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## Palaung Dialects: A Preliminary Comparison

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### Introduction

Scarcity of good data is always a serious problem for historical studies of Mon-Khmer. In the case of the Palaungic branch,<sup>1)</sup> a certain amount of data has been accumulated and historical studies are now in some progress, but still the amount of information of almost every language of the branch is very limited. Palaung is rather an exception to this, with a big dictionary of English-Palaung and Palaung-English by Milne.<sup>2)</sup> But this is just one dialect of Palaung, that of Namhsan, the capital of the former state of Tawngpeng, and other dialects, which are apparently many and diverse, are mostly only poorly known.

But we should not expect too much for Mon-Khmer linguistics. Apart from Milne's Palaung, which is called Ta-ang (Ta.) by the natives, we have data of some other dialects such as the following: Darang (Da.) of Kengtung, recorded by Stirling and included in Scott & Hardiman's *GUB*<sup>3)</sup>; Ra-ang (Ra.), or Luce's 'Panku' Palaung, originally spoken in the Kodaung Tract<sup>4)</sup>; and Rumai (Ru.), in the Appendix of Milne's dictionary, which was collected in villages around the China-Burma border.

There are short word-lists of many other dialects, but in this paper I would like to compare these four dialects discussing the phonological correspondences between them. Each dialect shows certain characteristic developments, and Ta-ang is the most conservative in this point but it has also lost certain features of 'Proto-Palaung'.

Other dialects will be mentioned only occasionally, but here I would like to present a tentative classification of those Palaung dialects of which data are available to me.<sup>5)</sup>

#### 1. Central Group

- a) Ta-ang: Milne's Palaung, Shorto's Palaung (Namhsan, Tawngpeng)

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- 1) The Palaungic branch of Mon-Khmer includes Palaung, Riang, Danaw, Wa-Lawa, Lamet, and several other minor languages, spoken in the Shan State of Burma, northern Thailand and Laos, and the adjacent areas of China. Cf. M. Ferlus, "Les langues du groupe austroasiatique-nord", *ASEMI*, V-1, 1974, pp. 39-67.
- 2) Leslie Milne, *A Dictionary of English-Palaung and Palaung-English*, Rangoon, 1931.
- 3) J.G. Scott and J.P. Hardiman (eds.), *Gazetteer of Upper Burma and the Shan States*, Vol. 1, Pt. 1, Rangoon, 1900, pp. 707-709.
- 4) G.H. Luce, "Danaw, A Dying Austroasiatic Language," in Milner and Henderson (eds.), *Indo-Pacific Linguistic Studies*, Vol. 1, 1965, pp. 98-129.
- 5) For the sources, see Ferlus, *op. cit.* 'Yeseji' was collected by Diffloth in 1971.

- b) 'Palaung or Rumai of Nam Hsan' in *GUB* (id.)
  - c) Kumkaw, in the Appendix of Milne's dictionary (Tawngpeng)
  - d) Kwawnhai, id.
  - e) Pangnim, id.
2. Northern Group
- A. Ra-ang: Luce's Palaung (Kodaung)
  - B. Rumai Group
    - a) Milne's Rumai (China-Burma border area)
    - b) Davies' Palaung (Nam Kham)
    - c) Bigandet's Palaung (southeast of Bhamo)
    - d) 'Rumai in the Shan States' in *GUB*
3. Southern Group
- a) Darang, in *GUB* (Kengtung)
  - b) Yeseji, or Diffloth's Palaung (Pindaya near Taunggyi)
  - c) Kyusao, in the Appendix of Milne's dictionary (Hsipaw)
  - d) 'Palaung or Rumai in the neighborhood of Manton' in *GUB* (Manton)
4. Omachawn, in the Appendix of Milne's dictionary (Tawngpeng)
5. Unclassified
- a) Hupawng, id.
  - b) Homau, id.: Central Group (?)

## I Initials

The Proto-Palaung initials, as reconstructed from the four dialects, are the following:

*p	t	c	k	ʔ	pr	pl	kr	kl
ph	(th)	(ch)	kh				chr	
b	d	j	g		br	bl	gr	
m	n	ñ	ŋ					
hm	hm		hŋ					
v		y			r	l		
f	s	hy		h	hr	hl		

There are no difficult problems in the reconstruction of these initials. They have been preserved in most cases without modification in Ta-ang, with only a few exceptional cases which will be mentioned later. Especially, Ta-ang has not undergone the devoicing of originally voiced stops, which is a common phenomenon in the related languages, often accompanied by the appearance of a register or tone distinction or a split of vowels.

However, as was pointed out by Shafer,<sup>6)</sup> a different type of changes occurred in Darang: originally voiceless (unaspirated) stops have become voiced, and originally voiced stops have become voiceless; i.e. \*p>b, \*t>d(>l, n), \*c>y, \*k>g; \*b>p, \*d>t, \*j>ch(>sh, hs), \*g>k.<sup>7)</sup>

Voiceless aspirated stops, however, have not been voiced. Thus, Darang provides an additional example of an 'exchange rule' of sound change<sup>8)</sup>:

$$[\alpha \text{ voice}] \rightarrow [-\alpha \text{ voice}] / \left[ \begin{array}{c} - \\ +\text{stop} \\ -\text{asp} \end{array} \right]$$

Another type of change can be observed in Ra-ang. There, \*p- and \*t- when not followed by \*-r- or -l- have often, though not always, become voiced implosives b̥- and d̥-, but \*p- before \*-r- or -l- and \*k- are never voiced (i.e. Khmer type),<sup>9)</sup> and original voiced stops are preserved.<sup>10)</sup> The condition for preserving \*p-, t- as voiceless is not clear; the items include numerals, but also a few common words such as "woman, wife" and "tree". In addition, \*p- sometimes corresponds to b- when b̥- is expected, if this is not an error in the original data.

