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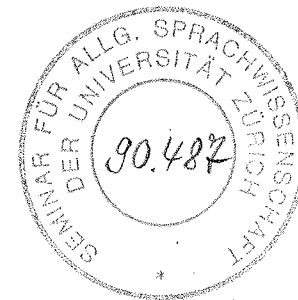
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Nilo-Saharan Linguistics

Edited by  
M. Lionel Bender



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## PREFACE

The parallels between Linguistics and Mathematics are many and strong. I recall years ago hearing one of my Professors say something like "the business of Mathematics is proving theorems", i.e. making visible those hidden relationships in the data which are inevitably implied by their axiomatic and definitional bases. I suppose one could also say that the business of Linguistics is arriving at a theory of Language, i.e. making visible the hidden structure which is implicit in the Platonic formal system which underlies human languages.

But there is a difference: in Mathematics, the inspiration may originally have come from trying to model the physical world, but one can dispense with this and simply play with abstract systems invented at will so long as they do not violate metatheoretical constraints such as consistency (there are severe problems here--recall Gödel's Theorem--but this is not the issue at hand). In Linguistics, we need the Linguistic data on all known natural human languages (present and past) in order to abstract the underlying system, or alternatively, if we know how to do it, we might arrive at the system from any one language, e.g. one's own, a la Chomsky! But we do not know how to do it--at least not yet.

All this leads to a justification for yet another volume of descriptive and comparative studies. These days it seems easier to get into print studies on this or that aspect of syntax or phonology from this or that theoretical point of view than to get out a collection such as this one. The foregoing should not be interpreted to mean that I am opposed to theoretical work: in fact, as I stated, it is the real business of Linguistics. But so much theoretical work is doomed to be ephemeral. Even the most important works of a few years ago by the greatest theoreticians are now often seen as quaint if not downright deadends. The secondary job of language description has its virtues too, one of which is providing essential input to the more exalted theoretical scholarship.

The collection at hand can be considered as a sequel to the volume (*Nilo-Saharan Language Studies*) I edited in the Michigan State African Studies Center series (1983). It includes papers on a number of much-neglected languages of Africa. The authors range from some of our best-known African linguists to some well-prepared amateurs (relatively speaking) who are in the forefront of bringing some of these obscure languages to our attention.

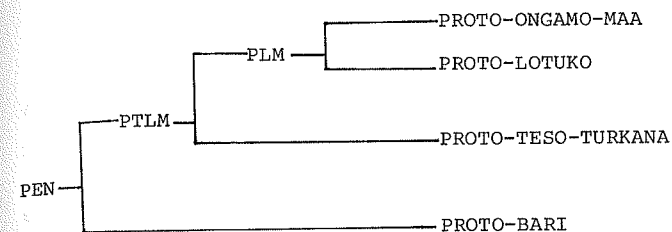
I would like to express my appreciation to these contributors, who showed the usual patience and cooperation during the too-long process of bringing this book to fruition. I also thank my co-editor, Franz Rottland, for his involving me in this series and for his many contributions to this volume. The office of Research Development at Southern Illinois University provided a small grant which allowed me to hire a typist/word processor who prepared most of Chapters 1-8 and 18. This was Gayle Jany, who was a pleasure to work with and who learned quickly how to handle a very difficult set of typescripts. The authors of Chapters 9 and 10 (Vossen, Heine, and

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA:  
PHONOLOGY AND VOCABULARY

Rainer Vossen and Bernd Heine

1. Introduction

Ongamo-Maa forms one of four subgroups of the eastern branch of the Nilotic language family. Its genetic position was found to be as follows (Vossen 1982:296):



PEN = Proto-Eastern Nilotic  
PTLM = Proto-Teso-Lotuko-Maa  
PLM = Proto-Lotuko-Maa

The group consists of only two languages: Ongamo and Maa. The former is a remnant language which is possibly extinct today but was until recently spoken by a small number of elderly people on the eastern slopes of Mt. Kilimanjaro (Tanzania) (see Heine & Vossen 1975/76:81ff.). Maa is the language of nearly half a million people better known as Maasai, living in the south of Kenya and in north-central Tanzania. It divides into a number of locally determined varieties (Vossen 1987) of which Sampur (Samburu) and Camus (Njemps) are the most important (in terms of linguistic diversity).<sup>1</sup>

In the present article which aims at a concise comparison and reconstruction of Ongamo-Maa phonology and vocabulary we shall deal with Maa mainly in its reconstructed form, i.e., we shall cite as comparative data common Maa forms taken from a book manuscript that is almost ready for print (Heine & Vossen, in progress).

The bulk of both Ongamo and Maa material stems from our own collections.<sup>2</sup> Supplementary information is drawn from Ehret (1971), Fleming (1965), and Fosbrooke (1954) for Ongamo and from Tucker & Mpaayei (1955) for Maasai.

2. Phonology

2.1 Ongamo

The phonology of Ongamo has already been described briefly by Heine & Vossen (1975/76:83-85) and Vossen (1982:193-196). Suffice it here to reproduce charts of the consonantal and vocalic phoneme inventories.

## THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

### Consonants:

	Bilabial	Dental	Alv.-Palat.	Palatal	Velar	Glottal
Plosive	p <sup>3</sup>	t			k	
Implosive	b	d		j	g	
Fricative		s	ʃ			h
Nasal	m	n		ɲ	ŋ	
Lateral		l				
Rolled		r	ɾ <sup>4</sup>			
		rr				
Glide	w			y		
	ww			yy		

### Vowels: [+ATR] [-ATR]

i	u	ɪ	ʊ
e	o	ɛ	ɔ
a		a	

## 2.2 Proto-Maa

The Maa language is characterized by a relatively simple segmental phonology. Its tonology, however, appears to be highly complex. This phoneme inventory of Proto-Maa has been reconstructed by the present writers as follows (see Heine & Vossen, in progress):

### Consonants:

	Bilabial	Dental	Alveolar	Post-Alv.	Palatal	Velar
Plosive	*p	*t			*c	*k
Implosive	*b		*d		*j	*g
Fricative			*s			
Nasal	*m	*n			*ɲ	*ŋ
Lateral				*l		
Rolled			*r			
			*rr			
Glide	*w				*y	
	*ww				*yy	

This system is shared by all modern dialects. There are, however, differences in allophonic variation. The pronunciation

## THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

of these consonants is subject to phonological and morphophonological rules which are contained in our forthcoming book and should, therefore, not be anticipated here.

The vocalic system of Proto-Maa consists of ten phonemes which have to be arranged in two sets:

[+ATR]	[-ATR]
*i	*ɪ
*e	*ɛ
*a	*a
*u	*ʊ
*o	*ɔ

## 2.3 Proto-Ongamo-Maa (POM)

### 2.3.1 Regular sound correspondences

The reconstruction of POM vocabulary is based on regular correspondences between Ongamo (*On*) and Proto-Maa (*PM*) phonemic consonants and vowels. For reason of economy we shall give only one attestation each for initial (I), medial (M), and final (F) position in a lexical form. More examples can be found in Vossen (1982:224-89). When talking of I, M, and F positions either roots or stems are referred to unless otherwise stated.

#### 2.3.1.1 Consonants

\*p (< PEN \*p)

A voiceless bilabial stop can be reconstructed for all positions on the basis of *On* β corresponding regularly to *PM* p:

<i>On</i>	β	(I)	na-βɪrɪó-ó	'smoke n.'
		(M)	o-háβà	'moon, month'
		(F)	o-ŋɛjɛβ-í	'tongue'
<i>PM</i>	p	(I)	*em-puruo	'smoke n.'
		(M)	*o-lapa	'moon, month'
		(F)	*ol-ŋɛjɛp	'tongue'

\*b (< PEN \*b)

There is a series of mutually corresponding voiced bilabial implosives for which final occurrence is not attested:

<i>On</i>	b	(I)	o-bó	'one'
<i>PM</i>	b		*-bo	
<i>On</i>	b	(M)	na-kɪrɔbɪ	'cold(ness)'
<i>PM</i>	b		*a-irɔbɪ	'be cold v.'

# THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

\*t (< PEN \*t)

A voiceless dental stop is found in both *On* and *PM* which is derived from a proto-phoneme \*t.

<i>On</i>	t	(I)	o-tòmé	'elephant'
<i>PM</i>	t		*ol-tòmé	
<i>On</i>	t	(M)	kútò	'big'
<i>PM</i>	t		*kítuk	
<i>On</i>	t	(F)	-mát-	'drink v.'
<i>PM</i>	t		*a-mat	

\*d (< PEN \*d)

There is a voiced alveolar stop in *On* corresponding to a voiced dental implosive in *PM* for which POM \*d is set up.

