

Traces of language contact: The Flores-Lembata languages in eastern Indonesia

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CHAPTER 5

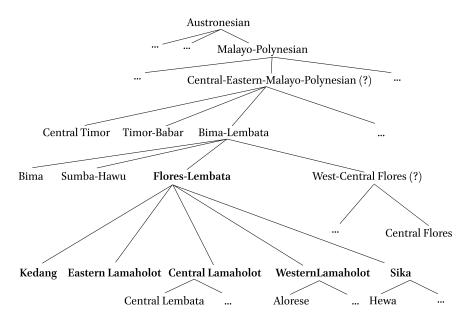
Historical phonology and subgroupings

5.1 Introduction

This chapter presents a historical perspective of the Flores-Lembata phonology with the aim of reconstructing PFL phonemes and the establishment of shared innovations that support the five Flores-Lembata subgroups, as shown in Figure 5.1. The present study is the first attempt to establish the internal structure of the Flores-Lembata family based on exclusively shared sound changes, taking into account languages of all five subgroups in this family. As higher-level subgroups within Malayo-Polynesian are still debated (cf. §1.3.1 for more details), only a thorough bottom-up reconstruction can finally reveal the higher-level subgroups within the Malayo-Polynesian family. This chapter on historical phonology in the Flores-Lembata languages is a contribution to this endeavour.

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Figure 5.1: Genealogical classification of the Flores-Lembata languages



I show in this chapter that the five Flores-Lembata subgroups are supported by exclusively shared sound changes and lexical innovations (cf. §5.3) and that there is no clear evidence for mid-level subgroups within the Flores-Lembata family (cf. §5.3.2). Evidence for Flores-Lembata as a subgroup is provided in §5.4 and evidence for a Bima-Lembata subgroup as an immediate ancestor of Flores-Lembata in §5.5. Evidence for the potential sister subgroups of Flores-Lembata and Bima-Lembata are not within the scope of this dissertation.

All three Lamaholot subgroups are internally diverse, and within each of these groups we can identify several languages. Some of these languages undergo further regular sound changes, such as PFL *s > h. However, these sound changes are not subgroup-defining, as they are very common changes that appear to have diffused between the languages. Sika and Kedang, in contrast, do not contain as much internal diversity. No further regular sound changes are attested on lower levels, with the exception of possible merger of final n and η in western Sika varieties.

The internal structure of Flores-Lembata presented in Figure 5.1 above is in line with previous research by Fernandez (1996:174) who establishes a

Flores-Lembata subgroup (named *Flores Timur*) with three primary branches Sika, Lamaholot (i. e. Western Lamaholot) and Kedang. In contrast to Fernandez and the proposal here, Doyle (2010:30) groups Sika and Lamaholot (i. e. Western Lamaholot) together as a subgroup within Flores-Lembata. Previous subgroupings neither included Eastern Lamaholot nor Central Lamaholot varieties.

In addition to the subgrouping works by Fernandez and Doyle, a lexicostatistic analysis has been carried out by Keraf (1978a) with a focus on Lamaholot, but also including one Sika and one Kedang variety. Thus this work also takes into account varieties from all subgroups of Flores-Lembata but uses a different method, namely lexicostatistics, while the present study is based on shared innovations in form of sound changes. Based on 33 Lamaholot wordlists with 200 basic vocabulary items, Keraf's work distinguishes the three main groups of Lamaholot, which each share 55% of lexical similarity: Western Lamaholot, Central Lamaholot and Eastern Lamaholot (Keraf 1978a:Appendix VI). Keraf's work also shows that the Lamaholot subgroups are lexically closer to each other (55% lexical similarity) than to the other languages of Flores-Lembata, Sika and Kedang which only share about 30% of their vocabulary with the Lamaholot varieties. Elias (2017a) uses Keraf's lexical data to apply the comparative method (Campbell and Poser 2008) and historical glottometry (François and Kalyan 2018), with the aim of examining the internal subgrouping of the Lamaholot dialect chain. His findings of shared innovations also confirmed the main groupings into Western, Central and Eastern Lamaholot.

Table 5.1 and 5.2 show all sets of non-identical consonantal sound correspondences that are attested in the family of Flores-Lembata, following a top-down approach from PMP consonants. Other PMP consonants are retained unchanged in the Flores-Lembata languages. Some exceptions occur in final position. Two reflexes separated by a slash point to an unconditioned split, a split determined by the phonological environment or a split between two different varieties within the subgroup. Details on these splits are provided in the respective subsections.

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Table 5.1: PMP obstruents and their non-identical reflexes

PMP	*k	*q	*h	*	s	*	b	*0	l/*z/*j	*z	*g
PFL	*k	*?/Ø	*?/Ø	*s	*h	*b	*v		*d	*1	*g
Env.								#_	V_V	#_VL	
SK	7	7/Ø	Ø	h	h	b	ν	r	r	l	
WL	k	?/Ø	7/Ø	h/\emptyset	h/\emptyset	b	ν	d	r	l/r	g
CL	k	Ø	Ø	s	Ø	b	ν	d	dz	l/r	g
EL	7/Ø	?/Ø	7/Ø	h	h	b	ν	d	r	l/r	g
KD	?	?/Ø	7/Ø	h/\emptyset	h/\emptyset	b	ν	d	$r/y/\emptyset$	l	k

PMP *k [k], *q [q], *h [h], *s [s], *b [b], *d [d], *z [dʒ]/[jj], *j [g]/[y]/[gi]

Table 5.2: PMP non-obstruents and their non-identical reflexes

PMP	*ŋ		*R	*y
Env.	#_	V_V		
PFL	*n	*ŋ	*r	*y
SK	n	n	r	y/i
KD	n	ŋ	r	y/i/e
CL	n	ŋ	r	y/dz
WL	n	ŋ	7	y/dz
EL	n	y	r	[]

PMP *ŋ [ŋ], *R [r], *y [j]

The chapter is structured as follows. In §5.2, I establish regular sound correspondences between Flores-Lembata lexical items that go back to Proto-Malayo-Polynesian (PMP) reconstructions. That the sound correspondences in these lexical items are mostly regular is a sign for inheritance from a common ancestor (Campbell and Poser 2008:172). This means that the Flores-Lembata languages descend from PMP and ultimately from Proto-Austronesian. PMP is taken as a point of reference as this is the ancestor of all Austronesian languages that are found outside of the island Taiwan and because a large amount of reconstructions are available for PMP in Blust

and Trussel (2010). All PMP reconstructions in this dissertation are taken from this source (cf. $\S4.2$). In $\S5.3$, I provide evidence for the lowest level subgroups within the Flores-Lembata family ($\S5.3.1$), but I also show that there is little evidence for mid-level groups within the Flores-Lembata family ($\S5.3.2$). In $\S5.4$, I provide evidence for Flores-Lembata as an innovation-defined subgroup. In addition, in $\S5.5$, I show that Flores-Lembata is part of a bigger Bima-Lembata subgroup encompassing also languages of Bima, Sumba and Western and Central Flores.

5.2 Reflexes of PMP sounds

5.2.1 PMP voiceless stops *p, *t, *k and *q

5.2.1.1 Initial and intervocalic position

The Proto-Malayo-Polynesian (PMP) root-initial and intervocalic voiceless stops are relatively well-preserved in all languages of Flores-Lembata, except for PMP *q which changed into a glottal stop in Proto-Flores-Lembata (PFL) or earlier. For a discussion on root-final stops see §5.2.1.3. Table 5.3 shows the PMP voiceless stops with their reflexes in Flores-Lembata. Central Lamaholot and Western Lamaholot prove to be most conservative in this respect because these languages not only retain PMP *p and *t but also *k. In Sika, Kedang and Eastern Lamaholot, there is a sound change from PMP *k > ?/ \emptyset . PMP *q is reflected as ? or \emptyset in all Flores-Lembata languages. Central Lamaholot is the only language that subsequently lost ? completely, thus does not show any reflex of PMP *q.

Env.	#_	V_V	#_	V_V	#_	V_V	#_	V_V	
PMP	*p-	*-p-	*t-	*-t-	*k-	*-k-	*q-	*-q-	
PFL	*p-	*-p-	*t-	*-t-	*k-	*-k-	*?-	*-?-	
SK	р	р	t	t	7/Ø	7	7/Ø	7	
WL	p	p	t	t	k	k	?/Ø	Ø	
CL	p	p	t	t	k	k	Ø	Ø	
EL	[]	p	t	t	Ø	7	Ø	Ø	
KD	p	p	t	t	?/Ø	7/Ø	?/Ø	Ø	

Table 5.3: Reflexes of PMP voiceless stops *p, *t, *k and *q

Below I present cognate sets with regular reflexes of PMP voiceless stops in the languages of Flores-Lembata. Table 5.4 and 5.5 provide examples of reflexes of PMP *p in the languages of Flores-Lembata. The PMP stop *p is regularly reflected as p in all languages of Flores-Lembata for which data is attested. For Eastern Lamaholot, there is no data for reflexes of initial PMP *p-.

Table 5.4: Reflexes of initial PMP *p-

PMP	*pitu	*palu	*pusəj	*sa-ŋa-puluq	*piliq
PFL	*pitu	*palu-k	*pusər	*s-pulu	*pili?
SK	pitu	-	p uher	pulu	(?) li?i
WL (LWI)	pito		kə p uhur	pulo	p ile?
CL (KK) EL KD	pito	p alu k	kə pusər	s pulo	pili
	[]	[]	[]	[]	[]
	pitu	p alu ?	puhe:	pulu	pil
	'seven'	'hit'	'navel'	'ten'	'choose'

*sa**p**u *ma-kapal *kiput **PMP** *hapuy *apa *ipən PFL *m-kapal *api *hapu *apa *ipə-*kiput SK hapus api apar apa WL (LML) hapu ape ipã WL (DL) ape ірә ki**p**u? WL (MS) *kupo?* ape hapo apai gapal CL(LT)apu|dza a**p**e|ru CL (LR) ape|ra**p**oi $k < \partial n > i pot | \partial n$ рәі EL ape hapu ape ipe KD *ipe*? kapal api ape 'fire' 'what' 'teeth' 'thick' 'wipe' 'narrow'

Table 5.5: Reflexes of intervocalic PMP *-p-

Table 5.6 provides cognate sets that show the regular reflexes of PMP *t. In initial and intervocalic position, PMP *t is regularly reflected as t in all Flores-Lembata languages. In Kedang va? 'stone' < PMP *batu in Table 5.6, the final syllable is lost. Therefore, the reflex of intervocalic PMP *t appears now in final position which causes the change of PMP *t > ? which is regular in Kedang in final position (cf. §5.2.1.3).

Table 5.6: Ref	lexes of initia	l and intervoca	lic PMP *t

PMP PFL	*talih *tali	*taŋis *tani	*qa-təluR *təlur	*batu *vatu	*m-atay *matay	*qutin *uti
SK	t ali	t ani	təlo n	va t u	ma t e	u t i
WL(LI)	t ale	t aniŋ	t elu	va t o	ma t a	-
WL(AD)	t ale?	t ani	telu k	va t o	ma t a:	ute
$CL(\kappa\kappa)$	t ali	-	t əlu k	va t u	ma t adz	uti
EL	t ale	t ani	t əlũ	va t o	ma t a	[]
KD	-	-	tolor	va?	ma t e	vu t i
	'rope'	'cry'	'egg'	'stone'	'die'	'penis'

Table 5.7 and 5.8 show cognate sets containing reflexes of PMP *k. Sika has changed PMP *k > 7 in all positions. In initial position, a few instances of

loss of PMP *k are observed but they may relate to transcriptions issues as not all researchers consistently transcribed initial glottal stops. Also in Kedang and Eastern Lamaholot, PMP *k > 7 or \emptyset . This change of PFL *k > 7 in Sika, Kedang and Eastern Lamaholot is not entirely complete, there are sporadic retentions of PFL *k with the reflex k. Central Lamaholot and Western Lamaholot always retain PMP *k as k. The Lamaholot reflexes of PMP *aku in Table 5.8 have an irregular initial g and also the Kedang form contains irregular vowel changes. For a discussion of these forms see §6.2.4.

*kutu *kahiw *kaən^a **PMP** *kami *kulit PFL *kutu *kayu *kaan *kami *kulit SK **?**utu **?**ai **?**aa **?**ami **?**ulit WL (LWL) kuto kadzo kãã kame *kulit* CL (KK) kadzu kame *kutu* kaa ELame $ulit | \tilde{a}$ [...] aa KD **?**utu ?ai (k)eaa

Table 5.7: Reflexes of initial PMP *k-

'tree; wood'

'headlice'

PMP PFL	*ikuR *ikur	*hikan *ikan	*takaw *t<əm>akav	*aku *aku
SK	i?ur	i?an	? to ? i	а?и
WL(LI)	i k u? uŋ	i k aŋ	təma k a	? gor
WL(lml)	i k u	i k ã	[]	?go e
CL	i k ur	i k an	ta k av	go ne
EL	i7ũ	i ? ã	[]	? g o ?e
KD	-	i?a	ma?o	? ɛ?i
	'tail'	'fish'	'steal'	ʻlsg'

Table 5.8: Reflexes of intervocalic PMP *-k-

'3PL.eat'

'lpl.excl'

'skin'

Table 5.9 and 5.10 provide cognate sets with reflexes of PMP *q. The reflex

 $^{^{\}mathrm{a}}$ The original transcriptions of the reflexes in this set contained single vowels.

of PMP *q is either zero or a glottal stop in the languages of Flores-Lembata. I suggest that PMP *q regularly changed into glottal stop in PFL or even earlier. Subsequently, this glottal stop was lost on an irregular basis in the daughter languages. The irregular pattern between zero and glottal stop may to a certain extent result from transcription issues, especially in initial and final position. Researchers may not always have distinguished an onsetless syllable from a syllable with an initial glottal stop. Central Lamaholot has lost glottal stops completely, so all reflexes of PFL *? < PMP *q are zero.