Examples:

i) voiceless unaspirated stops

	Ta.	Ru.	Ra.	Da.
*p-				
"flower"	pōh	pō	b̥ōh	bogh
"broom"	ra-pīr	la-pī	kābīr̥h	—
"dream"	r̥īn-pō	ām-pa-ō	m-báu	m'bao
"seven"	pūr	pū	pu	bu
"woman, wife"	i-p̥ān, -p̥ōn	i-pān(g)	éi-pan	i-bun
*t-				
"hand, arm"	tī	tāi	d̥áɪ, d̥éɪ	dai, lai
"earth"	ka-tē	ka-tāi	kăd̥áɪ, -d̥óɪ	ka-dai

6) R. Shafer, "Etudes sur l'austroasien", *BSLP* 48-1 (1952), pp. 111-158, esp. see pp. 113 ff.

7) The conditions for \*t>d,l,n, and \*j>ch,sh,hs are not clear; but \*t>n and \*j>ch,sh are rare. There are a few exceptions for \*k>g, especially before -r-, -l-.

8) N. Chomsky and M. Halle, *Sound Pattern of English*, 1968, pp. 256ff. If Stirling's notation is accurate, voiceless stops from original voiceless aspirated stops and original voiced stops are both unaspirated in Darang. Thus one could postulate the following changes in this order: (i) \*voiced>voiceless asp., merging with \*voiceless asp.; (ii) \*voiceless unasp.>voiced; (iii) voiceless asp.>voiceless unasp. However, in Yeseji, which is very close to Darang, \*voiced>voiceless unasp., \*voiceless asp.>voiceless asp., and \*voiceless unasp.>voiced; e.g. "big" \*daŋ>taʔ, "house" \*gaŋ>kaʔ, "four" \*phon>phuon, "gold" \*khril>khriw, "child" \*kɔn>gɔn, "wife" \*pūn>bən.

9) \*c- is not attested in Ra-ang.

10) But \*j->tj- in one item "heavy" tjan<\*jan.

“tongue”	kəṛ-tā	s'a-tā	sādaʔ	s'la
“tree”	t̄iŋ, t̄ōŋ	tāŋ	taŋ, t̄iŋ, t̄eŋ	dang
“eight”	tā	—	ta	n'da
“six”	t̄ōr, t̄ō	tō	tō	naw
*c-				
“hate”	chəŋ	—	—	yawng
“sambhur”	chā	kyā(?)	—	ya
*k-				
“child”	kwōn	kōn	kɔn	gawn
“husked rice”	ra-kō	la-kāu	rākáu	t'gao
“head”	k̄iŋ	k̄ēn, k̄ūn	k̄eŋ, kaŋ	ging
“ten”	k̄ōr	k̄ō	kʏ	gō
*pr-				
“old”	pr̄im	a-pȳim	ǎprim	—
“side (of body)”	pr̄ō	pȳō-i	—	—
*pl-				
“blade”	plā	—	pla	bla
“sky”	plēŋ	plān	plēŋ	—
*kr-				
“buffalo”	krā	kyā	kraʔ	gra
“lac”	krōt	kyō-ε, kyū-ε	krʏiʔ	—
*kl-				
“fat”	kl̄iŋ	klān	—	glaing
“rain”	—	klāi	kl̄uɪ, kl̄oɪ	glai
ii) voiceless aspirated stops				
*ph-				
“four”	p'ōn	p'un	p'un	pu-on
“five”	p'an	p'an	p'an	pān
“heart”	p'ōm	p'ēm	—	—
*th-(?)				
“slap”	ka-t'a	t'a	—	—
*ch-(?)				
“ginger”	—	chōŋ	c'o:ŋ	—
“pretty, good”	—	chī	—	chit
*kh-				
“husk of grain”	k'am	—	k'am	—
“scrape”	k'at	k'a	—	—

*khr-				
“gold”	k'rir	k'yi	—	kriu
iii) voiced stops				
*b-				
“sword, knife”	bōt	bō	but	pu-wat
“breast, milk”	bū	mbū (“suck”)	bu	pu
*d-				
“big”	dāng	dān, ε-dāng	—	tāng
“navel”	kə-dīng	ka-dīn, -dēn	kādan	—
*j-				
“foot”	jūng	jāng, -jān	djén, djan	cheng
“drop, fall”	jōh	jō, jō	—	shogh
“name”	jū, ra-jū	djū	ju	an-hsü
“stand”	jāng	(D. jang) <sup>11)</sup>	—	hsawng
*g-				
“house”	gāng	—	ga:ŋ	kāng
“old”	—	gā	gat	kat
*br-				
“forest”	brī	bi-āi	brér	prai
“horse”	brāng	mbi-āng	braŋ	m'prawŋ <sup>12)</sup>
*bl-				
“thigh”	blū	ble-āu	bléu, bláu	plao
“strong”	—	blōm, blūm	—	plōm
*gr-				
“pestle”	grē	—	ŋ-grér, -grái	—
“basket”	—	gyūk	—	kruik

Sometimes aspirated stops occur randomly in Ta-ang, Rumai or Ra-ang corresponding to the voiced in Darang, and voiceless stops, especially k-, occur in Darang when other dialects have unaspirated stops.<sup>13)</sup> They usually correspond to unaspirated in other Palaungic languages (e.g. Riang), and most probably they were unaspirated also in Proto-Palaung, but no convincing explanation has been attained so far.

