quality of that vowel for virtually every root. From the PB roots and PM tones, it is clear that a second vowel must have been present in noun stems. Many of these vowels have been lost before and others since PM (cf. also 3.3.4 and end of 6.4.2). This may be described as a general trend which has been taking place over a long period of time. There appears to be no specific cause for this loss but it could possibly have to do with stress on the stem initial syllable. However, since tone is the main suprasegmental phenomenon which has distinctive function, stress is not often discussed and therefore the relationship of tone and stress is not well understood.

There are five sets of correspondences between PM vowel glides and PB vowels of [4hi], [3hi] and [2hi]



(cf. (66) to (70)). These appear in three morphological contexts:

- 1) noun roots: C\_\_a....
- 2) verb roots: C\_\_(a) and
- 3) noun class prefixes: C\_\_- (in PM they are allomorphs occurring before V-initial roots).

(66) \*y\_\_ - \*i\_\_ correspondences

*dy`- 'class 5'	*dĩ-
*by`- 'class 8'	*bĩ-
*fy`- 'class 19'	*pĩ-

(67) \*y\_\_ - \*e\_\_ correspondences

(A525) *-dyá 'eat'	(550) *-dē-
(A474) *-fyá 'to be hot'	(1502) *-pé-
*my`- 'class 4'	*mē-
*jy`- 'class 7'	*kē-

(68) \*y\_\_ - \*ɛ\_\_ correspondences

(A530) *-nyà 'defecate'	(M) *-nɛ-
-------------------------	-----------

(69) \*w\_\_ - \*o\_\_ correspondences

(A227) *-bwá 'dog'	(174) *-bóà
(A281) *-kwá~ 'salt'	(2176) *-góá
(A262) *-gwáá 'partridge'	(865) *-gòàdè
(A625) *-kwà 'fall'	(863) *-gò-
*mw`- 'class 1 and 3'	*mò-
*bw`- 'class 14'	*bò-

(70) \*w\_\_ - \*u\_\_ correspondences

(A572) *-wá 'die'	(1249) *-kú
-------------------	-------------

The vowel \*a in the above PM verbs is probably a relic of Meeussen's "final element", the reflexes of which occur in many Bantu languages in several verb tenses (Meeussen

1967:110). It appears to have been retained in PM verb roots with \*CV- shape because the original root vowel has become non-syllabic: \*CV-a > PM \*CGa-. This \*a apparently does not occur in verbs with a different CV pattern.

It can be argued that the verbs of the shape CGa- should be analysed as CG + -a (e.g. fy<sup>ˈ</sup>+a) where -a is a dummy suffix which gives support to the tone. This analysis is further supported when comparing (A595) \*-fyǎŋ 'to burn' with (A474) \*-fyǎ 'to be hot', the first of which may be segmented as fy<sup>ˈ</sup>-aŋ. The -aŋ, which is not a productive suffix, is possibly cognate with Meeussen's "expansion" -ang- (1967:89).

The choice of a digraph for the palatal nasal makes the ny in (68) ambiguous in the sense that it could represent an alveolar nasal plus a palatal glide or a palatal nasal. Since there is apparently no contrast between the two in PM, ny is taken to be a palatal nasal. This implies that this palatal nasal is historically derived from n plus ε (cf. (42) above).

In (70), the w probably has its source simultaneously in the \*'k (> \*w) (cf. (11)) and the \*u (> \*w).

### 5.7 PM and PB tones

A comparison of PM tone patterns with PB tone patterns shows that PB retained the second tone thus representing an older stage. PM, on the other hand, has lost it in some cases where V2 had been lost, and retained it in other cases in spite of the loss of V2.

Below the PM - PB tone correspondences will be presented and discussed.

(71) \*L L - \*L L correspondences

(A198) \*-bĩnV̄ 9 'dirt' (150) \*-bĩndõ/ò 9

(A232) \*-bõmV̄ 'python' (159) \*-bõmà

(72) \*L - \*L L correspondences

(A154) \*-sèb 7/8 'dry season' (342) \*-cèpɔ̄

(A263) \*-kòj 9/10 'parrot' (1187) \*-kòcò

(etc.)

(73) \*L - \*L H correpondences

(A75) \*-bàny 9/10 'rib' (56) \*-bànjé/é

(A177) \*-dòb 9 'earth' (639) \*-dòbá 'soil, world'

(etc.)

(74) \*L H - \*L H correspondences

(A215) \*-gàndó 9/10 'crocodile' (783) \*-gàndó

(A224) \*-gòmbá 9/10 'porcupine' (895) \*-gòmbá

(A37) \*-fèj 7/8 'bone' (1511) \*-pècè

(etc.)

(75) \*H H - \*H H correspondences

(A179) \*pěmbé 'chalk' (1477) \*-pěmbé 'white clay'

cf. (1474) \*-pěmbà

(A364) \*-támbe 5/6 'shoe' (1659) \*-támbe 'sole of foot,  
footprint'(76) \*H - \*H H correpondences

(A125) \*-díb 6 'water' (605) \*-díbá 6

(A282) \*-dóng 9 'pepper' (718) \*-dóngó 10

(A178) \*-sěé 3 'sand' (314) \*-cěké 3

(etc.)

(77) \*H L - \*H L correspondences

- |                          |                          |
|--------------------------|--------------------------|
| (A55) *-jém 7/8 'tongue' | (572) *-démĩ 11/10       |
| (A218) *-bód 9/10 'goat' | (185) *-bódĩ 9/10        |
| (A130) *-búú 9 'rain'    | (225) *-búdā 9           |
| (A26) *-án 1/2 'child'   | (1922) *-yānā, (M)*-jānā |
| (A299) *-ú1 6 'palm oil' | (1278) *-kútā            |
- (etc.)

(78) \*H L - \*H L correpondences

- |                                |  |
|--------------------------------|--|
| (A118) *-jíbV̂ 1/2 'thief'     | (2025) *-yíbĩ (M)*-jĩbi                |
| (A162) *-lábÈ 3/4 'branch'     | (M) *-tábè 5,9<br>cf.(1636) *-tábè 3/4 |
| (A355) *-á1V̂ 14/6 'canoe'     | (1949) *-yátō (M)*-(j)átō              |
| (A73) *tó1` 9 'chest'          | (1822) *-tódō 9/10                     |
| (A317) *-jób` 14/6 'fish hook' | (640) *-dóbō                           |
| (A74) *-bÉÈ 5/6 'breast'       | (71) *-bÉÉdÈ 5/6                       |
| (A10) *-óm` 5/6 'ten'          | (1208) *-kómĩ 5/6                      |
| (A47) *-òò 5/6 'nose'          | (960) *-jódò 5/6                       |

(79) \*L H - \*L L correspondences

- |                                    |                                  |
|------------------------------------|----------------------------------|
| (A199) *-jèè 9/10 'path,road'      | (940,M) *-jèdā<br>(941,M) *-jèdā |
| (A175) *-kòd` 7/8 'mountain'       | (883) *-gòdò 11/10 'hill'        |
| (A342) *-sìngā 3/4 'thread,string' | (359) *-cìngā 3/4                |
| (A376) *-gàn` 9/10 'tale,story'    | (776) *-gànō                     |

(80) \*H - \*L H correspondences

- |                           |                |
|---------------------------|----------------|
| (A335) *-lú1 7/8 'basket' | (1849) *-tòngá |
|---------------------------|----------------|

The examples in (71) indicate that PM had some morphemes which had a V2 with L tone.

The \*L tone pattern in PM clearly has two origins. In (72), the L of an earlier \*L L pattern has disappeared

and in (73), the H of an earlier \*L H tone pattern has been lost. The disappearance of L finds a simple explanation in the absorption by the identical tone on the first vowel. The loss of the H in (73), on the other hand, has no simple explanation, especially since H is retained in comparable morphemes in (74). In (74), V2 with H tone was retained in the first two examples. In the third example, V2 was lost in PM but the H tone was retained.

(75) requires no comment. The PM pattern \*H in (76) resulted from either the loss of the second H tone or coalescence of the two H's in (A178), two equally possible hypotheses. In (77), the \*H pattern is due to the loss of the L tone of the lost V2.

In (78), the \*H L pattern is present in the fuller forms (the first three examples) as well as in the forms where the V2 has dropped. The different behaviour of the same original tone pattern in (77) and (78) has, as with (73) and (74), no obvious explanation. The only hypothesis that comes to mind is that it may have to do with the timing of the loss of the final vowel: earlier loss of V2 was accompanied by loss of tone whereas recent loss of V2 did not entail loss of tone. It is not, however, apparent how this hypothesis could be tested.

The examples in (79) and (80) are irregular correspondences. Both Guthrie and Meeussen have two reconstructions corresponding to (A199). Guthrie argues for the one with L tone (940) as the more original form, the one with the H tone (941) being a secondary development. However, it appears to be more natural for a L H pattern to become L L rather than the reverse. Secondly, it has been

observed that the NW area of Bantu is tonally more conservative than the eastern area. It would therefore seem important to give reconstructions from the NW precedence over others. It is, therefore, quite possible that the tone reconstruction in the other three examples for PB should be revised in the light of the PM material. There appears to be additional support for a \*L H reconstruction for 'mountain' from Proto-Ekoid (PEk) where the same root is reconstructed as \*-gõl (Watters 1981:15) [21].

In (80) PM clearly has a \*H tone whereas PB has \*L H. It is perhaps the case that (A335) \*-lǔŋ is related to (A634) \*-lǒŋ which is the verb used to denote the building of baskets and houses and so PM and PB may not be directly relatable.

In conclusion it can be said that the PB morphemes represent a more conservative state, having retained the final vowel with its tone. Tone reconstructions for Pre-PB, therefore, will be identical with those of PB except where they have to be revised in the light of other evidence.

## FOOTNOTES TO CHAPTER FIVE

[1] Zone J on map 5 is due to a revision by Meeussen (Bastin 1978:135) who combined some languages from zones D and E into a zone J on the basis that they were linguistically more similar to each other than to the other languages of zones D and E.

[2] The internal classification of the Bantu languages and their relationship to the Grassfields Bantu languages and Ekoid Bantu languages, etc., is of course much more complex and sometimes controversial, as can be seen by a careful comparison of classifications of, for example, Heine (1973), Bastin et al. (1979) and Bennett and Sterk (1977).

[3] "Volta-Comoe" is Stewart's term for the better known "Akan" (Stewart 1973:1).

[4] "Potou Lagoon" is Stewart's term for Greenberg's "Eastern Ivory Coast Lagoon" group (Stewart 1973:1).

[5] Meeussen (1967) and Guthrie (1967-71) left open the question how PB \*c and \*j were pronounced (cf. also footnote 2 to chapter 2). We do not, of course, know whether they were stops or affricates, etc. Palatal stops are generally rare and marked. It is therefore possible that \*c and \*j as palatal stops became affricated very early on and developed into the many different sounds found today. We will continue using the expression "palatal stops" recognizing that they may have been, for example, affricates in PB.

[6] Guthrie made a distinction between Common Bantu (CB) and Proto-Bantu. Each of his "comparative series" (CS) is headed by an asterisked morpheme representing that CS. He in turn discussed whether any such CB morpheme should be considered as going back to PB, taking into account the geographical spread of its reflexes and the presence of synonymous CS. Occasionally, there are two or more formally and semantically related ("osculant") CS. In these cases, Guthrie discussed their relationship and argued for one of the asterisked morphemes as being the PB form from which the other(s) have derived by "mutation". As the PB form is in most cases identical with a CB form, we do not indicate the difference. Some CB forms with limited geographical distribution Guthrie would not consider as PB, such as the ones labelled ps.

[7] Cf. also (A572) and (A388) where apparently the same root is verb and noun respectively.

[8] Guthrie uses \*y and \*j whereas Meeussen uses zero and \*j (1967:83). Guthrie's \*y stands for the correspondences with mainly zero reflexes and y (and in some contexts g) (1967-71.1:50) and appears to be only partially equivalent to Meeussen's zero consonant. Since \*y has at least some segmental reflexes, it appears not unreasonable to assume that these are traces of the lenis \*j.

[9] We do not have an explanation for the discrepancy in the vowels of (A694) which raises the question whether the PM and PB forms are cognate or not.

[10] On the other hand, it should be recognized that it is very common to find more consonants at the alveolar point of articulation than at other points in many sound systems.

[11] Verb roots in many Bantu languages (and PB but not in Manenguba languages) always occur with at least one of a range of suffixes, either derivational and/or the ones required by different "tenses". As these are in most cases not tightly bound to the root, they are less likely to have influenced the preceding consonant.

[12] We exclude the rare prenasalised stops with a voiceless C (e.g. mp) as we have not found any PM - PB correspondences.

[13] Unfortunately there is no one definition of non-lenis/fortis versus lenis. The distinction has been variously described as including "long versus short duration of articulation; strong versus weak articulation; greater versus lesser muscular tension; etc." (Elugbe 1980:41).

[14] Of special interest would be to study how the reconstruction of Proto-Benue-Kwa fortis and lenis nasals (cf. chart 5.5 above) can be reconciled with Stewart's suggestion that Proto-Volta-Congo had no nasals (cf. footnote 14 to chapter 4).

[15] The absence of palatal stops in Gerhardt (1983) may be accidental or due to a chosen limitation to non-palatal consonants only.

[16] Regarding this sound change, it would be interesting to know why it took place or why this change was restricted to the velar \*g only. If all the voiced stops were implosives at some point in the past (cf. Stewart's statements in 5.2.2 above), then it would be expected that the velar implosive would change to another sound first since the velars are the most unstable and least frequently encountered of the implosives (Greenberg 1970).

[17] This exception may actually lend support to the analysis which considers this prefix to have integrated into the stem (cf. 4.5).

[18] Meeussen gives PB \*i- as class 5 prefix but also finds some evidence for reconstructing \*di- (1967:97-9). Kadima (1969:135-41) advances the hypothesis that the prefix is \*i- and the forms with d are due to an augment (\*de-i-). If the PBC reconstruction \*li- (De Wolf 1971:51-2) is correct then it appears not unreasonable to assume that there was a consonant in this prefix in PB.

[19] Another pair appears to be (A119) \*-gāj 'native doctor' and (A121) \*-āggā 'medicine' related by reflexes of the lenis/non-lenis stop pair given as (53) in 5.4.3.



[20] This is different from what has taken place in Basaa, a related Bantu language to the east, where V1 vowels were lowered before PB \*a as V2 (Janssens 1982:103) and occasionally raised before PB \*i or \*u (1982:105).

[21] The PEk tone reconstructions are tentative so they have to be treated with caution (cf. Watters 1981:24-5).

## CHAPTER SIX

CLASSIFICATION OF THE MANENGUBA LANGUAGES6.1 Introduction

It has been recognized since classification of these languages began that the Manenguba languages are related to each other and to the surrounding languages. Various types of similarities and differences exist which are focussed on to establish the degree of relationship that exists between languages and groups of languages.

These similarities and differences can be attributed to different factors. Languages are similar because they have developed from one original ancestor language. This is the genetic view or "Stammbaumtheorie". According to this view, the differences are attributed to separate and divergent development of the daughter languages in respect to their phonology, morphology, syntax and semantics. However, as languages are in contact with other languages, they influence each other. Vocabulary items are frequently borrowed, but also phonetic, morphological and syntactic features may be incorporated from another language increasing the similarity between languages.

Different classifications of the same languages are often contradictory for a variety of reasons. Not only may the focus be on different aspects of the languages to be classified, such as the lexicon, the phonology, morphology

or syntax, but also, different samples on which the classification is based can affect the result. Besides these factors, the linguist has a choice between different goals. He may be interested in any one or a combination of the following classifications: genetic, typological, areal or referential (Heine 1980a:296). The last one is a more or less arbitrary system of referring to the languages classified. The first three may, or may not, coincide and can therefore lead to contradictory classifications if they are not kept distinct.

In this chapter, we will first review previous classifications (6.2) as they touch on both the external and the internal classification of the Manenguba languages. In 6.3, the focus is on the lexicostatistical classification of the Manenguba languages with a brief review of previous works (which normally only relate one Manenguba language to the surrounding languages). We will then present our own lexicostatistical analysis which provides an internal genetic classification of the Manenguba languages and also includes several of the adjacent languages. This then allows us to give a definition of which languages are to be considered as the Manenguba languages and which are to be excluded. In the remaining sections, the implications of phonological and morphological changes for the classification, as well as lexical and morphological isoglosses will be considered.

6.2 Previous classifications6.2.1 A survey

Koelle (1854) was the first person to classify any of the Manenguba languages. In his classification, he grouped languages together on the basis of lexical similarity ("glossarial affinity") (Dalby 1970:150-1) and into larger groups on the basis of geographical and structural criteria, i.e. the "presence of noun-class inflection" (Dalby 1970:150). An extract of his classification is presented in chart 6.1.

Chart 6.1: The Manenguba languages in Koelle's classification

West and Central African (etc.)

South African

VIII. Atam

IX. Mokoo languages

IX.A Isuuwu (Su/A.23) [1]

Diwala (Diala/A.24)

Oorungu (Rongo/B.11b)

etc.

Baalu (Bali/Ngaaka)

Bamom (Bamum)

etc.

Paapiax (Baba)

Paagham (Bagam)

IX.B Ngoteŋ (Mbo/A.15) [MHE?]

Melŋ (Mbo/A.15) [MHE?]

Nhaalemone (Mbo/A.15) [MWM?]

Baaseke/Seke (Sekiyani/B.21)

X. Kongoo-Ngoola

etc.

The three Manenguba languages named Ngotɛŋ, Melon and Nhaalemooe Koelle placed in his group IX.B together with Baaseke/Seke, a language spoken in Gabon. Group IX.B together with Group IX.A formed his IX. Mokoo languages [2]. Group IX.A included Bantu languages such as Su (A.23), Duala (A.24) and Rongo (B.11b), and Grassfields Bantu languages such as Bali/Ngaaka, Bamum, Baba and others (cf. Dalby 1964:87).

In the light of the present day classifications, it is surprising that Koelle groups the Bantu languages Douala and Su with Grassfields Bantu languages rather than with the three Manenguba languages and other Bantu languages.

Meinhof was the first person to discuss the linguistic situation of Cameroon as it was known towards the end of the last century (Meinhof 1895:138-163). His article contains a very tentative "Klassifikation der Kamerundialekte" [3] (1895:157). He made the following three groups:

1. Languages with Duala features
2. Languages with Bali features
3. Languages of the Fan group [4]

and lists several other unclassified languages. The Manenguba languages are not mentioned, probably because none had been recorded in its locality by that time [5].

At the turn of the century, Dorsch studied AKO (which he called Nkosi), one of the Manenguba languages. In his grammar (Dorsch 1910/11), although not setting out to classify the language under study, he related it to the Duala language in the following way: "Die Nkosisprache ist

... eine Bantusprache, ... nur ein stark entarteter Duala-Dialekt ..." [6] (1910/11:242).

In 1919, Johnston, as Koelle had done previously, grouped the three languages Ngotɛŋ, Melon and Nhaalemooe together into one group. He further added Balun, Bafɔ and Bakosi and called the group the "Manenguba languages" (1919:630; 1922:150). Within his Manenguba languages, he grouped Balun and Bafɔ with Koelle's Melon as one language. Bakosi he grouped with Koelle's Nhaalemooe while leaving Ngotɛŋ to stand alone (cf. chart 6.2). Koelle's Baaseke he rightly excluded from the Manenguba group.

The Grassfields Bantu languages spoken to the north of the Manenguba languages were termed "Semi-Bantu" by Johnston.

The Bantu languages which are geographically or linguistically close to the Manenguba languages appear either in his Spanish Guinea - West Cameroons languages (e.g. Bakundu (A.11), Duala (A.24), Bakoko (A.43), etc.) or as Fang languages (e.g. Bulu (A.74)). It should be noted that Bonkenɛ (A.14) is grouped with Abɔ (A.42) rather than with the Manenguba languages.

It is strange why Johnston should have grouped Melon, Balun and Bafɔ as dialects of one language since there are considerable differences between them. Balun and Bafɔ, for example, have de-/di- as prefix for class 5 nouns versus a-(e-?) in Melon, and the prefixes for class 14 are fi- and e- respectively. He perhaps equated Koelle's Melon with Balun on the basis of the similarity of the two names. One suspects that more or less apparent similarity of language names was more important than linguistic

Chart 6.2: The Manenguba languages in Johnston's  
classification

North Western Bantu

Spanish Guinea - West Cameroons Languages

Renge Sub-Group

Seke-Bulu (B.21) [7]

etc.

Lower-Sanaga Sub-Group

Bakoko (A.43b)

Basaa (A.43)

Duala Cameroons Sub-Groups

Duala (A.24)

Bakwiri (A.22)

etc.

Rumpi Sub-Group

Balue (A.12)

Bakundu (A.11c)

etc.

Mongo Sub-Group

Bonkeŋ (A.14) [BNK]

Abɔ (A.42)

Manenguba languages

Baluŋ-Bafɔ

Melɔŋ (A.15) [MHE?]

Baluŋ (A.13) [BLO]

Bafɔ (A.15a) [LEF]

Bakosi

Nkosi (A.15b) [AKO]

Nhaalemooe (A.15) [MWM?]

Bangante

Ngoteŋ (A.15) [MHE?]

Fang languages

Yauunde or Eɪundu (A.72)

Paiwe or Fang (A.75) [7]

Bilu (A.74)

Njiem (A.84)

Semi-Bantu languages

similarity, as is shown by his evaluation of the evidence leading him to equate the name Ngoten with Baggante (1922:151) when it is clear that Baggante is a Grassfields Bantu language [9]. Bafɔ he probably grouped with Melon and Balun because of its geographic proximity and linguistic similarity with the latter which appears to be correct.

A few years later, a British colonial administrator, Talbot, turned his attention to the Bantu languages of the present day South-West Province of Cameroon (1926:98-102). His approach is very difficult to interpret. The table of languages and dialects (1926:100-101) looks particularly confused and full of contradictions and so no attempt will be made to interpret his classification in detail. Mbo, for example, is said to be a dialect of "Abaw (sometimes pronounced Abo) [= almost certainly not Abɔ A.42. R.H.], or Bamileke [= Grassfields Bantu languages. R.H.] ..." (1926:99).

The "Balung language" is displayed as having the following dialects: Balung, Bafaw, Bakossi, Elong and Ninong. Basossi does not appear as a language name, but only as a "sub-tribe" of Balung (1926:69). On Talbot's map 12 (1926:68), two more names of "sub-tribes" appear north of Basossi and west of Mbo which are relevant to our study: Nkongwa and Mangan. He stated that from vocabularies "it would appear that the language of these peoples is a branch of Balung-Bakossi, but is also closely allied to Abaw-Mbo" (1926:99). As to the identity of these two groups, taking into consideration the geographical description and the similarity of language/ethnic name, it appears that Mangan is to be identified with Myaggə [10] and Nkongwa with



Nkɔŋɔ/Lɛkɔŋɔ. Nkɔŋɔ (spelled Nkongho in Njang 1972:5 and Etame 1981:2) is also called Nkingwa or Kingwa (Williamson 1971:276, Eyongetah and Brain 1974:25). This would fit in well with Richardson's (1957:7) comment that "Ngɛn is a general name for languages of this type" i.e. languages spoken in that general area.

Tessmann (1932a:185) makes two sub-groups of the Manenguba languages: 1) Bafo, Bakossi and Balong, which, together with Balue, receive the following comment: "Präfixe noch ziemlich vollständig" [11] (1932a:185).

2) Mbo. This sub-group apparently includes Lɛkɔŋɔ [= Mbo-Kɔŋɔal, Mbo of Mbokambo [= Mbo-Kabol, Bareko, Mwaneka, Manenguba, Bakaka, Manehas, Balondo, Babong and Bafun (Tessmann 1932b). The Mbo languages are characterized with the following comment, "Präfixe bereits im Schwinden begriffen" [12] (1932a:185). Koelle's three languages are classified as "Süd-Mbo" [13].

These languages are classified with Bakoko (A.43), Bulu (A.74) and Balue (A.11), etc., as "Neubantu" [14]. Bongkeng (written as Bongkenge) (A.14) is grouped with Bakundu and Duala (A.24) as "Altbantu" [15].

Kenyang (appearing as Banjangi) is classified as "Benue-Crossfluss-Semibantu" [16] and the Grassfields Bantu languages (e.g. Bangwa) as "Nordkamerungebirgs-Semibantu" [17].

Tessmann's was the most detailed and carefully worked out classification of that time. He used different colour schemes on his map (1932b) and numbers plus letters to identify and group the languages but it is not clear how many details of classification should be read into them.

Chart 6.3: The Manengoba languages in Tessmann's  
classification

## BANTU

## Hauptbantu

## I Festlandbantu

## 1 Altbantu

2 Duala

8 Bakwiri

9 Wuri, 10 Rongkenge [RNK]

11 Balundu, 12 Nord-Batanga,

13 Bakundu, 14 Ngolo

etc.

## 2 Jüngere Bantu

## A Mittelbantu

etc.

## B Neubantu

34 Pangwe, 34a Fang, 34e Bulu,

34h Jaunde, etc.

39 Bassá

40 Bakoko

42 Abo

43 Balue

44 Bafo [LEF]

45 Bakossi [AKO], 46 Balong [BLO]

47 Mbo, 47a Mbo-Mbo, 47b Mbo-Kóngoa

[LEK?] 47c Mbo-Mboché,

47d Mbo-Kabo [MBE?],

47e Süd-Mbo [MHE, MKA, BFU, etc.]

## Semibantu

## A Westkamerun-Semibantu

## a) Benue-Crossfluss-Semibantu

58b Keaka, 58c Obang, etc.

60 Banjangi [KNY]

etc.

## b) Nordkamerungebirgs-Semibantu

68 Bangwa [NOW]

87 Bana-Dschang

etc.

Meyer (1942) follows Meinhof's (1895) classification closely but adds Bafo, Bakosi and Mbo besides other languages. Bafo forms a group with Balong. Bakosi and Mbo she subsumes with Bakoko, Ewondo, etc., in the Yaunde group (Meinhof's Fan-group). This is summarized in chart 6.4. It should be noted here that Tessmann's "Neubantu" has been split up into four separate groups. Kenyang is subsumed under "Rand-Klassensprachen" [18].

Chart 6.4: The Manenguba languages in Meyer's classification

North West Bantu

Diala group

- Duala (A.24)
- Lundu (A.11)
- Kweli (Kwiri) (A.22)
- Kundu (A.11c)
- etc.

Long/Fo

- Long (Balong) (A.13) [BL0]
- Fo (Bafō) (A.15a) [LEF]

Ro/Lue

- Ro (Bankon, Abo) (A.42)
- Lue (Balue) (A.12)

Basa/Ngumba/Mabea

- Basa (A.43)
- etc.

Yaunde group

- Yaunde (Ewondo) (A.72), Bulu (A.74), etc.
- Koko (Bakoko) (A.43b)
- Kosi (Bakossi) (A.15b) [AK0]
- Mbo (Buo) (A.15)

Rand-Klassensprachen

- Bafia (A.53)
- Banend (A.44?)
- Bali (Grassfields Bantu)
- Kyang [KNY], Anjang, Ekoi

Dugast (1949a) is an inventory of ethnic groups which only covers the francophone part of the area under focus in this study. Most of the groups are listed under the Bakundu group except Bongkeng and Mbo which stand apart. Included in her Bakundu group are Abo (A.42) and Bakem (A.43a) [BKM]. The name Miamilo also appears in the Bakundu group, which is equivalent to Bafun [BFU].

In the 1940's, an effort was begun by the International African Institute (IAI) to classify the whole Bantu area, with the aim of creating some order in the large number of contributions and nomenclature of Bantu languages in existence at that time. The first study to appear was that of Doke (1945) in which he compiled a bibliography on the Bantu languages and presented a tentative classification. In his "North Western Zone", he groups Nkosi [AKO] with Duala, Isubu, Basa and Lundu and in another group, he places Fang, Yaunde and Bulu. He defines a group of languages as "possessing common salient phonetic and grammatical features, and having a high degree of mutual understanding, so that members can without real difficulty, converse with one another" (Doke 1945:1). The first criterion is very vague so that it is not surprising that Nkosi is classified with Duala and Basa rather than with Fang, etc. Also, the implicit claim that the languages in the first group, i.e. Nkosi, Duala, Basa and Lundu, are mutually intelligible is definitely not the case.

In 1948, three years after Doke, Guthrie published his Classification of the Bantu languages. In it, he presents a set of criteria to be applied to any language to determine whether it may be admitted as a Bantu language. He

then gives a classification of the whole Bantu area. No reference is made in this classification to any Manenguba language. Only Bongkeng, which some writers have included in the Manenguba languages and others excluded, is listed in brackets after A.42 BO (Bongkeng) (1948:74). This was an error which was corrected in Guthrie (1953). BO equals Abo or Bankon (1953:28). The 1948 classification of the A.10 group, in which the Manenguba languages are later included, is radically revised in 1953.

Chart 6.5: The Manenguba languages as classified by Guthrie (1953)

Lundu-Mbo Group (A.10)

Lundu cluster (A.11)

- (a) Lundu
- (c) Bakundu [20]
- etc.

Baruε (A.12)

Baloŋ (A.13) [BLO]

Bongkeng (A.14) [BNK]

Mbo cluster (A.15)

- (a) Bafɔ [LEF]
- (b) aKɔɔsə [AKO] (Mwamenam) [MWM]
- (c) nSwasə [NSW]
- (d) eLɔŋ [ELU]
- (e) nNenŋ [NNE]
- (f) Kaa [MKA] (Mwahet [MHE], Baboŋ [BBO])
- (g) Mbo (Baneka [MWK], Bareko [MBA], Balondo [BLN])

In 1953, Guthrie published his Bantu languages of Western Equatorial Africa. He presents the following seven "dialects" subsumed under the label "Mbo Cluster" [19] (Guthrie 1953:15): Bafɔ, Akɔɔsɛ (Nkosi), Nswasɛ (Basosi), Elɔŋ (Elong), Nnenŋ, Kaa (Bakaka) and Mbo. Balɔŋ and Bɔŋkɛŋ are coordinate with the Mbo Cluster together with Barusɛ and the Lundu cluster, and form together his Lundu-Mbo Group as presented in chart 6.5.

In 1956, Jacquot and Richardson published their part of the Linguistic Survey of the Northern Bantu Borderland (Jacquot and Richardson 1956:9-62). This was the first attempt at making a complete inventory of the linguistic units of the geographical area under consideration here. They split off the "Mbo-cluster" from Guthrie's "Lundu Mbo Group" (1956:22) and placed Balɔŋ and Bɔŋkɛŋ in their "North Mbɛnɛ Group" (1956:26). Fifteen "languages and dialects of disputed inter-intelligibility" (1956:22) are listed as forming the "Mbo Cluster" (cf. chart 6.6).

Of the first three languages, it is said that they "show characteristics which tend to situate them on the fringe of the MBO area. This is generally true as well as linguistically ..." (1956:23). Apparently, in order to show this less close relationship, Bafɔ, Balondo and Babɔŋ are given the figures 1.17, 1.18 and 1.19 respectively, whereas the rest of the languages are subsumed under the figure 1.20.

Chart 6.6: The Manenguba languages as classified by Jacquot  
and Richardson (1956) and Richardson (1957)

Mbo cluster

- 1.17 Bafɔ (Bafaw) [LEF]
- 1.18 Balɔndɔ [BLN]
- 1.19 Babɔng [BB0]
- 1.20 (a) Mbo (British Cameroons, Ngɛn) [MYE]
- (b) Mbo (of Mbouroukou) [MBE]
- (c) Mbo (of Dschang) [MBN?]
- (d) Mbo (Bareko) [MBA]
- (e) Baneka [MWK]
- (f) Kaa (Bakaka) [MKA]
- (g) Mwahɛt (Manehas) [MHE]
- (h) aKɔɔsɛ (Muamenam) [MWM]
- (i) aKɔɔsɛ (Bakosi, Nkosi) [AKO]
- (j) nSwasɛ (Basosi) [NSW]
- (k) ɛLɔŋ (Elong) [ELU]
- (l) nNɛnŋ (Ninong) [NNE]

North Mbɛnɛ group (Basa) [21]

- 1.21 (a) Baluŋ (S. Balong) [BL0]
- (b) Bɔŋkɛŋ [BNK]
- (c) Bakoko
- (d) Banƙon (Abo)
- etc.

Richardson (1957) "contains the linguistic evidence for the classification of the languages" (1957:3) dealt with in the first volume of the Northern Bantu Borderland Survey. The classification of the Manenguba languages is unchanged, only a few changes in the "spelling" of the languages were

made. Baluŋ and Bɔŋkɛŋ do not appear in (1957), apparently because the related and geographically adjacent groups like the Lundu Group and the Mbɛnɛ Group are not dealt with.

Richardson (1957) includes, in brackets, the reference numbers from Guthrie (1953) (e.g. A.15, etc.) and extends that classification to the languages not listed by Guthrie, or only listed as ethnic names. Richardson (1957) thus in effect contains two classifications: the one presented in chart 6.6 above and another based on Guthrie (1953) and expanded as in chart 6.7 (cf. chart 6.5 above).

Chart 6.7: The Manenguba languages as classified

by Richardson (1957) based on Guthrie (1953)

- Mbo Cluster A.15 (a) Bafɔ (Bafaw) [LEF]  
 (b) aKɔɔsɛ (Muamenam) [MWM]  
     aKɔɔsɛ (Bakosi, Nkosi) [AKO]  
 (c) nSwasɛ (Basosi) [NSW]  
 (d) eLɔŋ (Elong) [ELU]  
 (e) nNenɔ (Ninong) [NNE]  
 (f) Kaa (Bakaka) [MKA]  
     Mwahɛt (Manehas) [MHE]  
     Babɔŋɔ [BBO]  
 (g) Mbo (British Cameroons, Ngɛn) [MYE]  
     Mbo (of Mbouroukou) [MBE]  
     Mbo (of Dschang) [MBN?]  
     Mbo (Bareko) [MBA]  
     Baneka [MWK]  
     Balɔndɔ [BLN]



Whereas in the classification in chart 6.6, Bafaw, Balondo and Babong stand apart, in the classification in chart 6.7 Bafaw is coordinate with Basosi, Elung, etc., Babong is associated closely with Bakaka and Manehas, and Balondo with the various Mbo varieties and Baneka. This is contradictory, but can probably be explained if one assumes that in the Guthrie based classification Babong and Balondo were labelled as A.15f and A.15g respectively on geographical grounds.

Bryan (1959) revised the classification of Guthrie (1953) by splitting his Lundu-Mbo Group into two groups: the Lundu Group and the Mbo Group. Balong and Bonken are found in the Mbo Group but it should be noted that these two languages also appear in her Duala and Basa groups (1959:6,10). The languages which were not listed in Guthrie (1953) are subsumed under Bafɔ, Mbo, Kaa and aKɔɔsɛ as presented in chart 6.8.

Comparing the classifications of Richardson (1957) (chart 6.7) and Bryan (chart 6.8), the following may be noted. Bryan includes Balong and Bongkeng in the Mbo Group, though with some reservation, whereas they are excluded altogether from the Mbo Cluster by Richardson. He places Babong with Bakaka (A.15f) and Balondo with Mbo (A.15g), whereas Bryan puts both Babong and Balondo with Bafɔ (A.15a) similar to Jacquot and Richardson (1956) (cf. chart 6.6). Richardson puts Mwamenam with aKɔɔsɛ (A.15b), Bryan puts it with Bakaka (A.15f).

Chart 6.8: The Manenguba languages as classified by  
Bryan (1959)

Mbo Group

A.13	Balong (also in Duala and Basa groups)[BLO]
A.14	Bonken (also in Duala and Basa groups)[BNK]
A.15 Mbo	(a) Bafɔ
	Bafɔ [LEF]
	Babɔŋ [BBO]
	Balɔndɔ [BLN]
	(b) aKɔɔsɛ̃
	Bakosi [AKO]
	(c) nSwasɛ̃
	Basosi [NSW]
	(d) eLɔŋ
	Elong [ELU]
	(e) nNenɔ̃
	Ninong [NNE]
	(f) Kaa
	Bakaka [MKA]
	Manehas (Mwahet) [MHE]
	Mwamenam [MWM]
	(g) Mbo
	British Cameroons [MYE]
	Mbouroukou [MBE]
	Dschang [MBN?]
	Bareko [MBA]
	Baneka [MWK]

Jacquot (1960), in general outline, appears to follow Jacquot and Richardson (1956) and Richardson (1957) with the following exceptions: He includes, though with some reservations, Balong and Bongkeng in his "groupe mbo". The number of languages is reduced by subsuming more than one language/dialect under Mbo, Bakaka and Bakossi respectively. He also abandoned the use of phonetic symbols and diacritic marks which were used in previous publications in the transcription of the different names.

In 1971, Guthrie said (1967-71.I:30) that Balog (A.13) and Bɔŋkeŋ (A.14) are "similar to A.11" (Londo/Lundu) and placed them beside the Mbo cluster in the Lundu-Balong Group (A.10), formerly the Lundu-Mbo group.

Chart 6.9: Guthrie's (1971) Lundu-Balong Group (A.10)

Lundu-Balong Group A.10

- A.11 Londo (Lundu)
- A.12 Barue
- A.13 Balog [BLO]
- A.14 Bɔŋkeŋ [BNK]
- A.15 Mbo cluster

This is essentially a repetition of his (1953) classification (cf. chart 6.5) but it should be noted that by considering Balog and Bɔŋkeŋ as coordinate with Londo and the Mbo cluster, his classification of these two languages conflicts with the classifications of Jacquot, Richardson and Bryan, who place them either within the Mbo cluster or into the Duala or Basa Groups.

In the mid 1970's, Voeltz made a study of the languages of the South-West Province. He produced a map and made a classification of these languages (Voeltz n.d.) the relevant part of which is reproduced in chart 6.10.

Chart 6.10: Voeltz's classification of languages in the  
SW Province

	Ekoid	Obang (Ejagham) etc.
	Manyu	Anyang Kenyang [KNY] Kitwii (KIT) etc.
(A.10)	Oroko	Bakundu Balue Balundu Mbonge etc.
		Bafaw [LEF] Balong [BLO] Bai
	Ngoe	Mbo Basosi [NSW] Bakosi [AKO] Mbo 2
(A.20)	Duala	Bakweri etc.

It appears that Voeltz marked the absence of a suitable term by a horizontal line. Voeltz's classification departs from previous ones in that the languages of group A.10 are divided into three groups rather than two. He has an Oroko group [22] (corresponding to the Lundu group), an Ngoe group [23] (corresponding to the Mbo group or our

Manenguba group) and an unnamed group which includes Bafaw, Balong and Bai.

Köhler (1975), who proposed "a revised referential classification" (Heine 1980a:299), did not add anything to the classification but merely repeats, though not in every detail, Guthrie's classification of 1953 with the sole exception of adding Abo in brackets after Mbo (Köhler 1975:220). Abo (A.42) is usually classified as belonging to the Basa Group (Guthrie 1953:28, Jacquot and Richardson 1956:27, Bryan 1959:11).

Fivaz and Scott (1977) combine Guthrie's (1971) overall classification with that of Richardson (1957) but make no hierarchical distinction within the Mbo cluster.

Bastin (1978:136) repeats Bryan's grouping but omits Babong, Balondo, Mwamenam and Mbo of Mbouroukou and of Dschang. Instead of using the term "Mbo Cluster", she heads this group of languages by the label "15 bafu".

Nkong, or Kinkwa (LEK), is not mentioned in most treatments of the languages of this area. When it is mentioned, it is either grouped with the Manenguba languages (Tessmann 1932a:185, Breton n.d., Etame 1981, Ngoula n.d.) or grouped with Kenyang (KNY) (Williamson 1971:278, Dalby 1977:34). Williamson calls Kinkwa and Kenyang "Mamfe Bantu" but adds that this "is a cover term for a number of unclassified languages spoken in the area around Mamfe ..." (1971:266).

#### 6.2.2 Summary

The above survey of classifications, both external and internal, of the Manenguba languages left the impression

that there are several areas where there is no general agreement. No doubt the differences can be attributed to differences in approach, to different assumptions and aims as well as to the nature of the data used. As it appears that both typological and geographical criteria have been used, it is clear that conflicting classifications do result. Perhaps we should also ask whether we read into the presentation of languages accompanied by numerical labels more than the authors intended to express.

Our general conclusions from the above survey of classifications of the Manenguba languages may be grouped into three categories: external classification, internal classification and inclusion in versus exclusion from the Manenguba languages of individual languages.

In the efforts of the people connected with the IAI, the Manenguba languages were either left to stand as a separate group within the geographical grouping of zone A languages (Bryan 1959), or placed within the Lundu-Mbo/Lundu-Balong group. No obvious attempt was made to relate the groups at a higher level. Before that, Johnston (1919 and 1922) gave the Manenguba languages independent status beside the Fang languages (A.70) and a group comprising the Basaa (A.40), Duala (A.20) and Lundu (A.10) languages. Tessmann (1932a) grouped the Manenguba languages with Fang languages (A.70) and Basaa languages (A.40) as "Neubantu" and Bakundu languages (A.10) with Duala languages (A.20). In Meyer (1942), the Manenguba languages are found in the Yaunde group (A.70) with Duala (A.20) (including Lundu (A.10)) and Basaa (A.40) forming separate groups.

Balong and Bongkeng are languages which are sometimes included and sometimes excluded from the Manenguba languages by the IAI team. In Bryan (1959), they appear simultaneously in three different groups. Johnston (1922) included Balong but excluded Bongkeng. Similarly, Tessmann (1932a). Meyer (1942) excluded Balong and Bafaw and did not make a definitive statement on Bongkeng.

As to internal classifications, Balong and Bongkeng, when included, are placed at the periphery. Bafaw, Balondo and Babong appear as the most peripheral languages in Jacquot and Richardson (1956) but not in Richardson (1957) within Guthrie's scheme, nor in Bryan (1959). Charts 6.7 and 6.8 suggest that the different Mbo languages are more closely related to each other than, for example, Akoose and Nnenū are, which is, as will be seen later, not the case.

### 6.3 Lexicostatistical classification

#### 6.3.1 Introduction

In the previously presented classifications, a variety of criteria were used to arrive at the different groupings and sub-groupings: lexical, grammatical, phonetic, geographical, etc., with varying results. The aim was often to present the mass of languages in an orderly fashion rather than to arrive at an hypothesis as to the historical relationship between the languages classified. Typological, geographical and referential classifications have certain merits but do not necessarily express genetic relationships. Feeling that no significant progress had been made towards a genetic classification of the Bantu languages, people like

Heine turned to the lexicostatistical method to achieve an explicitly genetic classification. Coupez (1956) and Meeussen (1956) were early studies on Bantu languages using lexicostatistics but it was Heine (1973) and Henrici (1973) who covered the whole Bantu area, presenting a completely new classification of the Bantu languages.

Their results were significant for several reasons. Firstly, the two studies carried out independently came to essentially the same conclusions. Secondly, their results contradicted Guthrie (1962b and 1967-71) who had proposed that Proto-Bantu was spoken at the geographical centre of the present Bantu area and that the migrations of the Bantu speaking people started from there. The lexicostatistical classifications, however, imply that the Bantu expansion must have started in the north-west of the Bantu area, i.e. somewhere around the present day Nigeria-Cameroon border (Heine 1973:182-3, Heine et al. 1977). This latter hypothesis also appears to be confirmed by the evidence of archaeology (Oliver 1979). Thirdly, the results of the lexicostatistical approach fit in with Greenberg's (1963) Niger-Congo hypothesis whereas Guthrie's does not.

Three lexicostatistical studies relevant to the classification of the Manenguba languages have been found and will be presented below. Since Henrici (1973) only includes the two Cameroon languages Duala (A.24) and Bulu (A.74) and therefore sheds no light on the internal or external classification of the Manenguba languages, his study will not be included in the discussion below.

Heine (1973) proposed a genetic classification of the Bantu languages including Tiv (Non-Bantu Bantoid) and



the Ekoi branch. He has eleven branches (later reduced to eight (Heine et al. 1977:60) and it is the fourth branch, the Duala-Ewondo branch, later renamed as the Sanaga branch (1977:60-61) which includes the Manenguba languages (cf. chart 6.11).

Chart 6.11: Lexicostatistical classification  
of the Sanaga branch (Heine 1973 and 1977)

Sanaga branch (1977)/Duala-Ewondo branch (1973) 30-53%

1 Balong-Koose (1973)/Balong group (1977) 75%

Balong (A.13) [BL0]

Koose (A.15b) [AK0]

2 Ewondo group 82-84%

Ewondo (A.72)

Bulu (A.74)

Fang (A.75)

3 Duala group 60-76%

Duala (A.24)

Su (A.23)

Bomboko (A.21)

Bakundu (A.11c)

Batanga (A.11d)

4 Benga group 70%

Benga (A.34)

Banoo (A.32a)

Bapuku (A.32b)

5 Kele (B.22)

6 Ngoro (A.61)

7 Mvumbu (A.81)

8 Mbene (A.43a)

9 Sekiyani (B.21)

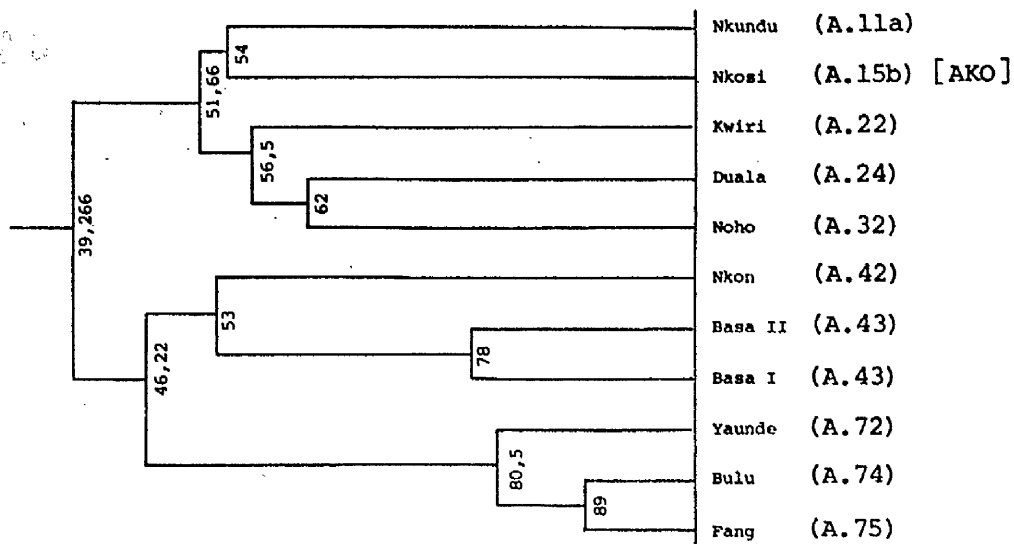
10 Lundu (A.11)

11 Njem (A.84) (1977)

Percentages of cognates shared between the groups of the Sanaga branch vary from 30% to 53%. Cognate figures between languages within the groups vary from 60% in the Duala group to 84% in the Ewondo group. Unfortunately, no more details are given and so it is not possible to know which groups are more closely related to each other within the Sanaga branch. However, two points can be made. One, Balong appears as the language most closely related to Akoose which may be said to represent the Manenguba languages. Two, Lundu (A.11) forms a separate group, whereas Bakundu (A.11c) and Batanga (A.11b), which in the earlier classifications are in the Lundu group, are here found in the Duala group.

Gerhardt (1980a) made a lexicostatistical classification of languages from Guthrie's zone A plus selected languages from the rest of the Bantu area. He also included languages from the following groups: non-Bantu-Bantoid, Nigerian Bantu, Mamfe Bantu and Grassfields Bantu. He used Swadesh's 100 word list. The group average calculation yielded the classification in chart 6.12 for the zone A languages.

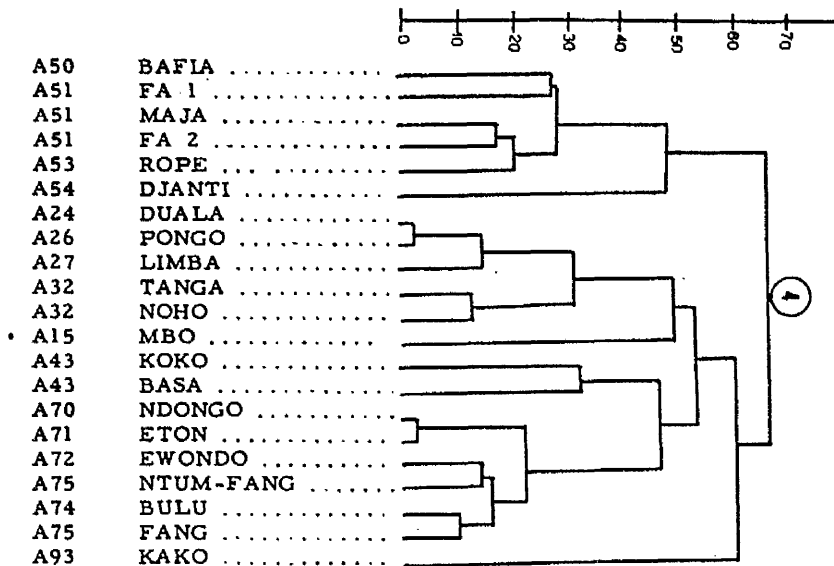
Chart 6.12: Lexicostatistical classification of zone A languages (Gerhardt, 1980a:344)



In this classification, the Basa (A.40) and the Ewondo (A.70) groups appear clearly separate from each other and from the rest. Nkundu appears as the closest relative of Nkosi with 54% shared basic vocabulary. Nkosi and Nkundu are in-turn closely related to the Duala group.

The most recent lexicostatistical classification of the Bantu languages is Bastin et al. (1983). The section of the classificatory tree most relevant to our discussion is reproduced in chart 6.13.

Chart 6.13: Lexicostatistical classification of zone A languages (Bastin et al. 1983:186)



In this classification, the languages of groups A.40 and A.70 appear as close relatives as in Gerhardt (1980). A.15 Mbo, which is the only representative from the Manenguba group, appears as a relative of the A.20 and A.30 languages. This is superficially what we find in Gerhardt's classification. However, there are two points which need to be raised. One, having been curious to know the precise identity of this A.15 Mbo language, i.e. which village or geographical area the speaker represented, we found that the list in fact represents Abo/Bankon A.42 [23]. This is the same language as Nkon (A.42) in chart 6.12 where it is found to be related to Basaa (A.43). This leads to our second point that in the matrix of cognate percentages (Bastin et al. 1983:192), the highest figure for A.15 Mbo (= A.42 Abo/Bankon) is shared with A.43 Basa (55%). This appears to confirm Gerhardt's grouping of this language with Basa.

Having looked at three existing lexicostatistical

classifications with a view to gaining an insight into how the Manenguba languages are (genetically) related to the surrounding languages, we have found there are still many open questions. Heine's publications do not contain enough explicit information to allow detailed interpretation of the relationships. Bastin et al. (1983) we found, after all, not to contain any Manenguba languages, nor any other group A.10 language. This leaves us with Gerhardt's classification in which the only representative of the Manenguba languages is first related to another language of group A.10 and next to the Duala group.

Clearly, a detailed lexicostatistical classification of all the zone A languages which would position more precisely the Manenguba languages has not yet been achieved but will hopefully one day become available.

### 6.3.2 Lexicostatistical classification of the Manenguba languages

#### 6.3.2.1 General comments

In this section, our results of a sub-classification of the Manenguba languages using the lexicostatistical method will be presented. To begin with, some general comments about the method will be made.

The lexicostatistical method, also sometimes known as "glottochronology", may be described as follows. Lists of 100 or 200 words are collected from the languages which are to be classified. For any two languages, the number of putative cognates shared between them is determined and converted into a percentage figure. The matrix of

percentages of shared cognates resulting from a comparison of each list with every other list provides the basis for working out tree diagrams. Such tree diagrams express the degree of lexical relatedness of the languages concerned and are also taken to express the genetic relationships holding between the different languages.

Underlying this method are a number of assumptions:

1. Languages change over time lexically, phonologically, semantically, etc.
2. Vocabulary items are gradually replaced by new ones.
3. The replacement of basic vocabulary (words for body parts, pronouns, universal activities like eating, etc.) takes place at a regular rate.
4. The replacement rate is the same in all languages.

On the basis of these assumptions, therefore, by calculating the shared vocabulary, it is said to be possible to determine the genetic relationship of different languages, the relative time depth at which languages split off from other languages, and, taking the assumptions to their logical conclusion, the absolute time depth as well.

Many have been the objections to this tool which, at first sight, promised to bring certainty into this area of language history. For example, what is a basic vocabulary item? The original word list was gradually reduced because certain items were not found to be "basic" in some parts of the world. The claims that the rate of replacement is constant and the same in all languages have also come under attack and it has never been possible to prove them. Consequently, linguists have become more cautious in their claims for the method. To use it as a tool to determine

absolute time depth (glottochronology) has practically been abandoned, whereas, as a tool to establish relative time depth, i.e. the putative genetic relationships, it is still being used extensively.

Another problem facing anyone using the method is how to recognize loanwords which must be excluded to achieve consistent results. Recent loans, or loans from more distantly related languages, may be relatively easy to detect, but the further in the past the borrowing took place, or if the borrowing was from a closely related language, the more difficult it is to detect.

There are other difficulties. When comparing the classifications made by different researchers, there are sometimes differences which cannot be reconciled. These may be due to the fact that a subjective element inevitably enters into the evaluation of any two items as cognate or not cognate, especially when sound correspondences and sound changes have not been worked out. The use of the 100 versus 200 word list, which is not always made explicit, may make a considerable difference.

The reliability of the source used (the informant or published material) or difficulties involved in the elicitation process may also negatively affect the results.

Differences in classifications may also be due to the different methods of drawing up the tree diagrams. The nearest neighbour versus furthest neighbour classifications as described by Henrici (1973), although they are based on the same matrix of percentages, may display considerable differences. The group average classification is a kind of compromise between the two extremes.

Occasionally, the language identification is not sufficiently specific as to which dialect/village represents the language as a whole. Where considerable differences exist within a language, it would seem important to identify the source precisely so as to allow a proper interpretation of apparent discrepancies.

With a host of such problems facing this method, one may ask if it is possible to achieve any satisfactory results. Being aware of the problems is surely the first step towards avoiding some of the pitfalls. It also helps us to realize that results are not final but have to be revised as new facts emerge and earlier decisions prove to have been erroneous.

#### 6.3.2.2 Description of our lexicostatistical study

For our study, a Swadesh first and second 100 word list was used. The following items were not elicited: 'yellow' and 'green', because colour term systems in this area consist of the three terms 'white', 'black' and 'red'. 'Freeze', 'ice' and 'snow' do not exist in the lexicon of the languages, reflecting the natural environment. 'Not' is mostly a bound morpheme, the form of which is difficult to establish because of fusion with its verbal environment. 'Leg/foot' and 'arm/hand' are one concept each, covered by one word only and so two, rather than four, items were used. With such adjustments made, the first 100 word list was reduced to 97 items and the second 100 word list to 92.

Twenty-six languages (cf. map 7) were included with two purposes in mind. The first aim was to sub-classify the Manenguba languages which for some time have been considered



closely related. The second aim was to find the relationship of the languages whose relationships to the Manenguba languages were not clear from earlier work (e.g. Balong (BLO) and Bongkeng (BNK)). Bakem (BKM) and Kitchui (KIT) [25] with Kenyang (KNY) were included to show that they are not Manenguba languages. Ngwe (NGW) was included in order to see what relationship exists between it and L&long/Kinkwa (LEK), which is also called "Upper Mbo", but whose linguistic affiliation has been unclear.

All lists were collected by me except the one for Kenyang (KNY), which was provided by J. Tyhurst, and the ones for Kitchui (KIT) and Ngwe (NGW) by R. Thwing and P. Dancy respectively. These last two lists consisted of 100 words only.

On the basis of the word lists, a table was made indicating for each gloss which putative cognate type was present in the various languages. This was fed into a computer for the purpose of counting the cognates shared between pairs of languages and calculating the percentage figures. The results are presented in two matrices. The first (chart 6.14) contains the percentage figures based on the first 100 word list, the second (chart 6.15) is based on both the first and second 100 word lists.

The figures in charts 6.14 and 6.15 are the percentages of cognates shared by the languages whose abbreviations appear at the top and to the right of any particular figure.

The figures for NGW and KIT are identical in both charts because the second 100 words were not available. The figures for the other languages are generally lower in chart

Chart 6.14: Percentages of shared cognates (100 word list)

NGW (Ngwe)	11	KNY (Kenyang)	74	73	MYE (Myenge)	74	73	NSW (Nswase)	74	73	93	NSW (Nswase)	74	73	93	MKA (Mkaa?)	66	67	69	69	73	72	75	76	89	BLN (Belon)	84	92	BBO (Babong)	83	90	85	MWK (Mwaneka)	84	89	81	85	MNG (Manenguba)	80	88	82	80	86	MHE (Mwahed)	78	86	87	78	80	88	BFU (Bafun)	76	87	85	88	84	79	78	MBA (Mba?)	75	80	78	75	84	82	80	77	AKO (Akosse)	95	NINE (Nnenon)	94	93	MJM (Mwamenam)	85	90	85	ELU (Elug)	84	86	83	90	NGE (Ngemenga)	86	86	84	87	81	MBE (Mbo, Ekanang)																																																																																																																																																																																																																																																												
	7	14	12	34	BNK (Bongkeng)	16	15	14	30	31	LEK (LeLONG)	11	18	19	30	42	48	LEF (Lefo?)	11	19	19	34	48	47	69	BLO (Balong)	15	17	16	32	44	54	64	54	MBM (Mbo, Mboebo)	15	17	14	36	44	52	59	52	75	MBN (Mbo, Ngwatta)	13	19	17	32	41	54	61	57	74	73	MYE (Myenge)	12	21	18	32	42	54	60	56	74	73	93	NSW (Nswase)	10	19	17	35	46	49	57	54	66	67	69	69	MKA (Mkaa?)	11	20	18	36	50	50	59	56	73	72	75	76	89	BLN (Belon)	11	20	16	36	50	49	56	53	70	68	70	71	84	92	BBO (Babong)	12	20	17	33	45	49	56	53	70	71	74	76	83	90	85	MWK (Mwaneka)	12	22	19	33	42	49	58	54	71	74	74	73	84	89	81	85	MNG (Manenguba)	11	23	20	34	48	49	58	57	68	68	72	73	80	88	82	80	86	MHE (Mwahed)	11	20	17	35	47	49	57	55	67	66	68	69	78	86	87	78	80	88	BFU (Bafun)	11	20	17	37	45	50	57	53	71	73	75	75	76	87	85	88	84	79	78	MBA (Mba?)	12	24	19	37	47	52	64	60	68	69	73	73	75	80	78	75	84	82	80	77	AKO (Akosse)	13	24	19	35	48	52	63	60	70	71	73	74	72	82	79	79	80	82	77	79	NINE (Nnenon)	12	23	18	36	45	51	61	58	67	70	71	72	73	78	76	75	81	79	77	77	94	93	MJM (Mwamenam)	14	20	16	35	46	53	60	59	72	72	80	81	72	80	78	83	78	75	75	81	85	90	85	ELU (Elug)	13	20	16	31	45	51	58	58	67	68	72	74	70	77	75	76	75	74	75	75	84	86	83	90	NGE (Ngemenga)	13	22	19	36	46	53	62	59	76	78	79	82	74	84	78	84	81	79	76	86	86	86	84	87	81	MBE (Mbo, Ekanang)



6.15. This is clearly due to the larger sample used. In fact, the corresponding figures differ in many cases by up to 13 percentage points. This came as a complete surprise. Some discrepancy was expected, but not such a large one. The explanation seems to be that the items contained in the first 100 word list are more basic than the ones in the second list, or that the second 100 word list contains some non-basic or less basic items. It certainly brings home the fact that studies based on different size samples may vary considerably in their cognate rates.

What is perhaps more significant is the fact that the classifications based on the two charts are broadly the same, as will be seen from the tree diagrams presented in charts 6.16 and 6.17.

The figures in charts 6.14 and 6.15 are generally arranged in such a way that the more distantly related languages are placed towards the left-hand side.

Lines have been drawn in charts 6.14 and 6.15 to separate off the languages/dialects which are closely associated with each other.

#### 6.3.2.3 Our lexicostatistical classification

In charts 6.16 and 6.17, our lexicostatistical classifications are presented. The trees were drawn by using the group average classification as described by Henrici (1973).

From these classifications, it is clear that NGW and KNY-KIT are the most distantly related languages, the last two being dialects of one language. BKM, which belongs to the Basaa group, is also shown to be only marginally related.

Chart 6.16: Lexicostatistical classification (100 word list)

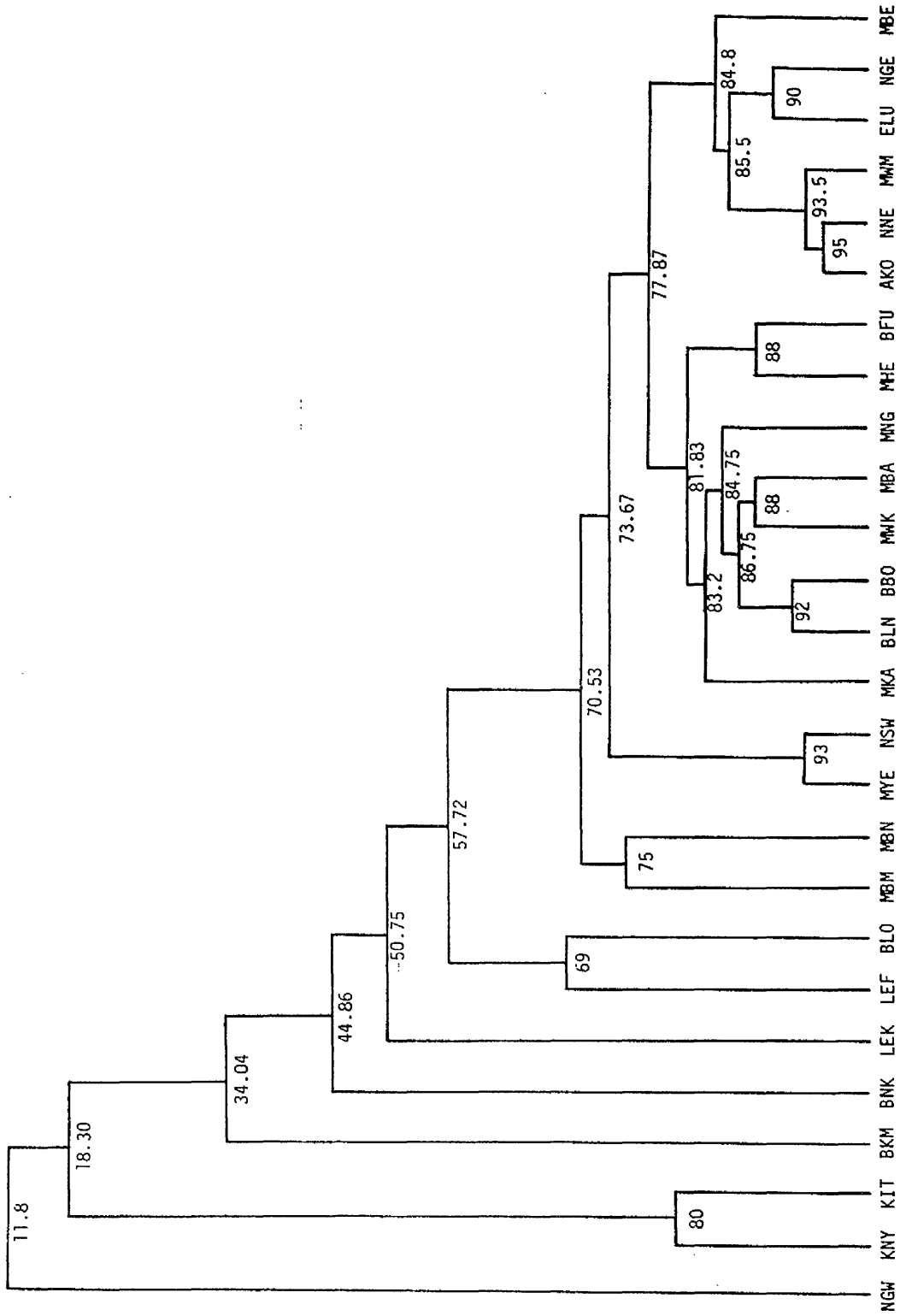
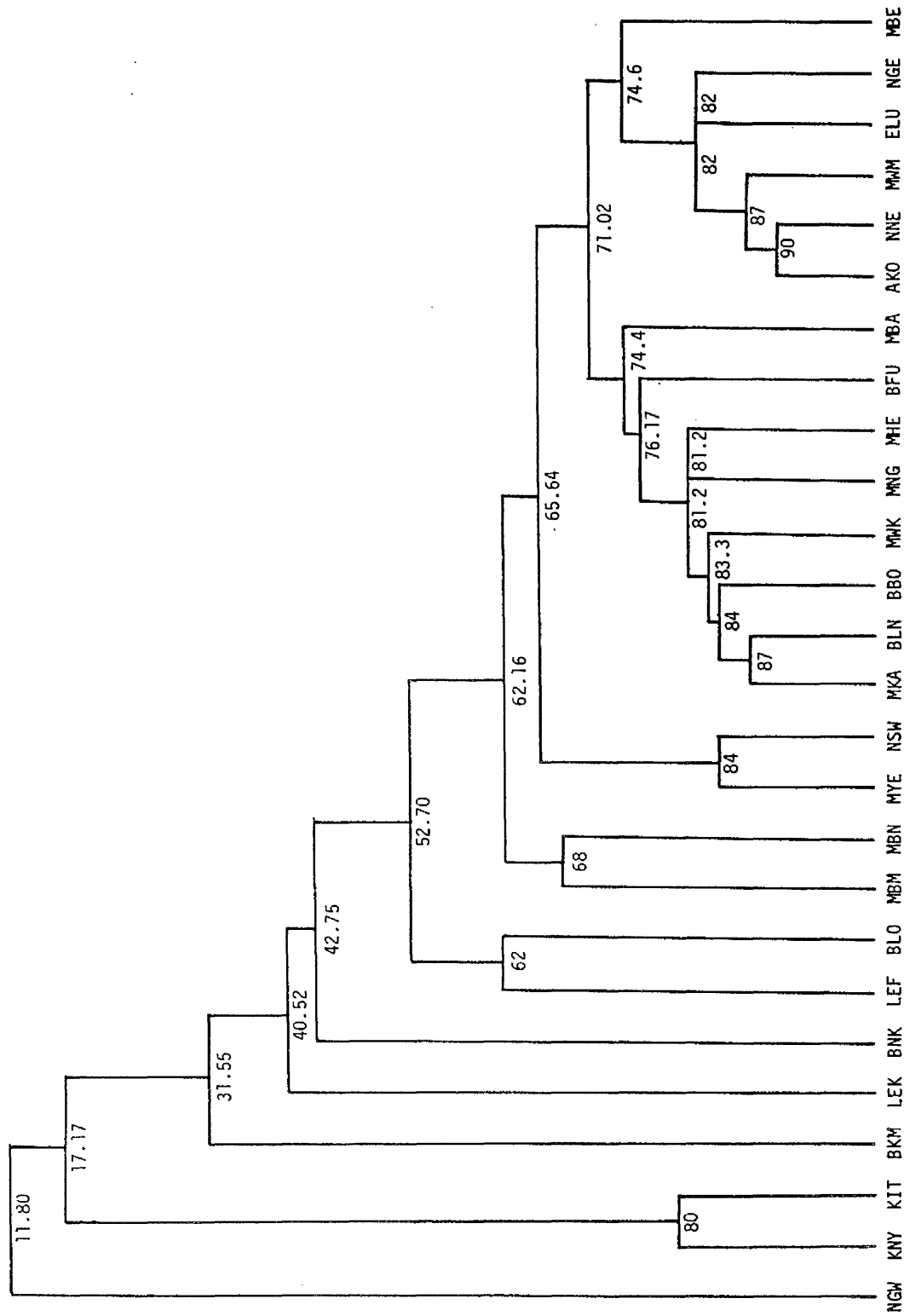


Chart 6.17: Lexicostatistical classification (200 word list)



Both classifications agree in that there are two closely related clusters, MKA-BFU (MKA-MBA in chart 6.17) and AKO-MBE. The first will be called the "Eastern cluster" and the second the "Western cluster". They are linked by 77.87% in chart 6.16 and 71.02% in chart 6.17 and together will be called the "Central group".