Table 5.9: Reflexes of initial PMP *q-

PMP PFL	*qapuR *?apur	*quzan *udan	*qabu *ka-ʔavu	*quma *uma	*quay *uay
SK	?apur	uran	ачи	ита	ие
WL(AD)	? apu?	?uraŋ	kə ? avu k	mã	?ua
WL (LWI)	ари?	uraŋ	kə ? avu	maŋ	uvay əŋ
CL	apur	udzan	k avo k	-	uadz
EL	[]	ura	[]	[]	[]
KD	apur	uya	ava ?	? lumar	<i>vua v</i> εі
	'lime'	ʻrain'	'ash'	'gardenfield'	ʻrattan'

Table 5.10: Reflexes of intervocalic PMP *-q-

PMP PFL	*ma-paqit *m-pa ? it	*taqi *ta?i	*waqay *va?i
SK	ba ? it	ta7i	va?i
WL(AD)	pait	tae	-
WL(MS)	раі?	taiŋ	-
CL	pait	tai	-
EL	[]	[]	-
KD	рєі?	-	-
	'bitter'	'excrements'	'foot; leg'

The PMP stop *q is reflected as ? or zero in the languages of Flores-Lembata.

Therefore, I reconstruct PFL *? in all positions as a reflex of PMP *q. However, if only WL-Adonara shows a ? as a potential reflex of PMP *q, I do not reconstruct it to PFL because WL-Adonara seems to insert glottal stops before every initial vowel. The alternation between zero and glottal stop in the reflexes in Sika, Western Lamaholot, Eastern Lamaholot and Kedang appears to be irregular with zero being the norm and glottal stop the exception. For Sika, there is an apparent regularity which favours glottal stop in intervocalic position and zero in initial position for reflexes of PMP *q.

5.2.1.2 Initial stops with PMP *ma-

There are instances of PFL *m directly preceding root-initial stops. In most cases this initial *m goes back to the PMP stative prefix *ma-. As all words that reflect PMP *ma- are stative concepts in the languages of Flores-Lembata, it is likely that the function of the initial *m in PFL was still retained as marking stative. In the modern languages this initial *m has merged with the following consonant in different ways. In the Sika reflex <code>nau2</code> 'tinea', the prefix appears to be lost. Table 5.11 provides examples of reflexes of PFL *m-p.

PMP *ma-paqit *ma-pənuq *ma-pəju *panaw **PFL** *m-pa?it *m-pənu *m-pədu *m-panau SK **b**a?it nau? **b**ənu **b**əru WL (AD) pait pəno pəro **m**ənao WL (LWI) pai|k**m**ənu|ŋ **p**əro **m**au CL**m**ənu|k pait **p**ədzu EL [...] [...] [...] [...] KD **p**εi? репи реуи 'bitter' 'full' 'salty' 'tinea'

Table 5.11: Reflexes of initial PMP *ma-p

In Sika, the merging of PFL *m-p resulted in voicing of the initial consonant and dropping of initial *m, thus PFL *m-p > Sika b. In the Central and Western Lamaholot data, either the nasal or the stop was kept and the other was dropped completely. This apparent irregularity of keeping either the

nasal or the stop in Central and Western Lamaholot is most likely related to two functionally different forms of many property nouns that are attested in Lamaholot varieties: a base form and a derived form (cf. §8.3.3.2). In the table, the reflexes of words denoting property ('adjectival') concepts, such as 'bitter', 'full' and 'salty', are either given in their base form, with the initial p going back to a form without prefix, or in their derived form, with initial m going back to a form with prefix *m- that replaced the initial p, thus PFL *m-p > m. The change of PFL *m-p > m appears to be regular, as it is also attested in the reflexes of PFL *m-panaw where PFL *m-p > WL m. In addition, to interpret the CL and WL forms with initial m as derived property nouns is supported by the initial presence of additional final consonants that are related to derivational processes -k and - η (cf. §3.3.6.1).

The same development is observed in reflexes of PFL *m-t given in Table 5.12. In Sika *m-t is reflected as d. In the other languages either t or m is retained. In Kedang, sporadic voicing of the consonant occasionally occurs, such as in PFL *m-tidəm > Kedang deye? 'sharp'.

Table 5.12: Reflexes of initial PMP *ma-t

	'*ma-tasak *m-tasak	t * mant alaq 'Venus * mət ala	'* ma-t uquR * m-t u?ur	-	
SK	d aha?	d ala	d u?ur	d u?a n	diran
WL	t ahak	pə t ala	tu? $u k$	t <en>u?e</en>	-
CL	t asak	-	-	t ua	-
EL	[]	m alã	-	[]	-
KD	t a?en	m alε t ala	? turi [roka]	t ua	д єує?
	ʻripe'	'star'	'dry'	ʻold'	'sharp'

Reflexes of PMP *ma-k and *ma-q are given in Table 5.13. For PMP *ma-k, the loss of the prefix is observed in Sika, while in WL-Alorese, it is merged with the initial consonant resulting in g. The Kedang form kapal could be a result of PMP *ma-k > g > k. The first change is the same as attested in Alorese and the change of *g > k is regular in Kedang (cf. §5.2.1.1). In reflexes of *ma-q, the m of the prefix is retained while the stop is lost. There is no evidence to reconstruct a reflex of initial PMP *q to PFL for the words starting with a reflex of *ma-q.

PMP PFL	*ma-kapal *m-kapal	*ma-qitəm *mitəm	*ma-qudip *modip
SK	<i>Papar</i>	m itan	more t
WL(AL)	gapal	m iteŋ	mori k
WL (LWI)	-	m itəŋ	m ori
CL	-	m itəm	m odzip
EL	-	m itã	m ori
KD	k apal	mitεŋ 'black; dirty'	-
	'thick'	'black'	'alive'

Table 5.13: Reflexes of initial PMP *ma-k and *ma-q

5.2.1.3 Final stops PMP *p, *t, *k and *q

Sika and Kedang change PMP *-k > -? and PMP *-q becomes ? or Ø in PFL. The conditioning of the split of PMP *-q > ?/Ø remains unclear. Further, PFL *-? (< PMP *-q) is sporadically lost in most FL languages and lost completely in Central Lamaholot. In addition to the sound changes already observed for initial and medial position, Kedang changes final PMP *t > ?, while initial and intervocalic PMP *t is retained in Kedang. Alorese loses all final consonants, except for the sporadic retention of k. Central Lamaholot retains all final consonants unchanged except for PMP *-q which is lost. Further, sporadic loss of final consonants is attested in all Flores-Lembata languages. In Western Lamaholot, the consonant is also sporadically changed into glottal stop instead of being lost completely.

Table 5.14: Reflexes of final PMP *-p, *-t, *-k and *-q

PMP PFL	*-p *-p	*-t *-t	*-k *-k	*-q *-?/Ø
SK	Ø	t/\emptyset	7/Ø	7/Ø
WL	p/\emptyset	t/?/Ø	k/?/Ø	7/Ø
WL(AL)	Ø	Ø	k/?/Ø	Ø
CL	p	t	k	Ø
EL	Ø	t/\emptyset	?/Ø	[]
KD	[]	?/Ø	7	7/Ø

The evidence for reflexes of final PMP *-p is scarce as only one cognate set, given in Table 5.15 could be found. The Sika reflex more|t 'alive' most likely contains an attributive suffix (cf. §8.3.3.1).

Table 5.15: Reflexes of final PMP *-p

PMP	*ma-qudi p
PFL	*modi p
SK	more t
WL(LWI)	mori
$WL(\kappa o)$	mori p
CL	modzi p
EL	mori
KD	-
	'alive'

Table 5.16 lists examples of cognate sets reflecting final PMP *t. There is a regular change of final PMP *t > 7 in Kedang.

PMP PFL	*Ramut *ramut	*lipət *ləpət	*ma-paqit *m-pa?it	*ma-bəRəqat *bərat	*kulit *kulit
SK	ramu t	ləpe t	ba?i t	bəra t	?uli t
WL(LWI)	ramu	ləpə k	pai k	ba?a	kuli
WL(AD)	?amu t	ləpə t	pai t	ba?a t	-
WL (MS)	ramu k	ləpe ?	pai ?	ba?	kuli k
CL	ramu t	ləpə t	pai t	bəra t	-
EL	ramu t ã	[]	[]	bəra	uli t ã
KD	ramu?	Ієрі?	рεі?	bara ?	-
	'root'	'fold'	'bitter'	'heavy'	ʻskin'

Table 5.16: Reflexes of final PMP *-t

Table 5.17 lists reflexes of PMP final *k. PMP *k regularly changes into glottal stop in Sika, Kedang and Eastern Lamaholot. Sporadic PMP *k > 7 is attested in final position in Western Lamaholot and sporadic loss of final *k is attested in all languages, except for Central Lamaholot. The Sika form anak 'small' appears to retain an irregular final k. However, the final k could also be a suffix found on property nouns (cf. §8.3.3).

Table 5.17: Reflexes of final PMP *-k

PMP PFL	*manuk *manu k	*anak *anak	? *təbək *tubak
SK	manu?	ana k	-
WL (AD)	manu k	?ana ?	-
WL (LWI)	manu	ana?	-
CL	manu k	ana k	tuba k
EL	manu?	ana	tuba
KD	manu ?	ana ?	tuba ?
	ʻchicken; bird'	ʻchild; small'	'stab'

Table 5.18 provides reflexes of PMP *q in final position. For some words, especially those expressing properties, no reflex of final PMP *q can be reconstructed to PFL. An example is PFL *doa 'far; long' (< PMP *zauq). For other

words, final PMP *q is reflected as ? in PFL and retained as such in Sika and Kedang.

PMP PFL	*zau q *doa	*mamaq *mama?	*budaq *buda?	*budaq *vuda	*salaq *sala
SK WL (AD) WL (MS) CL EL KD	- doã doa ŋ doa doa doa	ma?ma? - mame mamo t [] mame?	bura? bura? bura k budza k burõ buya?	vura n vurhã ? bura ŋ pə vudʒa [] vura n	hala n alã hala ŋ s <n>ala k []</n>
	'far; long'	'chew'	'white'	'foam'	'wrong'

Table 5.18: Reflexes of final PMP *-q

In many cases, the final consonant appears to be replaced by a suffix, such as -k, -n or -y (cf. §3.3.6.2 and §8.3.3). However, synchronically these suffixes are often interpreted as part of the root and thus can be regarded as fossilised. The final t in the Central Lamaholot verb mamot 'chew' in Table 5.18 remains unexplained. There is a suffix -t attested on property nouns, such as in Sika moret 'alive' (cf. Table 5.15) but as 'chew' is a verb, no such suffix is expected.

5.2.2 PMP voiced obstruents *b, *d, *z, *j and *g

5.2.2.1 Overview

In this section, I discuss the Flores-Lembata reflexes of PMP *b, *d, *z [dʒ/ \mathfrak{z} j], * \mathfrak{z} [g/g^j/ \mathfrak{z}] and *g. The three voiced PMP stops *b *d and *g have the phonetic values of [b, d, g]. PMP *b and PMP *d appear in all positions, while PMP *g is rather rare in general and does not occur in final position. PMP * \mathfrak{z} [g/g^j/ \mathfrak{z}] is only found in intervocalic and final positions. PMP * \mathfrak{z} [dʒ/ \mathfrak{z} j] is only found in initial and intervocalic positions. For more information on the phonetic values of the PMP sounds * \mathfrak{z} and * \mathfrak{z} see §4.4.

Table 5.19 is an overview of sound correspondences going back to the PMP voiced obstruents. PMP *b unconditionally splits into PFL *b and *v

in initial position and in intervocalic position, all instances of final PMP * -b > PFL * -v. An unconditioned split here means that the conditioning of this split remains unknown.

PMP *d, *z and *j have merged into PFL *d for initial and intervocalic position. In final position PMP *d > PFL *r and PMP *j > PFL *y. Initial PMP *z followed by an intervocalic liquid becomes l or in some Lamaholot varieties also r. Only very few reflexes of PMP *g are found in the languages of Flores-Lembata. These cognates show a regular change of PMP *g > k in Kedang.

Env.	#_	#_	V	V	_#	#_VL	#_	V_V	_#	_#	#_	V_V
PMP PFL		*b *v	*b	b *v	*b *v	*z *l	*d/*z *d	*d/*z/*j *d	*d *r	*j *y	*g *g	*g *g
SK	b	ν	b	ν	7/Ø	1	r	r	r	Ø	$\frac{ g }{ g }$	$\frac{g}{g}$
WL	b	ν	b	ν	Ø	l/r	d	r	r/\emptyset	Ø	g	g
CL	b	ν	b	ν	ν	l/r	d	dz	r	dz/\emptyset	g	g
EL	b	ν	b	ν	[]	l/r	d	r	[]	[]	g	g
KD	b	ν/\emptyset	b	ν	Ø	l	d	$y/r/\emptyset$	r	Ø	k	k

Table 5.19: Reflexes of PMP *b, *d, *g, *j $[g/g^j/\chi]$ and *z $[dg/l_l]$

In the following, the split of PMP *b, the merger of PMP *d/*z/*j and the retention of PMP *g are discussed in more detail.

5.2.2.2 Split: PMP *b > PFL *b/*v

Unconditional PMP *b > PFL *b/*v is attested in initial position, as shown in Table 5.20. In intervocalic position, PMP *b is less frequent and all intervocalic PMP *b > PFL *v, as shown in Table 5.21.

There is evidence that PMP *b > *b/*v already occurred on a higher level than PFL. PMP *b > *b/*v is evidence for a Bima-Lembata subgroup including Flores-Lembata, Flores, Bima and Sumba-Hawu. This is discussed in more detail in $\S5.5$.

