

The Maban languages and their place within Nilo-Saharan

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This version: Cambridge, 10 January, 2021

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ABSTRACT

The Maban languages constitute one of the orphan groups of Nilo-Saharan; they are generally recognised as one of its branches, but their exact place remains to be determined. Data on Maban languages is extremely patchy; only one full-length grammar exists and no comprehensive dictionaries. The paper established the sources of data, and the internal structure of the Maban group. It makes proposals for the phonological inventory of proto-Maban. Maban languages mark number on nouns with suffixes and at least some nouns exhibit three-term plurality, as elsewhere in Nilo-Saharan. The paper puts forward a provisional reconstruction of the system of tripartite number marking on nominals. This is shown to be extremely similar to that occurring in the neighbouring East Sudanic family, especially Taman. This suggests the possibility that Maban is either the closest relative of Eastern Sudanic or indeed an unrecognised branch of Northeast Sudanic. Three Appendices provide a comparative wordlist with quasi-reconstructions, some short tables with examples of reconstructible forms, which indicate the possible shape of typical lexical items and some evidence for Maban cognates with wider Nilo-Saharan.

Keywords: Nilo-Saharan; Maban; East Sudanic; historical linguistics; noun morphology

ACRONYMS AND CONVENTIONS

C	any consonant
K	velar consonant
N	any nasal consonant
O	any mid-back vowel
S	any fricative consonant
T	any dental consonant
U	any high back vowel
V	any vowel

1. Introduction

Since Greenberg (1955) first proposed what has become Nilo-Saharan, there have been arguments about the proposed language groups which constitute valid members. Greenberg (1963) gives the following groups as Nilo-Saharan;

- Songhay
- Saharan (Kanuri, Teda, Beria etc.)
- Maban (Maba etc.)
- Fur
- Chari-Nile
- Koman (Koma, Gumuz, Mao)

The first monograph on the phylum is Schadeberg (1981a), followed by Bender (1981a, 1983a,b, 1989, 1991a,b, 1996a,b, 2000b) and Ehret (1989, 1993, 2001). The most comprehensive overview of Nilo-Saharan remains that of Bender (1997), who recognised twelve branches. These are as follows;

Songhay	For	Berta	Kuliak
Saharan	East Sudanic (+ Shabo)	Kunama	Kadu
Maban	Central Sudanic	Gumuz	Koman

However, since Bender, subsequent publications, notably those of Gerrit Dimmendaal (2011a,b) have typically excluded several branches. The rationale for this is that the evidence for their affiliation is unconvincing.

One branch which does usually feature in the accepted core is the Maban cluster. However, the languages of this branch are very poorly documented, and even the existence of some is uncertain. Although Edgar (1991a) published a fascinating comparative wordlist, since it mixes together data from all available sources, it is hardly useable as a basis for reconstructing proto-Maban. Grammatical descriptions are at best, patchy, with only the unpublished Weiss (2009) as a full-length modern description.

Given that work on Maban languages has almost ceased, it can be a useful to take stock of what is known and to answer some broader questions. The aims of this paper are therefore to review the existing literature, and to make some proposals as to the features reconstructible for proto-Maban and to compile a preliminary list of reconstructible forms. Using this, the paper will attempt to match the features of Maban with those posited for Nilo-Saharan as a whole.

2. The Maban languages

2.1 Documented languages

The Maba seem to have first come to the attention of the world in the publication of Giovanni D'Anania (1576). D'Anania was a Neapolitan geographer who attempted to document the 'Fabric of the Universe'. As with some earlier Venetian geographers he was aware of the major cities and states of the savannas of West-Central Africa and knows of the Maba as subjects of the Tunjur. In the third edition, Anania (1582: 349-50) adds the following information;

Then comes Uri, a very important place, whose Prince is called Nina, that is to say Emperor. The neighbouring kingdoms that obey him are Aule, Zurla... Sagava (Zaghawa), Memmi (Mimi), Musalat (Masalit), Morga and Dagio (Daju).

A local Maba dynasty replaced Tunjur rule in Wadai and the Tunjur kingdom may have ceased to exist as early as in 1611 or 1635 (O'Fahey & Spaulding 1974).

The Maban family is named for the language with the most speakers, the Maba, who live in Eastern Chad. The group as a whole is also found in western Sudan and northern CAR. Unfortunately, the Ethnologue

(2013) had a hopelessly confused presentation of this group, and inserted it into East Sudanic through confusing it with the Nilotic language Mabaan. More recent editions have now resolved this confusion. The Ethnologue also fails to integrate much of the existing literature and it is thus hard to correlate the ethnonyms with those given in Edgar (1991a).

Table 1 presents the names of existing languages with synonyms and whatever other information is available concerning them;

Table 1. Basic data on the Maba languages

Name	Alternates	Location	Population	Dialects
Maba	Borgu, Bura Mabang, Kana Mabang, Mabaa, Mabak, Mabang, Ouaddai, Ouaddaien, Wadai, Waddayen	Ouaddai region, Ouara and Djourf-al-Ahmar departments and Wadi Fira region, Biltine Department, Biltine Subprefecture; most of Ouara Department and villages south of Biltine	296,000 (2006)	Abkar, Kajanga (Kajangan), Kelingan, Malanga, Mandaba (Ma Ndaba), Mandala (Ma Dala), Nyabadan, Kodoo, Ouled Djemma, Kujinga, Dondongo.
Marfa	Marba	Ouaddai region, Ouara Department, south of Abéché.	7,500 (1999 SIL)	
Masalit	Jwisince, Kaana Masala, Masale, Masara, Massalit, Massolit	North, Darfur Province, Dar Masalit and Nyala District, scattered colonies in Dar Fongoro, south and east; Gedaref region; Geneina, Mistere, and Habila Kajangise. Ouaddai region, Assounga Department, around Adré. N.B. the bulk of the Masalit population is probably now in Chad, due to displacement following the war.	Population total all countries: 60,900	Northern Masalit, Western Masalit, Southern Masalit
Masalat		Batha region, Batha Est Department, Oum Hadjer Subprefecture, and Ouaddai region, Djourf-Al-Ahmar Department, Am Dam Subprefecture.	? extinct. Ethnic population ca. 25,000	
Surbakhal	Sourbakhal	Ouaddai region, Assounga Department, Adré Subprefecture, between Hadjer Hadid and Alacha	7,890 (2000)	
Kibet	Kibeit, Kibeet, Kibettang	Region Salamat region, Barh- Azoum Department and Ouaddai region, Sila Department. Northeast of Am Timan and southwest of Goz Beida.	18,500 (1983)	Dagel (Daggal), Murru (Muro, Mourro)
Runga	Aiki, Ayki, Aykindang, Rounga, Runga de Ndel,	Southeast Salamat region, Am Timan and Haraze- Mangueigne subprefectures; Ouaddai Prefecture, Goz-Beida	21,500 in Chad (1993 census), decreasing. 21,500 in Central	

Name	Alternates	Location	Population	Dialects
	Roungo	Subprefecture, along Central African Republic border. Also in Central African Republic, Bamingui-Bangoran Prefecture, Bangui	African Republic (1996). Population total all countries: 43,000	
Kendeje	Yaali	Ouaddaï region, Assounga and Ouara departments, rural Abéché and Adré subprefectures, north and west of Hadjer Hadid	1,860 (2000)	Yaali, Faranga
Karanga	Kurunga	Ouaddaï region, Djourf-Ahmar and Ouara departments. Around Am Dam and between Am Dam and Abéché, south of the Maba. Bakha are southwest of Am Dam, Karanga and Koniéré are northeast of Am Dam, Kashmere are south of Abéché and north of the Karanga.	10,000 (1999 SIL). 4,696 Karanga and 1,419 Bakha	Karanga (Kurunga), Kashmere (Kachmere), Bakha (Baxat, Bakhat, Faala, Fala), Koniéré (Konyare, Kognere, Mooyo, Moyo)
Mimi		Biltine area although no recent information	?	