<i>On</i>	d	(I)	-dòŋ	'cut v.'
<i>PM</i>	d		*a-duŋ	
<i>On</i>	d	(M)	a-ídoŋ-ù	'beat, forge v.'
<i>PM</i>	d		*a-idoŋ	
<i>On</i>	d	(F)	o-mòd-léì	'cow dung'
<i>PM</i>	d		*e-mod-ei	

\*c (< PEN \*k<sub>v</sub> or \*t<sub>v</sub> initially, PTLM \*c and PEN \*t<sub>v</sub> elsewhere)

This proto-phoneme has come into being partly through direct derivation from PEN \*k<sub>v</sub> (see Vossen 1982:240f.) and partly as a result of merging. While it originates from \*k<sub>v</sub> only in initial position, it may otherwise be traced back to PEN \*t<sub>v</sub> or what Vossen (1982:231f.) provisionally labelled \*t<sub>2</sub>. The derivation from \*k<sub>v</sub> cannot clearly be demonstrated here because of lack of *On* evidence, but it can yet be inferred from the role *PM* plays in the overall PEN reconstruction of \*k<sub>v</sub> (Vossen, loc. cit.). Origin from PEN \*t<sub>2</sub> is well attested for medial and final positions:

<i>On</i>	ʃ	(M)	o-máfér-ì	'tick'	cf. PEN *-mat <sub>2</sub> er-
					(Vossen 1982:435)
<i>PM</i>	c		*ol-macer-i		
<i>On</i>	ʃ	(F)	-íβðʃ-	'churn v.'	cf. PEN *-(I)pot <sub>2</sub> -
					(Vossen 1982:346)
<i>PM</i>	c		*a-ípoc	'churn, shake v.'	

Derivation from PEN/PLM \*t<sub>v</sub> is shown in

<i>On</i>	ʃ	(I)	na-ʃòní	'skin'	cf. PLM *-t <sub>v</sub> oni
					(Vossen 1982:422f.)
<i>PM</i>	c		*ol-coni		

\*c is retained from PTLM/PLM \*c in the example of 'louse':

<i>On</i>	ʃ	(F)	o-háf-èní	'louse'	cf. PTLM *-l <sub>v</sub> ac-
					(Vossen 1982:392)
<i>PM</i>	c		*i-lac-e	'lice'	

# THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

\*j (< PEN \*d<sub>v</sub>)

This proto-phoneme is set up as voiced counterpart to \*c on the basis of j corresponding mutually between *On* and *PM*. It is derived from PEN \*d<sub>v</sub> via PTLM/PLM \*j in non-final and ø in final position.

<i>On</i>	j	(I)	na-jóréé	'war'
<i>PM</i>	j		*en-jóré	'the going to war'
<i>On</i>	j	(M)	o-ŋéjéβí	'tongue'
<i>PM</i>	j		*ol-ŋéjép	
<i>On</i>	j	(F)	-méj-ú	'lick v.'
<i>PM</i>	j		*a-mej	

\*k (< PEN \*k)

Although the existence of a voiceless velar stop in PEN and its descendants PTLM and PLM was beyond question in the comparative study of Eastern Nilotic, its reconstruction caused problems with regard to initial position (cf. Vossen 1982:241ff.). While k occurred in all languages of the BARI and TESO-TURKANA groups in all positions, it did not so in LOTUKO and ONGAMO-MAA. Stem-initially no less than four series of correspondences were observed and four k's (\*k<sub>1</sub>-\*k<sub>4</sub>) were consequently reconstructed for the time being. In reconstructing POM, the number of k's can be reduced to three as \*k<sub>1</sub> and \*k<sub>4</sub> have merged. Compare the following correspondences for initial \*k:

*k <sub>1</sub>				
<i>On</i>	k	(I)	o-kùíón-ì	'ashes'
<i>PM</i>	k		*ig-kuruon	
*k <sub>2</sub>				
<i>On</i>	h	(I)	o-hóítò	'bone'
<i>PM</i>	ø		*ol- oíto	
*k <sub>3</sub>				
<i>On</i>	h	(I)	na-háré	'river'
<i>PM</i>	k		*eq-karé	'water'

Preceding high front vowels k is often replaced by ʃ in *On*:

<i>On</i>	ʃ	(I)	na-ʃìrìŋ-óì	'meat, flesh'
<i>PM</i>	k	(I)	*eq-kiriŋ-o	

Stem-medially *On* and *PM* both have k, but in final position there is k ~ h alternation in *On*:

<i>On</i>	k	(M)	íkεεn-	'count v.'
<i>PM</i>	k		*a-íkεn	
<i>On</i>	k~h	(F)	-nàh-	'suck v.'
<i>PM</i>	k		*a-nak	'suck from breast v.'

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\*g (< PEN \*g)

Unlike \*k, its voiced counterpart is so weakly attested that only two examples, both for initial position, were found:

On	g	(I)	-gó -ó	'hard'
			-góró	'be hard, strong v.'
PM	g		*a-gol	'be angry v.'
			*a-goro	

\*kʷ (< PEN \*kʷ)

A voiceless labio-velar stop is set up on the basis of the following correspondences: On ʃi/ʃi : PM kw initially, On and PM ww medially. There is no final occurrence of \*kʷ.

On	ʃi	(I)	na-ʃíèŋ	'bird'
PM	kw		*ɛŋ-kweɛŋ-i	'small bird sp.'
On	ww	(M)	o-hósówwàn	'buffalo'
PM	ww		*ol- osowwan	

\*s (< PTLM \*s)

This phoneme is the only fricative which would seem reconstructible for POM. It is derived from PTLM \*s.<sup>5</sup>

On	s	(I)	o-síkìrìà	'donkey'
PM	s		*o-sikiria	
On	s	(M)	o-hósówwàn	'buffalo'
PM	s		*ol- o sowwan	
On	s	(F)	-às-	'do v.'
PM	s		*a-as	

\*m (< PEN \*m)

There would seem to be little difficulties in the reconstruction of POM nasals. Both On and PM have a bilabial nasal in all positions:

On	m	(I)	-mát-	'drink v.'
PM	m		*a-mat	
On	m	(M)	o-tòmé	'elephant'
PM	m		*ol-tómé	
On	m	(F)	o-tím-í	'monkey'
PM	m		*ol-o-tim	

\*n (< PEN \*n)

There is a series of mutually corresponding dental nasals for which a POM phoneme \*n is set up. While for PEN three final n's were to be reconstructed (Vossen 1982:255ff.), two of these (\*n<sub>1</sub> and \*n<sub>3</sub>) coincide in POM and the third (\*n<sub>2</sub>) has gone to zero.

On	n	(I)	nánú	'I'
PM	n		*nanu	

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On	n	(M)		ditto
PM	n			
On	n	(F)	o-kùŋíón-ì	'ashes'
PM	n		*iŋ-kuruon	
On	ø	(F)	-túá	'die v.' cf. PEN *-tuan <sub>2</sub> - (Vossen 1982:353)
PM	ø		*-tua	'be dead v.'

\*ɲ (< PEN \*ɲ)

On the basis of ɲ corresponding between On and PM a palatal nasal is reconstructed irrespective of position:

On	ɲ	(I)	-ɲ -	'eat v.'
PM	ɲ		*a-ɲa	
On	ɲ	(M)	na-mòŋít-ì	'intestines'
PM	ɲ		*ɛ-maŋít-a	
On	ɲ	(F)	-áɲ-	'refuse, deny v.'
PM	ɲ		*a-aɲ	

\*ŋ (< PEN \*ŋ)

Both languages have a velar nasal which can be traced back as far as PEN in all positions:

On	ŋ	(I)	o-ŋátŋ	'lion'
PM	ŋ		*ol-ŋátŋ	
On	ŋ	(M)	o-ménéŋánì	'corpse'
PM	ŋ		*ol-meneŋanì	
On	ŋ	(F)	-héŋ-	'breathe v.'
PM	ŋ		*a-yɛŋ	

Another series of correspondences which contrasts On ɲ with PM \*ɲ has been observed with respect to final position. Already for PEN a proto-sound \*ɲ<sub>2</sub> had been reconstructed hypothetically for this correspondence to which we would like to stick for the time being.