MYE and NSW are closely related to each other (93%/84%) and will be called the "North Western group". Together they form a branch coordinate with the Central group linked by 73.67%/65.64%. MBM and MBN share 75%/68% and will be called the "North Eastern group". They are the next branch linked to the previous groupings by 70.53%/62.16%. LEF and BLO share 69%/62% and are linked by 57.72%/52.70%. LEK and BKM are branches linked by 50.75%/40.52% and 34.04%/31.55% respectively.

The two classifications conflict in that BNK branches off above LEK with 44.86% in chart 6.16 and below LEK with 42.75% in chart 6.17. There are also discrepancies in the Eastern cluster. Whereas in chart 6.16 MBA appears more in the centre of the cluster because of high scores with MWK and BLN-BBO, in chart 6.17 it appears on the edge of it, i.e. it is most distantly related. MKA, on the other hand, appears in a peripheral position in chart 6.16 but more central in chart 6.17.

These discrepancies in the Eastern cluster are not totally surprising since, as the percentage figures indicate, we are dealing with a dialect continuum. Perhaps the most obvious cases are MBA and BFU which are geographically at the extreme ends of the Eastern cluster. MBA and BFU have the lowest figure of shared cognates within

the Eastern cluster being also geographically the furthest apart. This appears clearest in chart 6.15 where the two members on the geographical extremities share 68% only but where there is a chain of figures above 80% between immediate neighbours (cf. map 7).

The Eastern and Western clusters are geographically separated by the Kupe-Manenguba mountain ridge (cf. map 2), which formed the basis for the political division into French and British Cameroons after World War One, now reflected in the francophone/anglophone areas (cf. map 6). The case of MWM is significant in this connection showing two things. One, that the mountain range is not an absolute boundary, MWM being situated on the ridge. Two, linguistically MWM clearly belongs to the Western cluster although politically it is included in the francophone Littoral Province to the east. It demonstrates that it is the geographical distribution of these speech communities rather than the recent political division which is responsible for the linguistic differences between the Eastern and Western clusters.

MBE, also on the francophone side, is included in the Western cluster because of some high scores with languages from that cluster, although it also shares some high figures with languages from the Eastern cluster. Chart 6.17 in particular shows that it is the most distant member of the Western cluster (cf. also 6.4.4).

The languages popularly referred to as "Mbo" are the following: LEK, MYE, MBN, MBM and MBE, and occasionally the languages of the Eastern cluster. The most surprising fact brought to light by this study is that there are very large



differences, i.e. low rates of shared cognates, between these languages. If 80% is taken as the cut-off point between language and dialect on the results of the 100 word list and 70% for the 200 word list, then LEK, MBM, MBN and MYE-NSW are each separate languages. This also illustrates well the fact that the use of names can be confusing and can create a false impression. In this case, the term "Mbo" hides the fact that the different groups referred to display great linguistic variety. On the other hand, when considering the Eastern cluster, each cultural unit has its own name and in the majority of cases, its own "chef supérieur" (paramount chief), whereas linguistically they are so closely related that they have to be considered dialects of one language, even though there is no common name. This close relationship has led to attempts by speakers of the Eastern cluster to create a name for their common language. One such proposed name was "Mine'e" (from 'I say'), which has, however, not found popular acceptance.

Two more points need to be dealt with: the affiliation of BNK and the question of which languages to include or exclude from the Manenguba languages. In other words, can a unit called "Manenguba group" be identified? In fact, neither question, it seems, can be answered completely satisfactorily at this point. Only if the Duala, Basaa and Oroko groups were included in the overall classification would it be possible to make a definitive statement.

It may be recalled that Bryan (1959) expressed that BNK may belong to her Basa, Duala or Mbo group (cf. chart 6.8). Judging from charts 6.16 and 6.17, it appears that BNK is closer to the Manenguba group than to the Basa group of

which BKM (A.43a) is a representative. The choice appears therefore to be between the Duala or Manenguba group, or as an entity being coordinate with both. This is as far as the question can be resolved.

The question of what constitutes the Manenguba group may be answered in the following way. Perhaps the best way of viewing the situation is in terms of onion-like layers [26]. The core of the Manenguba cluster is constituted by the Eastern and Western clusters. The next layer is MYE-NSW followed by MBM-MBN. Then there is a large gap of 12.81% points in chart 6.16 and 9.46% points in chart 6.17 to the next layer of LEF-BLO. After another gap comes LEK in chart 6.16 and BNK in chart 6.17. Because the order of these two is reversed in the two classifications, neither should be given precedence. Either both are included or excluded together. Since it is expected (taking Gerhardt 1980:344 into account) that the Duala group would fit in the tree somewhere around 45% in chart 6.16 and 40% in chart 6.17, it is best to leave judgement until a study which includes that language group is available. In order to determine the case of the LEF-BLO layer, it would be necessary to consider languages like Mbonge and Bakundu of the Oroko group. The classification of Voeltz (n.d.) places LEF and BLO as a separate group on a par with Oroko (which includes Bakundu and Mbonge) and Ngoe (his name for the Manenguba group, cf. chart 6.10). It is not known what the basis of his classification is. Expecting Voeltz's work to be reliable, this excludes LEF-BLO from the Manenguba group, leaving the languages from MBM to MBE. Interestingly, it is between this group and LEF-BLO that there is the largest gap

as indicated above. For the purposes of the rest of this study, therefore, the languages comprising MBM to MBE are considered as the Manenguba group.

Chart 6.18: The Manenguba group according to our  
lexicostatistical classification

North Eastern group

MBM (Mbo of Mboébo)

MBN (Mbo of Ngwatta)

North Western group

MYE (Myəngə)

NSW (Nswasə)

Central group

Eastern cluster

MKA (Mkaa?, Bakaka)

BLN (Belon, Balondo)

RBO (Babong)

MWK (Mwaneka)

MNG (Manenguba)

MHE (Mwahɛd)

BFU (Bafun)

MBA (Mba?, Bareko)

Western cluster

AKO (Akɔɔse)

NNE (Nnɛnoŋ)

MWM (Mwamenam)

ELU (Eluŋ)

NGE (Ngemengə)

MBE (Mbo of Ekanang)

To conclude this section, we may sum up as follows. The lexicostatistical analysis has provided an internal classification of the Manenguba group which may be characterized as consisting of an eastern and western cluster and two less closely related groups, MYE-NSW and MBM-MBN. It has been clearly established that BLN (Balondo) and BBO (Babong) are firmly part of the Eastern cluster (cf. with chart 6.6). BLO (Balong) is certainly not in the Basa (Mbɛnɛ) group (cf. with chart 6.6) and BNK (Bonkeng) probably not either. BLO and LEF (Bafaw) are related to each other (cf. with chart 6.4) and, if Voeltz is correct, form a group parallel to the Manenguba group. LEK is clearly not closely related to NGW (Bangwa) (cf. Eyongetah and Brain 1974:25) [27] nor to Mamfe Bantu (cf. Williamson 1971:278 and Voeltz's Manyu in chart 6.10) but almost certainly part of A.10 or A.20.

#### 6.4 Lexicostatistical classification and shared innovations

In the remaining sections, we will consider the implications of sound changes and of morphological and lexical isoglosses for the internal classification of the Manenguba languages. Instead of taking the larger number of twenty languages used for the lexicostatistical study, the fourteen languages [28] used in chapters two to four and appendix I will form the basis for the following discussion. As a consequence, what follows may or may not be true for the languages represented only in the lexicostatistical study.

#### 6.4.1 Sound changes and classification

One innovation shared by all 14 languages is the neutralization of the voicing distinction in morpheme final C2 position (cf. (1) in chapter 3). However, this innovation is much wider in scope and includes, for example, Basaa (Janssens 1982), Ewondo (Abega n.d.) as well as the Ekoid languages (Crabb 1965, Watters 1978) and Kenyang (Tyhurst 1984).

There is no phonological innovation which confirms Manenguba as defined here (i.e. the 14 languages minus LEF and LEK). There is, however, a very clear phonological innovation which defines Manenguba minus the North Eastern group (MBM-MBN) and which confirms the lexicostatistical results, namely, sound change (27)  $f > h$ . The NE group (MBM-MBN) shares (6)  $j > y$ . The NW group is marked by (4)  $b > b^h$  and (42)  $l > n$ . There appear to be no sound changes shared by the Central group combining the Western and Eastern clusters.

The Eastern cluster is defined by (55)  $ny > \emptyset$ . The Eastern cluster minus MWK is marked by (14)  $j > s$  and (30)  $h > \emptyset / \_y$ . The Eastern cluster is also set off from the other languages by the absence of vowel changes, the exceptions being MHE and to a lesser extent MWK. MHE, MKA and BLN are also the ones which retained  $j / n + \_$  (cf. sound change (5)).

For the Western cluster as defined lexicostatistically, there appears to be no clearcut shared phonological innovation. The vowel change (66)  $e > \epsilon / \_l$  comes closest to such a feature. However, it is not totally true for MBE (where it has not always taken place) and it

also includes MHE which is part of the Eastern cluster.

ELU-NNE-AKO share (69a), (82), (106) and (108) and the retention of h /\_\_y (cf. (30) and (32)), but it should be noted that (82) is also attested in LEF, (106) in MBM and LEK and (108) in MBM.

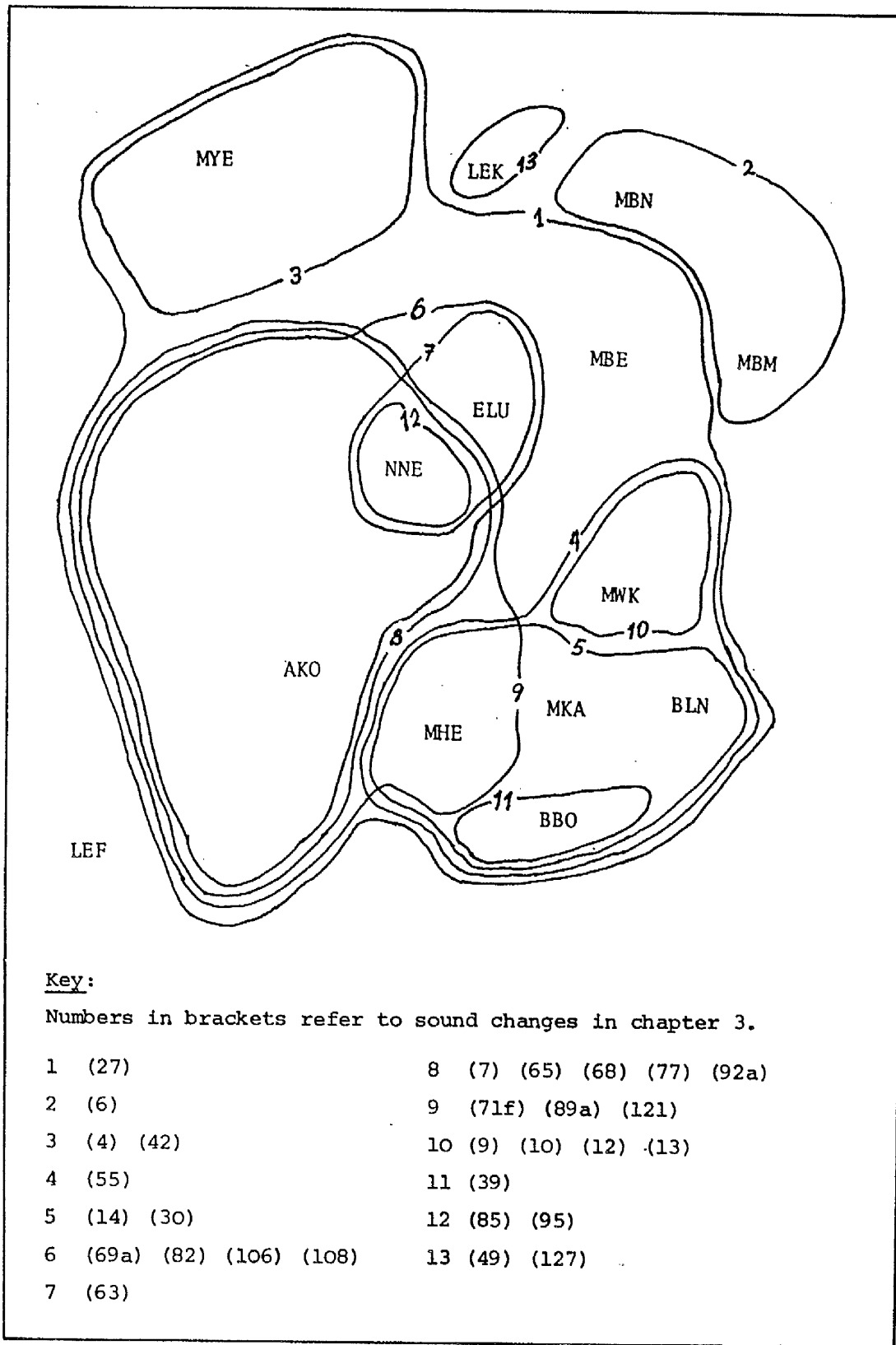
ELU and NNE share (63). NNE and AKO share (7), (65), (68), (77) and (92a). (7) is clearly of recent origin, (65) is also attested in MYE, and (68) in MBM. There are three vowel changes, (71f), (89a) and (121), which include NNE, AKO (in the case of (121) also ELU) from the Western cluster and MHE from the Eastern cluster (cf. also with (66) mentioned above).

Sound changes limited to individual languages which are especially striking are \*C2 > [+son] for MWK (cf. (13) with (9), (10), and (12)); (39) \*l > y for BBO; \*o, u > a /\_\_ŋ for NNE (cf. (85) and (95)). Outside the Manenguba languages, LEK has two interesting changes, (49) \*m > n and Ø > g (cf. (127)).

The sound changes and retentions so far discussed are displayed in map 8 as isoglosses of features shared between the different languages. From an inspection of chapter 3, it is clear that there are other sound changes not dealt with here. They have not been included because they do not display any regular geographical pattern.

With all these sound changes, it is difficult to know which ones were innovations at earlier stages and inherited by the present day languages, and which ones have spread from one language to geographically adjacent ones due to intensive social contact. Still others, especially the very context dependent ones, may have arisen in more than one place independently.

Map 8: Isoglosses of shared sound changes



#### 6.4.2 Morphological changes and classification

In this section, we will focus on certain morphological changes, especially as they affected the noun class concord system.

The reduction of noun prefixes before consonant initial stems in classes 4, 5, 7, 8, and 14 may prove to be a set of related innovations defining PM as a genetic unit (cf. charts 4.8-9, 4.11-12 and 4.15 as well as 5.13). Class 8 (and possibly 14) is especially significant because of what appears to be metathesis of \*bi- > PM \*eb- with the subsequent reduction of b > ? and ? > Ø, as well as lowering of the vowel to [ih] in some languages.

In light of the fact that prefix reduction has taken place in many Bantu languages, especially in the prefixes with a nasal, it is not possible to be absolutely certain that each of these reductions can be used to define the Manenguba group. However, the changes in classes 8 and 14 are the least likely to have spontaneously repeated themselves elsewhere and therefore appear to be an innovation which defines the Manenguba group confirming the lexicostatistical grouping. It should be noted that LEF and LEK have retained full CV-shapes of the noun prefixes, except in classes 1, 3 (and 7?).

Within Manenguba, MBM-MBN share the reduction of the class 6 \*mè- prefix to ñ- which confirms the lexicostatistically established North Eastern group.

There are three innovations which are attested in all the Manenguba languages except in part or the whole of the Eastern cluster. One, the bilabial nasal prefix for classes 1, 3 and 4 has become homorganic with the following



consonant in all languages except MKA, BLN and BBO. Two, the oral vowel in the possessive pronoun prefix of classes 3 and 4 has become a nasal in all the languages except in MHE, MKA, BLN and BBO (cf. chart 4.7-8). Three, the labial consonant of the possessive pronoun stem for 3rd person singular was dropped in all Manenguba languages except in the Eastern cluster (cf. chart 4.2). In MWK, this b has become w, which sets MWK apart from the Eastern cluster (cf. (9) in chapter 3). The above three changes show that the Eastern cluster consists of the most conservative languages. The first of the three could easily have arisen independently in several places since it is a very common, natural change. The second change could also have taken place independently due to analogy with the noun prefixes and because of the nasal environment.

The loss of final b in the third case is a development which does not parallel the development of final b in every other case (cf. chart 2.4).

The following languages have adopted the class 5 concord for nouns of class 14 (and 19): MHE, MWK, MKA and BLN as well as MBE and MBN. This probably reflects a merger of nouns in gender 14/6 with the nouns in gender 5/6 as far as singular concord is concerned due to the fact that they have identical plurals. It also cuts across our classification, but this merger could possibly have occurred in more than one place independently.

In class 8, the glottal stop has been dropped in MRN, MYE, MBE, ELU and MWK (? > Ø) providing an isogloss which cuts across the classification presented above. (We do not have the relevant information on MBM.) Loss of glottal

stops could of course take place independently but it should be noted that these languages are geographically adjacent.

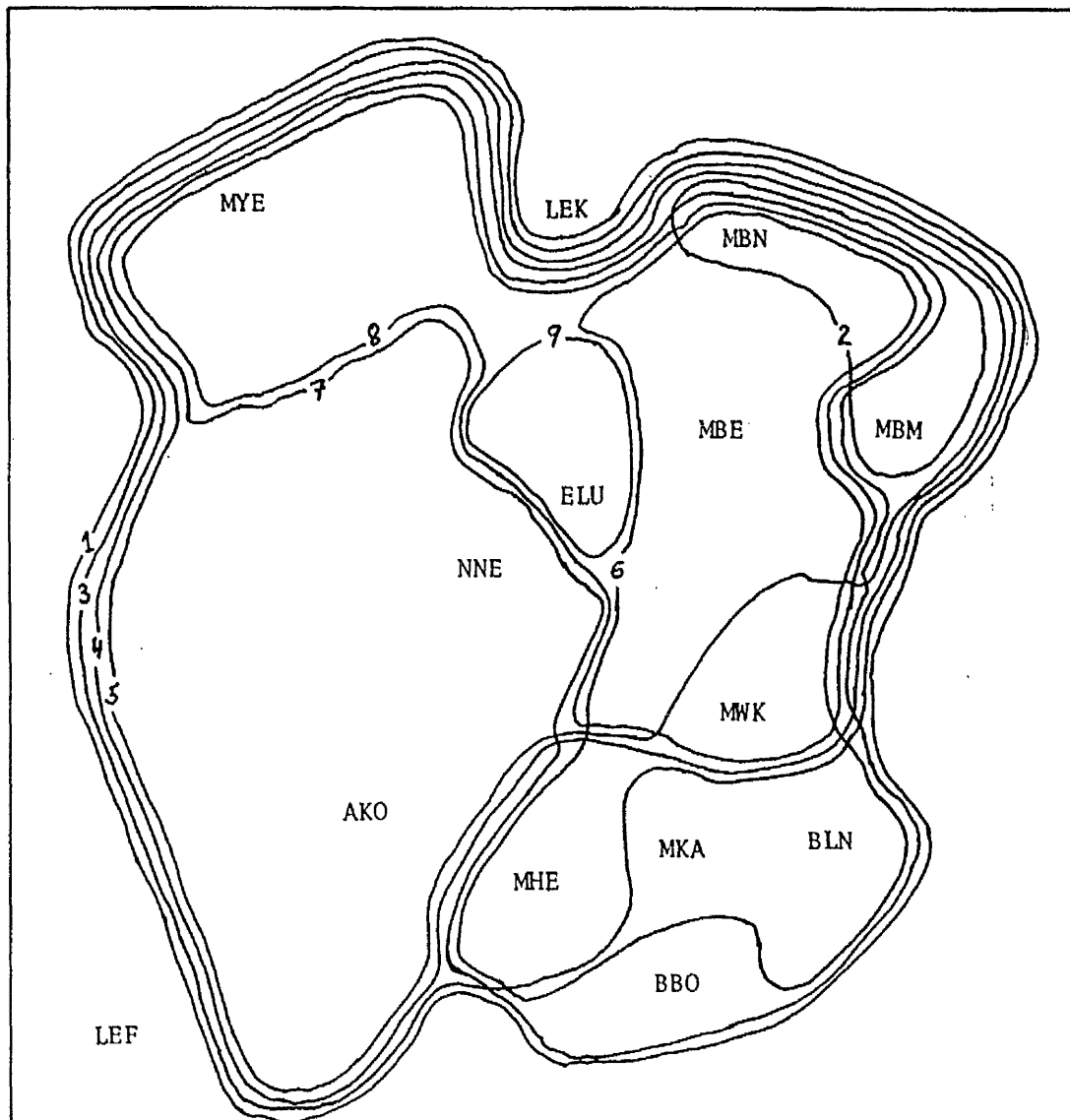
The most noticeable isogloss is the one provided by the class 2 and 6 prefixes which are  $\delta$ - both for the nouns and the concord. (MBN has some nouns in these classes with an o- prefix but the o vowel has not been introduced into the concord system as it has in the other languages.) This isogloss also cuts right across the lexicostatistical classification and includes MWK from the Eastern cluster, ELU and MBE from the Western cluster and MYE representing the North Western group. It appears, therefore, that it has to be interpreted as a wave phenomenon spreading from one language to its neighbour rather than being inherited from a common ancestor language.

ELU stands out in that the class 8 and 14 prefixes have been completely lost pre-consonantly. It has also introduced nasals into the concord elements of classes 8 and 14.

In map 9, the shared morphological changes are indicated in the form of isoglosses. It clearly shows that LEK and LEF are excluded from the Manenguba group. Several isoglosses separate ELU and MBE from the Western cluster and MWK from the Eastern cluster.

As has been seen above, the Eastern cluster is conservative in many respects. This is also true with respect to morpheme structure. On inspection of cognate noun roots which are CVCV in some languages and CVC in others, the picture in chart 6.19 emerges. Those noun roots which have either lost or retained V2 in all languages have been excluded from the count.

Map 9: Isoglosses of shared morphological changes

Key:

- 1 \*bî- > PM \*èb- (cl.8)
- 2 \*mè- > ñ- (cl.6)
- 3 \*ñ- > ñ-, ñ-, ñ-
- 4 \*v > ñ
- 5 \*b > ø, CVCV > CVC
- 6 (cl.14) concord > (cl.5) concord
- 7 ? > ø (cl.8, cl.14?)
- 8 \*bà-, \*mà- > ð- (cl.2,6)
- 9 \*bi- > ø- (cl.8); N concord (cl.8,14)

Chart 6.19: Retention versus loss of V2

	<u>retentions</u>	<u>losses</u>		<u>retentions</u>	<u>losses</u>
	CVCV	CVC		CVCV	CVC
MBM	1	7	MHE	9	10
MBN	1	9	MWK	14	8
MYE	1	10	MKA	18	1
MBE	4	11	BLN	19	3
ELU	2	12	BBO	18	2
NNE	2	15	LEF	1	10
AKO	3	14	LEK	0	8

The above results clearly show that the languages of the Eastern cluster (MHE-BBO) have predominantly retained the full form whereas the others have predominantly dropped V2. MHE and MWK take up an intermediary position.

#### 6.4.3 Lexical isoglosses and classification

In the lexicostatistical study, 100 or 200 basic vocabulary items are used to the exclusion of more specialized cultural items. While working with the comparative word list, we noticed certain recurrent patterns of lexical items being limited to the same languages providing identical or similar isoglosses. From the results of a count of such isoglosses, the following picture emerged. About 140 items are shared by all 14 languages used in appendix 1. No item was found to be shared by all except LEK but there are three items which appear to be unique to and provide an isogloss for the Manenguba languages. They are (A293) \*-tɔ̃m 'plantain', (A352) \*-bòg 'mortar' and (A529) \*-sàny 'urinate'. Whether any of these will be found to be unique

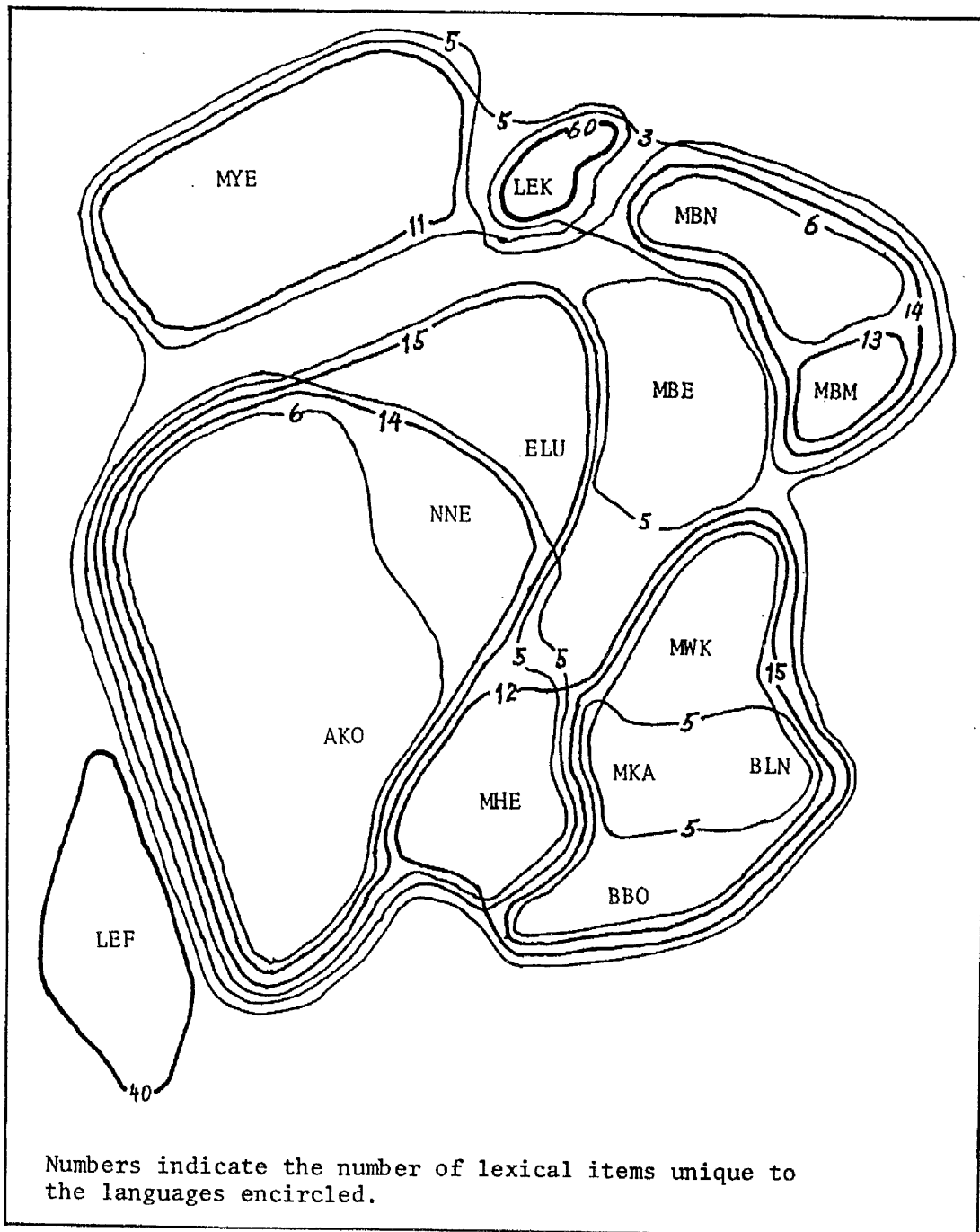
to Manenguba, thus providing further support for defining it as a genetic unit would depend on whether these items also exist in other languages or not. Item (A353) \*-f<sup>5</sup>b 'language' provides an isogloss for the Central group. This item appears to be derived from a PB item for 'to speak' (cf. (A606)). MBM and MBN (the North Eastern group) share 14 items uniquely. Manenguba minus MBM-MBN has five isoglosses, the Central group also five, the Eastern cluster has twelve plus an additional fifteen which exclude MHE. There is no isogloss for the Western cluster which includes MBE. However, ELU-NNE-AKO share fifteen items and NNE-AKO share fourteen. The last two groupings share five items each with MHE.

LEK is the most isolated language with 60 lexical items shared with no other language. LEF is next with 40 items not shared by any others. Thirteen items are unique to MBM, eleven to MYE and six to MBN. MBM-MBN share ten items with LEK. This is an unexpectedly high figure considering the relationship established lexicostatistically and is probably to be explained in terms of a contact situation.

As can be seen from an inspection of appendix 1, other isoglosses are provided by other items which make the situation portrayed in map 10 still more complex.

The picture that emerges from the lexical isoglosses is as follows. In broad terms, the lexicostatistical study is confirmed, which is not totally unexpected. LEK and LEF are the most distantly related languages. There are four groups: one in the north-west, one in the north-east, one in the west and one in the east. MBE is clearly the most peripheral member of the Western cluster. MHE takes up an

Map 10: Isoglosses of shared lexical items



intermediate position between east and west. MBM and MBN, although forming a cluster, are not closely related.

#### 6.4.4 Conclusion

Phonological, morphological and lexical isoglosses overall confirm our groupings arrived at lexicostatistically. In the Western cluster, AKO and NNE are the most closely related followed by ELU. However, it appears that MBE, which is lexicostatistically included in the same cluster, should be excluded from that cluster since it does not share any isogloss exclusively with AKO-NNE-ELU.

The Eastern cluster also appears to be confirmed by phonological, morphological and lexical isoglosses, MKA-BLN-BBO being the most closely related. Morphologically, MHE is closely associated with the above three, but MWK is peripheral to the Eastern cluster. The lexical isoglosses, however, give the opposite picture with MWK included in the cluster but MHE excluded by at least some isoglosses. Phonological isoglosses place both MWK and MHE on the periphery.

The position of MHE in relation to the Eastern and Western clusters is ambiguous taking into account phonological and lexical isoglosses only. This perhaps indicates a long-standing pattern of social contact (e.g. intermarriage) between people who speak MHE and AKO.

There are isoglosses of each kind to confirm MBM-MBN (the NE group) as a sub-group. MYE (the NW group) is also

isolated but shares phonological, morphological and lexical isoglosses with its neighbours. Although there are no phonological isoglosses to delineate our Manenguba group as a whole, it is confirmed by morphological and lexical isoglosses.

In light of the above comments, the classification in chart 6.18 may be revised to give chart 6.20. The only major revision consists of MBE being detached from the Western cluster and placed separately as coordinate with both the Eastern and the Western clusters. The languages in brackets are the ones not included in the discussion in sections 6.4.1 to 6.4.3.

Chart 6.20: Revised subclassification of the Manenguba group

North Eastern group

MBM

MBN

North Western group

MYE, (NSW)

Central group

MBE

Eastern cluster

MWK, (MBA)

MKA, (MNG)

BLN

BBO

MHE, (BFU)

Western cluster

AKO, (MWM)

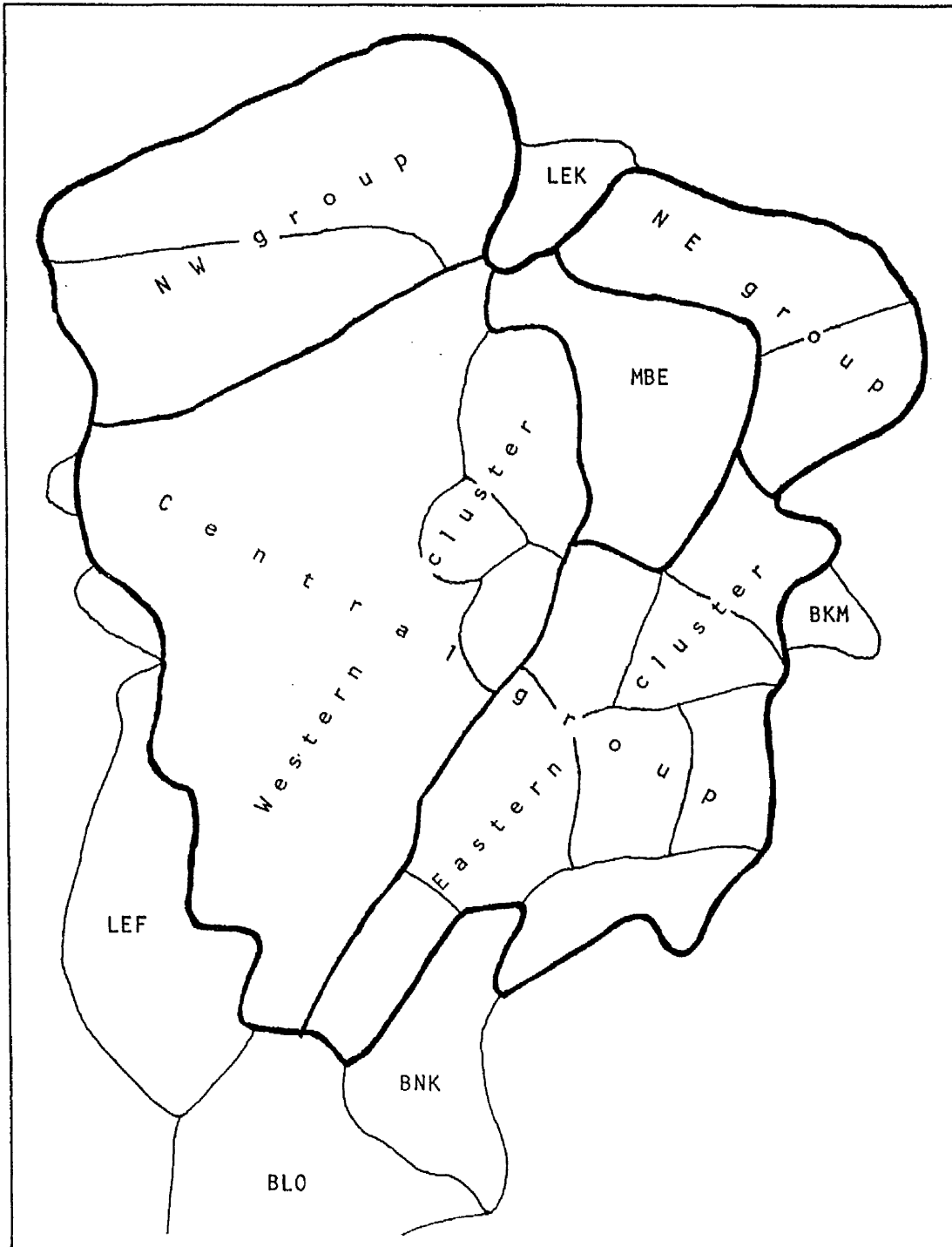
NNE

ELU, (NGE)



Our revised subclassification of the Manenguba group is geographically presented in map 11.

Map 11: Subclassification of the Manenguba languages



## FOOTNOTES TO CHAPTER SIX

[1] Names, as well as the reference numbers for Bantu languages given in brackets, are taken from Dalby's "Provisional identification of languages in the Polyglotta Africana" (1964:87). The reference numbers for Bantu languages here and elsewhere were first introduced by Guthrie (1948) and revised in Guthrie (1953) and have found widespread acceptance.

Abbreviations in square brackets are the ones used in this study, cf. map 7 and section 1.4.3.

[2] For the term "Mokoo", see footnote 14 to chapter 1.

[3] "Classification of the Cameroon dialects"

[4] The nasal in the term Fan appears to be velar (cf. chart 6.2). As velar nasals were indicated in that period by a dot over the nasal (ñ), the spelling with an alveolar nasal may be due to an omission of the dot. Bali is an Eastern Grassfields language. Duala and Fang are Bantu languages, Fang having more reduced noun roots and prefixes.

[5] The first visit of an outsider to the south-western part of the Manenguba area probably took place when Zintgraff made his exploratory trips in 1886-7, first to Kumba (LEF area), and then to Nyasoso (AKO area) (Zintgraff 1895:30-32). He later passed through Nguti (MYE area). Autenrieth appears to have been the first to have settled in the area (at Nyasoso) in 1895 (Gutekunst 1913:4-6). The first language material on LEF and AKO became available in print in 1910/11 (Bufo 1910/11, Dorsch 1910/11).

[6] "The Nkosi language is ... a Bantu language. ... only a very distorted dialect of Duala ..."

[7] The reference numbers for Bantu languages are our addition.

[8] The presence of a p and f in these two alternative names immediately suggests a correlation of the type discussed in 5.4.

[9] Cf. also footnote 16 to chapter 1. Johnston's work has not been taken seriously for a long time partly due to the glaring errors he made. For a recent reappraisal of his work, see Coupez (1977).

[10] Both Mangan and Myəŋgə appear to be derived from an earlier form such as mwan + ŋgən 'son of ŋgən'. Cf. Jacquot and Richardson (1956:25) for the term Ngən.

[11] "Prefixes still nearly complete"

[12] "Prefixes already in the process of disappearing".

[13] "Southern Mbo"

[14] "New Bantu"

[15] "Old Bantu"

[16] "Benue-Cross-River-Semi-Bantu"

[17] "North Cameroon mountains-Semi-Bantu"

[18] "Peripheral class languages"

[19] This is the first occurrence of the term "Mbo Cluster" in the literature (cf. 1.4.3.2).

[20] Cedillas and subscript dots in the original have been omitted from these names as they do not add anything of significance here. The stem initial consonant rather than the initial letter is capitalized in those glossonyms where Guthrie had split off the prefix and placed it after the name, e.g. Kɔɔsɛ, a<sub>1</sub>. The names of ethnic groups said by Guthrie to be speaking the same language are given in brackets.

[21] The North Mbɛnɛ group was not treated in Richardson (1957).

[22] The term Oroko appears to be replacing the term Lundu for the western part of group A.10. The term has been used by Ngoula (n.d.), Etame (1981), Breton (n.d.) and Kuperus (1982).

[23] The term Ngoe is also used by Breton (n.d.) for the eastern part of the group A.10 but is not popularly used. Cf. the discussion in 1.4.3.2.

[24] The Musée Royal de l'Afrique Centrale kindly sent us a copy of the word list used to represent Mbo A.15. The list is headed A.15g Mbɔ. However, at the bottom of the list, we find the following: LANGUE TRADUITE: bɔ. On inspection of the list, we found that it must have been taken from Spellenberg (1922) Die Sprache der Bɔ oder Bankon in Kamerun. The error of identification must have occurred because of the convention of leaving off the prefix: Abo/Abɔ > bɔ/bɔ > mbɔ > mbo.

[25] Bakem (BKM) occasionally has been included in Mbo (Champaud 1973, Ngoula n.d., Breton n.d.), possibly because it is in the same administrative division. Dugast (1949a:31) linked it with Abo. Jacquot and Richardson (1956) also placed it in the Basaa group. Kitchui (KIT), also referred to as Upper Balong is culturally linked with Balong. For this reason, it is included in the Mbo group by Ngoula (n.d.). Linguistically, it is clearly related to Kenyang. This is allegedly due to the adoption of Kenyang in favour of their own language at some time in the recent past.

[26] Cf. Heine et al. (1977:57 footnote 3) who referred to a similar situation in Bantu as a whole as "Bantu Zwiebel" [= Bantu onion].

[27] Eyongetah and Brain (1974:25), apparently referring to LEK, make the following statement: "Kingkwa is a language spoken in the Bamileke-Mbo borderlands and provides a remarkable example of a fusion of a Bantu-Mbo and a semi-Bantu (Bangwa-Bamileke) language." The nature and truth of the claim made in this statement would need further investigation. From our study made so far, however, we would be rather more cautious. It would also be necessary to clarify precisely which speech community the authors have in mind, whether it is the same or a different one from the one represented in this study.

[28] Included in the numbers 20 and 14 are LEF and LEK because they figure in all our charts in chapters 2 to 4 and in appendix 1, but it should be noted that they are excluded from our definition of the Manenguba languages.

## APPENDIX ONE

COMPARATIVE WORD LISTS

This appendix contains the data on which the comparative study is based. There are 709 glosses which were used to elicit the words in the different languages. The glosses are numbered and arranged into broadly the following categories: (1)-(13) numerals, (14)-(423) nouns, (424)-(483) qualities, (484)-(489) pronouns, (490)-(523) relational concepts, (524)-(709) verbs. For ease of reference, an alphabetical listing of the English glosses is given in appendix 2.

At the top of each item is given the number with the gloss in English and below it the gloss in French. Bantu reconstructions from Guthrie (1967-71) are indicated by CB (Common Bantu), the number in brackets referring to Guthrie's Comparative Series (numbers preceded by ps refer to Guthrie's "partial series"). On the line labelled M, Bantu reconstructions from Meeussen (1967) and (1969) are given. Occasionally, reconstructions for Proto Eastern Grassfields from Hyman (1979) are included and identified as PEG. PGB refers to Proto Grassfields Bantu (from unspecified sources), PEK to Proto-Ekoid (Watters 1978 and 1981) and PBC to Proto-Benue-Congo (De Wolf 1971). Dia. indicates items from Duala.

PM stands for Proto-Manenjuba and is used to label our own reconstruction of roots on the basis of the data

presented below it. The status of each reconstruction varies, some clearly representing Proto-Manenguba and in some cases being reflexes of Proto-Bantu, Proto-Benue-Congo or Proto-Niger-Congo. The status of others is less clear. Some may be retentions from an earlier stage or may be an innovation or borrowing since PM. However, it is difficult to be certain at this stage. The less well supported reconstructions are included to facilitate comparison with reconstructions from other groups and sub-groups in this general linguistic area.

MBM to LEK refer to the languages chosen for this study (for the abbreviations of the languages names see map 7). Where more than one cognate type exists under one gloss, an attempt has been made to arrange the tokens of each cognate type into columns. Where too many different cognate types appear, this has, of course, not been possible.

A broad phonetic transcription has been used except in AKO and MWK where the data is phonemicised. Variations in the pronunciation recorded are placed in brackets, the alternatives being separated by a slash (/).

Where we have a plural form for nouns, this is indicated after the singular form separated by a comma. Usually, the prefix only is given but where necessary, the whole plural form is added. Identical singular and plural are indicated by 'id.'. The numerals 1 - 19 indicate the noun class gender to which the root belongs. A hyphen preceding PM roots shows that a class prefix is required. No hyphen with roots of classes 9 and 10 indicates that these roots have a  $\emptyset$ - prefix, cf. 4.5.

Tone is usually indicated, but where we lack the information, it has been left unmarked. In reconstructions of PM, sometimes it has not been possible to reconstruct the quality of a vowel. In such cases, E stands for a front vowel, O for a back vowel and V for any vowel.

There is a set of notes at the end of this appendix containing a variety of comments on some of the items. Where there is such a note, this is indicated by an asterisk after the English gloss. These notes are not meant to be exhaustive, but to clarify a few points especially for the person not familiar with these languages. It is obvious that much more could be said than space allows.

	( 1 ) one un	( 2 ) two deux	( 3 ) three * trois
CB	(1570) *-p55g5 (1314) *-m5	(22) *-bādē	(1689) *-tātō
M	*-p5k5 (NW) PEG: *m3k' *mōk'	*-bādē PEG: *(ē)bā'	*-tātō PEG: *tād'
PM	*-p5g 9 *-f5g	*-bā	*-lāān
MBM	-f5?	-bā	-lāā
MBN	p5?	-bā	-lāā1
MYE	p5?	-bā	-lāā
MBE	p5?	-bē (ε/ə)	-lāē
ELU	p5?	-bā	-lāān
NNE	-h5?	-bē	-lāā
AKO	p5g'	-bē	-lāān
MHE	'p5?	-bē (ε/a)	-lāān
MWK	p5?	-bā	-lāān
MKA	p5?	-bā	-lāān
BLN	p5?	-bā	-lāān
BBO	p5k' 9 -h5k' 7 m5k' 1,3 if5k' 5,14	-bā	-yāān
LEF	'p5?	-bē	-lāān
LEK	f5k' -f5g'	-byā	-lāgā
	( 4 ) four * quatre	( 5 ) five cinq	( 6 ) six six
CB	(1353) *-nī	(1662) *-tāān3 PEG: *tān	(1815) *-tōōbā 3
M	*-nāī PEG: *-kūa	*-tāān5` (t/c, o/o)	*-tōōbā 3 PEG: *tōōpō
PM	*-nīīn	*-tāān	*-tōōb 3
MBM	-nyīī	-tāā	n-tw55b'
MBN	-nīī (n/ny)	-tāān	n-cwōōb'
MYE	-nīī	-tāā	n-twā?
MBE	-nī	-tāā	n-tyō
ELU	-nīīn	-tāān	n-tūū
NNE	-nīī	-tāā	n-tūū
AKO	-nīīn	-tāān	n-tōōb'
MHE	-nīīn	-tāān	n-tyōōb'
MWK	-nīīn	-tāān	n-tōō
MKA	-nīīn	-tāān	n-tōōb'
BLN	-nīīn	-tāān	n-tōōb'
BBO	-nīī	-tāān	n-tōōb'
LEF	-nīīn	-tāān	n-tyō (o/ō)
LEK	-nyīī	-tāā	n-tūūī



	( 7 ) seven *	( 8 ) eight	( 9 ) nine
	sept	huit	neuf
CB	(269) *-cəmbəʔ/ʔ	PEG: *fʔámá	(219) *-bùǎ 5 PEG: bükǎ
M	PEG: *səmbǎ	*-əmbǎ 3	*-bùǎǎ (-bükǎ, -bögǎ?) 5
PM	*səmbǎ	*wəəm	*-bùǎǎ 5
MBM	səmbə	waam	a-boʔ
MBN	səmbə	yíam	a-bǎʔ
MYE	səmbǎ	jùǎ	ǎ-bǎʔ
MBE	səmbǎ	wəəm	a-bǎʔ
ELU	səmbǎ	wəəm	ǎ-bǎk
NNE	səmbǎ	wəəm	ǎ-bǎǎʔ
AKO	səmbǎ	wəəm	ǎ-bǎǎʔ
MHE	səmbǎ	wəəm	ǎ-bǎǎʔ (o/u)
MWK	səmbǎ	wəəm	ǎ-bǎʔ
MKA	səmbǎ	wəəm	ǎ-bǎǎʔ
BLN	səmbǎ	wəəm	ǎ-bǎǎʔ
RBO	səmbǎ	wəəm	f-bük (k/gʔ)
LEF	səmbǎ	wəəm	ǎ-bǎ
LEK	səmbǎ	zùǎ	ǎ-bǎk

	( 10 ) ten	( 11 ) twenty *	( 12 ) hundred *
	dix	vingt	cent
CB	(1208) *-kómǎ 5/6		
M	*-kómǎ 5 PEG: *gǎm		
PM	*-óm 5	*-óm + *-bǎ 6	*-bǎǎ 7 *-bǎǎǎ 9 (*-kǎǎ 3)
MBM	dǎm	mǎmbǎ	ǎ-kǎǎʔ
MBN	jǎm	mǎmǎmbǎ	ǎ-kǎǎʔ
MYE	dǎǎ	ǎǎǎ ǎǎǎ ǎǎǎ	mbǎkǎ
MRE	dyǎm	mǎmbǎ	ǎ-bǎǎ
ELU	dǎm	mǎmǎmbǎ	mbǎkǎǎ
NNE	dǎm	mǎmǎmbǎ	mbwǎkǎǎ
AKO	dyǎm	mǎmbǎ	mbwǎkǎǎ
MHE	dyǎm	mǎǎǎmbǎ (ǎ/a)	ǎ-bǎǎ/ǎ-bǎǎʔ
MWK	dyǎm	mǎmbǎ	ǎ-bǎǎ
MKA	dyǎm	mǎmbǎ	ǎ-bǎǎʔ
BLN	dyǎm	mǎmbǎ	ǎ-bǎǎʔ
BBO	dyǎm	mǎmbǎ	f-bǎǎ
LEF	dyǎm	mǎmbǎ	mbǎkǎ
LEK	dǎm	mǎmǎmbǎ	ǎ-kǎ

	( 13 ) thousand mille	( 14 ) family famille		( 15 ) marriage mariage	( 16 ) my father mon père
CB				( 17 ) *bádā	( 1686 ) *-tāātá
M					*-tāātá ( 1a ) PEG: *-tātV
PM	*-kó1É 7 (*-bāŋ 7)	*-byā *-túmbá (*-təd *-kú1)		*-wŋgÉ 14 (*-lúg 7)	*tae la
MBM	è-bāŋ	è-tət		è-wŋgŋŋ è-lók	tɛɛ
MBN	è-ŋāŋ	è-'tɔ?		è-lú?	tɛtɛs
MYE	nzð?	ñ-jɛ?		è-wŋŋ'gá è-lɔ?	(əwɛ) tɛɛ?
MBE	è-kɔ'1fí			ə-wŋgɛɛ	tə
ELU	è-kɔ1é	mbyā		è-wŋgá, 0-	èjɛnsáá
NNE	è-ká1é	mbəə		ə?-wŋgɛ	
AKO	è-ká1é	túmbé àbòm á ndáb'		è?-wŋgá, mɛ- (àlɔg 'intercourse')	sáŋ 9 sáá (←sáŋ + á) la
MHE	è-kɔ1ɔ (1ɔ/1é)	ñbyā		è?-wŋgá	tāā/tāā/tāā
MWK	è-kó1 èkó1f	mbyā	è-kú1	è-wŋgɔ	tāā
MKA	è-kó'fɔ	mbyā	è-tú'mbá	è?-bá1á	táā
BLN	è-kó1i (1/f)		è?-kú1	è-wŋgɔ	táā
BBO	è-kó1f	è-túmbá, mɛ-		è-wŋgɔ	táā
LEF	è-kó1é	túmbá		wðwá	
LEK	ñ-kɔɔphə	-nyíndá?, mɛ-		è-lók	mbɔɔzɛ?

	( 17) his father *		( 18) your father
	son père		ton père
CB	(303, 334) *-cɛ̃, *-cɛ̃, *-cɛ̃		(360) *-cɔ̃ (2029) *-yɛ̃cɔ̃ la/2
M	*-ɪcɛ̃ (2027) *-yɛ̃cɛ̃ la/2		*-ɪcɔ̃ la
PM	*-sǎŋ 9 *-sǎŋ-ŷ la		*sɔ̃ŋ 9 *sɔ̃ŋ-ŷ la
MBM	awɪ tɛ̃ɛ̃		ǎwɔ̃ŋ tɛ̃ɛ̃
MBN	sǎǎŋ		sɔ̃ɔ̃
MYE	(ǎwɔ̃) sǎǎ		sɔ̃ɔ̃
MBE	ǎwɪ sǎŋ		sɔ̃ŋ
ELU	ǎwɪ sǎǎ		sɔ̃ɔ̃
NNE	sǎŋ/sǎ		sɔ̃ɔ̃
AKO	sǎŋ 9 sǎǎ (←sǎŋ + ǎ) la		sɔ̃ŋ 9 sɔ̃ɔ̃ (←sɔ̃ŋ + ǎ) la
MHE	sǎǎ/sǎǎŋ		sɔ̃ɔ̃/sɔ̃ɔ̃ŋ
MWK	sǎǎŋ		sɔ̃ɔ̃ŋ
MKA	sǎ'ŋǎ		sɔ̃'ŋɔ̃
BLN	sǎŋǎ		sɔ̃ŋɔ̃
BBO	sǎŋǎ		sɔ̃ŋɔ̃
LEF	sǎǎ		sɔ̃ɔ̃
LEK	sǎŋǎ'bwɔ̃		sɔ̃ŋɔ̃ (nyɛ̃)
	( 19) my mother		( 20) his mother
	ma mère		sa mère
CB	(1282) *mǎǎmǎ la/2		(1389) *-nyǎŋɔ̃/ɔ̃ la/2 'mother'
M	*-mǎǎmǎ (la) PEG: *mǎ/nǎ		PEG: *mǎ/nǎ
PM	*nɛɛ		*nyǎŋ 9 *nyǎŋ-ŷ la
MBM	ŋnǎ		ŋnyɛ̃ɛ̃
MBN	nǎ		ŋnyǎǎ
MYE	ɪyǎǎ		(ǎwɔ̃) ŋnyǎǎ
MBE	nɛ̃tɪ		ɛyǎŋ awɪ yǎŋ
ELU	ɛ̃jǎ nyǎŋ		ǎwɪ nyǎǎ
NNE			nyǎǎ
AKO	nyǎŋ 9 nyǎǎ (←nyǎŋ + ǎ) la		nyǎŋ 9 nyǎǎ (←nyǎŋ + ǎ)
MHE	nǎ/nǎǎ		nyǎǎ
MWK	nɛ̃ɛ̃		yǎǎŋ
MKA	nɛ̃ɛ̃		nyǎŋǎ
BLN	nɛ̃ɛ̃		nyǎŋǎ
BBO	nɛ̃ɛ̃		nyǎŋǎ
LEF			nyǎǎ mǎmǎ
LEK	ɔ̃ɔ̃ɛ̃ɛ̃		nyǎŋǎbwɔ̃

	( 21 ) your mother	( 22 ) mother's brother *
	ta mère	oncle maternel
CB	(1395) *-nyʒkʒ	
M	*-nyʒkʒ (1a)	
PM	*nyʒŋ 9 *nyʒŋ-ŋ̄ 1a	*-1ʃʃ 1/2
MBM	ŋnyʒʒ	ŋ-1ʃ
MBN	ŋnyʒʒ	ŋ-1ʃʃ(ŋə)
MYE	ŋnyʒʒ	
MBE	ʃyʒŋ	ʃ-1ʃ (ɛ/a)
ELU	nyʒʒ	ʃ-1ʃ
NNE	nyʒʒ	ŋ-1ʃʃ, bə-
AKO	nyʒŋ 9 nyʒʒ (←nyʒŋ + ɛ) 1a	ŋ-1ʃʃ, bə-
MHE	nyʒʒ	ŋ-1ʃʃ, bə-
MWK	yʒʒŋ	ŋ-1ʃʃ, o-
MKA	nyʒŋʒ	ŋ-1ʃʃa, bə-
BLN	nyʒŋʒ	ŋ-1ʃʃ, bʃ-
BBO	nyʒŋʒ	ŋ-yʃʃ, bʃ-
LEF	nyʒʒ	māʒnyʒŋ ŋŋəə
LEK	nyʒŋʒ(nyʃ)	mʊ-yʒŋ ɔwɛ      mʊ-yʒŋ mbɔɔ
	( 23 ) brother *	( 24 ) sister *
	frère	soeur
CB		(987) *-kʌdʃ
M		
PM		
MBM	mānnə, ʒānnə	ɛyɛm ŋgʒɪ. ʃyɛm ŋgʒɪ 'my sister(s)'
MBN	mānyʒŋ, bānyʒŋ	mānyʒŋ mwāʒd', bānyʒŋ bwāʒd'
MYE	mʊnyʒŋ, bʊnyʒŋ	mʊnyʒŋ, bʊnyʒŋ myɛ-yə, bʃɛ- myɛ-tə
MBE	mʃyʒŋ/mʃ-yʒŋ, bɛ-	mʃyʒŋ mwāʒ, bɛyʒŋ bāʒ mʃɛ-yʒŋ, bɛɛ-
ELU	māyʃ/mʒyʃ, bāʒyʃ	māyʃ, bāʒyʃ
NNE	mānnɛ	mānnɛ mwāʒd'
AKO	mānnəd', ʒānnəd'	mānnəd' ʒ mwāʒd', bānnəd' bɛ bɛbāʒd'
MHE	mānnəɛ      mānyʒŋ	mānyʒŋ mwāʒ?
MWK	māntəə	mānnɛɛ mwāʒ
MKA	mānyʒŋ, bānyʒŋ	mānyʒŋ mwāʒd'
BLN	mānyʒŋ      māntə	mānyʒŋ mwāʒd'      mānnə
BBO	mānnə	mānyʒŋ, bān bʃ nyʒŋ      ɛjɛm kʌt', ɛjɛm kʌt'
LEF	māʒnyʒŋ, bāmbāʒnyʒəə	māʒnyʒŋ mwāʒŋ, bāmbāʒnyʒəə bʃ bʃlʌn
LEK	mʃyʒŋ, bābɛnyʒŋ	mʃyʒŋ, bābɛnyʒŋ

( 25) twin	( 26) son *
Jumeau, jumelle	fil
CB (1407) *-pácà	(1922) *-yānà 'child'
M *-pácà 5	*-jānà 'child'
PM *-fǎj 1/2	*-ān 1/2
MBM m-fét	my-ān, b- ndəmsət
MBN ñ-féyg', ə-	è-15ŋʒ, id.
MYE ŋ-héʔ, ò-	myā, id.
MBE o-héʔ	myān, bān
ELU ò-héd'	mʒ, bān
NNE ŋ-héʔ	mwān mōnjú
AKO ŋ-héd', bə-	mwān, bān
MHE ŋ-héyʔ (yʔ/s)	mwān, bān
MWK ŋ-héyʔ, ò-	mwān mwānjóm, bān
MKA ñ-hásá	mwān, bān
BLN ñ-háyʔ	mwān, bān
BBO ñ-vát'	mwān, bān
LEF wù-féʔ, mə-	mwān ə mōmān, bān bǎ bǎmān
LEK lè-féʔ, ñ-	mwəgù
( 27) daughter *	( 28) grandfather *
filie	grand-père
CB	
M	
PM (*-gǔn 9)	... + *mbǎǎ
MBM myè mwət, mǎm bəd	sǎŋ tǎè
MBN ŋgǔn	sǎǎ mbǎǎ
MYE myǎmyǎ	sǎò mbǎǎ tǎǎ mbǎǎ
MBE mǎí mwǎǎʔ	(sǎmbǎ) tǎmbǎ
ELU mʒ, bān	sǎǎmbǎ
NNE mwān è mwǎd	sǎǎ mbǎ
AKO mwān ə mwǎǎd'	-tǎǎ, bə- tǎǎ mbǎǎ
MHE mwān è mwǎǎʔ	sǎŋ mbǎǎ
MWK mwān mwǎǎ	tǎǎ mbǎǎ
MKA ŋgǔn	-tǎmbǎ'ǎ, bə-
BLN mwānɛ mwǎǎd', bān bǎ' bǎǎd'	sǎŋǎ mbǎǎ
BBO mwānǎ mwǎǎt', bān bǎ bǎǎt'	(sǎŋǎ mbǎǎ) tǎǎ mbǎmbǎ
LEF mwān ə mwǎlǎn, bān bǎ bǎlǎn	sǎǎ ñtǎna ('father old')
LEK mwəgù	mbòò mbyǎ

	( 29 ) grandmother *	( 30 ) husband	( 31 ) wife *
	grand-mère	marî, époux	épouse
CB		(697) *-dómè 1/2	(986) *-kádî 1/2
M		*-dómè 1 PEG: *-dó(m)~ PGB: *lóm~	*-kádî PEG: *g(w)é~
PM	... + *mbáá	*-jóm 1/2	*-kád 1/2
MBM	n'nyáŋnè	n-zwóm (wɔ/o), bè-	mwàd', èbàd'
MBN	nyámbáá	n-zóm, o-yóm	mwàád', èbwàád'
MYE	Íyámáá nyáà mbáá	n-jwóm, ò-	nmyáá?, òbáá?
MBE	nètámá	n-jóm	mwàá?
ELU	nyámá	n-jú, ò-	mwá, òbá
NNE	nèè mbá	n-jú, bè-	mwàá?, bèbáá?
AKO	-nèè, bè- nèè mbáá	n-jóm, bè-	mwàád'
MHE	nyáŋ báá	n-jóm	mwàád' (d'/?)
MWK	nèè mbáá	n-jóm, ò-	mwàá
MKA	-nè mbáa, bè-	n-jóm, bè-	mw-èád', b-èád'
BLN	nyáŋè mbáá	n-jóm, bî-	mwàád', báád'
RBO	nèè mbámbá	n-jóm, bî-	mwàát', báát'
LEF	námáà nítina	n-jóm, bā-	mwàlān, bālān
LEK	ówé mbyá	n-zú, bè-	mwá?, bāgá?
	( 32 ) body *	( 33 ) skin *	
	corps	peau	
CB	(2178) *(n)yótò (ps 269) *-jótò	(1095) *-kóbà	(874) *-gòbò PGB: *gòbò~
M	*-jótò 9 PEG: *nód	*-gòbì *-kóbà 11 PEG: *gòbò~	
PM	*-ó1 9 *-gòb 9	*-kòb 7	*-gòb 9
MBM	nnyín		ngòb nyín
MBN	nyín		ngòb'
MYE	ngwòò nywéén		ngwòò nywéén
MBE	yá1 èkò'yá1	è-kò'yá1	
ELU	nyú		ngò?
NNE	nyá1	è-kòb'	ngòb'
AKO	yá1		ngòb'
MHE	yá1 (ə/o)	è-kòb'	
MWK	yó1 ngòw	è-kòw (èkòw ngòw)	
MKA	yó1	è-kòb'	
BLN	ngòb' ngòbeyó1	è-kòb' è-kòkò1	
RBO	yòò ngòb'		í-kòkòò
LEF	nyúú òkúú nyúú		ngò
LEK	òkògényí		ngò?