PFL *b remains b in all daughter languages and PFL *v remains ν in all daughter languages, except for Kedang where PFL *v > Ø before u. An example is Kedang ua|n 'fruit' (< PFL *vua < PMP *buaq). The change appears

to be incomplete. Thus, for example, KD-Leubatang has vura|n 'foam' (< PFL *vuda < PMP *bujəq) with retention of ν , but also ua|n 'fruit' (< PFL *vua < PMP *buaq) with loss of ν . There is one apparent instance of intervocalic PFL *v > h in Kedang: Kedang tehu 'sugarcane' < PFL *təvu < PMP *təbuh.

PMP *b-*babuy *batu *buaq *b-*bayu *budaq **PFL** *v-*b-*bayu *buda? *vavi *vatu *vua-n SK bura? vua|nb **b**ai vavi **v**atu WL (LWI) vave vato vua|ŋ b**b**ayo bura ν CL**v**avi vatu vua|k b**b**adzu budza|k**b**ur?ã EL ν [...] vato vu?ã b [...] KD **v**avi va? ua|nb**b**ae **b**uya? ν 'fruit' 'white' 'pig' 'stone' 'pound'

Table 5.20: Reflexes of initial PMP *b-

Table 5.21: Reflexes of intervocalic PMP *-b-

PMP PFL	*-b- *-v-	*qa b u *ka-ʔa v u	*tə b uh *tə v u
SK	ν	avu	təvu
WL (LWI)	ν	kə ?avu	təvo
CL (KK)	ν	k avo k	tə v u
CL(LR)	ν	k avo k	$t \partial v o r$
EL	?	[]	[]
KD	ν	ava?	tε h u
		'ash'	'sugarcane'

In the southern Lembata varieties of Central Lamaholot, such as CL-Imulolo, and Western Lamaholot, such as WL-Lamalera, a consecutive sound change of PFL $^*v > f$ is found. The same change is found in the Alorese varieties Alor Besar and Baranusa.

Evidence for final PMP *-b is rare, only one cognate set given in Table 5.22 is attested in my database where PMP *-b > PFL *-v.

Table 5.22: Reflexes of final PMP *-b

	ʻyawn'
PMP	*ma-huab
PFL	*muav
SK	moa?
KD	moa
CL	kə mua v
WL	pə moa
EL	[]

Most of the FL languages, except for Central Lamaholot, loose PFL *v in final position. In Sika, final PFL *v is reflected as ? instead of being lost.

5.2.2.3 Merger: Initial and intervocalic PMP *d/*j/*z > PFL *d

Initial and intervocalic PMP *d, *j and *z have merged in PFL as they have the same reflexes in all Flores-Lembata languages. As initial PMP *d- is retained unchanged in Kedang and Lamaholot, I suggest that PMP *d, *j and *z merged into PFL *d. In §5.2.2.4, I show why I propose PFL *d not only for initial position but also for intervocalic position, although in the modern languages of Flores-Lembata no intervocalic d is attested. Final PMP *-d and *-j did not merge, but PMP *-d > PFL *-r and PMP *-j > PFL *-y.

Table 5.23 provides cognate sets that contain reflexes of initial PMP *d- and PMP *z- that merged into PFL *d-. Initial PFL *d- is reflected as r in Sika, whereas it is retained unchanged in Lamaholot and Kedang.

*dəŋəR *diRi *dahun *zəkət *zauq *zaqit *zaRum 'needle' **PMP** PFL *dəŋər *diri *deket *doa *da?it *daru *doun SK ra?it **r**əna roun WL (LWI) vene de?iŋ $doa|\eta$ **d**au|ŋ WL (AD) deŋe? de?i doã CLdənər diri doa EL **d**əŋe diri de?edoa ? **d**u? KD $d\varepsilon\eta\partial r$? $ma|d\varepsilon r$ doa'hear' 'stand' 'leaf' 'burn 'far; 'sew' 'sew' (fields)'long'

Table 5.23: Reflexes of initial PMP *d- and *z- $[d_3/j_j]$

The word for 'sew' comes from two PMP sources: *zaqit 'sew' > Sika ra?it and *zaRum 'needle' > WL-Lewoingu $dau|\eta$ 'sew'. This is a case of semantic change from 'needle' to 'sew'. The vowel change PMP *au > PFL *oa in the reflexes of PMP *zauq 'far; long' cannot be explained so far. Also the apparent change of PWL *d > ν in WL-Lewoingu veye 'hear' is unexpected and cannot be explained further at the current stage.

Reflexes of initial PMP *z- or *d- in words that contain an intervocalic liquid PMP *-l- or PMP *-R- behave exceptionally. In these words PMP *z or *d is not reflected as PFL *d but as PFL *l due to the assimilation to the following liquid in the word. Table 5.24 provides the three cases found in my data set.

PMP PFL	* z alan *lalan	*duRi 'thorn; fish bone' *luri	*daləm *laləm
SK (MM)	l ala	luri n	-
SK (HW)	l ara	l uri n	-
WL(AD)	r arã	ri?ũ:	-
WL (LWI)	l ara ŋ	r iʔu	-
WL(LWT)	l arã	r iʔu	-
WL (BN)	-	ru ? i $\mid g$	-
CL	l alan	riu k	-
EL	l ara	ri?ũ	-
KD	l ala	luri n	$\mathit{lale} g$
	'road'	'bone'	'inside'

Table 5.24: Reflexes of initial PMP *z-/*d- before intervocalic liquid

For PFL *lalan (> PMP *zalan), Sika, Kedang and Central Lamaholot show regular reflexes. In the WL varieties, the medial l has been changed into r and for some varieties, this even effected the initial l to change into r. In SK-Hewa, this change is also found. I suggest that this happened due to influence of the neighboring WL variety Lewotobi which has $lar\tilde{a}$ 'road'.

The reflexes of PMP *duRi 'thorn, splinter, fish bone' in Sika and Kedang are regular. The Lamaholot forms need more explanation. WL-Baranusa, a variety of Alorese, is most conservative in this form. It retains the order of the vowels, first u then i. The change of PFL *r > ? is regular. After the sound change of PFL *r > ? in Western Lamaholot, the initial l is changed into r, as has also been observed in WL-Adonara $rar\tilde{a}$ 'road'. In all other Western Lamaholot varieties, metathesis of the two vowels has occurred in addition to these changes. The Central Lamaholot form riuk 'bone' (< PFL *luri < PMP *duRi) is irregular as usually PFL *-r- = r in Central Lamaholot. In the word riuk, the intervocalic PFL *-r- appears to be deleted. I propose that CL riuk is a loan from WL ri?u with the addition of the suffix -k and the deleting of the glottal stop which is regular in Central Lamaholot.

Intervocalic PFL *-d- (< PMP *d *z *j) undergoes several different changes in individual languages as shown in Table 5.25. Central Lamaholot reflects PMP *-d- as dz intervocalically, whereas Sika, WL and EL reflect PMP

*-d- as r in intervocalic position. In Kedang, intervocalic PMP *-d- > y which is then sometimes reduced to zero. It is very likely that Kedang went through the intermediate stage of PFL *-d- > *-dz- before > y or Ø. There is evidence from loanwords, such as yendela 'window' from Indonesian dzendela and yadi 'become; happen' from Indonesian dzadi, that Kedang y in initial position comes from an earlier dz (Samely and Barnes 2013:712). So, it could be that initial dz and intermediate dz (from PFL *d) became y. This is the same change as attested in Central Lamaholot which underwent PFL *-d- > PCL *-dz-. Also, in some varieties of Central Lembata, intervocalic dz is weakened sporadically to y, such as in CL-Lerek nayan 'name' from Proto-Central-Lamaholot *nadzan 'name'.

Table 5.25: Reflexes of intervocalic PMP *-d-, *-z- and *-j-

PMP PFL	*ma-qudip *modip	-	-	*tazim 'whet' *m-tidəm	0 0	ŋi j uŋ *(n)i d uŋ
SK WL (LWI) WL (AD)	moret mori mori t	bura? bura bura?	uran uraŋ ?uraŋ	diran - -	naran naraŋ narã	iru iru ŋ iru net
CL EL KD	mo dz ip mo r i	budza k buro buya?	U	- - dεyε?	nadzan nara naya	
	'alive'	'white'	ʻrain'	'sharp'	'name'	'nose'

In the examples in Table 5.25, Kedang reflects PFL *d (>*dz) > y/\emptyset . However, there are also cases where PMP *d > r/s in Kedang. Table 5.26 shows the cognate sets in my dataset that contain possible words with intervocalic PFL *d > r/s in Kedang. The reflexes in the other Flores-Lembata languages are regular, following the intervocalic pattern in Table 5.19.

PMP	*udu	*hua j i	*bu d aq	*si ida
PFL	*udu	*vadi	*vu d a	*hida
SK WL (LWI) WL (PD) CL EL KD	uru ŋ	vari	vura n	r imu
	-	ari ŋ	vura haŋ	ra:
	-	ariŋ	wuraŋ	hire
	-	va d ʒi	pə wudʒa	da ne
	[]	(v)ari	[]	? ro ?e
	(v)uru	?ari?	vura n	? suo
	ʻgrass; bush'	'younger sibling'	'foam'	"3pl' ^a

Table 5.26: Irregular Kedang reflexes of intervocalic PMP *-d-

In the first three examples in the table above, PFL *-d- > r in Kedang. It remains unclear what causes this irregularity as usually PFL *-d- > y in Kedang as shown above.

The reflex s < PFL *d appears only in one example: Kedang suo '3pl.'. As I have proposed intervocalic PFL *-d- (>*dz) > y/Ø for Kedang, an intermediate stage of PFL *hida > *hidza > dza with loss of the initial syllable could be imagined. Alternation between dz and s is also attested in other Kedang words, such as in yadi (from dzadi) / sadi 'become, happen' from Indonesian dzadi (Samely and Barnes 2013:712). Therefore, it is possible that dza '3pl.' became sa but in other words, the initial dz was kept and later changed into z. However, the diphtongisation from z and z which would be necessary to gain the present-day form z and "3pl.' remains obscure. Therefore, it is also possible that z is not cognate with the other forms of the set.

^a The Central Lamaholot form *dane* '3pl' (< PFL *sida/*hida) follows the pattern of initial PMP *d. The initial syllable of the pronoun was lost before the intervocalic change of PFL *d > dʒ took place (cf. §5.2.2.4). The Eastern Lamaholot reflex could be related to the WL enclitic pronoun =ro '3pl' only used for objects (Michels 2017:42). The Sika pronoun *rimu* '3pl' is the result of the inherited third person plural pronoun merging with a reflex of the Central Flores reconstruction *imu 'friend; companion' (Elias 2018:118). In several Central Flores languages, the word has undergone a semantic shift from 'friend; companion' to '3sg'.

5.2.2.4 Alternative options for the PFL reflex of PMP *d/*j/*z

In §5.2.2.3, I have shown, by providing evidence for identical correspondence sets, that the reflexes in the Flores-Lembata languages indicate a merger of initial and intervocalic PMP *d, *j and *z. I propose that these three PMP consonants merged into PFL *d in initial and intervocalic position despite the fact that synchronically no intervocalic -d- tracing back to PMP *d/*j/*z is attested (cf. §5.2.2.3). Therefore, reconstructing the value of the merged Proto-Flores-Lembata (PFL) sound is not straightforward. In this section, I motivate the reconstruction of PFL *d < PMP *d/*j/*z in initial and intervocalic position.

Based on the reflexes attested in the individual subgroups, there are three options for the PFL reflexes of PMP *d/*j/*z in initial and intervocalic position respectively:

```
    PFL *d- and *-dz-
    PFL *d- and *-d-
    PFL *dz- and *-dz-
```

I argue for the second option which proposes PFL * d in both positions. In the following, I lay out the consequences for each of the three reconstruction options.

Option 1 Proposing PFL *d- in initial position and PFL *-dz- in intervocalic position would require the following subsequent sound changes in SK, KD, WL and EL. No sound change would be required in CL.

```
    PFL *d->r / #_ in SK
    PFL *-dg->r / V_V in SK
    PFL *-dg->r / V_V in WL
    PFL *-dg->r / V_V in EL
    PFL *-dg->y / V_V in KD
```

A downside of this option is that proposing the allophones *d- and *-dzin PFL cannot easily explain the Central Lamaholot reflexes *da* '3PL' from a putative PFL *hidʒa '3PL' listed in Table 5.27 below.¹ Assuming PFL *hidʒa

¹ The evidence for reconstructing the initial syllable *hi in PFL *hidʒa/*hida comes from the WL variety Alorese which retains the form *hire* 'PL' (< PMP *si ida) as a plural word. In other WL varieties, the the 3PL pronoun *ra* is attested. Thus, the reflex of PFL *-dʒ- is *r* as proposed above. For the WL reflexes, there are no issue of putative PFL *-dʒ- as long as assuming that the change of *-dʒ- > *r* occurred before the loss of the initial syllable.

would require an exceptional change of intervocalic *-dg- > d in the word da as a free 3PL pronoun in most CL varieties. This change does not appear in any other word.

Table 5.27: Reflexes of PMP *si ida '3PL' reconstructions of Option 1

PMP	*si ida	'3pl'
PFL	*hidʒa	'3pl'
PCL	*idʒa	
CL (CLB, PN, LK)	da (ne)	'3pl'
CL (IL, LP, MR)	da (ro)	'3pl'
CL (CLB, PN)	-i / -dʒa	'3PL.POSS'
CL (CLB)	-dza	'PL'
CL (LWK)	ya ne	'3pl'
WL	ra (?e)	'ЗРГ,
WL-Alorese	hire	'PL'

PMP=Proto-Malayo-Polynesian

PFL=Proto-Flores-Lembata

PCL=Proto-Central Lamaholot

A possible solution would be to propose that there was variation between PFL *da / *hidʒa '3PL'. Consequently, most CL free pronouns would come from PFL *da, while the CL suffixes, as well as the LWK free pronoun would come from PFL *hidʒa. In this scenario, Proto-Western Lamaholot (PWL) would have lost PFL *da and only retains reflexes of PFL *hidʒa.