On	ɲ	(F)	na-dóŋ-éé	'mountain'
PM	ɲ		*ol-don-o	'big mountain'

\*l (< PEM \*l)

On	l	(I)	-leɸ-	'milk v.'
PM	l		*a-lep	
On	ø	(M)	na-hò óŋ	'sun, hunger'
PM	l		*ɛŋ-kololŋ	'sun, hunger, famine'
On	ø	(F)	-gó -ó	'hard'
PM	l		*a-gol	'be hard, strong v.'

\*ɬ (< PEN \*ɬ)

A dental-alveolar lateral fricative \*ɬ deriving from PEN is reconstructed on the basis of On h corresponding to PM \*l. This

phoneme, however, is confined to initial position.

On	h	(I)	o-háβà	'moon, month'
PM	l		*o-lapa	

\*r (< PEN \*r)

There is a series of regularly corresponding dental or alveolar rolled consonants which is believed to be derived from a proto-phoneme \*r. In *On* r and ʀ seem to be alternating reflexes of this proto-phoneme.

On	r~ʀ	(I)	-ʀiβ-	'sew v.'
PM	r		*a-riβ	
On	r~ʀ	(M)	o-kùʀíón-ì	'ashes'
PM	r		*iη-kuruon	
On	r	(F)	-mér-è	'be drunk v.'
PM	r		*a-mér-a	

\*rr (< PEN \*rr)

A rolled geminate \*rr is reconstructed for all positions on the basis of *On* r or rr and *PM* rr or r correspondences:

On	r(r)	(I)		cf. Vossen 1982:270
PM	r(r)			
On	r(r)	(M)	a-dórrróβ-ú	'be short v.'
PM	r(r)		*-dórrrop	'short'
On	r(r)	(F)	-hórr-	'divide v.'
PM	r(r)		*a-ór	

\*w (< PEN \*w)

A bilabial glide was reconstructed already for PEN (Vossen 1982: 271f.). Although its existence in POM cannot be demonstrated here due to lack of *On* evidence, it must have been part of the POM inventory for two reasons. First, it occurs in *PM*; and second, it would seem unlikely that POM disposed of \*ww but not of \*w (see below).

\*ww (< PEN \*gw)

The occurrence of bilabial geminated glides corresponding mutually between the two languages would lead one to set up a POM \*ww phoneme which originated from PEN \*gw via PTLM/PLM \*ww. On-ly medial and final positions are attested.

On	ww	(M)	na-hò-wwàrú	'hyena'
PM	ww		*ol-o-wwaru	'predacious animal'
On	ww	(F)	na-taww-o	'female calf, heifer'
PM	ww		*en-taww-o	

\*y (< PEN \*y)

There appears to have been a palatal glide in POM deriving from

PEN. At the stage of PTLM already this phoneme disappeared word-internally, whilst final position has never been attested so far. The correspondence underlying \*y is *On* h : *PM* y.

On	h	(I)	-h'eq-	'breathe v.'
PM	y		*a-y'eq	

\*yy (< PTLM \*yy)

In non-final positions a geminated variant \*yy of the palatal glide is reconstructed on the basis of a regular correspondence of *On* y(y) to *PM* \*yy.

On	y(y)	(I)	-y'eq-	'flay, slaughter v.'
PM	y		*a-y'eq	
On	y(y)	(M)	-tòyyóó	'be dry v.'
PM	y		*-toyyo	

The PEN consonantal phoneme inventory reconstructed by Vossen (1982) furthermore contained \*rdʷ and \*tt. While Dimmendaal (1984:70) was able to show that the latter was probably a dental (\*ʈ) rather than alveolar geminated stop which would seem to have merged with \*t in POM, the former apparently went to a simple sequence of r+i.

### 2.3.1.2 Vowels

In view of the identical systems of *On* and *PM* on the one hand and PEN, as reconstructed by Vossen (1982:299), on the other, there seems to be no reason to assume that the vocalic inventory of POM was any different from the others. Therefore, two sets of five vowels each, differing from each other in the feature [ATR], are reconstructed. The series of correspondences underlying this reconstruction read as follows.

\*i (< PEN \*i)

On	i	(I)	ìyyé	'you (sg.)'
PM	i		*iyye	
On	i	(M)	a-βírr	'be fat v.'
PM	i		*a-pir	
On	i	(F)	na-hòβí	'barren woman'
PM	i		*eq-kolupi	

\*ɪ (< PEN \*ɪ)

On	ɪ	(I/F)	na-k-ìróbɪ	'cold(ness)'
PM	ɪ		*a-irɒbɪ	'be cold v.'
On	ɪ	(M)	o-kínà	'breast(s) of woman'
PM	ɪ		*ol-kina	'breast'

\*e (< PEN \*e)

On	e	(M)	-leβ-	'milk v.'
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# THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

PM	e	*a-lep	
On	e	(F) na-jíe	'head'
PM	e	*eq-kwe	

## \*ε (< PEN \*ε)

On	ε	(M) -hég-	'breathe v.'
PM	ε	*a-yég	
On	ε	(F) na-kà-lé	'milk n.'
PM	ε	*ku-lé	

## \*a (< PEN \*a)

On	a	(I) -áj-	'refuse, deny v.'
PM	a	*a-áj	
On	a	(M) míqánì	'blunt'
PM	a	*míqanì	
On	a	(F) táaná	'be near v.'
PM	a	*a-táaná	

## \*o (< PEN \*o)

On	o	(M) -íβðj-	'churn v.'
PM	o	*a-íβðc	'churn, shake v.'
On	o	(F) -íjó	'give v.'
PM	o	a-íco	

## \*o (< PEN \*o)

On	o	(M) a-ídoq-ù	'beat, forge v.'
PM	o	*a-ídoq	
On	o	(F) o-bó	'one'
PM	o	*-bo	

## \*u (< PEN \*u)

On	u	(M) o-tùqánì	'person'
PM	u	*ol-tuqanì	
On	u	(F) nánú	'I'
PM	u	*nánú	

## \*u (< PEN \*u)

On	u	(I) ùní	'three'
PM	u	*uni	
On	u	(M) o-kùríón-ì	'ashes'
PM	u	*iq-kuruon	
On	u	(F) a-dóru	'be long v.'
PM	u	*a-adoru	

## 2.3.2 The phoneme inventory

### 2.3.2.1 Consonants

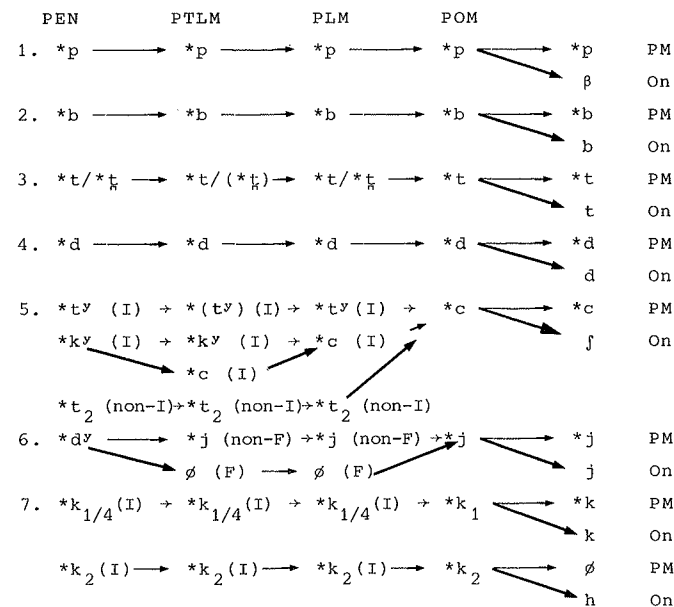
To sum up, the system of POM consonantal phonemes can be

# THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

described as follows. There were nine stops, one fricative, four nasals, four liquids, and four glides occurring at five points of articulation: bilabial, dentalveolar, palatal, velar and labiovelar.