11) Davies' Palaung, from H.R. Davies, *Yun-nan: the Link between India and Yangtze*, 1909.

12) The initials of “horse” and “pestle” (below) no doubt go back to \*mr- and \*gr- respectively. But at the Proto-Palaungic stage they seem to have become \*m-br- and \*ŋ-gr- already.

13) Even within Ta-ang, Shorto says the lexical distribution of aspirated stops is somewhat differently recorded by him and by Milne; e.g. “bear” krer (but “gold” khrir). H.L. Shorto, “Word and Syllable Patterns in Palaung”, *BSOAS* 23 (1960), pp. 544-567.

*p-	Ta.	Ru.	Ra.	Da.	Ri. <sup>14)</sup>
“barking deer”	p'ōr	—	ḃɔh, ḃɔχ, ḃɔs	bwa	pos <sup>-</sup>
“wing”	pyāng	pyōng	p'iaŋ, p'yūŋ	—	piaŋ <sup>-</sup>
*t-					
“nine”	t'im	(D. tim)	ti:m	lim	ti:m <sup>-</sup>
“yellow”	t'eng	t'ang	—	deng, -leng	—
*k-, kr-					
“wind, air”	kūr	kū	k'u	kun	kur <sup>-</sup>
“rich”	krīm	kyām	—	kram	—
“bear”	k'rēr	—	krīh, krīχ	—	kres <sup>-</sup>

Proto-Palaung \*s- can be reconstructed from the correspondence of s- in all four dialects in an obvious way. However, a problem arises when Bigandet's Palaung (RuB.) is compared.<sup>15)</sup> In RuB., s- of the other dialects corresponds sometimes to s- but sometimes to ts-.

	Ta.	Ru.	RuB.	Ra.	Da.
“sick, painful”	s'ū	s'e-āu	tsao	séu	sau
“elephant”	sāng	sāng	tsang	sɑ:ŋ	sāng
“dog”	s'ō	s'a-ō	tsao	—	so
“bird”	s'im, shīm	(D. s'im)	sim	sim	—
“night”	rīn-s'ōm	kai-s'ēm	kai-sem	—	—

This suggests a proto-phoneme \*ts- even at the stage of Proto-Palaung.<sup>16)</sup> However, there is a similar problem in Shan also. There, s- of most other Tai dialects, usually reconstructed as \*s- and \*z- depending on the tone, corresponds to /sh-/, and this phoneme is, as described by Egerod, [(t)sh].<sup>17)</sup> In fact, Bigandet's Shan has usually ts- for this PT. \*s-; e.g. “tiger” tseu <PT. \*sua-0, “four” tsi <PT. \*sii-1. If PT. \*s->(t)sh- really occurred in Shan, the same phenomenon could have occurred also in Palaung, the Palaungs being in much contact with the Shans, and RuB. ts-, s- in question could be the reflex of such a situation. Thus I have tentatively decided to retain \*s- for Proto Palaung.

14) Riāng forms are cited mainly from Luce, *op. cit.*

15) P.A. Bigandet, “A Comparative Vocabulary of Shan, Ka-kying and Pa-laong,” *Journal of Indian Archipelago*, n.s. 2 (1858), pp. 221-229.

16) Diffloth pointed out that s- of Palaung and most other Palaungic languages corresponds to ts- in Danaw and hence it goes back to Proto-Palaungic \*ts-. G. Diffloth, “An Appraisal of Benedict's Views on Austroasiatic and Austro-Thai Relations.” Discussion Paper No. 82, CSEAS, Kyoto, 1976.

17) S. Egerod, “Essentials of Shan Phonology and Script”, *BIHP* (Tapiei), 29-1 (1957), pp. 121-129. Generally, Proto-Tai (i.e. Proto-Southwestern Tai) \*c-, j- became (t)s- and \*ch-(rare) became (t)sh- in Shan; i.e. \*c-, j->ts->(t)s-, and \*ch->tsh->(t)sh-. The problem is PT. \*s-, z- also became (t)sh-. E.g. “heart” \*cu-0>(t)sāw, “correct” \*jaw-1>(t)saw, “tear” \*chiik>(t)shik, “four” \*sii-1>(t)shì, “left” \*zaay-2>(t)shāy. If \*tsh- and \*dz- are reconstructed for \*s-, \*z-, \*dz- must have become unaspirated (t)s-, for voiced stops usually became voiceless unaspirated in Shan.

Proto-Palaung \*r- has become g-, gw- and \*hr- has become h-, hw- in Rumai.<sup>18)</sup> There are a few other minor changes especially in Rumai, but generally there is no special problem for the rest of initials.

Examples.