Source: Ethnologue (2019) with additions

Apart from this, Edgar (1991a) lists other Maba languages whose exact identity is unclear. These are shown in Table 2;

Table 2. Other possible Maban languages

Name	Comment
Kodoi	? another name for Marfa
Mimi	only known from Jungraithmayr (1971) and possibly confused with Amdang, also spoken in Biltine
Baxat	Apparently related to Karanga. Only known from Le Rouvreur (1962)
Kondongo	Only in Edgar (1991a). No linguistic data
Kashmere	Only in Edgar (1991a). No linguistic data
Uled Jema	Only in Edgar (1991a). No linguistic data

2.2 Locations

The Maban languages form two large territorial blocks separated by the largely Arabic-speaking zone of Ouaddai. The great majority of the languages are spoken in Chad, but there are outliers in Sudan and Central African Republic (Map 1). This region has been subject to civil insecurity in recent years, making research difficult, but also probably changing the distribution of languages.

2.3 Existing literature

The Maban languages have so far not been well-served by the linguistic literature. Edgar (1991a) included a comprehensive bibliography of Maba up to 1990, but since that time there has been limited work. The earliest data on a Maba group language is from the German linguist Ulrich Seetzen (1810, 1816), who began compiling vocabularies in Cairo in the early nineteenth century. Seetzen was unfortunately poisoned in Yemen in 1811, and his vocabularies were published posthumously by Johannes Vater as part of his larger project to document the languages of the world. The traveller William Brown Hodgson (1844) collected a wordlist of Maba in the 1840s, in Cairo, and this was probably the material Latham (1862) adapted in his

broad overview of world languages. The traveller Sheik El-Tounsy (1851) who was travelling in this region in the 1820s, wrote a valuable account of Wadai [=Ouaddai], which was translated from the Arabic by Perron and includes fragments of Maba. Heinrich Barth (1862-1866) included Maba in his collections of Central African comparative vocabularies. Müller (1877) published a grammar sketch of Maba, again based on interviews in Cairo.

Historically, Maba was an important language in Eastern Chad, and Maba was the language of the Wadai kingdom, dating from the 16th century and described by El-Tounsy (1851). It is still strongly maintained today and spoken in the home, broadcast on the radio and taught in primary schools (Weiss 2009). Of the other varieties of Maba in the group we have much less information; but the chronic civil insecurity throughout this region must have been disastrous for local communities.

The first grammar of a Maba language is probably Trenga (1947), although it is based on data collected in 1906, and so does not correspond to modern standards of transcription. Edgar (1989) is a rather idiosyncratic brief grammar of Masalit; while the unpublished Weiss (2009) is a comprehensive grammar of Maba. The summaries that follow should thus be treated as provisional. Nougayrol (1989) is a short grammar and lexicon of Aiki [=Runga] as spoken in Central African Republic.

Our only knowledge of some varieties appears to be from SIL Survey reports, mostly unpublished, and not always including the data on which the conclusions are based (e.g. Maass, Grant & Prinz 1995, 1996 and Mbernodji & Wolf 2008). The most comprehensive overview of the group is Edgar (1991a) which is a ‘group lexicon’ compiling cognate lexemes by consonantal root. The model used by Edgar, a dictionary of thirteenth century Turkish, is possibly not the most helpful way of setting out data, but his book represents a major synthesis of inaccessible or unpublished data. Edgar (1991b) also published a preliminary attempt at reconstructing proto-Maba.

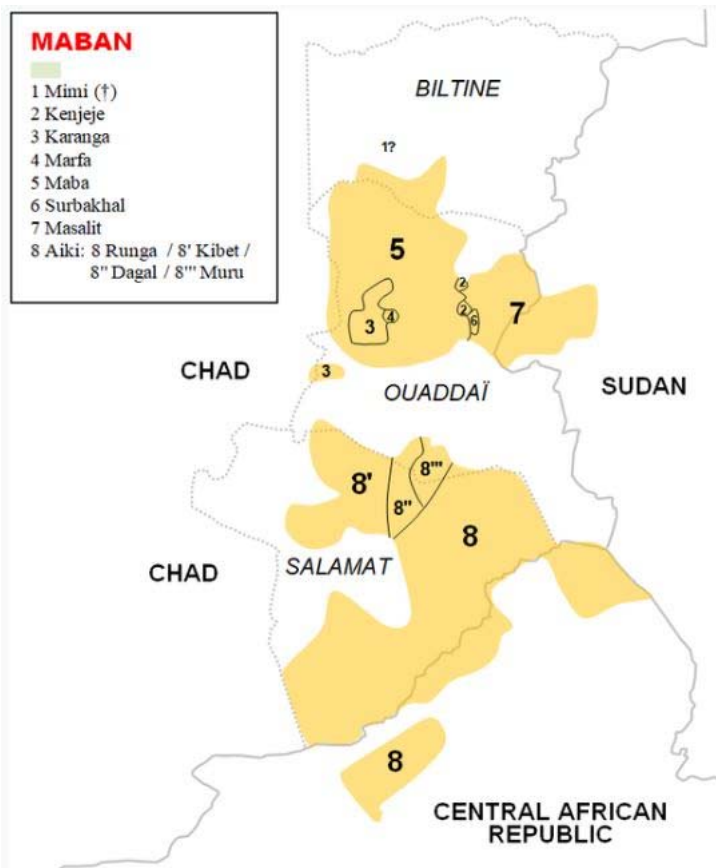
The issue of ‘Mimi’ is unresolved. There are three sources, Decorse (1907), Lukas & Völckers (1939) and Jungrathmayr (1971). The short comparative table in Jungrathmayr (1971) leaves no doubt that these are three distinct, and indeed not closely related languages. Greenberg (1972) correctly identified Jungrathmayr’s Mimi as a relative of Fur, now known as Amdang (Wolf 2010). Decorse’s Mimi is almost certainly a Maban group language. Unfortunately, Edgar (1991a) confuses the issue by stating that Jungrathmayr’s Mimi is unidentified. In fact it seems to be the language recorded by Nachtigal which is mysterious and still not clearly affiliated to any Nilo-Saharan branch.