	Bilabial	Dentalveolar	Palatal	Velar	Labiovelar
Plosive	*p *b	*t *d	*c *j	*k *g	*kʷ
Fricative		*s			
Nasal	*m	*n	*ɲ	*ŋ	
Lateral		*l			
Lat.Fric.		*ʃ			
Rolled		*r			
		*rr			
Glide	*w *ww		*y *yy		

The history of development of POM consonant phonemes from PEN via PTLM and PLM as intermediate proto-stages is reconstructed thus:





# THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

PEN	PTLM	PLM	POM	
*k <sub>3</sub> (I) →	*k <sub>3</sub> (I) →	*k <sub>3</sub> (I) →	*k <sub>3</sub> →	*k PM
			h	On
*k (non-I) →	*k (non-I) →	*k (non-I) →	*k →	*k PM
			h	On
8. *g →	*g →	*g →	*g →	*g PM
			g	On
9. *k <sup>w</sup> →	*k <sup>w</sup> →	*k <sup>w</sup> →	*k <sup>w</sup> →	*k <sup>w</sup> PM (I)
			ww	(M)
			fi	On (I)
			ww	(M)
10. *s →	*s →	*s →	*s →	*s PM
			s	On
11. *m →	*m →	*m →	*m →	*m PM
			m	On
12. *n →	*n →	*n →	*n →	*n PM
			n	On
13. *ɲ →	*ɲ →	*ɲ →	*ɲ →	*ɲ PM
			ɲ	On
14. *ŋ →	*ŋ →	*ŋ →	*ŋ →	*ŋ PM
			ŋ	On
*ŋ <sub>2</sub> →	*ŋ <sub>2</sub> →	*ŋ <sub>2</sub> →	*ŋ <sub>2</sub> →	*ŋ <sub>2</sub> PM
			ɲ	On
15. *l →	*l →	*l →	*l →	*l PM
			l	On (I)
			ø	(non-I)
16. *ɬ →	*ɬ →	*ɬ →	*ɬ →	*ɬ PM
			h	On
17. *r →	*r →	*r →	*r →	*r PM
			r~ɽ	On
18. *rr →	*rr →	*rr →	*rr →	*r(r) PM
			rr	On
19. *w →	*w →	*w →	*w →	*w PM
			(w)	On
20. *g <sup>w</sup> →	*ww →	*ww →	*ww →	*ww PM
			ww	On

# THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

PEN	PTLM	PLM	POM	
21. *y →	*y →	*y →	*y →	*y PM (I)
	ø (M) →	ø (M) →	ø	(M)
			h	On (I)
			ø	(M)
22. *yy →	*yy →	*yy →	*yy →	*yy PM
			y(y)	On

## 2.3.2.2 Vowels

The vocalic phonemes of POM can be summarized as follows:

[+ATR] \*i, \*e, \*a, \*o, \*u ,

[-ATR] \*ɪ, \*ɛ, \*a, \*ɔ, \*u .

## 2.3.3 Consonant and vowel sequences

Only three cases of consonant clustering occur in our lexical reconstructions, whereas vowel sequences are quite frequent both within lexical roots and across morpheme boundaries. The following have been observed:

Consonants: ɲw , rn , rt ;

Vowels: ie , ia ,

ioo ,

εε ,

ai , aɪ , aε , aa , au , au ,

oo ,

oi , oo ,

uei , ua , uo .

## 3. Lexical reconstructions

The very limited data on Ongamo limit the number of possible POM lexical reconstructions from the first. The following list contains slightly more than 150 reconstructions and may be called exhaustive in the sense of relatively safe reconstructibility. The meanings assigned to the reconstructions are often semantic approximations.

The list is arranged in alphabetical order of English meanings. A POM-English index is appended.

'abuse v.' see 'insult v.'

'all' POM \*pɔɔki

On βɔɔki

PM \*pɔɔki

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

- 'angry, be - v.' POM \*-goro (class I)  
*On* -góró  
*PM* \*a-goro
- 'animal, wild big -' POM \*-cañito (sg.)  
*On* ðàñitó  
*PM* \*ol-cañito
- 'arm/hand' POM \*-k<sub>3</sub>aina , pl. \*-k<sub>3</sub>ark  
*On* na-h é ná , pl. na-h é k  
*PM* \*eq-kaina , pl. \*iq-kark
- 'armpit' POM \*-k<sub>1</sub>udikudi  
*On* na-kúdíkúdi  
*PM* \*eq-kitikiti
- Notes: (1) PM devoicing of C<sub>2</sub>.  
 (2) Vowel assimilation in PM. See 'big' for another example.
- PEN/PLM \*-kudr- (Vossen 1982:327). Dimmendaal (1984:71f) would here probably reconstruct \*-kudr-.
- 'arrow' POM \*-bae , pl. \*-baa  
*On* ɔ-bàè-ní , pl. ɔ-báá  
*PM* \*ol-bae , pl. \*il-baa 'big arrow, wound'
- 'ashes' POM \*-k<sub>1</sub>uruon (pl.)  
*On* o-kùíón-ì  
*PM* \*iq-kuruon
- PEN/PTLM \*-k<sub>1</sub>uruo-(n) (Vossen 1982:328)
- 'axe' POM \*-tolu  
*On* na-tóú  
*PM* \*en-tolu
- PEN/PLM \*-tolu- (Vossen 1982:328f.)
- 'beast, wild -' POM \*-k<sub>2</sub>o-wwaru (sg.)  
*On* na-hò-wwàrú 'hyena'  
*PM* \*ol-o-wwaru 'predacious animal'
- PEN \*-k<sub>3</sub>o-gwor- , PLM \*-k<sub>3</sub>o-uwar- 'leopard' (Vossen 1982:389)

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

- 'beat/forge v.' POM \*-idoŋ- (cl. II)  
*On* a-ídoŋ-ù  
*PM* \*a-idoŋ
- PEN/PTLM/PLM \*-doŋ- (Vossen 1982:330f.)
- 'bed' see 'sleeping-place'
- 'bee' POM \*-ko-toroi , pl. \*-ko-torok  
*On* o-toŋoi , pl. o-tóŋò 'bee, honey'  
*PM* \*ol-otoroi, pl. \*il-otoko-k 'honey bee'
- Note: For another example of *On* loss of final k, see 'big'. PEN \*-k<sub>3</sub>o-t<sub>1</sub>or- (Vossen 1982:331)
- 'big' POM \*k<sub>1</sub>utok (sg.)  
*On* kútò  
*PM* \*kituk
- Note: For loss of *On* final k, see also 'bee (pl.)'  
 PLM \*-k<sub>1</sub>itt-ɔk (Vossen 1982:333). \*-k<sub>1</sub>ut-ɔk would, however, be more likely (cf. 'armpit' for vowel correspondence *On* u : *PM* i; \*t<sub>1</sub> for \*tt, following Dimmendaal (1984:70).
- 'bird' POM \*-kweŋ-  
*On* na-ŋíèŋ , na-ŋèŋ-á  
*PM* \*eq-kweŋ-i 'small bird sp.'
- PEN/PTLM/PLM \*-kueŋ- (Vossen 1982:333f.)
- 'bite v.' POM \*-ɔŋ (cl. I)  
*On* tá-áŋ-ékà  
*PM* \*a-ɔŋ
- Note: *On* a for *PM* ɔ may be due to progressive assimilation to the past tense prefix tá-.
- PTLM/PLM \*-k<sub>2</sub>ɔŋ- (Vossen 1982:334f.)
- 'black, become - v.' POM \*-roku , \*-rokv (cl. I)  
*On* -ŋókú 'be black v.'  
*PM* \*a-roku
- 'blunt' POM \*mɪŋani  
*On* mɪŋáni  
*PM* \*mɪŋani

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

- 'bone' POM \*-k<sub>2</sub>oito , pl. \*-k<sub>2</sub>oik  
 On o-hóitò , pl. o-hóik  
 PM \*ol-oito , pl. \*il-oik  
 PEN \*-k<sub>2</sub>oyV-t<sub>1</sub>- , PTLM \*-k<sub>2</sub>oi-t<sub>1</sub>(o) , PLM \*-k<sub>2</sub>oi-t<sub>1</sub>o (Vossen 1982:336f.)
- 'breast(s) of woman' POM \*-k<sub>1</sub>ina , pl. \*-k<sub>1</sub>i  
 On o-kínà , pl. o-kíí  
 PM \*ol-kina , pl. \*il-ki 'breast'  
 PEN/PTLM/PLM \*-k<sub>1</sub>in<sub>2</sub>- (Vossen 1982:338f.)
- 'breathe v.' POM \*-yεη  
 On -héh-  
 PM \*a-yεη  
 PTLM \*-yεη- (Vossen 1982:339)
- 'buffalo' POM \*-k<sub>2</sub>o-sokwan (sg.)  
 On o-hó-sówwàn  
 PM \*ol-o-sowwan  
 PTLM/PLM \*-k<sub>2</sub>o-soku-an (Vossen 1982:341)
- 'bull/ox' POM \*-moη-i (pl.)  
 On o-món-í (pl.) 'steer'  
 PM \*ol-moη-o , pl. \*il-moη-i 'ox; rest of milk; water in a gourd after drinking'  
 Note: On n so far unexplained.  
 PTLM/PLM \*-moη-o (Vossen 1982:342)
- 'burn/roast v.' POM \*-pej- (cl. I)  
 On -pèj- 'burn v.'  
 PM \*a-pej
- 'calf, female -/heifer' POM \*-tawwo , pl. \*-tawwa  
 PM \*en-tawwo , pl. \*in-tawwa  
 On na-táwwó , pl. na-tàwwá  
 PEN \*-tagw- , PLM \*-tauw- (Vossen 1982:343f.)
- 'chase v.' POM \*-mir- (cl. I)  
 On -mír-  
 PM \*a-mir 'chase; sell v.'