	Ta.	Ru.	Ra.	Da.
*ʔ-, h-				
“sleep”	it	ɪ	iʔ	it
“skin”	hūr	hū	hu	hu-in
*m-, n-, ñ-, ŋ-				
“mother”	mā	mā	ma	ma
“heart”	nu-ā̄r	nō	nɔh, nauh	nogh
“green”	nyā̄r <sup>19)</sup>	nyū, i-yū	—	nyen
“eye”	ngā̄i	ngā̄i	ŋáɪ, ŋóɪ	ngai
*hm-, hn-, hŋ-				
“ask”	hmān	—	hman, hmən	—
“blood”	hnām	B. hnam	hnam	nām
“paddy”	hngō̄	(hnyā̄u) <sup>20)</sup>	hŋáú	ngo
*v-, y-, r-, l-				
“return”	vɪr	vɪ, wɪ	vwi	—
“die”	yām	je-ām, jyām <sup>21)</sup>	yam	yam
“silver”	rūn	gō̄n	rʎn	rōn
“needle”	pān-lě	bā̄ng-lăt	pā̄leʔ	ma-laik
*f-, hy-, hr-, hl-				
“monkey”	fā	B. fa	fa	—
“ear”	hyō̄	s‘ō, chō̄ <sup>22)</sup>	hyuʔ	heo, -hyo
“tooth”	hrā̄ng	hā̄ng, hwā̄ng	hraŋ	rā̄ng
“leaf”	hlā	D. hla	hla	hla

## II Vowels

The following ten vowels can be reconstructed for Proto-Palaung:

*i	u
	ui, ũ
e	o
ɛ(̃iə)	ɔ
	a, ă

18) Medial \*-r- has become -y- in Rumai, as can be seen in the examples or \*pr-, \*kr-, etc.

19) Shorto /ʃər/.

20) \*hñ- in Rumai group: D. hneow, B. hgno, S. ('Rumai of Shan States') hneao.

21) In Rumai \*y- is written variously: y-, j-, jy-, dj-, zy-, etc.

22) D. sok, S. hsok, B. hiok. Thus, \*hy->s- in the Rumai group except RuB.



There are four central vowels: two long vowels \**ui* and \**a*, and two short vowels \**ũ* and \**ã*. It is not clear whether front and back vowels also had a contrastive vowel length. There are a few ‘irregular’ correspondences which could be the reflexes of an original vowel length contrast (and/or final \*-<sup>?</sup>), but the contrast was not reconstructed systematically.

### 1 Front Vowels

The correspondences of front vowels in open syllables have fairly many examples, and it is not difficult to reconstruct \*-*i*, \*-*e*, \*-*ε* in the following way:

	Ta.	Ra.	Ru.	Da.	cf. Ri.
*- <i>i</i>	- <i>i</i>	- <i>āi</i>	- <i>éi</i> (> <i>ái</i> )	- <i>ai</i>	- <i>i</i> <sup>?</sup>
*- <i>e</i>	- <i>ē</i>	- <i>ōi</i>	- <i>éi</i> (> <i>ái</i> )	- <i>e</i>	- <i>ε</i> <sup>?</sup>
*- <i>ε</i>	- <i>ē</i> ( <i>ē</i> ) <sup>23)</sup>	- <i>āi</i>	- <i>ái</i> (> <i>ói</i> )	- <i>ai</i>	- <i>e</i> <sup>?</sup>
cf. *- <i>ay</i>	- <i>āi</i>	- <i>āi</i>	- <i>ái</i> (> <i>ói</i> )	- <i>ai</i>	- <i>ai</i>

Thus they have merged with \*-*ay*- in many cases, except in Ta-ang, where proto-vowels have remained without being diphthongized.

Examples.

	Ta.	Ru.	Ra.	Da.	cf. Ri.
*- <i>i</i>					
“thou”	<i>mī</i>	<i>māi</i>	<i>méi</i>	<i>mai</i>	<i>mi</i> <sup>?</sup> <sup>^</sup>
“sun, day”	<i>s’a-ngī</i>	<i>s’ε-ngāi</i>	<i>sǎŋéi, -ŋói</i>	<i>si-ngai</i>	<i>s’əŋi</i> <sup>?</sup> <sup>-</sup>
“hand, arm”	<i>tī</i>	<i>tāi</i>	<i>đéi, đái</i>	<i>dai, lai</i>	<i>tī</i> <sup>?</sup> <sup>-</sup>
“forest”	<i>brī</i>	<i>bi-āi</i>	<i>bréi</i>	<i>prai</i>	<i>pri</i> <sup>?</sup> <sup>^</sup>
*- <i>e</i>					
“wood, fuel”	<i>hē</i>	<i>hō-i</i>	<i>héi, hái, hói</i>	<i>hé</i>	<i>khe</i> <sup>?</sup> <sup>-</sup>
“fruit”	<i>plē</i>	<i>plō-i</i>	<i>pléi, plái</i>	—	<i>plē</i> <sup>?</sup> <sup>-</sup>
“witch”	<i>brē</i>	—	<i>bréi</i>	—	<i>pre</i> <sup>?</sup> <sup>^</sup>
“pestle”	<i>grē</i>	—	<i>ŋ-gréi, -grái</i>	—	<i>-re</i> <sup>?</sup> <sup>^</sup>
*- <i>ε</i>					
“earth”	<i>ka-tē</i>	<i>ka-tāi</i>	<i>kǎđái, -đói</i>	<i>ka-dai</i>	<i>kəte</i> <sup>?</sup> <sup>-</sup>
“new”	<i>kạn-mē</i>	<i>ta-māi</i>	<i>kǎmái, -mói</i>	—	<i>tənme</i> <sup>?</sup> <sup>^</sup>
“rain”	—	<i>klāi</i>	<i>klái, klói</i>	<i>glai</i>	( <i>kle</i> <sup>-</sup> )
“man, husband”	<i>ī-mē</i>	<i>ε-māi</i>	<i>éi-mái, -mói</i>	<i>i-mai</i>	<i>-me</i> <sup>?</sup> <sup>^</sup>
“shy, ashamed”	<i>ka-shē</i>	<i>ka-sāi</i>	<i>sói</i>	—	<i>kəse</i> <sup>?</sup> <sup>-</sup>
*- <i>ay</i>					
“tiger”	<i>ra-vāi</i>	<i>lε-vāi</i>	<i>rǎvwái, -vwói</i>	—	<i>rəvai</i> <sup>^</sup>
“far”	<i>s’ạ-ngāi</i>	—	<i>sǎŋái, -ŋói</i>	—	<i>s’əŋai</i> <sup>^</sup>