3. Classification

3.1 External classification

Since being characterised, the Maba group has been considered an independent branch of Nilo-Saharan. Bender (2000) placed it as co-ordinate with Fur, Central Sudanic and other languages as part of the ‘satellites’ in his ‘Satellite-Core’ group. Ehret (2000) suggests what seems to be a proposal inspired by the

Map 1. The Maban languages

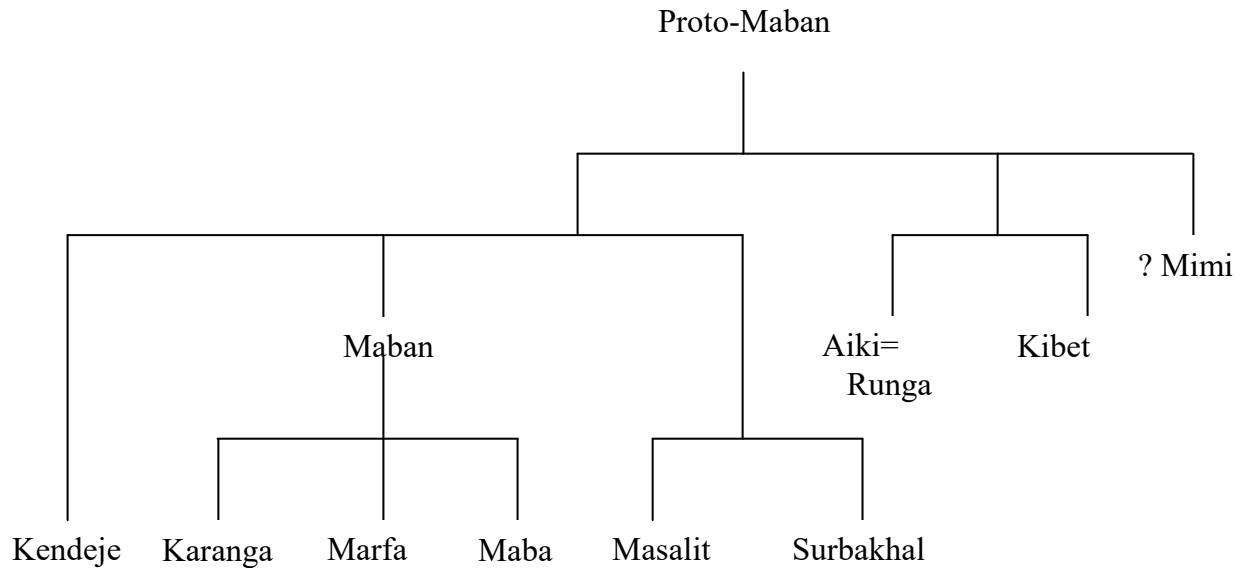


publications of Erich von Däniken, placing Maban with Songhay in Western Sahelian group. Dimmendaal allows Maban within his reduced Nilo-Saharan.

3.2 Internal classification

Figure 1 shows a provisional internal structure for the Maban languages.

Figure 1. Internal classification of Maban languages



4. Phonology

4.1 Consonants

Edgar (1991b) is a preliminary reconstruction of proto-Maban.

Table 3. Proto-Maban consonant inventory

	Labial	Alveo-Dental	Alveo-Palatal	Palatal	Velar
Stops: voiceless	(p)	t	tʃ		k
voiced	b	d			g
Fricatives: voiceless		s	ʃ		(h)
Fricatives: voiced		(z)			
Nasals	m	n		ɲ	ŋ
Liquids		l, r			
Glides	w			y	

Source: Edgar (1991b)

Edgar excludes a voiceless labial /p/, and treats z~ʃ~dʒ as alternants. His reconstruction requires an s¹ and l¹ as phonemes, but since he does not clearly identify their segmental nature and they are not attested synchronically, these can be safely ignored. The consonant inventory for Maba given in Weiss (2009) is presented in Table 4;

Table 4. Maba Consonant Inventory

	Labial	Alveo-Dental	Alveo-Palatal	Palatal	Velar
Stops	(p) b	t d	tʃ		k g
Fricatives: voiceless		s	ʃ		(h)
Fricatives: voiced		(z)			
Nasals	m	n		ɲ	ŋ
Liquids		l, r			
Glides	w			y	

Source: Weiss (2009)

This is evidently similar to the proposed proto-Maban. Masalit (Edgar 1989:9) is also much the same, although Arabic loan phonemes are included in the consonant chart. The consonants of Aiki are very similar except that Nougayrol (1989: 19) add the implosive stops /b/ and /d/ and marks p ~ f as allophones. In Aiki at least, almost any consonant can be geminated, although examples are not very common.

4.2 Vowels

Edgar (1991a) does not discuss the vowels of proto-Maban, presumably due to his Semiticist outlook. Phonemically, Maba has system of five cardinal vowels, with distinctive length and no synchronic ATR (Weiss 2009). However, phonetically there appear to be seven vowels and Weiss (2009) observes that these correspond with the ATR vowels of Masalit.

High	i, ii	u, uu
Mid	ɛ, ɛɛ	ɔ, ɔɔ
Low	a, aa	

Nougayrol (1989) regards Aiki as having a seven-vowel system with contrastive length, but observes that evidence for the phonemic status of the mid-vowels /o/ and /e/ is quite weak. He marks the central vowel /ə/ in his transcriptions but does not regard it as phonemic. Edgar (1989) gives an eight-vowel system for Masalit, with includes /ɛ/, /ɔ/ and /ʌ/. This seems to be somewhat unlikely and it is possible that Masalit has a nine-vowel system with ATR vowel harmony, which would not be unexpected in this region. Hence it may be the Maban family should be reconstructed with this system, like neighbouring branches of Nilo-Saharan.

4.3 Tones

Lukas (1953) and Caprile (1977) both mark tones and Weiss (2009) concludes that a system of High, Low, Rising and Falling can be established for Maba, albeit the contrast with glide tones only occurs in rather specific contexts. Nougayrol (1989) recognises two tone heights for Aiki, and does not mention glide tones.

5. Morphology: number marking

Maba marks number on nouns through suffixes. As elsewhere in Nilo-Saharan, at least some nouns exhibit three-term plurality. The most complex systems are in the northern languages, suggesting that Aiki has simplified its system perhaps through contact with Ubangian. Maba itself is described in Weiss (2009: 84). It has tripartite number marking. The following example shows a typical unmarked middle term and an unmarked singulative.

ɲerè-g	ɲerè	ɲerè-sí:
piece of pudding	pudding	portions of pudding

However, there are also cases where the singular is unmarked and the two plurals are distinguished by double affixing.

bara:	bar-tu:	bar-tu-si:
shoe	pair of shoes	shoes

Number	Affixes
singulative	-g
plurative	-i:, -tu:, -ni:, -si:, -sɛ (-ʃɛ:), -jɛ:

Table 5 presents examples of noun plural affixes in Maba;

Table 5. Maba noun plural affixes

sg.	pl.	Gloss
liŋa-g	liŋa:	track
tandem	tandam-i:	kudu
simbil	simbil-tu:	bell
kasi-g	kasi-ni:	boy
tórmɓò-g	tórmɓò-si:	camel
m-ir	m-ir-ʃɛ:	my brother
ti:lám	ti:lám-jɛ:	hornbill

Source: Adapted from Weiss (2009)

The singulative can also be a type of diminutive. Thus;

òwun ashes òwunu-g a pinch of ashes

There is some semantic correlation with number-marking. The -i: suffix is largely applied to animal names, s/ʃɛ: to kinship terms and -jɛ: is applied to loanwords and others in the process of being integrated into the language.