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

- 'catch/seize v.' POM \*-ibuη (cl. II)  
 On íbúη-à  
 Sa a-ibuη (Sa = Sampur)
- 'caterpillar' see 'worm'
- 'churn v.' POM \*-ipoc (cl. II)  
 On -íβδf-  
 PM \*a-ipoc 'churn, shake v.'  
 PLM \*-(i)pot<sub>2</sub> (Vossen 1982:346)
- 'cold, be - v.' POM \*-irōbi (cl. II)  
 On na-k-iróbì 'cold(ness)'  
 PM \*a-irōbi  
 PLM \*-(i)rōbi (Vossen 1982:347)
- 'corpse' POM \*-menεηani (sg.)  
 On o-ménεηánì  
 PM \*ol-menεηani  
 PLM \*-menεηa- 'ghost/spirit' (Vossen 1982:373)
- 'count v.' POM \*-iken (cl. II)  
 On íkεεn  
 PM \*a-ik ε n  
 Note: Vowel length in On cannot be explained yet.  
 PEN/PLM \*-k<sub>4</sub>εn- (Vossen 1982:347f.)
- 'cow' POM \*-k<sub>1</sub>i-tεη  
 On o-kì-téη 'steer'  
 PM \*εη-ki-tεη  
 PEN/PTLM/PLM \*-k<sub>1</sub>i-t<sub>1</sub>εη (Vossen 1982:348f.)
- 'cow dung' POM \*-mod-  
 On o-mòd-léì  
 PM \*e-mod- ei  
 PLM \*-mod- (Vossen 1982:350)
- 'crocodile' POM \*-k<sub>1</sub>i-naη-  
 On o-kì-náη-ú  
 PM \*ol-ki-naη

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

	PEN/PTLM/PLM *-k <sub>1</sub> i-naŋ- (Vossen 1982:351)
'cry v.'	POM *-icir (cl. II)
On -iŋir-á	
PM *a-icir	
'cut v.'	POM *-duŋ (cl. I)
On -duŋ	
PM *a-duŋ	
	PEN/PTLM *-duŋ- (Vossen 1982:352)
'day'	POM *-par-
On o-βár-í (sg.)	
NM m-par (sg.) (NM = North Maa)	
'dead, be - v.'	POM *-tua
On -túá 'die v.'	
PM *-tua	
	PEN/PTLM/PLM *-tuan <sub>2</sub> - (Vossen 1982:353)
'deny v.' see 'refuse v.'	
'divide v.'	POM *-k <sub>2</sub> orr- (cl. I)
On -hòrr	
PM *a- or	
'do v.'	POM *-as- (cl. I)
On -às-	
PM *a-as	
'donkey'	POM *-sikiria (sg.)
On o-síkirià	
PM *o-sikiria	
'drink v.'	POM *-mat- (cl. I)
On -mát-	
PM *a-mat	
	PTLM/PLM *-mat- (Vossen 1982:356)
'drunk, be - v.'	POM *-mer- (cl. I)
On -mér-è	
PM *a-mer-a	

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

	PEN *-mer-, PTLM *-mer-a (Vossen 1982:357)
'dry, be - v.'	POM *-toyyo (cl. I)
On -tòyyóó	
PM *-toyyo	
	PLM *-toi- (Vossen 1982:357f.)
'ear'	POM *-kiook (sg.)
On na-fɔɔ	
Ma ɛŋ-kiook (Ma = Maasai)	
	Note: Loss of On final k is well attested.
'earth' see 'soil'	
'eat v. (1)'	POM *-ja (cl. I)
On -ŋ -	
PM *a-ja	
	PEN/PTLM *-ja(m)- (Vossen 1982:358f.)
'eat v. (2)'	POM *-am (cl. I)
On -am-	
Ma a-ám (Ma = Maasai)	
'elephant'	POM *-tome (sg.)
On ɔ-tòmé	
PM *ol-tome	
	PEN/PTLM/PLM *-tom-ɛ (Vossen 1982:359f.)
'enemy'	POM *-maŋati (pl.)
On o-màŋàtí	
PM *il-maŋati	
'ewe, virgin - '	POM *-supen-
On na-suŋen-i 'young female sheep'	
PM e-supen	
'eye'	POM *-k <sub>3</sub> ɔŋu , pl. *-k <sub>3</sub> ɔŋek
On na-hòŋú , pl. na-hòŋéé	
PM *ɛŋ-kɔŋu , pl. *iŋ-kɔŋek	
	Note: For loss of On final k, cf. also 'bee' and 'big'.
	PEN/PTLM/PLM *-k <sub>3</sub> ɔŋ-/*-k <sub>3</sub> ɔŋ- (Vossen 1982:361f.)

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

- 'fall ill v.' POM \*-muei (cl. I)  
 On -múéí 'be ill v.'  
 PM \*a-muei
- 'fat, be - v.' POM \*-pir (cl. I)  
 On a-βírr  
 PM \*a-pir
- PEN/PLM \*-pirr- (Vossen 1982:363). This reconstruction with final \*rr is probably to be corrected in favour of \*-pir on the basis of new Maasai evidence. On rr may be hearing error.
- 'father' POM \*papa  
 On βàβà  
 PM \*papa
- 'feather' POM \*-k<sub>3</sub>opir-  
 On o-hòβírr  
 PM \*εη-kópírr-ó
- PEN/PTLM/PLM \*-k<sub>3</sub>opir- (Vossen 1982:364)
- 'fight' POM \*-ara cf. 'kill v.'  
 On a-ara-te 'fight v.'  
 PM \*εn-ara 'short fight between two people'
- PTLM \*-ar-a (sg.) (Vossen 1982:365)
- 'fill/full, be - v.' POM \*-iput- (cl. II)  
 On -βút- 'be full v.'  
 PM \*a-iput- 'fill v.'
- PLM \*-put- (Vossen 1982:373)
- 'finger' POM \*-kimojin-  
 On o-ʃimòjín-ò (sg.)  
 PM \*ol-kimojin-oo (sg.)
- 'fire' POM \*-k<sub>1</sub>i-ma  
 On na-kí-má  
 PM \*εη-ki-ma
- PEN/PTLM/PLM \*-k<sub>1</sub>i-ma- (Vossen 1982:366)

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

- 'fish n.' POM \*-siŋkirr-  
 On o-síŋkír-í  
 PM \*-siŋkirr
- 'five' POM \*-miet-  
 On míét-ì  
 PM \*i-miet
- PLM \*-miet- (Vossen 1982:367)
- 'flay/slaughter v.' POM \*-yyen  
 On -yεη-  
 PM \*a-yyen
- PTLM \*-yyen- (Vossen 1982:367)
- 'flesh' see 'meat'
- 'foot/leg' POM \*-k<sub>1</sub>εju , pl. \*-k<sub>1</sub>εjek  
 On na-kèjé , pl. na-kèjé  
 PM \*εη-kεju , pl. \*in-kεjek
- Note: Loss of On final k is well attested (cf. 'bee', 'big', 'eye').  
 PTLM \*-k<sub>1</sub>εj-u (Vossen 1982:370)
- 'forbid v.' POM \*-mit- (cl. I)  
 On -mít-  
 PM \*a-mit
- 'forge v.' see 'beat v.'
- 'four' POM \*-k<sub>2</sub>o-ŋwan  
 On o-hó-ŋwàn  
 PM \*o-ŋwan
- PEN/PTLM/PLM \*-quan (Vossen 1982:371f.)
- 'full, be - v.' see 'fill v.'
- 'give v.' POM \*-ico- (cl. II)  
 On -íʃó  
 PM \*a-ico
- 'goat, (she-)' POM \*-k<sub>1</sub>i-ne , pl. \*-k<sub>1</sub>i-neji  
 On na-ʃí-né , pl. na-ʃì-néjé  
 PM \*εη-ki-ne , pl. \*in-ki-neji

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PEN \*-k<sub>1</sub>i-ned<sup>v</sup> , PTLM/PLM \*-k<sub>1</sub>i-ne (Vossen 1982:374f.)