23) The condition for \*-*ε*>-*ē* in Ta-ang is not clear.

“widowed”	ka-māi	—	kāmái, -mói	—	kəmai <sup>h</sup>
“eye”	ngāi	ngāi	ŋái, ŋói	ngai	ŋai <sup>h</sup>

However, there are several words in which Ta-ang has  $-\bar{e}$  (or  $-\bar{e}$ ) but the vowels are not diphthongized in the other dialects.

	Ta.	Ru.	Ra.	Da.	cf. Ri.
“you”	pē	—	pè	bē	pe <sup>ʔ</sup> -
“we”	yē	—	yéi(?)	yē	—
“they”	— <sup>24)</sup>	kē	kè	gē	—
“one”	hlē	hlē, lē	—	hlē	—
“goat”	bē	(D. be)	bè	pé	pe <sup>ʔ</sup>
“Chinese”	k'ē	k'ē	k'è	—	khe <sup>-</sup>

I tentatively interpret the irregularity in these cases as being due to the special character of these words, the first four being pronouns and a numeral and the last two being loanwords, but in fact the problem of original vowel length and/or final  $*-ʔ$  might be involved here. For example, one could reconstruct  $*-\epsilon\epsilonʔ$  for our  $*-\bar{e}$  generally,  $*-\epsilonʔ$  for “you”-“one” above, and  $*-\epsilon\epsilon$  for “Chinese”.

In closed syllables,  $*i$  and  $*e$  have remained as such in most cases in all dialects, although  $*e$  is not attested well.

Examples:

	Ta.	Ru.	Ra.	Da.
$*-iC$				
“nine”	t'im	(D. tim)	ti:m	lim
“bird”	s'im, shim	(D. sim)	sim	—
“sleep”	it	i	i <sup>ʔ</sup>	it
“ripe, cooked”	s'in, shin	i-s'in	si:n	—
“mushroom”	tir	—	di:h, di:ɰ	—
“gold”	k'ir	k'yɪ	—	kriu
$*-eC$				
“thin”	hrēr	(D. hre)	—	rheo
“bamboo mat”	pēr	mpēr	—	—
“go out, go down”	lēh	lē	lh <sup>25)</sup>	—
“bear”	k'rēr	—	krih, kriɰ	—

24) Ta-ang:  $g\bar{e} < *g-$ . The initial of other dialects is  $*k-$ .

25) Ra-ang  $-i-$  is probably  $/e/$  phonemically. Now compare “mushroom”  $*-is$  with the following: “sweep” Ta. pɪr, Ru. pɪ. Ra. bɪh, bɪɰ. If this  $-ih, iɰ$  is really different from  $/-ih/$ , something different from  $*-is$  must be reconstructed for this, say,  $*-is$  with a short vowel  $*i$ . (cf. Riang “mushroom”  $ti:s-$ , “sweep”  $pis-$ , which is the opposite.)

However, \*i, \*e before velars show different developments especially in Rumai and Ra-ang.

	Ta.	Ru.	Ra.	Da.	cf. Ri.
*-iŋ					
“head”	kīŋ	kēn, kūn	kēŋ, kaŋ	ging	ki:ŋ <sup>-</sup>
“sew”	jīŋ	jēn, djēn	—	—	—
“navel”	kạ-dīŋ	ka-dīn, -dēn	kădan(!)	—	-di:ŋ <sup>-</sup>
*-ek					
“pig”	lě	lō-i	lé?	—	lek <sup>ʰ</sup>
*-eŋ					
“sky”	plēŋ	plān	plén	—	pleŋ <sup>-</sup>
“yellow”	t‘ēŋ	t‘āŋ (D. tan)	—	deng, -leng	—
“road”	ra-dēŋ	dān, (D. indawŋ)	—	—	rəŋdeŋ
“red”	rēŋ	gōn, i-gwāŋ	rén	reng	(roŋ <sup>ʰ</sup> )

We shall discuss \*-ek, -en in relation to \*-uk, -uŋ later again; see 3 Central Vowels.

The correspondences of proto-vowel \*ε in closed syllables have not been established clearly. It has become in many cases -iə- or a similar diphthong in all dialects, though the data are insufficient to set up the correspondences in all environments. It might be better to reconstruct \*iə for Proto-Palaung in such cases. However, apart from the problem of the date of diphthongization,<sup>26)</sup> the diphthong no doubt goes back to \*ε, as attested by Lamet forms, and in Rumai and Ra-ang this \*ε seems to be preserved before \*-t.