The Masalit system is more complex, although Edgar (1989: 45) does not clearly explain the tripartite number marking which is apparently operative. Table 6 summarises the Masalit suffixes;

Table 6. Masalit number marking

Singular	Plural
-ø	-ø
-V	-V (i, ɛ, ɔ)
-di, -ti	-di, -ldiŋ, -ta
-rV	-r, -rV
-ko	
-gi, -ŋgi	-ŋ
	-dʒe, -yu
	-sɪ, -(v)s
	-kar, -ter, -dur, -cor

Edgar does not mark tone and probably there are tonal changes marking number as in Aiki. Aiki has a significantly reduced system of segmental affixes compared with Maba, but since tonal changes operate between singular and plural, number can be considered fully marked. The most common singulative suffix is -k, as shown in Table 7. Examples;

Table 7. Aiki singulatives in -k

sg.	pl.	Gloss
ndù-k	ndù	body
sə̀bò-k	sə̀bò	spear/war
rì-k	rí	tree
àdi-k	ádi	thorn
kə̀siá-k	kə̀sió	sand

The other strategy for marking singulative is a -V suffix, which applies only to persons and animals, and seems to be a default for loans in this semantic sphere (Table 8).

Table 8. Aiki singulatives in -V

sg.	pl.	Gloss
àrá-m-á	àrá-m	Arab
kàdám-ú	kàdám	animal
ŋgól-ò	ŋgól	fish sp.
wìjŋ-á	wìjŋ	fish sp.
màbál-á	màbál	jackal

Plurals are marked in Aiki either by tonal change, vowel alternation and suffixing, and these strategies can be combined. The four suffixes given by Nougayrol (1989: 50) are -t(i), -V, -do and -ke.

Table 9. Examples of Aiki plural suffixes

Suffix	sg.	pl.	Gloss
-t(i)	àŋòŋ	àŋòŋ-tí	elephant
	kòlò	kòlò-t	snake
-V	nòm	nòm-ó	wall
	àrtók	àrtók-ú	fish sp.
	tòu	tòu-ó	hair
-dO	àrè	àr-dò	pond
	àgù	àgù-dó	hole
-ke	dèdì	dèdì-ké	far
	tùlù	tùl-ké	deep

The suffix in -t(i) corresponds to the singulative in -k in that it applies to persons and animals. -ke only occurs with adjectives, not nominals and may therefore not be the same set as the other suffixes.

Table 10 represents a tentative reconstruction of Proto-Maban number marking;

Table 10. Proto-Maban number marking

sg.	pl. I	pl. II
-ø	-ø	-ø
-V	-tu ~ -du ~ -ti	-SV (s ~ ʃ) + front vowel
-k ~ -g	-V	-N(i)(n ~ ŋ ~ ɲ)
	-dʒe ~ ʃe	-r(V)

Tonal and vowel alternations are excluded for lack of reliable data, although they must have been present in proto-Maban. The evidence from Masalit for -CVr suffixes (Table 6) is interpreted as affix stacking, suggesting that -r was a second plural, and that the -CV element preceding it was the primary plural.

6. Reconstruction of the lexicon

Edgar (1991b) is a preliminary look at the steps towards reconstructing proto-Maban, and he includes a comparative wordlist in his Appendix, but with no reconstructed forms. This list is given in Appendix I with

the lines where no reconstructible form is evident deleted and the transcription modernised. Hypothetical proto-forms are given in an additional column. An initial attempt to provide more systematic proto-forms is given in Appendix II where a common root is attested across Maban.

7. Maban within Nilo-Saharan

7.1 Lexicon

Lexically speaking, Maban languages align squarely with the remainder of Nilo-Saharan. The tables in Appendix III present common lexical items where Maban shows cognates with other branches of the phylum. There are many more, but this illustrates that the Maban languages are mainstream Nilo-Saharan. The tables however, exclude the possibility that Maban has a special relationship with the neighbouring Fur-Amdang, Saharan languages or indeed Songhay [!]. Maban alignment is almost certainly with Eastern Sudanic, with which it has most cognates.

7.2 Nominal number marking

The area where Maban languages most strongly resemble another branch of Nilo-Saharan is in their system of number-marking on nominals. Blench (2020) has reviewed this system for Eastern Sudanic. Table 11 shows the synthesis table he proposes for the family as a whole.

Table 11. East Sudanic nominal affixes and affix stacking

Branch	-T	-K	-N	-V	-S	Affix stacking
Nubian	+	-	+	-	-	+
Nara	+	+	-	+	+	-
Nyimangic	-	?	-	-	-	-
Taman	+	+	+	+	-	-
Surmic	+	+	+	+	+	-
Eastern Jebel	+	+	+	+	-	+
Temein	+	+	+	+	+	+
Daju	+	+	+	+	+	+
West Nilotic	+	+	+	+	-	+
East Nilotic	+	+	+	+	+	+
South Nilotic	+	+	+	+	-	+

As is evident, if the suffixes which are widespread in Eastern Sudanic are compared with Maban (cf. Table 10) they are extremely similar. Just as in Maban, Eastern Sudanic has isolated suffixes found in single branches which do not match those elsewhere. But the core of the suffixing system, including *-tV* singulative and *-kV* plurative, are identical.

Edgar (1991b) seems to have had a similar idea, when he compares the nominal suffixes of Maba with Tama, the Eastern Sudanic branch closest geographically to Maba. Table 12 shows Edgar's Table 21, where he lines up their affixes, which are strikingly similar apart from the fricative *-SV*.

Table 12. Tama and Maba number marking affixes

Tama		Maba		Realisation
sg.	pl.	sg.	pl.	
-∅	-∅	-∅	-∅	zero morpheme
-V	-V	-V	-V	vowel
-T(V)	(-T)	(-T)	-T(V)	alveolar
(-N)	-N	(-N)	-N	nasal
			-SV	fricatives
		(R)	-RV	r ~ l
(-K)	-K	-K	(-KV)	velar

As a comparison with Table 11 suggests, these parallels extend across Eastern Sudanic and are not the consequence of geographical proximity. This leads to a conclusion which is not envisaged in the published overviews of Nilo-Saharan, namely that Maban is either the closest relative of Eastern Sudanic or simply an additional branch which has been previously treated as distinct because of its geographical position. Given the similarities with Tama, it might be part of North Eastern Sudanic, together with Nubian, Nara and Ama, though such a claim would take considerably more work to substantiate.