'God/rain' POM \*-k<sub>3</sub>ai , \*-k<sub>3</sub>ai (sg.)

On na-háí 'rain'  
PM \*eq-kai

PLM \*-k<sub>3</sub>ai , \*-k<sub>3</sub>ai 'rain' (Vossen 1982:409f.)

'grass/leaf/plant' POM \*-k<sub>1</sub>ujit- , \*-k<sub>1</sub>ujit-

On na-kújèt-ì 'leaf, plant'  
PM \*eq-kujit-a 'grass'

Note: We have no explanation yet for the vocalic correspondence On e : PM i.

'guest' see 'stranger'

'hand' see 'arm'

'hard/strong, be - v.' POM \*-gol- (cl. I)

On -gó -ó 'hard'  
PM \*a-gol

PEN/PLM \*-gol- (Vossen 1982:378)

'head' POM \*-kwe (sg.)

On na-ííé  
PM \*eq-kwe

PEN/PLM \*-kue-/\*-kue-t<sub>2</sub>i(k) (Vossen 1982:379)

'hear v.' POM \*-niq- (cl. I)

On -níq-ò  
PM \*a-niq

PEN/PLM \*-n<sub>1</sub>iq- (Vossen 1982:379f.)

'heart' POM \*-tau , pl. \*-tauja

On o-táú , pl. o-táújá  
PM \*ol-tau , pl. \*il-tauja

PEN \*-tau(d<sup>v</sup>)- , PTLM/PLM \*-tauja- (Vossen 1982:380f.)

'heavy, be - v.' POM \*-iroci (cl. II)

On k-ìrójì 'heavy'  
PM \*a-iroci

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PLM \*-(i)rot<sub>2</sub>i (Vossen 1982:381)

'heifer' see 'calf, female -'

'hippopotamus' POM \*-makau-

On o-màkáu-í (sg.)  
PM \*ol-makau (sg.)

'horn' POM \*-mowwo (sg.)

On na-mówwó  
PM \*e-mowwo

'house' POM \*-k<sub>3</sub>aji (sg.)

On na-hàjí  
PM \*eq-kaji

PEN \*-k<sub>3</sub>ad<sup>v</sup>i , PTLM/PLM \*-k<sub>3</sub>aji (Vossen 1982:383)

'hunger' see 'sun'

'husband' see 'man'

'I' POM \*nanu

On nánú  
PM \*nanu

PEN/PLM \*n<sub>2</sub>an<sub>3</sub>- (Vossen 1982:384)

'insult/abuse v.' POM \*-mor- (cl. I)

On -mòr-  
PM \*a-mor(r)

'intestines' POM \*-mɔɲit-

On na-mɔɲít-ì  
PM \*e-majit-a

PEN/PLM \*-mɔɲit- (Vossen 1982:385)

'kill v.' POM \*-ar- (cl. I) cf. 'fight'

On -ár-  
PM \*a-ar

PTLM \*-ar- (Vossen 1982:386)

'knee' POM \*-k<sub>1</sub>uq-

On o-kúq  
PM \*eq-kuq-u

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PEN/PTLM/PLM \*-k<sub>4</sub>uŋ- (Vossen 1982:386f.)

'laugh v.' POM \*-kwen- (cl. I)

On -j<sup>h</sup>iéŋ-à  
PM \*a-kwen-i

Note: On ŋ : PM \*n correspondence cannot be explained here. The reconstructibility is still strongly justified because of the ji : \*kw correspondence.

'leaf' see 'grass'

'leg' see 'foot'

'lick v.' POM \*-mej- (cl. I)

On -méj-ú  
Ma a-méj (Ma = Maasai)

'lift v.' POM \*-dumu (cl. I)

On -dùmu  
Ma a-dùmu (Ma = Maasai)

'light, be - (in weight) v.' POM \*-nenenŋ (cl. I)

On -n<sup>h</sup>énénŋ  
PM \*a-nenenŋ

'like v.' POM \*-cam (cl. I)

On -j<sup>h</sup>ám-à  
PM \*a-cam

'lion' POM \*-ŋatun , pl. \*-ŋatuno

On o-ŋátún , pl. o-ŋátúnó  
PM \*ol-ŋatun , pl. \*il-ŋatuno

PTLM/PLM \*-ŋat<sub>1</sub>uŋ- (Vossen 1982:389f.)

'liver' POM \*-maun-

On na-máúŋ-á  
PM \*e-m oŋ-uaa

PEN/PTLM/PLM \*-maun- (Vossen 1982:390f.)

'locust' POM \*-maati (sg.)

On o-máàtì  
PM \*ol-maati

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PEN \*-mayat- , PTLM \*-maat- (Vossen 1982:391)

'long, become - v.' POM \*-(a)doru (cl. I)

On a- dórú  
PM \*a-adoru 'be long v.'

'louse' POM \*-i<sup>h</sup>ac-

On o-háŋ-èní  
PM \*i-lac-e 'lice'

PTLM \*-l<sup>h</sup>ac- (Vossen 1982:392)

'man/husband' POM \*-l<sup>h</sup>εε (sg.)

On o-l<sup>h</sup>éé  
PM \*o-l<sup>h</sup>εε

'many/much' POM \*-k<sub>1</sub>umok

On kúmdò  
PM \*-kumok

Note: Loss of On final k is well attested.

'meat/flesh' POM \*-ki-riŋ-

On na-j<sup>h</sup>i-riŋ-óì  
PM \*eŋ-ki-riŋ-o

PEN/PTLM/PLM \*-k<sub>1</sub>i-riŋ- (Vossen 1982:393)

'medicine' POM \*-cani

On o-j<sup>h</sup>àníí  
PM \*ol-cani 'tree, wood, medicine'

'milk n.' POM \*-l<sup>h</sup>ε

On na-kà-l<sup>h</sup>é  
PM \*ku-l<sup>h</sup>ε

PEN/PTLM/PLM \*-l<sup>h</sup>ε- (Vossen 1982:393f.)

'milk v.' POM \*-lep- (cl. I)

On -leβ-  
PM \*a-lep

PTLM/PLM \*-lep- (Vossen 1982:394f.)

THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

'monkey' POM \*-ko-tim-

On tim-í  
PM \*ol-o-tim 'baboon'

Note: Reconstruction of \*ko- prefix on the basis of analogy in 'bee'.

'month' see 'moon'

'moon/month' POM \*-ṭapa (sg.)

On o-háṭà  
PM \*o-lapa

PEN \*-lṭapat- , PTLM/PLM \*-lṭapa- (Vossen 1982:395f.)

'mountain' POM \*-doṇ₂-

On na-dóṇ-éé  
PM \*ol-doṇ-o 'big mountain'

PLM \*-doṇ₂- (Vossen 1982:397f.)

'much' see 'many'

'name' POM \*-k₃arna

On na-hárná (pl.)  
PM \*eṇ-karna

PEN \*-k₃a-rin- (Vossen 1982:399)

'near, be - v.' POM \*-taana (cl. I)

On tãáná  
PM \*a-taana

'night' POM \*-k(ε)warie (sg.)

On f àríé 'at night'  
PM \*eṇ-kεwarie

PEN \*-kε-ward-ε , \*-kuard-ε ; PTLM/PLM \*-kuari-ε (Vossen 1982:401)

'nose' POM \*-kume , pl. \*-kumecin

On o-kùmié , pl. o-kùmièfín  
PM \*eṇ-kume , pl. \*iṇ-kumecin

Note: vowel sequence ie for unknown reasons.

PEN \*-ku-me/\*ku-me-t₂ik; PTLM/PLM \*-ku-me (Vossen 1982:402)

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'one' POM \*-bo

On o-bó  
PM \*-bo

PLM \*-bo (Vossen 1982:403)

'ox' see 'bull'

'permit v.' POM \*-iruk- (cl. II)

On -írúk-ól  
PM \*a-iruk 'respond to a call'

'plant' see 'grass'

'person' POM \*-tuṇani (sg.)

On o-tùṇánì  
PM \*ol-tuṇani

PTLM/PLM \*-tuṇan- (Vossen 1982:406)

'pierce/spear v.' POM \*-rem- (cl. I)

On -rem-  
PM \*a-rem

PEN \*-rem- (Vossen 1982:406)

'pot, clay-' POM \*-moti (sg.)

On na-mòtí 'big pot'  
PM \*ol-moti 'clay-pot, waterhole in rock'

PTLM/PLM \*-mot₁i- 'pot' (Vossen 1982:407f.)

'pull (here) v.' POM \*-yyetu

On -yyètû  
PM \*a-yyetu

'put (into) v.' POM \*-pik , \*-pik (cl. I)

On -βìk- 'put into v.'  
PM \*a-pik 'put v.'