The other forms do not cause problems when assuming PFL *hidʒa. The Central Lamaholot suffixes -i '3Pl.Poss' and dza '3Pl.Poss/Pl' going back to PMP *si ida can be explained by PFL *hidʒa as they contain intervocalic -dz-. Also the CL-Lewokukung (LWK) form can be explained, as y in this variety comes from an earlier dz-.

Additional support for Option 1 — PFL *d- in initial and *-dz- in intervocalic position — could be the reconstruction of PFL *dz- in initial position as a marginal phoneme (cf. §5.2.2.6).

Option 2 Proposing, PFL *d- in initial position and PFL *-d- in intervocalic position would require the following subsequent sound changes in the FL subgroups.

```
    PFL *d->r / #_ in SK
    PFL *-d->r / V_V in SK
    PFL *-d->r / V_V in WL
    PFL *-d->r / V_V in EL
    PFL *-d->(*dz>)y / V_V in KD
    PFL *-d->dz / V_V in CL
```

In contrast to the first option, this option would more easily explain the Central Lamaholot reflexes da '3pl' in Table 5.27. The CL varieties that have da '3pl' (all except for CL-lwk) have lost the initial syllable of Proto-Central Lamaholot (PCL) *ida (< PFL *hida) before the change of PFL *-d- > dz in Central Lamaholot. In contrast, CL-lwk lost the initial syllable after the change of PFL *-d- > *-dz-, and subsequently underwent the change of *dz > y As initial PFL *d is retained in CL, the form remains da.

Option 3 Proposing, PFL *dʒ- in initial position and PFL *-dʒ- in intervocalic position would require the following subsequent sound changes in the Flores-Lembata subgroups.

```
PFL *dʒ- > r / #_ in SK
PFL *dʒ- > d / #_ in KD
PFL *dʒ- > d / #_ in CL
PFL *dʒ- > d / #_ in WL
PFL *dʒ- > d / #_ in EL
PFL *-dʒ- > r / V_V in SK
PFL *-dʒ- > r / V_V in WL
PFL *-dʒ- > r / V_V in EL
PFL *-dʒ- > y / V_V in KD
```

Like Option 2, Option 3 would easily explain the Central Lamaholot reflexes da '3PL' in Table 5.27. The CL varieties that have da '3PL' would have lost the initial syllable of their reflexes from PCL *idʒa (< PFL *hidʒa) before the change of PFL *dʒ- > d in Central Lamaholot. As initial PFL *dʒ- > d, the form became da.

However, assuming this sound change of PFL *d $_3$ - > d- causes an additional problem. There are a few CL words that have initial d_3 which does not come from PFL *y but has to be reconstructed to PFL *d $_3$ - (cf. §5.2.2.6). Therefore, assuming PFL *d $_3$ - > d- would require explaining why these words did not change their initial consonant while all others did.

Weighing these three option against each other, Option 2 — reconstructing initial and medial *d — is the most likely. The main problem with Option 1 is that it cannot explain the CL pronoun da '3PL'. The main problem with Option 3 is that it cannot explain the CL words with initial d_3 . Both problems are avoided when choosing Option 2.

5.2.2.5 Final PMP *-d and *-j

Table 5.28 displays reflexes of final PMP *-d and PMP *-j. In final position, these two consonants do not merge. Final PMP *-d > PFL *r > r/\emptyset in the present-day languages and final PMP *j [$g/\gamma/g^j$] > PFL *y [j]. PFL *y is later lost in most varieties. In Central Lamaholot, PFL *y either becomes dz or is lost (c.f. §5.2.6). The reflexes of PMP *pusəj 'navel' have an irregular final r in the reflexes, as usually final PMP *-j > y.

Table 5.28: Reflexes of final PMP *-d and *-j

PMP	*qulu tuhu d	*batad 'millet; sorghum'	*pusəj	*qənaj	*qunəj	*sakaj
PFL	*lotur	*vatar	*pusər	*ənay	*una	*hakay
SK	tur	vata r	puher	ne	une	ha?e
WL	lotor	vata	kə puhu r	-	ono	haka
CL	lotor	-	kə pusər	əna d z 'soil'	una 'house'	aka \sim aka dz
EL	[]	[]	[]	-	-	[]
KD	-	vata r	puher	ene	-	a?
	'knee'	'corn'	'navel'	'sand; soil'	ʻinside'	'ascend; climb'

5.2.2.6 Evidence for PFL *dz with no PMP source

Following a bottom-up approach, there is some evidence provided in Table 5.29 to reconstruct PFL *dz in initial position. However, only one set, PFL *dzua 'two', can clearly be reconstructed to PFL, all other sets have no reflexes in Kedang and Eastern Lamaholot. PFL *dzua 'two' is probably an irregular reflex of PMP *duha 'two', as regularly PMP *d- > PFL *d-, but for the other words no PMP sources could be found.

Table 5.29: Reflexes of initial PFL *dʒ- without regular PMP source

PMP	_	? * d uha	=	=	-	-
PFL	*dʒ-	*dʒua	#dʒəma	#dʒae	$\#d\mathbf{z}e(ta)$	# dʒ u
SK	r	r ua	rema 'time unit'	-	re ta 'hill- wards'	-
WL	r	r ua	r əma?	r ae	-	-
WL CL	dz	d ʒua	<i>d</i> ʒəma	<i>d</i> ʒae	dze	d zu
EL KD	?	[] sue	'time unit' [] -	[]	[]	[]
		'two'	ʻnight'	'hillwards'	ʻupwards'	'downwards'

The sound correspondences in the table are different from reflexes of initial PFL *d-, as CL has dz-, KD has s- and WL has r-, while all three reflect PFL *d- as d-. Note that the correspondence set that leads to the reconstruction of PFL *dz- is similar to the reflexes of intervocalic PFL *-d- (cf. Table 5.25).

5.2.2.7 The retention of PMP *g

Table 5.30 provides reflexes of PMP *g in initial and intervocalic position. In the data I used for this study, there is not much evidence for reflexes of PMP *g in the languages of Flores-Lembata. Only four cognate sets could be found. In Kedang, the reflex of PMP *g is k. Given that Kedang also has PFL *k > 7 (cf. §5.2.1), PFL *g > k must have happened after PFL *k > 7 had been completed.

*gaRut *gatəl **PMP** *gaRaŋ *baqagi PFL *garaŋ *garu *gatər *bagi SK garu gatar bige WL (LWI) ra**g**u? gatə WL (AD) ra**g**u? **g**atə|k WL (MS) gau gate|? bage CLkə|ra**g**u gətə|k EL ragu [...][...] KD bo? karo karaŋ 'scratch' 'divide' 'rough' 'itchy'

Table 5.30: Reflexes of PMP *g

In the Kedang word *bo?* 'divide', the intervocalic PFL *g has become the final consonant of the word and is therefore changed into glottal stop. Kedang only allows glottal stop, nasals and liquids in final position (Samely 1991a:46-47).

For the words going back to PFL *garu 'scratch', the Lamaholot varieties have undergone metathesis of the initial and medial consonant which led to *ragu* instead of *garu*, while Alorese retains the unmetathesised form *gau*.

5.2.3 PMP fricatives *h and *s

5.2.3.1 Loss of PMP *h

Table 5.31 show the reflexes of PMP *h in the languages of Flores-Lembata. PMP *h is almost always lost in the Flores-Lembata languages. However, there are a few potential cases of PMP *h retained as h or ? which are discussed further below.

Table 5.31: Reflexes of PMP *h

Env.	#_	V_V	_#
PMP	*h	*h	*h
PFL	*Ø	*h/Ø	*?
SK	Ø	Ø	Ø
WL	Ø	h/?/Ø	?/Ø
CL	Ø	Ø	Ø
EL	7/Ø	Ø	Ø
KD	?/Ø	h/\emptyset	Ø

Table 5.32, 5.33 and 5.34 provide cognate sets with reflexes of PMP *h in the languages of Flores-Lembata. In initial position, PMP *h- was most likely already lost in Proto-Flores-Lembata or earlier. In Eastern Lamaholot and Kedang, a glottal stop is found sporadically at the position of initial PMP *h-. However, as both languages occasionally also insert glottal stops before initial vowels, such as in EL-Lewoeleng ?i?u 'tail' (< PMP *ikuR), it cannot be decided without doubt whether the initial glottal stop has been added at a later stage or is a reflex of PMP *h. For WL-Adonara a regular pattern of inserting a glottal stop before every initial vowel is attested.

Table 5.32: Reflexes of initial PMP *h-

PMP PFL	* h apuy *api	* h ikan *ikan	* h aŋin *aŋin	*huaji *vadi	* h ular *ular
SK	арі	i?an	anin	vari	ular
WL	ape	ikaŋ	aŋin	ari g	ula?
CL	api	ikan	aŋin	vadzi	ular
EL	ape	? i?a	aŋin	vari	ula
KD	api	ika	aŋin	? ari?	ular
	'fire'	ʻfish'	'wind'	'younger sibling'	'snake'

In intervocalic position, PMP * -h- is also generally lost as shown in Table 5.33. In WL, there are a few instances of PMP * h reflected as glottal stop in

between vowels, such as in WL-Lamahora *va?i* 'water'. Similar to the case of initial PMP *h-, the glottal stop between two vowels could also be an insertion rather than a reflex of PMP *h. However, this appears unlikely as insertion of glottal stop intervocalically is not otherwise found in the phonologies of the Flores-Lembata languages.

*kahu ? *duha *buhək **PMP** *luhəq *wahiR *dahun *kau *luu **PFL** *va?ir *dzua *doun *vuhak SK *?au* lu vair rua roun WL (LWI) lou|ŋ vai rua WL (LH) [...] va?i [...]WL (LTB) [...] vai? rua CL vai dzua EL [...] vae KD lu|nvei sue u**h**a 'tear' 'leaf' 'hair' 2sg'water' 'two'

Table 5.33: Reflexes of intervocalic PMP *-h-

Kedang uha 'hair' (< PMP *buhək) provides possible evidence for the retention of intervocalic PMP *-h-. This would be exceptional as intervocalic PMP *-h- has been lost in all known languages of the area. In the word uha 'hair' (< PMP *buhək), the loss of initial PFL *w (< PMP *b) before u is regular in Kedang. PMP *ə > a before *k is also attested in PMP *təbək 'stab' > Kedang tuba?. Due to the regularity of the other reflexes, the Kedang example uha 'hair' provides possible evidence for occasional retention of intervocalic PMP *h in Kedang. Based on current data, this would be the only case of PMP *h = h in Kedang.

In final position, PMP *-h is mainly lost or sporadically retained as glottal stop, such as in WL-Adonara *tale?* 'rope' in Table 5.34. However, as there is just one example with a glottal stop at the position of PMP *-h, this could also be an irregular insertion.

*təbuh **PMP** *talih *qilih *tumah *ma-tuqah PFL *m-tu?a *tali *təvu *ili *tuma SK ili|ndua|ntali təvu WL (AD) tale? ?ile kə|tumã t<en>u?e tevoWL (LWI) tale təvo ile kə|tuma $t < \partial n > ue | \eta$ ili CLtali təvu kə|tumav tua|na EL tale ile [...] [...] KD tεhu ili 'rope' 'sugarcane' 'mountain' 'cloths louse' 'old'

Table 5.34: Reflexes of final PMP *-h

5.2.3.2 Split: PMP *s > PFL *s/*h

Table 5.35 shows the reflexes of PMP *s in the languages of Flores-Lembata. PMP *s splits unconditionally into PFL *s and PFL *h in initial and intervocalic position. All Flores-Lembata languages, except for Central Lamaholot, later complete this change by changing the reflexes of PFL *s into h. In Central Lamaholot PFL *s = s while PFL *h > \emptyset .

Table 5.35: Reflexes	of PMP	*s
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Env.	#	! —	V	_V	_#
PMP	*	s	9	^t S	*s
PFL	*s	*h	*s	*h	*Ø
SK	h	h	h	h	Ø
WL	h/\emptyset	h	h	h/\emptyset	Ø
CL	s	Ø	S	Ø	Ø
EL	[]	h	h	h	Ø
KD	h/Ø	h/\emptyset	h/?	h/\emptyset	Ø

Tables 5.36, 5.37 and 5.38 provide cognate sets with reflexes of PMP *s in the languages of Flores-Lembata. In initial and medial position, there is an unconditioned split of PMP *s into PFL *s / *h. No conditioning for the split

of PMP *s in Proto-Flores-Lembata could be determined and the instances of PMP *s = PFL *s and PMP *s > PFL *h in my data set are roughly equal in number. It is probably a result of an incomplete sound change of *s > *h in Proto-Flores-Lembata.

Most Central Lamaholot varieties retain PFL *s = s, with the exception of CL-Painara which has PFL *s > h. All other FL languages have undergone PFL *s > h in the vast majority of lexemes. However, this change is not entirely complete, as there are sporadic retentions of PFL *s = s in Sika and Western Lamaholot. PFL *h is lost in Central Lamaholot. In Kedang initial PFL *h > \emptyset while in other positions PFL *s/*h are retained as h, ? or lost. Table 5.36 shows reflexes of initial PMP *s.

PMP PFL	*s *s		*sama *sama	*salaq *sala	*s *h	*sakay *hakay	*qasiRa *hira
SK	h	h iva	h ama	h ala	h	h a?e	=
WL (AD)	h	h iva	h ama	$n al ilde{a}$	h	h aka	[siʔa]
CL	s	siva	s < n > ama g	s < n > ala k	Ø	aka(dz)	ira
EL	?	[]	[]	[]	h	[]	h ira
KD	h	-	h ama	$ke \pmb{h}e$	h/Ø	a?	-
		'nine'	'same'	'wrong'		'climb'	'salt'

Table 5.36: Reflexes of initial PMP *s

In Table 5.36, the WL word *si?a* 'salt' contains an irregular retention of initial *s*. Possibly WL lost the inherited cognate for the word for 'salt' and reintroduced it through borrowing from a language that still retained the *s*. As salt is a trade commodity, it is highly borrowable. A possible donor languages for WL *si?a* 'salt' would be a Central Flores language, such as Lio which has *si?e* 'salt' (cf. §6.2.4).