( 34 ) flesh *		( 35 ) blood	
chair		sang	
CB	(416) *-cõnĩ 3/4 'meat, flesh'	(824) *-gĩdã 6	PNC: *-gia
M		*-gĩdã 6	PEG: *cẽ *dĩm`
PM	*-sõn 3 *-ãm 9 *-bũb` 9	*-kĩĩ 6	
MBM	nyãm	ñ-tĩĩ (t/k)	
MBN	nyãm	ñ-kĩĩ	
MYE	nyãm	ò-kĩĩ	
MBE	yãm mbũ	ò-kĩĩ	
ELU		mbòbò?	ò-kĩĩ
NNE	ñ-sõn	mẽ-kĩĩ	
AKO	ñ-sõn nyãm	mẽ-kĩĩ	
MHE	ñ-sõn	mẽ-kĩĩ	
MWK	mbũw yãm mbũw	ò-kĩĩ	
MKA	ñ-sõn (nyãm)	mẽ-kĩĩ	
BLN	ñ-sõn nyãm ñ-sĩmã?	mẽ-kĩĩ	
BRO	ñ-sõn	mĩ-kĩĩ	
LEF	nyãm	mã-kĩĩ	
LEK	nyã	mẽ-khĩ	
( 36 ) vein		( 37 ) bone	( 38 ) head
veine		os	tête
CB	(349) *-cĩcã 3/4	(1511) *-pãcẽ (1273) *-kũpã	(1800) *-tõ 3/4 (1808) *-tõĩ 3/4
M		*-kũpã 5	PEG: *gũp *kõe(n)`
PM	*-sĩj` 3/4	*-fẽj` 7/8	*-lõ 3/4
MBM	ñ-sẽd'	ẽ-sẽd, n-	ñ-dũ
MBN	ñ-sẽyg' (ey/i)	ẽ-fẽyg' (ey/t/e), ẽ-	ñ-dũ (d/j)
MYE	ñ-sĩĩ?	ẽ-hĩĩ?, ẽ-	ĩ-lwã
MBE	ñ-sĩ?	ẽ-hẽẽ?, ẽ-	ñ-lõ
ELU	ñ-sɛk	ẽ-hãk, 0-	ĩ-lõ
NNE	ñ-sĩg'	ẽ-hĩg', ẽ-	ĩ-lĩ
AKO	ñ-sĩd'	ẽ-hĩd'	ñ-lõ
MHE	ñ-sĩd'	ẽ-hẽy? (y?/s)	ñ-lõ
MWK	ñ-sĩ?	ẽ-hẽy?, ẽ-	ñ-lõ
MKA	ñ-sĩy?	ẽ-hẽy? (y?/s), ẽ?-	ñ-lõ
BLN	ñ-sĩy? (iy?/d'/s)	ẽ-hey?, ẽ?-	ñ-lõ
BRO	ñ-sĩt'	ĩ-hãt, ĩ-fãt	ñ-yõ
LEF	ñ-sĩ(?), mĩ-	ẽ-fĩĩ?, bĩ-	ñ-lõ, mĩ-
LEK	ñ-sĩ?, mĩ-	ẽ-fĩĩ?, bĩ-	ñ-dũgũ, mĩ-

( 39 ) face		( 40 ) facial markings	
visage		"balafre"	
CB	(391) *-cō 14/6 (347) *-cīō 14/6		
M	*-tīō 14 PEG: *sī`		
PM	*-sō 14/6 (*-bēŋ 5/6 V?)	*-bānyŋ ? (*-dōō ?)	*-bāŋ 9/10
MBM	ā-bwē(n)		ndūō
MBN	ā-bēŋ	ē-pfīsē	
MYE	ā-bīŋ dyēbīŋ		mbhāŋ
MBE	ā-šyā, ò-	ā-bēŋ?, ò-	
ELU	ā-bāŋ, ò-	ēēnē?	
NNE	ā-sē (ε/ə), mē-	ā?-bēŋē, mē-	
AKO	ē?-sō, mē-		mbāŋ
MHE	ē-šā	ē-bān	(ndūō 'cicatrice')
MAK	ā-sō, ò-		mbāŋ
MKA	ē?-sō, mē-		mbāŋ ē pōpō
BLN	ē?-sō, mī- (i/e)	ē-bān, ē?-	ndōō
BBO	ī-sō, mī-	ī-bān	
LEF	wō-sū, mā-		mōbāŋ
LEK	bē-sūgū		n-īōē
( 41 ) brain *		( 42 ) forehead	
cerveau		front	
CB	(169) *-bōŋgō 14 (2133) *-yōŋgō 14	(163) *-bōmbō 3/4	
M	*-jōŋgō 14 (-bōngō) PEG: *bōŋ *fōm`	*-bōmbō 3 'bridge of the nose'	
PM	*bōŋgō/-ōŋgō 14	*-bōō *-bōmbō 3	
MBM	ē-bōŋ		ē-bwēndū
MBN	bōŋ		ē-bōŋ
MYE	bōŋ		dyēbīŋ = face
MBE	ā-bōŋ		mbōm
ELU	bō		mbāŋ
NNE	bōŋ		mbāŋ
AKO	bōŋ		mbōm
MHE	bōŋ		mbōm
MWK	ā-bōŋgō ā-bōŋ	ā-bōō (mbōmbō)	
MKA	bōŋgō	mbōō mbōm	
BLN	bōŋgō		mbōmbō
BBO	bōŋgō	mbōō mbōmbō	
LEF	īōŋ (?)		wōsū wū nīō
LEK	bōŋ		dēōēōgū



	( 43) hair (on head) *		( 44) grey/white hair
	cheveux		cheveux gris/blancs
CB	(ps 113) *-cɪtɪ (*-cɪcɪ)		
M	*-jùédé 11 PGB: *nùŋ		
PM	*-sɪj 7/8 *nyùŋ/-ùŋ 9		(*-sɔŋ 3 *nyùb/d 9)
MBM	nyùŋ		pɔbɛ nyùŋ
MBN	nyùŋ		ŋk ɛnyù
MYE	nyòŋ		pɔbɛɛ nyòŋ
MBE	yòŋ		ɛpùpɔn' 1ɛ
ELU	nyòŋ		mɛɛnyòŋ
NNE	nyèŋ		nyùb'
AKO	è-sɪd', èʔ-		nyùb' (b'/d')
MHE	è-sɪʔ (iʔ/s)		mɛpùb' (u/o)
MWK	yùŋ		ŋsɔŋɪ
MKA	è-sɪyʔ		mɛsɔŋɛɛ
BLN	è-sɪyʔ (yʔ/d') nyùŋ		mɛsɔŋɛɛ . èsɪsɛ pùpàè
BBO	nyùŋ		nyùŋ ɪ pùpɛɛ
LEF	nyùŋ		nyu è pùwàè
LEK	nyòŋ (ɔ ndúgú)		è-pùkɛʔ nyòŋ
	( 45) beard *		( 46) hair (on body)
	barbe		poil
CB	(519) *dɛdù 10 (930) *-jɛdù		
M	*-dɛdù PEG: *d(w)è˘ PGB: *jɛl˘		. PEG: *nùŋ
PM	*-jɛd 9		*nyùŋ/-ùŋ 9 *-sɪj 7
MBM	nyùŋ nzèd'		nyùŋ
MBN	nzèd'		nyùŋ
MYE	nzèʔ		nyòŋ (o/u)
MBE	nžèʔ (ž/z)		yòŋ (o/u)
ELU	nzèb'		nyòŋ
NNE	nzèb		kãndɛ
AKO	nzèèb' (b'/d')		è-sɪd'
MHE	nzeʔ (?/d')		nyòŋ kòɔ (d'un bɛbɛ)
MWK	nzèl yùŋ nzèl		yùŋ yùŋ ɲgòw
MKA	njèd'		è-sɪyʔ
BLN	njèd' èsɪsɛ njèd'		nyùŋ è-sɪd'
BBO	nzèt		nyùŋ
LEF	nžè		nyùŋ
LEK	nzèè		nyòŋ

( 47) nose *	( 48) nostril
nez	narine
CB (960) *-jɔdɔ 5/6 (2151) *yɔdɔ	
M *- (j)ɔdɔ 5 PEG: *d(o)ɪ̃ PGB: *L(o)ɪ̃	*-pogodo 9
PM *-ɔɔ (*-ɔɪ?) 5/6	*-pwèn (*-pwɛd *-pɔg ?)
MBM e-dɪ̃	pɔg' 'dɪ̃
MBN dɪ̃ə (d/j)	pɪ̃ 'jɔɔ
MYE dɔ̃ə (w/w)	pɔɔ dɔ̃ə 9,10
MRE -dyɔ, o-	mpɪ̃n 'dɔ
ELU dɔ	əpɔ dɔ, pɔndɔ
NNE dɪ̃n	mpɔn n dɪ̃n
AKO d-ɔɔ, m-	mpwɛd' n dɪ̃n
MHE dɪ̃	mpwɛd' n dɪ̃, mpyɛd'
MWK dy-ɔɔ, my-	mpɔn. dyɔɔ
MKA dyɔ, mɔɔ	mpɔ n dyɔ, mpɔ n mɔ
BLN dy-ɔ, m-	mpwèn dyɔ, mpyèn mɔ mpɔ? mɔ
BBO dyɔ	mpèn dyɔ, mpèn mɔɔ
LEF dɪ̃	mpəŋ n dɪ̃
LEK cɪ̃	ɛ-fɔgɔ cɪ̃
( 49) ear	( 50) eye
oreille	oeil
CB (1801) *-tɔ, *-tɔɔ 5/6 (1809) *-tɔɔ̃ (1813) *-tɔɪ̃	(2030) *-yɪcɔ 5/6
M *-tɔɪ̃ 15 PEG: *tɔŋɪ̃	*-jɪcɔ 5 PEG: *dɪ̃t̃
PM *-tɔɔ (*-tɔɪ?) 7/6	*-ɪj 5/6
MBM ə-tɪ̃, n-	d-ɔd', m-
MBN ə-tɪ̃ə (t/c), ɔ-/n-	d-əyg', m- (eyə'/eg'/e?)
MYE ə-tɔ̃ə (w/w), ɔ-	d-ɪ̃?, bə'mɪ̃?
MRE ə-tɔ̃ (ɔ/yɔ), ɔ-	d-ɪ̃?, m-
ELU ə-tɔ, ɔ-	d-ək, m-
NNE ə-tɪ̃, mɛ-	d-əg', m-
AKO ə-tɪ̃, mɛ-	d-ɪ̃d', m-
MHE ɛ-tɪ̃, mɛ-	dɪ̃?, mɛ? (dɪ̃s, mɪ̃s)
MWK ə-tɔɔ, ɔ-	d-ɪ̃?, m-
MKA ɛ-tɔɔ, mɛ-	d-ɪ̃? (ɪ̃/ey?), m-
BLN ɛ-tɔɔ, mɪ̃- (ɪ̃/ə)	d-ɪ̃y?, m-
BBO ɪ̃-tɔɔ, mɪ̃-	d-ɪ̃t, m-
LEF ɛ-tɪ̃, mɛ-	d-ɪ̃?, m-
LEK ɪ̃-tɔɔ, mɛ-	d-ɪ̃?, m-

( 51 ) eyelash *		( 52 ) tear(from eye) *	( 53 ) mouth
cil		larme	bouche
CB		(368) *-cɔdɪ 5/6	
M		*-(i-)cɔdɪ 5	PEG: *cò`
PM	*-pòpò 7/8    *-tɔg 7/8	*-sɔd 5/6	*-sɔl 3
MBM	è-pòpò d'éd'	d'f'èg'	ñ-sɔl
MBN	è-pòpò d'èyg'	ɟyà?	ñ-sò?
MYE	nyòŋ əb'əmɪ    àt'ètɔ?	d'f'è?, m'f'è?	ñ-swèn
MBE	əp'əp'ə 'mɪ?	m'f'sɔ?    ɔ's'ə'ə?	ñ-sɔl
ELU		d-ə'g'ə, m-	ñ-s'ũ
NNE		m'è-s'ɔd'	ñ-sɔl
AKO	è?-pòp'ə	ə-s'ɔd', m'è-	ñ-sɔl
MHE	è-pòp'ò, è?-	é-s'ɔd', m'è-	ñ-sɔl
MWK		è-t'ɔ? d'f'?, è-	ñ-s'ɔn (n/l)
MKA	è-pòp'ò, è?	é-s'ɔd', m'è-	ñ-s'ɔl
BLN	ə-pòp'ò 'eyelid'    è-t'ɔ?	é-s'ɔd', m'f'-	ñ-s'ɔl (˘/˘)
BBO	nyùŋ é m'ɪt	m'f'-s'ɔt	ñ-s'ɔò (oo/oe)
LEF	è-b'əb'ə	m'ə-s'ɪ'ə	ñ-s'ò
LEK	nyàŋ é d'f'?	nyà? d'f'ɪ	ñ-s'ũ, m'è-
( 54 ) lip *		( 55 ) tongue *	
lèvre		langue	
CB		(572) *-d'émɪ 11/10	
M		*-d'émɪ 11    PEG: *d'ím`	
PM	*-b'èb`    *-j-é'g'ɪd 7/8	*-j'ém 7/8	
MBM	mb'əns'ɔl	ə-y'əm	
MBN	ə-b'è ns'ò?, id.	ə-y'ém	
MYE	mb'h'è ñswèn 9/10	è-j'əm, ə-	
MBE	mb'əns'ɔl	è-j'əm, ɔ-	
ELU	è-b'f'f'é n's'ɪ, ɔ-	è-j'è, ɔ-	
NNE	è-b'èb', ə?-	è-j'ém	
AKO	è-b'èb', ə?-	è-c'ém, è?-	
MHE		è-j'ém, è?-	
MWK	mb'ém ñs'ɔn	è-j'ém, ə-	
MKA		è-j'ém, è?-	
BLN		ə-j'ém	
BBO		ɪ-j'ém, ɪb'-	
LEF	è-b'əb'ə é ns'ò	è-y'əm, bi-	
LEK	è-k'òg'è n's'ũ, b'ə-	è-l'è?, b'ə-	

	( 56 ) tooth dent	( 57 ) saliva salive
CB	(ps 131) *-còŋgǎ	(1857) *-tú-/*-túéd- 'spit' PBC: *-tati
M	PEG: *sǒŋ	*-tú-(ed-) 'spit' V:*-tǎi 6 PEG: *t(w)é
PM	*-sǒŋ 5/6	*-léd 6
MBM	ǎ-sǒŋ (a/ə), ñ-	
MBN	ǎ-sǒŋ, ð-	ñ-1ǒb'
MYE	ǎ-sǒŋ, ð-	ð-1ǎǎ?
MBE	ǎ-sǒŋ, ð-	ǎ-1ǎ?
ELU	ǎ-sǒŋ, ð-	
NNE	ǎ-sǒŋ, mǎ-	
AKO	ǎ-sǒŋ, mǎ-	ǎ-1ǎéd', mǎ-
MHE	ǎ-sǒŋ, mǎ-	mǎ-1ǎéd' (ee/e)
MWK	ǎ-sǒŋ, ð-	
MKA	ǎ-sǒŋ, mǎ-	mǎ-1ǎd'
BLN	ǎ-sǒŋ, mǎ- (i/e)	mǎ-1ǎd'
RBO	ǎ-sǒŋ, mǎ-	mǎ-yǎt'
LEF	lǎ-sǒŋ, mǎ-	ǎ-kwǎn
LEK	lǎ-sǒŋ, mǎ-	mǎ-1ǎ?

	( 58 ) voice voix	( 59 ) chin * menton	( 60 ) neck * cou
CB		(520) *-dédù 7/8	(1086) *-kǎŋǒ also 'nape'
M		*-dédù 7 'chin'	*-kǎŋǒ 9 PEG: *tǒŋ
PM	*-fǒb 7/8	*-jǎd 9 *-ǎj 7/8	*-kǎŋ 9 *-bǒl 5
MBM	nǎǎi (nǎǎiǎǎ)	nǎǎd'	ǎ-bwǒl (l/n)
MBN	ǎ-fǒw?	wǎ?	kǎŋ
MYE	ǎ-hwǒ?, ǎ-	nǎǎǎlǒ?	mǎ-bwǒn 3/4
MBE	ǎ-hǒ?, a-	nǎǎyǎ?	kǎŋ
ELU	ǎ-hǒ?, ǎ-	nǎǎǎb'	kǎŋ m-bǒl
NNE	ǎ-hǎb, ǎ?	nǎǎǎg'	nǎ-kǎŋ
AKO	ǎ-hǒb'	cǎǎd'	nǎ-kǎŋ
MHE	ǎ-hǒ? (o/?/ǎb')	j-ǎy?, by-	kǎŋ (k/c)
MWK	ǎ-hǒw, ǎ- dyǎǎ, mǎǎ	nǎǎǎl	kǎŋ
MKA	dyǎ	nǎǎǎd'	kǎŋ ǎ-bǒl
BLN	ǎ-hǒb', ǎ?	nǎǎǎd'	kǎŋ ǎ?-bǒl (e/ə)
RBO	tǎn	nǎǎǎt	kǎŋ ǎ-bǒl
LEF	ŋǎǎǎǎlǎ	wǎǎlǎ	lǎ-bǒ?
LEK	ñ-dǎǎǎ?, mǎ-	ǎwǎ?	lǎ-bǒǎ, m-

	( 61 ) nape *	( 62 ) throat	( 63 ) shoulder
	nuque	gorge	épaule
CB		(1113) *-kə̀dɔ̀	(84) *-bɛ̀gə̀ (1466) *-pɛ̀gə̀
M		PEG: *tɔ̀ŋ	(1862) *-tɔ̀ŋdɪ̀
PM	*-bɔ̀l 5		(*-bɛ̀g/-bɛ̀g?)
MBM	mb'ed ə̀bwɔ̀l (1/n)	kɛ̀ŋ	kə̀mbə̀g'
MBN	ə̀-bɔ̀l	ŋɪ̀ŋkə̀ŋ	mbə̀?, id.
MYE	mb'ŋɪ̀ 11ɔ̀ə̀	ŋkɔ̀'kɔ̀ŋ	ŋgɔ̀ŋɪ̀?
MBE	ə̀-bɔ̀l, ɔ̀-	ə̀kə̀ŋte	mbə̀lkə̀
ELU	mb'ə̀gə̀bɔ̀l	ŋgɔ̀	ŋgə̀ə̀ŋ mbə̀?
NNE	ə̀-bɔ̀l	ŋt'ə̀ŋkɔ̀ŋ	ə̀-kwə̀l, ɔ̀-
AKO	ə̀-bɔ̀l, mə̀-	ŋkə̀ŋ	ə̀-kə̀ŋɛ̀l, ɛ̀?
MHE	ɛ̀'ə̀bɔ̀l	ŋgɔ̀bɔ̀l	ɛ̀-k'ə̀mbɛ̀l, ɛ̀?
MWK	ə̀-ɔ̀bɔ̀l	ŋgɔ̀ŋgɔ̀l	mb'ə̀ ə̀kə̀kə̀
MKA	mb'us ɛ̀bɔ̀l	kɪ̀ŋ	ɛ̀-k'ə̀mbɛ̀l mb'ə̀g'
BLN	mb'us'ə̀bɔ̀l	ŋgɔ̀ŋɔ̀l	ɛ̀-k'ə̀mbɛ̀l, ɛ̀?
BBO	mb'us'ɪ̀bɔ̀l	ŋgɔ̀ŋɔ̀'kɪ̀ŋ	ɪ̀-b'ə̀by'ɛ̀k
LEF	mb'ɪ̀sə̀l'ə̀bɔ̀l?	ŋgɔ̀m	ɛ̀-tɔ̀, bɪ̀-
LEK	mb'ɪ̀l'ə̀bɔ̀l	ŋɪ̀ŋ'kɪ̀ŋ	mb'ə̀k
	( 64 ) armpit	( 65 ) arm *	
	aisselle	bras	
CB	(1942) *-y'ə̀pə̀		
M		*-gə̀dɔ̀ 9 'arm, hand' PEG: *k'ɔ̀	
PM		*-k'ə̀k 7/6	
MBM	pə̀pə̀g'	ə̀-k'ə̀, ŋ-	
MBN	pə̀pə̀?	ə̀-k'ɛ̀ɛ̀ (ɛ̀ɛ̀/ə̀ə̀), ɔ̀-	
MYE	ɔ̀ə̀ŋɪ̀?	ə̀-k'ə̀ə̀, ɔ̀-	
MBE	pə̀ŋ	ə̀-k'ə̀, ɔ̀-	
ELU	pə̀m	mby'ə̀kə̀	
NNE	pə̀l'ə̀bə̀g'	ə̀-k'ə̀k, mə̀-	
AKO	k'ə̀l'ə̀bə̀g' (/k'ə̀l'ə̀bə̀g')	ə̀-k'ə̀k, mə̀-	
MHE	pə̀k'ə̀	ɛ̀-k'ə̀k, mə̀-	
MWK	pə̀k'ɔ̀	ə̀-k'ə̀k, ɔ̀-	
MKA	pə̀k'ə̀	ɛ̀-k'ə̀k'ə̀, mə̀-	
BLN	pə̀k'ə̀	ɛ̀-k'ə̀k'ə̀, mə̀-	
BBO	pə̀k'ə̀	ɪ̀-k'ə̀k, mə̀-	
LEF	p'ɔ̀pɔ̀	ŋ-kw'ə̀n, mə̀-	
LEK	l'ə̀-k'ə̀gə̀?, mə̀-	l'ə̀-k'ɪ̀k, mə̀-	

	( 66 ) elbow *		( 67 ) wrist
	coude		poignet
CB	(1130) *-kɔkɔdã		
M	*-kɔkɔda 9		
PM	*-bɔŋ 5/6		*-kɔɪV 5/6
MBM	ã-bɔŋ'kã, mbɔbɔŋ'kã		ã-kwɔkã, ŋ-
MBN	tɔãkã		kwɛ ðkã
MYE	ã-bɔŋ'kã		ã-wðɔ'kã, ð- (←ã-wðŋ)
MBE	ã-bɔŋ'kã, ð-		akɔɔ'kã, ð-
ELU	ã-kɔɪkã, ð-		
NNE	ŋgɔn ðkã, ŋgɔn ɛ mɛkã		ã-kɔɔ, mɛ-
AKO	ŋgɔgɔl ðkã, ŋgɔgɔl kã		ã-kɔɪ, mɛ-
MHE	ã-bɔŋ, mɛ-		ɛ-kɔɪ, mɛ- 'forearm' ã-nɪŋã, mɛ-
MWK	ã-bɔŋ kã, ð-bɔŋ kã		ã-kɔɪ kã
MKA	ɛ-bɔŋ, mɛ-		ŋgɔɔɔɔ
BLN	ã-bɔŋ, mɛ- -mbɔŋ, mɪ-		ã-kɔtɔg' dɔ kã, mɛ-kɔtɔg' mɛkã
RBO	ɪ-bɔbɔŋ, mɪ-		ɪ-bɔbɔŋ, mɪ-
LEF	dɪɪ dɪ kwɛ		
LEK	dɔŋ ɛ lɛkɪã		lɛ-nɔgɛ lɛkɪã

	( 68 ) hand		
	main		
CB	(973) *-kãcã (1893) *-yãdã 7/8 'finger, (hand)'		
M	*-ka 5 PEG: *bɔ (920) *-jãdã 'finger'		
PM	*-kã 7/6		
MBM	mbɔd'kã		
MBN	ã-kã, ŋ-		
MYE	ã-kã, ð-		
MBE	ã-kã, ð-		
ELU	ã-kã, ð-		
NNE	ã-kã, mɛ-		
AKO	ã-kã, mɛ-		
MHE	ɛ-kã		
MWK	ã-kã, ð-		
MKA	ɛ-kã'ã, mɛ-		
BLN	ɛ-kã'ã, mɛ-		
RBO	ɪ-kã		
LEF	ɛ-kɛ, mɛ-		
LEK	lɛ-kɪã, mɛ-		

( 69) palm (of hand) *	( 70) finger *
paume	doigt
CB (1500) *-pě	(1372) *-nòè 3/4
M *-pe, -pi 11	*-nòè 3
PM *-bǎny 9/10 (14/6)	*-èè 3/4, *-mwèè, -myèè 14/6
MBM mbíí'kǎ	mwǎn kǎ, id.
MBN m-bě èkǎǎ, à-	ǎmèŋ kǎ, id.
MYE mbíí'èkǎǎ	ǎmǎǎ myǎ, bǎǎ myǎ
MBE mbéé'kǎ	mwǎ'kǎ, bǎǎ'mwǎ'kǎ à-mwǎ'kǎ, ò-
ELU mbéé'kǎ	mǎǎ mwí, bǎǎ mǐ
NNE mbíŋ èkǎǎ	ǎ?-mwíí, mǎ-
AKO mbén èkǎǎ, mbén é mǎkǎǎ	ǎ?-míí, mǎ-
MHE è?-bǎǎ dǎkǎǎ, mǎ-bǎǎ mǎkǎǎ	è?-mwǎǎ, mǎ-myǎǎ mw-ǎǎ, my-
MWK mbǎǎ èkǎǎ	mw-èè, my-
MKA è-bǎǎ fǎ kǎǎ, mǎ-bǎǎ mǎkǎǎ	muǎ, miǎ
BLN è?-bǎǎ dǎ kǎǎ, mǎ-bǎǎ mǎkǎǎ	mwèè, myèè
BBO mbǎǎ kǎǎ, mbǎǎ mǎkǎǎ	mwè mǐ kǎǎ, myèè mǐ mǐkǎǎ
LEF mbén jí kǎ	wù-mwè, mǎ-
LEK à-béé'kyǎ, bǎ-	sǎèkyǎ, sǎmmǎ'kyǎ
( 71) fingernail	( 72) back *
ongle	dos
CB (1894) *-(n)yǎdǎ (919) *-jǎdǎ	(139) *-bǐcǎ 9, (223) *-bǐcǎ 9 'back, rear'
M *-jǎdǎ 11 PEG:kíǎ	*-boj-, -bog- 'return' PEG: *jíǎ
PM *-ǎn 9/10	*-bǐj 9/10
MBM nyǎkǎ	mbǎd'
MBN nyǎn	mbéyg'
MYE nyǎn	mbǎí?
MBE yǎn	mbí?
ELU nyǎn	mbǎk
NNE nyǎn	mbwég'
AKO nyǎn	mbǐd'
MHE nyǎn	mbwéy? (/mbús)
MWK yǎǎn	mbí?
MKA nyǎn	mbúy?
BLN nyǎn	mbúy? (y?/d')
BBO nyǎn	mbút
LEF nyǎn	mbí?
LEK nyé	mbí?

	( 73) chest	( 74) breast *	( 75) rib
	poitrine	sein	côte
CB	(1822) *-tôdɔ̃ 9/10	(71) *bɛ̃ɛdɛ̃ 5/6	(56) *-bânjɛ̃/ɛ̃
M	*-tôdo 9	*-bɛ̃ɛdɛ̃ 5 PEG: *bɛ̃ñ	*-bânjɛ̃ 11
PM	*tɔ̃l̃ 9 *-tɔ̃g 7	*-bɛ̃ɛ̃ 5/6	*-bânɣ 9/10
MBM	tɔ̃dɔ̃l (1/n)	â-bɛ̃ (e/iɪ), m̃-	mbɪ
MBN	â-tɔ̃?	â-byɛ̃ (ɛ/ə), m̃-	mbɔ̃ɣ
MYE	ɲkɔ̃kɔ̃	â-ɔ̃ɔ̃, o-	mbɪɲɛ̃ɲ
MBE	e-tɔ̃?	â-bɛ̃, ɔ̃-	mbe?
ELU	tɔ̃l̃ e-tɔ̃?	â-bɪ̃f̃, ɔ̃-	mbɛ̃ɛ̃ɲ
NNE	tɔ̃l̃	â-bɪ̃f̃, m̃-	mbɛ̃ɲ
AKO	tɔ̃l̃	â-bɪ̃f̃, m̃-	mbɛ̃n
MHE	tɔ̃l̃	ɛ̃? -bɛ̃ (e/ee), m̃-	mbââ
MWK	tɔ̃l̃	â-bɛ̃ɛ̃, ɔ̃-	mbââ
MKA	tɔ̃l̃ ɛ̃-tɔ̃g'	ɛ̃? -bɛ̃'ɛ̃, m̃-	mbââ
BLN	tɔ̃l̃	ɛ̃? -bɛ̃ɛ̃, m̃-	mbaa
BBO	tɔ̃dɔ̃ (/tɔ̃ɣ)	f̃-bɛ̃ɛ̃, m̃f̃-	mbââ
LEF	ɲɔ̃ɔ̃ɲɔ̃	l̃â-bɛ̃, m̃â-	mbɛ̃n
LEK	l̃â-kɪ̃?, m̃â-	l̃ɛ̃-bɛ̃ɛ̃?, m̃-	mbe
	( 76) lung *	( 77) breath *	
	poumon	haleine, souffle	
CB		(1468) *-pɛ̃ɛ̃m- 'to breathe'	
M	PEG: *bɛ̃ɛ̃	*-pɔ̃mɔ̃ 9	
PM	*-fɔ̃fɔ̃? *-pâb 5/6	*-pɔ̃b 7 *pɛ̃mɛ̃	
MBM	â-fɔ̃fɔ̃ nd̃ám	ɛ̃-yɛ̃n	
MBN	â-fɔ̃fɔ̃ ñd̃ám		
MYE	â-hwɔ̃bɪ̃?, ɔ̃-	ɛ̃-pɔ̃?	
MBE	â-bâ, o- l̃-l̃ám	ɛ̃-pɔ̃?	
ELU	ɔ̃-pâllɛ̃	â-kɔ̃b'	
NNE	â-kɔ̃b, m̃â-	pɛ̃mɛ̃	
AKO		pɛ̃mɛ̃	
MHE	ɔ̃-hɔ̃l̃ (o/ɔ̃)	ɛ̃?-hɛ̃ɛ̃bɛ̃	
MWK	â-pâw ɲ l̃ám, ɔ̃-		
MKA	ɛ̃-hɔ̃l̃ɔ̃hɔ̃to		
BLN	ɛ̃-pâb ɲl̃ám, m̃â- ɲl̃ám	ɛ̃-pɔ̃b'	
BBO	l̃-fɪ̃hɔ̃	f̃-hũ, f̃-fũ	
LEF	ɛ̃-fɔ̃fɔ̃, bɪ̃-	ɛ̃-fɪ̃ pɛ̃mɪ̃	
LEK	ñ-d̃ɔ̃ɣɔ̃, m̃â-	m̃âjwɛ̃nɛ̃	



( 78) heart	( 79) abdomen, stomach	
coeur	ventre, estomac	
CB (1738) *-tēmā	(229) *-būmō 5/6	
M *-tēmā 3 PEG: *tīm`	*-būmō 5 PEG:*būm` PBC:*-bumu	
PM *-lēm 3/4	*-būm 5/6 *-bīl` 7 'stomach'	
MBM ñ-d'am	ā-būm, m-	
MBN ñ-d'am	ā-bām, id.	
MYE ì-l'ém	ā-būm, ò-	
MBE ì-l'ém	ā-būm, ò- ā-bēl	
ELU ā-pūm ɛ ll'ém	ā-būm, ò-	
NNE ì-l'ém	ā-būm, mē-	
AKO ñ-l'ém	ā-būm, mē-	
MHE ñ-l'ém	ē?-būm, mē- ē-bīl	
MWK ñ-l'ém	ā-būm, ò-	
MKA ñ-l'ém	ē-būm, mē-	
BLN ñ-l'ém	ē-būm, mē-	
BBO ñ-y'ém	ī-būm, mī- ī-bīf	
LEF ñ-l'ém, mī-	īf-būm, mē-	
LEK epōōzók	lē-bōn, m-	
( 80) intestines *	( 81) liver	( 82) kidney *
intestins	foie	rein
CB (442) *-dā 6 PEG:*tō`	(1739) *tēmā	(1549) *-pīgō
M *-dā 6,11,14 'entrails'	PEG: *bē`	*-pīgō 9
PM *-ēē 3/4	*-bāā (/ -bāā?) 5/6	*pīg 9/10 *-jūū 7/8
MBM mīf	ā-bā, m-	ē-yūū
MBN mīyā (ə/ɛ)	ā-bā, m-	ē-zūū
MYE mīyā	ā-bā, ò-	pō?
MBE mīyā	ā-bā, ò-	pō?
ELU mī	ā-bā, ò-	p'ég'
NNE mīf	ā-bāā, mē-	p'ég'
AKO mīf	ā-bāā, mē-	p'ég'
MHE mīyā	ē-bāā, mē-	pīg' (g'/?)
MWK mw-ēē, my-	ā-bāā, ò-	pī?
MKA mw-ēē, my-	ē?-bāā, mē-	pīg'
BLN mw-ēē, my-	ē?-bāā, mē-	pīg' m-kūg'
BBO mw-ēē, my-	ī-bāyā, mī-	ī-jū, īb-
LEF ñ-yā, mī-	īf-bē, mē-	pā?
LEK mīyē?	lē-byā?, m-	pīk

	( 83) navel	( 84) buttocks *
	nombril	fesses
CB	(1098) *-kʰbú 5/6	(1650) *-tākʰ 5/6
M	PEG: *tʰŋ	*-tākʰ PEG: *sʰt
PM	*-tʰŋ 5/6	*-sʰsʰ 5/6 *-lāmbā 5/6
MBM	à-tʰŋ	ñ-nəñ
MBN	à-tʰŋ, id.	à-lānnɛ, ñ-
MYE	à-tʰŋ, ò-	à-lānnɛ mbhŋnɛ, ò-
MBE	à-tʰŋ	e-jū
ELU	à-tʰ, ò-	à-sʰsʰ, ò-
NNE	à-tʰŋ	à-sʰsʰ
AKO	à-tʰŋ, mə-	à-sʰsʰ, mə-
MHE	è-tʰŋ	mè-sʰsʰ mè-lāmbā
MWK	à-tʰŋ, ò-	à-lāmbā, ò- ñ-nɪm
MKA	è-tʰŋ, mə-	è?-lāmbā, mə-
BLN	à-tʰŋ, mə-	mè-sʰsʰ mè-lāmbā
BBO	í-tʰŋ, mɪ-	í-sʰsʰ, mɪ-
LEF	wù-tʰŋ	dí-lāmbā, mə-
LEK	lè-tʰŋ, mə-	-lāānyɪ, mə-
	( 85) anus *	( 86) faeces, excrement *
	anus	excrement
CB		(135) *-bɪ 6,13
M		PEG: *bɪd
PM		*-bʰú (/ -bʰɪ?) 5/6
MBM	nzəñəñ	à-bʰú
MBN	nzɪnnɛñ	à-bʰú, mə-
MYE	pʰ mbhŋnɛ	à-bʰú, ò-
MBE	pʰ abū	à-bʰ
ELU	pʰbɪ	ò-bwɪ
NNE	pʰwɔ̄ àbʰ	à-bʰ, mə-
AKO	mbɔ̄n ɛbʰú (<mbɔ̄n ɛ àbʰú)	à-bʰú, mə-
MHE	ənyābʰú	è?-bʰú, mə-
MWK	əpɔ̄n nɪm	à-bʰú, ò-
MKA	ɛpɔ̄n ɛ' bʰú	mbʰ'ú (/məbʰ'ú)
BLN	əpɔ̄n ɛbʰú	mə-bʰú
BBO	mbɔ̄ndɔ̄ m' bʰú	í-bʰú, mɪ-
LEF	pɔ̄kɔ̄ ɛ lɪbɪ	lɪ-bɪ, mə-
LEK	ə-fɔ̄gɔ̄nyɪ, bə-	mɪgɪ, id.

	( 87) wind (per anum) pət	( 88) urine urine	( 89) vagina vagin
CB	(432) *-cùdĩ 3	(390) *-cò 6	(2100) *-yǝ
M		*-co 6 PEG: *cǝC	*-gɔ (-nyɔ) 5,9
PM	*-sùd 3	*-sǎny 6	*-nǝg 7 (*-kǝg 7)
MBM	ñ-sǝd'	nzǝsǝ	ǝ-nǝg'
MBN	ñ-sùl'	ñ-sǝŋ	ǝ-nǝg' (g'/?)
MYE	ñ-sù?	ò-sǝŋ	ǝ-nǝ?
MBE	ñ-sù	ò-sǝ	pǝn
ELU	ñ-sǝd'	ò-sǝ	ǝ-kǝ?
NNE	ñ-sǝd'	mǝ-sǝŋ	ǝ-kǝg'
AKO	ñ-sùd'	mǝ-sǝn	ǝ-kǝg'
MHE	ñ-sù? (?/g')	mǝ-syǝ	ǝ-bwóm
MWK	ñ-sù?	ò-sǝǝ	ǝ-nǝ?
MKA	ñ-sùd'	mǝ-sǝǝ	ǝ-nǝ
BLN	m-sùd'	mǝ-sǝǝ	ǝ-nǝ?
BBO	ñ-sùt	mǝ-sǝǝ	ǝ-sǝ
LEF	ñ-sù	mǝ-nǝǝ	ǝ-zùó
LEK	ñ-sùĩ	mǝĩ?	ǝ-nǝk

	( 90) penis *	( 91) testicle
	pǝnis	testicule
CB	PSCNC: *-T-K/G-ŋ-	
M	*-bombo 'abdomen (beneath navel)'	
PM	*-jǝg 3	*-bǝŋ 3 *-bǝn 9/10, 5/6
MBM	ǝ-yǝg'	mbǝmbǝn
MBN	ǝ-yǝ?	mbǝŋkǝl ǝ-bǝn
MYE	ñ-jǝ?	ñ-jǝ?
MBE	ñ-jǝ?	mbǝn
ELU	ndǝt 3ndǝ	n-jǝ
NNE	n-jwǝg'	ǝ-bǝn, mǝ-
AKO	ñ-jǝg' ǝ-bóm	mbǝn
MHE	ñ-jǝg'	ǝ-bǝn (e/i), mǝ-
MWK	ñ-jǝ?	mbǝn ǝ-bǝn, ò-
MKA	ñ-jǝg'	mbǝŋ mǝnyǝŋ
BLN	ñ-jǝ?	mǝnyǝŋǝ
BBO	ñ-jǝk	mbǝmbǝn
LEF	ñ-jǝ	lǝ-bǝn, mǝ-
LEK	ǝ-zǝk	mbǝŋ mbǝn

	( 92) thigh		( 93) hip
	cuisse		hanche
CB	(1339) *-nāmā 7/8		(2132) *-(n)yŋgā
M			PEG: *dɪŋ`
PM	*-pəŋ 7/8 V? *-nām 5/6		*-jūŋ 7/8
MBM	è-nām		dūŋ
MBN	è-nām, ò-		è-tùtùŋ, id.
MYE	è-pŋnām, á-		á-sŋŋ?, ò-
MBE	à-nām, ò-		à-lábbè, ò-
ELU	è-pə, ʒ-		ò-bɔ éjū
NNE	è-pwəŋ		ŋ-kəg'
AKO	è-pəŋ, mē-		á-lín dépəŋ
MHE	è-pəŋ è-nām èpən		è-tòŋɔ, mē- è-tòŋgò
MWK	à-nām ékò		è-jūŋ
MKA	è-nām, è?-		è-jū?, è?-
BLN	è-nām, mɛ-		è-jū è-tòŋgò dɪ kòò, mɪ-
BBO	í-nām, ím-		í-tòŋò, mɪ-
LEF	è-pəŋ, bɪ-		è-bɔsá, bɪ-
LEK	lè-nā, mɛ-		lè-sòŋəná, mē-

	( 94) leg *		( 95) knee *
	Jambe		genou
CB	(884) *-gòdò 3/4 PEG: *kò` 'pied'		(170) *-bŋŋɔ/ò 5/6
M	*-gòdò 15 PEG: *fɪn 'jambe, tibia'		
PM	*-kòò 7/6		*-bŋŋ 5/6
MBM	è-kù, ŋ-		à-bŋŋ (àbòòkù)
MBN	è-pŋŋ		à-bŋŋ, àbɔ' bŋŋ
MYE	è-kwə, ò-		à-bŋŋ, ò-
MBE	à-kɔ, ò-		à-bŋŋəkɔ, ò-
ELU	è-kù, ò-		à-bɔ, ò-
NNE	è-kùŋ, mē-		à-bɔbɔ, mē-
AKO	è-kùŋ, mē-		à-bɔbɔŋ, mē-
MHE	à-kòò, mē-		è?-bŋŋ, mē-
MWK	káməkò (calf muscle)		à-bŋŋ (ékò), ò-
MKA	è-kòò, mē-		è-bŋŋ, mē-
BLN	è-kòò, mē-		è?-bŋŋ dɛ kòò, mē-bŋŋ mɛ kòò
BBO	í-kòò, mɪ-		í-bŋbŋŋ, mɪ-
LEF	è-kwə, mē-		lɪ-bŋŋ, mē-
LEK	lè-khɔ, mē-		d-òŋ, m-

	( 96) heel	( 97) foot	( 98) toe *
	talon	pied	orteil
CB	(1761) *-tíndí		
M	*-tíndí 5	PEG: *kò`	
PM	*-tíndí 5/6 *tín 9/10	*-kòò 7/6	cf. (70)
MBM	mbʒfákù	è-kù, ŋ-	mwà ŋkù
MBN	kʒn èkù	è-kù, ò- / ŋ-	ñmɛ ŋkù. id.
MYE	mbhí (e)kwè	è-kwè, ò-	ñmɛ́á myà, bɛ́á myà
MBE	kén èkè	è-kè	à-mwékè, ò-mwékè
ELU	tín èkù		à-bɛ́, ò-
NNE	tén		à-bɛ́ŋ, mɛ-
AKO	à-tín tìn	è-kùù, mɛ-	è?-mii (békùù), mɛ-
MHE	tín	è-kòò	è?-mwèè, mɛ-myèè mw-èè, my-
MWK	à-tíndí (éko), ò-	è-kò, ò-	mwèè (éko)
MKA	è?-tín'dí, mɛ-	è-kòò, mɛ-	mw-ɛɛ mékòò, my-
BLN	è-tíndí, mɛ-	è-kòò, mɛ-	mw-ɛɛ mékòò, my-
BBO	ì-tíndí, mɛ-	ì-kòò, mɛ-	mw-èè míkòò, my-
LEF	píndèkwè	è-kwè, mɛ-	mɛ-mwè mɛ ékwè
LEK	è-jíí lèkè, bɛ-jíí mèkè		sɛ èkè, sɛ mèkè

	( 99) sole (of foot)	(100) person *
	plante	une personne, individu
CB		(1798) *-ntò 1/2
M		*-ntò 1 PEG: *mò(n)`
PM	*-bány 9/10 (14/6)	*mò-d 1, *bà-d 2 (mòònyòŋ, bányòŋ ?)
MBM	mbíí èkù	mòònyòŋ, bányòŋ
MBN	mbéè kù	mòl?, bàl? mòònyòŋ
MYE	mbhí kwè	mò?, bà? mòònyòŋ, bányòŋ
MBE	mbéé kè	mòòyòŋ, bányòŋ
ELU	mbéè kù	mò?, bà? mòònyòŋ, bányòŋ
NNE	mbéŋ èkùù	mò?, bà? (?/d')
AKO	mbén èkùù	mòd', bàd' mòònyòŋ, bányòŋ
MHE	è'-báá, mɛ-	mòl, bà? (a/a: ?/d'/l)
MWK	mbáà èkò	mòl, bàl
MKA	è?-báá ɛ́é kòò	mòd', bàd'
BLN	è?-báá d'é kòò, mɛ-	mòd', bàd'
BBO	mbáà kòò	mòt, bàt
LEF	mbén jí èkwè	mò?, bà?
LEK	è-béè kè, bɛ-	mò?, bà?

	(101) name *		(102) man *
	nom		homme
CB	(831) *-gĩnā 5/6 (2068) *-yĩnā		(697) *-dómē 1/2
M	*-jĩnā 5 PEG: *dĩn PBC: *-zina		PEG: *bāŋ *dó(m)~ 'marí'
PM	*-ĩn 5/6		
MBM	dĩn		mānzwóm
MBN	d-ēŋ, m-		mōnzóm, bāyóm (ə/a)
MYE	d-ĩŋ, m-		mūnjóm (o/wə), ðbú'jóm
MBE	d-ƒn, m-		mwānjóm, ðbānjóm
ELU	d-əŋ (ə/ɛ), m-		mwēnjú, ðbāəjú
NNE	d-ĩŋ, m-		mōnjú, bāəjú
AKO	d-ƒn, m-		mòd', bād'
MHE	d-ƒn, m-		mwānjóm, bāəjóm
MWK	d-ƒn, m-		mwānjóm, bāljóm/ðbāljóm
MKA	d-ƒn, m-		mwāmjóm, bāřējóm mòd', bād'
BLN	d-ƒn, m-		mwānjóm, bāəjóm
BBO	d-ƒn, m-		mwāmjóm, bāřējóm mòt, bāt
LEF	d-ƒn, m-		mò-mān, bə-
LEK	d-ƒ?, m-		-nzóŋ?, bə-

	(103) male		(104) bachelor		(105) woman
	māle		célibataire		femme
CB	(697) *-dómē 1/2				(986) *-kādĩ (1/2)
M	*-dómē 1				*-kādĩ 1 PEG: *g(w)ɛ'
PM	*-jóm 1/2		*-kəɪ 3/2		*-kād 1/2
MBM			ŋ-kəɪ mɔ?		mwad'
MBN		ñzóm	ŋ-kɔkwə, 1d.		mwāɪ?, əbwal? (ɪ/d')
MYE	mūnjóm (o/wə), ðbú'jóm		ŋ-kpə?, ə-		myəh?, ðbāh?
MBE	mwānjóm		ŋ-kəɪ mɔ?		mwāh?, ðbāh?
ELU	mwēnjú		ŋ-kəɪ, ə-		mwā (ə/ɛ), ðbā
NNE	mōnjú, bāəjú		ŋ-kəɪ		mwā? (?/d'), bəbāh?
AKO	mwēnjóm, bāəjóm	ñjóm, bə-	ŋkəɪ		m̄mwāh'd', bəbāh'd'
MHE		ñ-jóm, bə-	ŋkəɪ		mwāh?, bəh mw-āhɪ, b-
MWK		ñ-jóm	ŋ-kəɪ (~mòl)		mwāh, bāh
MKA		ñ-jó'ñ	ñ-kəɪ (ñ mòd'), bə-		mwāh'd', bāh'd'
BLN	mwānjóm, bāəjóm		ñ-kəɪ (~mòd')		mwāh'd', bāh'd'
BBO	mwāmjóm		ŋ-kəɪ ñ mòt		mw-āhɪ, b-
LEF	mò-mān, bə-		ñ-lām ə mòmān		mw-āɪān, b-
LEK	-nzóŋ?, bə-		ŋ-kwə, bə-		məŋh, bāŋh

	(106) female femelle	(107) widow veuve	(108) barren woman * femme stérile
CB	(986) *-kádí		(894) *-gòmbà
M	*-kádí		*-gòmbà 9 'sterile female'
PM	*-àád 1/2	*-kúj 1/2	*-kòm 7/8
MBM		ŋ-kwél mwād'	ŋ-kfn mwād'
MBN	mwāl? (1?/d')	ŋ-kwéy? mwāl?, ò-	è-kɔ mwād'
MYE	mwàá?	ŋ-kpé, ò-	kpèkɔ?
MBE	mwàá?	ŋ-kwí mwàá?	èkɔ mwàá, àkɔ bàá
ELU		ŋ-kók, ò-	èkɔ mwá?, kɔ bā?
NNE	mwàá? (?/d'), bɛbàá?	ŋ-kwéd', be-	è-kə mwād
AKO	mwàád'	ŋ-kúd', bə-	è-kòm (é mwàád'), è?-
MHE	mwàá	ŋ-kwéy? (/ŋ-kús), bə-	è-kòm, è?-
MWK	mwàá	ŋ-kúy?	èkòm (' mwàá)
MKA	mwàád'	ŋ-kúy?	è-kòm (é mwàád')
BLN	mw-àád', b-	m-kúsə mwàád'	è-kòm (' mwàád'), è?-
BRO	mw-àát, b-	í-kúsá, íb-	í-kòm (' mwàát), íb-
LEF	mw-àlān, b-	ŋ-kwí	è-kumba é mwàlān
LEK	məŋá	ŋ-kí?, bə-	ŋ-kín məŋá, bə-

	(109) child enfant	(110) boy * garçon
CB	(1922) *-yānā 1/2	
M	*-jānā 1 PEG: *mɔ(n), *bɔ(n)	PEG: *sòm 'jeune homme'
PM	*-ān 1/2	
MBM	my-ān (a/ɛ), b-	
MBN	mw-ān (w/y), b-	myā mūnzóm, bān bəyóm
MYE	myā, bān	myā mūnjwóm èlɔjɪ, ā-
MBE	my-ān, b- (/əbān)	mí(é)mwānjóm, bē(é)bānjān
ELU	mɔ, bān	mā mwènjɪ, bānə ɔbèjɪ
NNE	mw-ān, b-	mwēndəm, bēndəm
AKO	mw-ān, b-	mwānèmwājóm, bān bē bāājóm
MHE	mw-ān, b-	mwānè mwājóm
MWK	mw-ān, b-	mwān mwājóm
MKA	mw-ān, b-	mwānè mwājóm, bān bə bāfājóm
BLN	mw-ān, b-	mwānɛ mwājóm
BRO	mw-ān, b-	mwānā mwājóm, bān bē bāfājóm
LEF	mw-ān, b-	mwān ā mūmwān
LEK	mwé, bā	mwāndəé nzɔɔ, bāān-íə é bəzɔɔ

(111) girl *		(112) old man *	
Jeune fille		vieillard	
CB		(1384) *-nũnũ	
M	PEG: *gũn`	*-nũnũ 'old' PEG: *dũn '(être) vieux'	
PM	*-gũn 9	*-jũn 3/2	
MBM		n-zũmũd', yũribãd'	
MBN	ngũn mwãd'	n-zũmũd', ò-zũbãd'	
MYE	myã myã ètõngwã	ñ-jũntĩ mð?, ñ-jũntĩ ßã?	
MRE	mĩ(è) mwãã, bẽ(è) ßãã?	ñ-jũn mð?, ò-jũnebã?	
ELU	mõ mwã, bãnsãbã?	ñ-jũn mð?, ñ-jũn bã?	
NNE	mwã mwã?	ñ-jũn mð?, bã-	
AKO	mwãñè ñmwããd'          ngũn è ñmwããd'	ñ-jũn ñ mðd', bã-jũn bẽ bãd'	
MHE	mwãñè mwãã?	ñ-jũn ñ mð? (?/d'), bã-	
MWK	mwãñ mwãã	ñ-jũn (mðl)	
MKA	mwãñ: mwããd', bãñ bãbããd'          ngũn	ñ-jũn ñ mðd', bã-	
BLN	mwãñ: mwããd'	ñ-jũn (mðd), bã-	
BBO	mwãñã mwããt, bãñ bĩ bããt	ñ-jũn mðt, bĩ-jũn bĩ bãt	
LEF	mwãñ è mwãlãñ	ñ-tĩnã	
LEK	mwãndãè mðngã, bããndãè bãngã?	ñ-zĩ(n) mũ?, bã-zĩ bã?	
(113) chief *		(114) friend	
chef		ami(e)	
CB	(1265) *kũmũ 9/10 PEG: *fĩn`		
M	*-kũmũ l 'rich person, ruler'	PEG: *sõn`	
PM	(*kĩng` 9/10) *-fũn 3/2	*-sõn 1/2	
MBM	-mfũn, bã-	ñ-sõn	
MBN	ñ-fũn, ã-	ñ-sõn, ã-	
MYE	ũ-hwũn, ò-	ñ-swĩ, ò-	
MBE	kĩng	-mwẽ, ò-	
ELU	kã	w-ĩ, b-	
NNE	kũng	ñ-sũn, bã-	
AKO	kũng	ñ-sõn, bã-	
MHE	kĩng (k/c)	ñ-sũn (s/s), bã-	
MWK	kĩng          ñ-hũn (mðl)	ñ-sõn, ò-	
MKA	kũng          ñ-hũn	-mwẽĩè, bã-	
BLN	kĩng (i/e)	ñ-sõn, bã-          mwẽĩe	
BBO	kĩng	ñ-sõn, bĩ-	
LEF	ñ-fũn, bã-	ñ-sõn, bã-	
LEK	ñ-fũ, bã-	ñ-sũ, bã-	



	(115) stranger, guest *		(116) "white man" *
	étranger, invité		"le blanc"
CB	(805) *-gɛ̀nɪ̃ 1/2		
M	*-gɛ̀nɪ̃ 1 PEG: *gɛ̀nɪ̃`		
PM	*-kɛ̀n 1/2		
MBM	ɲ-kɛ̀n mɔ̀d', ɲ-kɛ̀n bə̀d'		zɔ̀gɔ̀ mɔ̀d'
MBN	ɲ-kɛ̀ mɔ̀?, ɔ̀-kɔ̀ bə̀?		ɲ-kɛ̀lɛ̀, ɔ̀- (/ə̀-)
MYE	ɲ-kɔ̀ mɔ̀?, ɔ̀-kɔ̀ bə̀?		ɲ-kɛ̀'1ɔ̀, ɔ̀-
MRE	ɲ-kɔ̀n, ɔ̀-		ɲ-kɛ̀'1ɛ̀, ɔ̀-
ELU	ɲ-kɛ̀, ɔ̀-		ɲ-kɛ̀lɛ̀, ɔ̀-
NNE	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
AKO	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
MHE	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
MWK	ɲ-kɛ̀n, ɔ̀-		ɲ-kɛ̀lɛ̀, ɔ̀-
MKA	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
BLN	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, be-
RBO	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
LEF	ɲ-kɔ̀n, bə̀-		mɔ̀-kɛ̀lɛ̀, bə̀-
LEK	ɲ-kɛ̀ mɔ̀?, bɔ̀-kɛ̀ bə̀?		ɲ-dɛ̀k, bɛ̀-1ɛ̀k
	(117) slave		(118) thief *
	esclave		voleur
CB	(1517) *-pə̀kə̀ 1/2		(2025) *yɪ̀bɪ̃ 1/2
M	PEG: *bɔ̀k`		*-jɪ̀bɪ̃ 1 PEG: *cɔ̀ŋ`
PM	*-tɛ̀ŋ` 1/2 *-bɛ̀ŋə̀ 1/2 *-lām *-jɔ̀ŋ		*-jɪ̀bə̀ 1/2
MBM	-ɲlām, bɛ̀-		-nz'ə̀b, be-
MBN	ɲ-lām, id.		ɲ-z'ə̀b', ɔ̀-
MYE	ɲ-tɛ̀ŋ, ɔ̀-		ɲ-jɪ̀i?, ɔ̀-
MRE	ɲ-tɛ̀ŋ, ɔ̀-		ɲ-jɪ̀, ɔ̀-
ELU	ɲ-tɛ̀, ɔ̀-		ɲ-j'ə̀b', ɔ̀-
NNE	ɲ-tɛ̀ŋ, bɛ̀-		ɲ-jɛ̀b', bɛ̀-
AKO	ɲ-tɛ̀ŋ, bɛ̀-		ɲ-jɪ̀b', bɛ̀-
MHE	ɲ-tɛ̀ŋ, bɛ̀-		ɲ-jɪ̀b', bɛ̀-
MWK	ɲ-bɛ̀ŋə̀ ɲ-jɔ̀ŋ, ɔ̀-		ɲ-jɪ̀w?, ɔ̀-
MKA	ɲ-bɛ̀ŋə̀, bɛ̀-		mɔ̀ɔ̀ ɛ̀jɪ̀'bɛ̀, bə̀ɔ̀ ɛ̀jɪ̀bə̀
BLN	ɲ-bɛ̀ŋə̀		mɔ̀ɔ̀ ɛ̀jɪ̀bə̀, bə̀ɔ̀ ɛ̀jɪ̀bə̀
RBO	ɲ-bɛ̀ŋə̀, bɛ̀- ɲ-jɔ̀ŋ, bɛ̀-		mɔ̀lɛ̀jɪ̀b', bə̀d' bɪ̀jɪ̀b'
LEF	ɲ-tɛ̀ŋ, bə̀-		ɲ-jɪ̀, bə̀-
LEK	-sə̀k, bɛ̀-		ɲ-zɪ̀?, bɛ̀-

	(119) (native) doctor médecin (indigène)		(120) wizard, sorcerer sorcier
CB	(786) *-qāngā 1/2, 9/10		
M	*-qāngā 1,9 PEG: *kāj` 'médicine'		
PM	*-gāng 9 *-āngā 14 *-bōl`		*-lēm 1/2
MBM	mòd mbwól		mò ɲkòù
MBN	mò àbúú		ì-1ēm, ā-
MYE	mòò ɲgāng mòò byā		ñ-1ēm, ò-
MBE	mò ɲgāng		ì-1ēm, ò-
ELU	mòò ɲgā, bāā ɲgā		ì-1e, ò-
NNE	mòò ɲgāng		ì-1ēm, bē-
AKO	ɲgāng 9/10 mòd è mból 'seer'		ñ-1ēm, bē-
MHE	mòl mból mòl mból		ñ-1ēm (ɛ/e), bē-
MWK	mòl bwāngā ɲgāng 'voyant'		ñ-1ēm, ò-
MKA	mòf`bwāngā		ñ-1ēm, bē-
BLN	mòf`bwāngā Ì-kóngá		ñ-1ēm, bī-
BBO	ì-kóngá, ìb'-		ñ-yēm, bī- mòl à bīf
LEF	mò? à wùdúngá		ñ-1ēm, bā-
LEK	mù-āìl`búú, bāā-		ñ-dògā, bē-
	(121) medicine *		(122) God *
	remède, médicament		Dieu
CB	(787) *-gāngā 14 (2019) *-yèté 3/4	(1917) *(n)yāmbé (925) *-jāmbé 9/10	
M	PEG: *f`ò` 'médicament'	(955) *-jóbā 5 'sun'	
PM	*-āngā 14/4 *-āì 14/6 (*-bōl`)	(*nyāmé) *-òb 5/6	
MBM	bīé	ñnyā	
MBN	byāā, byābúú	ñ'nyāām	
MYE	byā	ònyāā, búnyāā	
MBE	bw-āngā, my-	māyāmé dyò?	
ELU	bw-ìl, m-	dò	
NNE	bw-ìl, m-	dúú?	
AKO	bw-ìl, m-	dy-òb	
MHE	bw-ìl (mból = action)	dy-òb'	
MWK	bw-āngā, m-	dyòw 5,6	
MKA	bw-āngā, my- mból	dy-òb', m-	
BLN	bw-āngā mból	dy-òb'	
BBO	bw-āngā, my-	dy-òb', m-	
LEF	bw-ā, mw-ā	dy-ò	
LEK	ā-āìl`búú, py-	ñ-dām, mē-	

(123) ancestor *		(124) age-group *	
ancêtre		gens du même âge	
CB		(1194) *-kòdà	
M	*-jàmbé 9 (-é)	*-kʒɪ 3, 9	
PM	*-nyámé 1a/2	kʒn'pʒ	
MBM		(ŋkʒɪ?) bǎjɔŋ	
MBN	ndʒɔnzà asǎmbéy?	kwɔ? ndyɔ 9,10	
MYE	óbásísɔ ó'bí ómǎáwǎ ŋ-gúúísǎ, ò-	ŋ-kʒ(1), ò-	
MBE	yámǎ, ò-	(ì-1éŋ) kʒd'	
ELU	mòðbwǎ, bǎébwǎ	(ì-1éŋ) kʒd'	
NNE	bǎǎsɛ	kʒd'	
AKO	téé mbǎǎ -nyámé, bǎ-	kʒɪ	
MHE	mòl à bʒɪ? -nyámé, bǎ- bǎtǎǎ	ŋ-kʒɪ nyɔŋɔn 'même génération'	
MWK	mòl bwǎǎ	m-kʒɪ	
MKA	sǎǎŋmbǎ'ǎ, bǎ- -nyámǎǎ, bǎ-	kʒɪbǎd'	
BLN	bǎǎé kwǎŋǎ	kʒɔ	
BBO	tǎǎ kwǎŋǎ, bí-tǎǎ bí kwǎŋǎ	kʒ 'age' ɛ-yɔŋ, bí-	
LEF	bǎǎ'nyáké	bǎǎdyan dyan ǎwé?	
LEK	bǎǎ ñjámǎn		
	(125) water *	(126) river	(127) deep water *
	eau	fleuve	eau profonde
CR	(605) *-díbǎ 6	(ps 491) *-yǎnjǎ 'lake'	(603) *-díbǎ 'pool' 5/6 or 7/8
M	PEG: *kí'		*-díbǎ 5 'depth, pool'
PM	*-díb 6	*-díb 7/8	*-díb 9 *-tɛŋ 7
MBM	ñ-dǎb'	è-dǎb'	ndǎb'
MBN	ǎ-dǎb' (a-/n-)	è-dǎb', id.	è-tɛŋ
MYE	ò-dí?	è-dí?, ǎ-	ndí? ɛ-tɛŋ
MBE	ò-dí	è-dí (múnjǎ)	ndí ɛ-tɛŋ
ELU	ò-dób'	è-dǎb', ǎ-	ndǎb ɛ-tyǎ, 0-
NNE	mè-dǎb'	è-dǎb', ǎ?	ndǎb'
AKO	mè-ndíb'	è-díb', ɛ?	ndíb'
MHE	mè-díb'	è-díb', ɛ?	ndíb'
MWK	ò-díw?	è-díw, ǎ-	ndíw
MKA	mè-díb'	ɛ?-díb', mè- múnjǎ	ndíb'
BLN	mè-díb'	ɛ-díb', ɛ?	ndíb'
BBO	mí-ndíb'	í-díb', íb'-	í-búú, id.
LEF	mǎ-dé?	mǎ-dé mwǎnjǎ	ñ-dí
LEK	mǎ-dí?	-jǎk, mè-	è-tíŋ, bǎ-

	(128) lake *	(129) sea *	(130) rain
	lac	mer	pluie
CB		(ps 491) *-yǎnjǎ 'lake'	(225) *-búdá 9
M		Dia: múnjǎ	*-búdá 9 PEG: *biŋ
PM	*-dǐb 7/8		*-búú 9
MBM	è-sǎb'	è-dǎbǎm' bǎé	mbú
MBN	è-bòǎ? (??/???)	è-dǎm' bǎ	mbúú
MYE	è-dǐ?, à-	nsǒ é'dǐ?	mbǎúú
MBE	è-dǐ, à-	èdǐ mbǎ múnjǎ	mbúú
ELU	è-dǎb', à-	è-dǎbǎŋkwǎ	mbúú
NNE	è-dǎb', à?	èdǎbǎŋkwǎ	mbúú
AKO	è-dǐb', à?	èdǐbǎŋkwǎ	mbúú
MHE	è-dǐb'	èdǐb é mbǎǎ múnjǎ	mbúú
MWK	è-dǐw, à-	è-dǐw mbǎǎ múnjǎ	mbú
MKA	è-dǐb', à?		mbú
BLN	è-dǐb', à?	èdǐb mbǎǎ múnjǎ	mbú
BBO	ǐ-dǐb', ǐb'-	ǐdǐb ǐ mbǎǎ múnjǎ	mbú
LEF	mbóò	mbóò	mbú
LEK		sǒlǎ wǎtǎ	mbǐgǐ

	(131) stagnant water	(132) dew	(133) cloud *
	eau stagnante, morte	rosée	nuage
CB		(1290) *-mǎ	
M		*-mǎ 3,7,11 PEG: *mǔk	PEG: *bǎk *dúad
PM	*-sǎny 6, (7/8)	(*-myǎ(1)~/m-wǎ(1)?)	*-bǎg 9
MBM	ǎ-sǎ'mbú	mbǎk	ǎ-lwǎǎd'
MBN	ǎ-sǎ'ŋǎ	mǎmyǎl	mbǎ? 'ǎbǎ?
MYE	ǎ-sǎŋ(ǎ), à-	mbǎhǎ?	mbǎhǎ?
MBE	ǎ-sǎ, à-	myǎ	mbǎ?
ELU	ǎ-sǎ	myǎl	mbǎ?
NNE	mǎ-syǎŋ	myǎ	mbǎhǎ?
AKO	mǎ-sǎn	mǎmwǎ	mbǎg 9,10
MHE	mǎ-syǎ mǎ mbúú	mǎmyǎ (ε/a)	mbǎq' (g'/?)
MWK	è-tyǎŋ é'dǐw	mǎmwǎ	mbǎ? (mbú)
MKA	mǎ-sǎ'ǎ	myǎ	mbǎg'
BLN	mǎ-sǎ'ǎ	mǎmyǎ	mbǎg'
BBO	ǐ-sǎǎ, ǐb'-	byǎgǎgǎ	mbǎk
LEF	mǎ-sǎ'ǎ	bǎ-kǎkǎ	lǐ-bǎŋ
LEK	mǎ-sǎé	myǎ?	ǎ-bǎk

	(134) fog, mist *	(135) smoke	(136) thunder *
	brouillard, brume	fumée	tonnerre
CB			
M			PEG: *fʔəŋ
PM	*-bāg 9		*-gādv 9 + dyōb *-gīny 9
MBM	ā-lwāād'	mbāg' mūū	ndēlē
MBN	mbōʔ (m/ə)	mbōlāʔ	ŋkākā mbūū
MYE	mbhōʔ	mūūūū ŋ?	mbhūūū kūmāʔ
MBE	mbōʔ	mūlāʔ	ŋkumā ŋ 'dyō
ELU	mbāʔ	mbōʔaʔ	ŋgəŋ
NNE	mbhāʔ	mōtēdʔ	ŋgīŋ
AKO	mbāg'	mwēntūd' 3	ŋjīn
MHE	mbāg'	mōtūl' (ə/e, lʔ/d')	ŋgāl dyōb
MWK	mbāʔ	mūtā 3	ŋgāal dyōw
MKA	mbāg'	mētūtāg'	ŋgāfīdyōb'
BLN	mbāg	mūtāg' mē-tūd'	mbāmāg' ŋ dyōb'
RBO	mbāk	mūtīt	ŋgādī dyōb'
LEF	lī-bāŋ	ŋ-tūtū	ŋgīnyā ē dyōb'
LEK	ē-bāk	zīfʔ	sēē
	(137) lightning *	(138) sky	
	éclair	ciel	
CB	(922) *-jādī 9		
M		*-jōbā 5 'sun'	
PM	*-mwāŋ *-mwēd(/-ādʔ)	*-ōb 5 (*-bōb' 5)	
MBM	ēmwāmwāŋ	ndōōndōō	
MBN	sēʔ	dōl' (lʔ/b')	
MYE	myamyāŋ	dūē mēŋ	
MBE	mbē'mā ŋ 'dyō	dyō	
ELU		dōō	
NNE	ēmwēʔmwēʔ	dūūūʔ	
AKO	ēmwēdmwēd'	dyōb' ābōbā ē dyōb'	
MHE	ēʔ-mwēmwētē	dyōb'	
MWK	mwēlmwēl	abōw	
MKA	mwēlēmwētē	ēbōb (ŋgūm)	māwā
BLN	mwāŋmwāŋē (mwāmwtē)	dyōb'	māwā dyōb'
RBO	īmwēmwēlē		māwā
LEF			āmwāŋ
LEK	ēmwāŋmwāŋ	dūūʔ	

	(139) wind		(140) storm *
	vent		orage
CB	(1493) *pɛpɔ̃ (9/10) 'cold, wind'	(1606) *pɔ̃pɔ̃	
M	*pɛpɔ̃ 9 'wind, cold' PEG: *fɔ̃fɔ̃ad		
PM	*-pɔ̃b 7 (*-fɛb 5)		*-gɔ̃d 9 *-kɔ̃d 7
MBM	ə-kɔ̃d'		ə-kɔ̃d'
MBN	ə-pəb'		ɲgɔ̃d
MYE	ə-kɪkɔ̃?		ə-kɔ̃kɔ̃?
MBE	ə-pɔ̃?		ɲgɔ̃?
ELU	ə-héb, ɔ̃-		ə-kɔ̃kɔ̃d', ɔ̃-
NNE	ə-pɔ̃b'		ə-kwɔ̃kwɔ̃d'
AKO	ə-pɔ̃b' pɛmɛ		ə-kɔ̃kɔ̃d'
MHE	ə-pɔ̃b'		ɲgɔ̃d
MWK	ə-pɔ̃?		ɲgɔ̃d
MKA	ɛ-pɔ̃b'		ɲgɔ̃d
BLN	ə-pɔ̃b'		ɲgɔ̃d ɛ-kɔ̃d'
BBO	ɪ-pɔ̃b		ɪ-kɔ̃t
LEF	ɲgɔ̃ɲgɔ̃		ɛ-kɔ̃d
LEK	ɪə-fwɔ̃?		ɛ-kɔ̃?
	(141) sun *		(142) sunshine
	soleil		clarté du soleil
CB	(1791) *tɔ̃ndɔ̃ə 'star' (1983) *nyɛnyɛdɪ 'star'	(ps 492) *yànyá 'day, daylight'	
CB	(ps 492) *yànyá 'day, daylight' PEG: *nɪm		
PM	*-nyàny 7 (*-sɛɛ 5)		*-nyàny 7 (*-sɛɛ 5)
MBM	ə-nyɪ		ɛyákɔ̃ 'burns feet'
MBN	ə-nyɛɲ dɔ̃ə		
MYE	ə-nyɛɲ		ə-nyɛɲ ɛ-pɛɲɛ? 'sun is shining' əhɪntɪ
MBE	ə-yɛɛ		
ELU	ə-nyɛ		ənyɛ ɛ-pɛɲɛ
NNE	ə-nyɛɲ		ənyɛɲ ɛ-pɛɲɛ?
AKO	ətɔ̃ndɛɛ		ənyɛɲ
MHE	ə-nyɛa		
MWK	ə-sɛɛ ətɔ̃n dyɔ̃w		ɛyákɛ (y/ny)
MKA	ɛ-sɛɛ		ɛnyákɛ
BLN	ɛ-nyákɛ ( / )		ɛ-sɛ'ɛ
BBO	ɪ-nyákɛ		ɪ-sɛɛ dɪ nyákɛ
LEF	dɔ̃lɔ̃		dɔ̃lɔ̃ dɪ fya
LEK	dɪdɔ̃ɲɔ̃?		ɛ-sákɛgɛncɪ

(143) moon *		(144) month *	
lune		mois	
CB	(855/6) *-gəndɛ̃/ɔ̃ (1965) *-yɛdɪ 3/4	(855/6) *-gəndɛ̃/ɔ̃	
M	*-gəndɛ̃/ɔ̃ 9 PEG: *ŋɔ̃(a)	PEG: *ŋɔ̃(a)	
PM	*-gə̃n 9	*-gə̃n 9/10	
MBM	ŋgə̃n	ŋgə̃n	
MBN	ŋgə̃n	ŋgə̃n	
MYE	ŋgwə̃n	ŋgwə̃n	
MBE	ŋgə̃n	ŋgə̃n	
ELU	ŋgə̃	ŋgə̃	
NNE	ŋgə̃n	ŋgə̃n	
AKO	ŋgə̃n	ŋgə̃n	
MHE	ŋgə̃n	ŋgə̃n	
MWK	ð-ɪŋɛ̃ɛ̃/ð-ɪɛ̃ɛ̃ŋ	ŋgə̃n	
MKA	ŋgə̃n	ŋgə̃n	
BLN	ŋgə̃n	ŋgə̃n	
BBO	mɪ-yə̃ŋgɛ̃ mwə̃dɪ	ŋgə̃n	
LEF	ŋgə̃n	ŋgə̃n	
LEK	mùùžžikimɪn	ŋgə̃	