'rain' see 'God'

'rat' POM \*-deroni , pl. \*-dero

On o-dòrònì , pl. o-dòrò  
PM \*en-deroni , pl. \*in-dero

Note: In On probably regressive vowel assimilation.



THE HISTORICAL RECONSTRUCTION OF PROTO-ONGAMO-MAA

- 'refuse/deny v.' POM \*-aŋ- (cl. I)  
*On* -áŋ-  
*PM* \*a-aŋ
- 'ripen v.' POM \*-k<sub>3</sub>u , \*-k<sub>3</sub>o (cl. I)  
 cf. Teso a-xono  
*On* -hô  
*PM* \*a-ku
- 'river/(water)' POM \*-k<sub>3</sub>are , pl. \*-k<sub>3</sub>ariak  
*On* na-háŋé , pl. na-háŋíá 'river'  
*PM* \*eq-kare , pl. \*iq-kariak 'water'  
 Note: For loss of *On* final k, see 'bee', 'big',  
 'eye' & others.  
 PEN/PTLM/PLM \*-k<sub>3</sub>ar-ε/\*-k<sub>3</sub>ar-ia(k) (Vossen 1982:  
 414)
- 'rope' POM \*-k<sub>3</sub>opito (sg.)  
*On* na-hoŋitô  
*PM* \*eq-kopito 'bark of certain plants, used as rope  
 or for chewing'  
 PLM \*-k<sub>3</sub>opit- (Vossen 1982:415)
- 'run v.' POM \*-kwet- (cl. I)  
*On* -ŋèt-  
*PM* \*a-kwet
- 'saliva' POM \*-k<sub>3</sub>amulak (pl.)  
*On* na-hámú á  
*PM* \*eq-kamulak (pl.)  
 Note: Loss of word-final k in *On* can be shown reg-  
 ularly (see, for example, 'bee', 'eye', &  
 others).  
 PEN/PTLM/PLM \*-k<sub>3</sub>amul-ak (Vossen 1982:415f.)
- 'sandal/shoe' POM \*-ka-muke (sg.)  
*On* na- mûkè-nî  
*PM* \*en-a-muke  
 PEN/PTLM \*-k<sub>2</sub>a-muk- ; PLM \*-k<sub>2</sub>a-muk- /\*-k<sub>2</sub>a-muk-a  
 (Vossen 1982:417)
- 'seive v.' see 'catch v.'

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- 'sew v.' POM \*-rip- (cl. I)  
*On* -ŋip-  
*PM* \*a-rip  
 PEN/PLM \*-rip- (Vossen 1982:419)
- 'sharp, be - v.' POM \*-pi (cl. I)  
*On* -βí  
*PM* \*a-pi  
 PEN \*-pi(tʷ) , PLM \*-pi (Vossen 1982:420)
- 'shoe' see 'sandal'
- 'short' POM \*-dorrop  
*On* a-dórxóβ-ú 'be short v.'  
*PM* \*-dorrop (sg.)
- 'shoulder' POM \*-sipi  
*On* o-síβl (sg.)  
*Sa* sípl (pl.) (*Sa* = *Sampur*)
- 'shut v.' POM \*-iken (cl. II)  
*On* íkén-ù  
*PM* \*a-iken
- 'skin' POM \*-coni , pl. \*-conito  
*On* na-ŋóní , pl. na-ŋónító  
*PM* \*ol-coni , pl. \*il-conito  
 PLM \*-tʷoni (Vossen 1982:422f.)
- 'slaughter v.' see 'flay v.'
- 'sleeping-place/bed' POM \*-rruat-  
*On* na- rúât-ù  
*PM* \*e-rruat (sg.)
- 'small' POM \*k<sub>1</sub>iti  
*On* kítí  
*PM* \*kítí (sg.)
- 'small/tiny' POM \*k<sub>1</sub>ini  
*On* kîní 'small'  
*PM* \*kîni (sg.)

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'smoke'	POM *-puruo-
On na-β̥ũĩó-ó	
PM *em-puruo	
	PEN/PTLM/PLM *-puruo- (Vossen 1982:424f.)
'sneeze v.'	POM *-siŋ- (cl. I)
On -siŋ-	
PM *a-siŋ	
'soil/earth'	POM *-k <sub>1</sub> u-lup-
On na-kù- β-óó	
PM *eŋ-ku-lup-oni	
	PTLM *-(ku-)lup- (Vossen 1982:426f.)
'spear v.' see 'pierce v.'	
'spear n.'	POM *-pɛrɛ (sg.)
On na-β̥érɛ	
PM *ɛm-pɛrɛ	
	PLM *-pɛr-ɛ/(*-pɛr-ia) (Vossen 1982:427f.)
'star'	POM *-k <sub>2</sub> akir-
On ɔ-hàkèŋ-ái (sg.)	
PM *ɔl-akir-a (sg.)	
'stink v.'	POM *-ŋu , *-ŋu (cl. I)
On -ŋúú	
PM *a-ŋu	
'stranger/guest'	POM *-lɔmɔn-
On ɔ-lɔmɔn (sg.) 'guest'	
PM *ɪ-lɔmɔn (pl.)	
'strong, be - v.' see 'hard, be - v.'	
'suck v.'	POM *-nak- (cl. I)
On -nah-	
PM *a-nak	'suck from breast v.'
	PTLM/PLM *-n <sub>(2)</sub> ak- (Vossen 1982:429)
'sun/hunger'	POM *-k <sub>3</sub> ɔlɔŋ
On na-hò ɔŋ	'sun, hunger'
PM *eŋ-kɔlɔŋ	'sun, hunger, famine'

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	PEN/PTLM/PLM *-k <sub>3</sub> ɔlɔŋ- (Vossen 1982:430)
'ten'	POM *tɔmon , *tɔmɔn
On tɔmɔn	
PM *tɔmon	
	PTLM/PLM *-tɔmon , *-tɔmɔn (Vossen 1982:432)
'thing'	POM *-toki (sg.)
On na-tóŋi	
PM *en-toki	
'thirst'	POM *-k <sub>1</sub> urɛ
On na-kúŋé	
PM *eŋ-kurɛ	
	PEN/PTLM/PLM *-k <sub>1</sub> urɛ 'thirst (and hunger)' (Vossen 1982:432f.)
'three'	POM *-uni (f) , *o-kuni (m)
On ùní (f) , o-kúnì (m)	
PM *uni (f) , *o-kuni (m)	
	PTLM/PLM *-uni- (f) , *-kuni- (m) (Vossen 1982:434f)
'tick'	POM *-maceri (sg.)
On ɔ-maŋer-i	
PM *ɔl-macer-i	
	PEN/PLM *-mat <sub>2</sub> er-/*-mat <sub>2</sub> er- (?) (Vossen 1982:435)
'tie v.'	POM *-yɛn- (cl. I)
On -hɛn-	
PM *a-yɛn	
	PTLM *-yɛn- (Vossen 1982:435)
'tiny' see 'small'	
'tongue'	POM *-ŋɛjɛp- , pl. *-ŋɛjɛpa
On ɔ-ŋɛjɛβ-í , pl. ɔ-ŋɛjɛβá	
PM *ɔl-ŋɛjɛp , pl. *ɪl-ŋɛjɛpa	
	PEN *-ŋa-dʷɛp-/*-ŋa-dʷɛp-a ; PTLM/PLM *-ŋa-jɛp- (Vossen 1982:436f.)