8. Conclusion

The paper reviews the literature on the Maban languages of Central Africa, which are considered to constitute an independent branch of Nilo-Saharan. The paper established the sources of data, and the internal structure of the Maban group. It makes proposals for the phonology inventory of proto-Maban. Maban languages mark number on nouns with suffixes and at least some nouns exhibit three-term number marking, as elsewhere in Nilo-Saharan. It puts forward a reconstruction of the system of tripartite number marking on nominals. This is shown to be extremely similar to that occurring in the neighbouring East Sudanic family, and it may be that Maban is either its closest relative or indeed an unrecognised branch of Northeast Sudanic.

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Appendix I. Comparative Maban wordlist

Table 13 shows a comparative Maban wordlist, adapted from that given in Edgar (1991b). Words which are borrowings or otherwise not reconstructible are omitted and the transcription is modernised to a more IPA-like format. Sometimes the forms given by Edgar do not match those in Abdullay (2003) so I am gradually working on harmonising the data. The proto-forms given in the final column are my own quasi-reconstructions. Where the Maba/Masalit and Aiki/Kibet groups have a different root, no proposal is made for a proto-form. Non-cognate forms are given in square brackets.

Table 13. Comparative Maban wordlist (Edgar 1991b)

Gloss	Maba	Masalit	Aiki	Kibet	Proto-Maban
abdomen	kùŋi-k	kunyi	kúí		*kuŋi-k
above	tál	dól	tànga	tàngal	*tànga;
accusative	gú	-ko	ga		*-gV
ashes	àwún	àwén-di	àw`n-dí	awun-di	*awun-di
be	-índ-	-ind-	-ènd-		*Vnd-
beard	kamur	kámáři	gàmsi {gàmsù}		*gamV.sV
big/old	kula-k	kódì/guri	kwàyè/kùdè-ndé	kwòle/kuyoy	
bird	kùfí-k {-tu}	kúfí-k kùcì	kòs-í {-it}	kwòsí	*kùfí-k/-tu

Gloss	Maba	Masalit	Aiki	Kibet	Proto-Maban
	{kú kúfée}	{kúcé/kucije}		{kusudduk}	
bite	-is-	-if-	-òtí-	-ut-ed-	*-iɸ-
blood	àrí	fàríŋ	pày {-ó}/fáai	fal {-u} ari	*fàrí-ŋ
body	ndùu	ndũ	ndù-k	ndu-k	*ndu-k
bone	kànjí-k	kónji	jìng`r {jùŋgòrò}	njekedi {njùkùdú}	?
breast	àngûn	àngùini	àngòni	àngòni	*àngò-ni
bring	-ánár-	-inar-	-ínàr-	-anar-	*-ánár-
brother	-ir	-ir	-ir	-ir	*-ir
causative	nd-	nd-	nd/-taa-		*nd-
charcoal	kikimi-k {-ø}	kiɸimi	kúyúy-i	g`ɸiɸim-âŋ	*kikimi-k
child	kà-kàlá-k (f)	kara (f)	kàykày	kàlkàl	*kà-kàlá-k
cold	[kira]		àtàandí	àtàandí	*àtàandí
come	-àr-	-ár-	-èer-	-âr-	*-àr-
sorghum	éséé	ásè	àsé-k	assee	*àsé-k
cow	dè-k	dèe	dò-k	dò-k	*dV-k
cry	-ool-	-oor-	-òrò-		*-ool-
cut	-atam-	[-ifél-]	-təm-	-and(ay)-	*atam-
day	wondyo		sóoró	sarwə	?
die	-óy-	-iy-	-í-	-iy-	*-iy-
dig	-uur-	-uul-	-or-ɔŋ-		*-uur-
dog	ɲû-k	ínji	míɲ {mìɲjít}	mìɲ {mìɲjík}	*mìɲu-k
dream	-òlòl-	-arir-	-òyèy		*-òlòl-
dry	nojir	ferè	nàbày/ninjim	nɔbaai	*naba-ri
dust/sand	gisináa/ganun	gani/gari	kàsiaá-k/kí(y)ák	kɔsya/kí(y)à	?
ear	koi-k	kwóyè	kásá	kásá	?
eat	-aɲ-	-iny-	-ɲò-	-ɲò-	*-aɲə-
egg	kademi-k	kéndèŋgí {kédèm}	kàdèmòŋ {ò}	kadɛm-aŋ {- ɔŋə}	*kademi-k
elephant	ɲòo-n {-ɲii}	mùŋ-gí {jɛ}	àŋòn {-tí}	aŋən	*àŋò-n
enter	-ày-	-ac/-ay-	-aas	-as-	*-aɸ-
eye	kàɸi-k {-ɲi}	kóo-gí {-sí}	kàs-ək {-ò}	kàs {-u}	*kàSi-k
fat (n)	ɲamu-g {ɲamu} oil	nyomor	ɲim {ɲímú}	ɲim {ɲumo}	*ɲamu-g
fingernail	ɲíŋgírmísi-k	kindzimi	síŋgími	síŋgírím	*sindzimi ?
fire	wàsí-k {-i}	wàasí	nəsək {nusu}	nəsə-k	?
fish	kɲo	kúnyò	kùɲúŋ {-ó}	kɲaŋ	*kɲa-ŋ
fly (n)	áɲiŋ	áɲiŋ-gí	àɲíɲí	aɲini	*aɲi-ɲi
foot	ja-k {-ɲi}	jo-ɲyi {-Ø}	dò-dí	dòo-dí	*dʒon-di
four	àsàal	as	áttéy	atal	*aɸal-
full	fíŋ {-ti}	biŋga	bíyím/bíc/bíjàsé	bic	*biŋ-
give	-and-	-and-	-àndàas-		*-and-
give birth	-uŋ-	-uuny-	-ìŋ-		*-uŋ-
goat	jo-k	ju-lgi	àndèi	andi	? see below
gourd	kuudu-k	kòdòkó	kédé	kede	*kUdU-k
green	dri-drí-yàk	ràa-ŋgi	raa-ndík	raa-ndík	*raa-ŋ-Vk
ground	bár	bùurá	bàaɲiŋ	baɲaŋ	*bar-Vŋ
hand	kara pl. kar-ɲi	kórò	kàrá {koro}	kàrá {kóró}	*kara
head	kíjì-k	kújò	kì {kíjé}	kic {kujo}	*kiɸi-k
heart	kùlì-k {-íi}	kùrì	jì	kul {-do} "belly"	*kùlì-k
here	gun	gim	gin	gm	*guN
hoe	kaɲya	kaɲa	kíɲáɲá		*kíɲáɲá
hole		agu	àgù	àgù	*agu