Table 5.37 lists reflexes of intervocalic PMP *s. Kedang shows sporadic PFL *s/*h > $7/\emptyset$. PFL *(t)usu 'breast' (< PMP *susu) has an irregular change of PMP *s > PFL *t initially, as well as irregular loss of the initial consonant in Sika.

*asu *əsa *pusuŋ **PMP** *s *tasak *pusəj *susu *s **PFL** *s *m-tasak *(t)usu | *h *ahu *əha *pusər *puhuŋ SK da**h**a? h pu**h**er и**h**и h a**h**u **h**a *риhиŋ* WL(AD) | hta**h**ak ke|puhur|et tuho h a**h**o [...] pu**h**o CLtasak kə|pusər tusu Ø au m|eaрио EL [...] h [...] a**h**o [...] pu**h**o KD $h/2 \mid ta \approx n$ ри**h**ɛː tu?u h/\emptyset au e**h**a? 'ripe' 'navel' 'breast' 'dog' 'one; 'heart' alone'

Table 5.37: Reflexes of intervocalic PMP *s

Table 5.38 shows reflexes of final PMP *s. In PFL *tani 'cry' (< PMP *taŋis) final *s is lost. In PFL *bukat 'open' (< PMP *buŋkas) final *s is irregularly replaced by t. Final PFL *t is regularly reflected as ? in Kedang (cf. §5.2.1.3). In the PFL reflex *menipihi 'thin' (< PMP *ma-nipis), the final *s has become intervocalic. Therefore, it is retained as h in Western Lamaholot and Eastern Lamaholot. In Central Lamaholot PFL *h > Ø. The insertion of ν in CL varieties may be explained by the avoidance of two adjacent vowels in final position.

Table 5.38: Reflexes of final PMP *s

PMP PFL	*ma-nipis *m-nipih-i	*taŋis *tani	*buŋkas *bukat
SK	-	tani	-
$WL(\kappa o)$	тәпір h і	tani	[]
WL(AD)	menipi	tani	buka
CL (LWK)	mipivu	-	[]
$CL(\kappa\kappa)$	mipiv	-	buka t
EL	mipi h i	tani	[]
KD	mipi	-	buka ?
	'thin'	'cry'	ʻopen'

5.2.4 PMP nasals *m, *n and *η

The PMP nasals *n, *m and * η are mainly retained as such in the languages of Flores-Lembata as shown in Table 5.39. The nasal which undergoes the most changes is * η . Word initially PMP * η - > n/\emptyset for all FL languages. In Sika medial *- η - > n.

V_{V} # #_ V_{V} #_ V_{V} Env. # _# *-ŋ *-n *ŋ-*-ŋ-**PMP** *m-*-m-*-m *n-*-n-*n PFL *m *m *m *n *n *ŋ *ŋ SK $n/\eta/\emptyset$ mm Ø n n Ø n $\eta/n/\emptyset$ WL Ø [...] $n/\eta/\emptyset$ n/\emptyset m m n ŋ ŋ CL[...]n η/\emptyset mnmm nŋ ELmm Ø [...]n n/\emptyset n/\emptyset Ø ŋ KD Ø n/\emptyset mm n ŋ η/n

Table 5.39: Reflexes of PMP nasals *m *n and *n

Table 5.40 gives an example of PMP *m reflexes for each position in the word. In initial and medial position, PMP *m is retained in all FL languages, while in final position only Central Lamaholot keeps PMP *m in final position.

PMP PFL	*manuk *manuk	*Ramut *ramut	*ma-qitə m *mitə m	*tazim 'whet' *m-tidəm
SK	m anu?	ra m ut	mita n	dira n
WL(AD)	m anuk	7a m ut	mitə	-
WL (LWI)		ra m u	mitə ŋ	-
CL	m anuk	ra m ut	mitə m	-
EL	m anu?	ra m u	mitã	-
KD	m anu?	ra m u?	$mit \varepsilon \eta$ 'black; dirty'	$d\varepsilon y \varepsilon 7$
	'chicken'	'root'	'black'	ʻsharp'

Table 5.40: Reflexes of PMP *m

Table 5.41 provides cognate sets illustrating the development of PMP *n for each position. Initial PMP *n is scarce in my data and there are no examples of initial n (< PMP *n) in Lamaholot and Kedang. In Sika, there is also the word niur 'coconut' (< PMP *niuR). Intervocalic PMP *n is regularly reflected as n. Final PMP *n is mainly reflected as n. However, sporadically, the reflex of final PMP *-n > \emptyset in Western Lamaholot and Kedang. In some varieties, such as SK-Krowe or WL-Munaseli (a variety of Alorese), final PMP *-n > η . This change is also sporadically attested in other Western Lamaholot varieties.

Table 5.41: Reflexes of PMP *n

PMP PFL	* n iuR * n iur	*ina *ina	*anak *anak	*haŋi n *aŋi n	*bulan *vulan
SK (HW)	n iur	i n a	a n ak	ani n	vula n
SK (ĸw)	n iur	i n a	-	ani ŋ	vula ŋ
WL (LWI)	=	-	a n a?	aŋi n	vula
WL (AD)	=	?i n a	?a n a?	?aŋi	vulã
WL (MS)	=	i n a	a n aŋ	aŋi ŋ	vula ŋ
CL	=	i n a	a n a k	aŋi n	vula n
EL	=	i n a	a n a	aŋi n	[]
KD	-	?i n e	a n a?	aŋi n	vula
	'coconut'	'mother'	'child; small'	'wind'	'moon'

Table 5.42 shows cognate sets that contain reflexes of initial and intervocalic PMP *ŋ. Initial PMP *ŋ > n in PFL. Intervocalic PMP *ŋ is retained as g in Kedang and Lamaholot, while Sika shows PMP *-ŋ- > n. In Sika, this leads to a merger of PMP *n/*ŋ > n in intervocalic position. The Western Lamaholot and Eastern Lamaholot reflexes of PMP *taŋis 'cry' have irregular reflexes containing intervocalic n (< PMP *ŋ) most likely going back to PFL, therefore reconstructed as PFL *tani 'cry'.

PMP PFL	*ŋusu *nusu	*ŋajan *nadan	* ŋ ijuŋ *(n)iduŋ	*dəŋəR *dəŋər	*taŋis *tani	*naŋuy *naŋi
SK	-	n aran	iru	rə n a	ta n i	na n i
WL (LWI)	-	n araŋ	iruŋ	we ŋ e	ta n iŋ	na ŋ e
WL (LML)	-	n araŋ	n iruŋ	də ŋ a	ta n i	naŋe
WL (MS)	n uhu ŋ	n araŋ	iruŋ	də ŋ a	ta n iŋ	na ŋ ge
CL	n us	n adzan	n idzu	də ŋ ər	-	na ŋ e
EL	n uhe	n ara	n irũ	də ŋ e	ta n i	na ŋ i
KD	? n unu	n aya	n iŋ	de ŋ ər	-	na ŋ i
	'mouth'	'name'	'nose'	'hear'	'cry'	'swim'

Table 5.42: Reflexes of initial and intervocalic PMP *ŋ

Final PMP *-ŋ appears to be easily lost in the languages of Flores-Lembata. For most lexical items it can still be reconstructed to PFL but is not found in all reflexes. Sometimes, such as in $CL \frac{ga}{a}|k$ 'rough' or $WL \frac{iru}{net}$ 'nose', the final nasal is replaced by a suffix.

Table 5.43: Reflexes of final PMP	*-ŋ
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PMP PFL	*pusuŋ *puhun	*bubuŋ *(v)uvuŋ	*garaŋ *garaŋ	*kədəŋ *kəda	*ŋiju ŋ *(n)idu ŋ
SK	puhu ŋ	-	-	?əra	iru
WL(AD)	puho	ичи ŋ	ga?a k	-	iru nət
WL(AB)	-	fufu ŋ	-	-	niru ŋ
CL	рио	นงน ท ู	=	-	nidzu
EL	puho	[]	[]	=	nirũ
KD	-	-	kara ŋ	-	? ni ŋ
	'heart'	ʻridge'	'rough'	'stand'	'nose'

In sum, while the nasal m is clearly separate in all FL languages, the nasals n and g have partly merged in initial and final position. In Sika this merger also occurs intervocalically. In some Western and Eastern Lamaholot varieties, final g or g has often been deleted with the preceding vowel being nasalised, such as in WL-Lewolema g of g flower' (g PMP *g pusun).

5.2.5 PMP liquids *l and *R

The PMP liquids *l and *R [r] are generally reflected in a regular manner. PMP *l and *R [r] are usually retained unchanged with the exception of PMP *R > WL ?. This sound change is complete in intervocalic and final position but possibly incomplete initially. The reflexes of PMP *l and *R are given in Table 5.44.

Table 5.44: Reflexes of PMP *l and *R [r]

Env.	#_	V_V	_#	#_	$V_{-}V$	_#
PMP	*1-	*-l-	*-l	*R-	*-R-	*-R
PFL	*1	*l	*l	*r	*r	*r
SK	l	l	r	r	r	r
WL	l	l	l	7/r	?	?
CL	l	l	[]	r	r	r
EL	l	l	[]	r	r	[]
KD	l	l	l	r	r	r

Table 5.45 shows cognate sets that contain reflexes of PMP *l. Most instances of PMP *l are retained as l. However, there are occasional irregular changes of PFL *l > r in Western and Eastern Lamaholot, mainly influenced by the presence of a second liquid in the word, such as in WL-Adonara rara 'day, sun' (< PMP *qaləjaw). Other examples of sporadic *l > r are reflexes of PFL *lalan 'road' in some Western Lamaholot varieties and reflexes of the unreconstructible lexeme set #latar 'hair' in Western and Eastern Lamaholot. Unreconstructible lexeme sets will be discussed in §6.3.

Only one cognate set is found which contains reflexes of PMP * l in final position. In this set PMP * l becomes r in Sika.

'thick'

*hulaR **PMP** *qaləjaw *qalima *təlu *ma-kapal PFL *lədav *lima *təlu *ular *m-kapal SK ləro lima təlu ular ?apar WL (LWI) *l*əra: lima|ŋ te**l**o и**l**a? WL (AD) **r**əra telo ?u**l**a? WL (MS) u**l**a ləra lima|ŋ tə**l**o gapal CL (KK) *l*ima ular təlu CL (LWT) **l**ədzaf lima|ha [...] u**l**ar|u EL *l*əra lima [...] u**l**a [...] KD loyo liŋ telu ular kapal

Table 5.45: Reflexes of PMP *1

Table 5.46 provides cognate sets that contain reflexes of initial PMP *R. From that set it is clear that the change of *R > ? in WL is not complete in all varieties in word initial position. An example is PMP *Ramut > WL-Lamalera ramut 'root' in which initial PFL *r > r.

'hand'

'sun'

'three'

'snake'

Tabla	5 46.	Roflovos	of initial	l PMP *R
Table	3 4n°	Renexes	α	IPWIP R

PMP	*Ramut	*Rumaq	*Raya
PFL	*ramut	*ruma	*raya
SK	r amut	-	-
WL(LML)	r amut	=	-
WL(AD)	?amut	-	-
WL(BN)	ramu k	? ита	-
$CL(\kappa\kappa)$	r amut	-	-
CL(LR)	r amut	-	r ayan
EL	r amu	-	-
KD	r amu?	-	r ia
	'root'	'house'	'big'

Table 5.47 shows cognate sets containing reflexes of intervocalic and final PMP *R. In intervocalic and final position the sound change of PMP *R > $?/\emptyset$

has been completed in Western Lamaholot. Final PMP *-R is also mainly lost in Sika. Central Lamaholot and in Eastern Lamaholot sometimes added a suffix.

*təluR **PMP** *baqəRu *laRiw *bəRəgat *qapuR *dəŋəR PFL *plari/*kari *bərat *?apur *təlur *vəru *dəŋər SK bərat ?apur təlo|n və**r**un p|lari rəna WL (LWI) ba**?**a apu? vu?u|ŋ pə|la**?**e weŋe telu WL (LWL) vu**?**ũ pə|la**?**e ba?at apu? weŋe təlu|k p|laeŋ ba? WL (MS) νu**n**oη ари dəŋa təlu|k CLk|a**r**i bərat dəŋər təlu|k və**r**un apur EL[...] bə**r**a dəŋe təlũ vəru [...] KD bara? tolorapur $d\varepsilon\eta\partial r$ νε**r**un 'heavy' 'lime' 'new' 'run' 'hear' 'egg'

Table 5.47: Reflexes of intervocalic and final PMP *R

5.2.6 PMP glides *w *y

In this section, I discuss reflexes of initial and intervocalic PMP glides *w and intervocalic PMP *y. PMP *y does not appear word-initially. Reflexes of final glides are analysed together with their preceding vowels in §5.2.8. The PMP glide *w merges with some instances of PMP *b as voiced fricative ν in Proto-Flores-Lembata (cf. Section 5.2.2). In initial and intervocalic position, there are no further changes, except for PMP *w > PFL *v. PMP *y is weakened to a high vowel or zero in some cases, but strengthend to d_3 in others.

Table 5.48: Reflexes of PMP initial and intervocalic *w and *y

Env.	#_	$V_{-}V$	$V_{-}V$
PMP	*w-	*-w-	*-y-
PFL	*v	*v	*y
SK	ν	[]	<i>y</i>
WL	ν	ν	y/dz
CL	ν	ν	y/dz
EL	ν	ν	[]
KD	ν	ν	y

Table 5.49 provides cognate sets with reflexes of PMP *w. PMP *w is generally retained as ν in initial and intervocalic position.