(145) star *	(146) day	(147) night
étoile	Jour	nuit
CB (1983) *-nyɛ̃nyɛ̃dɪ 9/10	(434) *-cɪŋù (437) *-cɪkò	(1751) *tɪkò (879) *-gə̃ɔ̃ɔ̃ 'evening'
M PEG: *sə̃ŋ	(ps 533) *-yɪnyə̃	PEG: *tɪk
PM *-tə̃ny ɪa/2 *nyɛ̃ɪɛ̃	*-ɪny/-úny 14 *sú *pOn 7	*-kòò 3
MBM nyɛ̃n (n/ɪ)	sú mwɛ̃tə̃	ŋ-kùù
MBN nyɛ̃ɪ, nyɛ̃ɪɔ̃ŋ	mbòòtə̃	ŋ-kùù ə-fɪndə̃?
MYE nyə̃ɪɪ?	bɪŋ sú	ŋ-kwə̃
MBE mɛ̃-yə̃ɪ (ə/ɛ), bɛ̃-	sú mwə̃tə̃	ŋ-kə̃
ELU nyɛ̃ɪɛ̃	ə-pə̃n, ʔ-	ŋ-kù
NNE -tɪŋtɪŋɛ̃, bə̃-	ə-pə̃n (ɛ̃ bwɛ̃ɪ)	ŋ-kùù
AKO -tɪntɪnɛ̃, bə̃-	bɪn sú	ŋ-kùù
MHE -tə̃ə̃tə̃, bə̃-	bū sú	ŋ-kə̃
MWK tɛ̃ɛ̃tɛ̃	bū? sú	ŋ-kòò
MKA -tɛ̃ɛ̃tɛ̃, bə̃-	bū sú	ŋ-kòò
BLN -tɛ̃ɛ̃tɛ̃, bɪ-	bū sú	ə-kòò
BBO -tɛ̃tɛ̃, bɪ-	bùɪ sú	ə-kòò
LEF tɪtɪ?	bwɪn wù-dɪù, mǎ-	wù-dɪù, mǎ-
LEK nyɪŋkɛ̃?, ɪd.	sə̃ sə̃mbɔ̃k	ŋ-kə̃

	(148) darkness *		(149) morning *
	obscurité		matin
CB			
M	*-pi-		
PM	*-fɪntɛn ?		*-bwā 9 *-sɔ̃sɔ̃? 3 *-pɔ̃g 7
MBM	è-fɪnɪ		nsɔ̃sɔ̃ (/sɔ̃su)
MBN	è-s(ɪndɛ) (s/s) ñlāmè		è-pɔ̃ɔ̃ŋkù
MYE	è-hɪntɪ?		nzɔ̃sɔ̃
MBE	è-hɛntɛn		ndɔ̃sɔ̃
ELU	è-hɛntɛ		ñsɔ̃sɔ̃
NNE	è-hɛntɛ		mbɔ̃mbwɛ
AKO	è-hɪntɛn		mbwɛmbwɛ èpɔ̃g 'early'
MHE	è?-hɪntɛn		mbwɛmbwɛ (ɛ/a)
MWK	è-hɪntɪ		mbwā
MKA	è?-hɪntɛn		mbwā
BLN	è?-hɪntɛn		mbwā
RBO	ɪ-fɪtɪk		mbwā ɪjɛsɪ'brɪ
LEF	è-fɪnjā		mɔ̃sɔ̃
LEK	è-sɔ̃wɪŋkɛncɪ		èpɔ̃g èpɔ̃k
	(150) noon *		(151) evening *
	midi		soir
CB			(879) *-gɔ̃dɔ̃
M	Dla: kɔ̃sɪ		*-gɔ̃dɔ̃dɔ̃bà 3 *-godɔ̃ 5 'evening, yesterday'
PM	(*mwɛtɛ?)		*-gɔ̃kɔ̃vɪ 9 *-kɔ̃kɔ̃ 3
MBM	ñsɔ̃mɛdɔ̃dɔ̃b'		ŋgɔ̃kɪ
MBN	kɔ̃sɪ		ŋkɔ̃kɔ̃
MYE	ñmɛtɛ		ŋkɔ̃kɔ̃
MBE	kɔ̃sɪ		ŋkɔ̃kɔ̃
ELU	mwɛtɪ		ŋkɔ̃kɔ̃
NNE	mɔ̃tɛ		ŋgɔ̃kɛɪ
AKO	kɔ̃d'		ŋgɔ̃kɛɪ
MHE	mɔ̃tɛ		ŋgɔ̃kɔ̃ɪ
MWK	kɔ̃sɪ		ŋgɔ̃kɔ̃ɪ ŋkɔ̃kɔ̃
MKA	kɔ̃sɛ		ŋgɔ̃kɔ̃ɪ
BLN	kɔ̃sɪ		ŋgɔ̃kɔ̃ɪ
RBO	kɔ̃sɪ		ŋgɔ̃kɔ̃ɔ̃(o/u) ñkɔ̃kɔ̃
LEF	lɪsɛn 'afternoon'		ŋkwɛ
LEK	ndɔ̃g ɛmɔ̃ɪ		ŋgɔ̃kɔ̃



	(152) year *	(153) rainy season
	an	saison des pluies
CB	(217) *-bú (3/4) (1904) *-yákà 3/4	
M	*-(j)ákà 3 PEG: *gòk`-'année'	
PM	*-sèb 7/8 *-bú 3/4 (*-á 3/4)	*-kòg/-kúg 3 *-j5 7/8
MBM	è-syèb'	ǰ-kòg'
MBN	è-scb, à-	ǰ-kú? (?/g')
MYE	è-sà?, à-	ǰ-kò?
MBE	è-sè, à-	ǰ-kú?
ELU	è-sè?, Ø-	ǰ-kók
NNE	mw-è, my-	ǰ-kòg'
AKO	mwè	ǰ-kòg'
MHE	m-bí	ǰ-kòg' (o/u, g'/?)
MWK	m-bú 3	ǰ-kú? è-j5 (7,8)
MKA	m-bí	è-j5
BLN	m-bí 3,4	è-j5
RBO	m-bí	í-j5, íb'-
LEF	m-bí	è-y5?
LEK	è-sá, bè-	è-sòg5

	(154) dry season	(155) fire	(156) charcoal
	saison sèche	feu	charbon
CB	(342) *-cèp3 (7/8)	(1987) *-yéà	(980) *-kádà 6
M	PEG: *dòm	PEG: *mút'	*-kádà 5
PM	*-sèb 7/8	*mù	*-kàntìd 5/6 *-kàá 5/6 ?
MBM	dyòm'té	mù	à-kéé mù
MBN	è-sèb' (ε/ə) yòm'pà	mù	à-kàá 'mù
MYE	è-sà?	mù	à-kòó'mù
MBE	è-sè	mù	à-kàá mù, ò-
ELU	è-sè?	mù	ákó (à-kòó'è mù, ò-)
NNE	è-sèb'	mù	à-kíí, mè-
AKO	è-sèb'	mù 3	à-kíkíí, mè-
MHE	è-sèb'	mù	è-káàlè?, mè-
MWK	è-sèw, à-	mù 3	ò-ká'á'ngkí
MKA	è-sèb'	mù	è?-kàntìí', mè-
BLN	è-sèb'	mù	è-kàntìí, mí- òkà'ngkí
RBO	í-sèb', íb'-	mù	í-kà'ngkít, mí-
LEF	è-yóm	mùí	lí-kákà, mè-
LEK	zòm'ntè	mè	mè-kàgám'è

	(157) ashes *	(158) forest	(159) "bush"
	cendre	forêt	brousse
CB	(216) *-bú (3),5		
M	*-bú 5 'earth, dust' PEG: *bú`		
PM	*mbumbú	*-fěny 5/6	*-fěny 5/6 *-kítě? 7/8
MBM	mbòbò ñfùŋ	à-ší	è-kóřà/è-křě
MBN	mbúdm	ñ-pim	è-křě?
MYE	mbúmf?	ndwǝm	è-kítě, à-
MBE	mbúmbú	à-hěš, ò-	è-kítě, à-
ELU	mbúmwěd'	à-hěŋ, ò-	à-hěŋ
NNE	mbúmbú	à-híŋ	à-híŋ
AKO	mbúmbú	à-hín, mē-	à-hín, mē-
MHE	mbúmbú	è-hěě, mē-	è-hěě, mē-
MWK	mbúmbú	à-hěě	à-hěě
MKA	mbúmbú	è?-hě'ě, mē-	è?hě'ě, mē-
BLN	mbúmbú	è?-hě'ě	è?hě'ě
BBO	mbúmbú	í-fěě, mí-hěě	í-bùtā, íb'-
LEF	mbúmbú	lí-fín, mē-	ndúkú
LEK	mphǝ	ñ-pín	è-kí?, bē-
	(160) tree *	(161) leaf	
	arbre	feuille	
CB	(1729) *-tě (3/4) (2019) *-yětě 3/4	(1928) *-yānf (1019) *-káyě (1021) *-káyí	
M	*-tě 3 PEG: *tě`	*-jānf 5 PEG: *f?ǝ`	
PM	*-ě1/-ě1' 14/6	*-ěš 7/8 *-pān 7/8	
MBM	y-ěŋ, m-	jyěš, id.	
MBN	lěŋ, id.	í'yě (ɛ/ə) è-pān	
MYE	jěŋ, mēŋ	jy-ě, by- èpā'jyě	
MRE	bw-ě1, m-ə1	j-ě, bw-ě è-pān, a-	
ELU	bw-ě1, m-	à-pā-jě, ò-	
NNE	bw-ě1, m-	ky-ěš, by-	
AKO	bw-ě1, m-	cy-ěš, by-	
MHE	bw-ě1, m-	jy-ě, by-	
MWK	bw-ě1, m-	j-ěš, by-	
MKA	bw-ě1, m-	j-ěš, by-	
BLN	bw-ě1, m-	jy-ěš, by-	
BBO	bw-ěš, m-	j-ěš, by-	
LEF	bw-ě, mw-	í-yě, bí-	
LEK	ž-ěgí?, m-	š-ě, py-	

	(162) branch		(163) palm frond *
	branche		feuille de palmier
CB	(1636) *-tābè 3/4		(502) *-dāngí. 3/4 'bamboo'
M	*-tābè 5,9 'branch, twig'		
PM	*-gāny 9/10 *-lābē 3/4 *pān 9/10		*-ān 5/6
MBM	pān yān		dy-ān dīí, m-
MBN	pān		Jān
MYE	ñ-lā?		dy-ān, m-
MBE	l-lā (bwəl) (a/ɛ)		dy-ān (dīí), m-
ELU	ngē		dy-ā, m-ō
NNE	ngēn		ngālē
AKO	ngēn		əkīkāg'
MHE	ngāā (aa/a)		dy-ān (dy/j)
MWK	ñ-lāw		dy-ān (dīí)
MKA	ngā?ā (bwəl)		dy-ān (é dīíí), m-
BLN	ngāā (bwəl)		dy-ān (é dīíí), m-
BBO	ngāā m-yābī		ī-kākā; 1b'-
LEF	ñ-lā?, mī-		ē-kā é'lēn
LEK	pān, id.		d-ān, m-
	(164) bamboo		(165) root
	bambo:		racine
CB	(502) *-dāngí 3/4 (54+) *-bānjā (11/10)		(788) *-gāngá (~/)
		'midrib of palm-frond'	
M	*-dangi 3 PEG: *dēn		PEG: *gān
PM	*bāny 9/10 *-dēn		*-kān 3/4
MBM	ndēn		ñ-kān
MBN	ndēn		ñ-kān
MYE	ē-sān, ā-		ñ-kān
MBE	m-w-ēl, ny-ēl		ñ-kān
ELU	ñkólé		ñ-kā
NNE	mbñēn		ñ-kān
AKO	mbēn		ñ-kān
MHE	mbāā		ñ-kān
MWK	mbōn		ñ-kān
MKA	mbāā		m-kān
BLN	mbāā		m-kān
BBO	mbāā		m-kān
LEF	mbēn		ñ-kāngá, mī-
LEK	ndēn, id.		ñ-kān, m-ē

(166) bark *		(167) log	
	écorce		bûche
CB	PEG: *kðb`	(ps 232) *	qððgð 3/4
M	*-kɔba 5 *-pðcɔ 11	'bark, husk'	
PM	*-kðb 7 *-kðg/-kùg 7	*-kùg 3/4 *-kðg` 3/4	
MBM	è-kðkðb'		è-sùŋ yɛn
MBN	è-kðb' è-kðð?	ŋkùtáè	
MYE		mbɛí jɛn	è-sɔ jɛn
MBE	è-kù, à-	ŋkù (m'bwél)	
ELU	ŋgð è-kðk	mbé	
NNE	è-kðg' è-kwðm		è-sɔŋ é hũn
AKO	è-kðg', è?-		ŋkðg'
MHE	è-kðb' (è-/à-)	ŋkùg' (g'/?)	
MWK	è-kù? (bwél)	ŋkù?	
MKA	è-pàsɛ 'bwél, è?-	ŋkðg'	
BLN	è-bàá bwél	ŋku? m-kð? (m'bwél)	
BBO	f-kðkðð, f b'-	m-kðk m'bwéè	
LEF	mbɛsɛbwé	ŋ-kù m'bwé, mɛ-	
LEK	è-kðgð	è-lɛs zɛgɛ?	

(168) seed		(169) camwood	(170) fruit *
	semence	bois de cam	fruit
CB	(211) *-bðtð 9/10		(228) *-bùmá
M	*-bðtð	PEk: *-kðl	
PM	*-bùm 9/10 *-bðl 9	*fy`-ð? 19	*-pùmá 7/8
MBM	ŋgwɛl byɛm	sùð	è-pám yɛn
MBN	mbɔl' mbwél	sùs	è-pð lɛŋ
MYE	mbɛm mbɛwɔn	sùs	è-pùm, à-
MRE	mbél	pəŋ	mbùm (mèl)
ELU	mbyɛ	pə	è-pùm
NNE	mbíí (bém)	híí	è-pùm, è?-
AKO	mbùm, id.	híí	è-pùm, è?-
MHE	è?-wəŋ mbòtè	yù	è-pùm, è?-
MWK	mɛɔl		è-pùm
MKA	mbɔl mbɔlákð	yðð	è-pùmá, è?-
BLN	mbɔl	yðð	è-pùm, è?-
BBO	f-wɔn	yðð	f-pùmá, id.
LEF	ŋg ən ə?	fíí	è-pùm, bɛ-
LEK	mbùgú, id.	sùí	ndùgú zɛgɛ?

	(171) flower *		(172) thorn
	fleur		épine
CB			(320) *-cɛndɛ (1997) *-yɛgà 3/4
M	Dla: mbònjí		PEG: *jɔŋ`
PM			*-jɔ 5/6 *-jɛny 9
MBM	mbyá'byɛn		à-yùó, ñ-
MBN			nzɛŋ
MYE	mpámbyá myàŋkí myàŋkí		à-júá, ò-
MBE	mbonji		žš 9, 10 à-sòŋkàn, ò-
ELU	mbònjɛ		à-jùò, ò-
NNE	mbwɪnzà		à-jwɛ, mɛ-
AKO	mbònjà 9/10		à-cě, mɛ- (nzɪn)
MHE	mbònzè (z/j) mbyɛ/ɛ		è?-jɔ, mɛ-
MWK	mbònzɪ		à-jɔ?, ò- (nzɛɛ)
MKA	mbònjè		ž?-jɔ, mɛ-
BLN	mbònjí mbyábáŋ'		ž?-jɔ, mɪ-
RBO	mbònzɪ		í-jɔ, mɪ-
LEF	mbùnjí		lí-yɔ?, mɛ-
LEK	flāwā		nzé, id.
	(173) grass		(174) elephant grass *
	herbe(s)		roseau
CB	(1928) *-yáŋí 'leaf, grass'		
M	*-kɔka '(short) grass'		
PM	*-sùm 7/8		*-kàŋɛ 7/6 *-sòŋ 7
MBM	jyàé		è-sùŋ
MBN	byɛ (ɛ/ə)		è-sòŋ
MYE	kɔ̀pɛ?		
MBE	è-sùm, à-		è-kàŋsùŋ, ò- (ò-/à-)
ELU	è-sum, 0-		è-kàà̀sùŋ, ò-
NNE	è-sùm, à?-		è-sɪsàŋ, mɛ-
AKO	è-sùm, è?- òk'ək'ə̀		è-sɪsòŋ, mɛ-
MHE	è-sùm (è-sùŋ, è?-)		è-sɪsòŋ (e/ɛ), mɛ-
MWK	è-sùm, à-		è-kàà̀ŋ, ò-
MKA	è-sùm, ž?-		è-kàŋž, mɛ-
BLN	è-sùm, è?-		ž?-kàŋž, mɪ-
RBO	í-sùm, íb' -		í-kàŋž, mɪ-
LEF	è-sùm, bí-		kàà̀sùŋ
LEK	èb'òŋí, id.		òd'èzòŋ

	(175) mountain montagne	(176) valley vallée	(177) earth terre
CB	(883) *gòdò 11/10 'hill'		(639) *dòbò 'soil, world'
M	PEG: *kɔŋ 'colline'		PEG: *sɛ
PM	*-kòdɔ̄ 7/8	*-bǎŋ 3/4	*-dòb 9
MBM	è-kwòd'	lǎmsɛ	ndòb'
MBN	è-kòlɔ̄	mbǎŋ	ndòb
MYE	è-kwòɔ̄ (e/ɛ), à-	mpwɔ̄ 'bɛ'	ndwòsɛ
MBE	è-kò, à-	mbǎŋ	ndò?
ELU	è-kòd, 0-	mbòdè	ndò?
NNE	mbɔ̄ɔ̄?	ŋɔ̄wò?	ndòòb'
AKO	è-kòndè mbòòd'	mbwǎŋ	ndòòb'
MHE	è-kòd' (d'/l'), è?	mbwàl?	ndòb'
MWK	è-kòl, à-	èdyèmbèl 'plaine'	ndòw
MKA	è-kòd', è?	mbǎŋ	ndòb'
BLN	è-kòd', è?	mbǎŋ m̄hòyà	ndòb'
BBO	ì-kòt, ìb'-	mvòŋ, id.	ndòb'
LEF	wò-kò, mǎ-	m̄-bǎŋ, m̄-	ndò?
LEK	è-léè?, bè-	m̄-pò, m̄-	ndò?
	(178) sand sable	(179) chalk craie	
CB	(314) *-cɛkɛ 3 (288) *-cǎŋgà 3	(1474) *-pɛmbà	(1477) *-pɛmbɛ 'white clay'
M	*-cɛkɛ 3 *-canga 3 *-cango ó		
PM	*-sɛɛ 3 *nyǎŋÉ ?	*pɛmbɛ	
MBM	nyɛɛ	pɛm	
MBN	nyǎǎ nyǎŋ		
MYE	nyǎŋí?	cɔ̄k	
MBE	ñ-séyǎŋ	pɛ'mbɛ (ɛ/ə)	
ELU	ñ-sí	pɛmbɛ	
NNE	ñ-síí	pɛmbɛ	
AKO	ñ-síí	pɛmbɛ	
MHE	ñ-séè (ee/e)	pɛmbɛ	
MWK	ñ-sɛɛ	pɛmbɛ	
MKA	ñ-sɛ'ɛ (ñ-/è-)	pɛmbɛ	
BLN	è?-sɛ'ɛ	pɛmbɛ	
BBO	ñ-sɛɛ	pɛmbɛ	
LEF	fyǎŋgú?	lì-wíndf, mǎ-	
LEK	nyǎŋǎ?	cɔ̄k	

	(180) dust *		(181) mud	
	poussière		boue	
CB	(215/6) *-bú 5 'soil, ashes'		(1797) *-tǝpǝ	
M	PEG: *bǝb' *bǝb'		*-tǝpǝ 9 'bog, morass, etc.'	
PM	*-bǝbú 7 *-bǝl? *-fǝŋ'		*-lǝbǝ 7	
MBM		mǝŋ		ǝ-tǝtǝb'
MBN		mǝŋ	ǝ-lǝbǝg'	ǝ-tǝbǝg
MYE		mbǝŋ	ǝ-lwǝbǝ	
MBE		mbǝl	ǝ'15'	
ELU		mbǝl	ǝlǝbǝ'	
NNE	ǝ-bǝmǝ		ǝ-lǝbǝ'	
AKO	ǝ-bǝmbǝ		ǝ-lǝbǝ'	
MHE	ǝ-bǝbú :		ǝ-tǝtam (ǝ-/ǝ-)	
MWK	ǝ-bǝbú		ǝ-tǝtǝw	mbǝtǝ
MKA	ǝ-bǝbú			mbǝtǝg'
BLN	ǝ-bǝbú		ǝ-tǝmbǝ	ǝ-tǝpǝ
BBO	ǝ-bǝbú		ǝ-tǝtǝb'	ǝ-tǝyǝb'
LEF	ǝ-pǝpǝndǝ?		ǝ-lǝ?	
LEK		ǝ-fǝŋ	ndǝ?	
	(182) village		(183) home	
	village		chez lui/soi	
CB	(192) *-bǝgǝ (9/10) (ps 483) *-yǝǝdǝ 5/6			
M	*-bǝgǝ 7 'village, etc.' PEG: *dǝk'			
PM	*-bǝg 9 *-ǝd 5/6 *-kǝŋ 3/4 *-lǝŋ 5/6		*-bǝg 9/10	
MBM	mbǝk			
MBN	mbǝg'		ǝmwǝ (w/y)	
MYE	ǝmyǝ, id.		ǝmyǝtǝ	
MBE	mwǝ, myǝ		mbǝ?	
ELU	ǝmwǝ 'quarter'		mwǝ	
NNE	dy-ǝd, m-		dyǝd'	
AKO	dy-ǝd, m- ǝ-kǝŋ		mbwǝg' 9/10	
MHE	ǝ-kǝŋ			
MWK	ǝkǝŋ a-lǝŋ			
MKA	ǝ-kǝŋ ǝ-lǝŋ, mǝ-			
BLN		ǝ?-lǝŋ (ǝ-/ǝ-), mǝ-	mbǝ?	ǝ'wǝm
BBO		ǝ-kǝŋ	mbǝk	
LEF	ǝ-kǝ, mǝ-			ndǝ?
LEK	mbǝk			

(184) country *		(185) house
pays		maison, case
CB		(ps 144) *-dǎbɔ̃
M		PEG: *d(e)ǎ(b)~
PM	*-lɔ̃ŋ 5/6 *-bɔ̃g 9	*-dǎb 9/10
MBM	ndɔ̃mbɔ̃k	ndǎb'
MBN	mbɔ̃g'	ndǎǎb'
MYE	mbɔ̃hɔ̃?	ndǎ?
MBE	è-tɔ̃?, à-	ndǎ?
ELU	à-lɔ̃, ð-	ndǎ
NNE	à-lɔ̃ŋ, mǎ-	ndǎ?
AKO	à-lɔ̃ŋ mbwɔ̃g' 9	ndǎb'
MHE	è?-lɔ̃ŋ, mǎ-	ndǎb'
MWK	à-lɔ̃ŋ	ndǎw
MKA	è-lɔ̃ŋ, mǎ-	-ndǎb', mǎ-
BLN	è?-lɔ̃ŋ, mǎ-	ndǎb'
BBO	f-yɔ̃ŋ, mǎ-	ndǎb' mbɔ̃k'
LEF	è-kùmbò, mǎ-	-ndǎ?, mǎ-
LEK	mbɔ̃k	ndǎ?, id.

(186) shade of palm leaves		(187) latrine
hutte		toilettes
CB		
M		
PM	*-bɛ̃m 7/8	*-tɔ̃m 3/4 (*-gɔ̃ŋɔ̃ 9)
MBM	è-bɛ̃m	ñ-twɔ̃m
MBN	è-bɛ̃m	ñ-tɔ̃m ñjǎbǎg'
MYE	è-bɛ̃m, à-	à-jɔ̃?, ð-
MBE	è-bɛ̃m ngun	è-yú?, à-
ELU	è-bè, ɳ-	ñ-tɔ̃
NNE	è-bɛ̃m	ñ-tɔ̃m
AKO	è-bɛ̃m, è?- ndũm 9/10	ñ-tɔ̃m
MHE	è-bɛ̃m (e/ɛ)	ñ-tɔ̃m
MWK	ndũm	ñ-tɔ̃m ngɔ̃ŋɔ̃
MKA	è-bɔ̃sɛ̃ 'ndǎb	ngɔ̃ŋɔ̃ ènũg'
BLN	è-bɛ̃m, è?-	ngɔ̃ŋɔ̃ sɔ̃mɔ̃n
BBO	f-bɛ̃m, fɔ̃'-/f'?	sɔ̃mɔ̃n
LEF	lf-bũm, mǎ-	ñ-tɔ̃m dũǎ
LEK	è-bũɔ̃, bǎ-	ñ-tɔ̃, mǎ-



	(188) wall		(189) fence	
	mur		clôture, barrière	
CB			(896) *gòmbò	
M				
PM	*-kãŋ 5/6		*-kãg 3 *-kʂtʂ	
MBM	à-kããndáb'			è-tí
MBN	à-kãndáb', ò-			à-kèŋ, ò-
MYE	à-kã'ndã?, ò-			ò-kã'lí, id.
MBE	à-kãrj'ndã?		ŋ-kã?	
ELU	à-kã, ò-		ŋ-kè?	
NNE		àtãà, mè-		à?-kè, mè-
AKO		è-sèd', è?-		è?-kè, mè-
MHE	è-kãŋ, mè-			è-kãg', mè- (kʂtʂ)
MWK	à-kãŋ( 'ndãw), ò-			ŋ-kã?
MKA	è?-kãŋ, mè-	è-píamá, è?-		kʂtʂ, id.
BLN	(è?-kãŋ, mè-)	è-jéŋ, è?-	ŋ-kã?	(kʂtʂ)
BBO		í-jéŋ, íb'-		kʂtʂ
LEF		ŋ-bã ndã?, mí-	wù-kã?	
LEK		ŋ-kògãndã, mè-		è-kyè, bè-
	(190) door *	(191) entrance, doorway *	(192) roof	
	porte	entrée	toit	
CB		(552) *-dèãŋgò		
M				
PM	*-kòbã 7/8, 7/6	*-sòl 3 *-nyíŋè	*-nyòŋú ? 3	
MBM	ŋ-sòndãb'		èbòŋtè	ndwòm dãb'
MBN	ŋ-sòndãb			ndòm
MYE	è-kwò'ndã?, à-	ŋ-sò'ndã?		ndò'ndã? 'top of house'
MBE	è-kò'ndã?, à-	ŋ-s'ndã?		ŋ-nú'ndã?
ELU	èkò, ò-	ŋ-sò		ŋ-ní
NNE	è-kòb', à?-	ŋ-sòl		ŋ-nãŋ
AKO	è-kòb', à?-		ŋmwè	ŋ-nòŋ
MHE	è-kòbã, mè-	ŋsòl ndãb'		ŋ-nyòò
MWK	è-kòwã, à-		è-yíŋ	ŋ-nòú
MKA	è-kòbã, mè-		njéé 'passage'	ŋ-nyòú
BLN	è?-kòbã, mè-		è-nyíŋè	nyòŋ (~ / ^)
BBO	í-kòbãk', mí-		í-nyíŋí, mí-	ŋ-yòú
LEF	è-kò?, bí- (1/e)	nsò fda?		ŋ-lú'ndã?
LEK	ŋ-sò'ndã	nsò'ndã		ŋ-dògòndã?, mè-

	(193) bed	(194) hearth, fireplace *
	lit	âtre, foyer
CB	(564) *-dèdè 14/6	
M	PEG: *kón	
PM	*-nḡḡ 5/6	*dū 5
MBM	à-nḡḡ; ḡ-	à-tḡmdí
MBN	à-nḡḡ, ḡ-	àtḡnzíú, ḡ-
MYE	à-nḡḡ, ḡ- à-tíí	à-súú?, ḡ-
MBE	à-nḡḡ, ḡ- ndyàḡ	à-lḡḡ'dí, ḡ-
ELU	ndè	ḡkōndú
NNE	à-nḡḡ, mḡ-	dū
AKO	à-nḡḡ, mḡ-	-dū, mḡ-
MHE	ḡ-nḡḡ, mḡ-	dúú
MWK	à-nḡḡ, ḡ-	dū
MKA	ḡ-nḡḡ, mḡ-	dū ḡ-bōn'dú
BLN	ḡ-nḡḡ, mḡ-	dū
BBO	í-nḡḡ, mḡ-	dū
LEF	wí-tí, mḡ-	lí-súú?, mḡ- nsḡḡ 'dú
LEK	lḡ-gḡk, mḡ-	tsḡ'míú, mḡ-
	(195) fireplace stone	(196) soot
	pièrre du foyer	suis
CB		(141) *-bídḡ
M		
PM	*-sḡj` 5/6	*mḡḡḡḡ 3 *-mḡḡ 3
MBM		mḡ-mḡḡ
MBN	à-sḡy?	dḡḡ?mbyḡ
MYE	à-súú?, ḡ-	ḡ-kḡḡ'míú
MBE	à-sḡ?, ḡ-	mḡ-mḡḡ
ELU	à-sḡk, ḡ-	ḡ-tḡ
NNE	à-sḡḡ, mḡ-	mḡ-mḡḡ
AKO	à-sḡd', mḡ-	mḡḡ'
MHE	ḡ-sḡy?, mḡ-	mḡḡḡḡ
MWK	à-sḡy, ḡ-	mḡḡḡḡ
MKA		mḡḡḡḡ
BLN	à-sḡy?, mḡ-	mḡḡḡḡ
BBO	í-sḡt, mḡ-	pḡtḡ (mbḡ)
LEF	mḡlḡ mḡ mḡsḡí	mḡ-fḡndḡ
LEK	lḡ-sḡí, mḡ-	wḡḡḡḡ

	(197) rubbish heap *		(198) dirt, dirty
	ordures, "poubelle"		saleté, sale
CB	(918) *-jädä 5/6		(150) *-bīndō/ō 9
M	*-jädä 5		*-bīndō
PM	*-pūd' 5/6 *m53m 6 *dy`-ä? 5		*-bīndV 9
MBM	m-päd'		m-päd'
MBN		jyè	mbīndō
MYE		dyè	ō-pū? mōdŋ
MBE	ō-pū?		mbīndī
ELU		dyè	mbāndè
NNE	ä-päd'		mbēndē (ε/ə)
AKO		m53m 6	mbīndä 9
MHE	ä-pūl?, mē-		mbīndī
MWK	ä-pūl, ò- m53m(pūl) dyäš('pūl)		mbīndī
MKA	ēpūd'		mbīndī
BLN	ä-pūd'		mbīndī
BBO		m53m	mbīndū
LEF		ndŋmbāŋ	mbīndū mbāŋ
LEK		n-d3gəlók, mē-	nd3tí
	(199) path, road		(200) boundary
	chemin, route, sentier		limite, frontière
CB	(940) *-jädä (9/10) (941) *-jädä		(566) *-däd3 3/4
M	*-jädä/ä PEG: *jī' 'route'		*-dädō (-ɔ) 'frontier'
PM	*-jädē 9/10		*-jädē 3
MBM	nzè	bōgè	nzēnē
MBN	nzyē (ε/ə)		n-jänè
MYE	nzyè		n-jyè
MBE	nzèè (z/ž)		n-jè?
ELU	nzi		n-jīi
NNE	nzi		n-jyē
AKO	nzi		n-jīi
MHE	nji (nz(y)äè)		n-jèè (ee/ye)
MWK	nzèè		n-jèè
MKA	njèè		m-jèè
BLN	njèè		m-jèè
BBO	-nzèè, mī-		m-jèè
LEF	m-pèŋ, mī- m-bòkà, mī-		n-jī, mī-
LEK	nšī		nzè

	(201) stone pièrre	(202) iron fer	(203) farm, plantation ferme, champ, plantation
CB	(1642) *-tádè	(800) *-gèdà 7	(260) *-cākā 'thicket, bush country'
M	*-tádè 5 PEG: *gǝk`	PEG: *tɛnV	
PM	*-lǎǎ 5/6	*-kèè 7/8	*-jǎg 9 *-lǝŋ 3
MBM	ǎ-1ǎ, ñ-	ǎ-ti	nzàtè ǎ-bwòŋ
MBN	ǎ-1ǎ, ñ-	ǎ-kii	nzàkè ǎ-kèŋ
MYE	ǎ-1ǎǎ, ò-	ǎ-kyǎ, ǎ-	nzà?
MBE	ǎ-1ǎ, ò-	ǎ-ki, ǎ-	nzà?
ELU	ǎ-1ǎ, ò-	ǎ-ki, 0-	nzà?
NNE	ǎ-1ǎǎ, mǎ-	ǎ-kii	nzàg'
AKO	ǎ-1ǎǎ, mǎ-	ǎ-kii	nzàg'
MHE	ǎ-1ǎǎ, mǎ-	ǎ-kè(è), è?-	ñ-1ǝŋ fǎm
MWK	ǎ-1ǎǎ, ò-	ǎ-kè	nzà? ñ-1ǝŋ
MKA	ǎ-1ǎǎ, mǎ-	ǎ-kèè, è?-	njàg' ñ-1ǝŋ
BLN	ǎ-1ǎǎ, mǎ-	ǎ-kèè, è?-	njàg' ñ-1ǝŋ
BBO	ǎ-yǎǎ, mǎ-	ǎ-kèè, ǎb'-	nzàk' ǎ-kířǎ, ǎb'-
LEF	dǎ-1ǎ, mǎ-	ǎ-kè?, bǎ-	ndùkù
LEK	-1ǎǎ, mǎ-	ǎ-kyè?, bǎ-	mǝŋ tǎǎ

	(204) burnt off area terrain brûlé	(205) animal animal
CB	(1507) *-pǎǎ	(1909) *-yǎmǎ 9/10 *-nyǎmǎ
M		*-(ny)ǎmǎ, *(j)ǎmǎ 9 PEG: *nǎm`
PM	*-fyǎŋ 5, 3	*-ǎm 9/10 *-lǎm 7/8 'domestic animal'
MBM	kǎg'	nyǎm
MBN		nyǎm
MYE	ñ-sǎŋ	nyǎm
MBE	ǎ-yǎŋ ñ-sǎŋ	nyǎm
ELU	ŋ-hyǎ	nyǎ
NNE	ǎ-yǎŋ (y/hy)	nyǎm ǎ-lém, ǎ?- 'domestic animals'
AKO	ǎ-hyǎŋ ŋ-hyǎŋ 3	nyǎm ǎ-lém, ǎ?-
MHE	ǎ-yǎŋ	nyǎm ǎ-lém, è?- 'domestic animals'
MWK	ñ-sǎŋ	yam
MKA	ǎ-yǎŋ	nyǎm
BLN	hòm dǎ yǎŋè	nyǎm
BBO	ǎ-yǎŋ ǎkúŋkít'	nyǎm
LEF		nyǎm
LEK		nyǎ

	(206) animal trail * piste	(207) bat chauve-souris	(208) lion lion
CB		(570) *-dēmā 3/4	(532) *-dēmā
M		*-dēmā (-dēmā) 3	
PM	*-pāny 7/8	*-jēm 3/4	*-gīlā 9/10
MBM	nzēnyām bōgēnyām	n-zēm	lāyon
MBN	ē-fā nyām	n-jēm	ngīnyām
MYE	m-pō?	n-jēm	ngīf
MBE	ē-pēē (yām)	n-jēm	ngīlām
ELU	ē-pē, ʒ-	n-jē	ngī
NNE	ē-pēŋ, ā?	n-jīm	ngīf
AKO	ē-pēn, ē?	n-jēm	ngīf
MHE	ē-pāā nyām	n-jēm	ngīlē (e/a)
MWK	ē-pāā	n-jēm	ngīlā
MKA	ē-pāā nyām	m-jēm	ngīlā
BLN	ē-pāā nyām	m-jēm	ngīlā
BBO	myōŋ nyām	m-jēm	ngīyā
LEF	ē-fāŋ, bi-	n-yēm, mī-	njīb
LEK	n-šī? (nya), m-	n-zē lē-fē?	ŋkī nyā, id.

	(209) leopard léopard	(210) elephant * éléphant
CB	(834) *-gō (9/10) (866) *-gōē (862) *-gōyī	(951) *-jōgū 9/10
M	*-gōī 9 PEG: *g(w)ē`	*-jōgū 9 PEG: *sfn`
PM	*-gō 9/10 (*-jō 3/4?)	*-jōg 9/10
MBM	ŋgō	nzōk
MBN	ŋgwē	nzōg'
MYE	ŋgwōō	nzō?
MBE	ŋgē ēbōŋgē	nzō?
ELU	ŋgwē	nzū?
NNE	ŋgē ēdūŋgē	nzwōg'
AKO	ŋgō (o/ə) ēbwē ē ŋgō	nzyōg'
MHE	ŋgō	nzōg' (g'/?)
MWK	ŋgō	nzō?
MKA	ŋgō n-jō	njōg'
BLN	ŋjō	njō? (j/ž)
BBO	nzē	nzōk'
LEF	ŋgwē	njō?
LEK	ŋkō	nzōk, id.

	(211) elephant tusk * d'efense d'el'ephant	(212) "bush dog" "chatigle", "chien de la brousse"
CB		
M		
PM	*-sōŋ 5/6 +-jōg 9/10	*-sōb 7/8
MBM	ā-sūŋ' nzōk	ē-sōb'
MBN	ā-sōō nzōg'	ē-sōb'
MYE	tōŋ nōd'	ē-swō?
MBE	ā-sōŋ nzōd', ò-	ē-sōd', ā-
ELU	ā-sōŋ nzōd', ò-	ē-swōd', ō-
NNE	ā-sāŋ ā nzwōg'	ē-sōb', ā?
AKO	ēsōō nzyōg', ē?	ē-sōb', ē?
MHE	ā-sōō nzōg', mē-sōŋ mē nzōg'	ē-sōb', ē?
MWK	ā-sōŋ nzōd', ò-	ē-sōw, ā-
MKA	ē?-sōŋ ŋjōg', mē-sōŋ mē njōg'	ē-sōb', ē?
BLN	ē-sōŋŋjō	ē-sōb, ē?
BBO	ī-sōŋ ē nzōk', mī-sōŋ mī nzōk'	ī-sōb', īb'-
LEF	mā-sōŋ mā njōd'	ē-sō
LEK	lē-sōŋ nzōk	ē-sōd', bē-

	(213) "bush cow" buffle	(214) monkey singe
CB	(1947) *-yātè *-nyātè (927) *-jātè 9/10	(1058) *-kémà 9/10 '(kind of) monkey'
M	*-jātè *-nyātè 9 'buffalo' PEG: *bōŋ`	*-kémà 9 PEG: *káná
PM	*-ād 9/10	*kém 9/10
MBM	nyād'	kém
MBN	nyàl	kém
MYE	nyā?	kém
MBE	yā?	kém
ELU	nyād'	ké
NNE	nyād'	kém
AKO	nyād'	kém
MHE	nyād'	kyém (ky/c)
MWK	yāl	kém
MKA	nyād'	kém
BLN	nyād' (~/~)	kém
BBO	nyād'	kém
LEF	nyā?	kém
LEK	ŋkōŋŋŋ, id.	ké

(215) crocodile, alligator crocodile, caiman, alligator		(216) hippopotamus * hippopotame	
CB	(783) *-gāndō	(908) *-gūbō 9/10	
M	*-gāndō 9	*-gūbō 9 (-ŋ)	
PM	*-gāndō 9/10 *-kōmbē 3/4	*-gūbū 9/10	
MBM			nzōgēdāb'
MBN	ŋgāndō		nzōydāb'
MYE	ŋgān ŋkwōmbīn		nzōōdī?
MRE	ŋgāndō		nzō ēdī
ELU	ŋgām		nzōō dāb'
NNE	ŋgām		nzwō mēdāb'
AKO	ŋgān		nzyōgēdītē
MHE	ŋgāndō ŋ-kōmbē	ŋgūbū	
MWK	ŋgāndō	ŋgūbū	
MKA	ŋgāndō m-kōmbō	ŋgūbū	
BLN	ŋgāndō m-kōmbī	ŋgūbū	
BBO	ŋgāndū ŋ-kōmbī	ŋgūbū	
LEF	ŋgān ŋ-kōmbē		n.jō mādē?
LEK	lākētā		nzōgō Jŋāk
(217) cow vache		(218) goat chèvre	(219) horse * cheval
CB		(185) *-bōdī 9/10	
M	PEG: *nāk	*-bōdī 9 PEG: *būi	PEG: *dēŋ
PM	*nyākā/-ākā 9/10	*-bōd 9/10	
MBM	fōŋ	mbōd'	hōsē nyāŋkālā
MBN		mbōl?	
MYE	nyō?	mbŋwō?	nyōŋkālā' lē
MBE	kāw	mbō	yā?
ELU	nyā?	mbō?	hōsē
NNE	nyā?	mbō?	hōsē
AKO	nyāg'	mbōd'	hōsē
MHE	nyāg'	mbōd' (d'/l?)	wōsī
MWK	nyā? (ny/y)	mbōl	hōsī
MKA	nyākā kāw	mbōd'	wōsē
BLN	nyākā jākād' (d'/s)	mbōd'	hōsī (i/ə)
BBO	nyākā	mbōd'	wōsī. id.
LEF	nyā?	mbōl	nyā mūkālā
LEK	nyāk	mbū?	

	(220) antelope *		(221) mouse	
	antilope		souris	
CB				
M			*-pɔ̀kò 9 'mouse, rat'	
PM	*-bɪn̄ 9/10 *káb 9/10 *-gɔ̀lɔ̀ŋ 9/10		*sala la/2 *pɔ̀ ?	
MBM	(mben) əbwɪnzɛ		sɛfɛkɪ	
MBN	káb'		sákò	
MYE	mbɪn̄ ká?		sákò	pɔ̀
MBE	ká?		sálɛ	(pɔ̀)
ELU	mbɛn		-sák pɔ̀, ɔ̀-sák pɛ̀	pɔ̀
NNE	káb'		-sálɛ, bɛ̀-	pɛ̀
AKO	mbɪn̄ káb' è?-sɛ̀l		-sálɛ, bɛ̀- sálpɛ̀	pɔ̀
MHE	káb'		sák pɔ̀ sák pɔ̀	
MWK	mbɪn̄ káw		sálá sálápɔ̀ sápɔ̀ pɔ̀?	
MKA	káb' ŋɔ̀lɔ̀ŋ		-sálá, bɛ̀-	
BLN	ŋɔ̀lɔ̀ŋ		-sálɛ, bɪ̄-	
BBO	ŋɔ̀yɔ̀ŋ		-sáyá, bɪ̄-	
LEF	mbɪn̄ ká?		-sápɔ̀, bɛ̀-	
LEK	ká?		sálákò	pɔ̀gɔ̀
	(222) (bush) rat		(223) pig	
	rat ("rat palmiste")		porc, cochon	
CB	(1597) *-pɔ̀kò (9/10)		(887) *-gɔ̀dɔ̀ (902) *-gɔ̀yá	
M	*-pɔ̀kò 'mouse, rat' PEG: *dɔ̀m̄		*-gɔ̀dɔ̀bɛ̀ 9	
PM	*kɔ̀ɔ̀ 9/10 'rat de brousse'		*-gɔ̀ɔ̀ 9/10	
MBM	kɪnyám kɪú		ɲkɛnɛŋ	
MBN	kɪnyám		ŋgɪú 'sanglier' ɲkɪnyá?	
MYE	kpɛnyá		ŋgwɛ	
MBE	kɛyám		ɲkɛnɛŋ	
ELU	pɔ̀		ŋgɪ	
NNE	kɪú		ŋgɪú	
AKO	kɪú		ŋgɪú	
MHE	kɪú (/kɪú)		ŋgɪú	
MWK	kɔ̀ɔ̀		ŋgɔ̀ɔ̀	
MKA	kɔ̀ɔ̀		ŋgɔ̀ɔ̀	
BLN	kɔ̀ɔ̀		ŋgɔ̀ɔ̀	
BBO	kɔ̀ɔ̀		ŋgɔ̀ɔ̀	
LEF	kɔ̀ɔ̀?		ŋgwɛ	
LEK	kɪ		-kɪnyá, bɛ̀-	



	(224) porcupine porc-épic	(225) prong, quill (of porcupine) épine, piquant	
CB	(895) *-gðmbǎ 9/10		
M	*-gðmbǎ 9		
PM	*-gðmbǎ 9/10	*-ǎj 3/4	*-ǎny` 3/4
MBM	ɲgwðm	mwɛd	ɲgwðm
MBN	ɲgðm		m̃-bɛɲ
MYE	ɲgwðm		m̃-bɛɲ
MBE	ɲgðm		mwɛn (ɲgðm)
ELU	ɲgðm	mwɛ	
NNE	ɲgðm		mw-ɛɲ, my-
AKO	ɲgðm	mwɛd	mwɛɛn
MHE	ɲgðm	mw-ɛd' (d'/s), my-	
MWK	ɲgðm (/ɲgðmbǎ)		mw-ɛn (ɲgðm), my-
MKA	ɲgðmbǎ	mw-ɛy? (ɲgðmbǎ), my-	
BLN	ɲgðmbǎ	mw-ǎy? (a/ɛ), my-	
BBO	ɲgðm	mw-ǎd', my-	
LEF	ɲgðm		ɛ-ɛɛ?, bɪ-
LEK	ɲgðm		mbwɛ
	(226) pangolin *	(227) dog *	
	pangolin	chien	
CB	(991) *-kǎkǎ 9/10 'anteater'	(174) *-bɔǎ (220) *-bɔǎ	
M		*-bɔǎ 9 PEG: *bɔǎ	
PM	*kǎ *fy`-ǎ(1) 19	*-bwǎ, *-byǎ 9/10	
MBM	ɕyǎɛ	mbwǎ, id.	
MBN	ɕɪǎ	mbwǎ, id.	
MYE	syǎ	mbɲyɛ (ɛ/ə)	
MBE	mɛkǎɲkǎm	mbwǎ, mbyɛ	
ELU	hyǎ	mbwǎ, mbyɛ	
NNE	-hyɛl, mɛ-	mbwɛ, mbyɛ	
AKO	-hyɛ, mɛ-	mbwɛ	
MHE	iy-ǎ, m- (/lyɛ, m-)	mbwɛ, mbyɛ (ɛ/ə)	
MWK	kǎǎ	mbwǎ	
MKA	kǎ	mbwǎ, mbyǎ	
BLN	kǎ	mbwǎ, mbyǎ	
BBO	kǎ	mbwǎ, mbyǎ	
LEF	wɪ-yǎ?, mǎ-	mbwǎ	
LEK	sɪgǎ	mbɔgǎ, id.	

	(228) cat *		(229) squirrel
	chat		écureuil
CB			(194) *-bōgē/*-bōgē
M			
PM	*-bēlī la/2 *sīŋ 9/10		*kəd 9/10 *-bōg 9/10
MBM		pūsī	sēŋkēndōō
MBN		pūsī	ŋkēndōōŋ
MYE	mŋnyīnī?		mbāō?
MBE	mbēlē	pūsī	kō(yām) mē-ntēndyēŋ, bē-
ELU	mbēlē	(pūsī)	kōd'
NNE	-mbēlē, bē-		kōd' ŋkōŋgēē (small)
AKO	-mbēlē, bē-		kōd'
MHE		sīŋ (s/s)	kōd' (d'/l?) mbō?
MWK		sīŋ	mbōkōl
MKA		sīŋ	kōd'
BLN		sīŋ	kōd'
RBO		sīŋ (s/s)	mbōk
LEF	-aŋwā, b-		mbō?
LEK		-pūsī, bē-	sāālē
	(230) lizard		(231) snake
	lézard		serpent
CB	(187) *-bōdō 9/10		(2112) *-(n)yōkā (952) *-jōkā 9/10
M	PEG: *kēpāt		*-jōkā (-nyōkā) 9 PEG: *nō(k?)
PM	*-bōtV 7/8		*-ō 9/10
MBM		ē-kēkām	nyūō
MBN		ē-kōkām	nyūō
MYE		ē-bōkā	nyūō
MBE	ē-bōl ē	ŋgōlōŋ	yō
ELU	ē-pōl ēkōb'		nyūō
NNE		ŋgwālē	nyūō
AKO	(ē-bōtē ŋgōlē) ŋgōlē	-ŋgō ndābē, bē-	nyō
MHE	ē-bōtē, ē?		nyō
MWK	ē-bōlā, ē-		yō
MKA		ē-kēŋ, ē?	nyō
BLN	ē-bōtā, ē?		nyō
RBO	(ī-bōtā) mvōk' mētōndō		nyō
LEF		ē-kāmōkāmō, bē-	nyō
LEK	mbītēsā, id.		nōgō, id.

	(232) python	(233) viper, adder	(234) worm (intestinal) *
	python	vipère	ver
CB	(159) *-bɔ̃mã (3/4), 9/10	(1513) *-pédè (9/10)	
M	*-bɔ̃mã 9	*-pédè	
PM	*-bɔ̃mV	*pédè 9/10	*-kãny 7/8 *nyõŋ/õŋ 9/10
MBM	mɔyɛnyã	pɪnyã	nsũnywããd
MBN	ñjũlã	pãnyũ	nyũŋ
MYE	bɔɔ nyũã	ã-jõd	nyũŋ (u/o)
MBE	mbɔm	pɛyã	nyõy
ELU	mbɔm	pɪf	(ã-kɛ, 0-) nyõŋ
NNE	mbɔm	pɪf	ã-kɛŋ, ã?-
AKO	mbɔm (3/4)	pɪf	ã-kɛn, ã?-
MHE	mbɔm	pɛé	ã-kãã (aa/ta), ɛ?-
MWK	mbɔm(ɔ)	pɛé	ã-kãã nɪɔmbɪ
MKA	mbɔmɔ	pɛ'è	ɛ-kãã, ɛ?-
BLN	mbɔmɔ	pɛ'è	ɛ-kãã, ɛ?-
RBO	mbɔm	pɛé	ɪ-kãã, ɪb'-
LEF	kũm	kũnyɔ	ɛ-kãkãŋ, bɪ-
LEK	pɪf	ŋgɛŋ	ñ-sũŋɔ, mã-

	(235) crab	(236) pincer *
	crabe	pince
CB	(981) *-kãdã	
M	*-kãdã 9 PEG: *kãm'	
PM	*-ɛ-sɛj 7/6, 5/6 *-jãC? 7/8	*-pwɛny, -pyɛny? 3/4
MBM	ẽ-yɛã?	ñ-pyɛ
MBN	ẽ-yã	ã-pɛyã, ñ-
MYE	j-ɔ?, by-	ñ-pyɛŋ
MBE	ẽ-jã?, ã-	ñ-pwɛn nja
ELU	j-ɔl, by-	ñ-pwɛn
NNE	d-ɪsɪg', m-	ñ-pwɛŋ, ñ-pɪŋ
AKO	dy-ɛsɪd', m-	ñ-pwɛn, ñ-pyɛn
MHE	ẽ-sɛy'	ñ-pwɛndɛ, ñ-pyɛndɛ
MWK	j-ãlɪ, by-	ñ-pwɛn, ñ-pyɛn
MKA	ɛ-sɛd', mɛ-	m-pwɛn, m-pyɛn
BLN	ɛ-sɛd' (d'/y'), mɪ-	m-pwɛn, m-pyɛn
RBO	dy-ɛsɪd', m- ŋgɔmbɔ	m-pwɛn, m-pɛndũ
LEF	-mbɪndã, bã-	mɛ-pɛŋ mɪ mbɪndã
LEK	-kãmbɪgɪ, bɔ-	lɛ-pwɛ kãmbɪgɪ, m-

	(237) tortoise	(238) chameleon
	tortue	caméléon
CB	(1259/60) *-kúddò/ù 9/10	
M	*-kúddù 9,7	
PM	*kú1` 9/10	
MBM	kíí	é-nyùk'ód'
MBN	pí k'òò?	-yùñk'ód', é-
MYE	k'pé b'òò	jw'ò(ñ)kw'ò, by'ò(ñ)kw'ò
MBE	p'è k'òò	è-j'òñàn, à-
ELU	k'ólè	-k'òs'í b'è, ò-
NNE	kw'òl	jan'k'òd
AKO	k'òl	c-òk'òd, hy-
MHE	k'òl	dy'áá k'ól
MWK	k'òl	dy-òñg'òl k'òw, m-
MKA	k'òl	-j'òñò'f'è k'ò'f'è, b'è-
BLN	k'òl	ñ-k'ák'ák' (j'òñg'òl'ò k'òl'ól)
BBO	k'òy	ñk'ák'ák'
LEF	k'úkw'èlè	·f'í-p'ònd'èè, m'è-
LEK	-t'ákhí, b'è-	z'òñg'òk'ú?, íd.

	(239) frog *	(240) scorpion *
	grenouille	scorpion
CB		(1242) *-k'òt'ò
M	*-b'òt'ò 'frog, toad'	
PM	*-b'òn 9/10 *-s'él'á? 7/8 *-b'è m(b)à? 7/8	*-b'òb 5/6
MBM	mb'òl'è b'è	k'òò.
MBN		àby'áñ à-bw'ò?
MYE	mb'òw'òn 'toad'	ng'bak'í
MBE	è-s'él'ólé (a/é), à-	à-b'òb'ò (o/ò), ò-
ELU	mb'òn 9,10	àb'ò'í ng'áà b'òmpw'ín
NNE	mb'òn 'toad'	
AKO	mb'òn 9,10 ès'él'è	ng'áà b'òb'è mpw'èn
MHE	mb'òn	è?b'òk'ò
MWK	è-s'él'è	à-b'è m'è àb'ò?
MKA	è-s'él'è, è?-	é-b'è m'è, è?-
BLN	è-s'él'è, è?-	à-b'è m'è
BBO		í-b'òb'ò, m'í-
LEF	-ng'òs'è, b'è-	
LEK	mb'ò 'toad'	z'èg'á l'èby'áñ

(241) spider *		(242) insect	
araignée		insecte	
CB	(178) *-bðbð 5/6	(1596) *-pðkã	
M	*-bðbðdð 5		
PM	*-gðŋ 9 + *-bðb (1a/2)	*-kãny 7/8	*-tãndã 7/8
MBM	ŋgððbðð		
MBN	ŋgðbðð?	è-kèŋ	
MYE	ŋgððbðð?		mí-nwðn, bG-
MBE	ŋgððbðð		ŋgðlð
ELU	ŋgððbðð	è-kè, ð-	
NNE	-ŋgððbðbð, bð-	è-kèŋ, à?	
AKO	-ŋgððbðbð, bð-	è-kèŋ, è?	(m-pðg' 3/4 mbðg 9/10)
MHE	-ŋgððbðbð, bð- tãtãl, bð-	è-kè	
MWK	ŋgðŋbðð	è-kãã, à-	
MKA	ŋgðŋðbðbð		è-tãndã, è?
BLN	ŋgðŋðbðbð		è-tãndã, è?
BBO		ndãlãã, bI-	I-tãndã, Ib-
LEF	ŋgðgãlIbðkð		è-kãkãn
LEK	-ŋgðŋgðŋð, bð-		
	(243) louse	(244) butterfly	(245) ant
	pou	papillon	fourmi
CB	(446) *-dã 9/10		
M			PEG:d(w)é
PM	*tèj/tèj 9/10	*-podE? 7/8	*-kòdE? 7/8
MBM	dðd'		*-kãny 7/8 (*-kèd`? 5)
MBN	tè? (2/g')	è-kãkð	
MYE	tI?	è-kãkð?	à-kðl?
MBE	tI	é-pðpð?, á-	nwðn
ELU	tãd'	è-pðpðtè, à-	à-kè
NNE	tIg'	è-pðfãpðtè	è-kè, ð-
AKO	tId'	è-pðfãpðtè, à?	è-kèŋ, è?
MHE	tI?	è-pðdépðtè, è?	è-kèŋ, è?
MWK	tIi	ŋgããpðpðð	à-kðd'
MKA	tèy?	è-kðkðl, à-	ŋgãm
BLN	ted' (d'/y?)	è-kðkðl, è?	pGpG
BBO	tId'	è-kðkðl	è-kã'ã, è?
LEF	nyè	-kðkI'fI'kð, bI-	è-kã'ã
LEK	tð?, id.	è-kúIàkúIè	I-kðd' kãmbã
		è-kðkðgð, bð-	è-kãkãn
			mð-kðlè

	(246) soldier-ant (driver-)		(247) termite
	fourmi maniant(?)/guerrière		termite
CB	(251) *-cādākū 9/10		(392) *-cōā
M	*-tidaku 9		PEG: *gōk
PM	*sīāg/d 9/10		*-sēē/sēg~/sēkē?
MBM	ē-šyōg'		kwōfō
MBN	šyā?		ŋgō?
MYE	sīā?		sāā?
MBE	sīā?		šyē kō'tō
ELU	sīā?		sīī
NNE	syād'		sīī
AKO	syāād'		sīī
MHE	syāā?		syē
MWK	sīā		sēē 9/10
MKA	syāg'		ē-sēg'
BLN	sīā?		sē? sēkēlē
BBO	syag'		ī-sēk, mī-
LEF	šīā		šē?
LEK	sīī (s/š)		bāgāsūē (s/š)

	(248) mosquito		(249) cockroach *
	moustique		cafard
CB	(ps 253) *-gūŋgū		(1478) *-pēmbū *-pēndū *pēŋgū
M			
PM	*-kūŋ 5/6 *-kāny' 7/8		*pēny
MBM	mbwí		pí'pí
MBN	mōēŋ		pōpōŋ
MYE	mbyām'byām		pí'pín
MBE	mbwō		oē'pā
ELU	kwala		pōpōŋ
NNE	ē-kēŋ, ā'-		pēpīŋ
AKO	ēkēn ē ŋkūū		pí'pín
MHE	ēkā ŋkūū		pí'pēē
MWK	ā-kūŋ, ō-		pí'pēē
MKA	ē-kūŋ		pí'pēē, bē-
BLN	ē'-kūŋ		pí'pēē
BBO	ī-kūŋ, mī- mkyāŋ		pēpēē
LEF	ē-kwāsā		pēmpēn
LEK	ē-kíē		pēpēē

	(250) millepede	(251) cricket	
	mille-pattes	grillon, cri-cri	
CB	(859) *-ᠬᠢᠨᠭᠢᠳᠠᠳ	(934) *-ᠵᠡᠨᠵᠡ	
M	*-ᠬᠢᠨᠭᠢᠳᠠᠳ (or LLL)	*ᠵᠡᠨᠵᠡ 9	
PM		*-ᠰᠡᠯᠡᠭ ?	
MBM	ᠬᠭᠣᠨᠭ᠋ᠢ	ᠬᠭᠠᠰᠡᠳᠡᠮᠡ	
MBN	(ᠬᠭᠢᠳᠠᠳ) ᠡᠪᠪᠣᠨᠵᠢᠨᠮ		
MYE	ᠬᠭᠢᠨᠵᠢ	ᠡᠻᠡᠬᠣᠳᠠᠳ?	
MBE	ᠬᠭᠢᠨᠵᠢ	ᠬᠭᠠᠰᠡᠰᠡ	
ELU	ᠬᠭᠢᠨᠵᠢ	ᠰᠡᠯᠡᠰᠡ	
NNE	ᠬᠭᠣᠳᠠᠳ?	ᠰᠤᠶᠡᠯᠡᠰᠡ, ᠪᠡ-	
AKO	ᠬᠭᠣᠳᠠᠳ ᠨᠢᠯᠠᠰᠢ	ᠰᠡᠯᠡᠰᠡ, ᠪᠡ-	
MHE	ᠬᠭᠢᠳᠠᠳ?	ᠰᠡᠯᠡᠰᠡᠰᠡ, ᠪᠡ-	
MWK	ᠬᠭᠣᠳᠠᠳᠢᠨ ᠬᠭᠢᠨᠵᠢ	ᠰᠡᠯᠡᠰᠡᠨᠵᠢ	
MKA	ᠬᠭᠢᠨᠵᠢᠶ?	ᠡ-ᠰᠡᠯᠡᠰᠡ, ᠪᠡ-	
BLN	ᠬᠭᠢᠨᠵᠢ	ᠡᠳᠡ-ᠰᠡᠯᠡᠰᠡ, ᠪᠢ-	
BBO	ᠬᠭᠢᠨᠵᠢᠳ, ᠪᠢ-	ᠢ-ᠰᠡᠶᠡᠰᠡ, ᠮᠢ-	
LEF	ᠬᠭᠢᠨᠵᠢᠰᠡ		
LEK	ᠬᠭᠢᠨᠵᠢᠨᠵᠢ		
	(252) fly	(253) grasshopper	
	mouche	sauterelle	
CB	(819) *-ᠬᠢᠨᠵᠢᠳ 9/10	(832) *-ᠬᠢᠨᠵᠢᠳᠠᠳ *-ᠬᠣᠳᠠᠳᠠᠳ	
M	PEG: *ᠵᠢ(ᠤ)ᠢ		
PM	*-ᠬᠢᠨᠵᠢᠳ 5/6		
MBM	ᠡ-ᠬᠣᠳᠠᠳᠠᠳ	ᠨᠢ-ᠰᠠᠨᠰᠠᠨ	
MBN	ᠨᠢ-ᠬᠣᠳᠠᠳᠠᠳ	ᠡ-ᠬᠡᠨ (?)	
MYE	ᠡ-ᠬᠣᠳᠠᠳ(ᠢ)ᠢᠢ	ᠬᠣᠪᠣᠮᠪᠣᠶᠠ	
MBE	ᠡ-ᠬᠣᠳᠠᠳᠢ	ᠬᠣᠪᠣᠮᠣᠰ	
ELU	ᠡ-ᠬᠣᠳᠠᠳᠠᠳ, ᠣ-	ᠢᠢᠰ	
NNE	ᠡ-ᠬᠣᠳᠠᠳᠠᠳᠠᠳ, ᠮᠡ-		
AKO	ᠨᠢ-ᠬᠣᠳᠠᠳᠠᠳᠢᠳ ᠰ-ᠬᠣᠳᠠᠳᠠᠳᠢᠳ, ᠮᠡ-	ᠬᠣᠪᠣᠮᠡᠰᠡ, ᠪᠡ-	
MHE	ᠡ-ᠬᠣᠳᠠᠳᠠᠳ, ᠮᠡ-	ᠬᠣᠪᠣᠮᠠᠬᠠ	
MWK	ᠡ-ᠬᠣᠳᠠᠳᠢᠳ, ᠣ-	ᠬᠣᠪᠣᠮᠠᠬᠠ	
MKA	ᠡ-ᠬᠣᠳᠠᠳᠠᠳᠠᠳ, ᠮᠡ-	ᠬᠣᠪᠣᠮᠡᠬᠠᠬᠠ	
BLN	ᠬᠣᠳᠠᠳᠠᠳᠢᠳ ᠡᠳᠡ-ᠬᠣᠳᠠᠳᠠᠳᠠᠳ, ᠮᠢ-	ᠬᠣᠪᠣᠮᠡᠬᠠᠬᠠᠶᠢ (g or y?)	
BBO	ᠬᠣᠳᠠᠳᠠᠳᠢᠳ	ᠢ-ᠵᠣᠮᠡᠰᠡ, ᠪᠢ-	
LEF	ᠡ-ᠬᠣᠳᠠᠳᠢᠳ, ᠪᠡ-	ᠮᠪᠠᠯᠠᠮᠪᠠᠯᠠ	
LEK	ᠢᠡ-ᠬᠣᠳᠠᠳᠠᠳ, ᠮᠡ-	ᠬᠣᠪᠣᠳᠠᠳ	

(254) wasp		(255) bee *
guape		abeille
CB		(2156) *-(n)yókè (962) *-jókè 9/10
M		*-jókè 9
PM		*nyùù/ùù? 9/10 *nyùùVd?
MBM	ḡḡIyḡḡ	nyùù
MBN	manḡaḡ      nzḡnzḡm	nyùù
MYE	m-ḡḡḡḡḡ, b-	nyùù?
MBE	mḡḡḡḡm	ḡ-jḡ, ḡ-
ELU	mḡḡḡḡḡḡ	nyùùḡḡḡ
NNE	tḡtḡd'	nyùùḡḡd
AKO	mbḡḡḡḡḡḡd' (ḡ)hḡfḡhyḡḡḡ, bḡ-	nyùùḡḡd' (9/10)
MHE	ḡ?bḡkḡ, mḡ-	nyuu
MWK	ḡḡḡḡḡḡḡḡ	yùù
MKA	bḡḡḡḡḡḡḡ, bḡ-	nyùùḡ
BLN	ḡḡḡḡḡḡ	nyùùḡ
BBO	ḡḡḡḡḡḡḡ	nyùùḡ
LEF	mḡnyḡnyḡḡ	wù-yḡ
LEK	mḡmḡwḡ	bḡ-zùḡḡ
(256) honey *		(257) snail
miel		escargot
CB	(2157) *-yókè 14 (962) *-jókè 14	(1109) *-kḡḡḡḡ 9/10
M	*-jókè 14	*-kḡḡḡḡ 9
PM	*-jḡḡ 14	*kḡḡḡ 9/10
MBM	yḡ	kḡḡ
MBN	ḡ-zùḡḡ	ḡ-lyḡn
MYE	ḡ-jwḡ	kḡḡḡ
MBE	ntḡḡḡḡḡḡ	ḡjḡ
ELU	nyùùḡḡḡḡ	kḡḡḡ
NNE	ḡ-cḡḡḡ	kḡḡḡ
AKO	ḡ?-cḡḡḡ	kḡḡḡ
MHE	ḡ?-jḡḡḡ	kḡḡḡ
MWK	ḡ-jḡḡ	kḡḡḡ
MKA	ḡ-jḡḡ	kḡḡḡ
BLN	ḡ-jḡḡ	kḡḡḡ
BBO	ḡ-jḡḡ, mḡ-	kḡḡḡ
LEF	wù-yḡ	kḡḡḡ
LEK	bḡ-zùḡḡḡ	kḡḡḡ



(258) bird \*  
oiseau

CB (1374) \*-nðñé (ps 361) \*-nðñé  
M \*(j)ðñí (o/v) 9 (-nðñí) PEG: \*sɛŋˀ  
PM \*-nðñˀ 14/6

MBM nðñ, ɛkɛmnðñ  
MBN ǎ-nðñ, ɛ-  
MYE mŋ-nwðñ, bŋ-  
MBE ǎ-nðñ, ɔ-  
ELU mŋ-nð, bð-  
NNE ǎ?-nðñ, mɛ-  
AKO ɛ?-nðñ, mɛ-  
MHE ɛ?-nðñ, mɛ-  
MVK ǎ-nðñ, ɔ-  
MKA ɛ-nðñ, mɛ-  
BLN ɛ?-nðñ, mŋ-  
RBO ɪ-nðñ, mŋ-  
LEF wŋ-nðñ, mǎ-  
LEK mǎ-nðñ, ɪd.

(260) hawk \*  
épervier

CB (1111) \*-kɔdɪ (1212) \*-kɔmbé  
M  
PM \*fyˀ-ɔd 19 \*-bɛlǎ ?