	Ta.	Ru.	Ra.	Da.	cf. Ri.
i) “small”	dyāt	dē, dē	—	-ti-et	—
“lick”	lě-ət	—	lêt, lár?	—	liet <sup>ʰ</sup>
ii) “wing”	pyāŋ	pyōŋ	p‘íəŋ, p‘yūŋ	—	piəŋ <sup>-</sup>
“drink”	te-āŋ, tyāŋ	—	—	di-eng	(Lmt. tēŋ <sup>-</sup> ) <sup>27)</sup>
“fat, oil”	pre-āŋ, pri-ōŋ	pi-ōŋ	—	—	(Lmt. ?εel <sup>-</sup> )
“chicken”	i-ār	i-ō, i-ū	íər, í:r	yen(g)	(Lmt. ?εel <sup>-</sup> )
“moon, month”	-kyār	pa-kyū	pākíər	mag-gyen	kier <sup>-</sup>
“root”	ri-ār	—	ríeh	—	(Lmt. rēes <sup>ʰ</sup> )

26) It is diphthongized in Riang also.

27) Cited from my field notes. Y. Mitani, “A Descriptive and Comparative Study of the Khamet Phonology,” (in Japanese), *South East Asian Studies*, 3-3 (1965), pp. 22-51.

The correspondences in the following examples are not parallel to those of \*-εC, and I tentatively reconstruct \*-ǎc for them.

“needle”	pəŋ-lě	bəŋ-lăt	pǎlê <sup>?</sup>	ma-laik	pəŋlaic <sup>ʼ</sup>
“belly”	vě, vĕk	vǎ, wǎ, wǎk (D. wat)	—	waik	—
“sharp-pointed”	pě	—	páŋ <sup>?</sup>	—	paic <sup>-</sup>
“spit”	bě	—	báŋ <sup>?</sup>	—	—

## 2 Back Vowels

Back vowels \*-u, -o, -ɔ in open syllables, like front vowels in the same environment, have been diphthongized in Rumai, Ra-ang and Darang.

	Ta.	Ru.	Ra.	Da.	cf. Ri.
*-u	-ū	-e-āū	-éu	-au, ao	-u <sup>?</sup>
*-o	-ō	-āū, -a-ō	-áu	-ao	-o <sup>?</sup>
*-ɔ	-ō̄	-āū, -a-ō̄	-áu	-o	-o <sup>?</sup>
Examples:					
*-u	Ta.	Ru.	Ra.	Da.	cf. Ri.
“sick, painful”	s’ū	s’e-āū, s’āū	séu	sau	s’u <sup>?</sup>
“thigh”	blū (S./blu/)	ble-āū	bléu, plúu	plao	plu <sup>?</sup>
“curry”	tū	te-āū	đéu	—	s’ətu <sup>?</sup>
*-o					
“husked rice”	ra-kō	la-kāū	rǎkáu	t’gao	ko <sup>?</sup>
“stone”	mō	māū, ma-āū	máu	mao	s’əmo <sup>?</sup>
“dream”	rɪŋ-pō	ɰm-pa-ō	m-báu	m’bao	—
*-ɔ					
“paddy”	hngō̄	hnyāū	hŋáu	ngo	ŋo <sup>?</sup>
“dog”	s’ō̄	s’a-ō̄	—	so	s’o <sup>?</sup>
“I”	ō̄	āū	ɑ(?)	o	o <sup>?</sup>

In the following examples, however, \*-u is not diphthongized in any dialect. One could possibly reconstruct \*-u<sup>?</sup> for these and \*-uu<sup>?</sup> for our \*-u above.

“breast, milk”	bū	mbū (“suck”)	bu	-pu	cf. Ri. bu <sup>?</sup>
“towards”	jū	djū	—	—	—

The correspondences of back vowels in closed syllables vary according to the finals. Not all vowel-final sequences are attested, but the following changes can be mentioned:

(i) In Ta-ang, \*ɔ before \*-t, -n, -s, -r (but not -l) and -y has been diphthongized to -uə-.

*-ɔt, -ɔn:	Ta.	Ru.	Ra.	Da.
“smoke, absorb”	nyū-ḡt	(ngḡ)	—	nyawt
“away”	pwḡt	—	—	(Ky. bḡt) <sup>28)</sup>
“child”	kwḡn	kḡn	kɔn	gawn
“all, every”	twḡn, tu-ḡn	tḡn	—	—
*-ɔs, -ɔr				
“heart”	nu-ḡr	nō	nɔh, nauh	nogh
“price”	ngwḡr, etc.	ngō	ŋɔh, ŋauh	—
“calf, leg”	pwḡr, etc.	pō	—	—
*-ɔy				
“ff(y(n.))”	ru-wāi, etc.	—	rɔi	—
“live, be”	gwāi	gō-i	—	(?)koi “sit”

(ii) In Rumai, \*u, o<sup>29)</sup> before labials have become -ɛ-; \*ɔ before \*-k(>-<sup>?</sup>) and \*-s, -r, -l (>ϕ) has become -o-. (But \*ɔ before \*-h and \*-y corresponds sometimes to -o- and sometimes to -ɔ-, and whether the distinction of -o- vs. -ɔ- was always recorded accurately may be doubted.)