Gloss	Maba	Masalit	Aiki	Kibet	Proto-Maban
honey	kimiin	kírímà-k	kéméjé	kimijni	*kimijni-k
horse	bèré-k {-íi}	beré	fila/pla {pə̀lɪt}	fia	*bèré-k
house	táŋ	taŋi	tòŋgó	tòŋgó	*ta-ŋi
house/nest	kuroŋ {-tu}	kurdi kùdé/korok "inside"	kùdù {-wó}	kuduo	*kudoŋ-tu
hyena	húiyà (howl)	awiye	àbólí {à̀bòlit}	aboi {-dik}	*à̀bó-lí
I	àm	ama	àmò	ámò	*am-V
kill	-iyw-ír-	-iyaw-	-àsów-	-asao-	*-àsów-
knee	túmó-k {-jé}	kádĩŋyo	d`m-dí {-dú}	dàm-tí {-tú}	* túmV-k
know	-as-iŋ-	-os-iŋ-	-òt-èŋ-	-ot- k-	*-oʃ-iŋ-
laugh	-ask-	-ɛʃɛk-	-dé-	-àt-ây-	*-ɛʃɛk-
leave	-àbbàan-	-abas-iŋ-	-bù-	-ubunn-	?
lion	àmàrà-k	ama-ra {-kar}	màndày {màndèltí}		*àmàrà-k
long	le-le-k	[cùkàŋgí]	dè-di {-ké}	dè-di {-ké}	*de-le-k
louse]mèsèlé-k {- Ø}	[akiŋgi]	mànjé {munjo}	minj-e {-i}	*
male	már-fée {-Ø}	már-gi {-sɛ}	már		*már-
man	máʃi-k {-ún}	ka-ŋgi {-Ø}	kà-méré	kà-mèré	*máʃi-k
man	kàmbà-k	kàmbâ	mérét {mèrèt}		* kàmbà-k
meat	ŋù-k {-`ú}	ŋù-gi	ndobo	yibo {-do}	* ŋù-k
milk	[sílá]	jii	jù-k {-Ø}	ájù	*-jù-k
millet paste	futiir		pàttár		*pàttár
monkey	gùr {-íi}	gur-gi {-i}	àgùr {-tí}		*gur-i
monsoon	kilèerí		kódírwò	kòdòrwo	*?
moon	éyè-k	áyè	àŋj'-k	àŋj'-k	*áyè-k
mosquito	agel-ek {-ni}	andzul-gi	àjikíjní {-t}		*andzul-Vk
mother	ŋíŋ		ŋiŋ		*ŋíŋ
mountain	kodo-k {-Ø}	kómà {-jɛ}	kòmàan-dí {-dó}	kùmàan-dí	*kòmàan-k
mouth	kan-a {-tu}	kànà	yù-k	yù-k	*?
name	mílí-i {-síi}	mirsi {-ldiŋ}	mèek-í {-ú}	mə̀lk-i {-udo}	* mílí-ik
navel	dùmú-k {-ú}		àdim {à̀dùmù}	àdəm {adumo}	* dùmú-k
neck	biti-k	kóti	k`rmí	k`rmí	*?
new	ŋend-ík {-isi}	ŋúndi {' '}	w`nd-í {-ò}		*ŋend-ík
night	íʃè/òjùrkó	kosaŋ	díindé	díindò	*?
nine	òddói	ade	kadeel	kʌdai	*kada-li
nose	[boiŋ]	dúrmí	mùndú	mùndù	*dúrmí
of	-na	-taŋ	-na-ŋ		*-nta-ŋ
oil (cf. fat)	ŋàmú-k	ŋàmí	ŋum	ŋum	*ŋàmú-k
old person	manjil	monjo-kola (f)	mìnjò/mònjò		*monjo-l
one	tóɔ	tyom/tóo/tíilo	tùwá	tuwni	*tuwa-ni
only	dee	dei	ndó		*ndei
outside	fèriŋ	orro "behind"	àrí -ifiriŋ- "go out"	kòlé	*?
owner	tèné	tèné	tèné		*tèné
palm of hand	adadaŋ	adaraŋgi	kàrà kwíy		*?
person	kaŋg/kai	kaŋgi	kàŋ {kè}	kaŋ {ke}	*kaŋ-gi
porridge	ŋèré-k	ŋuguru	ŋàŋ		*ŋèré-k
pot	siŋgaŋ	sakana	sàkán		*saka-ŋa
pound	-udduŋ-	-iduk-	-dɔ̀k-		*-Vduk-
rabbit	mòmó-k {-tu}	máamà {-jɛ}	màsá		*mòmó-k
rain	inji	sa	tà-k {tá}	ta	*ʃa-k

Gloss	Maba	Masalit	Aiki	Kibet	Proto-Maban
rat	jik {-etu/isi}	jù {'-cé}	àj-ù {-út}	\ʌjú {-tuk}	*a-ʃu-k
red	kù-kú-yàk	ko-ŋgi {-ni} "brown"	[ndàlàn]	kwònjé-k {kùnjó}	*
remain	-iirŋ-	-irɛŋg-	-ri-t-		*-irɛŋ-
right	kolon	kòdòr kónjí	koyŋga	kolon	*kolo-ŋ
ripen	-yòm-	-oom-	-òm-		*oyòm-
river	bita-k {-si}		tà-k {-Ø}	ta	*tà-k
rotten	truni	tuyɛ	tiyoye	tiyoi	*tiroye
salt/iron	wudya (salt)	áŋgò	síim; sàim-í {-ú}	silim; salmie	*?
sand	fi (soil)	abi	abiyó-í {-yu}	abileli	*abi-yV
satisfied	-iil-	-oil-	-iid-		*-iil-
sauce	su	su	tò-k		*?
say	-er-	-er-	-àyèr-	-ayer-	*-ayer-
scratch		-ŋos-	-íŋàs-ón-	-iŋas-ɛn-	*-íŋàs-ón-
see	-oko-	-iser/ikel-	-òond-	-ɔnd-k-	*-ɔnd-k-
sesame	wanaaŋga	àníŋá	ànáŋá		*C-àná-ŋá
seven	méndrú	màrí	mándirsí	mındırsık	*mındır-sı-k
sharp	tijni	tɛŋɛnɛ	tèrŋ		*tèrí-ŋɛ
s/he	tì	ti	tii	tì	*tì
shoe	bara	bar-jaŋi	bàr		*bara
shoulder	kòrkòr-uk {-jɛ}		kòsòkòr {-ó}	kòsòkòr {-ɔ} "wing"	*kòsòkòr-uk
shut	-ils-	-wurs-	uloot {-ŋ}		*ulof-
sit	-onɛg-	-uŋuŋ-	-ùŋùŋ-	-uŋuŋ-nduk	*-uŋuŋ-
skin	koi-k	bàrá	màdà	madda	*?
sky/god/rain	kalak	kariŋga	kàŋá		*kariŋa
sleep	-èbìy-	-ibi- (lie)	-`bèi-	-ubi-tik-	*-ubi-
small	jìli-k	sùwàná; nyer-ko (baby)	káakéy	kàdéekàl	*?
smoke	kùuldaa-k/kúndík	urungí/kurunda "dust"	àmbròŋí	àmbrùŋí	*?
snake	taraŋga-g	taráŋgì	kòlò	koyo	*?
sour	-kámà-k	juma	káyám-ndí		*-kámà-k
sow	-ask-	-ind-is-	nd-èt-		*?
speak	-uur	-oor-	-òor-		*-oor-
spear/war	yorre	nyori	ŋùr (sword sabre)		*ŋori
spend day		-óos-	-òd-		*?
stand up	-urnɔŋ-	-ornaŋ-	-uran-	-urɔŋ-	*-ornaŋ-
star	mɪŋa/menuek	kíyè/muŋiŋɛ (Mercury)	kèij-á {-ó}	kèɛf-á {-ó}	*?
steal	-éniy-	-eniŋŋ-an-	-aŋei "covet (convoiter)"		*-eniŋ-
stick	dolo-k/cum	buta	rí-k, yès		*?
stone	kodo-k	kómà/ditera	dùs-ì {-ù}	dúusi {dúsúdò}	*?
straight		àdí/ndelli	àdí/dilɔŋsé	adiil	*àdí
sugarcane stalk	gamberi-k	gember-ti {-i}	gàmbàrí		borrowing
sun	èní-k	áyŋŋé	àŋŋ	àŋ-íŋ {-ùŋú}	*èní-k
swallow	-líŋgá-	-oliŋ	-làn-		*-oliŋ-
sweat (n)	moruu	muri	murus (suer)		*muru-sV
tail	òlú-k/álú-k	kora	àl`m-dí	àyù-dí	*?
tamarind	konji-k	kúnjì	kùnjù-k		*kùnjù-k
tears	nyi-nyi	nyi	ai {eli}		*ŋi