MBM  
MBN  
MYE mŋŋ-swðˀ, bŋŋ- kŋkwo  
MBE s ɔˀ  
ELU hwɔɔɔ  
NNE yɔɔdɪ kwoɔm  
AKO hyɔɔɔɔ mbyɛɛ, bɛ- kwɔɔŋɛl  
MHE mbyɛ kŋmbɛkŋmbɛ  
MVK ɔɔl mbɛlǎ  
MKA yɔdɪ mbɛlǎ ɛdɪlɛɛ, bɛ-  
BLN yɔdɪ mbɛlǎ  
RBO mbɛǎ  
LEF mǎɔɔ ɔˀ (ɔ/s) kŋmbɛ  
LEK ɔɔɔkɔˀ (ɔ/s) mǎ-gŋmkɔŋɛ

(259) hen, fowl  
poule

(1257) \*-kŋbǎ 9/6 PBC: \*-kuba  
\*-kŋbǎ PEG: \*gŋbˀ  
\*kŋb 9/10

kɔbɪ  
kɛbɪ  
kŋ?  
kŋ?  
kobɪ  
kŋbɪ  
kŋbɪ  
kŋbɪ  
kŋw  
kŋbɪ  
kŋbɪ  
kŋbɪ  
kŋ  
kɔ?

(261) dove, pigeon  
colombe, pigeon

(131) \*-bɛŋgǎ  
\*-bɛŋgǎ 7 + 9  
\*-bɛŋgǎ 9/10

nðñ kǎɪǎ  
ɛ-bɛ?  
mbɛmbɛŋ  
mŋdŋdŋ  
bɛmbɛ  
mbɛŋgɛ ɛ'ɛǎ, bɛ-  
mbɛŋgɛ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ

	(262) partridge		(263) parrot
	perdrix		perroquet
CB	(1169) *-kòädé (865) *-ḡdädé 9/10	(1187) *-kòcò	
M	*-kòädé 9	*-kòcò 9	
PM	*-ḡwää 9/10	*kòj 9/10	
MBM	ḡwөө	kwèd'	
MBN	ḡwөө	kwөy? (kw/kp)	
MYE	kǎḡḡbөө	kpө?	
MBE	ḡwөө	kò?	
ELU	ḡwөө	nyөḡd'	
NNE	ḡwөө		
AKO	ḡwөө 9/10	kùd'	
MHE	-ḡwää, bө-	kөy?	
MWK	ḡwөө	kөy	
MKA	ḡwөө	kөy?	
BLN	ḡwөө	kòd' (d'/y?)	
BBO	ḡwөө	kòd'	
LEF	tǎndǎ?	kwө?	
LEK	ḡkhyǎ	kwө?	
	(264) weaver-bird	(265) nest *	
	"oiseau gendarme", tisserin	nid	
CB			
M		PEG: *kǎn`	
PM	*-ḡǎḡÈ 9/10	*-ùm(bǎ) 5/6	
MBM	ḡǎǎ	ndǎb nòn	
MBN	ḡǎǎ?	ndǎénòn	
MYE	ḡḡө?	ndǎmúnwǎn	
MBE	ḡǎ?	d-ùm, m-	
ELU	ḡǎǎl	dùm	
NNE	-ḡǎǎ, bө-	-dùm, mө-	
AKO	ḡǎḡө	d-ùm, m-	
MHE	ḡǎǎ	dùm	
MWK	ḡǎǎ	d-ùm, m-	
MKA	ḡǎǎ?, bө-	dùm	
BLN	ḡǎǎ? ḡǎǎkù	dùm	
BBO	ḡǎǎ	d-ùmbǎ, m-	
LEF	ḡǎǎkǎǎ	ndǎ è wlnòn	
LEK	ḡǎḡḡ	ndǎ mǎnǎ	

	(266) bird lime		(267) feather
	glu pour attraper des oiseaux		plume
CB			(248) *-cǎdǎ 5/6, 11/10
M			PEG: *fɛ̀
PM	*-kǎm 3		*-tɔ̃g 7/8, 7/6
MBM			è-tɔ̃g', ñ-
MBN			è-tɔ̃ʔ, ñ-/ǎ-
MYE			è-tɔ̃ʔ, ò- è-pǎʔ, ǎ-
MBE	ŋ-kǎm		ǎ-tɔ̃ʔ, ò-
ELU	ŋ-kǎm		è-tɔ̃ʔ, ʋ-
NNE			è-tɔ̃ʔ, ǎʔ-
AKO	ŋ-kǎm		è-tɔ̃g', èʔ-
MHE	ŋ-kǎm		è-tɔ̃ʔ, èʔ-
MWK	ŋ-kǎm		è-tɔ̃ʔ, ǎ-
MKA	ŋ-kǎm		è-tɔ̃g', è-
BLN			è-tɔ̃ʔ, èʔ-
BBO	m̄-kǎm		ɪ-tɔ̃g', ɪb'-
LEF			è-šǎʔ, bɪ-
LEK			è-tɔ̃k, bɛ̀-
	(268) wing *		(269) egg
	aile		oeuf
CB	(1450) *-pǎpǎ (6) *-bǎbǎ 5/6	(809) *-gɛ̀ (814+) *-gɛ̀dɛ̀ (817) *-gɛ̀yɪ	
M	*-pǎpǎ 5 *-baba 5 PEG: *bǎb`	*-ge (and *-gɛ̀dɛ̀ʔ) PEG: *bɔ̃m`	
PM	*-pǎb` 5/6 *-bǎb` 9/10	*-kɛ̀é/kɪɪ 5/6	
MBM	m̄-pǎpǎnɔ̃n	ǎ-tɪ, ɪd.	
MBN	ǎ-pǎlǎʔ, m̄-	ǎ-kyɛ̀, ɲ-	
MYE	è-pǎʔ, ǎ-	ǎ-kyǎ, ò- (ə/ɛ)	
MBE	ǎ-pǎʔ, ò-	ǎ-kɛ̀é, ò-	
ELU	ǎ-pǎʔ, ò-	ǎ-kɪ, ò-	
NNE	ǎ-pǎb', m̄-	ǎ-kɪɪ, mɛ̀-	
AKO	ǎ-pǎb', m̄-	ǎ-kɪɪ, m̄-	
MHE	mbǎb' (9/10)	ǎ-kɪɪ, m̄-	
MWK	ǎ-pǎw, ò-	ǎ-kɛ̀é, ò-	
MKA	mbǎb'	è-kɪɪ, m̄-	
BLN	è-pǎb', mɪ-	èʔ-kɪɪ (ɪɪ/ee), mɪ-	
BBO	ɪ-pǎb, mɪ-	ɪ-kɪɪ, mɪ-	
LEF	è-pǎʔ, bǎ-	ɪè-kʉ, m̄-	
LEK	ɪè-pǎʔ, m-	ɪè-khɪ, mɛ̀-	

	(270) claw griffe	(271) cowry cauri	(272) horn * corne
CB		(42) *-bãmbã	
M		PEG: *bĩm`	PEG: *dʒŋ`
PM	*-nyãñ`/-ãñ 9/10	*-bãmbV 9/10	*-sẽb 5/6 *tʒŋ 9/10 (*dʒŋ)
MBM	nyãñ	mbẽẽ	tʒŋ
MBN	nyãñ	mbãmbĩ	ndʒŋ tʒŋ = for drinking
MYE	nyãñ	mbããm' bĩ	tʒŋ
MBE	yãñ	mbãmbẽ	tʒŋ
ELU	nyãñ	mbãmbĩ	ã-sẽʔ, ð-
NNE	nyãñ	mbãmbĩ	ã-sẽb', mè-
AKO	nyãñ	mbãmbũ	ã-sẽb', mè-
MHE	nyãñ	mbãmbẽ	tʒŋ
MWK	yãñ	mbãmbĩ (i/a)	tʒŋ
MKA	nyãñ	mbãmbĩ	tʒŋ
BLN	nyãñ	mbãmbĩ	tʒŋ
BBO	nyãñ	mbãmbĩ	tʒŋ
LEF	nyãñ	mbãmbã	tʒŋ
LEK	nyĩ	lè-tʃn, mè-	ndʒŋ
	(273) tail queue	(274) food * nourriture	(275) meat viande
CB	(898) *-gõndõ/ʒ		(1910) *(n)yãmã (9)
M	PEG: *kũn`		(ny)ãmã (j)ãmã 9 PEG: *bãb`
PM	*-kõñ` 3/4	(*-dyã)	*-ãm 9
MBM	õ-kwõñ	dyõm dyẽ	nyãm
MBN	õ-kõñ		njẽtẽ nyãm
MYE	õ-kwõñ		ndyãtĩ? nyãm
MBE	õ-kãñ	jãã'dyẽ, bwẽẽ'dyẽ (ɛ/ə)	yãm
ELU	õ-kò		bëndyẽ nyã
NNE	õ-kõñ	ndĩĩ mè-ɲyẽ	nyãm
AKO	õ-kõñ	ndyããd' 9/10	nyãm
MHE	õ-kõñ	ndyã?	nyãm
MWK	õ-kõñ	jõm'dyã	yãm
MKA	õ-kõñ	jõm ɛ'dyã	nyãm
BLN	ãm-kõñ	jõm ẽ dyã	nyãm
BBO	ãm-kõñ	jõm ẽ dyã, byõm bĩ dyã	nyãm
LEF	õ-kõñ, mè-		lè-dyã nyãm
LEK	õ-kũũ, mè-		mbĩndẽgãñĩĩ nyã

	(276) fat, grease graisse	(277) fish poisson	(278) soup, sauce * soupe, potage, sauce
CB		(427) *-cú .(429) *-cúé/1	
M	PEG: f(')5m`	*-cúá PEG: *sú`	PEG: *jáb` 'légume'
PM	*-f5ŋ 5/6	*súá 9/10 *-d3n` 9/10	*-jáb 9 *-dŋ 9
MBM	à-fŋ	mɛnɛ́íí	à-lŋá
MBN	à-f5ŋ	-sú'á	ndŋ
MYE	ò-h5ŋ	súé	ñ-nò?
MBE	à-h5ŋ	súé (s/é)	ndŋ súpè
ELU	à-h5, ò-	sú	nzàb
NNE	à-hŋ, mè-	súù	ndŋ
AKO	à-hŋ, mè-	súù	nzàb'
MHE	à-h5ŋ	nd3n	ndŋ (o/u)
MWK	à-h5ŋ, ò-	nd3n 9,10	ndŋ
MKA	è-h5ŋ, mè-	nd3n	súpè
BLN	è-h5ŋ, mí-	nd3n (~/\`)	ndŋ súpì
BBO	f-f5ŋ, mí-h5ŋ	nd3n	ndŋ súpì
LEF	lè-f5ŋ, mà-	súé	súpè
LEK	lè-f5ŋ, mè-	súíí	nzà? mbw3?
	(279) milk lait	(280) sugar cane canne à sucre	(281) salt sel
CB	(73) *-bɛ́ɛ́dɛ́ 6	(1201) *-kòdògɔ (3/4)	(2176) *-gɔ́á 4
M			*-ɔgoa *-ɔngoá 3 PEG: *gwáŋ`
PM	*-bɛ́ɛ́ 5 *-bɛ́dɛ́ ?	*-kòká 3 *-kògɛ́ 3	*-kwá 3
MBM	mɛ́éé	ŋ-kògɛ́	ŋ-kwèé
MBN	mbyé ndáɓ	ŋ-kwáá?	ŋ-kwà
MYE	mbáíí?	ŋ-kòkɔ?	ŋ-kpá
MBE	míííííí mbééíí	ŋ-kwá	ŋ-kwá
ELU	míííííí	ŋ-kwáám	ŋ-kwé
NNE	míííííí à-bííí	ŋ-kògá	ŋ-kwé
AKO	míííííí' à-bííí	(ŋ-kòká) ŋ-kògá	ŋ-kwé
MHE	míííííí	ŋ-kòkɛ́	ŋ-kwé
MWK	mííííííí	ŋ-kòká	ŋ-kwá
MKA	mííííííí'	ñ-kòká	ñ-kwá
BLN	mííííííí' è?-bɛ́ɛ́	ñ-kòká	ñ-kwá
BBO	mííííííí	ñ-kòká	ñ-kwá
LEF	mííííííí lè-béé	sùsùm	ù-kwá
LEK	lè-bɛ́ɛ́?	-ŋkòk, mè-	ŋ-kwáá

	(282) pepper	(283) wild pepper	(284) onion *
	piment	poivre sauvage	oignon
CB	(718) *-dóngó 10		
M	*-dóngó 9 PEG: *sót		
PM	*-dón 9	*fy`-3b 19/13 *-lógó	
MBM	à-lógé	à-lógé syèl	ányòsè
MBN	à-lóó?	l 3b'	ányòs
MYE	ndón	swò?	(kǎǎ'yǎ) mbòkàn
MBE	ndón	à-ló?	mbòng ányòs
ELU	ndón		èbèkřé ónyòs / ó'nfísè
NNE	mbóm è ndón	hyòb'	ányòsè
AKO	ndón	hyòb' è?-lyóó	ányòs'sé, mé-
MHE	ndón		ányòs
MWK	ndón		à-jǎng, ò- á'nyòs à jǎng òkǎǎlǎ
MKA	ndón	è-ló'ó	á'nyòs
BLN	ndón	è-lóó	ányòs (s/y?)
BRO	ndón	í-yóó, mǐ-	ányòs
LEF	ndónngá	fyó?	wí-kà?
LEK	šóšóó	šwò?	
	(285) yam *	(286) cocoyam *	
	igname	macabo	
CB	(1166) *-kòǎ		
M	PEG: *jók` *dèk	PEG: *kòkV	
PM	*-lǎg *-bǎǎ *-súú *-sól?		
MBM	à-lǎg'		à-kàbò (loan)
MBN	à-lǎ?		òkǎk òlǎng (a/o)
MYE	à-yò?, ò-		myǎ òkǎǎ'lǎ
MBE	à-lǎǎ, ò-	è-òòò, à-	mbàngǎ
ELU	à-lǎ?, ò-		mbààngǎ
NNE		à-sǎl, mǐ-	mbààngǎ
AKO	mbwèè mbwèè	à-sǎl	mbààngǎ
MHE		à-sǎl, mǐ-	mbàngǎ
MWK	mbǎǎ à-súú		mbàngǎ
MKA	mbǎǎ m-súú kwè't è? mbòò		mbàngǎ
BLN		è-súú, mǐ- (u/o)	mbàngǎ
BBO	mbǎǎ / mbǎyǎ, bǐ-		è-kàbò / -kàò
LEF		è-kwǐ, bǐ-	í-kàbò, mǐ-
LEK		è-ló, bè-	lè-kàw, mà-
			òkǎngkèlǎng

	(287) colocasia * taro	(288) maize maïs	(289) fufu couscous
CB		(294) *-cángó	
M	PEG: *bán`	PEG: *sáŋ`	
PM	*-jín`/-jín` 7/8	*-bàj 9/10 *-gVny? 9	*-súbáǵ 7
MBM	è-yìŋ	mbèà	é-sòǵó
MBN	è-zòŋ	ŋkìn	é-'súbáǵ'
MYE	à-jèŋ	mbè?	é-sùbá?
MBE	è-jèŋ, à-	mbè?	é-'súbáǵ? fùfù
ELU	è-jèn, ø-	mbè?	é-'sù'bá?
NNE	è-jèn, à?-	ŋgwèŋ	é-'súbáǵ'
AKO	è-cìn, è?-	ŋgùŋ	é-'súbáǵ'
MHE	è-jìn	mbèy?	é-'sù'bá?
MWK	è-jìŋ, à-	mbèy? 9,10	è-sùwá
MKA	è-jìŋ, è?-	mbèy?	fùfù
BLN	è-jìŋ, è?-	mbàd' (d'/y?)	é-'súbáǵ' fùfù
BBO	ì-jìŋ, ìb'-	mbàt 9,10	fùfù mkùmùm
LEF	è-jìn, bè-	ŋgùf	è-tùmèè
LEK	è-žìn, bè-	ncwì	è-bá
	(290) bean haricot	(291) rice * riz	(292) cassava manioc
CB	(1222) *-kòndè (10)		
M	*-kòndè PEG: *kón`		
PM	*kón 9/10?	*kón 10	*-kwàmbà
MBM	ŋ-kwón	ŋ-kwón 'kářé	kàsářà
MBN	à-kón ŋgàšà	à-kón ŋkàšáǵ?	ŋ-kwàmbòm kàsàlà
MYE	kwón	kwón ŋkàšá'lé	kàsávà
MBE	kón	kónkálé	ŋ-kwàmbà
ELU	kó	kóŋkálé	ŋ-kwàmbà, ò-
NNE	kùn	kùn é ŋkàšáǵ	mè-kwàmbà
AKO	kón	kón é ŋkàšáǵ	mè-kwàmbè -kàsáǵéè, bè-
MHE	kón	kón békàšáǵ	mò-kwèmbè ŋgàbó
MWK	kón	kón ókàšálà	ò-kwàmbà kàsàlà
MKA	kón	kón é békàšáǵ	è-kwàmbà, mè-
BLN	kón	kón é békàšáǵ	è-kwàmbà kàsáǵ ŋgàšàbó
BBO	kón nzòyá	kón í bíkàšàlè	ì-kwàmbà, mí-
LEF	mà-kón	wíndí	mà-kwàmbà
LEK	mè-kú	mèkú'lèk	

	(293) plantain	(294) banana	
	plantain	banane	
CB			
M	PEG: *kɛdɔŋˀ (*ɔɔɔmˀ)		
PM	*-tɔm 5/6, 7/8		
MBM	à-tɔm, ò-		à-bʒnɔ
MBN	à-tɔm		à-bɛnɔŋ
MYE	à-twɔm, ò-	mbyàlɛ	
MBE	à-tɔm, ò-	mɔdɔlɛ	è-dɔdɔ
ELU	è-tɔ, ò-	ñ-sɛlɛ	mbyɛlɛ
NNE	è-tɔm, èʔ-	ñ-sɔlɛ	
AKO	è-tɔm, èʔ-	ñ-sɔlɛ	nyákɛ
MHE	à-tɔm	nyákɛ	è-lɔbà (ə/ɛ)
MWK	à-tɔm, ò-	mɔdɔlɛ	èdɔdɔ
MKA	è-tɔm, mɛ-		m-lɛbɛ
BLN	è-tɔm, mɛ-		è-dɔdɔ (/ -dɔdɔ)
BBO	í-tɔm, mɛ-		í-dɔdɔ, íb'-
LEF	lɛ-kɔ, mɛ-	mɔdɔlɔm	
LEK	lɛ-kɛndɔŋ, mɛ-	è-tɛŋkɛ, bɛ-	

	(295) pumpkin	(296) melon	(297) orange
	courge	melon	orange
CB			
M	PEG: *bɔkˀ		
PM	*-bɔɔ 5/6 (cf. 296)	*-bɔkʋ 3	*-sàbɛ 1a/2 *-pɔmɔ 7/8
MBM			è-pɔmɔ
MBN			è-pɔmɔ
MYE	à-bɔʔ, ò-	è-sɔʔ	mɔ-nzálɛʔ, bɔ-
MBE		m-bɔʔ	è-pɔmɔ, à-
ELU	mɔdɔʔ	è-sɔkɔ	-sàbɛ, ò-
NNE	mɔdɔʔ		-sàbɛ, bɛ-
AKO	à-bɔɔʔ, mɛ- è-cɔŋgɔ, eʔ-	é-sàkɔ, èʔ-	-sàbɛ, bɛ-
MHE		è-bɔkɔ, mɛ-	è-pɔmɔ
MWK		m-bɔkɔ	è-pɔmɔ, à-
MKA		m-bɔkɔ	è-pɔmɔ, èʔ-
BLN		m-bɔkɔ	è-pɔmɔ, èʔ-
BBO		m-bɔkɔ	í-pɔmɔ, íb'-
LEF	lɛ-bɔʔ, mɛ-	é-sàkɔ	-mɔsálɔ, bɛ-
LEK	lɛ-bɔk, mɛ-	nzɪk	



	(298) oil palm *		(299) (palm) oil	
	palmier		huile de palme	
CB	(140) *-bídà 5/6		(1278) *-kútà (914) *-gútà	
M	PEG: *tfn		*-kútà 'fat' V: 'oil' PEG: *gúd	
PM	*-íí 5/6		*-úí 6 *-jǒǒ 9	
MBM	d-íí, m-		(mǔn) nzǒǒ	
MBN	jíí		mǎí nzǒǒ	
MYE	mbíí 9/10		mǔn	
MBE	jíí, id.		mǒí	
ELU	d-íí, m-		mǒí	
NNE	d-íí, m-		mǒí	
AKO	d-íí, m-		mǒí nzǒǒ	
MHE	d-íí, m-		mǔí	
MWK	d-íí, m-		mǔí	
MKA	d-íí, m-		mǔí	
BLN	d-íí, m-		mǔí	
BBO	d-íí, m-		mǔí	
LEF	è-líǒ, bí-		lè-fó	
LEK	cíí, mèmphí		mè-khǒ	
	(300) palm kernel *	(301) rubbing oil	(302) raffia palm	
	palmiste	huile pour se frotter	palmier raphia	
CB				
M		PEG: (*jǒk 'oindre')		
PM	*-bàǒ 3/4	*-ǒǒ 5/6 (9/10?)	*-tùd 5/6 *sǒǒ	
MBM	m-bàǒ	nyǒǒ	sǒǒ	
MBN	m-bàǒ	nzǒǒǒǒ	sǒǒ?	
MYE	m-bǒǒ	è-wǒkí?	mǔ-sǒǒ, bú-	
MBE	m-bǒǒ	nyǒ?	à-tǔ	
ELU	m-bà	nyǒ?	ǒǒǒ	
NNE	m-bwà, m-bà	nyǒ?	ǒǒǒ	
AKO	m-bàǒ	dy-ǒǒ', m-	è-tùd', è?	
MHE	m-bàǒ	dy-ǒ?	è-tùd, mǎ-	
MWK	m-bǒǒ mbíí 9/10	dy-ǒ?, m-	à-tùl, ò-	
MKA	m-bǒǒ	dy-ǒǒ', m-	è-tùd, mǎ-	
BLN	m-bàǒ	dy-ǒ?	è-tùd', mǎ-	
BBO	m-bwàǒ, m-bàǒ	dy-ǒk, m-	í-tùt, mǎ-	
LEF	m-màǒ, mǎ-	yǒmǎwǒ?	mǎ-kwǒn	
LEK	èǒǒ	mǎkhǒ ndínté	sǒǒ, id.	

	(303) groundnut arachide	(304) "cashew nut" "noisette"	(305) kola nut noix de kola
CB			(116) *-bèdú
M	PEG: *bèyǎŋ		PEG: *b(o)ɿ
PM	*-gǝndú 9/10	*kǎj 9/10	*-bèè 5/6
MBM		mətǝg kǎd'	ǎ-bɿɿ
MBN	bǝzǎŋ	ǎkǝn mwètǝ?	ǎ-byǎǎ
MYE	nzyǎsǎ	kǎ?	ǎ-byǎ (ǎ/ɛ), ò-
MBE	ŋgǝndí	kǎ?	ǎ-bèè, ò-
ELU	ŋgǝndǎ	kǎ?	ǎ-bɿɿ, ò-
NNE	ŋgǝndǎ	kǎd'	ǎ-bwɿ. mǝ-bɿɿ
AKO	ŋgǝn	kǎd'	ǎ-bɿɿ, mǝ-
MHE	ŋgǝndǝ		ǎ-bèè, mǝ-
MWK	ŋgǝn	kǎy?	ǎ-bèè
MKA	ŋgǝndǝ	kay?	ǎ?-bèè, mǝ-
BLN	ŋgǝndǝ	kǎd' (d'/y?)	ǎ?-bèè, mǝ-
BBO	ŋgǝndǝ	kǎt	ɿ-bèè, mɿ-
LEF	nǎɿǎɿ	kǎ?	lè-bè, mǝ-
LEK	mbyǎŋ	kyǎ?	lè-bɿɿ

	(306) "plum" * "prune"	(307) (palm) wine vin de palme	(308) mushroom champignon
CB			
M		PEG: *dǝk` 'vin'	
PM	*-sǎ 5/6	*-ɿm 6	*fy`-ɿny 19/13
MBM	ǎ-sǎ	mɿm	ŋgǝɿǎ
MBN	ǎ-ɿyǎǎ	mɿm	kǝndǎŋ
MYE	ǎ-sǎ (ǎ/ɛ), ò-	mɿm	swǎŋ
MBE	ǎ-sǎ, ò-	mǎm	(ɿǝǎ) kǝn'dǎŋ (ǎɿǎ)
ELU	ǎ-sɛ (ɛ/ǎ), ò-	mǎm	hwǎ
NNE	ǎ-sǎǎ, mǝ-	mǎm	ǎ?-ɿmǎm
AKO	ǎ-sǎǎ, mǝ-	mɿm ǎ-yǎn, mǝ-	hy-ǎn, ɿ-
MHE	ǎ-sɛ, mǝ-	mɿm	ywǝǝ
MWK	ǎ-sǎ	mɿm	ɿǝǝ
MKA	ǎ?-sǎ, mǝ-	mɿm	yǝǝ
BLN	ǎ-sǎ, mɿ-	mɿm	yǝǝ
BBO	ɿ-sǎ, mɿ-	mɿm	yǝǝ
LEF	ǝ-sǎ (ǝ/wǝ?), mǎ-	mǎm ǎ-lǎŋgǎ	fy-ɿn
LEK	bè-sǎgǎ, id.	mɿm	sǝǎ

	(309) tobacco *	(310) "cotton tree"	(311) tooth stick
	tabac	"cotonnier"	"brosse à dent"
CB			
M		PEk: *-kúm	
PM		*-úmà 14	*-sè ? 7/8    *-kíkàg 5/6
MBM	tàbè	búm            nzàmbà	è-sàpà
MRN	tàè	bəm	è-syà
MYE	tábè	búm    kstèn	é-syà; á-
MBE	tábè	kstèn	è-sè?
ELU	tààkù	èkòmbè	
NNE	tààkù	bòòm    bwèl kstèn	è-sè, à?-
AKO	tàkù (a/aa)	búúm	è-sè, è?-
MHE	tààkè	-búmà, mē-	è-sè, è?-
MWK	tàwà	bwèl kstèn	nzínzì    à-kíkà
MKA	tààkè	búmà	è-kíkàg', mē-
BLN	tààkè	búmà	ngísí    è-kíkà, mē-
BBO	tààkù	búmà	nzísí
LEF	mwènè?		è-sè, bí-
LEK	tábòò	bən	è-sègà, bè-

	(312) stick	(313) walking stick *
	bâton, tige	canne
CB		(1794) *-tóngà 'heavy stick' 9/10
M		*-tonga 3 'stick'
PM		*-tɔŋ 3
MBM		ñ-tɔŋ
MRN	ñ-tɔŋ    à-kòŋ	ñ-tɔŋ
MYE	májèŋ, bəmèŋ	ñ-tɔŋ
MBE	mbè?	ñ-tɔŋ
ELU	mbək            bwɛl	ñ-tɔ
NNE	mwābwèl	ñ-tɔŋ
AKO	mbàg' 9/10    bw-èl, m-	ñ-tɔŋ
MHE	mboŋ	ñ-túŋ
MWK		ñ-túŋ
MKA	mbòŋ	ñ-túŋ
BLN	pèsá	ñ-túŋ
BBO	pèsá    í-bɔŋgɔ, mí-	ñ-túŋ
LEF	ñ-túm                    kàfé	
LEK	zígí?	ñ-tɔŋ

	(314) trap piāge	(315) pit fosse, trou	(316) hook crochet
CB	(1661) *-tāmbō (3/4)	(110) *-bédā	(836) *-gǔbē
M		*-bédā 9 'grave, pit'	*-gǔbē 9
PM	*-lām 14/6 *-kǔj	*-bédā 7/8	*-gǔbē 9/10
MBM	ā-lām, n̄- ŋ-kǔd	ē-bē	ŋgǔb'
MBN	n̄-lām		ŋgǔb'
MYE	ā-lām, ð-		ŋgǔb'?
MBE	ā-lām, ð-	ē-bē?, ā-	ŋgǔb'?
ELU	ð-lām, id.	ē-bī ā-jók'	ŋgǔb'
NNE	ā?-lām, mē-	ē-bīf n̄nyǔg	ŋgǔb'
AKO	ā?-lām, mē-		ŋgǔb'
MHE	ā?-lām, mē-	ā-bēē, ā?	ŋgǔb'
MWK	ā-lām, ð-	ā-bēē, ā-	ŋgǔw
MKA	ē-lām, mē- ē-kǔy?, ē?	ē-bēē, ē?	ŋgǔb'
BLN	ē?-lām, mē-	ē-bē'ē, ē?	ŋgǔb'
BBO	ī-yam, mī- ī-kǔd, īb'-	ī-bēē, īb'-	ŋgǔb'
LEF	wū-lām, mā-		ŋgǔb'?
LEK	bē-lām, mē-	ē-pǔn, bē-	ŋgǔb'?
		ē-pǔs, bē-	nzāk
	(317) fish hook hameçon	(318) spear lance	(319) sword épée
CB	(640) *-dǔbǔ 5/6	(857) *-qǔngā	
M	*-dǔbǔ	*-qǔngā 5 PEG: *kǔŋ	
PM	*-jǔb' 14/6	*-kǔŋ' 5/6	*-kwātÉ 3/4 *-jǔm
MBM	yǔb'	ā-kǔŋ, ŋ-	māmp'ā
MBN	ā-yǔb'	ā-kǔŋ	
MYE	ǎ-jwā?	ā-kǔŋ, ð-	pā'āb'īn
MBE	ā-jǔ?, ð-	ā-kǔŋ, ð-	ŋ-kwātā
ELU	jǔb'	ā-kǔ, ð-	ŋ-kwātā
NNE	ā-cǔb'	ā-kǔŋ, mē-	ŋ-kwātÉ
AKO	ā?-cǔb', mē-	ā-kǔŋ, mē- ā-lǔb	ŋ-kwātā
MHE	ā-jǔb', mī-	ē-kǔŋ, mē-	ŋ-kwātā
MWK	ā-jǔw	ā-kǔŋ, ð-	nzǔm pā'ā
MKA	ē-jǔb', mē-	ē?-kǔŋ, mē-	m̄jom ē-lēn, mē-
BLN	ē-jǔb', mī-	ā-kǔŋ, mē-	ŋjǔŋ
BBO	ī-jǔb', mī-	ī-kǔŋ, mī-	nzom
LEF	wū-yǔ, mā-		pÉ
LEK	lē-sāk, mē-	lē-kǔŋ, mē-	

	(320) bow arc	(321) arrow * flèche	(322) gun fusil
CB	(1631) *-tá		
M			PEG: *gád~
PM		*-kǝŋ 5/6	*-kǝmbǝ 3/4 *-gádǝ 9
MBM	ǎlǝ	ǎ-kǝŋ	ŋgǎlǎ
MBN	(ǎlǝd')	ǎ-kǝŋ	ŋ-kǝmbǎ
MYE	ǎ-lǎm ǎkǝŋ	ǎ-kǝŋ, ð-	ŋ-kǝmbǎ
MBE	ǎ-pǝ?, a-	ǎ-kǝŋ	ŋ-kǝmbǎ
ELU	ǎ-pǝ, ð-	ǎ-kǝ, ð-	ŋ-kǝmbǝ
NNE	ǎpǝsǝ		mbǝŋǎpǝsǝ
AKO	ǎ?-lǝ		ǎ-pǝ (1/11)
MHE	ǎ-pǎn	bǎn bǎ mǝkǝŋ	ŋ-kǝmbǎ
MWK	ŋgǎl-mbǝŋ mbǎǎ	ǎ-kǝŋ	ŋgǎl
MKA	ǎ-kǝŋǝŋ	ǝ?-kǝŋ, mǝ-	ŋgǎŋǝ
BLN	ǎ-kǝŋǝ mbwanzo	ǎ-kǝŋ, mǝ-	ŋgǎŋǝ (ǝ/1)
RRO	ǎ-jǝt	ǎ-lǝ	ŋgǎdǝ (1/e)
LEF	ǝ-tǝm	dǝ-lǝ	ŋ-kǝmbǎ
LEK	mǝmbǝ	mbǝ	mǝǝ
	(323) gun-powder poudre à fusil	(324) cutlass, machete coup-coup, machette	(325) knife * couteau
CB			(1441) *-pǎngǎ 'bush knife'
M			PEG: *bǝ
PM	*pǝndǝ	*pǎǎ 9/10	*-lǝn 5/6
MBM	nzǝzǝ	pǝǝ	mǝmpǝ
MBN	pǝn	pǝǝ	mǝmpǝǝ
MYE	pǝn	pǝǝ	mǎ-'pǝǝ, bǝ-
MBE	pǝn'dǝ	pǝ	mǝ-'pǝ, bǝ-
ELU	ǝǎndǝ	pǝ	ǎ-nǝkǝ
NNE	pǝndǝ	pǎǎ	mǎ-'pǎǎ
AKO	pǝndǝ	pǎǎ	mǎ-'pǎǎ ǎ-nǝkǝ pǝmbǝ
MHE	nzǝnzǝ	pǝǎ	ǝ?-hǝǎ ǝ?-lǝn
MWK	nzǝnzǝ	pǎǎ	mǎǎn pǎǎ
MKA	ndǝsǝ	pǎ'ǎ	ǝ-lǝn, mǝ-
BLN	ndǝsǝ	pǎ'ǎ	ǝ-lǝn, mǝ-
RRO	nzǝsǝ	pǎǎ	ǝ-yǝn, mǝ-
LEF	pǝn	pǝ	dǝ-lǝndǝ
LEK	pǝn	pǝǎ	pǎgǎlǝŋ

	(326) axe hache	(327) handle * manche	(328) hoe houe
CB		(1521) *-pənī 3/4	(901) *-gōngū (436) *sūkà
M	PEG: *jām	*-pənī 3	PEG: *s5
PM	*-fōn 7/8	*-jāg 3/4 *-fōn 3/4	*-ōŋ 7/8
MBM	è-fōn	nzāg' n-sēn	yūŋ
MBN	è-fōn	ñ-jā? ñ-fām	yūŋ
MYE	è-hwōn (e/ε), à-	ñ-jō?	j-ōŋ, by-
MBE	è-hōn, à-	ñ-jā?	j-ōŋ, b-
ELU	è-hō, ø-	ñ-jā?	j-ōŋ, b-
NNE	è-hōn, à?-	ñ-jāg'	j-āŋ, b-
AKO	è-hōn, à?-	ñ-jāg' ŋ-hén	c-ōŋ, b-
MHE	è-hōn ŋ-kūlāŋ	ñ-jā?	j-ūŋ, by-
MWK	è-hōn, à-	ñ-jā? ŋ-hén	j-ōŋ, my-
MKA	è-hōn, è?-	ñ-jāg'	j-ōbāl, by-
BLN	à-hōn, à?-	ñ-jāg'	j-ōwāl (w/b), by-
BBO	ñ-kūyāŋ	ñ-vén	j-ōŋ, by-
LEF	è-fōn, bī-	ñ-fōn, mī-	ñ-jā, mī-
LEK	è-fū, bè-	ñ-fūém'fū, mē-	è-s55, bè-
	(329) drum (leather top) tambour	(330) wooden drum tam-tam	(331) bell cloche
CB	(844) *-gōmā 9/10		(900) *-gōngà
M	*-gōmā 9		
PM	*-gōm 9/10	*-līm 7/8 *-tēg 3	*-gēŋ 9/10
MBM	ŋgōm	è-līm	ŋgōŋ ŋkām
MBN	ŋgōm	è-lām	ŋgōŋ
MYE	è-sīmbā, à-	è-līm, à-	ŋgāndé'kū? (ε/1)
MBE	ŋgōm	è-lām	ŋgōŋ
ELU	ŋgōm	è-lām	ŋgō
NNE	ŋgōm	ñ-ty'ag'	ŋgō'ōŋ
AKO	ŋgōm	ñ-ty'ag'	ŋgōŋ
MHE	ŋgōm	ñ-t'ag'	ŋgōŋ
MWK	ŋgōm	ŋgōm mbāā	ŋgōŋ
MKA	ŋgōm	ñ-t'ag'	ŋgō'ōŋ
BLN	ŋgōm	ñ-t'ag'	ŋgōŋ
BBO	ŋgōm	ñ-t'ak	ŋgōŋ
LEF	ŋgōm	ñ-t'ə?	ŋgāndākū
LEK	ŋgō?	ñ-t'ak	ŋāŋ

	(332) box		(333) bag	
	bofte		sac	
CB	(1097+) *-kɔbɛ		(1244) *-kɔtɔ	
M			*-koto 5 'bag' PEG: *b(e)à(m)~	
PM	*-tɛg 3/4 *-gɔbɛ 9/10 *-bɔŋ		*-pāl 7/8 *-kwə 7/8 *-kɔtə 3/4	
MBM	mbɔŋ		è-pān ŋ-kɔtə	
MBN	è-bɔŋ èkwəŋ'kwəŋ		è-pāl n-cɔl	
MYE	è-bɔŋ		è-pān, à-	
MBE	kɔ?		è-pāl è-kwə ŋ-kɔtə	
ELU	n-tyá		è-pāl, ɔ-	
NNE	n-tyáɔ'		è-pāl, à?- ŋ-kwɔtə	
AKO	n-tyáɔ' kɔd'		è-kwɛ, à?- ŋ-kɔtə	
MHE	ŋgɔbɔ		è-pāl ŋ-kɔtɛ	
MWK	ŋgɔw (è-lɪmbɪ)		è-pāh	
MKA	ŋgɔbɔ è-lɪmbɪ		è-pāl m-pɔtə	
BLN	ŋgɔbɔ è-kwɛm		è-pāl m-kɔtə	
RBO	ŋgɔbɪ f-kwɛm		f-pāh, fɔ'- m-kɔtə	
LEF	è-bɔŋ, bɪ-		è-kwə, bɪ-	
LEK	è-kɛlɛ, bɛ-		mbɔgɔ	
	(334) parcel		(335) basket *	(336) basket
	paquet		panier	hotte
CB	(ps 337) *-kɔmbɔ 5/6 'load'		(1849) *-tɔŋgɔ	
M			*-tonga 7,5	
PM	*-bɔg 5/6, 3/4 *-ɔm(bɔ) 5/6		*-lɔŋ 7/8	*-sɔgɔ 7/8
MBM	à-bɔg', m-		è-lɔŋ	è-sɔgɔ
MBN	à-bɔg'		è-lɔŋ	è-sɔ?
MYE	à-bɔ?, ɔ-		è-lɔŋ, à-	è-sɔ?, à-
MBE	dy-əm, m-		è-lɔŋ, à-	è-sɔ? (o?/oo), à-
ELU	m-bɔ?		è-lɔŋ	è-sɔɔ?
NNE	d-ŋm, m-		è-lɔŋ, à?-	è-swɔ, à?-
AKO	m-bɔg dy-ɔm, m-		è-lɔŋ tɔmbɛ	è-syɔgɛ, è?-
MHE	dy-ɔm, m- mbɔmbɔ			è-sɔŋ, à?-
MWK	dy-ɔm è-kɔl		è-lɔŋ	è-sɔɔ, à-
MKA	dy-ɔmbɔ, m-		è-lɔŋ, è?-	è-sɔ?ɔ, è-
BLN	dy-ɔmbɔ(dy/j-), m-		è-lɔŋ, è?-	è-sɔ?ɔ, è?-
RBO	dy-ɔmbɔ, m-		f-yɔŋ, fɔ'-	f-sɔgɔ, fɔ-
LEF	m-bɔ?, mɪ-		è-dɔŋ	è-sɔkɛ
LEK		ndɔŋɔ	è-dɔŋ, bɛ-	n-sɔ

	(337) head-band for carrying basket.	(338) head-pad
	bande pour porter la hotte	tortillon, coussin
CB		(1016) *-kātā
M		
PM	mṽṽ 6	*kambV *-kāmbā 5/6 *-bāmā 7/8 *-fād
MBM	māṽ	ə-fād'
MBN	māṽ	ə-fāʔ
MYE	mṽṽ	kwām' bāṽ
MBE	māṽ	kṽ'mbāṽ
ELU	māṽ	k ʔmbāṽ
NNE	mṽṽ	ə-bāmē
AKO	mṽṽ	ə-bāmē, əʔ-
MHE	mṽṽ	ə-bāmē, əʔ-
MWK	mṽṽ	ə-kāmbā mbṽṽṽṽ
MKA	mṽṽ	ē-kāmbā, mē-
BLN	mṽṽ	ə-kāmbā, mī-
BBO	mṽṽ	ī-kāndā, mī-
LEF	mṽṽ	lī-bāmā, mā-
LEK	māṽṽ	lē-kāʔ, mē-

	(339) thatch	(340) mat
	chaume, natte	natte
CB		
M	PEG: *bānV	
PM	*-bṽṽ 9/10	*-bṽṽ 7/8 *-bṽṽ(ṽṽ) ? 5/6
MBM	mbṽṽṽ	ə-bṽṽ
MBN	mbṽṽṽ	
MYE	mbṽṽṽ 9/10	ə-bṽṽ ṽṽṽṽṽ
MBE	mbṽṽṽ mbān	ə-bṽṽ, ə-
ELU	mbṽṽṽ	ə-bṽṽ
NNE	mbṽṽṽṽ	ə-bṽṽ, əʔ-
AKO	mbṽṽṽ 10	ə-bṽṽ
MHE	mbṽṽṽ	ə-bṽṽ, əʔ-
MWK	mbṽṽ ṽṽṽṽṽ (ṽṽṽṽṽṽ)	ə-bṽṽ ə-bṽṽṽṽṽ
MKA	ṽṽṽṽṽṽ ṽṽṽṽṽ, mē-	ē-bṽṽṽṽ, mē-
BLN	ṽṽṽṽṽṽṽ	ə-bṽṽ, mē-
BBO	mbṽṽṽ	ī-bṽṽ, mī-
LEF	ṽṽṽṽ	ṽṽṽṽṽṽ
LEK	mē-zṽṽṽ, id.	mbṽṽṽṽ lēkṽṽṽ, id.



	(341) rope *		(342) thread, string
	corde		fil, ficelle.
CB	(839) *-gɔ́dɪ 'string'		(359) *-cɪŋgà 3/4 'string'
M	*-gɔ́dɪ 'string' PEG: *kũ		*-cɪŋgà 3
PM	*-kɔ́dɪ 3/4		*-bòŋgá 7/8 *-sɪŋgà 3/4 *-kɔ́dɪ
MBM	ɔ́-kɔ́dɪ		ɔ́-kɔ́dɪ
MBN	ɔ́-kɔ́lɪ?		ɔ́-kɔ́lɪ?
MYE	ɔ́-kwɔ́?		ndá? ɔ́-kwɔ́?
MBE	ɔ́-kɔ́?		ɔ́-kɔ́?
ELU	ɔ́-kɔ́?		ə-bùŋgú
NNE	ɔ́-kɔ́dɪ		ə-bāŋgɛ (a/o)
AKO	ɔ́-kɔ́dɪ		ə-bòŋgɛ ñ-sɪŋgɛ
MHE	ɔ́-kɔ́dɪ		ñ-sɪŋgɛ
MWK	ɔ́-kɔ́lɪ		ñ-sɪŋgà
MKA	ṁ-kɔ́dɪ		ṁ-sɪŋgà
BLN	ṁ-kɔ́dɪ		ə-bòŋgɔ́ ṁ-sɪŋgà
BRO	ṁ-kɔ́t		ṁ-sɪŋgà mw-àsà, my-
LEF	ɔ́-kɔ́?		ñ-sɪŋgà, mɪ- ɛ-ryáɪlɪ, bɪ-
LEK	ɔ́-kɔ́?, mɛ-		ndá?
	(343) needle	(344) nail	(345) chair, stool
	aiguille	clou	chaise
CB			(1732) *-tɛ (1692) *-tɛbɛ 'stool'
M			
PM	*-dɔ́ndɪ̄(kɪ̄)	*tɔ́nɪ̄ 9/10	*-tɪ̄ 5/6 *kòndá 9/10 *-bòŋgá 7/8
MBM	ndùŋ	ndùŋ	à-tɪ̄, ñ-
MBN	tɪ̄ŋnɛ	tɪ̄ŋ	à-tɪ̄
MYE	ndwòndɛ(kɪ̄?)	mù-mpɪ̄?, bù-	(à-tɪ̄=bed) kwòndɛ
MBE	ndòndɪ̄	tyɛ	à-tɪ̄, ò- kòndɔ́
ELU	ndòndɛ	tɔ́nɛ	à-tɪ̄, ò- kòndɛ
NNE	ndòndɛ	tɔ́nɛ	à-tɪ̄
AKO	ndòndɛ	tɔ́nɛ	à-tɪ̄, mɛ-
MHE	ndəndəkī	tɔ́n	ə-tɪ̄, mɛ- kòndɛ
MWK	ndòndɔ́kī	tɔ́n	
MKA	ndònnəkə	tɔ́n	ɛ?-tɪ̄ kòndá bɛnɪ̄
BLN	ndòndɔ́kī	tɔ́n	ə-bòŋgá, ɛ?-
BRO	ndòndɔ́kī	tɔ́n	ɪ-tɪ̄, mɪ-
LEF	ndòndɔ́kò	tɔ́nɛ	ɛ-bòŋ
LEK	lɛ-sák, mɛ-	mbòò?, ɪd.	ə-bòŋ, bɛ-

	(346) book *		(347) calabash
	livre		calebasse
CB			(253) *-cādī 9/10 'calabash
M			bottle'
PM	*-pəb 5/6		*-pōm' 5/6
MBM	ā-pāb', m-		ŋgəb'
MBN	ā-pāb'		ē-sāsō? ŋgəb'
MYE	ə-kāātī, ā-		ā-pwəm, ɔ-
MBE	kālā?		ə-pən (ə/wə) ə-sāsō sū'dī
ELU	kālā?		ē-sī, ʔ-
NNE	kālāg'		n-twɔg' mwəsīf
AKO	kālāg'		ā-pōm, mē- pīd'
MHE	kālē? (ʔ/d')		ē-pōm, mē-
MWK	kāāsī		ā-pōm, ɔ-
MKA	kāātē		ē-pōm, mē-
BLN	kāātī (ʔ ʔ)		ē?-pōm, mē-
RBO	kāāsī		ī-pōm, mī-
LEF	kāātē		ŋ-kúmá, bā-
LEK	ə-kātī, bē-		m̄bāā

	(348) firewood		(349) (cooking) pot
	bois de chauffage, fagot		marmite
CB	(1218) *-kōnī (11/10)		(120) *-bəgā
M	*-kōnī 11,10 PEG: kue(n)ʔ		*-pega 9 *-bega 9,11 PEG: *cəŋʔ
PM	*fyʔ-ōn 19/13		*-bēē/bēʔ 9/10
MBM	lē		mbyē
MBN	lēŋ m̄ŋŋ		mbyə
MYE	sūn		mbhāā
MBE	š-ēē, 1-		mbēē
ELU	lēŋ		mbēē
NNE	hy-ōn, 1-		mbē
AKO	hy-ōn, 1-		mbēē
MHE	y-ōn, 1-		mbēē
MWK	š-ēē, 1-		mbēē
MKA	y-ōn, 1-		mbē ʔwɔŋ'gɔ
BLN	y-ōn		mbē
RBO	yōn, id.		mbē
LEF	lī-yīē, m̄ā-		mbāā
LEK	līlī, id.		m̄phāā

(350) spoon		(351) key *
cuillère		clef
CB (ps 473) *-tōgō 'ladle'		
M *-coga 'wooden spoon' PEG: *dōk` 'cuiller'		
PM *tōg 9/10.		*-kēē 14/6 *-dībān 7/8
MBM tōg'		ē-tōgēlē ndāb'
MBN ē-kwē?		ē-rūlā
MYE tō?		ē-kīf, ā-
MBE ē-kwē?, ā-		ā-kē (e/ye), ō-
ELU tō?		Ø-kī
NNE twōg'		ā-kīf, mē-
AKO tyōg'		ē?-kīf, mē-
MHE tō?		ē-kēē, mē-
MWK tō?		ē-kē ē-dīwān
MKA tōg'		ē-dībān, ē?-
BLN tō?		ē-dībān, ē?-
BBO tōk		ī-dībān, īb?-
LEF tō?		ē-dībān, bī-
LEK tōk		-khīf, bē-
(352) mortar	(353) pestle	(354) trough (for making oil)
mortier	pilon	huche, bassin, pressoir
CB		
M		
PM *-bōg 7/8	*-bōlāg 9/10	*-āl 14/6
MBM ē-bōg'	mbōlāg	bwē
MBN ē-bōō?	mbōlō?	byal (y/w)
MYE ē-bō?, ā-	mbhōlāē	byal
MBE ē-bō?, ā-	mbōlō?	bw-āl (w/y)
ELU ē-bō?, Ø-	mbōlē	bw-āl
NNE ē-bwōg', ā?-	mbōlāg'	bwāl
AKO ē-bwōg', ā?-	mbōlōg'	bw-āl
MHE ē-bōg', ē?-	mbōlō? (?/g')	bw-āl, m-
MWK ē-bō?, ā-	mbōlā	bw-āl, my- (14/4?)
MKA ē-bōg' mōmōmōmē	mbōlōg'	bw-āl, m-
BLN ē-bō?, ē?-	mbōlō?	bw-āl, m-
BBO ī-bōk, īb'-	mbōyōk	bw-āā, m-
LEF ē-kū?	mbōlō?	njōmbī
LEK n-tāgēbāā	ē-zōk, bē-	ē-bwō mphī

	(355) canoe * pirogue	(356) paddle pagaille, rame	(357) earring boucle d'oreille
CB	(1949) *-yāt3 (14/6)	(1014) *-kápí 9/10	
M	*-(j)āt3 14		
PM	*-šlV 14/6	*pāÉ 9/10	*-bēhgā 9/10 *-bšjV? 7/8
MBM	kānō	pāé kānō	mbšsē
MBN			mbēhgā
MYE	byālo	ē-pābīī, ā-	myētūā
MBE	b-šlā, my-		-bšāsi, ā-
ELU	-bšlā, o-		mbīhgā
NNE	bšl t		mbyāhgā
AKO	-bšlā, mē-	pāā ē bšlā	mbēhgā 9/10 ēbēsē
MHE	bw-ālā, my-	pāé	mbēhgā
MNK	bšl3	pāy	mbēhgā ābfy
MKA	b-šl3, my-	pāy bšl3	mbēhgā ?-bāy?, ??
BLN	-bwāld, mī-		mbēhgā
BBO	bw-āyō, m-	pāy	ī-bāt, īb'-
LEF	bwāld	pākī	mbēhgā
LEK			mbyēlī, id.

	(358) bracelet bracelet	(359) ring * bague
CB		(1497) *-pētē
M		PEG: *kwāŋ
PM	*-ēn 3/4	*-jāj`/-jēj`? 9/10
MBM	kwāŋ	nzēd'
MBN	ā-cūn	mākwāŋ
MYE	āmy'ē' kšā	āmyēbšāmyē
MBE	ŋkwāŋ	nžē? yāndā
ELU	mw-ē, my-	ŋgōk ē
NNE	ē-bōŋ	nzyēg'
AKO	ē-bōŋ, ā?-	nzēd'
MHE	mw-ēn, my-	-yāndā, mī-
MNK	mw-ēn, my-	lāndā
MKA	mw-ēn, my-	yāndā
BLN	mw-ēn, my-	ē?-kštā, mī-
BBO	mw-ēn, my-	-yāndā, mī-
LEF	ŋgōk bī	njē?
LEK		mbyēlī

	(360) comb		(361) mirror *		(362) cloth
	peigne		miroir		tissu
CB	(259) *-cák-	(271) *-càn-			
M					PEG: *d(ò)í'
PM	*-sěsú ?	*-bǎnjǎ ? 7/8	*-ěné/-ěnyě		*-bǎd/-bǎtò 5/6
MBM		ě-sǎpě	ń-lǎg		ǎ-bǎd'
MBN	mběnjú		ě-lěngě		ǎ-bǎd'
MYE		ě-pǒ?, ǎ-	ě-lěngí, ǎ-		ǎ-bǎ?, ǒ-
MBE	ě-běně, ǎ-		dy-ěné, m-		ǎ-bǎ?, ǒ-
ELU	ě-síěyěl (ě/s)		d-ěngě, m-		ǎ-bǎ?, ǒ-
NNE	sčsú		dy-ěngě, my-		ǎ-bǎd', mě-
AKO	sěsú		dy-ěné, m-		ǎ-bǎd', mě-
MHE	sěsí		j-ěně, m-		ě-bǎd', mě-
MWK	ě-bǎnzǎ, ǎ-		j-ěén, m-		ǎ-bǎtò
MKA	ě-bǎnjǎ, ě?-		dy-ěné, by-		ě-bǎtò
BLN	ě-bǎnjǎ, ě?-		dy-ění, by-		ě?-bǎd', mǐ-
BBO		í-sǎnní, íb'-	j-ění, by-		í-bǎtò, mǐ-
LEF	lě-síśí, mǎ-		ě-děngě, bí-		lě-bǎ, mǎ-
LEK		ě-pǎgǎ, bě-	ě-gǎbǎsúgí, bě-		cǔí
	(363) hat, cap		(364) shoe		
	chapeau, bonnet		soulier		
CB			(1659) *-tǎmbě 'sole of foot,		footprint'
M	PEG: *cěk'				
PM	*-tǎm	*-kǒtǐ 7/8	*-bǒtǐ	*tǎmbǎ 9/10	*-tǎmbě 5/6
MBM	ń-tǎm				(ń-tǎmbě) m-bǒkǎ
MBN	ń-tǎm				ě-bǒkǎl
MYE	ń-tǎm				ngwǎkwǎ
MBE	ń-tǎm	mbǒtǒ	tǎmbě		ò-tǎmbǎ
ELU	ě-kǒlě	mbǒtě			ǎ-tǎmbě, ǒ-
NNE	ě-kǒtǐ		tǎmbě		mě-tǎmbě
AKO	ě-kǒtě	mbǒtě	tǎmbě		ǎ-tǎmbě, mě-
MHE	ětěkě		tǎmbě		ě-tǎmbě, mě-
MWK	ě-kǒtǒ				ě-tǎmbí, ǒ- sǐlǐpǎs
MKA	ě-kǒtò, ě?-		tǎmǎ		ě-tǎmbě, mě-
BLN	ě-kǒtǒ		tǎmǎ		ě?-tǎmbí, mǐ-
BBO	í-kǒtǒ, íb'-		tǎmbǎ		í-tǎmbí, mǐ-
LEF		ě-pǒtǒ, bě-			ě-tǎmbí, bě-
LEK		ě-sǎk, bě-			ě-bǒk (ě-bǒgǎ mǎkǒ)

	(365) shirt *		(366) broom	
	chemise		balai	
CB				
M	*-gobɔ 9 'clothing'			
PM	*-kɔbV 3/4 *-bɔtÉ 9/10		*-fyɔɔnV 7/8	
MBM	ŋ-kwéé		ə-sáŋ, ɪd.	
MBN	ŋ-kɔb'		jàŋ	
MYE	ŋ-kwɔ?		kɔŋ	
MBE	mbɔtɪ sɔtɪ (s/ɔ)	e-sʷɔnə, ə-	kʷɔ	
ELU	ŋ-kɔbə	ə-hwə ən		
NNE	mbɔtə	ə-yə ən		
AKO	ŋ-kɔbə mbɔtə 9/10	ə-hyɔɔn, ə?	mʷɛɛn	
MHE	sɔtɪ	ə-yɪɔɔn, ə?		
MWK	mbɔtɪ	ə-syɔɔnɪ	ə-kʷɔ	
MKA	sɔtɪ	ɛ-yɔɔn, ɛ?		
BLN	mbɔtɪ	ɛ-yɔɔn (y/hy)	ɛ-kʷáə	
BBO	sɔtɪ	ɪ-yɔɔn, ɪb'-		
LEF	sɔtɪ	ɛ-fyɔŋ, bɪ-		
LEK	ŋ-kwá	ŋ-sáŋ, mɛ-		
	(367) ladder		(368) bridge	
	échelle		pont	
CB	(1671) *-tántɔ 'bridge (ladder)'	(460) *-dádɔ 5/6	(1671) *-tántɔ	
M		PEG: *d(e)ə~		
PM	lâl/lân 9/10	*-bɔŋgV 7/8	*-nyəŋ 5/6 *-kɔg' 3	
MBM	ŋ-kɔg'		ŋ-kɔg'	
MBN	ə-gɔ?	ə-nyəŋ		
MYE	ə-kwɔnnɪ'tɔ?, ə-	ə-nyəŋ ɛ ŋkʷá'ɪɛ	ə-kɔ?, ə-	
MBE	lâl (/lân)		ŋ-kɔ?	
ELU	lām	ə-bɔŋgə		
NNE	lân	ə-bɔŋgə		
AKO	lân	ə-bɔŋgə ə-nyəŋ		
MHE	lâl	ə-nyəŋ, mə-		
MWK	lâänɪ	ə-jálɛ	ŋ-kɔɪ	
MKA	lâl	ɛ-lâlɛ, mə-	ŋ-kɔg'	
BLN	lâl	ə-lâlɛ, mə-		
RBO	yáə	ɪ-bɔŋgɔ, ɪb'-	pɔŋ	
LEF	lâ		oríkə.	
LEK	mɛ-kɔk	ɪ-nyəŋ, mə-		

	(369) line (of objects) *	(370) life *
	ligne (d'objets), rangée	vie
CB	(664) *-dṣṣṣ 3/4	
M	*-dṣṣṣ 3	
PM	*-jṣṣ 3	*-lṣṣṣ 5
MBM		ā-lṣṣṣ'mwīm
MBN	ñ-jṣṣ	ā-dyē'mēṣ
MYE	ñ-jṣṣ	ā-dyē'mēṣ
MBE	ñ-jṣṣ	ā-dyē'mwē
ELU	ñ-jṣ	ā-lṣṣṣṣ, ḍ-
NNE	ñ-jṣṣ	ā-lṣṣṣṣ
AKO	ñ-jṣṣṣ	ā-lṣṣṣṣ
MHE	ñ-jṣṣṣ?	ā-lṣṣṣṣ
MWK	ñ-jṣṣ	ā-lṣṣṣṣ
MKA	ñ-jṣṣ	ē-lṣṣṣṣ
BLN	ñ-jṣṣ	ā-lṣṣṣṣ ṣ'ḅē mwāā
BBO	ñ-jṣṣ	ī-lṣṣṣṣ, mī-
LEF	ñ-jṣṣ	lṣṣṣṣ
LEK	ñ-kāṣā, mē-	
	(371) thing *	(372) event, affair, matter
	chose	événement
CB	(2164) *-yōmā (7/8)	(771) *-gāmbṣ 'affair'
M	*-(j)ōma 7 PEG: *jō(m)~	*-gāmbṣ 'thing, matter'
PM	*-ōm 7/8	*-kāṣ 5/6 *-ām 5/6
MBM	yōm (y/j), byēm	mam
MBN	yōm	mam
MYE	jwōm, byēm	ā-kāṣ, ḍ-
MBE	jēm, byēm (y/w)	dy-ām, m-
ELU	jṣ, bē	ā-kā, ḍ-
NNE	jūm, bēm	ā-kāṣ, mē-
AKO	cōm, bwēm	ā-kāṣ, mē- dy-ām, m-
MHE	jōm, byōm	ā-dīm dy-ām, m-
MWK	jōm, byēm	dy-ām, m-
MKA	jōm, byēm	mīdyō dy-ām, m-
BLN	jōm, byēm	ē-hṣb, mē-
BBO	jōm, byōm	dy-ām, m-
LEF	yōm, byēm	ñ-sām, mī-
LEK	jū, bī	mā, id.