*-up, -um	Ta.	Ru.	Ra.	Da.
“Shan hat”	—	klěp	—	klup
“below”	krūm	ke-kyēm	—	i-krum
“lump”	kən-lūm	ka-lēm	—	—
*-op, -om				
“blanket”	hōp	hēp, heb-	—	—
“water”	ōm	ēm	om, um, ʏm, um ɛm	—
*-ɔk				
“full”	nḡ	nō	nuk	—
“ear”	hyḡ	s’ō, chḡ	hyu <sup>?</sup>	heo,-hyo
“ascend”	hḡ	hō	—	—
*-ɔl (*-ɔs, -ɔr: see (i))				
“six”	tḡr	tō	tɔ	naw

(iii) In Ra-ang, \*o before \*-s, -h (both >-h) became -ɔ-, and \*ɔ in the same environment became -ɔ~au-; \*ɔ before \*-k and \*o before \*-t, -n correspond to -u-, but the phonemic status of -u- in Ra-ang is not clear.

*-os, -oh:	Ta.	Ru.	Ra.	Da.
“barking deer”	p’ōr	—	ḡɔh, ḡɔɣ, ḡɔs	bwa

28) Kyusao, from the Appendix of Milne’s dictionary, is very close to Darang.

29) As well as \*u: see (3) Central Vowels.

“flower”	pōh	pō	ḃōh	bogh
*-os:	“heart”, “price” (above)			
*-oh:				
“nape of neck”	kəp-ŋgōh	—	kǎŋoh, -ŋauh	—
“kill”	—	ngō	ŋoh, ŋah(?)	—
*-ok:	“full”, “ear” (above)			
*-ot, -on:				
“sword”	bōt	bō	but	pu-wat
“four”	p’ōn	p’ūn (D. p’on)	p’un	pu-on

(iv) In Darang, \*o before \*-t, -n, -s and -y has become -uə-; \*ɔ is written sometimes -aw and sometimes -o but whether they represent different vowels is not clear.

*-ot, -on:	“sword”, “four” (above)			
*-os:	“barking deer” (above)			
*-oy:				
“mouth”	—	mō-i	—	mwé /muəy/
“three”	(u-āi)	(ō-i) <sup>30)</sup>	oé	u-wé /uɔy/

### 3 Central Vowels

In open syllables, only two central vowels \*-u and \*-a are reconstructed for Proto-Palaung. Strictly speaking, the correspondence of \*-u in “night”, “father-in-law” and that of “name” are different, the former suggesting \*-ʏ and the latter \*-u. But according to Shorto, he did not find a phonemic contrast in his Ta-ang corresponding to that of Milne’s ü and ö, his /u/ being close [u] after palatals and more open [ʏ] after labials,<sup>31)</sup> and this may be true with other dialects also.

Examples:

*-u	Ta.	Ru.	Ra.	Du.
“see”	yū	zyū	—	yö
“night”	(ra-)hmō	—	hmʏ	—
“father-in-law”	pō	—	—	bō
“name”	(ra-)jū	djū	ju	an-hsü
*-a				
“mother”	mā	mā	ma	ma
“fish”	kā	(D. ka)	ka	ga
“eight”	tā	(D. ta)	ta	n’da
“trousers”	sə-lā	sə-lā	—	sa-lá

30) Ta-ang and Rumai forms are \*ɔy.

31) Shorto, *op. cit.*

In closed syllables, however, at least four central vowels must be reconstructed. I tentatively reconstruct two long vowels \*u and \*a and two short vowels \*ū and \*ǎ. The contrast of the four vowels can be best illustrated by the correspondences before \*-ŋ:

	Ta.	Ru.	Ra.	Da.	cf. Ri.
*-uŋ	-ūng	-ān(g), ȳn	-én, an, aŋ	-eng	-ɔ(:)ŋ
*-ūŋ	-īng, ōng	-āng	-aŋ	-ang	-əŋ
*-ǎŋ	-āng	-āng	-aŋ	-awng	-aŋ
*-aŋ	-āng	-āng	-a(:)ŋ	-āng	-a(:)ŋ
Examples:					
*-uŋ:	Ta.	Ru.	Ra.	Da.	cf. Ri.
“foot”	jūng	jāng, -jān	djén, dján	cheng	cɔ(:)ŋ <sup>ʰ</sup>
“thread”	s’ūng	s’ān, s’ȳn	sén, saŋ	—	—
*-ūŋ:					
“tree”	tīng, tōng	tāng	taŋ, tūŋ, tén <sup>32)</sup>	dang	təŋ <sup>-</sup>
“flesh”	yīng	yāng	yaŋ	—	yəŋ <sup>ʰ</sup>
“bamboo”	hrīng	—	hraŋ	rang	rəŋ <sup>-</sup>
“cook (rice)”	tīng, tōng	tāng	—	—	—
*-ǎŋ:					
“horse”	brāng	mbi-āng	braŋ	m’prawng	mərəŋ <sup>ʰ</sup>
“stand”	jāng	(D. jang)	—	hsawng	—
“bitter”	s’āng	(B. tsang)	saŋ	—	caŋ <sup>-</sup>
“thatch”	plāng	—	plaŋ(?)	—	plaŋ <sup>-</sup>
*-aŋ:					
“elephant”	sāng	sāng	sa:ŋ	sāng	saŋ <sup>-</sup>
“tooth”	hrāng	h(w)āng	hraŋ	rāng	ra(:)ŋ <sup>-</sup>
“bone”	ka-āng	ka-āng	kǎ <sup>ʰ</sup> aŋ	ka-āng	cən <sup>ʰ</sup> aŋ <sup>-</sup>
“big”	dāng	ɛ-dāng	—	tāng	—

The second and the third series are reconstructed as short vowels for they both correspond to Shorto’s /-əŋ/, and this vowel /ə/ is, according to Shorto, characterized by a markedly shorter duration.