Table 5.49: Reflexes of initial and intervocalic PMP *w

PMP PFL	*wahiR *va?ir	*ka-wanan *vanan	*ka-wiri *viri	*ma-tawa *tave	*qasawa *hava
SK	vair	vanan	viri	to	vai
WL (LWI)	vai	vanaŋ	-	-	kə vae
CL	vai	vana	-	-	ava
EL	vae	vana	viri	-	hava
KD	vei	vana	veri	tave	ve?
	'water'	ʻright side'	'left side'	'laugh'	'spouse'

Table 5.50 shows intervocalic reflexes of the PMP glide *y [j] in the languages of Flores-Lembata. PMP *y only appears in intervocalic and final position. Kedang and Sika retain *y in intervocalic position. In Lamaholot, reflexes of PMP *y are either retained as y, or strengthened to dz. The conditioning factors are unknown. In CL-Central Lembata the change of PMP *y > dz is completed for final and intervocalic position. In the WL varieties Alorese and Lewolema, the change is also complete. CL-Lerek and WL-Adonara show an incomplete change of PMP *y > dz. WL-Lewoingu regularly retains y as a reflex of PMP *y in intervocalic position. In Sika and Kedang, the glide y often becomes i or e. For EL, not enough data is available.

PMP *bayu *layaR *kahiw *Raya *ma|həyaq PFL *bayu *layar *kayu *raya *məya SK bai layar ?a**i** $mea|\eta$ WL (MS) badzo la**d**za ka**d**zu $m < n > ia | \eta$ WL (LWL) [...] [...] kadzo [...] WL (AD) badzo laya? kayo m**i**a WL (LWI) bayo laya? kayo m**i**a CL (LR) ba**d**zo layar kayo raya|n CL (KK) ba**d**zu la**d**zar ka**d**zu EL[...] [...] [...] KD bae layar ?a**i** r**i**a: 'wood; tree' 'shy; ashamed' 'pound' 'sail' 'big'

Table 5.50: Reflexes of intervocalic PMP *-y-

5.2.7 PMP vowels

The PMP vowels *a, *i and *u are unchanged in non-final position. In final-position, Western Lamaholot undergoes vowel lowering of high vowels: PMP *-i > e and PMP *-u > o. In Eastern Lamaholot and Central Lamaholot, vowel lowering is found sporadically for reflexes of final PMP *-u and final PMP *-i. In Kedang, final PMP *-a > $e/\varepsilon/o$. In most cases, the change PMP *a > e or ε is attested, with only one example of final PMP *a > o; Kedang mato 'eye' (< PMP *mata).

Table 5.51: Reflexes of PMP vowels *a, *i, *u

	Non-final Final					
PMP	*a	*i	*u	*-a	*-i	*-u
PFL	*a	*i	*u	*-a	*-i	*-u
SK	a	i	и	а	i	и
WL	a	i	и	a	e	0
CL	a	i	и	a	i/e	u/i
EL	a	i	и	a	i/e	u/o
KD	a/ε	i	и	$e/\varepsilon/o$	i	и

Table 5.52 and Table 5.53 provides examples which contain reflexes of PMP *a, *i and *u. Final and non-final refers to the position of the proto phoneme. Sometimes the synchronic reflex of a non-final proto phoneme can be final, such as Western Lamaholot *ramu* < PMP *ramut 'root'.

Table 5.52: Reflexes of non-final PMP *a, *i and *u

PMP	*ŋ a jan	*hikan	*pitu	*ma-paqit	*kutu	*Ramut
PFL	*n a dan	*ikan	*pitu	*m-pa?it	*kutu	*ramut
SK	n a ran	i?an	p i tu	ba? i t	? u tu	ramut
WL (LWI)	n a raŋ	ikaŋ	p i to	pa i t	k u to	ramu
CL EL	nadzan	ik a n i?ã	p i to	<i>p</i> < <i>n>ait</i>	k u tu	ramut
KD	n a ra	ıra	[]	[]	[]	ram u
	n a ya	i?a	p i tu	pε i ?	? u tu	ram u ?
	'name'	'fish'	'seven'	'bitter'	'headlice'	'root'

PMP *mata *ina *kami *diRi *təlu *batu **PFL** *mata *ina *kami *diri *təlu *vatu SK 7am**i** mat**a** ina təlu vatu WL (LWI) kame de^{i} mat**a** telo vat**o** WL (AD) mat**a**|k ?in**a** kame de?i telo vat**o** WL (MS) $mata|\eta$ $ina|\eta$ kame təlo vat**o** CLdir**i** mat**a** ina kame təlu vatu ELina ame dir**i** [...] vat**o** KD ?ine va? (k)etelu mato 'stand' 'eye' 'mother' 'lpl.excl' 'three' 'stone'

Table 5.53: Reflexes of final PMP *a, *i and *u

The Western Lamaholot reflexes of PMP *diRi 'stand' have undergone metathesis of their vowels. The final vowel e (< PMP *i) that had been lowered is moved to the penultimate syllable, while the vowel i that had been in the penultimate has been moved to the end. The nasal η in WL-Lewoingu is a later insertion.

The reflexes of PMP *ə are more complex than those of the PMP vowels *a, *i and *u discussed above. Reflexes of PMP *ə are summarised in Table 5.54. While Sika, CL and EL show regular reflexes, WL and KD have unconditioned splits of PFL *ə in both positions. With more data, a conditioning environment for these splits could possibly be found. In the final syllable Sika has completed a regular change of PMP *ə > a and EL shows regular PMP *-ə > e. CL is most conservative and retains PMP *ə = a in all positions.

Table 5.54: Reflexes of PMP *ə

	Penultimate	Ultimate
PMP	*ə	*ə
PFL	*ə	*ə
SK	Э	a
WL(LWL)	∂/e	Э
WL (LWI)	∂/e	∂/e
WL(AD)	∂/e	∂ /a
WL(Ms)	∂/a	$\partial /e/a$
WL(AB)	e/a	e/a
CL	Э	Э
EL	Э	e
KD	e/ε	e/arepsilon

Table 5.55 provides examples with reflexes of penultimate PMP *ə. In Kedang, a o in the ultimate syllable leads to the assimilation of the penultimate vowel reflecting PMP *ə, such as in loyo 'day' (< PMP *qaləjaw) and tolor 'egg' (< PMP *qatəluR). The o in the ultimate syllable of tolor 'egg' is an irregular reflex of PMP *u, while the final o in loyo 'day' is a regular reflex of PMP *aw. Table 5.56 lists examples containing reflexes of PMP *ə in the ultimate syllable of the word.

Table 5.55: Reflexes of penultimate PMP *ə

PMP PFL	*qaləjaw *lədav	*qatəluR *təlur	*dəŋəR *dəŋər	*qatiməla *təməla	*təlu *təlu
SK	ləro	təlo	rəna	məla .	təlu
WL (LWL)	rəra	təlu k	d ə η ə?	təməla	telo
WL(LWI)	ləraz	telu	w e ŋe	-	telo
WL(AD)	rəra	telu k	d ə ŋə?	təməla	telo
WL(MS)	l a ra	$t \partial lu k$	dəŋa	m ə re	təlo
WL(AB)	l a ra	t a lu kuŋ	d a ŋa	tamela	telo
CL	lədza	$t \partial lu k$	dəŋər	təməla	təlu
EL	ləra	təlũ	d ə ηe	[]	[]
KD	l o yo	tolor	darepsilon y	$moldsymbol{arepsilon}larepsilon$	telu
	ʻday; sun'	'egg'	'hear'	'flea'	'three'

Table 5.56: Reflexes of ultimate PMP *ə

PMP PFL	*ənəm *ənəm	*gatəl *gatər	*dəŋəR *dəŋər	*kədəŋ *kəda
SK	ən a	gat a r	rən a	?ə ra
WL(LWL)	$n \partial m (\partial)$	gatə k	dəŋ ə ?	-
WL (LWI)	nəm uŋ	gatə	wеŋ е	-
WL(AD)	nam u	gatə k	dəŋ ə ?	-
WL(MS)	$n \partial m u$	gate?	dəŋ a	-
WL(AB)	n a m uŋ	gate	daŋ a	-
CL	enəm	gətə k	dəŋər	-
EL	[]	[]	dəŋ e	-
KD	$\varepsilon n \varepsilon \eta$	-	dɛŋer	-
	'six'	'itchy'	'hear'	'stand'

Apart from the four PFL vowels *a, *i, *u and *ə that go back to PMP vowels, there is evidence for PFL *e without a PMP source. PFL *e is attested in intervocalic and final position. Table 5.57 provides cognate sets reflexes

tracing back to PFL * e. The word #ale 'waist' is not reconstructible to PFL because there is no reflex of it in Sika. Therefore, it is marked with # instead of * (cf. 6.3).

*kə-melu *kera a **PFL** *tena #ale SK melur ?era tena WL (AD) kəmelut ke?a $t \varepsilon n a$ WL (ms) $m\varepsilon luk$ kea $t \varepsilon n a$ $al\varepsilon|\eta$ CLkəmelut|ən ale kera tena EL [...] [...] [...] [...] KD $t\varepsilon n\varepsilon$ $m\varepsilon lu$? $al\varepsilon|n$ ere 'canoe' 'smooth' 'waist' 'turtle'

Table 5.57: Cognate sets containing PFL *e without PMP source

5.2.8 PMP vowel-glide sequences in final position

Table 5.58 shows the reflexes of PMP final vowel-glide sequences. Central Lamaholot retains the final glides after *a*. In all other instances the final glide is lost. The loss of the final glide can influence the quality of the preceding vowel. The last row in the table indicates the number of examples found for this pattern in my dataset.

PMP PFL	*-aw *-av	*-ay *-ay	*-iw *-i/*-yu	*-uy *-i
SK	0	e/i	i	i
WL	a	ay/a/e/i	e/yo	e
CL	av/a	ay/adz	i/dʒu	i/e
EL	a	a	[]	i/e
KD	0	e	i	i/e
Number of examples in database	3	8	2	3

Table 5.58: Reflexes of PMP *-aw, *-ay, *-iw, *-uy

^a This word for 'turtle' has been reconstructed to PCEMP *kera 'turtle'.

As shown in the examples in Table 5.59, the final vowel-glide sequence PMP *-aw > av in Central Lamaholot with retention of the final glide, while in Sika and Kedang PMP *-aw > o and in Western and Eastern Lamaholot PMP *-aw > a. In CL-Imulolo, final *v > f.

PMP PFL	*pan aw *pan av	*tak aw *t<əm>ak av	*qaləj aw 'day' *ləd av 'sun; day' ^a
SK	pan o	? to?i	<i>ləro</i> 'sun'
WL (LWI)	pan a	təmak a	<i>rəra:</i> 'sun'
CL (KK)	pana(v)	tak av	-
CL (IL)	-	[]	<i>lədzaf '</i> sun'
EL	pan a	[]	<i>ləra</i> 'sun'
KD	pan	та? о	<i>loyo</i> 'sun; day'
	'walk'	'steal'	ʻsun; day'

Table 5.59: Reflexes of final PMP *-aw

Central Lamaholot is most conservative in the retention of final PMP *w. Nevertheless, a partial loss of the final PMP glide *w is observed. The Central Lamaholot form panav 'walk' only appears with suffixes, such as in da=panav i '3PL-walk-3PL' = 'they went', otherwise pana is used. However, the CL form takav 'steal' never appears without the final consonant.

The final PMP sequence *-ay undergoes fortition to adz in Central Lamaholot, as well as sporadically in Western Lamaholot. Final *-ay is thus reconstructed to PFL, with the exception of body part nouns that take a nasal suffix. In these words, the final glide is deleted. In Sika and Kedang, PMP *-ay > e. The Sika reflex va?i-n 'leg' (< PMP *waqay) is an exception, as PMP *ay > i. The Kedang reflex vua 'rattan' (< PMP *quay) also appears to be an exception, as PMP *ay > a in this word. For Eastern Lamaholot little evidence is available. Nevertheless, it appears from EL mata 'die' (< PMP *matay) that PMP *ay > EL a in final position.

^a All Flores-Lembata languages have a word meaning 'day' that is derived from the words for 'sun' listed here. In Kedang, both words have the same shape. CL-Kalikasa has replaced the word for 'sun' but retains a reflex in the word *ladʒon* 'day' which is derived with a suffix *-n*.

PMP PFL	*qu a y *u ay		*mat ay *mat ay		*waq ay *vaʔ i	*sak ay *hak ay
SK	ue	vate n	mate	ne	va? i n	ha?e
WL (LWI)	uv ay əŋ	$ate \eta$	mat a	-	-	hak a
WL(LH)	[]	-	mat ad z	[]	-	[]
WL (MS)	uve	$ate \eta$	mate	ən i	-	
$CL(\kappa\kappa)$	u ad z	-	mat ad z	<i>ənadz</i> 'soil'	-	ak ad z
EL	[]	-	mat a	[]	-	[]
KD	vu a	$hat \epsilon n$	mate	ene	-	a?
	'rattan'	'liver'	'die'	'sand'	ʻlegʻ	'ascend'

Table 5.60: Reflexes of final PMP *-ay

My dataset only contains two cognate sets that go back to PMP forms with the final vowel-glide sequence *-iw given in Table 5.61. Most likely due to the quality of the PMP consonant preceding the final sequence, the two sets develop in different ways. PMP *kahiw 'wood; tree' becomes PFL *kayu due to loss of medial *h and PMP *laRiw becomes PFL *p-lari/*kari. The initial syllable *pə is an innovation. The reflexes of PMP *kahiw > PFL *kayu follow the regular pattern of intervocalic PFL *y. In Sika and Kedang, ultimate PFL *yu > i. The reflexes of PMP *laRiw > PFL *p-lari/*kari follow the regular pattern of final PFL *i, which is lowered to e in Western Lamaholot.