	(373) language *	(374) word *
	language, langue	mot
CB		
M		
PM	*-f5b 7/6 *-lǎŋV ? 3/4	*-f5b 7/8
MBM	ñ-1éé	ñ-1éé
MBN	ñ-1ǎǎ	ǎ-gǎm
MYE	ə-hwǎ?, ə-	ə-hwǎ?, ə-
MBE	ə-hɔ?, ə-	ə-hɔ?
ELU	ə-hɔ?	ə-yǎlǎ, byǎlǎ
NNE	ə-hɔb', mə-	ə-yǎlǎ, ə?
AKO	ə-hɔb', mə-	ə-yǎlǎ, ə?
MHE	ə-hɔb', mə-	ə-yǎlǎ, byalɛ
MWK	ə-hɔw, ɔ-	əyǎlǎ ə-hɔw
MKA	ɛ-hɔb', ɛ?	ɛ-yǎlǎ, ɛb- ɛ-bǎŋǎ, ɛ?
BLN	ɛ-hɔb', mɪ-	əb-yǎlǎ ɛ-hɔb'
BBO	ɪ-hɔb', mɪ-	ɪ-yǎdɪ, ɪb'-
LEF	m-byaʔ, mɪ-	ɛ-yǎlǎ, bɪ-
LEK	ñ-dǎé?, mə-	
	(375) song	(376) tale, story
	chanson	conte, histoire
CB	(942) *-jémbɔ̄ (2010) *-yémbɔ̄	(776) *-gǎnɔ̄
M		*-gǎnɔ̄ 'tale' (9:11)
PM	*-bɔ̄kǎ 5/6 *-jémbǎ 7/6	*-gǎn' 9/10
MBM		ñ-1éé nzɔ̄nə mǎm
MBN	ñ-sǎŋ	ə-kǎl?
MYE	ŋkwɔ̄nɪ	ə-kɔ?, ə-
MBE	ɔ̄-jémbə	ɛ-kɔ̄, ə- ɲtəm
ELU	ñ-sǎ?	ə-kɪd' ŋkǎlɛ
NNE	ŋkǎŋgɛ	ŋgǎn pɔ̄lɛ
AKO	ŋkǎŋgɛ	ŋgǎn mənɪǎ
MHE	ɛ-jémbɛ, mə-	ŋgǎn
MWK	ǎ-bɔ̄kǎ	ŋgǎn myǎŋgɔ̄
MKA	ɛ?-bɔ̄kǎ(ɛ?-/m-), mə-	ŋgǎn
BLN	ɛ-bɔ̄kǎ, mə- mɪ-jémbǎ	ŋgǎn
BBO	ɪ-bɔ̄kǎ, mɪ-	ŋgǎn myǎŋgɔ̄
LEF	ŋ-kɔ̄nə, mɪ-	ɛ-kǎnǎ pɔ̄lɛ
LEK		lɛ-kyɛ?, bɛ-



	(377) laughter le rire	(378) work travail	(379) war guerre
CB	(949) *-jɔ̃dã		(151) *-bĩtã (1630) *-tã 7/8
M		PEG: *fãk	*-tãã 8 PEG: *cɔ̃ PBC: bi-ta
PM	*-jɔ̃ 13	*-sɔ̃n 3 *-bɔ̃lɔ̃ 7/8	*bĩ-lã? 8 *-jũm' 9
MBM	lɔ̃ɔ̃	ñ-sɔ̃n	bfn
MBN	lwã	ñ-sɔ̃n	bɔ̃l
MYE	ã-sɔ̃lɔ̃	ñ-swɔ̃n	bfn
MBE	lɔ̃ɔ̃	ñ-sɔ̃n	bɔ̃l (ɔ̃/ɔ̃)
ELU	ã-sɔ̃ŋɔ̃lɔ̃, ð-	ñ-sɔ̃	bɔ̃l
NNE	lɔ̃ɔ̃	ñ-sɔ̃n	bɔ̃l
AKO	lɔ̃ɔ̃ 13	ñ-sɔ̃n	nzũm
MHE	lɔ̃ɔ̃	ñ-sɔ̃n	nzũm
MWK	lɔ̃ɔ̃	ñ-sɔ̃n ɛ̃-bɔ̃lɔ̃	bɪl nzũm
MKA	lɔ̃ɔ̃	ñ-sɔ̃n	mjũm
BLN	lɔ̃ɔ̃	ñ-sɔ̃n ɛ̃-bɔ̃lɔ̃, ɛ̃?	mbɪlã njũm (j/z)
BBO	yɔ̃ɔ̃	ñ-sɔ̃n ɪ-bɔ̃lɔ̃	bɪɪ nzũm
LEF	dɔ̃ɔ̃	ɛ̃-bɔ̃lɔ̃, bɪ-	bɪlã njũm
LEK	ŋkɔ̃nɛ̃	mɛ̃-twɪŋɪ	phɪɪ
	(380) fight, quarrel querelle, dispute	(381) sleep sommeil	(382) dream * rêve
CB		(633) *-dɔ̃ (13)	(643) *-dɔ̃dɪ 9/10 (950) *-jɔ̃dɪ 9/10
M		PEG: *dɔ̃g, *dɔ̃g'	*-jɔ̃de/1 PEG: *jɛ̃m
PM	*-jũm' 9	*-jɔ̃ 14	*-dɔ̃d 9/10
MBM	ñ-sɔ̃ɔ̃ mãm ŋ-kãn	yɔ̃	ndɔ̃ɔ̃d'
MBN	nzãm ñ-tãŋgã	ɛ̃-yũɛ̃	ndɔ̃d'
MYE	nzũm ð-tɔ̃ŋã?	ã-jũɛ̃ (ũ/u)	ndwɔ̃?
MBE	ɛ̃-hɔ̃?, ã-	ã-jɔ̃	ndɔ̃?
ELU	nzũm ñ-tɔ̃?	jũɛ̃	ndɔ̃?
NNE	nzũm ñ-syɛ̃lɛ̃	ã-jwã	ndɔ̃g'
AKO	ñ-sɛ̃lãg	ɛ̃?-cã	(ã-nãŋgã) ñ-lɔ̃
MHE	ɛ̃-pɛ̃ndɛ̃, mɛ̃-	ɛ̃-jɔ̃	ndɔ̃? (ɔ̃/d')
MWK	nzũm ñ-jɔ̃w	ã-jɔ̃	ndɔ̃l
MKA	mɛ̃-hɔ̃b ñ-pɪŋgɪ	ɛ̃?-jɔ̃	ndɔ̃d'
BLN	ɛ̃?-pɛ̃n, mɪ-	ñ-pɪŋgɪ ɛ̃?-jɔ̃	ndɔ̃d'
BBO	ñ-jɔ̃b'	ɪ-jɔ̃	ndɔ̃t
LEF	ɛ̃-bãmɪ, bɪ-	wũ-yɔ̃	ñlũ mɪ'yɔ̃
LEK	mɛ̃-lak lɛ̃tãã	bɛ̃-zɔ̃gɔ̃	nzɛ̃ɛ̃ ndɔ̃gɔ̃

	(383) (be) well (être) en bonne santé	(384) strength force	
CB		(890) *gòddù 9 (ps 249) *-gùdì	
M		PEG: *tìn (*tāb) '(être) fort'	
PM		*-gīnyā? 9 *-gūl 9	
MBM	èbòó	è-šéd'	
MBN		à-tāg'	
MYE	ādyētī èlškī	à-tb?	
MBE	èdyē bwām	ngfñè	
ELU	dyēl	ngfñè	
NNE	ādyē nsā?	ngfñè ngwɔl	
AKO	ābē bwām	ngfñè	
MHE	èdyā bwām	ngfñè (n/ny)	
MWK	ādyā bwām (inf.)	ngfñā ngūl	
MKA	è?bōng ngòb	ngfñya ngūl	
BLN	èdyā bwām	ngfñā ngūl	
BBO	īdyā bwām	mbòñ	
LEF	-lèl	ngfñyā	
LEK	ā-lègè 'he is well'	èlīkī'nyī	
	(385) pregnancy grossesse	(386) birth naissance	(387) death * mort
CB	(2007) *-yēmī (5/6)		(1248) *-kū (1255) *-kūédī
M	*-jēmī 5		PEG: *gūa`
PM	*-ēm 5/6	*-jād` 7/6	*kwéd 9
MBM	dy-žm	à-yād'	yūđ
MBN	jēm à-dōl?	à-yāl	è-wā
MYE	dy-ēm	à-jā?, ò- (n)	jū
MBE	dy-ēm	à-jēnè, ò-	kwél
ELU	d-é, m-	à-jyā	kwééd'
NNE	d-īm, m-	è-jyāà	kwííd'
AKO	dy-ēm, m-	è-cyā, è?-	kwééd'
MHE	dy-ēm, m-	è-jā?, mē-	kwéé?
MWK	dy-ēm, m-	à-jāmīn	kwél
MKA	dy-ēm, m-	è-jāād' (d/b), mē-	kwél
BLN	dy-ēm, m-	è?-jād' (/āāb'), mī-	kwél
BBO	dy-ēm, m-	ī-jāt, mī-	kwéé
LEF	wl-tō?, mā-	lè-yā, mā-	lè-wā, mā-
LEK	è-dīkī'nyī	à-cāšī	sē

	(388) death ceremony * funérailles	(389) grave * tombeau	(390) corpse cadavre
CB	(1248) *-kú 'death'		(145) *-bĩmbà 3/4
M			PEG: *kú`
PM	*-gãndò 9 *-ú 7	*sɔŋ 9/10	*-dĩm 3/4
MBM	yùú	sɔŋ	ñ-d àm
MBN	zùú	sɔŋ	ñ-d àm
MYE	jũ	sɔŋ	ñ-dĩm
MBE	ŋgãndò	sɔŋ	ñ-dĩm
ELU	ŋgãndù	sɔ	ñ-d àm
NNE	ŋgãndù	sɔŋ	ñ-d àm
AKO	cũ	sɔŋ	ñ-dĩm
MHE	ŋgãndò	sɔŋ	ñ-dĩm
MWK	nĩŋĩn nĩú è-kùtú kwé1 kwé1	sɔŋ	ñ-dĩm 3
MKA		kwé1 sɔŋ	ñ-dĩm
BLN	è?-kãã kwé1 nãŋãn kwé1	sɔŋ	ñ-dĩm
BBO	ĩ-bòk, mĩ- p émbé	sɔŋ	ñ-dĩm
LEF	mã-yĩsĩ mǎ éwĩ	ñ-dĩm, mĩ-	ñ-bĩmbà, mĩ-
LEK	sè	ndũgũ ndĩn	ñ-dĩn

	(391) sickness * maladie	(392) (to be) sick * (être) malade
CB		(853) *-gɔŋ-
M	PEG: *gɔŋ`	*-gud- PEG: *gɔŋ`
PM	*-kùlĩ 3 or 7/8	*-kùl
MBM	ŋ-kwòg'	-wùù
MBN	è-wùlǎ?	-wul
MYE	è-gùlǎ?, à-	-gùl
MBE	ŋ-kùlĩlèn	-kùlĩlèn
ELU	ŋ-kòlè	-kòl / -kwè
NNE	ŋ-kwòlè	-kwòl
AKO	ŋ-kùlè	-kùlè -wùl
MHE	ŋ-kùlè	-kùl
MWK	è-wùlǎ	-hùl
MKA	ñ-kùlù	-kùl
BLN	ñ-kùlĩ	-kùl
RBO	ĩ-wùyǎ, ĩb'-	-wùy
LEF	ŋ-kùlù	-kùl
LEK	è-kòkè? è-gbǎkè? (gb/gw)	-khèn

	(393) cough		(394) fever
	toux		fièvre
CB	(1100) *-kʰc- *-kʰcəd- (838) *-gʰc-	(1492) *-pʰpʰ 9 'cold'	
M	*-kʰcʰd- PEG: *kʰt 'tousser'		
PM	*-kʰJÉd? 7/8	*-fʰb 5 *-bàdV 9 *-pʰb 7	
MBM	ə-kwʰd'	ŋgʰŋ nyɪn	
MBN	ə-kwəʰ?	ə-lʰ? ə-lʰŋ'nyɪ	
MYE	ə-kpʰ	ə-pʰ?	
MBE	ə-kəʰ, ə-	ə-pʰ?, ə-	
ELU	ə-kwʰʰd	ə-həb'	
NNE	ə-kwʰgʰ?	ə-həb'	
AKO	ə-kəʰʰd	ə-həb'	
MHE	ə-kʰsɪ	ə-hʰb'	
MWK	ə-kʰsɪ	mbəl 9	
MKA	ʰ-kʰsɪd', ʰ?-	mbəʰʰ	
BLN	ʰ-kʰsɪ	mbəəʰʰ	
BBO	ɪ-kʰsɪ, ɪb'-	mbəʰʰ	
LEF	ʰ-kwʰsɪ, bɪ-	ŋ-kʰlʰ	
LEK	ʰ-kpʰ	sʰgʰ	
	(395) sore, wound	(396) abscess	(397) boil
	plaie, blessure	abcès	furuncle
CB			
M			
PM	*sɪɪ 9	*-pʰm 7/8	*-ʂɪ 7/8
MBM	sɪɪ	ə-pʰm	ə-y ʂn
MBN	ʂɪɪ	ə-pəʰm mbəkəʰm	y ʂɪ
MYE	sɪɪ	ə-lʰ?, ə-	dw-ən
MBE	sɪʰ? (s/ʂ)	ə-pʰm, ə-	j-ʂɪ, by-
ELU	sɪ	juaɪ	juaɪ
NNE	sɪɪ	ə-lʰg, mə-	j-ʂɪ, b-
AKO	sɪɪ	ə-pʰm ŋkəʰg	c-ʂɪ, b-
MHE	sɪɪ	ə-pʰm, ʰ?-	j-ʂɪ, my-
MWK	ə-bəʰŋ	ə-pʰm, ə-	j-ʂɪ, by-
MKA	sɪɪ	ʰ-pʰm, ʰ?-	j-ʂɪ, by-
BLN	sɪɪ ʰ?-bəʰŋ, mɪ-	ʰ-pʰm, ʰ?-	j-ʂɪ, by-
BBO	sɪɪ	ɪ-pʰm, ɪb'- mbələʰm	j-ʂɪ, by-
LEF	sɪ	ʰ-pʰm, bɪ-	-y ʂ?, bɪ-
LEK	sɪgɪ	ŋgʰkʰəʰ	zʰgʰ

	(398) pus pus	(399) itch démangeaison	(400) smallpox variole
CB	(1553) *-pínā	(1556) *-pínyā	
M	*-pídā	*-pínā (*-pínyā)	
PM	*-fíny 5	*-kāŋ 3	*-kélí 3
MBM	ā-ší	ŋ-kāŋ	m'empòbā
MBN	ā-fíŋ	ñ-sākā	pòbā
MYE	ò-hín	ā-sākí	
MBE	ā-híí, ò-	ŋ-kāŋ	kāmā pùbā
ELU	ā-h'ŋ	ŋ-kā	ŋ-kāŋkālíé
NNE	ā-híŋ	ŋ-kāŋ	kāāmāmé
AKO	ā-hín, mā-		èkòdèkòtè
MHE	ā-híí	ŋ-kāŋ	èkúkútú
MWK	ā-híí	ŋ-kāŋ	ŋ-kélí
MKA	ā-híí, mē-	m-kāŋ	m-kélíé
BLN	ē-híí (i/e), mī-	ē?-sòŋéŋgòb	m-kélíé
RBO	ī-fíí, mī-híí	ī-bíí', íb'-	m-kélí
LEF	lī-fí?	nyòndé	mù-kélí
LEK	lē-fígí, mē-	ŋ-khíné	mā-kólíé
	(401) scabies gale	(402) reason raison	(403) honour honneur
CB			
M			
PM	*-kāŋ 3	*-jōm 9	*-dúbé 7
MBM	ē-pād'	ŋgwómā	gāf'ègāf'è
MBN	ŋ-kāŋ	nzōm	ē-gf'm
MYE	ŋ-kòŋ	nzōm (ɔ/o)	ā-nòkí
MBE	ā-pā?	nzōm	ā-dúmān
ELU	ŋ-kā	nzwā	jéřékāé
NNE	ŋ-kāŋ	nzōm	ē-dúbé
AKO	ŋ-kāŋ	nzōm	ē-dúbé
MHE	ŋ-kāŋ	nzōm	ē-dúb'
MWK	ŋ-kāŋ	nzōm	ē-dúbé
MKA	ē-pād', ē?	njōm	m-tígsēn
BLN	m-kāŋ	nzōm	ē-sòwān
RBO	ī-pāt', íb'-	nzōm	ī-dúbé, íb'-
LEF	ŋ-kāŋ, mī-	y-āndā, m-	ē-dúbé
LEK	ē-pā?		ñ-táké ē-tók

	(404) truth verité	(405) lie mensonge	(406) shame honte
CB			(380) *-c5nɪ (9)
M			*-c5nɪ 9
PM	*-báɪɛ 9	*-tóm 6 *-pùù 7	*-kwág/-kwáké? 5 *-s5n 14
MBM	ɲkwɛyám	è-bògɛnlɛɛ	à-kwág'
MBN	nə mbɛɛ	è-báá	à-kpá?
MYE	nɪ mbɛɛ	ɲ-nən	à-kpá'kpá?
MBE	mbáɪə	ɲ-jɔ?	à-kwɔ?
ELU	mbáɪɛ	ò-tí	à-kwá?
NNE	mbáɪɛ	mɛ-tɔm	à-kwág'
AKO	mbáɪə	mè-tóm	à-kwáké à?-sɔn
MHE	mbáɪə	mā-tɔm	è-sɔn
MWK	mbáɪɛ	è-pùù	à-kwá? è-sɔn
MKA	mbáɪɛ	è-pùù	è-sɔn, mɛ-
BLN	mbáɪɪ	è-pòò	è-sɔn
BBO	mbáɪə	ɪ-pùù	ɪ-sɔn, mɪ-
LEF	mbáɪɛ	mā-tóm	wɪ-sɔn
LEK	ndɛntɛɛ	ndáná	è-díkɛ ndɔgɪ
	(407) fear crainte, peur	(408) anger * colère	(409) place endroit
CB			(2164) *-yómà 16
M			*-(j)ómà 16 PEG: *dɪk'
PM	*-bóg 3 *-sɛɪ 7	*pɪɪ 9	*f~óm 5 (< PB cl. 16)
MBM	è-sɛn		à-wɛ-ndɛm
MBN	pɔm mbáɪyá		à-wə n'dəm gòm
MYE	m-bó?		à-wəá 'lám hwɔm à-bó?
MBE	è-sɛɪ (ə/ɛ)	ò-lɪŋgə	hám èpɔɪɔ
ELU	m-bó?	páɪ ò-lɪŋgə	hɔ
NNE	m-bwɔg'	mè-lɪŋgɛ	hóm à-bwɔ?
AKO	m-bwɔg' 3	péɪ mè-lɪŋgá	hóm
MHE	è-sɛɪ	mè-lɪŋgɛ	è-lɪŋ hóm
MWK	è-sɛɪ	ò-lɪŋgá	hóm
MKA	è-sɛɪ	mè-lɪŋgá	è?-lɪŋan hóm
BLN	è-sɛɪ	mè-lɪŋgá	hóm
BBO	ɪ-sɛɛ	pɪɪ mɪ-yɪŋgá	hóm
LEF	ɔɔɲ	pɪ	-kwɪ lə-bó?, mā-
LEK	lɛ-báɲ		è-sɪkɛ à-tɪk, bɛ-

	(410) hole trou	(411) time * temps	(412) money * argent
CB		(1527) *-pěndě	
M			PEG: *kăb`
PM	*-pǝndǝ 7/8 *-běě 7/8 *-bănă	*pǝndă 9 *-fVCV 3	*-găb 9
MBM	ě-pǝn' ă-bĩ	ŋgěě ăyěě	ŋgăb'
MBN	ě-pǝn	ŋgăn	ŋgăb'
MYE	pǝ?	ŋ-hǝ?	ŋgă?
MBE	ě-pǝn, ă-	pǝndă ŋ-hǝ?	mǝnĩ
ELU	ě-pǝn ă-bĩ	pǝndă	mǝnă
NNE	ě-pǝn	pǝndă	ŋgăb'
AKO	ě-pǝn	pǝndă	mǝnă ŋgăb'
MHE	ě-pǝndǝ		dũ mǝnĩ
MWK	ě-pǝndǝ ă-běě m-bănă 3	pǝndă ŋ-hě?	mǝnĩ ŋgăw
MKA	ě-bě'ě, ă?	m-hě'ă	mǝnă
BLN	ě-bănă, mĩ-	pǝndă m-hě'ě	mǝnĩ ŋgăb'
RBO	ĩ-pǝndǝ, ĩb'-	pǝndă	m-ǝnĩ, my-
LEF	ě-pǝn, bĩ-	pǝndă	ŋgă?
LEK	ě-pǝǝ, bě-		lě-kă? ŋkă?

	(413) price prix	(414) debt * dette	(415) market marché
CB			
M			PEG: *sěm' *tăn'
PM	*-kũn' 3	*-lũm 5/6	*-ǝn 5/6
MBM	ŋ-kũn	ă-třm	dwǝn
MBN	ŋ-kũn	ă-těm	dǝn
MYE	ŋ-kũn	ǝ-lũm	dw-ăn
MBE	ŋ-kũn	ă-lũm, ǝ-	dy-ǝn, m-
ELU	ŋ-kũn	ă-lũm	dw-ă, m-
NNE	ŋ-kwăn	ă-lũm	dw-ǝn, m-
AKO	ŋ-kũn	ă-lũm, mě-	dy-ǝn, m-
MHE	ŋ-kũn	ă-lũm, mě-	d-ǝn, m-
MWK	ŋ-kũn	ă-lũm, ǝ-	dy-ǝn
MKA	m-kũn	ě-lũm, mě-	dy-ǝn, m-
BLN	m-kũn	ě-lũm, mĩ-	dy-ǝn, m-
RBO	ŋ-kũn		dy-ěm, m- dy-ǝn, m-
LEF	ŋ-kũn	wĩ-dũm, mă-	măkětĩ
LEK	nũ	ă-tũn, bě-	ě-sǝgă, bě-

(416) load		(417) share (n.) *	
	fardeau, charge	portion	
CB		(754/5) *-gāb- 'divide, give away'	
M		*-gāb- 'to divide, distribute'	
PM	*-tēd 3 *-ŭn(d)ā 3	*-kāb 5/6	*-gāb 9
MBM	sāgēlèè		ā-dāg', ñ-
MBN	ñ-cād'		ā-syāè
MYE	ñ-tú?		ā-syā?, ò-
MBE	ñ-tyā	ngā?	è-pē, ā-
ELU	ñ-tād'	ā-kā?	
NNE	ñ-tād'	ā-kāb'	ngāb'
AKO	ñ-tād'	ā-kāb, mē-	
MHE	ñ-tē?	ē-kāb, mē-	
MWK	ñ-tēl mŭndā 3	ā-kāw	ngāw
MKA	ñ-tēd' mŭnā		ngāb'
BLN	mŭndā		
BBO	m-ŭndā, my-		ngāb'
LEF	mŭnā	lè-kā?, mē-	
LEK			lè-bōk, mē-
(418) poverty *		(419) hunger	(420) thirst
	pauvreté	faim	soif
CB	(494) *-dāndā	(917) *-jādā	
M	PEG: *bōŋ 'être pauvre'	*-jādā 9	PEG: *jē
PM	*-tūg/-tūkó 5	*-jāā 9	*pēj 9
MBM	ā-bōŋ	nzāè	ñdām ñsyēētè
MBN	ā-lōŋ	nzyā	pēy? (y?/g')
MYE	è-sú?	nzāè	nzāè òdŭ
MBE	ā-tŭ?	nzā?	pē?
ELU	ā-tōg'	nzē	pēk
NNE	ā-tōg'	nzāā	pīg'
AKO	ā-tōg'	nzāā	pīd'
MHE	ē-tŭkŭ	nzyāā	pēy?
MWK	ngōl	nzāā	pēy?
MKA	ē-tŭkŭ	njāā	pēy?
BLN	ē-tŭg' ngēē (g/h)	njāā	pēd' (d'/y?)
BBO	ngōō	nzāā	pēd'
LEF	lè-bān	njē	šām
LEK	lè-bōŋ	nšā	nšā mēdī



	(421) shadow ombre	(422) heavy lourd	(423) weight poids
CB	(609) *-dʔdʔ	(631/2) *-dʔtʔ/ð 14	(631/2) *-dʔtʔ/ð 14
M		*-dʔtʔ- PEG: *dʔd	
PM		*-dʔl	*-dʔl 14
MBM	ə-dʔdʔdʔ	-dʔn	ə-dʔn
MBN	ə-dʔdʔŋ	-dʔl	ə-dʔl
MYE	ʔ-1ʔʔ1ʔ?	-dʔn	ə-dʔn
MBE		-dʔl	ə-dʔl
ELU	ə-dʔŋʔdʔŋ	-dʔl	ə-dʔl
NNE	ə-dʔŋʔdʔŋʔ	-dʔl	əʔ-dʔl
AKO	ə-dʔʔdʔŋ, eʔ-	-dʔl	əʔ-dʔl
MHE	ə-dyʔʔ	-dʔl	əʔ-dʔl
MWK	ə-dʔŋʔn (ʔ/ʔ)	-dʔl	ə1ʔʔ kʔlʔ
MKA	ʔ-dʔŋʔn	-dʔl	ʔʔ-dʔl
BLN	ə-dʔŋʔn	-dʔl	ʔʔ-dʔlʔ kʔlʔ
BBO	ʔ-dʔŋʔn	-dʔl	ʔ-dʔl kʔlʔ
LEF	ʔ-dʔdʔm	-dʔʔ	wʔ-dʔʔ
LEK	dʔŋʔdʔŋʔ	-dʔl	
	(424) correct correct	(425) black noir	(426) white blanc
CB		(1555) *-pʔnd-	
M		PEG: *fʔn 'ətre noir'	PEG: *fʔp 'ətre blanc'
PM		*-lʔm(bV) *-fʔn	*-pʔb/-pʔpV
MBM	əmbwʔm	ə-fʔn	mpʔb'
MBN	nʔŋ	nʔ-kpʔnə n-lʔm	mpʔb'
MYE	ʔ-1ʔkʔʔ?	lʔmʔ?	pʔ' bʔʔ?
MBE	ətʔmʔn	kʔlʔ -kʔl	-pʔpə pʔ' bʔʔ
ELU	ə-tʔŋŋʔʔ	ə1ʔmʔ? -hʔn ə-hʔn	-pʔbʔ -pʔbʔ
NNE	ə-tʔŋŋʔn	-hʔn	-pʔb'
AKO	-tʔŋŋʔn	-hʔn	-pʔb'
MHE	-tʔʔtʔŋ	nʔlʔmʔ?	mʔ-pʔpʔ
MWK	ə-tʔmʔn mbʔlʔ	lʔmbə ə-lʔm	əʔʔŋ
MKA	mbʔlʔ	lʔmbəə	pʔpʔʔ
BLN	ʔʔ-tʔʔbʔn mbʔlʔ	ʔʔ-lʔm	ʔ-pʔb' pʔpʔʔ
BBO	tʔʔtʔʔ	ʔ-yəʔ, mʔ-	ʔ-pʔb', mʔ-
LEF	bʔmʔn	-fʔn	-pʔb pʔʔkʔ
LEK	-bʔŋ	-sʔwʔn ə-sʔwʔŋkʔ (n.)	-pʔ əpʔkʔ

	(427) red		(428) big
	rouge		grand
CB	(92) *-bɛŋg-		
M	PEG: *bãŋ		
PM	*-sɔŋ? *-nyɛŋ/nyɛkV		*-faŋ *-kɔl *-sɔŋ
MBM	sɔŋɛ		ɛ-fɛɛ
MBN	ɲsɔŋ'		ɲ-fãŋɛ
MYE	sɔŋ?		ã-hãŋ
MBE	sɔã		e-hãŋ
ELU	sɔŋ		ã-hãã kɔl
NNE	-yãŋ'		-kɔl
AKO	-yãŋ'		-kɔl
MHE		ɲyãkã	ã-hãŋ
MWK	sɔkã -sɔ?		ã-hãŋ ɛ-sɔ?
MKA		nyɛkɛɛ	ɛ-sɔŋ'
BLN	ɛ-nyɛŋ' nyɛkɛɛ		ɛ-sɔ?
BBO	f-nyɛk, mɪ-		f-sɔk, mɪ-
LEF	-tɔn tɔnãkɛɛ		-kɔl
LEK	-mɔk ɛ-tãŋkɛ		-fãŋ nzɔŋɛnzɔk
	(429) small		(430) many
	petit		beaucoup
CB	(1044) *-kɛɛp 'become small'		(224) *-bɔd- 'become numerous'
M	PEG: *kɛp '(ɛtre) petit'		*-bɔd 'be in abundance, numerous'
PM			*-bɔd/-bɔl?
MBM	ɛ-kɛb'		ɛ-bɔfɛ
MBN	mɛmpɛŋ ɲsãl?		ŋŋɔmɛ ɲŋɔmɛŋŋɛ
MYE	mɔjwɔm mɔhãã?		nzɔkɪ ɲŋɛŋ
MBE	mɔɛtɪf		ã-bɔdɪ jɪtɛ
ELU	mɔtɪf		ã-bɔl
NNE	mɔtɪfɪd'		ã-bɔtɛ
AKO	mɔãm'pɪn		hɪɪn bwãmbwãm
MHE	ɛjɪn		ndɔn
MWK	pɛtɛ ɔyɔɔ		ã-bɔdɪ ndɛmã jɪtɛ
MKA	mɔãlɔdɔ		ndɛmã
BLN	ɛ-nyɔŋ		ɛ-bɔdɪ (ndɛmã)
BBO	f-yɔŋ, mɪ-		f-bɔdɪ fɔlã
LEF	ɛ-tɛkɛn -kɔŋ		njɪtɛ
LEK	ɲ-pwɛtãk -kɛɛ		ɛ-bãkwã

	(431) few	(432) all	(433) (be) sufficient
	peu	tout	(être) assez, suffisant
CB		(302) *-cɛ/*-ncɛ	(891) *-gɔg- 'become sufficient'
M		*-ncɛ	PEG: *kɔk 'être suffisant'
PM		*-sɛnyʔ	*-kɔg ?
MBM	é-kəb'	-sɔɔ	ə-búřə
MBN	m̩pɔŋ	-sɔŋ (s/sy)	ə-kpɛnə
MYE	búú 'byém	-súsyəʔ	ə-'kɔʔ
MBE	mwe'tíí	-səŋ	ə-kɔɔ
ELU	mótíí	-síí	
NNE	mɔ́tíí'd'	-'súú	ə-kɔɔ
AKO	mwām'pín	-syə́n (n/l)	-kwɔgnéd'
MHE	mwépɛ̀tɛ̀	-'syén	-kwɔgnéd'
MWK	mwépɛ̀tɛ̀	-syɛ́ŋ (s/s)	ə-kúú ə-kúgřé
MKA	mwélɔ̀dɔ̀	-syɛ̀	-kɔʔ
BLN	ɛnyɔŋ	-syɛ	
BBO	mwétít mwāwɛ	-sɛ	ədí tɛ́tɛ́
LEF	ɛ́təkə́n	-'sə'sən	-kɔk
LEK	mpwétāk	-sɔ́gə́	-kɔg
	(434) (be) satiated	(435) plentiful, numerous	
	(être) rassasié, gorgé	abondant, nombreux	
CB	(1276) *-kút- 'become satiated'	(224) *-bùd- 'become numerous, plentiful'	
M	PEG: *gɛúd	*-bùd- 'be in abundance, numerous'	
PM	*-kɔd		
MBM	-kwɔd		
MBN	-kɔl		
MYE	-kwɔ		nzúkí ŋgɛ́ŋ
MBE	-kə́l		ɔ-búte
ELU	-kɔd'		
NNE	-kú'd'		əʔ-búútə
AKO	-kɔd'		-bùù híìn bwāmbwām
MHE	-kɔd'		
MWK	-kɔlʔ		ndéma jí'tà
MKA	-kɔd'		
BLN	-kɔd'		
BBO	-kɔt'		ə-bùù
LEF	-kɔl		lə-búúú njítà
LEK			ə-bākɔwà

	(436) thick épais	(437) thin mince	(438) thin (skinny) maigre
CB			
M	PEG: *gók '(être) épais'		
PM	*pib		*-kɔŋ.. *-nyɔŋ
MBM	pib'	é-dĩnké	à-kɔb'
MBN	pib'	ŋ-kɔbè	à-kɔŋ  à-lùŋ  ètəŋgɛl
MYE	pibè	é'séé pibè	ʒhààŋɔ
MBE	pɪ?	əjɛlè  ŋkɔɔkɪ	à-təŋtə
ELU	pəb'	à-hálɛá	àjénɛ nyɪ
NNE	pəpəb'	mɔtɪfɪd'	ŋ-kɔŋgə
AKO	pib'	-hélɛn  átè	èlém
MHE	pib	əjɪn	ŋ-kɔŋgɔ
MWK	pɪw	əmàtɪ	à-yɔŋ
MKA	pib	mwəlòdò	ɛ?-nyó'ŋ
BLN	pib'	m-kɛmbɛ	ɛ-nyɔŋ
RBO	pib'		ŋ-kwáŋá
LEF	pɪ?	ɛkɔŋɪ	à-kɔŋɪ
LEK		é-kéé	à-kɔŋɔ
	(439) wide large	(440) narrow étroit	(441) hard dur
CB			
M			
PM	*-fəŋ  *-kɔl		*-wóó/-wóó?
MBM	é-fɛɛ	àkɔb'	ə-wɔɔ'ə
MBN	m-fəŋə	ŋ-lálè	nyúŋə  ètəàŋ
MYE		mbhɛá	ŋsà?  ànəlɪ
MBE	à-háŋtè	mbàtə	éyúŋtè  àdyɛl
ELU	hà  kɔl	mótɪfɪ	wúú
NNE	-kəl	à?-bódnétè	-lɛl
AKO	kəl  átè		cɪn  átè  -lɛl
MHE	ə-həŋ	mwepɛlè  əjɪnɛ	ə-wúú
MWK	ə-həŋ	əhəŋ	adyel
MKA	ɛ?-həŋ		ɛ?-lùŋ  ɛ?-wó'ɔ  ɛ?-kóó'tɪd
BLN	ɛ?-həŋ		ɛ-nyɔŋ  ɛ-wó'ɛ
RBO	f-fəŋ, mɪ-həŋ	ə-bóbɪ	f-wóló, fə-
LEF	-kəl	-kɔŋ (v.)	-pó? (ɛpó'té)
LEK		ɛnəántɛnyɪ	ə-lɪkɛ

	(442) difficult difficile	(443) sweet * doux, sucré	(444) sour aigre
CB		PEG: *dĩm '(être) doux'	
M		*-noda 'sweet, agreeable'	
PM	*-dyèl	*-nyžny	*-bāny *-kàg
MBM	é-wóřé tē	é-nyĩŋ(ε)	é-bēŋ
MBN	ñ-dyèl	é-nyĩŋā	ñ-bēŋē
MYE	ā-nālf	ā-nyžŋ	ā-kò?
MBE	é-dyélitē	é-yé	é-bēā
ELU	-dyèl	nyžŋ	bé ǎ-bēŋē
NNE		-lèl ātē -nyĩn	-kàg'
AKO		-lèl ātē -nyĩn	-kàg'
MHE	è-wíété ndítù	ā-nyèè	è?-bāā
MWK	ā-dyèl	ā-yif	ā-bāā
MKA	è?-dyèl è?wóřó	è?-nyžžtfd	è?-bā'ā
BLN	è-dyèl	è-nyžž	
BRO	ĩ-wóřó, ĩb'-	ĩ-nyžž	ĩb'-bāā, mĩ-
LEF	-kām	-mwēm	-kpén
LEK	èlfkē	è-lētē	-kàg
	(445) bitter amer	(446) sharp (taste) piquant	(447) ripe mŋr
CB	(3) *-bāb- (684) *-dòd-		
M	*-bāb- PEG: *cēcg		
PM	*-jòò	*-wāg	*-sòg ?
MBM	é-wúāg'	é-wāg'	é-njll
MBN	ñ-žùā	ā-wā?	ñ-sùè
MYE	ā-jùù	è-wò?	ā-sò?
MBE	é-jè	é-wā?	-sù?
ELU	jù ā-jùè	wā?	ā-sòò
NNE	-cù	-wāq' (g'/?)	-tān
AKO	-jyò	-wž -wāg	-yāg'
MHE	è?-jùù	è-jò	ètān
MWK	ā-jòò	a-bāā	ā-sòò ā-sò?
MKA	è?-jòò	è?-wā	è?-wúí (tfd)
BLN	è-jòò	è?-bāā	è-wóó
BRO	ĩ-jòò	ĩ-jòt', mĩ-	ĩ-nyžk
LEF		-wā	-tòn
LEK	è-sòkē	è-gwíf	-mŋgŋ -lāā

	(448) unripe	(449) cooked, soft	(450) uncooked, raw *
	vert, pas m0r	cuit	non cuit, cru
CB	(103) *-bécù	(107) *-béd-	(103) *-bécù
M	*-bécè 'raw, fresh, unripe'		*-bécà 'raw, fresh, unripe'
PM	*-bèj`9	*-bèé	*-bèj`9?
MBM	é-sògàká	m'bí	mbád'
MBN	è-tém	mbyè	mbéy?
MYE	ñ-jùè?	à-jám	mbñíí?
MBE	éésúyèè	-bè	é-bèà
ELU	mbék	aja	mbák
NNE	mbíg'	à-cítè?	mbíg'
AKO	è-tòm	-bíí	-bíí
MHE	mbéy?	èbèé	mbéy?
MWK	à-sòyá	àbèè	à-bééyá
MKA	mbéy? è?-wòlò	è?-bè'é	mbéy?
BLN	é-wòòk'á	é-bèé	é-'bèéká
RBO	ndòndò	í-bèé	é-bèèk'á
LEF	-tòn		
LEK	é-mògòk'á	á-bíí	mbè?
	(451) long	(452) short	(453) good
	long	court	bon
CB	(504) *-dáp-	(1274) *-kúpé	
M	PEG: *sàp	PEG: *gúp '(ètre) court'	PEG: *bòg '(ètre) bon'
PM	*-jàb	*-sùg 7	*-bòg
MBM	è-y'ááb'	è-sùg	é-bòó
MBN	ñ-jàbè ñ-tòngè	è-sùg	mbògè
MYE	à-jà?	è-sùg	è-ískí?
MBE	é-'já?	è-sòg	bwám
ELU	já	è-sòg	mbò
NNE	-càb'	è-s'ág	mbòg
AKO	-càb'	è-sòg	-bòg
MHE	è-jàb'	è-sùg	è-bòó
MWK	à-jàw	è-sùg	à-bòg
MKA	m'tó'íj	è?-sù'íj	è?-bòg
BLN	è-jàb	è-sùg	è-bògè
RBO	í-jàb'	è-sùg	í-bògè
LEF	wí-y'è?	è-sùg	bwám wí-íò?
LEK	mpúú	kí?	é-bògò

(454) bad		(455) full	
mauvais		plein, rempli	
CB	(133) *-bēēp- 'become bad'	(1840) *-tōnd-	(685) *-dōd-
M	*-bēēp- 'become bad' PEG: *bāp '(être) mauvais'		
PM	*-bēb	*-lōd	*-lōn
MBM	ē-kwēē	ñ-15g'	
MBN	ñ-bēbē	ñ-153	
MYE	ē-bēēpī ē-hūtī	ā-15?	
MBE	ē-bēējyā	ē-155?	
ELU	mbēb'	-1ōd	
NNE	mbēb'		-1ōn
AKO	-bēb'		-1ōn
MHE	ē-bēb'	ə-1ō?	
MWK	ā-bēw	ā-1ō1	
MKA	ē?-bēb	ē?-15d'	
BLN	ē-bēb	ē-1ōd'	
BBO	ī-bēbē	-yōd'	
LEF	wū-bā		-1wēn
LEK	ē-bwōō ē-bīkī	-1ōō	

(456) new		(457) old *		(458) round	
neuf, nouveau		vieux, ancien		rond	
CB	(1505) *-pēā	(1384) *-nūnī			
M		*-nūn- 'be(come) old' (n/d) PEG: *dīn '(être) vieux'			
PM	*-kō1V *-bēj' 9	*-jūn 3, 7?			
MBM	ñ-kōōn	ñ-zūn		ñ-kād'yōm	
MBN	nyōō1	ā-zūn		mbyēē	
MYE	kwō?	ñ-jūntī		ngēñā1ēñ	
MBE	kō'kō mbē	-jūn		ē-hō1ā? (ø/ū)	
ELU	kō15	ñ-jēn		ē-hōgō1ā?	
NNE	ē-kōō1ā	ñ-jēn		kōō1āngōā	
AKO	ē-kōō1ē	-cūn		kōō1āngōē	
MHE	mbōy?	ē-jūn		ē-tōō1āngōā	
MWK	mbōy	ñ-jūn		tēngō1ēdf	
MKA	mbōy?	ē?-jūn		ē-tēngō1ēfē	
BLN	mbōy?	ē-jūn		ē-tēngō1ēngē	
BBO	mbēt	f-jūn		ñ-vīngō	
LEF	ē-kōōnō	ē-tūbē mūnyākō		kēngō1ēñ	
LEK	nyōō	bō-zōn ā-zōā			

	(459) smooth	(460) rotten *	(461) extinguished
	lisse	pourri	éteint
CB		(153) *-b3d-	(617) *-d1m-
M		PEG: *b3 'pourrir'	*-d1m- PEG: *b1tV *d1mt
PM		*-b33 *-b3d	*-d1m *-b3d
MBM	é-bóó	m-b33	m'b33
MBN	ŋw33n3	n-ny3n3	m-b33l
MYE	l3n	-b33t1	3-bw3?
MBE	é-y3ly3?	-b3t1	è-b3
ELU	3-s33	-bu3 -bw3t3d'	3-d3m3d'
NNE	m3r3d	è-b33, 3?	-d3m
AKO		-b33	-d1m
MHE	è-j1ètè	è-b33 è-b33t1	è-d1m1
MWK		3-b33	3-B33
MKA	d33s1d33s1	3?-b3d'	3?-d1'm
BLN	è-n3m3?3	è-b33	è-b3d'
BBO	é-n3n3d3	é-b3'3	1-b3t
LEF	w3-ŋ3ŋ3l1ŋ3		-d1m1
LEK		-b3g	m-b3g3
	(462) ended, finished	(463) dry	(464) wet
	fini, terminé	sec	mouillé, humide
CB	(433) *-cúg- 'come to an end'		(1564) *-p3d- 'become cold'
M	PEG: *m1tV 'finir (tr.)' *m3 (itr.)		
PM	*-m33 *-m3d	*-k3ny	*-f33 *-f3d *-s3b?
MBM	3-m3	ŋ'gw3m	dy3m'd3b'?
MBN	m3-m33 m3m3l3	ŋ-k3n3	n-t3n3
MYE	é-'m33	k1n1	ny3'k1f ny3n3?
MBE	é-m3	ŋ-ky3s1	è-s3p1
ELU	3-m3?	3-k3n	ny3k3d -s3b
NNE	3?-m33	-k1n	-h33 -s3b'
AKO	-m33 -m3d -s3g	-k1n	-s3b
MHE	è-m33	è-cy3é	-h33 -h33t1
MWK	3-m3l	3-k3é	-h33 -h3l
MKA	3?-m3d	3?-k3'3	-h3'3 -h33t1d
BLN	è-m33	è-k3é	è-h33
BBO	1-m3'3	1-k3é	-h33/-f33
LEF	é-m3	é-k3nJ1	-f3f3
LEK	é-my33	é-g3f3	-f3g3 è-f3g3k3?



	(465) clean	(466) rich *	(467) poor
	propre	riche	pauvre
CB			
M	PEG: *dǎn '(ǝtre) propre'		PEG: *bɔŋ '(ǝtre) pauvre'
PM	*-sǎŋ	*-fǎn 3 *-gǎb 9	*-túg/-túkó 5
MBM	-sɛ	mɔ ɲgɔb'	ǎ-tyɔg'
MBN	-sǎŋə	mɔ ɲgǎb'	ǎ-ɩɩŋ
MYE	ɛɩɩkɩ?	ŋ-hwǎ'ɲgǎ?	è-sú?
MBE	-sǎŋ	ŋ-hǎn	ǎ-tú?
ELU	-sǎǎ	ǎ-hwɔ	ǎ-tɩk
NNE	-sǎŋ	ŋ-hǎn	ǎ-tǎg'
AKO	-sǎŋ	ŋ-hǎn	ǎ-tɔg'
MHE	-sǎŋ	ŋ-hǎn	è-túkú
MWK	-sǎŋ	ŋ-hǎn mbwǎŋ	ǎ-tú? ɲgɛɛ
MKA	-sǎŋ	m-hǎn, bǎ-	è-túg', mǎ-
BLN	-sǎŋ	m-hǎn	è-tɔ?
BBO	-sǎŋǎ	m-vǎn	ɲgɔɔ
LEF	-sǎŋ	wú-dɩɩ	ɩè-bǎn
LEK	-sǎŋǎ	mùŋkǎ?	mbɔŋ
	(468) straight	(469) crooked	(470) near
	droit	tordu, pas droit	près, proche
CB			(37) *-bǎmb- 'become, put near'
M			
PM	*-tɛɛb ? *-tyém ?		*-bɛbɛ
MBM	é-tyɛém	é-nɔgɛ	
MBN	ŋ-tyǎnə	ŋ-kɔɩə	m-bǎmbə
MYE	è-tyǎm'mɩ ɩɩŋkɩɩɩŋkɩ		bɛbɛ
MBE	é-tyǎmən	ǎ-nùkɩ	bɛbɛ á-'yǎtè
ELU	ǎ-tɛbǎǎ	ǎ-kǎǎ	bɛbɛ ǎ-jɩtǎ
NNE	-tyém	-hyɔm	bɛmbɛn -jɩtan
AKO	tyém	-hyɔm	bɛmbɛn
MHE	sɩm	ǎ-ɩɛŋgɛ	bɛbɛə
MWK	ǎ-tɛɛmɩ	ǎ-ɩɛŋɩn	ɛɛbɛ
MKA	è?-tɛ'ɛb	è-ɩɛŋ'ɛb'	bɛɛbɛɛ
BLN	è-tɛɛbǎ	ǎ-ɩɛŋɛbɛ	è-bǎntɛn
BBO	è-tɛɛbɛ	ǎ-yɛŋɛbɛ	bɛɛbɛɛ
LEF	sɩm	è-ɩ ǎŋgɛnɛ	wɩ-tǎn
LEK	ndɩŋɩndɩŋ	è-ŋɔgɔkɛ	mbǎntɛ

	(471) far	(472) sharp	
	loin	tranchant	
CB			
M			
PM	*-jāb.. *-tūm` *-tūn`	*-kōb *-fōl	
MBM			
MBN	è-kēyāb'	m̄-fōlā	
MYE	è-kētī' jābī	è-hwōnē?	
MBE	a-jyāātē	ē-kōbā?	
ELU	à-jābē	ā-kōbē	
NNE	-cābn ed' cāb'	-kōb'	
AKO	-cābned' è-tūn	-kōbe	
MHE	è-tūn	ā-hōl	
MWK	ā-jāmīn è-tūm	ā-hōl	
MKA	è-tūm	ē? -hōl, mē-	
BLN	è-jābē è-tūm	è-hōle	
BBO	è-jābān è-tūm	è-hōy	
LEF	è-tūm	-kō?	
LEK	è-kē šzākē?	é-fūgū	
	(473) blunt, dull	(474) hot	
	émoussé, pas tranchant	chaud	
CB	(ps479) *-tūn- (1880) *-tūp-	(1502) *-pē-	
M	*-tū 'blunt' *-tūp- 'be blunt'		
PM	*-tūn	*-fūn *-fyā	
MBM			
MBN	n̄-tūn è	n̄-fūn è	
MYE	énihwōnē?	ō-hūnē?	
MBE	n̄-tūntīf	ē-hūntī	
ELU	n̄-tūtā	-hōnē	
NNE	-tēn	-hwōn	
AKO	-tūn	-hyē -code	
MHE	è-tūn	-yē	
MWK	ā-tūn	ā-hūn	
MKA	ē-tūndu	-yā	
BLN	è-tūn	-yā	
BBO	è-tūnè	-yā	
LEF	-kō? (+neg.)	-fyā	
LEK	é-kīf	è-šwākē?	

	(475) cold		(476) tired	
	froid		fatigué	
CB	(1564) *-pɔd- PEG:*fɛ *pɛp`			
M	*-pɛpɔ 9 'wind, cold' *-pɔd-			
PM	*-fɔɔ *-fɔɔ		*-kɔm *-jɛɛ *-jɛd	
MBM				
MBN		ñ-tánə	ñ-kɔmə	
MYE	ɔ-'hwɔ		ã-kwá'kwám	
MBE	è-hɔtɪ	è-yɛŋkɪ		è-jɛtɪ
ELU		ã-héb'	è-kwɔ ñ-kɔɔ	
NNE	-hɔɔ		-kám	
AKO	-hɔɔ		-kɔm	
MHE	è-hɔá		è-kɔm	
MWK	-hɔɔ è-hɔtɪ			ã-jɛɛ
MKA		ɛ?-pũb'		ɛ?-jɛɛ ɛ?-jɛd'
BLN	é-hɔɔtɛfɛ			ñ-jɛɛ
BBO		è-pũb'		è-jɛɛ
LEF	è-fwɛ è-fɪ		-kɔm	
LEK	é-fɛgɛ		ñ-kɔntɛ	
	(477) deaf		(478) dumb *	(479) blind
	sourd		muet	aveugle
CB				
M				
PM	*-dɔg 9	*-bɔbɛ 7	*-bɔg 3	*-dɪm(ã) 9
MBM				
MBN	mbɔg'	ñ-bɔg'		'mɔ dəy? (y?/g')
MYE	mbwɔtɪ ɔtɪə	ã-yãmpá'ká		mbwɔtɪ'mɪ?
MBE	ã-ŋ'wɪ'ká wəm	ñ-bɔ?		ãntɔŋá'wəm
ELU	ã-kɔlɛ àtɔ	è-bɔbɛ		ãbwɔmák
NNE	ã?-kɔɔ? mǎtɪnɪ	è-bɔbɛ		ndám
AKO	ndɔg'	è-bɔbɛ		ndɪm
MHE	ndɔ?		mbɛbɛl	ndɪm
MWK	ndɔ?		ñ-bɔ?	ndɪm
MKA	ndɔg'		ñ-bɔg'	ndɪm
BLN	mǎ-wɔkǎ		ñ-bɔ?	ndɪmǎ
BBO	ndɔk		m-bɔk	ndɪm
LEF	ñpɛŋ mǎtɪə	è-bɔbɔ		àsɔ'mɪn
LEK	àsǎg wɔgɔ mǎ		m-bɔk	èbɛgfkɛmɪf

	(480) lame person paralytique	(481) spot tache	(482) today aujourd'hui
CB	(533) *-dēmā (7/8)	(1785/6) *-tōnā/ī	(518) *-dēēdō
M	*-dēmā 7 'cripple'		
PM	*-lēm 7 *-bōkā 3	*-tōn 5/6	*jēē
MBM			
MBN	ē-y ān		bwē nēn
MYE	m-bīn'tī?	myōhki myōhki	ēnīngā
MBE	āk wētōlō	ā-tōn, ò-	jēē
ELU	ē-lē	ā-tōn, ò-	jī
NNE	ē-lēm	ā-tōn	jīī
AKO	m-bwōdōg' ē-pēd'	ā-tōn, mē-	cīī
MHE	m-bōkē	ā-tōn	jīē
MWK	m-bōkā (ē-pēsī ēkō)	ā-tōn	jēē
MKA	ē-jē'm	ē-tō'ñ, mē- ē-bā'ñ, ē'-	jyē
BLN	ē-jēm	ē-bān	jēē
BBO	m-bōkā	ndōō	jyēē
LEF	lē-byān	lī-tōtō, mā-	wū'yā
LEK	kōgōkōgō	ē-bē?, bē-	ēyē
	(483) yesterday, tomorrow hier, demain	(484) I, me je, moi	(485) you (sg.) tu, toi
CB		(1291) *-mē (1303) *-mē	(1091) *-kō
M	*jana 'yesterday'		
PM	*-jān	*mē	*wē
MBM			
MBN	yān nžōlō	mē	wē
MYE	jā jē'bō yēnsī	mī	wō
MBE	jān jān	mē	wē
ELU	jā jā	mē	wē
NNE	jān jān	mē	wē
AKO	cān cān	mē	wē
MHE	jān jān	mē	wē
MWK	jānā jānā	mī	wē
MKA	jān jān	mē	wē
BLN	jān jān	mē	wē
BBO	jān jān	mī	wē
LEF	yān yān	mī	wē
LEK	džānzān ē-bōk	mī	wō

	(486) he, she il, elle	(487) we nous	(488) you (pl.) vous	(489) they ils, elles
CB		(395) *-cɔ́ɛ́/*-cɛ́ɛ́		(152) *-bɔ́
M		PEG: *-ítʰ		
PM	*mɔ́	*sɛ́	*nyɛ́	*bɔ́
MBM				
MBN	mɔ́	sɛ́	nyɛ́	bɔ́
MYE	mɔ́	sɛ́	nɛ́	bɔ́
MBE	má	sɛ́	yá	bá
ELU	mɔ́	sɛ́	nyɛ́	bɔ́
NNE	mɔ́	sá	nyá	bá
AKO	má	sá	nyɛ́	bá
MHE	mɔ́	sá	nyá	bɔ́
MWK	mɔ́	sɛ́	yá	bɔ́
MKA	mɔ́	sɛ́	nyɛ́	bɔ́
BLN	mɔ́	sɛ́	nyɛ́	bɔ́
BBO	mɔ́	sɛ́	nyɛ́	bɔ́
LEF	mɔ́	sá	nyá	bɔ́
LEK	mɛ́n	sá	nyá	bwɔ́
	(490) and et	(491) with avec	(492) but mais	(493) again encore

	(490) and et	(491) with avec	(492) but mais	(493) again encore
CB				
M	*nà 'with, and'	*nà		
PM	*nɛ́	*nɛ́ *bô	*bɔ́ŋ	*-pɛ́ ?
MBM				
MBN	bɔ́	nà bɔ́	ázá	á'pɔ́
MYE	nɛ́	nɛ́	bá	á'pá
MBE	nè	nè	bɔ́ŋ	á'pá
ELU	nɛ́	bɔ́	bɔ́	á'pɛ́
NNE	nà	nà	ban	á'mpá
AKO	nè	nè bá	bɔ́ŋ (o/a)	ám'pá
MHE	nè	nè	bɔ́ŋ	é'pɛ́
MWK	nɛ́	nɛ́	bɔ́ŋ	á'pɛ́
MKA	ná	nà bɔ́ɔ́	bɔ́ŋ	é'pɛ́
BLN	nɛ́	nɛ́	bɔ́ŋ	é'pɛ́
BBO	nɛ́	nɛ́	bɔ́ŋ	é'pɛ́
LEF	nà	nà	ndé	pá
LEK	bɔ́ɔ́	bɔ́ɔ́	kà'pá	kà'pá

	(494) because parce que	(495) if si	(496) some quelques
CB			
M			
PM		*nJÉ	*dòngè 5
MBM			
MBN	nè yàḗ	ndḗ	(bá')pó
MYE	nī nzwðm	nzḗḗ	óbí'ní
MBE	áyḗl nēn	ndḗ	bāāp (w)ḗ
ELU	ányḗ nē	nzḗ	ngḗsḗ
NNE	á'nyḗlè	nzḗ	dòngḗ
AKO	á'yḗlè	nzḗ	dòngḗ (bād') bḗ-hḗ?
MHE	áyḗl nēn	nzḗ	(bín bād)
MWK	á'yḗl 'nḗ	nzḗ	(bā1) ò-hḗ?
MKA	áyḗl nà	nJí'bá'á	dyḗngḗ bḗhḗ'ḗ'
BLN		nJá	bā(bāḗ)
BBO	áyḗl nḗḗ	nzḗ	bā(bāḗ) bā ngḗndḗ
LEF	ḗbānJá ḗtḗtḗ'yḗ	nJḗ	dòngḗ
LEK	lḗbwḗzḗ	káá	mbḗk

	(497) other autre	(498) where? * ou?	(499) when? quand?
CB		(1499) *-pé	
M		*-pe 'interr. particle' (pā-í)	
PM		*fḗḗ ?	
MBM			
MBN	ā-ní'níí ānī'í	á'ḗḗḗ	ngḗnḗḗḗ
MYE	ā-wú'níí	hḗḗ	ḗhḗḗ ḗhḗ?
MBE	(bāā)lḗ	hḗ	ḗhḗḗ ḗhḗ
ELU	l-1ḗ	hḗḗ	nzḗngḗḗ
NNE	l-1ḗ, bḗ-	hḗḗ	nzḗ bḗngḗ
AKO	ā-mpḗḗ	hḗḗ	pḗndḗ ḗhḗḗ
MHE	mpḗ aní'níí	híí	nzḗ ngḗn nzḗ pḗndā
MWK	n-tḗw	hḗ	ḗJḗḗ pḗndā mḗḗ ḗhḗ?
MKA	m-pyḗ, bḗ-	hḗ'ḗ	nJá pḗndā'á
BLN		hḗḗ	(sḗtḗḗ)
BBO	n-tḗb', bḗ-, ḗ-	hḗḗ	ḗJḗḗ pḗndā
LEF	ḗpḗpḗḗ	fḗ	nJá pḗndā
LEK	nJḗ	á1ḗḗ	ndḗsḗḗ

	(500) how? comment?	(501) how many? combien?	(502) why? pourquoi?
CB		(752) *-ngá	(586) *-dèngá
M			
PM	*jǎn	*-tíŋ (all pl. classes)	
MBM			
MBN	yǎn	-'tǎŋ	nè yǎǎ
MYE	jǎn	-'tǎŋ	jǎǎ
MBE	jǎě	-'tǎŋ	ǎyǎl jǎě
ELU	jǎ	-tǎŋ	nè jǎ
NNE	jǎn	-tǎŋ	ǎ'yǎlè jǎn
AKO	cǎn	-tǎŋ	ǎ'yǎlè cǎn
MHE	nǎ'nǎě	-tíŋ	éyǎl jíí
MWK	jǎn nǎnǎě nǎ jǎn	-tíŋŋ	ǎyǎl jǎě
MKA	nǎ 'jǎ	-tí'ŋ	ǎyǎl jǎ
BLN	nǎ'nǎě	-tíŋ	ǎ'yǎlè jǎě
BBO	yǎn iyǎdò jǎě	-tíŋ	ǎyǎdò jǎě
LEF		-tén	étútú'yǎ
LEK	ǎzǎǎ	-tíŋí	ǎzǎǎ
	(503) who? qui?	(504) what? quoi?	(505) which? lequel? laquelle?
CB		(1926) *-yǎnǎ PEG: *kǎ	(1498) *-pé
M	PEG: *wa	*-ke (pǎ-í 7: kǎ-í)	
PM	*njǎ	*jǎě	*-fǎě ?
MBM			
MBN	nzǎí (z/d)	í'yǎíí	-'sǎǎ
MYE	nzǎǎ	jǎn	-'hǎǎ
MBE	ndí	jǎě	-hé nǎ
ELU	nzǎǎ	jǎ	nzǎ jǎǎ
NNE	nzǎǎ	jyǎ	-hǎě
AKO	-nzǎí, bǎ-	cǎě	-hǎě nzǎ(mǎ) ??
MHE	nzǎ	jíí	-wǎě
MWK	nzǎ	jǎě	-hǎ(ǎ)
MKA	n jǎ, bǎ-	jǎ	-wǎě
BLN	n jǎ	jǎě	-bǎě
BBO	nzǎ	jǎě	
LEF	n jǎ	yǎ	-fǎ
LEK	nzǎ	zǎǎ	-fǎ

	(506) here ici	(507) there là-bas	(508) in, inside dans, dedans	
CB			(1734) *-tè	
M				
PM	*fǎn	*fǎnɿɿ	*ǎ + -te	
MBM				
MBN	ǎ'fǎn	ǎ'wú'nɿɿ	ǎ-tə	
MYE	hǎ'nǎ	wú'nǎ	ǎ-tə	
MBE	ǎsy ǎn (sy/ǎ)	ǎ'jǎ h ǎn	ǎ..tə	ǎ'wɛtə
ELU	hɛnnǎ	hɛnnɿɿ	ǎ-tɿ	
NNE	hǎn	hɛnɿ	ǎ-tɛ	
AKO	hɛn	hɛnɿɿ hɛ	ǎ-tə	
MHE	hɛn	hɛnɿɿ húnɿɿ		ǎ-tɛntɛ
MWK	hǎn	hǎnɿ	ǎ-'tɛ	
MKA	hǎn	hǎ'nɿɿ hú'nɿɿ	ɛ-tə	ɛ-tɛntɛ
BLN	hǎn	hǎ'nɿɿ		ɛ-tɛntɛ
BBO	hǎn	húnúú		ɿ-tɛtə
LEF	fǎn	fǎnɿ wúnɿ	ǎ-'tɛ	
LEK	fǎ	fǎé		ǎ-nd ǎg ɛtɛ
	(509) (in the) middle (au) milieu, (au) centre	(510) side côté	(511) at, to à	
CB				
M				pǎ 16
PM		*-kɛb	*-kɛg ? 3	*ǎ
MBM				
MBN	ǎ-tyǎntyǎn	ǎ-kǎǎ?		ǎ
MYE	tɿntyǎ		ǎ-kǎǎ'nyɛn	ǎ
MBE	lɛɛtə	ǎ-kǎbə		ǎ
ELU	(ǎ)tɿntɛə		ǎ-kǎ	ǎ
NNE	ǎn'lɛéd'	ǎ-pɛg'		ǎ
AKO	ǎtɿntɛə		ǎ-ŋkǎg'	ǎ
MHE	ǎtɛntɛ	ɛ-'kɛb		ɛ
MWK	ǎnlɛtə	ǎ-kɛw	ǎ-'kɛw	ǎ
MKA	ɛtɛntɛ	ɛ-'kɛb'		ɛ
BLN	tɛntɛ	ɛ-kɛb'		ɿ
BBO	ɿtɛntɛə	ɛ-'kɛb'		ɿ
LEF	ǎwúttɛtə	ǎ-nsǎŋ		ǎ
LEK	(ǎ)tɛɛntɛɛ	ǎ-kǎk'		ǎ



	(512) outside hors, dehors	(513) above, on dessus, sur	(514) underneath dessous
CB	(192) *-bōgā 9/10 'village'		(332) *-cē 9
M			*-cē 9 'earth, ground, country'
PM	*ā+[-bōg 7]	*ā+[-mwāny 5?]	*ā+[-sē 5?]
MBM			
MBN	ā-'bō? ā-bō?	ā-mēŋ ā-nyīn	ā-sē
MYE	ā-bōtē	ā-'mēŋ	ā-mbīsē
MBE	ā-'bōbē	ā'mwī (i/e)	ā-'kwē'sī
ELU	ā-'bū?	ā-mēŋ	ā-'ndōsē
NNE	ā-bōtē	ā-'māŋ (a/o)	ā-kēsē
AKO	ā-'bwōg'	ā-'mīn	ā'sē
MHE	ā'bō?	ā-'mīī	ā-'sē
MWK	ā'bō? ā-bō?	ā-'mwāā	ā-sē
MKA	ā-bōg'	ā-'mwā	ā-'sē
BLN	ā-'bō?	ā-'mwāā	ā-'sē
BBO	dyātē	ā-mwāā	ā-sē
LEF	ā-'bōkā	ā-'mīn (i/e)	ā-'sē
LEK	ā-bōk	ā-zīgī mīn	mbīfī
	(515) downstream en aval	(516) upstream en amont	(517) until jusqu'à
CB		(885) *-gōdō	
M		*-gōdō (˘ ˘) 5 'sky, above'	
PM	*ā+[-bēŋ 9]	*ā+[-kōō 5]	*(nā)tēē
MBM			
MBN	ā-mbōŋ	ā-mēŋ	nātāē
MYE	ā-mbōŋ ā-mbīsē ēdī?	ā-kwē ā-mbīmē ēdī?	tīī gbātī
MBE	ā-'mbāntē	ā-'kō mwī	kāntī
ELU	ā-jōō dāb'	l-lēē dāb	kāōŋ
NNE	ā-'dāb'sā	ā-'dāb'mōŋ	kēnnē
AKO	ā-mbōŋ	ā-kōō	kāōŋ
MHE	ā-'sō?	ā-kōō	tīī
MWK	ā-mbōŋ	ā-'kōō	nātēē
MKA	ā-'mbāŋ tē	ā-'bōm	nātēēnē
BLN	ā-'mbēŋ	ā-'kōō	nātēē
BBO	ā-mbōŋ	ā-kōō	nātēē
LEF	mā-dē ā-'sā	mā-dē ā-'mīn	nātē
LEK	ānīzāk	ndūgūzāk	ōōtēē

	(518) for *	(519) front *	(520) behind *
	pour	devant	derrière, en arrière de
CB		(391) *cō 'face, front'	
M		PEG: *bĩ̀	
PM	*ā+[-nyōlV]	*ā+[-sō 14]	*ā+[-bũj 9]
MBM			
MBN	tθ	á-šwé	á-'mbéyg'
MYE	á-nyũè á-wù	ó-'swǎn	á-'mbhĩ
MBE	ā-dũ	á-'šǒ	á-'mbĩ
ELU		sú	mbǎk
NNE	á-'nyǎlè	á?-'sǎ	á-'mbǎg'
AKO	á-'yǎlè	á?-sǒ	á-'mbĩd'
MHE	é-yǒǒ	é-'sǒ	é-'mbĩ?
MWK	á-yǒl	á-sǒ	mbĩ? ā-'mbĩ?
MKA	é-yǒlǒ	é-'sǒ	é-'mbũy?
BLN	á-jǒŋ	é?-'sǒ	é-mbũy?
BBO	á-yǒǒ	é-'sǒ	mbũt
LEF	á	ǒ-sú	á-'mbĩ?
LEK		bǎ-súgú	mbĩ?
	(521) left (side)	(522) right (side) *	(523) end
	(cǒtǎ) gauche	(cǒtǎ) droit	fin, bout
CB	(1316) *-mǒcǒ		(433) *-cũg- 'come to an end'
M	*-ǒcǒ 11+3 'lefthand'		
PM	*-mǒj'	*-kǎǎ 7 + *mbǎǎ	*-sũg/-sũkǎ 5
MBM			
MBN	ǎ-mwè?	é-kǎ mbǎǎ	ŋkũǎ
MYE	é-kǎǎ myè	é-kǎǎ 'mbhǎǎ	sǒkĩ
MBE	é-kǎ mǎ?	é-kǎ mbǎ	ǎkǒkĩ
ELU	ǎ-mwè?	é-kǎǎ mbǎǎ	ǎ-sǒk
NNE	é-mwèg'	é-kǎ mbǎǎ	ǎ-sǒg'
AKO	é-'kǎǎ mwèd' < á+ǎkǎǎ+ǎ+mwèd'	é-'kǎǎ mbǎǎ	ǎ-sǒg'
MHE	ǎ-'mǒd'	é-kǎ mbǎ	é-sug'
MWK	é-kǎǎ mǒy	é-kǎǎ 'mbǎǎ	ǎ-sũ? ǎ-sũkǎ (ka/ku)
MKA	é-'mǒy?	é-'kǎǎ mbǎǎ	é?-sũkũ
BLN	mǒy?	é-'kǎǎ mbǎǎ	é-sũ?
BBO	ǎ-mǒt	é-'kǎǎ m' bǎǎ	ǎ-sǒk'
LEF	mwè	é-kǎ 'mbǎǎ	ǎkǎn sǒ
LEK	lǎ-kyǎ mwǎ?	lǎ-kyǎ mbyǎ	

	(524) be *	(525) eat *	(526) chew
	être	manger	mâcher
CB	(2) *-bā- (547) *-dè	(550) *-dè-	
M	*-bā- PEG: *bā	*-dè PEG: *dīa	
PM	*-bā *-dÉ	*-dyā	*-lāā
MBM			
MBN	-bā -tā	-jēē	-lāā
MYE	-bā -tī	-dyā	-lāā
MBE	-tī	-dyē	-lētē
ELU	-bā -dē	-dyē	-lā
NNE	-bā	-dyē	-lāa
AKO	-bē -dē	-dyē	-lāa
MHE	-bē -dē	-dē	-lēā
MWK	bā -tī	-dyā	-lāa
MKA	-bā -dē	-dyā	-lā'ā
BLN	-bā -dī	-dyā	-lāā
BBO	-bā -dī	-dyā	-yāyo
LEF	-bā -dī	-dyā	-dyā
LEK	m-bātē -bā	dēgā ñ-dēgānē	-kōtē
	(527) drink	(528) swallow	(529) urinate
	boire	avaler	uriner
CB	(1332) *-mū- (1378) *-nū-	(1306) *-mīd- (1294) *-mēd-	
M	*-nyō- PEG: *nō(a)	*-mīd- PEG: *mī	PEG: *cēC
PM	*-mwā	*-mēē	*-sāny
MBM			
MBN	-mwāā	-myā	-sēŋa
MYE	-myā	-hīf?	-sēŋ
MBE	-mwā	-mē	-sī
ELU	-mwā	-mī	-sē
NNE	-mwē	-mīī	-syēŋ
AKO	-mūē	-mīī	-sēŋ
MHE	-mwē	-mēē	-syāā
MWK	-mwā	-mēē	-sāa
MKA	-mwā	-mēē	-sāā
BLN	-mwā	-mēē	-sāā
BBO	-mwā	-mēē	-sāā
LEF	-mwā	-mwēē?	-nyē mwānyā
LEK	-nūwā ñ-nūwānē	-mēē ñ-mēēnē	-nyīnē

	(530) defecate	(531) pass wind	(532) spit
	déféquer	péter	cracher
CB	(1355) *-nĩ-	(431) *-cũd-	(1857) *-tũ- *-tũéd-
M	*-nĩ- PEG: *nè,nĩ	*-kiød-	
PM	*-nyā	*-sũũ	*-sðb
MBM			
MBN	-nyāè	-sũũè	
MYE	-nyā	-sũ?	-pɛŋkĩ ò-1éè?
MBE	-yè	-sũ	-hũl à-1è?
ELU	-nyā		-swād à-1éèd'
NNE	-ny e	-sũũ	-sād' mē-1éèd'
AKO	-ny è	-sũũ	-sðb mē-1éèd'
MHE	-ny è	-sũũ	-sðb' mē-1èd'
MWK		-sũ?	à-jám + à-1èw
MKA	-nyā	-sũũ	-sðb mē-1èd'
BLN	-nyā	-sũũ	-sðb mē-1èd'
BBO	-nyā	-sũũ	-jòm nĩ mĩ-yèt'
LEF	-nyāa lí'bí	-nyā hĩsũ?	-pɛŋjĩ è-kwèn
LEK	nègā	n̄-sũwĩnĩ	fũ mē-1è?
	(533) vomit	(534) sweat (n.)	(535) breathe
	vomir	perspiration	respirer
CB	(695) *-dòk-		(1468) *-pèèm- PEG:*jwèttè
M	*-dòk-		*-pèèm- *-póm-òd-
PM	*-jòó	*-tòkò 7 *-dũg 7	*-fèèm ? *-fèèb ?
MBM			
MBN	-zũè	è-dè?	-fèèmè
MYE	-jũé	è-1è? (1/d)	-hèè?
MBE	-jè		-hèmmèntè
ELU	-jũ	è-dèk	-hèèèfèfè
NNE	-jwè	è-bábè	èbwèttè pèèè
AKO	-cò	è-bábè	-hèèd
MHE	-jũũ	è-tòkè	-hèèbátè
MWK	-jòo	è-tòkò	-hèèmĩ
MKA	-jò'ó	è-tòkò	-hèèbèttè
BLN	-jòè		-hèèèè
BBO	-jòó	e-tòkò	-fèèèè (f/h)
LEF	-yũé	è-dè?	-nũŋ è-fĩ
LEK	-zũgũ	è-dèk	

	(536) yawn	(537) sneeze	(538) snore
	bəɪllər	ɛtərnuer	ronflər
CB			(852) *-gɔ̃n-
M	PEG: *jɛ́t (V)	*-team-	*-gɔ̃n-
PM	*-kám...? *-nyám	*-sám	*-tɔ̃g
MBM			
MBN	-kámə	-sám	-gù yúə
MYE	-kámə	-sám	-tɔ̃? á-jwə
MBE	-wəmmɛntə	-sám	-tɔ̃? ɲgɔ̃?
ELU	-káməɛ́tɛ́	-sám	-s ɔ̃nəɛ́tɛ́
NNE	-kámɛ́tə	-sám	-tɔ̃g' á tə
AKO	-káméd'	-sám	-tɔ̃g ɲgɔ̃l ɔ̃g'
MHE	-wɔ̃ɲ	-sám	-tɔ̃ɔ̃ ɲgɔ̃mbəl
MWK	-yám	-sám	-tɔ̃ɔ̃ á'tə kɔ̃m ɲgɔ̃ɲgɔ̃l
MKA	-nyá'ɲ	-sá'ɲ	-tɔ̃? ɛ́tə
BLN	-nyám	-báy?	ɲgɔ̃mbɔ̃l
BBO	-nyámbo	-sám	ɲgɔ̃mɔ̃
LEF	-kɔ̃ɔ̃	-sám?	á-lə tɔ̃?
LEK	-jɛ́tɛ́ ɲ-jɛ́tɛ́	sáá ɲ-sáántɛ́	ɲ-tɔ̃ɔ̃lɛ́
	(539) froth	(540) do	(541) go
	mousser, écumer	faire	aller
CB	(1614) *-púɔ̃- 'froth over'		(811) *-gə- (794) *-gɛ-
M	*-púɔ̃ɔ̃ (-pɔ̃ɔ̃), -púɔ̃ɔ̃, -púɔ̃ɔ̃) ɔ̃	PEG: *ɲə	*-gə- *-k(a) PEG: *gɛ́n
PM	*-fúɔ̃	*-bɔ̃l	*-kɛ́
MBM			
MBN	ɲ-fɔ̃lɛ́	-bɔ̃l	-kə́ə
MYE	ɔ̃-hwɔ̃?	-bwɔ̃n	-kyə́
MBE	-hə́l ɛ́-hə́	-bə́l	-kə́
ELU	ɛ́-hɔ̃d'	-bɔ̃	-kə́
NNE	-hɔ̃d'	-bə́l	-kɛ́
AKO	-hɔ̃d'	-bɛ́l	-kɛ́
MHE	-hám	-bɔ̃l	-kɛ́
MWK	-hɔ̃l	-bɔ̃l	-kɛ́
MKA	-hɛ́'ɲ	-bɔ̃l	-kɛ́
BLN	-húɔ̃d'	-bɔ̃l	-kɛ́
BBO	-fɔ̃t (f/h)	-bɔ̃y (/bɔ̃o)	-kɛ́
LEF	jɔ̃kə́	-bwə́	-kə́
LEK	lə́-fú fú?	-bɔ̃ú ɲ-búttɛ́	kə́ ɲ-kə́ttɛ́