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'tooth'	POM *-k <sub>2</sub> alar , pl. *-k <sub>2</sub> ala
On o-há àì , pl. o-há à	
PM *ol- alar , pl. *il- ala	
	PEN/PTLM *-k <sub>3</sub> ela- , PLM *-k <sub>3</sub> ala- (Vossen 1982:437f.)
'two'	POM *are
On àr'é	
PM *are	
	PEN *-re-(k) , PTLM/PLM *-are-(k) (Vossen 1982:439)
'unripe, be - v.'	POM *-jon (cl. I)
On -jón	
PM *a-jón	
'war'	POM *-jore (sg.)
On na-jóréé	
PM *en-jore	'the going to war'
	PTLM *-jor-e 'raid' (Vossen 1982:409)
'(water)' see 'river'	
'we'	POM *iyyook
On òyyóó	
PM *iyyook	
	Note: Loss of On final k is well attested.
'wife/woman'	POM *-qor-
On na-qóq-ítèl (sg.)	
PM *e-qor-oyyoni (sg.)	[pejorative meaning]
	PLM *-qor- (Vossen 1982:443)
'wing'	POM *-kai-puk-
On o- ßúk-ótî (sg.)	
PM *eq-kai-puk-oi (sg.)	
	PEN *-k <sub>3</sub> ai-puk- (Vossen 1982:443f.)
'woman' see 'wife'	

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'woman, barren -'	POM *-k <sub>3</sub> o-lupi
On na-hò ßí	
PM *eq-kolupi	
	PTLM/PLM *-k <sub>2</sub> o-lup-i (Vossen 1982:330)
'worm/caterpillar'	POM *-k <sub>1</sub> urto (sg.)
On o-kúrtó	
PM *ol-kurto	
	PEN/PTLM/PLM *-k <sub>4</sub> ur-ut- (Vossen 1982:444f.)
'year'	POM *-k <sub>2</sub> ari (sg.)
On o-hárl	
PM *ol- ari	
	PTLM *-k <sub>3</sub> ar- (Vossen 1982:445f.)
'you (sg.)'	POM *iyye
On òyyé	
PM *iyye	
	PLM *iyye (Vossen 1982:446)
'you (pl.)'	POM *-tai
On e-táí	
PM *in-tai	
	PLM *-tai (Vossen 1982:446)

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*-(a)doru	become long v.
*-am	eat v.
*-ap-	refuse/deny v.
*-ar-	kill v.
*-ara	fight
*are	two
*-as-	do v.
*-bae , pl. *-baa	arrow
*-bo	one
*-cam	like v.
*-cani	medicine
*-caqito	wild big animal
*-coni , pl. *-conito	skin n.
*-deroni , pl. *-dero	rat
*-don <sub>2</sub> -	mountain

*-dorrop	short
*-dumu	lift v.
*-duŋ	cut v.
*-gol-	be hard/strong v.
*-goro	be angry v.
*-rbuŋ	catch/seize v.
*-icir	cry v.
*-ico-	give v.
*-idoŋ-	beat/forge v.
*-iken	shut v.
*-iken	count v.
*-ipoc	churn v.
*-iput-	fill/be full v.
*-irobi	be cold v.
*-iroci	be heavy v.
*-iruk-	permit v.
*iyye	you (sg.)
*iyyook	we
*-jon	be unripe v.
*-jore	war
*-kai-puk-	wing
*-ka-muke	sandal/shoe
*-k(ε)warie	night
*-kimojin-	finger
*-kiook	ear
*-ki-riŋ-	meat/flesh
*-ko-tim	monkey
*-ko-toroi, pl. *-ko-torok	bee
*-kume, pl. *-kumecin	nose
*-k <sub>1</sub> εju, pl. *-k <sub>1</sub> εjek	foot/leg
*-k <sub>1</sub> i-ma	fire
*-k <sub>1</sub> ina, pl. *-k <sub>1</sub> i	breast(s) of woman
*-k <sub>1</sub> i-ne, pl. *-k <sub>1</sub> i-neji	(she-)goat
*-k <sub>1</sub> i-naŋ-	crocodile
*-k <sub>1</sub> iŋi	small/tiny
*-k <sub>1</sub> i-tεŋ	cow
*-k <sub>1</sub> itr	small
*-k <sub>1</sub> udikudi	armpit
*-k <sub>1</sub> ujit-, *-k <sub>1</sub> ujit-	grass/leaf/plant
*-k <sub>1</sub> u-lup-	soil/earth
*-k <sub>1</sub> umok	many/much
*-k <sub>1</sub> uŋ-	knee
*-k <sub>1</sub> uxε	thirst
*-k <sub>1</sub> uruon	ashes
*-k <sub>1</sub> urto	worm/caterpillar
*-k <sub>1</sub> utok	big
*-k <sub>2</sub> akir-	star
*-k <sub>2</sub> alar, pl. *-k <sub>2</sub> ala	tooth
*-k <sub>2</sub> ari	year
*-k <sub>2</sub> oito, pl. *-k <sub>2</sub> oik	bone
*-k <sub>2</sub> o-ŋwan	four
*-k <sub>2</sub> orr-	divide v.

*-k <sub>2</sub> o-sokwan	buffalo
*-k <sub>2</sub> o-wwaru	wild beast
*-k <sub>3</sub> ai, *-k <sub>3</sub> ai	God/rain
*-k <sub>3</sub> aina, pl. *-k <sub>3</sub> ark	arm/hand
*-k <sub>3</sub> aji	house
*-k <sub>3</sub> amulak	saliva
*-k <sub>3</sub> are, pl. *-k <sub>3</sub> ariak	river/(water)
*-k <sub>3</sub> arna	name
*-k <sub>3</sub> olotŋ	sun/hunger
*-k <sub>3</sub> o-lupi	barren woman
*-k <sub>3</sub> oŋu, pl. *-k <sub>3</sub> oŋek	eye
*-k <sub>3</sub> opir-	feather
*-k <sub>3</sub> opito	rope
*-k <sub>3</sub> u, *-k <sub>3</sub> o	ripen v.
*-kwe	head
*-kwεn-	laugh v.
*-kwεŋ-	bird
*-kwεt-	run v.
*-lε	milk n.
*-lεε	man/husband
*-lep-	milk v.
*-lomon-	stranger/guest
*-tεc-	louse
*-tεpa	moon/month
*-maati	locust
*-maceri	tick
*-makau-	hippopotamus
*-maŋati	enemy
*-mat-	drink v.
*-mauŋ-	liver
*-mej-	lick v.
*-mεnεŋani	corpse
*-mer-	be drunk v.
*-miet-	five
*-miŋani	blunt
*-mir-	chase v.
*-mit-	forbid v.
*-mod-	crowdung
*-moŋit-	intestines
*-moŋ-i	bull/ox
*-mor-	insult/abuse v.
*-moti	clay-pot
*-mowwo	horn
*-muei	fall ill v.
*-nak-	suck v.
*-nanu	I
*-nenεŋ	be light (in weight) v.
*-niŋ-	hear v.
*-na	eat v.
*-ŋatun, pl. *-ŋatuno	lion
*-ŋεjεp-, pl. *-ŋεjεpa	tongue

*-gor-	wife/woman
*-gu , *-gu	stink v.
*-on	bite v.
*papa	father
*-par-	day
*-pej-	burn/roast v.
*-pere	spear n.
*-pi	be sharp v.
*-pik , *-pik	put (into) v.
*-pir	be fat v.
*pooki	all
*-puruo-	smoke
*-rem-	pierce/spear v.
*-rip-	sew v.
*-roku , *-roku	become black v.
*-rruat-	sleeping-place/bed
*-sikiria	donkey
*-siŋ-	sneeze v.
*-siŋkirr-	fish n.
*-sipi	shoulder
*-supen-	virgin ewe
*-taana	be near v.
*-tai	you (pl.)
*-tau , pl. *-tauja	heart
*-tawwo , pl. *-tawwa	female calf/heifer
*-toki	thing
*-tome	elephant
*-tomon , *-tomon	ten
*-toyyo	be dry v.
*-tua	be dead v.
*-tuqani	person
*-uni (f) , *-o-kuni (m)	three
*-yen-	tie v.
*-yεŋ	breathe v.
*-yyεŋ	flay/slaughter v.
*-yyetu	pull (here) v.

## NOTES

1. A preliminary survey of Maa dialects has just been published by Vossen (1987).

2. For specifications of informants and periods and conditions of field work, see the works of Heine and Vossen quoted in the bibliography.

3.  $\beta$  was previously treated as a phoneme in its own right, but must rather be considered an allophone of /p/ as it occurs only in intervocalic position where /p/ has never been observed.

4. The phonological status of  $\gamma$  is not entirely clear. Our informant used  $\gamma$  in some words,  $r$  in others. The evidence does not allow us to speak of allophony nor does it contain minimal pairs in which  $\gamma$  and  $r$  form a contrast.

5. Dimmendaal (1984:73f.) argues that \*s be reconstructible even for PEN. While his WNil  $r$  : ENil/SNil  $s$  correspondence in some individual languages may justify a \*s reconstruction for Proto-Nilotic, it cannot be established for PEN so long as there are not even two Eastern Nilotic languages of different branches testifying to such a reconstruction.

## REFERENCES

Dimmendaal 1984; Ehret 1971; Fleming 1965; Fosbrooke 1954; Heine 1980; Heine and Vossen 1975/76, 1983, in progress; Tucker and Mpaayei 1955; Vossen 1982, 1987.

OTHER SOURCES not referred to directly in text:

Heine 1980, Heine and Vossen 1983.