Gloss	Maba	Masalit	Aiki	Kibet	Proto-Maban
ten	òtúk	ùtúk	ituk	ituk	*ùtúk
they	wáŋ	wii	wii	wì	*wiŋi
this	ago	ìgi	gó	go	*ago
thorn	aŋi-k/èsí-k	arce/arci	àdí-k {ádí}	adi-k {-i}	*aŋi-k
three	kòŋaal	káaŋ	kásáŋgá	kàsáŋgál	*kásáŋgà-l
throat	saŋgala-k	agara {-s}	ŋgàbà		*s-aŋga-
throw	-adzan-	-iŋfúm-	-sàŋ-		*-adzaŋ-
thunder	durda-k	turi	trùgá		*durda-k
tie up	-uuf-	-wac-	-òt-	-ut-Λŋ-	*-uuf-
tongue	delmi-k	gélmèdi	àdiyím	àdèlém	*delemi-k
tooth	sati-k	kácíŋgi	sàdí	sàdí	*sati-k
transitive	n-	n-	n-		*n-
tree	soŋgo-k	síŋgi	rí-k	ri-k	*?
uproot	-ùud-ùŋ-	-od-o-	-òd-`-	-od-Λŋ-	*-ud-uŋ-
urine	ísíí	ísà	mùsù-k	musu	*mùsù-k
wait	-uuls-	-wurus-	[toŋ]		*-wurus-
want	-ìdiy-	-ind-	-ndày-	-Λndal-	*-andal-
warm	bəŋə	boŋgo	baŋ	bΛŋtir	*bəŋ-ə-r
wash	-wùk-	-uk-	-òok-		*Uk-
we	maŋ	mí	mì	mì	*mi-ŋ
well	gule-k {-si}	kùrtí	kùrtó/àgùyé	kùttó	*kule-k
white	fà-fár-àk	ji-sa	pár {-ó}	far {fórò}	*fara-k
wind	auli-k/òili-k	ágùrí	àgwiy	ágúli	*ágù-rí
woman	mùŋdò-ŋ {-o}	múcò	mì {mís}	mì-l {-sík}	*mùŋdò-ŋ
woods	àsé		ΛsΛk	Λsé	*asa-k
wound	òndur/andur	àndúrti	ànd'r {àndró}		*àndúrti
yesterday	kondaŋ	géndégù	kàndaŋ		*kandaŋ
you (sg.)	mè	maŋ	mò	mə	*mVŋ
you (pl.)	káŋ	kii	kii	kì	*kVŋ

Appendix II. Proto-Maban datasets

The following datasets present some preliminary evidence for reconstructing proto-Maban. Where a Tama cognate exists is it also given, based on Edgar (n.d.).

Nouns

Table 14. Proto-Maban ‘ashes’

Language	Sing.	Pl.
Maba	auun	
Kibet	awundi	awundu
Aiki	àwèndí	áwúndú
PM	*awund-	
Tama	*àwún	

Table 15. Proto-Maban ‘back’

Language	Sing.	Pl.
Maba	dan-aŋ	
Kibet	sii-da	sii-do
Aiki	síd-á	síd-ó
PM	*-da-	

Table 16. Proto-Maban ‘bee’

Language	Gloss	Sing.	Pl.
Maba	bee	kimin	kimini
Masalit	bee	tímíŋ-gì	{Ø}
Kibet	bee	kimeŋi	kimeŋu
Aiki	honey	kéméŋé	
PM	bee	*kimíŋ-i	

Table 17. Proto-Maban ‘body’

Language	Sing.	Pl.
Maba	ndūū	ndu-tu
Masalit	ndū	
Kibet	ndu-k	ndùù-dó
Aiki	ndù-k	ndù
PM	*nduu-k	ndu-tu

Table 18. Proto-Maban ‘goat’

Language	Sing.	Pl.
Maba	m-anda-kal	manda-kal-dye
Kibet	andi	andu-ndu-k
Aiki	àndèy	àndèy-tí
PM	*(m)-and-V	

Table 19. Proto-Maban ‘hair’

Language	Sing.	Pl.
Maba	tífi-k	tífi-í
Masalit	tíŋà	tifa
Kibet	tow	tow-i
Aiki	tòw	tów-ó
PM	*tufu-k	*tufu-i

Table 20. Proto-Maban ‘horn’

Language	Sing.	Pl.
Maba	kemi-g	kemi-ɪ
Masalit	kámì	
Kibet	gàmdí	gamdu
Aiki	gàmdí	gámdú
PM	*kàmi-k	kem-du

Table 21. Proto-Maban ‘tooth’

Language	Sing.	Pl.
Maba	sati-k	sati-ŋi
Masalit	ká-cì-ŋgi	
Kibet	sàd-í	sàd-ó
Aiki	sàd-í	sád-ó
PM	*sàdí-k	*sadi-ŋi

Table 22. Proto-Maban ‘water’

Language	Gloss	Sing.	Pl.
Maba	large wadi	bi-ta-g	bi-ta-si
Masalit	water	sá	
Kibet	water	ta	
Aiki	water	ta-k	tá
PM	water	*ta-k	ta-si

Table 23. Proto-Maban ‘year’

Language	Gloss	Sing.	Pl.
Maba	year	kudria-k	kudri-aa
Kibet	year	kadarwundi	kadarwundu
Aiki	rainy season	kàdàròwòndí	kàdàrwó
PM			

Verbs

Table 24. Proto-Maban ‘to cut’

Language	Sing.
Maba	ta-ttam-a
Kibet	wè-tóm-è
Aiki	wa-nda-y
PM	*wa-ntəm-V

Table 25. Proto-Maban ‘to dance’