	(542) come *	(543) return *	(544) enter *
	venir	revenir, retourner	entrer
CB			(389) *-cótod- 'pierce'
M	PEG: *sə̀ək		PEG: *kón
PM	*fyà	*-sú *-fúú *-tím	*-sól *-nyíŋ-V
MBM			
MBN	-s'íí	nz'ə̀ mbə̀y?	-kù'nāŋ -sól
MYE	-sō?	-s'úú	-s'wón
MBE	-s'è -sà?	-j'ú -h'í -t'əm ā-'mbí?	-y'ə̀ŋ (ə/ɛ)
ELU	-hy'è -hy'á	-s'ú	-sól
NNE	-hy'è -hy'áǵ'	-s'úú -h'úú	-sól
AKO	-hy'è	-s'ú -h'íu -t'ím ā-'mbí'd'	-sól
MHE	-y'è	-h'úú -t'ím 'mbí'd	-sól
MWK	-syà (sy/š) -pà		t'ím ā-'mbí? -y'íŋ
MKA	-yà	-s'ú	-t'ím -ny'íŋé
BLN	-yà		-t'ím mb'úy? -ny'íŋi
RBO	yāk	-f'úú	-t'ím 'mb'út -ny'íŋé
LEF		pā?	-t'ím -kw'èl'è?
LEK		pā	-t'ím é-'mbí? ñ-s'ə̀ǵóné
	(545) arrive	(546) go out *	(547) climb, go up
	arriver	sortir	monter, grimper
CB	(1550) *-p'ík-		
M	*-p'ík-		PEG: *k'ók
PM	*-pà	*-b'új	*-k'òŋ-V *-j'Éǵ-V
MBM			
MBN	-p'ə̀ àl	-b'é è	-kw'ə̀n è
MYE	-p'ə̀	-b'í?	-n'ùŋ
MBE		-b'í?	-k'ə̀n
ELU	-p'ə̀	pw'éé	-j'ə̀ ā-k'ù
NNE	-p'è	-b'ə̀ǵ'	-j'y'ə̀ ā-j'ók'ə̀
AKO	-p'è	-b'í'd'	-c'ə̀ǵe
MHE	-p'è't'	-b'w'í? (?/s)	-k'òŋ'è
MWK	-w'úu	-b'í? -h'ém	-k'òŋ
MKA	-pà	-b'úy? (y'/s)	-k'òŋò
BLN	-pà	-b'úy? (y'/s)	-k'òne
RBO	-pà	-b'út (t/s)	kon'í
LEF	-pà	-ny'é?	p'òl'ò
LEK	ñ-p'ət'í	s'ə̀	ñ-kw'è'n'è ā-kw'è'è

	(548) go down descendre	(549) see * voir	(550) hear entendre
CB	(308) *cɛ̀dɛ̀d	(1969) *-yɛ̀n-	(2152) *-yɔ̀g-
M	PEG: *fɛ̀k	PEG: *jɛ̀n	PEG: *jɔ̀k
PM	*-sùd	*-tòŋ *-nyɛ̀n	*-wɔ̀g
MBM			
MBN	-sùlɛ̀ (s/ɛ̀)	-tòŋ -gɛ̀nɛ̀	-gùlɛ̀
MYE	-sù?	-tòŋ	-wɔ̀?
MBE	-sùl	-tòŋ	-wɔ̀?
ELU	-sù	-nyɪ	-wɔ̀?
NNE	-sɛ̀d	-nyɪn	-wɛ̀?
AKO	-syɔ̀ge	-nyɛ̀n -nɔ̀n	-wɔ̀g'
MHE	-sùl	-nɔ̀n	-wɔ̀?
MWK	-sùl	-tòŋ	-wɔ̀?
MKA	-sud	-tòŋ	-wɔ̀?
BLN	-sòd'	-tòŋ	-wɔ̀?
BBO	-sùt	-tòŋ	-wɔ̀k'
LEF	-sù?	-mɪn	wɔ̀?
LEK	ŋ-gɔ̀gɔ̀nɛ̀ -gɔ̀gɔ̀	ŋ-gɛ̀ɛ̀ntɛ̀ ŋ-gɛ̀ɛ̀	ŋ-gòkɛ̀ gòk
	(551) smell, stink sentir mauvais, puer	(552) touch toucher	(553) taste goûter
CB	(742) *-dùmb-		
M	*-dumb- PEG: *dùm 'sentir'	PEG: *kwáq	PEG: *jɔ̀kCé
PM	*-jùm	*-syàn	*-wɔ̀g-E1En ?
MBM			
MBN	-nyɪmɛ̀ (i/e) -nyɪnɛ̀	-kɛ̀tɛ̀	-gùlɛ̀
MYE	-wòdɪlɪ	-báá?	-wòdɪlɪ
MBE	-jùm	-sɛ̀ntɛ̀n	-wɔ̀? ñ-sɛ̀l
ELU	-wò ɛ̀-lòd'	-sɪŋka	-wòla
NNE	-jùm -wɛ̀?	-syɛ̀n	-wɛ̀?lɛ̀n
AKO	-cùm	-sɪtɛ̀n	-wòglɛ̀n
MHE	ɛ̀-wɔ̀? dɛ̀ ɛ̀bɛ̀b'	-syàn	-wɛ̀ʃɛ̀lɛ̀?
MWK	jùm	-sɪni	-wòoli
MKA	-jùm	-syàn	-wò?ɔ̀ ñ-sòl
BLN	-cùm	-syàn	-wòdɪlɛ̀n
BBO	-jùm	-syàn	-wògɛ̀yɛ̀n
LEF	-jùm		-wòlɛ̀n
LEK	ñ-zɛ̀ntɛ̀ ɛ̀-zɛ̀f	ŋ-kɛ̀tɛ̀ -kɛ̀tɛ̀	ŋ-gòkɛ̀

	(554) resemble	(555) drop	(556) pick up *
	ressembler	laisser tomber	ramasser, relever
CB			(1773) *-tʃʃd-
M			
PM	*-wǎg-an ?	*-kǒb(-an)	*-fǒny(-ej)
			*-bʃj
			*-tǒd
MBM			
MBN	-wǎǎl ǎ	-fǎŋǎ	-bǎyǎ
MYE	-wǎǎnǎf		-byʔ
		-yǒǒlǎf	
MBE	-wǒnɛn	-kǒmɛn	-hʃ(sɪ)
			-bǎ(sɪ)
ELU	-wǎga		-hǒŋǎd
			-tǎd'
NNE	-wǎǎn		-hǔn
			-tǎd'
AKO	-wǎgɛn		hǔned'
			-tǎd'
MHE	-wǎan		-hǔǔʔ
			-bǎd'
MWK	-wǎijɪn		hǒsɪ
			-bʃy
MKA	-wǒʔǎn	-kǒb	-kǒban
			-hǒoyʔ
			-bʃyʔ
BLN		-kǒb	
			-hǒo
			-bʃyʔ
RBO	-wǎgan		ǎ-hǒoy
			-bʃsɔ
LEF		-kǒbǎn	pǔm
			mǔn
LEK	ŋ-kǔtǎ	ǎ-kǔǔ	ŋ-ǎwǎntǎ
			m-bwǎnǎ
	(557) turn around	(558) rub	
	(se) tourner	frotter	
CB	(589) *-dǎǎŋg- (itr.)		
M			PEG: *cǎk *jǒk 'oindre'
PM	*-nyǎb-V	*-fyǔm-V	*-wǔg-ed
			*-wǔg
MBM			
MBN		-kǔndǎ	-gʃʃ
MYE	-yǎbǎ		-wǎkǎ
MBE	-yǎ(pǎ)		-tǎǎ
ELU		-dǎǎɪɛ (ǎ/ǎ)	-wǔgǎd'
NNE	-hyǎmǎ		-wʃʃ
AKO		-kǔned	-kǔne
			-wǔged
			-wʃʃ'
MHE	-yǎmǎ		
			-sǎd
MWK	-yǎw		wʃʃ
MKA	-yǎmɛ		
			-kwǎd'
BLN	-nyǎbǎ		
			-sǎŋe
RBO		-kǔmbǎt	
			-wʃk
LEF		wǎsǎ	
			tǔtǔ
LEK	ŋ-gǎǎǎǎǎ	ŋ-dǎntǎ	dǎntǎ



	(559) send envoyer	(560) scratch gratter	(561) shave (se) raser
CB	(1831) *-tóm-	(1134) *-kʷmb-	
M	*-tóm- PEG: *tóm	*-kʷmb- PEG: *jət	
PM	*-lóm	*-wʷm	*-kʷŋ
MBM			
MBN	-lómə	-gʷmə	-kʷŋə
MYE	-lwʷm	-wʷm	-jʷŋkʷ
MBE	-lóm	-wʷm	-kʷŋŋən
ELU	-lə	-wʷm	-kə
NNE	-lóm	-wʷm	ŋŋəŋ əkʷə
AKO	-lóm	-wʷm	-kʷŋ -kʷən
MHE	-lóm	-wʷm	-sʷe
MWK	-lóm	-wʷm	-kʷŋ
MKA	-lóm	-wʷm	-sʷeʷe
BLN	-lóm		-wʷm
BBO	-yóm	-wʷmŋʷ	-wʷmŋʷ
LEF	lóm	nyʷndé	fʷlɛ̃ ñ-jə
LEK	ñ-lúnté lóm	ŋ-gʷnté gʷ	ñ-sʷɪnɛ̃ sʷɪ

	(562) fight lutter, se battre	(563) hit, strike frapper
CB		(ps 48) *-bòm- 'hit, kill'
M		PEG: *cwán 'frapper, couper'
PM	*-wàn	*-bòm *-tòm
MBM		
MBN	-wànə (w/gb)	-dʷbə
MYE	-wànə nzòm	-kʷtʷ -dʷn
MBE	-wàn	-wànŋən
ELU	-wà	-tòm
NNE	-wàn nzòm	-tòm
AKO	-wàn	-bòm -tòm
MHE	-wàn	-bòm
MWK	-wàn	-bòm -dʷn
MKA	-wàn	-bòm
BLN	-wàn	-bòm -lwá
BBO	-kʷŋŋʷ nzòm	-bòm
LEF	-wàn	lɛ̃?
LEK	ŋ-gwənté bwé	ŋ-kʷnɛ̃ kʷ ñ-tʷnté tʷn

	(564) catch attraper	(565) chase poursuivre, chasser	(566) shoot (gun) tirer (fusil)
CB			PEG: *túm
M		PEG: *jòŋ 'chasser'	*-tum- 'throw, shoot'
PM	*-kɔ̀b	*-nɔ̀ŋ *-nǎn	*-bwém *-lúm
MBM			
MBN	-kɔ̀bə	-nɔ̀ŋə -nǎnə	-lɔ̀mə
MYE	-kwɔ̀ʔ	-nǎn	-lúm
MBE	-kɔ̀	-nɔ̀ŋ	-bwém (ɔ̀/ə)
ELU	-kɔ̀	-nǎ	-bwém
NNE	-kɔ̀b'	-nǎn	-bwím
AKO	-kɔ̀b'	-nǎn	-bwém
MHE	-kɔ̀b'	-nɔ̀ŋ	-bwém
MWK	-kɔ̀w	-nɔ̀ŋ	-bwém
MKA	-kɔ̀b'	-nɔ̀ŋ	-bwém
BLN	-kɔ̀b'	-nɔ̀ŋ	-bwóm
BRO	-kɔ̀b'	-nɔ̀ŋ	-bwém ɲgǎlé
LEF	kɔ̀ʔ	nǎn	wǎŋgú
LEK	ŋ-kútɛ́ kú	ñ-nǎntɛ́ nǎ	ñ-lɔ̀ntɛ́ lɔ̀n
	(567) stab poignarder	(568) pierce percer	(569) bite mordre
CB	(382) *-cɔ̀ŋg- 'prod'	(1814) *-tɔ̀b- (1860) *-tírúf-	(696) *-dóm-
M	PEG: *sɔ̀b 'poignarder'	*-tub- 'pierce through'	PEG: *dóm
PM	*-sɔ̀ŋ	*-túb	*-kwǎg-VIV ?
MBM			
MBN		-tɔ̀bə	-kpǎǎlɛ́
MYE	-sɔ̀ŋ		-kpɔ̀ðɔ̀lɛ́
MBE	-sɔ̀ŋ	-túʔ	-kwǎli
ELU	sɔ̀ sɔ̀ (imp)		-kwǎl (a/oo)
NNE	-sɔ̀ŋ		-kwǎǎl à-kwǎglǎn
AKO	-sɔ̀ŋ	-túb'	-kwǎgɛl
MHE	-sɔ̀ŋ		-kǎǎl
MWK		-túw	-kwǎli
MKA		-túb	-kwǎ(?)al
BLN	-sɔ̀ŋ	-túb	-kwǎǎl
BRO	sɔ̀ŋ	-túb'	-kwǎgaa
LEF			kwǎkɛ́
LEK	ñ-sɔ̀ŋkɛ́ sɔ̀ŋ		ŋ-kɔ̀ŋɛ́lɛ́ kɔ̀ŋɛ́lɛ́

	(570) set a trap	(571) kill	(572) die
	dresser un piège	tuer	mourir
CB	(1698) *-tɛŋ (ps 429) *-tãmb-		(1249) *-kú-
M		PEG: *gúí	*-kú- PEG: *kú(a)
PM	*-fii *-lãm...	*-wóó	*-wã
MBM			
MBN	-lãmə	-gúə	-wãə (a/a)
MYE	ə-lãm	-gúə	-wã
MBE	-hə əlãm	-wú	-wɛ
ELU	-hə əlãm	-wú	-wə
NNE	-hɛd' ə'lãm	-wúú	-wɛ
AKO	-híi mɛlãm	-wúu	-wɛ
MHE	-híi	-wúu	-wɛ
MWK	-hí? əlãm	-wóo	-wã
MKA	-hí'í əlãm	-wú'ú	-wɛ
BLN	-nəbə əlãm/ɛkɔy?	-wóó	-wã
BBO	-yãmne ə-kɔt	-wóó	-wã
LEF	fã wú'lãm	bóló	wã
LEK	ñ-lããntɛ lãã	ñ-kɔnɛ kɔ	ñ-kwãnɛ kwã
	(573) flow (leak)	(574) float	(575) pull
	couler (fuir)	flotter	tirer
CB			(749) *-dút-
M			*-dut- PEG: *sɔŋ
PM	*-nyɔm *-sòb		*-nɪm V? *-dùl
MBM			
MBN	-fúə	-lálə	-nəmə
MYE	-bí?	-láj	-dɪn
MBE	-yɔm -sɔ əsəə?	-bɛllɛn	-nãm (a/a)
ELU	-hí	-bála	-nɪm
NNE	-nyɔm	-bal	-dəl
AKO	-nyɔm		-dùl
MHE	-bwɪd'	-yɔmə ɛdɪɪ	-dùl
MWK	mɔɔn	-jànɪn	-dùl
MKA	-sòb'	-pɛbɛllɛn	-dùl
BLN	-sɔs	-dɪŋe	-dùl
BBO	-sòbe	e-jàyab'	-dɪy
LEF	ɛ'nyɛ?	yáj	-nəm
LEK	ñ-fíŋɪnɛ		ñ-cɪnɛ

(576) carry on the back  
porter au dos

(577) carry on the head  
porter sur la tête

(578) lift  
soulever

CB

M

PM \*-mŋn-V

\*-pém \*-sɛb \*-nyāny

\*-nyāny

MBM

MBN -mʔnə

-dɛŋə

-fətə

MYE -mŋŋ

-yɛŋ

-yɛŋ

MBE -mŋn

-yɛ l-ɪð

-yɛ

ELU -mŋnɛ

-pəm

-nyɛ

NNE -mʔnə

-pém

-nyɛŋ

AKO -mɪne

-pém

-nyən

MHE -mŋnə -sɛɛ mbɪd

-sɛb'

-nyāā (/ɛa)

MWK -mŋun

sɛw

-yāa

MKA -nyāā ʔmbɔy?

-nyāā ɛ m'ɪlɔ

-nyāa

BLN -nyāā

-nyāā

-nyāā

BBO -sɛb ɛ mbɔt

-sɛb ɛ m'yɔ

sɛb

LEF pém ʔmbɪ?

pém ɛ n'ɪlɔ

wɛn

LEK ʔn-byánɛ byɛ

ʔn-bɔŋɔɪɛ

ʔn-jyɛntɛ jyɛ

(579) put, lay down  
mettre, poser

(580) put straight, arrange  
arranger

CB

M \*-pá 'give'

PM \*-mwà (\*-fá)

\*-tɪí \*-nāb(-V) \*-lād(-V)

MBM

MBN -dɔɔ

-lātə

MYE -sɔtɪ (sɛ)

-tɪə -nāpɪ

MBE -mwɛ'sɛ

-lāte (a/a)

ELU -bān ɛ'sɛ

-tɪi

NNE -mwɛ

-tɪí

AKO -bāne ɛ'sɛ

-tɪi

MHE -mwɛ

-nābə

MWK -mwà ɛ'sɛ

nāw

MKA -bɛ'ɛ -mwà

-nābə

BLN -mwà

-lād'

BBO hɛ

-bɔŋən

LEF ʔɪɪɪ?

fá

tāmɔɔ

LEK nāŋkɛɪɪ

cɛ

	(581) lie down (se) coucher	(582) sleep dormir	(583) dream * rêver
CB		(633) *-dɔ̃ (13)	(672) *-dɔ̃ɔ̃t-
M	PEG: *nɔ̃ŋ 's'alonger'	PEG: *dɛ	*-dɔ̃ɔ̃t- PEG: (*jɛm 'rêve')
PM	*-nãŋ-V	*-kún	*-nãŋ-V (+ n.) *-tɔ̃ŋ (+ n.)
MBM			
MBN	-nãŋə	-kúnə	-nãŋɛ̃ ndɔ̃d'
MYE	-nɔ̃ɔ̃ 'sɛ	-kúú 'júú	àtɔ̃ɔ̃ ndwɔ̃?
MBE	-nãŋ 'sɛ	-kún	ndɔ̃ pɛ̃ 'mɛ
ELU'	-nãã 'sɛ	-kún	-nãã 11ɛ
NNE	-nãa	-kwún	-nãa ndɔ̃?
AKP	-nãa á'sɛ	-kún	-nãa ñ1ɔ̃
MHE	-nãã sɛ	-lúm	ñtɔ̃ɔ̃ ndɔ̃d'
MWK	-nãaŋ	-kún	-nãaŋ ndɔ̃1
MKA	-nãŋɛ	-hɔ̃o	-nãŋɛ ñ'dɔ̃d'
BLN	-nãŋə	-hɔ̃o	àtɔ̃ŋɛ̃ ndɔ̃d'
BBO	nãŋú ɛ'sɛ	-yúm	ə-nãŋú ndɔ̃t
LEF	nã1ɛ? 'sɛ	nã1ɛ?	ñnã1ɛ
LEK	ñ-nãŋɛ̃nɛ̃sɛ̃ nãŋãsɛ̃	ñ-gãŋãñɛ̃ gãŋã	ñ-gããntɛ̃ nzɛ̃ɛ̃ ndɔ̃gɔ̃
	(584) rest se reposer	(585) be tired être fatigué	(586) open ouvrir
CB			
M	PEG: *fɛ̃CV		PEG: *cɔ̃k
PM	*-kɔ̃m...	*-kɔ̃m *-jɛ̃ɛ̃	*-dɛ̃b-V *-fúg-V ?
MBM			
MBN	-fɔ̃tə	-kɔ̃mə	-fúúə
MYE	-kwɔ̃	ə-kwɔ̃kwɔ̃m	-hɔ̃ɔ̃?
MBE	-hãmpə	-jɛ̃	-hú
ELU	-kɔ̃ɔ̃tɛ̃	-kɔ̃	-hɔ̃gɛ̃
NNE	-kãmɛ̃ ?	-kãm	-dɛ̃bə
AKO	-kɔ̃mɛ̃ hɛ̃tɛ̃	-kɔ̃m	-dɛ̃bɛ̃
MHE	-kɔ̃mə	-kɔ̃mə	-dɛ̃bə
MWK	-kɔ̃mpɛ̃	-jɛ̃ɛ̃	-húu
MKA	-wúmɛ̃y?	-jɛ̃ɛ̃	-hú?u
BLN	-wómɛ̃?	-jɛ̃ɛ̃	-hɔ̃?o
BBO	(ãdɛ̃) ə-kɔ̃mbɔ̃	-jɛ̃ɛ̃	dɛ̃bú
LEF	kɔ̃mbɛ̃?	-kɔ̃m	dú?
LEK	ñ-zwɛ̃tɛ̃nyɛ̃ zwɛ̃tɛ̃'nyɛ̃	ñ-kɔ̃ɔ̃ntɛ̃	tɛ̃sɛ̃ ñ-fɛ̃qɛ̃ñɛ̃ fɛ̃qɛ̃

	(587) close fermer	(588) cover * couvrir	(589) pray prier
CB	(601/2) *-dɪb-	(912) *-gɪn-	
M	PEG: *dɪk *jɛk	*-kun- (k/g) *-bɪmb- *-kut-	
PM	*-dɪb *-kwɛj/-kɔj?	*-kɪm... *-bɪm-V *-kɪt-Vn	*-kɛn-V
MBM			
MBN	-dɔbɔ	-kɛmbɔ	-sɔnɔ
MYE	-pɛn	-kɪmmɪ	-dɔɔ nywɛn
MBE	-dɪ -kwɛ	-kɪmmɛn	-kɛn
ELU	-dɔb	-kɪmmo	-kɛnc
NNE	-dɔb'		-kwɔtɛn
AKO	-dɪb' -kɪd'		-kɪtɛn
MHE	-kwɪd'	-kɪmtɛn	-kɛne
MWK	-kwɛy	-bɪum	-kɛɛni
MKA	-kwɛy?		-hɪg'
BLN	-kwɛy?	-kɪmbɛn	-kɛnɛ
BBO	dɪb'	bɪmɪ	k'ɛɛnɛ
LEF	kɔ?		kɪtɪ
LEK	n-dɪtɛ	m-bɛntɛ bɛntɛ	n-sɔŋɛtɛ sɔŋɛtɛ
	(590) beg mendier	(591) read lire	(592) write écrire
CB	(653) *-dɔmb- 'ask for'	(1672) *-tɛŋg-	
M	PEG: *dɔn	*-tɛŋg- PEG: *tɔŋ	PEG: *ŋwɛk
PM	*-jɔm	*-lɛŋ	*-tɪl
MBM			
MRN	-wɛɪɔ	(-gɔkɛ)	-lɛŋɔ
MYE	-jwɔm	-lɔŋ	-tyɛn
MBE	-lɛpɛn (a/a)	-lɛŋgɪ	-tɛl (ə/e)
ELU	-jwɔ	-lɛ	-tɛl
NNE	-jɔm	-lɛɛ	-tɛl
AKO	-cɔm -cɛɪ	-lɛŋ	-tɛl
MHE	-nyɛŋ	-lɛŋ	-tɪl
MWK	-jɔm	-lɛŋ	-tɪl
MKA	-jɔ'm	-lɛŋ	-tɛl
BLN	ɛ?-jɔmbɔ	-lɛŋ	-tɪl
BBO	mɔs bɛnɪ	-yɛŋ	-tɪl
LEF	-yɔm	lɛŋ	tɪ?
LEK	mɛ-sɔŋɛtɛ sɔŋɛtɛ	n-lɪlɛ lɪlɛ	n-lɛtɛ lɛtɛ

	(593) kindle	(594) fan	(595) burn
	allumer	éventer	brûler
CB		(1489) *-pɛ̀ɛp-	(1502) *-pé- 'become burnt'
M			*-pé- 'burn' PEG: *tɔ̀n
PM	*-jɔ̀d... ?	*-pɛ̀b	*-fyǎŋ-Ej *-fyǎŋ
MRM			
MBN	-jɔ̀lɛ̀	-pɛ̀bàʔ	-təmǎŋ
MYE	-jɔ̀ɛ̀	-pɛ̀ʔ	-sɔ̀ŋkɪ̃
MBE	-jɔ̀l	-pɛ̀b (ə/ɛ)	-sǎali
ELU	-sɔ̀	-pɛ̀b'	-hyǎŋɛd
NNE	-sɔ̀ɔ̀	-pɛ̀b	-hyǎŋɛd
AKO	-cɔ̀d'	-pɛ̀b'	-hyǎad' -hyǎŋ
MHE	-jɔ̀	-pɛ̀b'	-yǎaʔ
MWK	-jɔ̀tɪ -bɔ̀n	-hɛ̀ɛw	-ǎŋsɪ
MKA	-jɔ̀tɪd'	-pɛ̀b'	-yǎŋɛd'
BLN	-jɔ̀tɛ	-húm	-yǎŋɪ
BBO	jɔ̀ɔ̀sɪd'	-pɛ̀b'	-yǎŋɪd'
LEF	yɔ̀	pɔ̀pɔ̀	wɔ̀kɛʔ
LEK	nyɔ̀kɛ̀	m-pɔ̀tɛ̀ pɔ̀tɛ̀	m-bɔ̀ntɛ̀ bɔ̀n
	(596) roast (over fire)		(597) fry
	rôtir (au feu)		griller
			(598) cook
			cuire
CB	(1009) *-kǎŋg-	(1871) *-tɔ̀mb-	(1009) *-kǎŋg-
M	*-tɔ̀mb- 'cook, roast'		(486) *-dǎmb-
PM	*-tɔ̀m *-nyǎŋ		*-dǎmb- PEG: *dǎm
MRM			*-jǎm
MBN	-nyɛ̀ŋgɛ̀		-tǎmǎ
MYE	-tɔ̀m		-jǎm
MBE	-tɔ̀m		-jǎm
ELU	-tɔ̀m		-jǎ
NNE	-tɔ̀m		-jǎm
AKO	-tɔ̀m		-cǎm
MHE	-tɔ̀m		-jǎm
MWK	-yǎŋ		-jǎm
MKA	-tɔ̀m		-jǎ'm
BLN	-yǎŋ		-tɔ̀m
BBO	-tɔ̀m		menyǎŋgǎ
LEF	bǔm		wǎŋ kúm
LEK	m-bɔ̀ntɛ̀ bɔ̀n		ŋ-kǎŋǎnɛ̀ ñ-cɛ̀nɛ̀ cɛ̀

	(599) boil, bubble up		(600) pound (in mortar)
	bouillir		piler (dans un mortier)
CB	(1778) *-tək- *-təkət		(1802) *-tō
M	*-təkət-/-kəkət- 'be hot, perspire, boil'		*-tō
PM	*-təg *-bāb		*-tī *-kəg.
MBM			
MBN		-fəɪə -fəndə	-tīə
MYE	-jwəm		-dyən
MBE		-həl -hɪnti/-həl	-tī
ELU	-tə? -bāb'		-tī
NNE		-wogə -həd'	-kəg'
AKO	-təg' -təged -wogə		-kəg'
MHE	-tō		-dɪn
MWK	-bāw -wɪ	-wɪnsɪ	-dɪn
MKA	-təy? -bāb'		-lwā
BLN	-tə?		-lwā
BBO	-təg'		-tɪu
LEF	təkɪ		kə?
LEK	bātɛ zɪɪɛ		n-cɪjɛ cɪ
	(601) grind		(602) grate
	écraser		rāper
CB	(344) *-cɪ- (350) *-cɪd-	(344) *-cɪ- (350) *-cɪd-	'grind'
M	*-cɛ- PEG: *gək 'moudre'		
PM	*-kəg	*-sɪɪ	
MBM			
MBN	-kə?		-fənə -cɪə
MYE	-kə?	-sɪɪ	
MBE	-kə?		-hən
ELU	-kə?	-sɪ	
NNE	-kəg'	-sɪɪ	
AKO	-kəg'	-sɪɪ	
MHE	-kə?	-sɪɪ	
MWK	-kə?		wɪm
MKA	-kəg'		-pəno
BLN	-kə?		-wɪm
BBO	-kək'	-sɪɪ	
LEF	kə?		tɪtɪ
LEK	ɲ-kəkɛ kək	ɲ-kəkɛ kək	



	(603) play		(604) sing
	jouer		chanter
CB			(2009) *-yémb- 'sing, dance'
M	*-cek- 'play (instr.), beat (drum)		*-jémb- *-tɔŋ- PEG: *jɔb *jɛm
PM	*-jɔg		*-jém *-lɔŋ *-kɔn
MBM			
MBN	-jùè		-sɔɔ
MYE	àbwɔn à-jɔ?		-kwɔn
MBE	-jù		-jém
ELU	-jù?		-jɛ
NNE	-jwɔ?		-kɔn
AKO	-cɔg'		-kɔn
MHE	-jɔ?		-jém -lɔŋ
MWK	-jɔ?		-jém -lɔŋ
MKA	-jɔg'		-jé'm -lɔŋ
BLN	-jɔ?		-lɔŋ
BBO	-jɔk		-yɔŋ
LEF	bwə mə-yó		kɔn
LEK	n-zɔɔɔnɛ mɛ-zɔk		ñ-zɔtɛ zɔ?
	(605) say		(606) talk, speak
	dire		parler
CB	(1727) *-tè (770) *-gàmb- 'speak'		(1582) *-pɔp- (770) *-gàmb-
M	*-gàmb- 'speak'		*-gàmb- *-pɔp-e- PEG: *gàm
PM	*-fɔb		*-fɔb
MBM			
MBN	-gàmə		-fɔkə
MYE	-yàm		-yàm
MBE	-hɔ?		-lɔŋ
ELU	-hɔ?		-jwɔ
NNE	-hɔb'		-hɔb'
AKO	-hɔb'		-hɔb' -kəl
MHE	-hɔb'		-kəl
MWK	-hɔw		-hɔw
MKA	-hɔb'		-hɔb'
BLN	-hɔb'		-hɔb'
BBO	-fɔb'		-fɔb (f/h)
LEF	pɔŋ		byá
LEK	ñ-lɛtɛ lɛ?		sɔŋɔnɛ

	(607) listen écouter	(608) meet rencontrer	(609) call (summon) appeler
CB			
M		PEG: *bóm	*-jét- 'call'
PM	*-wóg-EIEn ?	*-bòm *-tán	*-jél-V
MBM			
MBN	-gú1è	-bòmè	-kíŋè
MYE	-wó? wóðlɪ	-bwɔm	-kɛŋ
MBE	-wó?	-bèŋ	-yé
ELU	-wó1a	-bòm	-jè?
NNE	-wó?	-bòm	-jwè? -jélɛ
AKO	-wóglɛn	-bòm -tán	-cɛ1e
MHE	-wó?	-túɔn	-jè
MWK	-wó?	-wó1	-yé
MKA	-wóg'	-bòm	-bèŋ
BLN	-wóðlɛn	-bòm	-bèn -dyám
BBO	wóɔɔn	-bòm	bégét
LEF	wó1án	táná	bəŋ
LEK	ŋ-gókɛ ɔók	ŋ-kɔɔnɛ kɔɔnɛ	kyɛ kyɛnɛ

	(610) tell raconter	(611) ask (question) poser (une question)	(612) answer répondre
CB	(773) *-gān- 'tell a tale'		
M	*-gān- PEG: *sɔŋ		
PM	*-lāŋ-V *-fɔb	*-sɪl(-Vn)	*-kwəny-tEn ?
MBM			
MBN	-fɔkè	-sɛtè	-zəkè
MYE	-hɔkɪ	-sɪn	-kpəŋkɪ -jɪkɪ
MBE	-lāŋ	-səllən (ə/ɛ)	ŋ-jɪkən
ELU	-lāa	-sɛla	-kwəŋkə
NNE	-lāa	-syɛgɛ?	-kwəntən
AKO	-lāa -kəl	-sɛřed	-kwəntən
MHE	-hɔb	-sɪlan	-kwɛtɛ
MWK	-lāaŋ	-sɪl	-kwɛsɪn
MKA	-hɔb' -tɛ1è	-sɪlan	-kwɛtɛn
BLN	-hɔb'	-sɪl	-kwɛtɛn
BBO	-fɔb'	-sɪline	-kwɛtɛnɪ
LEF	pɔŋ	kɔndɛ	pɪsɪ
LEK	lāŋá	ŋ-sɪtɛ ɛtɛ	ŋ-kwəŋkɛ (kw/kp)

	(613) thank remercier	(614) insult insulter	(615) suffer souffrir
CB			
M			
PM	*-sóm	*-sɛŋ	*-täg
MBM			
MBN	-sǎǎlɛ̃ ɲ-kɔŋ	-sɔŋə	-wə
MYE	-yám	-sɔŋkɪ	-kǎŋkɪ
MBE	-sám -yámman	-sáŋ	-tǎa?
ELU	-tyʂka	-sǎə	-tǎ?
NNE	-sóm	-syǎ	-tǎa?
AKO	-sóm -sǎgnɛn	-syǎŋ	-täg
MHE	-səm	-sǎŋ	-tǎ?
MwK	-sóm	-sɛŋ	-wúum
MKA	-sóm	-nyɛŋɛ	-tǎg'
BLN	-sóm	-sɛŋ -nyɛŋɛ	-tǎ?
BBO	-sóm	-yód'	-tǎk
LEF	sǎkǎn	lúf	tǎ?
LEK	è-lǎkǎ	ñ-zòntɛ zɔ	ɲ-ɔŋkɛ̃ è-sǎŋǎnɛ̃
	(616) try essayer	(617) like, love aimer	(618) hate haïr, détester
CB		(623) *-dɪŋ- 'desire'	
M			
PM	*-kèg	*-dɪŋ	*-fɪn *-bèn
MBM			
MBN	-gɪŋlɛ̃	-dɛŋə	-gɔl ə
MYE	-mwám	-dɔŋ	-wɔ?
MBE	-kə	-dɛŋ	-hǎn
ELU	-kɛ̃ka	-dɛŋ	-hǎn
NNE	-hyətǎn	-dɛŋ	-kɔ
AKO	-kəg	-dɛŋ	-kɔ
MHE	-kyəʂ	-dɪŋ	-hɪndɛ
MwK	-kə?	-dɪŋ	-bèn
MKA	-kèg'	-dɪŋ	-hɪn -bèn
BLN	-kə?	-dɪŋ	-hɪn
BBO	-kə̀k'	-dɪŋ	-bǎna
LEF	k ɛ̀kǎ?	nǎŋ	kwɛ̃
LEK	ñ-tǎlɛ̃	ɲ-kɔŋkɛ̃ kɔŋkɛ̃	ñ-bǎǎntɛ̃ bǎ

	(619) wish, want	(620) look for	(621) gather firewood
	vouloir	chercher	ramasser le bois de feu
CB	(623) *-dĩŋ- 'desire'		(1735) *-tḗáb-
M	PEG: *kǝŋ		*-tḗ-áb- 'cut, fetch firewood'
PM	*-fāj *-dĩŋ	*-fāj	*-lād *-láb
MBM			
MBN	-fḗyḗ	-fḗyḗ	-lábḗ
MYE	-hḗ?	-hḗ?	-lā sũn
MBE	-dḗŋ	-hḗ?	-hḗ?
ELU	-hḗ?	-nḗ	-lā?
NNE	-hḗq' -dḗŋ	-hḗq'	-lād' lḗn
AKO	-hḗd'	-hḗd'	-lād' -láb' 'split firewood'
MHE	-hḗy? (ḗhḗsḗ)	-hḗy?	-láb'
MWK		-hḗy	-lāw -bḗŋĩn
MKA	-dĩŋ -kwḗḗtɛn	-hāy?	-lábɛ yḗn
BLN	-dĩŋ	-hāy? (y'/s)	hāy? yḗn
BBO	-fād' (d'/s)	-fād' (d'/s)	-yāmńĩ yḗn
LEF	-sā?	sā?	lā?
LEK	ḗ-fḗtḗ ḗ-fḗ?	ḗ-fḗtḗ ḗfḗ?	ḗ-lātḗ lḗ
	(622) refuse	(623) hide	
	refuser	cache	
CB		(396) *-cḗḗk	(394) *-cḗḗm 'bec. hidden'
M		PEG: *dḗm	
PM	*-bāj	*-sḗḗ *sḗb *sḗm...	*-kḗŋ-V
MBM			
MBN	-jĩnḗ		-kḗŋḗ
MYE	-kājĩ		-swḗmmĩ
MBE	-bāj		-kḗŋ
ELU	-bāj?	-sḗba	
NNE	-bāj		-kḗn
AKO	-bāj		-sḗɔm -kḗn
MHE	-bāj	-sḗɔ?	
MWK	-bāj	-sḗɔ	
MKA	-bāj'ŋ	sḗ'ɔ	
BLN	-bāj	-sḗɔ	
BBO	-bāj	-sḗɔb'	
LEF	-bāj	sḗm'ɔn	
LEK	ḗ-dḗnḗ dḗnḗ	ḗ-sḗŋḗnḗ sḗŋ'ɔ	

	(624) help		(625) fall
	aidar		tomber
CB			(863) *-gð-
M	PEG: *gɪm *kɔɕɪ		*-gð- PEG: *gða
PM	*-fɛb *-wɔŋ-gVn		*-kwā
MBM			
MRN	-kɔpə		-kwāə (kw/kp)
MYE	-kwɔpɪ		-hɪŋ
MBE	-həpən		-kwɛ
ELU	-hɛé		-kwā
NNE	-hɛb -hɛbɛ		-kwɛ
AKO	-wɔŋɔɕn		-kwɛ
MHE	-wɔŋɔɕan		-kwɛ
MWK	-wɔŋɔɕɪn		-kwā
MKA	-jɔŋɔɕwān		-kwā
BLN	ɛ?-jɔŋɔɕwān		-kwā
RBO	-wɔŋɔɕan		-kwā
LEF	wɔŋɔɕɪn		kɪn
LEK	ŋ-kɪtɛ kɪtɛ		m-fɪɛntɛ
	(626) stand up		(627) think
	se mettre debout, se lever		penser
CB	(2006) *-yém- (1692+) *-tɛdam- 'stand'		(772) *-gān-
M	*-tɪm 'stand'		
PM	*-tyém *-tɛɛb		*-kān-tVn ? *-dùti ? *-lɛŋ-tɛn
MBM			
MRN	-tyɛnə		-mətə
MYE	-tyɛmmɪ		-kántɪ
MBE	-tyɛmmɛn ə'mwɛn		-lɛŋkɛn
ELU	-tɛba		-kántə
NNE	-tyém		-kántan -dɛl
AKO	-tyéem		-wémɛn
MHE	-tyémɪ		ŋ-lɛŋtɛn
MWK	-tɛɛmɪn ɛ mwā		-dùti
MKA	tɛɛbɛ mwā		-dùtu -lɛŋtɛn
BLN	-tɛɛbɛ əmwā		-fùti
RBO	-tɛɛb ɛ'mwā		-yɛŋtɛn
LEF	tyə 'mɪn (ə/c)		kānə?
LEK	ŋ-tɛnɛ tɛnɛ		m-mɔtɛ mɔtɛ

	(628) know	(629) forget	(630) work
	savoir, connaître	oublier	travailler
CB	(2001) *-yíjeb	(939) *-jáéb-	(247) *-cád-
M	PEG: *jí		PEG: *fák
PM	*-bwéé ?	*-jáb-tEn ?	*-bòl (*n.)
MBM			
MBN	-bíì	-bótè	-bóle ñ-són
MYE	-bífí	-bwótí	-bwón ñ-són
MRE	-bíf	-jápɛn	-bèl ñ-són
ELU	-bífí	-jápɛ	-bè ñ-són
NNE	-bífí	-jâtan	-Bèl ñ-són
AKO	-bífí	-câten	-bèl ñ-són
MHE	-bwíí	-pòòsɛ	-bèl ñ-són
MWK	-bífí	-pòsin	-bòl
MKA	-bwé	-pòɔsɛn	-bòl
BLN	-bwéé	-pòɔsɛn	-bòl èbòlò
BBO	-byóo	-pòòsɛn	ñ-bòòní ñ-són
LEF	bí	yàsín	-bwé
LEK	ñ-phíné phí	ñ-zâté zâté	ñ-bòté mètùgè
	(631) dig	(632) cut	
	creuser	couper, découper	
CB	(1752) *-tíim-	(1754) *-tíimb-	(304) *-céc-
M	*-tíim- 'dig, plant, fix vertically		(1029) *-kèd-
PM	*-líim *-fùg	into, stand'	PEG: *kÉk (1028) *-kèc-
MBM			*-sél
MBN	-sùò		-sélè
MYE	-sò?		-sén
MBE	-sù?		-sél
ELU	-lém		-sýél
NNE	-lém		-syél
AKO	-líim		-sél -kwèl
MHE	-líim		-sél
MWK	-hùw		-sél
MKA	-hòg		-sél
BLN	-hù?		-sél
BBO	-fùk		-sél
LEF	šǎ?		lén
LEK	ñ-zǎké zǎk		ñ-lǎénté

	(633) tear	(634) build	(635) swim
	dāchirer	construire, fabriquer	nager
CB		(1847/8) *-tōng- 'sew, build'	
M		*-tōng- 'plait, sew, build'	
PM	*-sāl *-fāb	*-lōŋ	*-nyāl
MBM			
MBN	-sālǝ	-lōŋə	-nyǝ
MYE	-sāl	-lōŋ	-lōŋ
MBE	-sǝla (s/s) -yāpi	-lōŋ	-wǝ?
ELU	-sāl	-lōŋ	-nyāl
NNE	-sāl	-lōŋ	-nyal
AKO	-sāl	-lōŋ	-nyāl
MHE	-hāb'	-lōŋ	-wǝ?
MWK	-hāw	-lōŋ	-kǝ nyǝ
MKA	-hāb	-lōŋ	-kǝ dyǝŋgǝ
BLN	-hāb	-lōŋ	dyǝkǝ
BBO	-fāb' (f/h)	-yōŋ	kǝnǝ dyǝkǝ
LEF	nyǝ?	-lōŋ	-lǝ dyǝkǝ
LEK	ŋ-khānǝ khǝ	ŋ-lōŋkǝ lōŋ	ŋ-nyǝŋkǝ nyǝŋ
	(636) sew		(637) weave
	coudre		tisser
CB	(378) *-cǝn-	(1865) *-tǝm-	(1847/8) *-tōng- 'sew, build'
M	*-tǝm- 'sew' PEG: *tǝm 'coudre, tirer sur'	PEG: *bǝk	
PM	*-bǝŋ-V *-jǝm *-lǝm		*-lōŋ *-tǝb-V
MBM			
MBN		-lǝmǝ	-lōŋǝ
MYE	-jǝm	-lǝm- 'réparer'	-lōŋ -tǝm
MRE	-bǝŋ		-lōŋ -tǝ?
ELU	-bǝǝ		-lōŋ
NNE	-bǝǝ		-lōŋ
AKO	-bǝǝ	-lǝm 'patch, sew'	-lōŋ
MHE	-lǝn		-tǝba
MWK	-bǝǝŋ		-lōŋ
MKA	-bǝŋt		-lōŋ -mǝŋ'
BLN	-bǝŋt		-lōŋ
BBO	-yǝndǝ		-tǝba
LEF	jǝm		mǝ?
LEK			ŋ-lōŋkǝ lōŋ

	(638) plait, braid tresser	(639) forge forger	(640) cut down, fell couper, abattre
CB	(1524) *-pənd-	(1861) *-tʊd-	(1703) *-tɛm-
M		*-tʊd-	(1029) *-kɛd- 'cut'
PM	*-pən *-mən	*-lʊ	*-kwɛl
MBM			
MBN	-mənə -kənə	-lʊə	-kwɛlə
MYE	-mən	-dʊn	-kpən
MBE	-pən n-1ʃ (a/e)	-lʊ	-kwɛl
ELU	-pən	-lʊ	-kwɛl
NNE	-pən	-lʊ	-kwɛl
AKO	-pən n-1ʃ	-lʊu	-kwɛl
MHE	-pən	-lʊlə	-kwɛl
MWK		-tʊw	-sɛl
MKA	-pən	-lwə	-kwɛl
BLN	-pən		-kwɛl
BBO	-pən m-yɔ		-kwɛ
LEF		mɔ	lɛn
LEK	n-ləmɛ n-jɛtɛ	n-cwɪnɛ cwi	ŋ-kwɔnɛ kwɔ
	(641) plane off raboter, aplanir	(642) hoe houer	(643) weed sarcler, désherber
CB	(1134) *-kɔmb- 'scrape'		(263) *-cəkɔd-
M	*-kɔmb- (L 'plane..' H 'scratch' 'sweep')		PEk: *-kɔd
PM	*-wɔm	*-sɔg	*-tɛm *-fub
MBM			
MBN	-gɔmə -cɔə	-sɔə	-tə'mə -kwɛlə
MYE	-kpəə	-kpɔŋ	-gɔb
MBE	-wɔm	-sɔ?	-hɔ?
ELU	-wɔm	-sɔk	-hɔbə
NNE	-wɔm	-sɔg'	-hɔbə
AKO	-wɔm	-sɔb	-wɔbe
MHE	-wɔm		-tɛm
MWK	-wɔm		-kɔm -huu
MKA	-wɔm	-hɔ	-bəlɛ
BLN	-wɔm		-tɛm
BBO	-wɔm	-fɔg (f/h)	-fɔb -bayo
LEF	kwəɔ	kwəŋ	tɔm
LEK	ŋ-gɔɔntɛ gɔɔ	n-səkɛ	ŋ-khɪnɛ khɪn



	(644) sow, plant semer, planter	(645) draw water puiser	(646) tap (palm wine) "vigner"
CB	(1217) *-kõn- 'plant'		
M	*-kõn 'plant (seeds)'		
PM	*-wõn	*-bwèl *-dùl	*-lèŋ
MBM			
MBN	-gõnè	-byɛlè	-lèŋɔ
MYE	-wõn	-bwèn -dùn	-lèŋ
MBE	-wèn (ə/ɔ)	-bwèl (ɛ/ə)	-lèŋ
ELU	-hõn	-dèl	-lè
NNE	-yũn	-dèl	-lɔ̃(ŋ)
AKO	-wèn	-bwèl -bwèŋ	-lèŋ
MHE	-wõn	-bwèl	-lèŋ
MWK	-wõn	-bwèl	-lèŋ
MKA	-wõn -lfi	-bwèl	-lèŋ
BLN	-wõn	-bwèl	-lèŋ
BBO	-wõn	-bwèe	-yèŋ
LEF	wõn	pãm	lèŋ
LEK	ŋ-gũntɛ gũ	m-bàgãntɛ bəgã	ñ-lèŋkɛ lèŋ
	(647) fish pêcher	(648) wipe essuyer	(649) wash (pots) laver (vaisselle)
CB	(638) *-dɔb-		
M	*-dɔb- 'angle, catch fish'		
PM	*-kõb *-lõg *-jɔb	*-sɪŋ-V *-pɪn-V	*-wõb-V
MBM			
MBN	-lõè	-cùè	-gwəbè
MYE	-lõè?	-sõè?	-gùè?
MBE	-kõ?(bá)	-səŋ (ə/e)	-wə(ya)
ELU	-kø	-pɛnc	-hø
NNE	-lɔsɔ	-oəna	-yũbə
AKO	-lɔsɔg	-pɪne	-wõbe
MHE	-jɔb	-sɪi	-wõbe
MWK	-kõw ndõn	-sɪiŋ	-wõw
MKA	-jɔb	-sɪŋɛ	-wõbə
BLN	-jɔb'	-sɪŋe	-wõbe
BBO	-jɔb	-sɪŋu	-wõbo
LEF	lõ?	tùtù	wõ?
LEK	ñ-lõkɛ lõk	ñ-sɔtɛ sɔ?	ŋ-gwɪɪnɛ gwɪɪ

	(650) wash, rinse (bottle) laver, rincer	(651) wash, bathe (se) laver, se baigner	
CB	(410) *-còk- (435) *-cùk-	(2107) *-yɔ̃g-	
M	*-còk- PEG: *sòg 'laver'	*-jɔ̃g- *-kokod- '...wash away'	
PM	*-sùg	*-wɔ̃g	
MBM			
MBN	-sàkə	-gɔ̃ɔ̃	
MYE	-sòŋkɪ	-wɔ̃?	
MBE	-su (s/ɛ)	-wɔ̃?	
ELU	-sòg ɛtə	-wɔ̃?	
NNE	-sòg'	-wɔ̃g'	
AKO	-sòg ɛtə	-wɔ̃g'	
MHE	-sù?	-wɔ̃?	
MWK	-sə̀ali	-wɔ̃?	
MKA	-sə̀(?)ali	-wɔ̃?	
BLN	-sù?	-wɔ̃?	
BBO	-sùg	-wɔ̃g	
LEF	sàlɪ?	wɔ̃?	
LEK	ñ-sòkɛ sòk	ŋ-gwɪɪnɛ gwɪɪ	
	(652) comb peigner	(653) teach enseigner	(654) learn apprendre
CB	(259) *-cák- (271) *-càn-		(1994) *-yég-
M			*-jég-
PM	*-sàj-V	*-nyég-Ed *-jók-V	*-nyég-Ed *-jók-V
MBM			
MBN	-kúmə	-gɔ̃kə	-gɔ̃kə
MYE	-pɔ̃?	-yɔ̃kɪ	-yɔ̃ɔ̃?
MBE	-bɪsi	-jókɪ -lɛ	-jókɪ
ELU	-sɛɛ	-nyégɛd	-nyégɛd'
NNE	-sy ɛgɛ	-ywɛd	-ywɛ
AKO	-sɛde	-yégɛd	-yége
MHE	-sɛse	-nyɪe	-jókə
MWK	-sɛy	-jókɪ	-yɛe -jókɪ
MKA	-sây?	-nyɪ'ɪd'	-nyɪ'ɪd'
BLN	-sây (y/s)	-nyɛ'e	-nyɛ'e
BBO	-sàso	-yɛb	-nyégu
LEF	-sàsɪ	lɪfɪ	wɔ̃kɔ̃
LEK	ñ-págánɛ págá	ŋ-gɪkɛ gɪkɛ	ŋ-gɪkɛ gɪk

	(655) cry, weep *	(656) fear	(657) frighten
	pleurer	craindre	effrayer
CB	(561) *-dēd- 'cry, wail'		(348) *-cīc-
M	PEG: *dān	PEG: *bōp	
PM	*-jīī	*-bāŋ	*-sīj
MBM			
MBN	-zyà?	-bāŋə	-sīyə
MYE	-jīī	ā-tī mbó?	ā-wōŋkī mbó?
MBE	-bān	-bāŋ	-sī (s/s)
ELU	-jī	-bā	sək
NNE	-jīī	-bāŋ	-bāād
AKO	-cīī	-bāŋ	-sīd' -bāād (<bāŋ-ed)
MHE	-jīī	-bāŋ	-sīy?
MWK	-jīī	-wó? əsəl	-sī? -wōosi ə-səl
MKA	-jīī	-bāŋ	-sīy?
BLN	-jīī	-wó? əsəl	-sīy?
BBO	-jīī	-sē	-sīd'
LEF	jīī	bāŋ	bā 'mbó?
LEK	n-sīnē sīī	m-bāŋkē bāŋ	m-bāŋkē bāŋkē

	(658) laugh	(659) gather, collect
	rire	recueillir, ramasser
CB	(948) *-jōd-	(1227) *-kōŋg- 'gather up, assemble'
M	PEG: *g(w)ē	
PM	*-wōō	*-lād *-pād *-jēm
MBM		
MBN	-gūə	-jēmə
MYE	āsōōlā?	-lātī ā-kūŋkī
MBE	-wə	-jēm
ELU	-wə	-lād
NNE	-wōo	-lād'
AKO	-wōo	-lād' -pād'
MHE	-wōo	
MWK	-wōo	
MKA	-wōo	-pād'
BLN	-wōo	-pād'
BBO	-wōo	-pād' -jēm
LEF	wəlē?	lā?
LEK	ij-khwōnē khwōō	

	(660) possess, have posséder, avoir	(661) squeeze out, press presser, exprimer	(662) suck sucrer
CB (2129) *yðŋg- 'add to'	(1313) *-mĩni-	*-mĩny-	(1908) *-yám-
M	*-min-		(1331) *-mõngõnĩ-
PM *-wõŋ	*-mĩny	*-bǎn	*-mwǎŋ
MBM			*-sɔ̃j
MBN -gɔ̃ŋə	-bǎndə		-mwǎŋə
MYE -wɔ̃ŋ	-mĩŋ		-myɔ̃ŋ
MBE -wɔ̃ŋ	-mĩ		-mwǎŋ
ELU -wɔ̃?		-tɔ̃l	-mwǎ
NNE -wɔ̃ŋ		-tɔ̃l	mǎŋ
AKO -wɔ̃ŋ	-mĩn ʂtə		-mwǎŋ
MHE -wɔ̃ŋ	-mĩi		-sɔ̃y?
MWK -wɔ̃ŋ	-mĩi		-sɔ̃y?
MKA -tĩnə	-mĩi		-mwǎŋ -mwǎ
BLN -wɔ̃ŋ	-bǎn		-mwǎ
BBO -wɔ̃ŋ	-bǎn		-sɔ̃d'
LEF wɔ̃ŋ		nyĩ?	mwǎŋ
LEK ñ-gɔ̃ŋkɛ gɔ̃ŋ	ñ-gǎántɛ gǎ		ñ-myǎŋkɛ myǎŋ
	(663) take (away) prendre, emmener	(664) remove * enlever	(665) undress se déshabiller.
CB (1774) *-tɔ̃ɔ̃d-	(1588) *-pòd- 'strip off'		
M			
PM *-tɔ̃d	*-kòb	*-fúđ	*-fúđ (+ n.)
MBM			
MBN -tɔ̃lɛ		-fɔ̃lɛ	-bɔ̃kɛ
MYE	-hú?	-hú?	-hú
MBE -tɔ̃	-kɔ̃	-hú? (?/1)	-hú ñ-kɔ̃
ELU	-hɔ̃d'	-hɔ̃d'	-sɔ̃d'
NNE	-kow	-wɔ̃d	-wɔ̃d'
AKO	-kòbɛn		-húđ' bwēm ʂ'yǎl
MHE -tɔ̃d' (d'/1)		-húđ'	-húl mbɔ̃tɛ
MWK		-húl	-húl
MKA -tɔ̃d' (d'/1?)		-húđ'	-húđ mbɔ̃tɛ
BLN	-kòb	-húđ'	-húđ
BBO -tɔ̃d'		-fúđ	-fúđ mbɔ̃tɛ
LEF	nõŋ	fú?	fú? mǎbǎ?
LEK ñ-pɔ̃gɔ̃mɛ pɔ̃gɔ̃		ñ-fɛtɛ fɛ	ñ-fɛtɛ cŵĩ

	(666) give donner	(667) lick lêcher	(668) sell vendre
CB	(1404) *-pã-	PEG: *dãd	(414) *-cõmb- 'buy' PEG: *fân
M	*-pã- PEG: f?ã	*-meang- '(lick, taste)'	*-com- 'purchase' *-cõmb- 'buy'
PM	*-bẽ	*-nyãŋ-V	*-sõm
MBM			
MBN	-bõõ	-nyãŋə	-sõmə
MYE	-bə	-nyõõ	-swõm
MBE	-bẽ (c/ə)	-yãŋ	-sãm
ELU	-bə	-nyãã	-sõ
NNE	-bwə (w/y)	-nyãa	-sõm
AKO	-bẽ	-nyãa	-sõm
MHE	-bẽ	-nyãa	-sõm
MWK	-bẽ	-yãŋ	-sõm
MKA	-bẽ	-nyãŋɛ	-sõm
BLN	-bẽ	-nyãŋe	-sõm
BBO	-bẽ	-nyĩnid'	-sõm
LEF	bə?	nyãŋgũ nyãũ	sõm
LEK	ñ-bàkɛ bāk ñ-tɛɛnɛ	ñ-nyãŋãnɛ nyãŋã	ñ-sũũntɛ sũũ

	(669) buy acheter	(670) pay payer	(671) count * compter	(672) steal voler
CB	(490) *-dãnd-		(1673) *-tãŋg-	(2020) *-yĩb-
M	PEG: *jõn		PEG: *tãŋ	*-jĩb- PEG: *jĩa
PM	*-jãn	*-sãb-V	*-lãŋ *-tõŋ	*-jĩb
MBM				
MBN	-jãn	-jãnə	-lãŋə	-zəbà
MYE	-jãn	-sãpĩ	-lõŋ	-jĩ?
MBE	-jãn	-sãã	-tõŋ	-jĩ?
ELU	-jã	-sãba	-tõ	-jõb'
NNE	-jãn	-sãbɛ	-tõo	-jɛb
AKO	-cãn	-sãbe	-tõŋ	-cĩb'
MHE	-jãn	-sãbe	-tõŋ	-jĩb'
MWK	-jãn	-sãaw	-tõŋ	-jĩw
MKA	-jãn	-sãba	-tõŋ	-jĩb
BLN	-jãn	-sãbe	-tõŋ	-jĩb'
BBO	-jãn	-sãbu	-yãŋ	-jĩb
LEF	yãn	sãõ	lãŋ	jĩ?
LEK	ñ-zããntɛ zãã	ñ-sókɛ sók	ñ-lãŋkɛ lãŋ	ñ-žĩtɛ žĩ?

	(673) choose	(674) sit down	(675) give birth
	choisir	s'asseoir	enfanter, accoucher
CB	(ps 398) *-pɔ́ɔn-	(ps 174) *-dʲɔ́d-	(136) *-bʲɔ́d- 'bear child'
M		PEG: *cɔ́i	PEG: *bʲi
PM	*-pɔ́j *-bɔ́n	*-dyà (+*á'sé)	*-jɔ́á
MBM			
MBN	-bɔ́ndə	-dyɛ	-gʲɔ́ə
MYE	-pɔ́wɔ́n	-dyɛ 'sé -dyə	-jyə
MBE	-bɔ́n	-dyɛ 'sé (ɛ/a)	-jɛ
ELU	-pɔ́wɛ	-dyɛ 'sé	-jyə
NNE	-pɔ́wɛg'	-dyɛ 'sé	-jyáa
AKO	-pɔ́wɛd'	-dyɛɛ á'sé	-cyáa
MHE	-pɔ́yɔ́	-dyà	-jyáa
MWK	-bɔ́n	-dyà á'sé	-jɔ́a
MKA	-pɔ́yɔ́	-dyàá 'sé	-jɔ́á
BLN	-pɔ́yɔ́	-dyáá sé	-jɔ́á
BBO	-pɔ́d'	-dyáa	-jɔ́a
LEF	pɔ́wɛ?	šúmən	yɛ
LEK		ñ-šàànɛ'sé cəšɪ	ñ-šánɛ šá
	(676) grow	(677) live	(678) throw *
	pousser, grandir	vivre	jeter, lancer
CB			PEG: *māk *gwāk
M			*-tum- 'throw, shoot'
PM	*-kɔ́g		*-pʲim *-lʲim *-bwém
MBM			
MBN	-kʲɔ́ə	-dyɛ mɛŋ	-pʲimə -lʲimə
MYE	-kɔ́?	-dyə	-pʲim -yðɔ́lɪ
MBE	-kɔ́?	adyɛ á'mwən longɛ	-pém -lém (a/o)
ELU	-kɔ́?	-dyɛ məŋ	-pəm -lóm
NNE	-kwɔ́?	-dɛ	-pəm
AKO	-kwɔ́g'		-pʲim -lóm bwém
MHE	-kɔ́?		-pʲim -lím
MWK	-kɔ́?	ábá ádyá	-pʲim -bwém
MKA	-kɔ́g'		-pʲim -lím -bwém'
BLN	-lɛ́l		-pʲim -lím
BBO	-kɔ́k'		-yúm -bwém -pʲɪd' -jéb'
LEF	kɔ́?	bá lɔ́ŋgɛ	šúá?
LEK	ŋ-kɔ́kɛ kɔ́k	ñ-cənɛ cə	ŋ-gəŋənɛ gəŋá

	(679) follow *	(680) dance	(681) jump
	suivre	danser	sauter
CB		(147) *-bɪn	
M	PEG: *bɪ	PEG: *bɪn *nɔŋ	
PM	*-nɔŋ *-fɪd *-nān	*-sǎŋ	*-fɛb *nyéd
MBM			
MBN	-nɔŋə	-sǎə?	-fɛbà? -nyɛlɛ
MYE	-hɪ?	-sɔ?	-hə?
MBE	-nɔŋ	sǎ?	-yɛl ǎ'mwɛn
ELU	-hǎd	-sǎ?	-hɛbǎ'mǎŋ
NNE	-hǎd' -nān	-sǎn	-hɛb'
AKO	-hɪd'	-sǎŋ'	-hɛb'
MHE	-nɔŋ	-sǎ?	-nyɛ?
MWK	-nɔŋ	-sǎ?	-yɛl
MKA	-nɔŋ	-sǎŋ'	-nyɪd'
BLN	-nɔŋ	-sǎ?	-nyɛd'
BBO	-bɪubɛn	-sǎŋ'	-nyɛd'
LEF	nān	sǎ?	pyám
LEK	n̄-sǎfɪtɛ sǎfɪ	n̄-sǎkɛ sǎk	n̄-nyɛtɛ nyɛ?
	(682) fly	(683) wait	(684) stay
	voler	attendre	rester
CB		(580) *-dɛnd-	(ps 174) *-dɛfɛd- 'sit, dwell'
M			
PM	*-pɔm-V	*-sɛny	*-dyǎ
MBM			
MBN	-lǎǎlǎ	-sɪŋə	-bɛlǎ
MYE	-pɔvɪ -pɔmpɪ	-sɔŋ	-dyə
MBE	-pɔm (o/u)	-sɪ	
ELU	-pɔmə	-sɔŋ	-dyɛ
NNE	-pɔmə	-sɪŋ	-dɪf
AKO	-pɔme	-sɪn	-dyɛɛ
MHE	-pɔmɛ	-sɪɛ	-dyǎ
MWK	-pɔum	-sɛə	-lɪ?
MKA	-pɔmə	-sɛɛ	-dyǎ
BLN	-pɔme	-sɛɛ	-dyǎ
RBO	-pɔmbu	-sɛɛ	-dyǎa
LEF	-fɔmɪ	sɛŋ	dyɛ
LEK	m̄-pɔnɛ pɔnɛ	n̄-sɛɛntɛ sɛɛ	n̄-cǎnɛ cǎ

	(685) finish		(686) begin		(687) marry
	finir		commencer		se marier
CB	(1281) *-mäd-		(13) *-bäd-		(11) *-bäd-
M	*-mäd- (d/n) PEG: *mĩtĩ (tr.) *mē (itr.)		PEG: *jē		PEG: *dām
PM	*-mäd		*-bötE(d)		*-wŋ
MBM					
MBN	-mälə		-šəbə		-gŋŋə
MYE	-mà?		-bò?		-wŋ
MBE	-mà?		-bòti (o/u) -bate		-wŋ
ELU	-mà?		-bòtɛd		-wō
NNE	-mäd'		-bōte		-wōŋ
AKO	-mäd'		-bòtɛd -bāde		-wōŋ
MHE	-mäd		-bòtə		-wōŋ mwəā?
MWK	-mäl		-bòti		-wŋ mwəā
MKA	-mäd		-bòte		-wōŋ
BLN	-mäd		-bòote		-wŋŋ
BBO	-mà		-bòoti		-wŋ mwaad'
LEF	-mā?		-boote?		wə
LEK	m-myānē myā		ñ-šātē šā		m-būtē dšk bð
	(688) fill		(689) add		
	remplir		ajouter		
CB					
M	PEG: *dV̄CV 'remplir (un trou)'		PEG: *kòk(C)ə 'augmenter'		
PM	*-lóc-Ed ? *lón-Ed		*-bäd *-kòk-V		
MBM					
MBN	-lškə		-kòkə		
MYE	-lštĩ		-bāā?		
MBE	-lštĩ		-hə (ə/o)		
ELU	-lšřtd'		-bād'		
NNE	-lōned		-bād'		
AKO	-lōned'		-bād'		
MHE	-lōsi?		-bād'		
MWK	-lòti		-bāl		
MKA	-lòtid		-bād'		
BLN	-lòtid'		-bād'		
BBO	-yòsid		-bād'		
LEF	lūān		bān		
LEK	lūntē		kòkē		



	(690) show		(691) dry up *	
	montrer		sécher	
CB			(972) *-kǎc-	
M			PEG: (*jóm '(se) sécher')	
PM	*-lúm-Ed *-lěb-Ed		*-kěj *-kěny *-lěn	
MBM				
MBN	-lěmbə		-kíŋə	
MYE	-lumpɪ		-kíŋ	
MBE		-lúuli	-kyěsi	
ELU	lěbɛ? -lěe		-kěŋad'	
NNE	-lúmad'			-lěn
AKO	-lúmed'			-lěn
MHE	-lúmi			-lěn
MWK	-lěpi		-kěəsɪ	
MKA	-lěbid'		-kěey?	
BLN	-lúmid'		-kěy?	
RBO	-yúmíid		-kěed'	
LEF		lúfú	kíŋjě	
LEK		díntɛ	ŋ-gíúntɛ	
	(692) dry in the sun		(693) rot	(694) warm oneself
	sécher au soleil		pourrir	se chauffer
CB	(1924) *-yǎnək		(153) *-bǝd-	(2136) *-yǝt-
M	*-jǎnek		*-bǝd- PEG: *bɛ	
PM	*-nyǎn-V *-kěny *-kěj		*-bǝɔ	*-kěd-V *-wǎl
MBM				
MBN	-kěŋgə		-nyǝŋə	-kǝlɛ
MYE	-kíŋkɪ		-bwǝɔ	-bǎpɪ
MBE	-yǎn		-bwə	-kǝl
ELU	-nyǎnɛ		-bwə	-kířɛ
NNE	-kíŋ		-bǝɔ	-wǎl
AKO	-nyǎne -kíŋ		-bǝɔ	-wǎl
MHE	-nyǎnɛ		-bǝɔ	-wǎl
MWK	-yǎan		-bǝɔ	-kěel
MKA		-bǎm	-bǝɔ	-wǎlɛ
BLN		-kěy?	-bǝɔ	-wǎl
RBO		-kěed'	-bǝɔ	-wǎa
LEF		kíŋjě	yǝ?	. wǝ? mwɪ
LEK		ŋ-gíénɛ gíɛ	ǎ-bǝgǎnɛ	ŋ-khǝnɛ khɔ

	(695) surpass		(696) tie, bind
	surpasser, excóder		lier
CB	(1832) *-tǝmb- 'swell'	(785) *-gǝng-	(1685) *-tǝt-
M	PEG: *c(e)ǝ 'dǝpasser'	*-tǝng-	
PM	*-tǝm	*-kǝŋ	*-lǝd
MBM			
MBN	-cwǝnǝ	-kǝŋǝ	-gǝŋǝ
MYE	-twǝm		-wǝn
MBE	-tǝm		-tǝŋ
ELU	-tǝ (ǝ/ǝ)	-kǝ	
NNE	-tǝm	-kǝŋ	
AKO	-tǝm -dǝg	-kǝŋ	-tǝd
MHE	-tǝm(ǝǝn)	-kǝŋ	
MWK	-tǝmsi	-kǝŋ	-lǝl
MKA	-tǝm	-kǝŋ	lǝd
BLN	-tǝmpǝn		-lǝd
BBO	-tǝm	-kǝŋ	
LEF	tǝm		tǝ?
LEK	ǝ-gǝkǝ	ǝ-jǝtǝ	jǝ
	(697) stop up, cork		(698) sweep
	boucher		balayer
CB	(602) *-dǝb- 'stop up'	(1540) *-pǝǝd- (-pǝǝd-)	
M	*-dǝb-	*-pǝ(n)g-	PEG: *jǝt
PM	*-jǝǝ *-kǝj	*-fyǝǝ	
MBM			
MBN	-zǝǝ		-kǝlǝ
MYE	-jǝ?	-swǝ(tǝ)	
MBE	-jǝ	-sǝǝ(tǝ)	
ELU	-jǝ	-hwǝ	
NNE	-jǝu	-hwǝ	
AKO	-cǝu	-hǝǝǝ	
MHE	-kwǝd' -dǝb	-yǝǝǝ	
MWK	-jǝu	-sǝǝ	
MKA	-juu -kǝl	-yǝǝ	
BLN	-kǝy?	-yǝǝǝ	
BBO	-kǝǝ	-yǝǝ	
LEF	kǝ?	fyǝlǝ?	
LEK	ǝ-sǝwǝnǝ sǝwǝ	ǝ-sǝwǝnǝ sǝwǝ	

	(699) blow (of wind) *		(700) blow (of mouth)
	souffler		souffler
CB	(1489) *-pɛ̀ɛp- 'blow, fan'		(1613) *-pɔ̀d- PEG: *fɔ̀dɛ́ *fɛ̀b
M	PEG: *cɪk 'agiter (vent)'		*-pɛ̀mb- 'blow up fire' *-pɛ̀ɛp-
PM	*-tɔ̀m *-fɛ̀b-V *-fɔ̀m-V		*-fɛ̀b-V *-fɔ̀m-V *-pɛ̀b
MBM			
MBN		-fɛ̀bɔ̀	-fɛ̀bɔ̀
MYE	ɛ̀-pɔ̀? ɛ̀-hɛ̀bɔ̀?		-hɛ̀?
MBE	ɛ̀-pɔ̀? ɛ̀-tɔ̀mɔ̀?		-pɛ̀
ELU	ɛ̀-pɔ̀b ɛ̀-tɔ̀mɔ̀		-jɔ̀d'
NNE	ɛ̀-pɔ̀b ɛ̀-hɛ̀pɛ̀		-hɛ̀bɛ̀
AKO	pɛ̀mɛ̀ ɛ̀-tɔ̀mɛ̀?		-hɛ̀be
MHE		-hɔ̀mɛ̀	-hɔ̀mɛ̀
MWK		-hɛ̀ɛw	-pɛ̀w
MKA		-hɔ̀mɔ̀	-hɔ̀mɔ̀
BLN	ɛ̀-pɔ̀b'		-hɔ̀m
BBO	ɛ̀-pɔ̀b ɛ̀-n'tɔ̀m		-fɔ̀m
LEF	-tɔ̀m		fɔ̀mɪ
LEK	ɲ-gɛ̀gɛ̀nɛ̀		m-fɔ̀tɛ̀ fɔ̀?
	(701) rain	(702) shine *	(703) divide
	pleuvoir	briller, luire	diviser
CB	(650) *-dɔ̀k-	(1479) *-pɛ̀n-/*-pɛ̀ni- 'flash (as lightning)'	(754/5) *-gɛ̀b-
M	PEG: *dɔ̀	-pɛ̀ny- 'shine'	*-gɛ̀b- PEG: *gɛ̀b
PM	*-jɔ̀	*-pɛ̀ny	*-kɛ̀b
MBM			
MBN	-yɔ̀ɔ̀	-mɛ̀ɪɔ̀	-kɛ̀bɔ̀
MYE	-jwɛ̀	-tɔ̀ɲkɪ	-kɛ̀bɪ
MBE	-jɛ̀	-bɪ	-kɛ̀
ELU	-jɔ̀ɔ̀	-pɛ̀	-kɛ̀?
NNE	-jwɛ̀	-kɪɲ	-kɛ̀b'
AKO	-cɛ̀	-pɛ̀n	-kɛ̀b
MHE	-jɛ̀	-pɛ̀a	-kɛ̀b
MWK	-jɔ̀		-kɛ̀w
MKA	-jɔ̀	-pɛ̀nyɛ̀	-kɛ̀b
BLN	-jɔ̀	-tɛ̀ɲ	-kɛ̀b'
BBO	-jɔ̀		-kɛ̀b'
LEF		wɛ̀ɲ	kɛ̀?
LEK	ɲ-sɔ̀gɔ̀nɛ̀	ɲ-tɛ̀tɛ̀	ɲ-kɛ̀tɛ̀ kɛ̀?