Table 5.61: Reflexes of final PMP *-iw

PMP PFL	*kahiw *kayu	*laRiw *p-lari/*k-ari
SK	?a i	p lari
WL (LWI)	ka yo	pə la?e
$CL(\kappa\kappa)$	ka dz u	k ar i
EL	_	[]
KD	?a i	-
	'wood; tree'	ʻrun'

Final PMP *-uy is reflected regularly as PFL *i. The reflexes in the Flores-

Lembata languages follow the pattern of PFL *-i.

Table 5.62: Reflexes of final PMP *-uy

PMP	*hapuy	*babuy	*naŋuy
PFL	*api	*vavi	*naŋ i
SK	ap i	vav i	nan i
WL (LWI)	ap e ?	vave	naŋe
$CL(\kappa\kappa)$	ар і	vav i	naŋe
EL	ape	[]	naŋ i
KD	ар і	vav i	naŋ i
	'fire'	ʻpig'	'swim'

5.2.9 The Proto-Flores-Lembata phoneme inventory

This section summarises the PFL phonemes reconstructed based on regular sound correspondences in the Flores-Lembata languages. In addition, I summarise the PMP sources for the PFL sounds. For details on the reflexes please consult the individual sections above. Table 5.63 presents the Proto-Flores-Lembata (PFL) vowel inventory and Table 5.64 the PFL consonant inventory.

Table 5.63: Vowel inventory of Proto-Flores-Lembata

	Front	Central	Back
High Mid Low	*i *e	*ə *a	*u *o

The PFL vowels are retained from their PMP sources as such, with the addition of PFL *e which does not have a PMP source.

Table 5.64: Consonant inventory of Proto-Flores-Lembata

	Labial	Coronal	Dorsal	Glottal
Voiceless stops	*p	*t	*k	*?
Voiced stops	*b	*d	*g	
Affricate		*dʒ *s		
Fricative	*v	*s		*h
Nasal	*m	*n	*ŋ	
Rhotic		*r		
Lateral		*1		
Approximant			*y [j]	

All reconstructed PFL consonants have regular PMP sources listed in 5.65, except for PFL *dz. Nevertheless, there is evidence for PFL *dz as a marginal phoneme of PFL (cf. $\S5.2.2.6$). In Table 5.65, initial, intervocalic and final phonemes are only listed separately when different changes apply.

Table 5.65: PMP sources for PFL phonemes

PMP source	PFL	Position	Type of change
*p	*p	all	no change
*t	*t	all	no change
*k	*k	all	no change
*q	*?	all	lenition
*b	*b	all	no change
*d / *j / *z	*d	all	merger
*g	*g	all	no change
*m	*m	all	no change
*n/*ŋ	*n-	initial	merger
*n	*-n-	intervocalic	no change
*ŋ	*-ŋ-	intervocalic	no change
*b/*w	*v	all	merger
*s	*s	all	no change
*s	*h	all	lenition
*R	*r	all	no change
			0

PMP source	PFL	Position	Type of change
*R/ *d	*-r	final	merger
*1	*1	all	no change
*y	*y	all	no change
*j	*-y	final	lenition
-	*dʒ	initial	-
*a	*a	all	no change
*i	*i	all	no change
*u	*u	all	no change
e	6	all	no change
-	*e	all	-

5.2.10 Reconstructed initial clusters in PFL

Table 5.66 provides examples of cognates sets with reconstructed initial consonant clusters that most likely alternated with a single consonant form or another cluster. Three of the five sets are of PMP origin but the clusters cannot be traced back to PMP. No data on Eastern Lamaholot is available for these concepts.

The table shows different patterns in each set but there are similarities in the fact that a simple onset consonant gains a complex variant. For those sets with a PMP source, the original form and the innovation can be easily identified, such as PFL *vani 'bee' is the original, the base, and PFL *blani is the innovated form, as they are traced back to PMP *wani 'bee'. In the synchronic forms, it appears that Sika and Kedang avoid complex onsets. Nevertheless, some of the Kedang forms, such as *lani* 'bee' and *nɛbiʔ* 'wall' most likely go back to forms with complex onsets, similar to the forms still found in some Lamaholot varieties.

The processes behind this variation in onset cannot be entirely explained at the current stage. However, for the set denoting the concept 'wall', nominalising morphology can be recovered. The reconstruction *gəbi / *gnəbin 'wall' shows a process of nominalisation that is attested in CL-Central Lembata (cf. §3.3.6) and is most likely more wide-spread. Base forms starting with g are nominalised by the infix -n- and a suffix -k or -n. In some varieties, this process transforms the voiced g into voiceless k.

	'bee'	'cheek'	ʻrun'	'wall'	'shoulder'
PMP	*wani	*pipi	*lariw	-	-
PFL	*vani / *blani	*pipi / *klipi	*kari / *plari	*gəbi / *gnəbi∣n	*kpali k / *kwali k
SK (HEW)	vani	pipi	plari	gəbi	pali k
KD	lani	pipi n	-	nebi?	vali
CL (KK)	blani	pipi	kari	kənəbin	kwale k
CL (LR)	[]	klipi	kar	k eg nabe r	kwale k
WL (LWL)	vane	kəlipi?	pəla?e	kənəbi?	kpali k
WL (AD)	vane	pipi kət	pala?e	kənəbi?	-
WL (LWI)	vane	kəlipi	pəla?e	kənəbi	-
WL (MS)	blane	pipi ŋ	, plaeŋ	gəbe	-
WL (PD)	bəlane	pipi g	plae	gnabeŋ	-

Table 5.66: PFL initial consonant clusters

From the data, which mainly comes from wordlists, it is not clear whether only one form is retained in the language, either the base or the derived form, or whether both forms are still in use but only one was given. In Pampus (1999:631) for WL-Lewolema, *gabi?* is given as a verb meaning 'construct a bamboo wall for a house'², while the derived form *kənəbi?* means 'wall'. However, as varieties such as SK-Hewa with *gabi* 'wall' and WL-Munaseli with *gabe* 'wall' appear to use the base form to refer to the nominal concept 'wall', the nominalising morphology is most likely not functional anymore in these varieties.

5.3 Subgroups within Flores-Lembata

In this section, I summarise evidence for the subgroups established within the family of Flores-Lembata. First, in §5.3.1, I provide evidence for the lowest levels which have been considered individual languages or dialect clusters in previous work. These are Sika, Kedang, Central Lamaholot, Western Lamaholot and Eastern Lamaholot. Second, in §5.3.2, I show that there is little

² Original definition: 'mit einer Wand (aus gespaltenem Bambus) versehen'

evidence to group these languages further into mid-level groups. Some groupings are more likely than others but none of them shows very convincing evidence. For examples of the sound changes given in the following section, see §5.2.

5.3.1 Evidence for low-level subgroups

5.3.1.1 Sika

The following regular sound changes only occur in Sika and thus define Sika as an independent branch of Flores-Lembata.

- 1. PFL *d > r in all positions
- 2. PFL *- η > n in intervocalic position
- 3. PFL *mp- > b in initial position
- 4. PFL *mt- > d in initial position

Most of these changes could have been active at the same point in time. Only Change 4 must have occurred after Change 1 was completed. Otherwise the phonemes d resulting from PFL *m-t word initially would have become r as well.

In addition, Sika also undergoes PFL *k > ? in all positions, PFL *d > r in all positions and PFL *s > h in all positions. However, these changes are not unique to Sika but also occur in other Flores-Lembata languages.

Examples of lexical innovations in Sika are (i) *gahar* 'tall', (ii) *heret* 'yellow' (\neq PFL *kumas-ən 'yellow' < ? Malay *kuning* 'yellow'+ *mas* 'gold') and (iii) *ləpo* 'house' (\neq PFL *ruma 'house' < PMP *Rumaq 'house'). For the concept 'tall' no PFL form is known. All subbranches appear to have innovated different words. PFL *ruma 'house' is only retained in Alorese with the form *uma*, all other Flores-Lembata languages have innovated a word for house.³

Possible cognates of *ləpo* 'house' are found on Rote and Timor, such as Termanu *lopo* 'shelter' and Meto *lopo* 'Timorese round houses for social activities' (Owen Edwards, pers. comm.). Sika could have borrowed the word from these languages and changed o > a. Nonetheless, it remains unknown how the contact between the Sika speakers and the Rote-Meto speakers could have taken place. For the other two innovations, no cognates or similar forms could be found in other languages so far.

³ WL (except for Alorese) has *layo* 'house', CL has *una* 'house' and KD has *huna* 'house'. The CL and KD words probably go back to PMP *qunəj 'inside'.

5.3.1.2 Western Lamaholot

In Western Lamaholot varieties one exclusively shared sound change is attested: PFL *r > ?.

Western Lamaholot also undergoes intervocalic PFL *-d- > r and PFL *s > h in all positions. However, these are changes that are also attested in other subgroups. Therefore, they are not subgroup-defining for Western Lamaholot. Nevertheless, the change of PFL *-d- > r in Western Lamaholot must have occured after the change of PFL *r > r, as otherwise PFL *r and PFL *-d- would have merged to r Also for *r > r it is likely that it is a rather recent change in Western Lamaholot because r remains in ritual speech and in some fossilised derivatives (Pampus 1999:28).

There are two subsequent diffused changes attested in individual varieties of Western Lamaholot. These are Proto-Western Lamaholot (PWL) *w > f and PWL *y > dz. PWL *w > f is mainly found in the varieties of southern Lembata and in Alorese on Alor. Fortition of PWL *y > dz is attested scattered in several areas throughout the whole Lamaholot area (Elias 2017a).

Examples of lexical innovations in the Western Lamaholot subgroup are *blaha* 'long' and the clause-final negator PWL *hala 'NEG' (< PMP *salaq 'wrong'). The innovation of the negator PWL *hala is not only a semantic change but also a syntactic change. PFL had pre-predicate negation but this new negator is placed clause-finally (cf. §10.3). Another exclusively shared innovation of the Western Lamaholot subgroup is the loss of initial schwa and the addition of final u(y) to the numeral 'six' from PFL *ənəm 'six', which is now realised as *namu* or *nəmuŋ* in the WL varieties.

Alorese spoken on the islands of Alor and Pantar has been identified as an independent language (Klamer 2011). Based on the shared sound change of PFL *r > 7 and the other shared innovations just listed, Alorese is part of the Western Lamaholot.

5.3.1.3 Central Lamaholot

The following sound changes define the subgroup of Central Lamaholot. They go back to the level of Proto-Central Lamaholot (PCL).

- 1. PFL *-d- > PCL *-d \mathfrak{Z} in intervocalic position
- 2. PFL *h > \emptyset in all positions
- 3. PFL *? > \emptyset in all positions

There are a few subsequent changes attested in individual varieties of Central Lamaholot. For example, the variety of Painara changes all PCL *s > h and PCL *dʒ (< PFL *-d- < PMP *d/*j/*z) undergoes an unconditioned split of *dʒ to y and dz. Also in Lewokukung, PCL *dʒ sporadically changes into y but this change affects a different selection of items as in Painara. In Central Lembata, the reflex of PCL *y is dz.

The change of PCL *s > h and PCL *dz > y in Painara and the retention of PCL *s = s and the change of PCL *y > dz in Central Lembata creates a salient distinction in these two adjacent varieties. Painara has the phonemes h and y but no s and almost no dz, while Central Lembata has the phonemes s and dz but no h nor y. This clear linguistic border coincides with the socio-cultural division of Paji and Demon villages that is found throughout the Lamaholot area (cf. §1.2.3.4). In the past, Paji and Demon were enemies involving a lot of mistrust and violent acts of killing. In the case of the adjacent varieties of Painara and Central Lembata the phonemic distinctiveness of the varieties appears to coincide with their socio-cultural distinctiveness. It could be that the enmity between the two areas has contributed to the phonological diversification of the two varieties.

In the varieties of Central Lamaholot and beyond, cases of sound change diffusion can be observed. Glide fortition of *y > dz is also attested in all other Central Lamaholot varieties, except for Painara, as well as in several varieties of Western Lamaholot (Elias 2017a). In the western varieties of Central Lamaholot, the changes of *s > h and *w > f have probably diffused from neighboring Western Lamaholot varieties (Elias 2017a).

Overall, Central Lamaholot is phonologically the most conservative subgroup of Flores-Lembata. Central Lamaholot is the only FL group that retains PFL *s = PCL *s and PFL *-av = av. In addition, final consonants are retained more frequently in Central Lamaholot than in other Flores-Lembata languages.

Examples of lexical innovations of Central Lamaholot are keda|k 'big' (\neq PFL *raya < PMP *Raya), s < n > agur 'smoke' and luvak 'sun' (\neq PFL *ladav 'sun' < PMP *qalajaw 'day'). A reflex of PFL *raya 'big' is only retained in Kedang ria: 'big', all other subgroups have innovated a new form for this concept. No PFL form for 'smoke' can be reconstructed.

In addition to lexical innovations, there are two morphological innova-

⁴ WL and EL have *bela* 'big' or similar forms, and SK has *gate* 'big'.

tions that are exclusive to Central Lamaholot: plural marking with the suffix -dza and coda alternation in alienable nouns which results in nominal lexemes with two surface forms, such as au/aor 'dog' (cf. §8.4.2.1 and §3.3.3).

5.3.1.4 Eastern Lamaholot

No exclusively shared sound change is attested in the Eastern Lamaholot varieties. Eastern Lamaholot undergoes PFL *-d- > r, PFL *s > h and PFL *k > ?. These changes have also occurred in other subgroups and may have diffused to Eastern Lamaholot. As all three changes are very common sound changes, it may also be pure chance that they occur in more than one subgroup.

Examples of lexical innovations in Eastern Lamaholot are *?uhu* 'narrow' (\neq PFL *kiput < PMP *kiput 'narrow') and *aso* 'tree' (\neq PFL *kayu 'tree; wood' < PMP *kahiw 'wood; tree'). The latter could be related to forms in Alor-Pantar languages, such as Kula *asaka* 'tree' or Sawila *asaka* 'tree'.