Language	Sing.	Pl.
Maba	weledda-g	weledda
Kibet	wuwal	
Aiki	w-òòm-é	
PM	*waladda-	

Table 26. Proto-Maban ‘to drink’

Language	Sing.
Maba	w-aŋ-i
Masalit	w-aŋ-
Kibet	w-àŋ
Aiki	w-àŋ-é
PM	*w-àŋ-V

Table 27. Proto-Maban ‘to give’

Language	Sing.
Maba	-ɲu
Masalit	-iŋy-
Kibet	w-uŋik
Aiki	nù-w-ìŋé
PM	*w-uŋ-

Table 28. Proto-Maban ‘to go’

Language	Sing.
Maba	wawa-i
Masalit	w-ay-
Kibet	wokoŋ
Aiki	wə-w-àŷ-é
PM	*wəway-

Kibet may not be cognate

Table 29. Proto-Maban ‘to say’

Language	Gloss	Sing.
Maba		ndisa
Kibet	they say	wu-ndis
Aiki	they say	wə-ndíí-sè
PM		*-ndis-

Table 30. Proto-Maban ‘to sleep’

Language	Sing.
Maba	fí-ya
Kibet	wu-biti-k
Aiki	wə-bèi-té
PM	*-bi-ti-k

Numerals

Table 31. Proto-Maban ‘two’

Language	Sing.
Maba	mbààr, mbíír
Masalit	mbàrà
Kibet	mbar
Aiki	mbár
PM	*mbààr-(a)

Table 32. Proto-Maban ‘five’

Language	Sing.
Maba	tùùr, túúr
Masalit	tur
Kibet	tur
Aiki	tór
PM	*tuur

Adjectives

Table 33. Proto-Maban ‘white’

Language	Gloss	Sing.	Pl.
Maba		fà-fàrà-k	fafar-tu
Kibet		far	fór-ò
Aiki		pár	pár-ó
PM		*far-ak	*far-tu

Table 34. Proto-Maban ‘right (hand)’

Language	Gloss	Sing.	Pl.
Maba	things to the right	kolon	kolontu
Kibet	right (hand)	kòllon	
Aiki	right (hand)	kwàyàngó	
PM		*koloŋ	

Appendix III. External Maban cognates with Nilo-Saharan

The following table place a sample of the Maban lexicon related to body parts in a broader Nilo-Saharan context and are linked to the commentary in

1. nose

Family	Subgroup	Language	Attestation	Gloss	Source
Bertha		Mayu	àmúŋ	nose	B-G07
ES	Daju	Shatt Daman	múúni	nose	Bo08
ES	Ama	Ama	àmùqù	nose	Be00
ES	Tama	Proto-Tama	*amit-V	nose	Edgar n.d.
Kadu		Krongo	amóóni	nose	Sch94
Maban	Runga	Aiki	mùndú	<i>nez</i>	No89

2. tooth

Family	Subgroup	Language	Attestation	Gloss	Source
Koman		PK	*je?	tooth	Be83
Gumuz		Guba	k ^w osa	tooth	Ah04
ES	Taman	Sungor	ni-sit	tooth	Edgar 1991d
Maban	Runga	Aiki	sàdí	<i>dent</i>	No08
CS	ME	Lese	ósé	<i>dent</i>	DD
CS	FS	Sinyar	sɔli	tooth	Ha87
CS	SBB	Bongo	usu	<i>dent</i>	Bo00

3. head

Family	Subgroup	Language	Attestation	Gloss	Source
Koman		Komo	koro	chief	
ES		Nara	kele	head	
ES		Meroitic	k ^w ur	<i>souverain</i>	Ri09
ES	Taman	Tama	ŋur	head	Ed91d
Kadu		Krongo	kwaara	chief	
Furan		Amdang	kuye	<i>tête</i>	Wo10
Maban		Masalit	kúdzò	head	Ed91
Saharan		Kanuri	kèlá	head	Cy94

4. #ar-					
Family	Subgroup	Language	Attestation	Gloss	Source
Gumuz		Guba	iila	belly	Ah04
Kunama			árdá	intestines	CHA00
Kuliak		So	arı	entrails, guts	HC
Kuliak		Ik	àríé	small intestine	Sc13
ES	E Jebel	Molo	ılli	belly	Be97
ES	Nilotic W	Anywa	èc <i>pl.</i> ídhí	belly, stomach	Re99
ES	Nubian	Meidob	ırjé.dí	guts	We93
ES	Nubian	Birgid	erti	external belly	Th77
ES	Taman	Ibiri	ùr-tí	guts, bowels	Ed91b
Kadu		Yegang	aadi	belly	Sch94
Maban	Runga	Aiki	àró	<i>abdomen</i>	No89
CS	MM	Okollo	?ālē	belly	B&W96
Saharan	West	Teda ??	aro	belly	

5. liver					
Family	Subgroup	Language	Attestation	Source	
ES	Nilotic E	Teso	emaŋ		
ES	Nilotic E	Bari	mujet		
ES	Ama	Ama	máɾɿŋ	Be00	
ES	Temein	Keiga Jirru	múriŋ	RCS	
ES	Taman	Tama	òró	ED91d	
Maban		Maba	mujik	check	
Saharan		Daza	màán		

Taman is only cognate is a prefixed m- and a final velar is deleted.

6. hand, arm					
Family	Subgroup	Language	Attestation	Gloss	Source
Koman		Komo	kə̀ɔ	hand	Be83
Kunama		Kunama	kò`nà	hand	Be01
Kuliak		Ik	kwet	hand	He99
ES	Nilotic	Toposa	akan		
ES	Temein	Temein	nánák <i>pl.</i> kén	hand	RCS
ES	Taman	Tama	ada	hand	ED91d
Furan		Amdang	naŋ <i>pl.</i> kaŋiŋ	<i>bras, main</i>	Wo10
Maban		Masalit	kórò	hand	Ed91a
Maban	Runga	Aiki	kàrá	<i>main</i>	No89
CS	SBB	Morokodo	kala	hand	?
Saharan	West	Kanuri	kará.di	palm of hand	Cy94
Saharan	West	Daza	kei	<i>main</i>	Le50
Songhay	North	Kwarandzyey	kəmbi	hand	So10
Songhay	South	Hombori	kàmbè	hand	He

7. neck					
Family	Subgroup	Language	Attestation	Gloss	Source
Gumuzic		CG	-bia	neck	Ah16
Koman		Opuo	ḃiyà	neck	Si13
ES	Ama	Ama	bede	nape of neck	Ki96
Maban		Maba	biti(k)	neck	
Saharan	West	Kanuri	bódi	base of the skull	Cy94

8.	heart				
Family	Subgroup	Language	Attestation	Gloss	Source
Kuliak		Ik	gúr	heart	He99
ES	Nubian	Dongolawi	dúgus	intestines	Ar65
Maban		Masalit	kuri	heart	Ed89
CS	SBB	Bongo	kúlú ^u	<i>cœur</i>	PN
Saharan	West	Kanuri	karé.gè	heart	Cy94