	(704) split	(705) break	(706) bend, fold
	fendre	caŕser	plier
CB		(182) *-böd-	
M		(227) *-büg- 'break, snap'	
PM	*-säl	*-böö	*-nig
MBM			
MBN	-sälê	-büê	-nêê
MYE	-sântî	-sân	-nê? -kîipî
MBE	-säl	-bø	-nû
ELU	-säl	-bê?	-nêk
NNE	-säl	-böo	-nêg'
AKO	-láb	-böo -böög'	-nêg
MHE	-säl	-büü	-nî?
MWK	-säl	-böo	-nî?
MKA	-säl	-bö'ó	-nig'
BLN	-säl	-böo	-kêd'
BBO	-sâa	-böo	-nik'
LEF	šâ?	bwê?	nî?
LEK	ñ-kháné khá	ñ-pháné phé	ñ-ñšké ñšk
	(707) abstain	(708) look at	(709) push
	s'abstenir	regarder	pousser
CB	(822) *-gîd-		(1758) *-tînd-
M	*-gîd-		
PM	*-kîî *kîñ *-bâñ	*-nññ	*-tîñ(-Ed/-V)
MBM			
MBN		-bâñ	-tîñê
MYE	-kîñ		-tîî
MBE		-lîñ	-têñ
ELU	-kîî -nêñ	-nñ	-têñc
NNE	-kîî	-nññ	-têñê?
AKO	-kîî -kîñ	-nññ	-tîñêd
MHE	-kîñ	-nññ	
MWK		-nññ	
MKA	-kîî	-bâñ	-tîñé
BLN	-kîî	-nññ	-tîñ
BBO	-kînda		-tîñ
LEF		bâñ tâtê?	mâ?
LEK	ñ-khîñé khîñ	ñ-lîñnté lîñ	ñ-nyñté nyñ

## FOOTNOTES TO APPENDIX ONE

The following explanatory notes to appendix 1 are not meant to be exhaustive but to draw attention to certain facts, to give some explanations and clarify points which would otherwise remain obscure to a reader unfamiliar with these languages.

The number of the individual footnotes refers to the corresponding number of the item in appendix 1.

- [3] C2 is t in PB but n in PM. The n may be due to analogical change with (A5) 'five' which has a nasal in the same position.
- [4] The final n in PM may be due to analogy with numeral 'five' which has n as C2.
- [7] The complex tonal structure of this item suggests that it probably goes back to a compound form (cf. -sa/-saa 'three' in Ekoid).
- [11] The numeral 'twenty' appears to be an associative NP (AssNP) consisting of the plural form of 'ten' plus 'two'.
- [12] \*-bókÈl may reflect a compound consisting of \*bōgò plus \*-kòl. The item \*-kòl is probably related to \*-kòd 'rope, string', cf. (A341) and (A342). BCCW points to a possible meaning "string (of cowries?)".
- [17] The long V in MWK here and elsewhere frequently reflects the following metathesis rule CVC-V → CVVC where the second V completely assimilates to the first V.  
The vowel "suffix" is clearly related to class 1a and may be an old derivational suffix (cf. also Hedinger (1980:5)).
- [22] This root provides an isogloss for PM and is potentially a PM innovation.
- [23] These items appear to be morphologically complex consisting of mwān 'child' plus another morpheme or word.
- [24] Most of the items in (A24) consist of (A23) plus 'woman/female' (cf. (A105/6)).
- [26] Cf. (A109) 'child'.
- [27] Consists of 'child' plus 'woman/female' (cf. (A105/6)).
- [28] The items in (A28) consist of 'father' plus "big", 'important' (cf. (A16) to (A18) and (A522)).
- [29] The items in (A29) consist of 'mother' plus "big", 'important' (cf. (A19) to (A21) and (A522)).
- [31] Cf. (A105/6). This item is a clear case of a

reanalysed prefix plus stem becoming the stem to which the class prefix is added (cf. MKA b-ǎǎd and NNE bē-bǎǎ?/MYE ð-bǎǎ?).

[32] For \*-gðb, cf. (A33) 'skin'. Some languages have an AssNP consisting of 'body' plus 'skin', e.g. MYE, BLN.

[33] The two PM roots must go back to one original form, with the earlier \*g having split into PM \*g and \*k (cf. chart 5.12).

[34] Cf. (A205) 'animal' and (A275) 'meat'.

[41] b-ðŋ(gɔ̃) appears to have been reanalysed as the stem in MBE and MWK.

[43] Without external evidence, it is not possible to choose between \*nyðŋ and \*-ðŋ.

As to class membership, the above root belongs to either class 9 or class 10 or to both. Not having tested it for co-occurrence with class 9 or 10 concord, we cannot be sure whether it is a mass noun in gender 9 or 10 or a count noun belonging to gender 9/10.

[45] The presence of final b is limited to the Western cluster and its origin is obscure.

[47] The presence of final i in LEF and LEK and ii in MBM makes it possible that the PM vowel was \*oi (cf. also PEG).

[51] For \*-tðg, cf. (A267) 'feather'.

[52] The presence of a high tone on the prefix is unusual. One possible explanation appears to be that the H L pattern shifted leftwards for whatever reason.

[54] It is not clear whether MBM, MYE, MBE and MWK are derived from PM \*-bɛb̃. The compound forms are AssNP's and consist of 'lip' plus 'mouth' (cf. (A53)). The items in MHE, MKA, etc., appear to be V-initial stems with class 7/8 prefixes and further prefixed by the class 7 prefix for C-initial stems.

[55] The PM - PB correspondence \*ɛ - \*e has as yet no explanation.

[59] It is not clear whether the two PM reconstructions are cognate (cf. also (A45) 'beard').

[60] The items in NNE and AKO appear to have shifted from class 9 to class 3, and in MYE and ELU from class 5 to class 3. For \*-bðl, cf. (A61).

[61] The compound forms are AssNP's consisting of 'back' plus 'neck' (cf. (A72)).

[65] Cf. (A68).

[66] Cf. (A95). The compound forms are AssNP's consisting of 'elbow/knee' plus 'arm'.

[69] Cf. (A99). The compound forms are AssNP's consisting of 'palm/sole' plus 'hand'. In MHE, MKA and BLN, the root has changed noun gender to gender 14/6.

[70] NNE, AKO and MHE have reanalysed the noun in gender 3/4 as a stem in gender 14/6 (cf. also LEF).

[72] The root in AKO probably underwent the following development from PM: \*-buj- > buyj > buyd > bwid > bid.

[74] MHE, MKA and BLN roots appear to have changed to gender 14/6.

[76] The presence of two f's in the first PM item suggests an earlier reduplication.

The second noun in the AssNP's is (A78) 'heart'.

[77] The BBO entry is either not cognate with \*-pũb<sup>˘</sup> (cf. (A139)), or is an example of the type of lexical relationship highlighted in 5.4.

[80] PM \*-ẽẽ may be cognate with PB \*-dã.

[82] For \*-jũũ, cf. (A93) 'hip'.

[84] \*-sósó is probably a reduplicated form.

[85] For MWK, etc., cf. (A410) 'hole' and (A86). BBO mbĩndĩ may provide a b - p alternation (cf. 5.4.3).

[90] PM \*-jõg<sup>˘</sup> may be cognate with PSCNC.

[94] Cf. (A97).

[95] NNE, AKO and BBO are apparently partial reduplications of the root.

[98] The compound forms are AssNP's consisting of 'finger/toe' plus 'foot/leg' (cf. (A70)).

[100] This is the only item where an earlier (Pre-PM) form of the prefixes has survived (cf. chart 5.13). The compound form appears to consist of 'person' plus \*nyðŋ, with \*nyðŋ not having been encountered elsewhere.

[101] The presence of ŋ in MBM, MYE, ELU and NNE is without explanation at present. It should be noted that these languages have ŋ as reflex of \*ny. However, the reflex of \*ny in the Eastern cluster is :Ø.

[102] These items appear to be compounds of (A109) 'child' plus (A30/103) 'husband/male'.

[108] The PM - PB correspondence \*ɔ - \*o has no explanation yet.

[110] These items are AssNP's of (A109) 'child' plus (A102) 'man' (cf. note [102]).

[111] These items are AssNP's of (A109) 'child' plus (A105) 'woman'. PM \*-gɔ̀n is cognate with PEG.

[112] These items are AssNP's consisting of \*-jɔ̀n 'old' plus (A100) 'person'. It should be noted that this root is a clear example of gender 3/2, exceptions being MYE and ELU.

[113] kɪŋ is clearly of recent origin and a loan from English 'king' which probably came via Duala or Pidgin English.

[115] Several entries are AssNP's consisting of 'stranger' plus 'person'.

[116] -kǎáɪE is of recent origin and spread inland from the coast via other languages.

[118] The AssNP's in MKA, etc., consist of 'person' plus 'thief'. Note that here \*mòd is pre-posed whereas in earlier AssNP's it was post-posed.

The -a may be the suffix found in gender 1a/2.

[121] For \*-èl, cf. (A160) 'tree'.

[122] PM \*-òb is almost certainly cognate with PB \*-jòbà 5 'sun'.

[122/123] The \*m - \*mb correspondence in PM \*-nyàmé - PB \*-jàmbé is best explained in the following way: \*nỳ-jàmbé 9 > nỳambé 9 > nỳám 9 > nỳám+ɛ 1a. This noun in class 9 first lost C1, then the final V and consequently the mb became m (cf. 3.2.3). The final V in PM is attributed to the vowel associated with class 1a nouns (cf. note [17] above).

[123] There are clearly two distinct concepts represented here: the forefathers versus the departed who are believed to still live.

[124] The \*ɔ - \*o is an exception to the PM - PB vowel correspondences.

[125] In MYE, MBE and ELU, \*i > u, o /o+C\_\_\_. This change appears to be limited to this item.

[127/128] The tone of \*-dìb here is low compared with \*-dìb in (A125) and (A126). It is not clear what the ultimate answer to this tone discrepancy will be. The H/L distinction must be an old one going far behind PM.

[129] There are two AssNP's here: 'river/lake' plus 'big' and 'river/lake' plus 'salt'.

[133/134] No distinction appears to be made between the two concepts 'cloud' and 'fog'.

[136] For \*-gádV̄, cf. (A322) 'gun'. MHE, etc., consist of 'gun' plus 'sky/God' (cf. (A138) and (A122)).

[137] Nearly every entry is a reduplicated form. The rules which gave rise to these forms are not understood.



[140] The two separate PM reconstructions appear to be due to the split of Pre-PB \*g into PM \*g and \*k (cf. note [33] above). In ELU, NNE and AKO and also in MYE the root was reduplicated.

[141] \*-nyãny<sup>7</sup> may possibly go back to a class 9 root and have to be segmented as \*ny<sup>7</sup>-ãny<sup>7</sup>.

[143/144] Moon and month are clearly related.

[145] \*-tèny appears to have given rise to several reduplicated stems.

[148] The stem \*-fíntén appears to be polymorphemic consisting of (A425) 'black' plus a suffix -tén.

[149] Several languages appear to have reduplicated forms including MBM (cf. LEF).

[150] The [kɔsil] entries look suspiciously like loans from Duala.

[151] All the items here appear to be tracable to an original form \*gòl or \*gòd via reduplication and the rule \*g > \*k (cf. note [33]).

[152] NNE and AKO may be reconstructed as \*-ã and could be related to the PB forms \*(j)ákà/\*-yákà.  
For \*-sèb, cf. (A154) 'dry season'.

[157] mbumbu is probably a complete reduplication of m-bu.

[160] \*-éì may have the following derivation: Pre-PB \*-tè > è-té (cl.?) > -èlé (14/6) > -èì<sup>7</sup>.

[163] An alternative reconstruction would be \*-àŋ<sup>7</sup> (cf. CB). On the basis of our data alone it is not possible to make a choice between the two.

[166] For \*-kòb, cf. (A33).

[170] The relationship of b in MBE (and CB) and p elsewhere suggests a similar phenomenon as the one discussed in 5.4.3.

[171] The mbònjì entries appear to be borrowings from Duala.

[174] MBE, etc., appears to be a compound noun consisting of the two PM roots. NNE, etc., are possibly full reduplications of è-sòŋ.

[180] \*-bùbù appears to be a reduplicated form (cf. CB \*-bù and also (A157)).

[184] \*-lòŋ provides a lexical isogloss for the Central group minus ELU (cf. 6.4.3).

[190/191] The AssNP's consist of (A53) 'mouth' plus (A185)

'house'.

[194] \*dũ, if related to mũũ 'fire' (A155), may be segmented as d`-ũ or d`-ũ.

[197] \*dy`-à may be cognate with PB \*-jàdà.

[206] The entries in MBN and LEF have a root initial f. If these are cognate with \*-pāny, then they provide an additional example of the relationships presented in 5.4.2.

[210] The PM - PB correspondence \*o - \*ɔ is perhaps due to the raising of \*ɔ before PM: \*ɔ > \*o /j\_\_Cu.

[211] These items are AssNP's composed of (A56) 'tooth' plus 'elephant'.

[216] The AssNP's are composed of 'elephant' plus 'river/water'.

[219] h̄sè is a loan from English (via Pidgin English?). The AssNP's are composed of (A217) 'cow' plus (A116) "white man".

[220] The different items refer to different species.

[226] It is not clear whether the CB and PM reconstructions are related.

[227] Cf. footnote 13 to chapter 4.

[228] pusi appears to be a loan from English.

[234] Cf. (A242), (A245) and (A248). \*-kāny' appears to refer to a general concept.

[236] The reconstruction of this item raises a similar problem to (A101) 'name': If the final V was \*ny, why did it not become Ø in the Eastern cluster?

[239] The different items apparently refer to different species.

[240] AKO and ELU appear to be compounds based on (A241) 'spider' plus (A236) 'pincer'.

[241] The first part of these compound forms appears to be cognate with (A119) \*-gāŋ.

[244] Most of the entries here are reduplicated forms.

[249] The entries here may all be due to the reduplication of \*pēny.

[255] There is an unexplained discrepancy in the vowel quality between PM and PB (cf. also PM in (A256)).

[256] PM and PB appear to be cognate. However, PM has a L tone where PB is H.

- [258] mu- in MYE and ELU is not a class prefix but rather a lexical morpheme, perhaps with the meaning small(?).
- [260] For the b versus d in ELU and AKO, see note [45].
- [265] The AssNP's consist of 'house' plus 'bird'.
- [268] For the \*p - \*b relationship, see note [170].
- [272] For \*d - \*t in PM, see 5.4.3.
- [274] MWK, etc., appear to consist of (A371) 'thing' plus (A525) 'eat'.
- [278] For \*-dɔŋ, cf. (A282) 'pepper'. súpə is a loan from either English or German.
- [284] The entries appear to be loans but it is not clear from which language.
- [285] The items here represent different species.
- [286] This is a staple crop introduced in the very recent past.
- [287] The Western cluster as well as LEF and LEK have final n, the other languages have ŋ which does not fit in with the normal sound correspondences. This irregularity may indicate that this item is of recent origin.
- [291] Each Manenguba item is composed of (A290) 'bean' plus (A116) "white man".
- [298] If PM \*-íí is cognate with CB \*-bíďǎ, then this item provides the following PM - PB correspondence in C1: ∅ - \*b, (cf. 5.3.1).
- [300] NNE and BBO items with w may belong to the class of items discussed in 4.4.5 which introduced a glide into the stem. However, it should be noted that there is no y in the plural.
- [306] This cognate set suggests that the PM vowel was short and lengthened in MBN, NNE and AKO.
- [309] This is a loan word.
- [313] The Eastern cluster suggests that PM should be \*u whereas the other languages and PB suggest PM \*ɔ. We have no explanation for this irregularity.
- [321] Cf. (A318) 'spear'.
- [325] The compound forms consist of 'small' plus (A324) 'cutlass'.
- [327] \*-jǎg is potentially a PM innovation.
- [335] There is both a tone and vowel discrepancy between PM and PB (cf. 5.7).

- [341] NNE and AKO have apparently lengthened the V.
- [346] Most of the entries are of recent origin.
- [351] ELU, etc., appear to be loans from the English 'key'. However, MNK and the vowel correspondences suggest that these entries are related to (A202) 'iron'.
- [355] ELU, AKO and BLN are cases of resegmentation where the singular prefix is reanalysed as the root initial consonant.
- [359] The initial y suggests that -yòndó is a loan word (from Duala?).
- [361] The items here are possibly loans. The nasal in C2 position creates a similar problem as in (A101) and (A236). \*ny > :Ø in the Eastern cluster may not have applied because the item was borrowed after this rule became inoperative or because the nasal is intervocalic rather than final.
- [365] \*bótÉ may be a loan, and sòtì is clearly a loan from English.
- [369] The n in AKO is possibly due to a suffix.
- [370] The first four items consist of 'remain/stay' plus 'above' (cf. (A684) and (A513)).
- [371] The change o > e in the plural is clearly due to the y-glide of the prefix.
- [373] \*-lǎŋǎ may be cognate with the verb (A591) \*-lǎŋ 'to read'.
- [374] \*-yàlà is clearly a loan word (cf. the initial y).
- [382] The majority of the entries have a high tone reflected in the PM reconstruction. However, CB reconstructions have L.
- [387] \*kwéd probably consists of the verb root 'die' (A572) plus a certain suffix.
- [388] PM \*-ú is almost certainly cognate with PB \*-kú.
- [389] The falling tones in ELU, etc., may be low falling tones which were transcribed as high falling ones.
- [391/392] In these related items reflexes of both PM \*k and \*w are apparently present (cf. 5.4.2).
- [408] -lǎŋǎ is possibly a loan from Duala. Note that \*i > ə / \_\_\_ŋ has not applied.
- [411] \*pòndá could be a loan word from Duala.
- [412] mǎní is clearly a loan from English.

[414] If MBM and MBN are cognate with the rest, then there is another t - l alternation here (cf. 5.4.2).

[417] Cf. note [33] for the \*k - \*g relationship.

[418] Cf. also (A467).

[443] The reflexes of \*-nỳny provide a lexical isogloss for Manenguba.

[450] Cf. (A448).

[457] The presence of \*j in PM makes it possible that PB should be \*d rather than \*n.

[460] There are two related PM reconstructions here, one with a \*d, the other without. Similar pairs are found among the verbs. A possible hypothesis is that an earlier \*d was lost in some morphophonemic environment but retained in others.

[466] MBM, MBN and LEK have an AssNP consisting of (A100) 'person' plus (A412) 'money'.

[478] It is not clear whether PM should be \*-bóg or \*-búg.

[498] The vowels here do not match the regular sound correspondences.

[518] Cf. (A32) 'body'

[519] Cf. (A39) 'face'

[520] Cf. (A72) 'back'

[522] Every entry here consists of (A65/68) 'hand/arm' plus "big".

[524] The change \*d > t in four languages has no parallel elsewhere.

[525] From (A525) to (A709), we frequently included two forms of the verb in LEK. The unprefixated form is the imperative, the form with the nasal prefix the infinitive.

[542] The two distinct forms in MBE, ELJ and NNE are the perfective and the imperfective respectively.

[543] The different PM items express different speaker/hearer relations and may be glossed as 'go back', 'come back' and 'go back' respectively.

[544] The PM suffix here and in later items is a derivational suffix (an "extension" in Bantu terminology).

[546] In MHE, MKA, BLN and BBO, the s is the alternant occurring before a following vowel.

[549] The reconstruction of the vowel in \*-nyén is not certain.

[556] For \*-tód, cf. (A663).

[583] There are two verb-noun expressions here: one, (A581) 'lie down' plus (A38) 'head'; two, (A382) 'dream(v.)' or (A549) 'see' plus 'dream(n.)'.

[588] Another possible segmentation of \*-kút-Vn is \*-kúd-tVn.

[655] Judging from the PB reconstruction, the vowel in PM appears to have been raised from \*e to \*i for unknown reasons.

[664] If PM and PB are cognate, then there is a \*H - \*L discrepancy.

[671] For \*-láj, cf. (A591) 'read'.

[678] The three different PM items refer to different but related concepts: 'throw away', 'throw' and 'shoot'.

[679] Cf. (A565).

[691] Cf. (A463).

[699] MBE, etc., consist of 'wind' plus 'pass by'.

[702] MKA apparently requires the reconstruction of the PM form as \*a while the apparently cognate PB reconstruction has \*ε.

## APPENDIX TWO

ENGLISH INDEX TO APPENDIX ONE

Abbreviations after some words are given to distinguish the difference in English usage between noun (n.), verb (v.) and adjective (adj.). Words in inverted commas (e.g. "bush") indicate non-standard usages. The numbers refer to the comparative word lists in appendix 1.

## A

abscess 396  
 abdomen 79  
 above 513  
 abstain 707  
 add 689  
 adder 233  
 affair 372  
 again 493  
 age-group 124  
 all 432  
 alligator 215  
 ancestor 123  
 and 490  
 anger 408  
 animal 205  
 animal trail 206  
 answer 612  
 ant 245  
 ant: soldier-\_\_\_, driver-\_\_\_ 246  
 antelope 220  
 anus 85  
 arm 65  
 armpit 64  
 arrange 580  
 arrive 545  
 arrow 321  
 ash(es) 157  
 ask 611  
 at 511  
 axe 326

## B

bachelor 104  
 back 72  
 bad 454  
 bag 333  
 bamboo 164  
 banana 294  
 bark 166  
 barren woman 108  
 basket 335  
 basket (on back) 336  
 bat 207  
 bathe 651

be 524  
 bean 290  
 beard 45  
 because 494  
 bed 193  
 bee 255  
 beg 590  
 begin 686  
 behind 520  
 bell 331  
 bend 706  
 big 428  
 bind 696  
 bird 258  
 bird lime 266  
 birth 386  
 birth: give \_\_\_ 675  
 bite 569  
 bitter 445  
 black 425  
 blind 479  
 blood 35  
 blow (of mouth) 700  
 blow (of wind) 699  
 blunt 473  
 body 32  
 boil (n.) 397  
 boil (v.) 599  
 bone 37  
 book 346  
 boundary 200  
 bow (weapon) 320  
 box 332  
 boy 110  
 bracelet 358  
 braid (v.) 638  
 brain 41  
 branch 162  
 break (v.) 705  
 breast 74  
 breath 77  
 breathe 535  
 bridge 368  
 broom 366  
 brother 23  
 bubble up 599

buffalo 213  
 build 634  
 burn (v.) 595  
 burnt off area 204  
 "bush" 159  
 "bush cow" 213  
 "bush dog" 212  
 "bush rat" 222  
 but 492  
 utterfly 244  
 buttocks 84  
 buy 669

## C

calabash 347  
 call 609  
 camwood 169  
 canoe 355  
 cap 363  
 carry (on the back) 576  
 carry (on the head) 577  
 "cashew nut" 304  
 cassava 292  
 cat 228  
 catch 564  
 chair 345  
 chalk 179  
 chameleon 238  
 charcoal 156  
 chase 565  
 chest 73  
 chew 526  
 chief 113  
 child 109  
 chin 59  
 choose 673  
 claw 270  
 clean (adj.) 465  
 climb (v.) 547  
 close (v.) 587  
 cloth 362  
 cloud 133  
 cockroach 249  
 cocoyam 286  
 colocasia 287  
 cold 475  
 collect 659  
 comb (n.) 360  
 comb (v.) 652  
 come 542  
 cook (v.) 598  
 cooking pot 349  
 cooked: to be — 449  
 cork (v.) 697  
 corn 288  
 corpse 390  
 correct (adj.) 424  
 "cotton tree" 310

cough (n.) 393  
 count (v.) 671  
 country 184  
 cover (v.) 588  
 cow 217  
 cowrie 271  
 crab 235  
 cricket 251  
 crocodile 215  
 crooked 469  
 cry (v.) 655  
 cut (v.) 632  
 cut down 640  
 cutlass 324

## D

dance (v.) 680  
 darkness 148  
 daughter 27  
 day 146  
 deaf 477  
 death 387  
 death ceremony 388  
 debt 414  
 deep water 127  
 defecate 530  
 dew 132  
 die 572  
 difficult 442  
 dig 631  
 dirt 198  
 dirty 164  
 divide 703  
 do 540  
 doctor: native — 119  
 dog 227  
 door 190  
 doorway 191  
 dove 261  
 downstream 515  
 draw water 645  
 dream (n.) 382  
 dream (v.) 583  
 drink (v.) 527  
 drop (v.) 555  
 drum (leather top) 329  
 drum: wooden — 330  
 dry (adj.) 463  
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 dry season 154  
 dry up 691  
 dull 473  
 dumb 478  
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## E

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 earring 357



earth 177  
 eat 525  
 egg 269  
 eight 8  
 elbow 66  
 elephant 210  
 elephant grass 174  
 elephant tusk 211  
 end 523  
 ended 462  
 enter 544  
 entrance 191  
 evening 151  
 event 372  
 excrement 86  
 extinguished 461  
 eye 50  
 eyelash 51

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 facial markings 40  
 faeces 86  
 fall (v.) 625  
 family 14  
 fan (v.) 594  
 far 471  
 farm 203  
 fat (n.) 276  
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 father: my — 16  
 father: your — 18  
 fear (n.) 407  
 fear (v.) 656  
 feather 267  
 fell 640  
 female 106  
 fence 189  
 fever 394  
 few 431  
 fight (n.) 380  
 fight (v.) 562  
 fill 688  
 finger 70  
 fingernail 71  
 finish 685  
 finished 462  
 fire 155  
 fireplace 194  
 fireplace stone 195  
 firewood 348  
 fish (n.) 277  
 fish (v.) 647  
 fish hook 317  
 five 5  
 flesh 34  
 float 574  
 flow 573  
 flower 171

fly (n.) 252  
 fly (v.) 682  
 fog 134  
 fold (v.) 706  
 follow 679  
 food 274  
 foot 97  
 for 518  
 forehead 42  
 forest 158  
 forge (v.) 639  
 forget 629  
 four 4  
 fowl 259  
 friend 114  
 frighten 657  
 frog 239  
 front 519  
 froth (v.) 539  
 fruit 170  
 fry 597  
 fufu 289  
 full 455

## G

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 gather firewood 621  
 girl 111  
 give 666  
 give birth 675  
 go 541  
 go down 548  
 go out 546  
 go up 547  
 goat 218  
 God 122  
 good 453  
 grandfather 28  
 grandmother 29  
 grass 173  
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 grate (v.) 602  
 grave 389  
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 head 38  
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 hear 550  
 heart 78  
 hearth 194  
 heavy 422  
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 help 624  
 hen 259  
 here 506  
 hide 623  
 hip 93  
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 hit 563  
 hoe (n.) 328  
 hoe (v.) 642  
 hole 410  
 home 183  
 honey 256  
 honour 403  
 hook 316  
 horn 272  
 horse 219  
 hot 474  
 house 185  
 how? 500  
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 hundred 12  
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 husband 30

## I

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 if 495  
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 inside 508  
 insult (v.) 614  
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## J

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## K

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 kidney 82  
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knee 95  
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## L

ladder 367  
 lake 128  
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 laugh 658  
 laughter 377  
 lay down 579  
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 left (side) 521  
 leg 94  
 leopard 209  
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 lie (n.) 405  
 lie down 581  
 life 370  
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 like (v.) 617  
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## M

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 maize 288  
 male 103  
 man 102  
 many 430  
 market 415  
 marriage 15  
 marry 687  
 mat 340  
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 me 484  
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 middle 509  
 milk 279  
 millepede 250  
 mirror 361  
 mist 134  
 money 412  
 monkey 214  
 month 144  
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 morning 149  
 mortar 352  
 mosquito 248  
 mother: his — 20  
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 name 101  
 nape 61  
 narrow 440  
 navel 83  
 near 470  
 neck 60  
 needle 343  
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 new 456  
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 nine 9  
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 nostril 48  
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## O

oil palm 298  
 oil: palm — 299  
 old 457  
 old man 112  
 on 513  
 one 1  
 onion 284  
 open 586  
 orange 297  
 other 497  
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## P

paddle (n.) 356

palm frond 163  
 palm kernel 300  
 palm (of hand) 69  
 palm oil 299  
 palm: oil — 298  
 palm wine 307  
 pangolin 226  
 parcel 334  
 parrot 263  
 partridge 262  
 pass wind 531  
 path 199  
 pay 670  
 penis 90  
 pepper 282  
 pepper: wild — 283  
 person 100  
 pestle 353  
 pick up 556  
 pierce 568  
 pig 223  
 pigeon 261  
 pincer 236  
 pit 315  
 place 409  
 plait (v.) 638  
 plane off 641  
 plant (v.) 644  
 plantain 293  
 plantation 203  
 play 603  
 plentiful 435  
 "plum" 306  
 poor 467  
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 possess 660  
 pot: cooking — 349  
 pound (in mortar) 600  
 poverty 418  
 pray 589  
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 press 661  
 price 413  
 prong 225  
 pull 575  
 pumpkin 295  
 pus 398  
 push 709  
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## Q

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## R

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rain (v.) 701  
 rainy season 153  
 raphia palm 302  
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 raw 450  
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 red 427  
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 remove 664  
 resemble 554  
 rest (v.) 584  
 return 543  
 rib 75  
 rice 291  
 rich 466  
 right (side) 522  
 ring 359  
 rinse (bottle) 650  
 ripe 447  
 river 126  
 road 199  
 roast (over fire) 596  
 roof 192  
 root 165  
 rope 341  
 rot 693  
 rotten 460  
 round 458  
 rub 558  
 rubbing oil 301  
 rubbish heap 197

## S

saliva 57  
 salt 281  
 sand 178  
 satiated: to be — 434  
 sauce 278  
 say 605  
 scabies 401  
 scorpion 240  
 scratch 560  
 sea 129  
 see 549  
 seed 168  
 sell 668  
 send 559  
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 seven 7  
 sew 636  
 shade of palm leaves 186  
 shadow 421  
 shame 406  
 share (n.) 417  
 sharp 472  
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shine 702  
 shirt 365  
 shoe 364  
 shoot (gun) 566  
 short 452  
 shoulder 63  
 show 690  
 sick: to be — 392  
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 side 510  
 sing 604  
 sister 24  
 sit down 674  
 six 6  
 skin 33  
 skinny 438  
 sky 138  
 slave 117  
 sleep (n.) 381  
 sleep (v.) 582  
 small 429  
 smallpox 400  
 smell (v.) 551  
 smoke 135  
 smooth 459  
 snail 257  
 snake 231  
 sneeze 537  
 snore 538  
 soft 449  
 soldier-ant 246  
 sole (of foot) 99  
 some 496  
 son 26  
 song 375  
 soot 196  
 sorcerer 120  
 sore (n.) 395  
 soup 278  
 sour 444  
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 speak 606  
 spear 318  
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 spit 532  
 spittle 57  
 split 704  
 spoon 350  
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 stay 684  
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 stick (n.) 312  
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stomach 79  
 stone 201  
 stool 345  
 stop up 697  
 storm 140  
 story 115  
 straight 468  
 stranger 115  
 strength 384  
 strike 563  
 string 342  
 suck 662  
 suffer 615  
 sufficient: to be \_\_\_ 433  
 sugar-cane 280  
 summon 609  
 sun 141  
 sunshine 142  
 surpass 695  
 swallow 528  
 sweat (v.) 534  
 sweep 698  
 sweet 443  
 swim 635  
 sword 319

## T

tail 273  
 take (away) 663  
 tale 376  
 talk 606  
 tap (palm wine) 646  
 taste (v.) 553  
 teach 653  
 tear (from eye) 52  
 tear (v.) 633  
 tell 610  
 ten 10  
 termite 247  
 testicle 91  
 thank 613  
 thatch 339  
 there 507  
 they 489  
 thick 436  
 thief 118  
 thigh 92  
 thin 437  
 thin (skinny) 438  
 thing 371  
 think 627  
 thirst 420  
 thorn 172  
 thousand 13  
 thread 342  
 three 3  
 throat 62  
 throw 678  
 thunder 136

tie 696  
 time 411  
 tired 476  
 tired: to be \_\_\_ 585  
 to 511  
 tobacco 309  
 today 482  
 toe 98  
 tomorrow 483  
 tongue 55  
 tooth 56  
 tooth stick 311  
 tortoise 237  
 touch 552  
 trail (of animal) 206  
 trap 314  
 trap: set a \_\_\_ 570  
 tree 160  
 trough (for making oil) 354  
 truth 404  
 try 616  
 turn around 557  
 tusk of elephant 211  
 twenty 11  
 twin 25  
 two 2

## U

uncooked 450  
 underneath 514  
 undress 665  
 unripe 448  
 until 517  
 upstream 516  
 urinate 529  
 urine 88

## V

vagina 89  
 valley 176  
 vein 36  
 village 182  
 viper 233  
 voice 58  
 vomit (v.) 533

## W

wait 683  
 walking stick 313  
 wall 188  
 want 619  
 war 379  
 warm oneself 694  
 wash 651  
 wash (pots) 649  
 wash, rinse bottle 650  
 wasp 254

water 125  
 water: stagnant — 131  
 we 487  
 weave 637  
 weaverbird 264  
 weed (v.) 643  
 weep 655  
 weight 423  
 well: to be — 383  
 wet 464  
 what? 504  
 when? 499  
 where? 498  
 which? 505  
 white 426  
 "white man" 116  
 who? 503  
 why? 502  
 wide 439  
 widow 107  
 wife 31  
 wind (n.) 139  
 wind (per anum) 87  
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wine: palm — 307  
 wing 268  
 wipe 648  
 wish 619  
 with 491  
 wizard 120  
 woman 105  
 woman: barren — 108  
 word 374  
 work (n.) 378  
 work (v.) 630  
 worm 234  
 wound (n.) 395  
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 write 592

## Y

yam 285  
 yawn 536  
 year 152  
 yesterday 483  
 you (pl) 488  
 you (sg) 485

## APPENDIX THREE

WORD LIST FROM KILHAM (1828): "SPECIMENS OF AFRICAN LANGUAGES. SPOKEN IN THE COLONY OF SIERRA LEONE"

The following items come from the language labelled Moko. The words are reproduced as in the original except that hyphens apparently separating the words into syllables have been omitted and vowels with a macron have been replaced by a double vowel, e.g. ā -> aa.  
(Numbers in brackets are added to facilitate comparison with the material in appendix 1.)

(1)	one	Ahoh	(217)	cow	Niiaka
(2)	two	Ubba	(223)	pig	Ngo
(3)	three	Ala	(352)	bowl	Abo
(4)	four	Enni	(332)	box	Lunbi
(5)	five	Utta	(351)	key	Diba
(6)	six	Nto	(68)	hand	Aka
(7)	seven	Samba	(78)	heart	Leem
(8)	eight	Tua	(38)	head	Lo
(9)	nine	Ubbu	(97)	foot	Ako
(10)	ten	Dium	(50)	eye	Dis
(141)	sun	Ania	(49)	ear	Niu
(143)	moon	Ngol	(53)	mouth	Nsool
(145)	star	Tete	(549)	see	Itoua
(102)	man	Maanju	(550)	hear	Ngus
(105)	woman	Maut	(606)	speak	Ngamu
(109)	child	Manuma	(541)	go	Keik
(16-18)	father	Ata	(542)	come	Iak
(19-21)	mother	Eni	(684)	stay	Teip
(185)	house	Ndaap	(674)	sit	Diasi
(190)	door	Akooba	(626)	stand	Fitisi
(155)	fire	Mu	(581)	lie down	Naunsi
(125)	water	Midiip	(525)	eat	Diak
(291)	rice	Koun	(527)	drink	Mua
(299)	oil	Mool	(381)	sleep	Ojoh
(281)	salt	Kiun	(649, 651)	wash	Uohma
(279)	milk	Be	(541)	walk	Keik
(269)	egg	Nkeeku	(598)	cook	Jam
(282)	pepper	Do	(666)	give	Bami
(348)	wood	Loon	(564)	take	Koma
(201)	stone	Ala	(383)	well	Imaju
(203)	farm	Nzak	(392)	sick	Ahula
(258)	bird	Non	(429)	little	Maambeh
(277)	fish	Sui	(453)	good	Ba
(259)	fowl	Kuup			

## APPENDIX FOUR

WORD LISTS FROM CLARKE (1848): "SPECIMENS OF  
DIALECTS: SHORT VOCABULARIES OF LANGUAGES, AND  
NOTES OF COUNTRIES AND CUSTOMS IN AFRICA"

All the lists are said to have been collected by Clarke except number 135 which is attributed to Merrick. The numerals 1 to 10 taken from Kilham and given as list 172 are not repeated here. (Numbers in brackets refer to appendix 1).

No. of List	Clarke's Language name	One (1)	Two (2)	Three (3)	Four (4)	Five (5)
168	Moko	Poh	Iba	Ittaan	Inin	Ittaan
175	Kikke	Ihuk	Eba	'Ngin	Ettan	Etto
257	Mwanjo	Ehoh	Eba	Bilah	'Nni	Otan
265	Maneboki	Ehoh	Biba	Alalu	Bineu	Bitan
285	Barihoh	Ehoh	Eba	Allan	Annin	Attaan
305	Bakumkum	Ahoh	Eba	Elalu	Enin	Ettan
307	Lumlum	Po	Eba	Ellau	Enin	Itan
308	'Ndiang	Poh	Biba	Bilali	Binet	Bitat
327	Lomlom	Ehoh	Eba	Elau	Inniin	Ettaan
List No.		Six (6)	Seven (7)	Eight (8)	Nine (9)	Ten (10)
168	Moko	'Ntoop	Samba	wama	Abu	Duom
175	Kikke	'Nto	Saamba	waam	Abbu	Doom
257	Mwanjo	'Ntoh	Saamba	Uah	Aboh	Do
265	Maneboki	'Ntoba	Samba	Wam	Abu	Ebom
285	Barihoh	'Ntoo	Saamba	Dwam	Abu	Dium
305	Bakumkum	'Ntoba	Samba	Guam	Abua	Diup
307	Lumlum	'Nto	Samba	Wam	Ebu	Diom
308	'Ndiang	'Ntob	Samba	Wam	Obbu	Dium
327	Lomlom	'Nto	Samba	Wam	Bo	Jom

No. of List	Clarke's Language name	Man (102)	Woman (105)	Father (16-18)
76	Moko	Mandiyom	Mamait	Tati
81	'Mwanjo	Amwellisa	Molomwa	Ijensa
83	'Ndiang	'Mwanjoh	'Mwat	Ata
84	Abunggen	Maringho	Morimwa	Atta
135	Bakumkum	Mwandum	'Mwa	Yensang
162	Lomlom	'Mwanjom	'Mwa	Owimsang
163	Bakumkum	'Mwanjom	'Mwa	Tate
174	Kosse	Munjo	Mwaat	'Mwanyo
238	Bakumkum	Manjo	'Mwa	Ta
294	Bakumkum	Manjo	Motuta	Ta



No. of List		Mother (19-21)	Fire (155)	Water (125)	Sun (141)
76	Moko	Netti	Mu	Midip	Obassi
81	'Mwanjo	Yemya	Mu	Odip	Esia
83	'Ndiang	Neh	Moh	Middi	Eseh
84	Abunggen	Anne	Mu	Odip	Sianga
135	Bakumkum	Yenyang	Mu	Ooi	Ebombom, Iyei
162	Lomlom	Awemiyang	Mo	Odi	Iy
163	Bakumkum	Ewamyang	Mo	Edip	Eya
174	Kosse	'Ne	Mu	Madip	Dinyan
238	Bakumkum	Ne	Mo	Edip	Diou
294	Bakumkum	Ne	Mu	Edip	Isah

No. of List		Moon (143)	Star (145)	Fowl (259)
76	Moko	Ingan	--	Kup
81	'Mwanjo	Milenga	'Nge	Ku
83	'Ndiang	'Ngon	Tete	Kuh
84	Abunggen	Olenge	'Ngonitye	Kuh
135	Bakumkum	Nigonti, Mwai	Iyel	Ku
162	Lomlom	'Ngon	Song	Kup
163	Bakumkum	'Njou	'Nginggi	Kup
174	Kosse	'Ngan	--	Kup
238	Bakumkum	'Ngong	'Nge	Kup
294	Bakumkum	'Ngon	'Nginge	Ku

Moko (word list from page 37) Bariho (word list from page 55)

(160)	Tree	Atu	(50)	Eye	Di
(355)	Canoe	Ibang	(56)	Teeth	Osong
(185)	House	Ufok	(38)	Head	'Nlo
(348)	Wood	Lon	(347)	Calabash	Apom
(201)	Stone	Ala	(348)	Wood	Sie
(258)	Bird	Enin	(130)	Rain	'Mbu
(277)	Fish	Sui	(218)	Goat	'Mbo
(291)	Rice	Koun	(325)	Knife	Mapa
(299)	Palm Oil	Mol	(318)	Spear	Adjung
(345)	Seat	Abunga	(288)	Corn	'Mpai
(281)	Salt	Kun	(303)	Ground Nut	Otong ojung
(279)	Milk	Be	(282)	Pepper	'Ndo
(269)	Egg	'Nkekup	(362)	Clothes	Aba
(217)	Cow	Einah	(68)	Hand	Eka
(208)	Lion	Sunsuna	(79)	Belly	Abum
(109)	Child	Manunma	(542)	I come	Sia mye
(203)	Farm	'Nzak	(147)	Night	'Nko
			(299)	Palm Oil	Mul

## APPENDIX FIVE

WORD LISTS FROM KOELLE (1854): "POLYGLOTTA AFRICANA"

Most of the words and phrases in the Polyglotta Africana from the three relevant lists are reproduced here with the exception of the numerals 'eleven' to 'nineteen' and a few other compound items not directly relevant to the information in appendix I.

Koelle's transcription has been modified for the purposes of this study as follows: n → ŋ, ʃ → ʃ̃, dʒ → dj, h → x, r → ɾ, e → ɛ, o → ɔ and ā → aa, i → ī. Accents have been omitted. (Numbers in brackets refer to appendix I.

		<u>Nootɛŋ</u>	<u>Melou</u> or <u>Melommsie</u>	<u>Nhaalemoos</u>
( 1)	one	pɔɔg	ŋhɔk + moos	ŋhɔ
( 2)	two	ɛba	bebaa	mba
( 3)	three	ɛlaan	belaan	nɛɛ
( 4)	four	ɛniin	beniin	nnii
( 5)	five	ɛtaan	betaan	ntɛ
( 6)	six	ntoo	ntoob	ntoo
( 7)	seven	saamba	saamba	ʃiaampfa + ʃiaampa
( 8)	eight	woaam	wuaan	wuaam
( 9)	nine	aboog	aboog	aboo
( 10)	ten	dioom	diiom	diiom
( 11)	twenty	moomba	mɔɔmba	maamuba + moomuba
( 16)	father	taa	taa	tetɛɛ
	my father		ɛwɛmtaa	
( 18)	your father		ɛwoŋtaa	
( 19)	mother	nɛ	nɛɛ	nɪa
	my mother		ɛwɛmnɛɛ	
( 21)	your mother		ɛwoŋnɛɛ	
( 26)	son	ɛwɛ muaan	moaan	moaan
			(ɛwɛ-moaaan)	(awooɛ moaan)
			(ɛwoŋ-moaaan)	(awooɔ moaan)
( 27)	daughter	ɛwɛ mɪaaanu moaad	moaan moaat	moaan moaat
( 28)	grandfather	taampa	taampaa	tetɛɛ mpɛɛa
( 29)	grandmother	nɛɛmpa	nɛɛmpaa	nɪa mpɛɛa
( 33)	skin	ŋgoob	ɛkop + ɛɛkokoop	ŋgob
( 35)	blood	mekiie	mekii	mekeei
( 36)	vein	ŋkɔɔd	nʃiik	nʃei
( 37)	bone	ɛheig	ɛhei	eeheei
( 38)	head	nlo	nlo	lo
( 39)	face	ɛʃyo	ɛʃo	eʃo
( 42)	forehead	mbɔɔm	mboo	eʃobmo
( 43)	hair	nyuŋ	nyuŋ	nyuŋ
( 47)	nose	diiio	diiio	doo
( 49)	ear	ɛto	ɛtoo	ɛtuu, metuu
( 50)	eye	di + diis	deek	deeiɛ, meeɪɛ
( 53)	mouth	nʃiɔɔl	nʃiɔɔl	nʃeaar

( 55)	tongue	ɛgeaam	egieɛm	egieɛm
( 56)	tooth	ɛsyɔŋ	ɛsooŋ	aŋɔŋ, meŋɔŋ
( 60)	neck	mbuse boaal	ɛbool	aboaal
( 62)	throat	kienŋ	kiŋ	ŋkaaŋ
( 63)	shoulder	mbɛɛkkaa	ɛkɛmbɛɛl	ekooŋ, mekooŋ
( 65)	arm	—	ɛkaa	ekɛɛ, mekɛɛ
( 66)	elbow	ɛboŋ rekaa	boŋ-dekaa	--
( 69)	inner hand	mbaaeka	mpaa-eka	mbaaikɛ
( 70)	finger	moɛmekaa	mooɛ	emuibekɛ, memiimekɛ
( 71)	nail of finger and toe	ŋnyaan	nyaan	nyaane mekɛ
( 73)	chest	tool	tool	tɛl + tal
( 74)	female breast	ɛbɛɛ	ɛbɛɛ	abii, mepii
( 75)	rib	mbaa	mpaaa	mpaai
( 79)	abdomen	ɛbum	ɛboom+ɛbuum	abuum, mobuuum
( 83)	navel	ɛtoŋ	ɛtoŋ	mui, mii
( 92)	thigh	anaa mekuuo	ɛkoompaa + ɔipɛɛn-ekoo	--
( 94)	leg	akuoo	ɛkoo	ekuu, mekuu
( 95)	knee	ɛboŋ rekuuo	ɛboŋ dekuo	aabubɔ, mobubɔ
( 96)	heel	boŋrembaaekoo	mbuuseko	atineeku, metinmeku
( 98)	toe	moɛmekuuo	mooɛ-mekoo	emui beku, memii meku
( 99)	foot-sole	mbaaekoo	mpaa-ekoo + buumb-ekoo	mbaaiku
(102)	man	mangiiom + moaangioom	mooangiiom	mooangioom, baregioom
(105)	woman	moaad	moaat	mooat, bɛbɛɛat
(109)	child	moaan	moaan	mooan
(110)	boy	moandɛɛm	mooandɛɛm + mooan mooangioom	mooan mooangioom, baanbaregioom
(111)	girl	moaanu moaad	mooan moaat	mooan moaat, baam bɛ bɛɛat
(113)	king	ŋgiuunmood	mooangiiom- -paa 'chief, old man'	tɛtɛɛ 'father'
(114)	friend	nson + nŋioon	nŋoon	ndjiɛɛn
(115)	stranger	ŋkɛɛn	ŋkɛnmoot + ŋkɛn	ŋkɛnemoɔt + ŋkɛɛn, bekɛɛn
(116)	white man	ŋkaalɛ + ŋkaara	ŋkaala	ŋkaala, benkaala
(117)	male slave	mbɛrɔ̃	nlam	ntaaŋ, betaaŋ
(119)	doctor	abɛɛme puood	ŋgaampool	?
(120)	greengree	ɛlɛɛm	medjam	lɛm (witch)
(121)	medicine	ɛgiiŋ+biia	biiaŋ	giɛ + djiɛ
(122)	God	monyaama	nyamaa	nyaama
(125)	water	medib	medib	mire
(130)	rain	mboo	mpu	mpuu
(132)	dew	ɛpoob	mpak	miiɔ̃ + mpa
(135)	smoke	metud	metuut + metoot	mooatu
(138)	heaven(sky)	--	nyamaa	diioɔ
(141)	sun	ɛnyaa	ɛtonfiioɔ	ɛnyaɔ̃
(143)	moon(?full)	ŋgoon	ŋgoŋ	ŋgoan
(146)	day	moote	mooti	boi-ŋaale
(147)	night	ŋkoo	ŋkoo	ehintɛ + boihɔ̃ɔ̃ɔ̃ɔ̃

(153)	rainy season	ηku	εdjo	ηkoou
(154)	dry season	εσεεεb	εσεεp	eσεεb
(155)	fire	mū	muu	mu
(156)	charcoal	εposa	kaηaleet	akaanle, me-
(158)	forest	εhε	εhεε	--
(160)	tree	buεl + boεεl	buuεl+hiεon	booal
(161)	leaf	giaa	giaa + giiaη	giaa, biia
(165)	root	ηkaaη	ηkaη-buεεl	ηkam-booal
(169)	camwood	yoo	iio	hii
(178)	sand	nseeε	nseε	nšii
(182)	town (village)	mboog + ηkooomb oog	mpoouk	mpoo
(185)	house	ndaab	ndaab	ndab
(190)	door	εkoowa	koowaη	εkoowndab
(191)	doorway	nšii ol-ndaab	nšondaab	nšal ndab
(193)	bed	εnoη	εnoη	ano, meno
(201)	stone	εlaa	εlaa	ale, mele
(202)	iron	εkeε	εkee	ekeei
(203)	farm	ndjaa	nsak	nša
(205)	animal	nyaam	nyam	nyaam
(207)	bat	ηgiiam	ηgiiεm	ηgiiεm
(208)	lion	εgiiε	nšok	--
(209)	leopard	ηgo	ηgo	ηgoo
(210)	elephant	ndjou	nšou	nšoo
(211)	ivory	giε + εšoontso	εšooη-nšou	ašoo-nšo
(214)	monkey	kiεεm	kεεm	kεεm
(215)	alligator	--	ηgando	ηgooampa
(217)	cow	nyaaka	nyaak+nyaka	nya
(218)	goat	toon-mbot	toon-mpoot	toonpot
(222)	rat	salpoo	salpoo	salpoo
(223)	pig	ηgoo	ηgoo	ηguu
(227)	dog	mbooa	mpuua	mpooa
(228)	cat	šiiη	šiiη	--
(230)	lizard	εboota	ηguulo	ηkonggo
	large red- headed lizard	εboota	ηguulo	ηguulo + εbooto
(231)	serpent	nyo	nyo	nyo
(238)	chameleon	ηgoomb	giāā-kurō	djiioηkot
(239)	frog	mbon	maka	--
	toad	--	mpoon	mpoon
(241)	spider	ηgaabogo	ηgaambowa	ηgaaboowa
(244)	butterfly	ηguuaη-ηguuaη	εpotopoo	εpooripoto
(248)	mosquito	ndoonumba	ηkelag	ηkošāyā
(254)	wasp	mboonubon	ηgidigiiη	ηgiiib-lon
(255)	bee	εgiiε	εkiiε	εdjiuu
(256)	honey	εgiiε	εkiiε	εdjiuu
(258)	bird	εnon	εdnon	εnon, menoη
(259)	fowl(hen)	kub	kuup	kub
(261)	pigeon	ηgoal + paasekoko	kooi + kooidj	--
(263)	parrot	kooi	--	kooi
(269)	egg	εkiiε (εkii-kub)	εkii	akii, mekii
(275)	meat	nyaam	nyam	nyaam
(277)	fish	ndon	ndon	ndon
(278)	soup, sauce	ndon 'soup'	εleεm	diiεn + ediiεn
(279)	milk	mεdi-mβε + εhoη	εβεε	abii
(281)	salt	ηkooa	ηkuua	ηkooa

(282)	pepper	ndonj	ndonj	ndonj
(285)	yam	kuaad	kotok	koto
(288)	maize	ngoo	nguu	ngooŋ
(290)	bean	koon	koon	koon
(291)	rice	koon	--	--
(292)	cassava	ŋkaaŋ-mɛl	--	--
(298)	palm-tree	dii	dee	di, bi + mi
(299)	palm oil	mol	mool	mool
(303)	groundnut	metowɔ	metowɛ	metowɛ
(310)	cotton tree	pɛɛm	ɛkaaŋ	buum
(313)	walking stick	ntooŋ	ntuŋ + mpoŋ	ntoŋ
(318)	spear	ɛkɔŋ	ɛkɔŋ	akɔŋ, mekɔŋ
(319)	sword, sabre	paa	paa	pɛ
(320)	bow	mbuua	--	--
(321)	arrow	moaanguum	--	--
(322)	gun	ŋkoomba	ŋkomba	ŋkoompa
(323)	gun-powder	ndjuuntsu	nšuumšuu	nšoonšo
(325)	knife	paa + ɛlɛɛn	ɛhaa	alɛn, melɛɛn
(326)	axe	ɔhoon	ɔhoon	ehoon
(328)	hoe	giioŋ	giioŋ	djiioŋ+giioŋ
(329)	drum	ŋgɔm	ŋgam	nteeɔ
(340)	mat	ntaŋmuuno	ɛbuue	--
(341)	rope	ŋkɔd	ŋkɔt	ŋkɔt
(342)	thread, string	ŋkɔn mbaad	sonoot	--
(343)	needle	ndɔndɔki	ɛhiɔn	--
(345)	bench, chair	ɛtee	etii	atii, metii
(347)	calabash	ɛpoom	ɛpoom	apoom, mepoom
(348)	firewood	iyɔn + loon	ɛšiidemu	hiion
(349)	cooking pot	mbe	mbee	mpe
(350)	spoon	toog	took 'wooden'	too
(355)	canoe	buaal	boaala	--
(358)	armlet or bracelet	muɛɛn	ɛɛbatɔ + ɛbaata	muɛɛn, miɛn
(362)	waist-cloth	--	ɛbaat	abaat
(363)	hat, cap	taamba + ndoom	nduum + ɛteki	ndoom + ateeki
(364)	shoe, sandal	ngoo mekuuo + ngoo mokuuo	--	ngoo mokuu
(365)	shirt	ɛbaat + ešuu	--	abaal meke
(379)	war	ndjuum	nšuum	nšom
(382)	dream	ndɔd	ntɔt	ntoondɔt
(383)	well	adeealti	aa deelte	--
(392)	sick	awul	aagulaak	ŋkuuloŋ
(393)	I cough	ɛkɔsit	ŋkɔsia+ŋkɔšee	me kɔi
(399)	itch	ŋkaaŋ	ŋkaŋ	ŋkaaŋ
(400)	smallpox	kaaomaam	kaamama	kaanyaam
(415)	market	duaan	diɔn	diɔn
(425)	black	alaam	a lamak+ɛlama	ahina
(426)	white	mpuupa+aaɔup	apoowa	apuwa
(428)	great, large	aaduno + ehaa ampa great man)	ahāāe, ɛhage + ašɔɔe	nyoo djiiom
(429)	little, small	ɛsaad	ahaāā ɛšɔɔɔ + esaat	mɔoni djiiom
(453)	good	ɛboŋ	a boŋe	aboŋ
(454)	bad	ɛɛboŋaka + ɛɛboŋaa	a boŋooɔ (neg.)	boŋooɔ
(456)	new (young)	mpeesa	mpɛɛi	--
(457)	old	ɛdjuono + ndjuon	aadjuuni + amaadyun	ndjun

(463)	dry	aakiie	a kife	akeef
(464)	wet	medib	awaa medib + a hoo	ahoo
(466)	rich	awogoo biiam	a woo biom	awoo biiam
(467)	poor	awog aagiom + awog aadjoom	moaane nyamaa + awog-aagiom	ewooagiom
(468)	straight	agiaawe + adjaawe	a teeewe	ateemi
(469)	crooked(bent)	ngooob	a koreewe	awoo nguru
(474)	hot	awoomu	aa domuu + ahoonia	--
(475)	cold	ahoo	a hoo + ahootee	ahoo
(482)	today	geee	geee	gee
(483)	yesterday, tomorrow	suuoba geaan	giaan sooba	giaan suuba
(525)	I eat rice (yam)	ndeere koon	ndeere kotook	ndieere koto
(527)	I drink water	mmoere medib	mmuere mediib	mmoore mire
(535)	I breathe	ngoomi	ntooete+ntook	--
(537)	I sneeze	nšiaame	nsaami	nšiaame
(538)	I snore	maa to	ngoomool	ntoo ngale
(541)	I go	aa ke	nšuaak + nšuu	nšuu
(542)	I come	mpere	mpere	nhu
(543)	(I return)	--	nšuaak + nšuu	nšuu / nhu
(545)	(I arrive)	mpere	mpere	--
(549)	I see	ntoo	ntoo	ntoo
(550)	I hear	nguuoo + ngoo	nguu	nguu
(564)	I catch a fish	ngowe ndoon	ngowe ndoon	ngooewe ndoon
(571)	I kill a fowl	nguuoo koob	nguu kuub	ngooale kub
(572)	I die	ngueere	nguari	nguari
(581)	I lie down	mnaane	nnaae	nnaareere
(582)	I sleep	nnaeeše	nlume	--
(583)	I dream	ndood	ntoot	ntoondot
(588)	I cover a pot	mbuume mbe	ngkumbane mpi	ngkumteene pe
(589)	I pray to God(beg God)	nleeate rinama	ngiiane nyama	ngiaa nyama
(590)	I beg	ngioome	ngioome + ngiaame	ngiaa
(598)	I cook meat	ngiaame nyaam	ngiaame nyam	ngiaame nyaam
(603)	I play	maa giio	ngiooe	--
(606)	I speak	ghaawe	ghowe	ghawe
(609)	I call a slave	ngkene mbega	ngeele laam	ngioo ntaan
(617)	I love thee	ndegoowe	ndige we	ndiio wo
(625)	I fall	ngueere	nguari	nguari
(626)	I rise	ndjegaše	nteewe + nšageeze	nšiooreese
(632)	I cut a tree	nšeaale boeel	ngkuuale hiion	ngooale boaal
(636)	I sew a shirt	ndioog esuu	nlonge(I sew)	nlongo (I sew)
(651)	I bathe,wash myself	nguuoo + ngoo	nguaae	ngoo
(655)	I weep	ngiie	mboonoo+mboone	ngia+me gila
(658)	I laugh	nguuoo	nguuoo	nguu
(663)	I take	ntoore	ntoore	ntoore

(666)	I give thee	mbɛoowe	mbɛɛ wɛ	mboɔ wɔ
(668)	I sell	nʃiooma	nʃoome	nʃoome
(669)	I buy	ngiaane + ndjaane	ngiaane	ngiaane
(674)	I sit down	ndiia + mɛ diia	ndiiaŋ + ndiaaʃɪ	ndiieʃɛ
(680)	I dance	nʃaaa	nsaae	n ʃaa
(691)	dry	aakiie	a kiie	akeeɪ
(705)	I break a stick	mbuuo boɛɛl	mbɛɛ hioon	mboo booaletɛ (mboowate I break)

## APPENDIX SIX

BIOGRAPHICAL COMMENTS ON KOELLE'S INFORMANTS

(from Koelle 1854:13)

1. N'gôteŋ.—From Mpákō, of Charlotte, born in the town of N'gôteŋ, after which also the country is named, where he grew up and married, and had a child four years old when he was kidnapped by the Bórken people. He has been thirty years in Sierra Leone, with only two countrymen.

Remarks.—N'gôteŋ is west of Bégiŋ, east of Ehála, *i. e.* Cameroon; also near N'koád, Ekárâte, Margólòb, Mánsoŋ, Nşéte, Bórken.

2. Mélon or Mélommésie.—From Ntúwa, or John Thomas, of Freetown, born in the village of Húmúá, where he was sold on account of a murder, in about his twenty-eighth year, and brought down to the Kálabá country, a journey of one month. He has been in Sierra Leone twenty years, with three countrymen remaining. He was rather dull, and I could not get any plural forms from him; perhaps the Nşó, Mom, Mélon, and some other language, originally possessing plural forms have now lost them.

Remarks.—Mélon is situated west of Bórken, east of N'ká and N'hálemòe.

3. N'hálemòe.—From Edía, or Thomas Renner, of Bathurst, born in the village of Báningar, where he also grew up, had seven wives, and a child about ten years of age when he was sold by his countrymen out of jealousy of his ability and influence, and brought to the sea by way of Cameroon. He has been in Sierra Leone between thirty and forty years, with only two countrymen remaining; one of whom, Ebóáŋ, assisted him in the words I asked for. Thomas Renner knew far less than Ebóáŋ, or William Renner, who was born in the village Káte, half-a-day's journey from Móáşíba, the N'hálemòe capital, and where he had a child of about twelve years of age when he was sold by his relatives to Kóáse or N'kóáse, whence he was at once carried to Bálun and Dihála. He has been in Sierra Leone upwards of thirty years.

Remarks.—Báningar lies in the Ndşúmpan district, about a day's journey from Móáşíba, the N'hálemòe capital. On his way to the sea, Edía saw the countries N'kóse, Balóŋgúe, Eşúwe, Ehála, *i. e.* Cameroons. He thinks this to be a journey of about three months. N'hálemòe is situated west of N'kóat, with the same language; east of Móánehát, also with the same language.



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Abbreviations

- AfrL Africana Linguistica. Tervuren: Musée Royal de l'Afrique Centrale
- ALCAM Atlas Linguistique du Cameroun
- ALS African Language Studies
- AS African Studies
- AuÜ Afrika und Übersee
- BCCW Benue-Congo Comparative Wordlist = Williamson and Shimizu (1968) and Williamson (1973)
- CILL Cahiers de l'Institut de Linguistique de Louvain
- CNRS Centre National de la Recherche Scientifique. Paris
- CTL Current Trends in Linguistics. The Hague: Mouton
- DKBl Deutsches Kolonialblatt
- IAI International African Institute. London
- IFAN Institut Français d'Afrique Noire
- IJAL International Journal of American Linguistics
- JAH Journal of African History
- JAL Journal of African Languages
- JALL Journal of African Languages and Linguistics
- JWAL Journal of West African Languages
- MRAC Musée Royal de l'Afrique Centrale. Tervuren
- ORSTOM Office de la Recherche Scientifique et Technique d'Outre-Mer
- SAL Studies in African Linguistics
- SCOPII Southern California Occasional Papers in Linguistics
- SELAF Société d'Etudes Linguistiques et Anthropologiques de France. Paris

SIL Summer Institute of Linguistics/Société  
Internationale de Linguistique

SLLR Sierra Leone Language Review

ZfES Zeitschrift für Eingeborenen-Sprachen

ZfKS Zeitschrift für Kolonialsprachen

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