5.3.1.5 Kedang

The following sound changes only occur in Kedang and thus define Kedang as an independent subgroup within Flores-Lembata.

```
1. PFL *g > k in all positions
2. PFL *-d- > (*dg >) y/\emptyset in intervocalic position; PFL *d > r before u(a)
```

Kedang also undergoes PFL *s > *h and PFL *k > ? in all positions which is not listed as an exclusive innovation because it also occurs in Sika and Eastern Lamaholot. However, the sound change PFL *g > k must have happened after the change of PFL *k > ? had occurred. Otherwise, PFL *k and PFL *g would have merged as ?.

Examples of lexical innovations in Kedang are *?ebo* 'tail' (\neq PFL *ikur < PMP *ikuR) and *uben* 'night'. For the concept night, no PFL form is known. All subgroups appear to have innovated different words for 'night'.

5.3.2 No good evidence for mid-level subgroups

At the current stage of research, there is no good evidence for mid-level subgroups in the Flores-Lembata family. Mid-level subgroups would unite two or more of the low-level groups defined in §5.3 by exclusively shared innovations.

Nevertheless, there are three sound changes that are attested in more than one subgroup:

- PFL *k > 7 in SK, KD and EL
- PFL *-d- > r in SK, WL and EL
- PFL *s > h in SK, KD, WL and EL
- PFL *-aw > -o in SK and KD

There are two main reasons for *not* basing mid-level subgroups on these changes. (1) The changes just listed are all cross-linguistically very common, thus they would only be weak subgrouping evidence. If all three sound changes would be exclusive to the same set of languages, one may be able to take them as evidence for a subgroup. However, this is not the case for the Flores-Lembata languages. (2) For at least some of these changes, I have pointed out in the section above that they must have happened after another sound change in that subgroup to explain the synchronic forms in the subgroup. For example, the subgroup-defining change for WL PFL *r > 7 must have happened before PFL *r-d- > r, as -r- < PFL *r-d- is retained unchanged in the WL varieties and not changed into ?. For these reasons, I suggest that the shared changes are either independent developments in the individual subgroups or spread through vertical diffusion after the split-up of Proto-Flores-Lembata. For Sika, an individual development of PFL *r-d- > r is likely as Sika undergoes the same change also in initial position.

Apart from the shared sound changes just discussed, there is another potentially shared sound change of PFL *-d- > dz in CL and KD. In Kedang, there is only indirect evidence for this change, as nowadays all PFL *-d- have become y in Kedang. While the change of PFL *-d- > *dz could provide evidence for a CL-Kedang subgroup, it must be borne in mind that reconstruction of medial *-d- for PFL is somewhat problematic (§5.2.2.4) and an alternate reconstruction is PFL *-dz-. However, in this alternative case of reconstruction, intervocalic dz would be a shared retention in CL and Kedang and provide no evidence for subgrouping. Given this possibility, I prefer not to subgroup CL and Kedang together on the basis of *-d- > dz.

Despite the absence of shared sound changes, there is lexical evidence for treating the Lamaholot varieties as a single unit apart from Sika and Kedang. This is based on lexical statistics by Keraf (1978a) who calculates about 50% shared basic vocabulary between WL, EL and CL, whereas only about 20-30% is shared by these three groups with Kedang or Sika. However, this evidence is not particularly strong subgrouping evidence because lexical items could have easily diffused between these adjacent languages. Furthermore, their speakers are in intensive contact with each other. Only in combination with exclusively shared sound changes, could the lexical evidence could provide additional support. For the three Lamaholot subgroups, no shared sound change is attested. Therefore, there is no good basis for proposing a proto-language, such as Proto-Lamaholot. Nevertheless, due to the relative lexical similarity and the more recent shared social history it is justifiable to speak of Lamaholot as a unit when keeping in mind that this language group historically encompasses three independent subgroups of Flores-Lembata.

There might be a slight evidence for Kedang-Lamaholot as a subgroup including Kedang, Western Lamaholot, Eastern Lamaholot and Central Lamaholot based on shared lexical innovations. Kedang and the Lamaholot subgroups have 73 shared lexical innovations compared with 41 lexical items shared between Lamaholot and Sika (cf. §6.3.2 and §6.3.3). However, given the lack of any supporting evidence I do not consider this evidence alone strong enough to assume a Kedang-Lamaholot subgroup.

5.4 Evidence for a Flores-Lembata subgroup

The subgroup of Flores-Lembata encompasses exclusively all five innovation-defined groups discussed in §5.3.1: Sika, Kedang, Central Lamaholot, Western Lamaholot and Eastern Lamaholot. The Flores-Lembata subgroup is defined by the following three sound changes. Examples of cognate sets containing the sounds affected by the PFL sound changes have been listed earlier in the tables in §5.2.

```
    PMP *ŋ-/*n- > PFL *n- / #_
    PMP *z/*d/*j > PFL *d
    PMP *s > PFL *s/*h
```

While each of these individual changes may be found in other groups, such as for example * $\eta > n$ in Timor-Babar, no other languages share the exact set of these three changes.

5.5 Evidence for a Bima-Lembata subgroup

After having shown that Flores-Lembata is an innovation-defined subgroup, I propose that Flores-Lembata can be grouped together with the languages of Central Flores, Western Flores, Bima, Sumba-Hawu based on the unconditioned split of initial PMP *b- > *b-/*w- in the same lexical items, as in Flores-Lembata (cf. §5.2.2.2). I name this subgroup Bima-Lembata as these two islands are the westernmost island (Bima) and the easternmost island (Lembata) of this subgroup. All languages in between these islands, including the Sumba-Hawu languages in the south, are part of Bima-Lembata. Examples of initial PMP *b- > w in a representative selection of languages of this area are listed in Table 5.67.

Table 5.67: Initial PMP *b- > PBL *w- in the Bima-Lembata languages

	ʻpig'	'stone'	'fruit'	'moon'	'woman'	'foam'
PMP	* b abuy	*batu	* b uaq	* b ulan	*bahi	*bujəq
PFL	*vavi	*vatu	*vua	* v ulan	*vai	*vuda
SK	v avi	vatu	vua	vulan	vai	v ura n
KD	v avi	va?	(v)ua	vula	-	vura n
CL	v avi	v atu	vua k	vulan	-	pə vudza
WL (LWI)	v ave	v ato	v ua ŋ	vula	vai	vura haŋ
EL	[]	vato	v u?ã	[]	-	[]
PCF	*wawi	[]	[]	*wula	*fai	*woda
Lio	vavi	vatu	-	vula	fai	vora
Ende	w awi	watu	-	wurha	h ai	wora
Ngao	v avi	vatu	-	wulza	-	vола
Keo	w awi	watu	-	wuda	fai	-
Nage	v avi	vatu	-	vuda	fai	vола
Ngada	v avi	vatu	vua	vula	fai	voza
Rongga	wawi	watu	-	wula	fai	<i>vола</i>
Palu'e	wawi	watu	-	wula	wai	-
Manggarai		watu	wua	wulaŋ	wai	wusa

	ʻpig'	'stone'	'fruit'	'moon'	'woman'	'foam'
Komodo	-	b atu	wua	wulaŋ	-	-
Bima	vavi	vadu	vua	vura	-	[]
Kambera	wei	watu	wua	wulaŋ	=	wura
Hawu	v avi	vo v adu	vue	vəru	-	voro
PRM	*bafi	*batu	*bua-k	*bulan	*fee	*fudʒə

PMP = Proto-Malayo-Polynesian, PRM = Proto-Rote-Meto (Owen Edwards, pers. comm.) PCF = Proto-Central Flores (Elias 2018), PFL = Proto-Flores-Lembata

I propose that the change of *b-> w in relevant lexical items occurred at the level of Proto-Bima-Lembata, and those probably merged with reflexes of PMP *w. Proto-Bima-Lembata (PBL) *w then further develops into v, v or f in individual languages. The reflex of PBL *w is PFL *v. The change of PBL *w > f only occurs in individual lexemes of Proto-Central Flores (PCF), such as PCF *fai 'woman' (< PMP *bahi). A similar change of PBL *w > PFL *v > f is regular in some varieties of Western and Central Lamaholot (cf. 5.3.1). Komodo batu 'stone' is the only irregular reflex in these cognate sets as it shows PMP *b > b.

The last line of the table provides Proto-Rote-Meto (PRM) reconstructions to show that the Rote-Meto languages do not follow the same pattern. The Austronesian Rote-Meto languages are the geographically closest eastern neighbour of Bima-Lembata.

Words which do not undergo PMP*b > w have various reflexes in the languages of Flores-Lembata, Flores, Bima and Sumba, as shown in Table 5.68. In Flores-Lembata *b is retained as b, while in the other languages different patterns emerge. Some extend the shift to w further, such as some Central Flores languages, while others keep b or change it into b. The most regular is Palu'e where all words with PMP *b that do not undergo *b > w/v underwent *b > p instead. As the same lexical items undergo PMP *b > w initially in all languages of Bima-Lembata, while the other lexemes reflect PMP *b in different ways, the split of PMP *b- > *b-/*w- in initial position is strong evidence for an innovation-defined subgroup. The Austronesian languages of Timor show a different pattern. Thus for example, while the Rote-Meto languages show a split of PMP *b > f/b, the distribution does not affect the same lexemes as for the languages of Flores, Bima and Sumba.

Table 5.68: Initial PMP *b- > b/b/p/w in the Bima-Lembata languages

	'return'	'divide'	'pound'	'heavy'	'white'	'flower'
PMP	*balik	*baqagi	*bayu	*bərəqat	*budaq	*buŋa
PFL	*balo(ŋ)	*bagi	*bayu	*bərat	*buda?	*buŋa
SK	b aloŋ	bige	bai	bərat	bura?	=
KD	-	bo?	bae	bara?	buya?	-
CL	-	-	badzu	bərat	budza k	buŋa
WL (LWI)	[]	-	bayo	ba?a	bura	-
EL	-	[]	[]	bəra	burõ	-
PCF	*6ale	[]	*wayu	-	-	[]
Lio	6 ale	-	wadzu	-	-	voŋa
Ende	б але	b agi	wadzu	-	-	woŋa
Ngao	-	-	vadzu	-	-	voŋa
Keo	b ade	b agi	wadzu	-	-	woŋa
Nage	-	-	watfu	-	-	voŋa
Ngada	b ale	b agi	wadzu	-	-	voŋa
Rongga	b ale	b ayi	wadzu	-	-	-
Palu'e	palu	-	padzu	p ədza	pura	-
Manggara	i -	b ahi	-	_	-	-
Komodo	wale?	[]	wadzu	_	-	-
Bima	mb ali	b age	mb adzu	b ara	b ura	биŋа
Kambera	b eli	-	b ai	-	b urahu	-
Hawu	[]	b əke	-	-	? vo p udi	[]
PRM	*bali/*ɓal	i -	*mbau	*berat	-	*ɓuna-k

PMP = Proto-Malayo-Polynesian, PRM = Proto-Rote-Meto (Owen Edwards, pers. comm.), PCF = Proto-Central Flores (Elias 2018), PFL = Proto-Flores-Lembata

Therefore, I conclude that the split of initial PMP *b- > *b-/*w- is a shared innovation and which can be posited as evidence for subgrouping the languages of Flores-Lembata, Central Flores, Western Flores, Bima, and Sumba-Hawu. This subgroup can be called Bima-Lembata based on its geographic extension from west to east. Such a subgroup has been suggested by Blust $(2008{:}48)$ who proposed that the Sumba-Hawu group may include languages

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of Western and Central Flores, but only can include Bima if also languages further east are included. These languages further east are the Flores-Lembata languages. The internal division of Bima-Lembata remains to be investigated further. At the present stage of research, Sumba-Hawu (Blust 2008), Central Flores (Elias 2017b) and Flores-Lembata (§5.4) are innovation-defined subgroups within the Bima-Lembata languages.

5.6 Conclusions

In this chapter, I have shown regular reflexes of Proto-Malayo-Polynesian (PMP) consonants and vowels in all languages of Flores-Lembata. I defined five subgroups within Flores-Lembata which are each supported by shared sound changes and lexical innovations.

Sika is defined by the exclusive sound changes of PFL *d > r, PFL *- η - > n, PFL *mp- > b and PFL *mt- > d, as well as lexical innovations, such as ga-har 'tall', heret 'yellow' and lapo 'house'. Kedang is defined by the exclusively shared sound changes of PFL *g > k and PFL *-d- > j/\emptyset , as well as lexical innovations, such as lambda 'tail' and lambda 'night'. Central Lamaholot is defined by the exclusively shared sound changes of PFL *-d- > lambda, PFL *h > lambda, and PFL *? > lambda, as well as lexical innovations, such as lambda 'big', lambda 'smoke', lambda 'sun'. Western Lamaholot is defined by the exclusively shared sound change of PFL *r > lambda and lexical innovations, such as lambda 'long', and the semantic change of lambda 'wrong; mistake' > lambda 'NEG'. Eastern Lamaholot does not undergo any exclusively shared sound change, but there are lexical innovations, such as lambda 'long', and lambda 'so 'tree'.

This work is the first to include Eastern Lamaholot and Central Lamaholot varieties and establish them as independent subgroups of the Flores-Lembata family. There is no evidence to group any of the five subgroups together as a mid-level subgroup within Flores-Lembata.

Further, I provided evidence for Flores-Lembata as a subgroup based on three shared sound changes: PMP $^*\eta$ - > PFL *n in initial position, PMP $^*j/^*z/^*d$ > PFL *d and PMP *s > PFL $^*s/^*h$.

Finally, I provided evidence for a larger Bima-Lembata subgroup including Flores-Lembata, Bima, Sumba-Hawu and West-Central Flores based on the lenition of initial PMP *b- > *w- in a specific set of lexical items which do not show this lenition in other languages of the region.