The contrast of the four vowels can be seen also before \*-k, though the correspondence of \*-ǎk is not clear.

*-uk:	Ta.	Ru.	Ra.	Da.
“side (of body)”	prō	pyō-i	—	—

32) Ra. tūŋ, tén are probably Standard forms (i.e. Ta-ang).

“rise”	yŭ	(D. yoi)	—	—
*-ũk:				
“cow, ox”	mũk	măk	—	măk
“choke (in swallowing)”	nũk	năk	—	—
“smoke (n.)”	tŏ	(B. tak)	—	—
*-ăk:				
“love”	raḵ	lŏk(?)	—	rawk, rŏk
“bite”	gă	—	gaʔ, gak(?)	—
“choke (bone in throat)”	hă, hăk	hăk	hak (vomit)	—
*-ak:				
“buffalo”	kră	kyă	kraʔ	gra
“corsslous”	ă	—	aʔ	a

The reason for reconstructing \*-uk for “side (of body)” and “rise” may not be apparent, but actually the correspondence is parallel to that of \*-uŋ. Compare the correspondences of \*-ek and \*-eŋ. I propose the following changes: (i) \*-uk, -uŋ were first fronted and merged with \*-ek, -eŋ in Rumai, Ra-ang and Darang; (ii) in Rumai, \*-k finally dropped, probably via \*-k>-ʔ>-∅, and original \*-e, -ek, -uk have all merged together, finally becoming -ŏi; (iii) similarly, \*-eŋ from both original \*-eŋ and \*-uŋ became -ăng, -ăn, -ŏn in Rumai and -éŋ, -én, -an in Ra-ang.<sup>33)</sup>

Not only \*-uk and \*-uŋ must have the same vowel, but most probably the vowel is the same as \*-u in open syllables. In “foot”, the vowel corresponds to -ɔ in Riang. There are similar correspondences of Ta-ang ü, ö and Riang ɔ in other environments, as in the examples below, and the correspondence before \*-l, -s among the Palaung dialects is exactly the same as that of \*-u.

*-ul	Ta.	Ru.	Ra.	Da.	cf. Ri.
“ten”	kōr	kō	kɣ	gō	-kəl̄
“vomit”	hūr	hū	hɣ	—	həl̄
*-us					
“porcupine”	ɪ-kūr	—	ăkɣh	—	rənkəs̄
*-um					
“night”	r̄ɪn-s̄ōm	kai-s̄ēm	—	—	-s̄ɔm̄
“heart”	p̄ōm	p̄ēm	—	—	p̄ɔm(soul)
*-un					
“get”	bōn	bōn	bɣn	—	bɔn̄

33) Variations in Ra-ang may be due to borrowing from Rumai dialects.



“silver”            rŭn            gōn            rŷn            rōn            (ron<sup>1)</sup>)

We have seen that \*-ũŋ has merged with \*-ǎŋ in Rumai and Ra-ang, although the contrast has been preserved in Ta-ang and Darang. This merger of \*ũ and \*ǎ seems to have progressed in other environments more extensively, even in Ta-ang and Darang, and without apparent regularities, so that it is sometimes difficult to distinguish \*ũ from \*ǎ. However, ‘Palaung of Nam Hsan’ (NS.) in *GUB*<sup>34)</sup> seems somewhat more conservative in this point, \*-ũC usually corresponding to -uC and \*-ǎC to -aC, and by taking this dialect into consideration I have tentatively set up the following correspondence sets:

	Ta.	NS.	Ru.	Ra.	Da.	cf. Ri.
{*-ũt	ǎt, ũt	ūt	(at)	—	ut	
{*-ǎt	ǎt, ǎt	at	ā, (aw)	at	at	
{*-ũn	ān, ōn	ūn, ũn	ān	an	un, an	ən
{*-ǎn	an	an	ān	an	an	an
{*-ũp	ap, op	—	—	—	ap	(up)
{*-ǎp	ap, ǎp	—	ā, ǎ	—	ap	
{*-ũm	ām, ōm, ũm, im	ūm	ām	am	am	əm
{*-ǎm	ām	am	ām	am	am	am
*-ũñ	ing	(ain)	ān	an	ain(g)	əiñ
Examples:						
*-ũt:	Ta.	NS.	Ru.	Ra.	Da.	cf. Ri.
“thick”	hǎt	hkūt <sup>35)</sup>	(D. hat)	—	hut	—
“pull”	tǎt, tũt	tūt	—	—	dut	—
*-ǎt:						
“near”	dǎt	dat	(D. in-daw, B. dā)	—	n’tat	
“old”	—	—	gā	gat	kat	—
*-ũn:						
“woman, wife”	i-pān, -pōn	bī-pūn	i-pān	ér-pan	i-bun	—
“behind”	ra-bān	la-būn	lɛ-būn(!)	—	i-pan	—
“he, she, it”	an	ūn, un	āng (B. an)	an	an	ən <sup>-</sup>
*-ǎn:						
“five”	p’an	hpan	p’ān	p’an	pan	k-han <sup>-</sup>

34) NS. is very close to Ta-ang; e.g. without diphthongization of vowels in open syllables. The accuracy of the data is most doubtful, however.

35) Probably k-hut.

## \*-ǖp:

“net”	ra-r̄ap, -r̄öp	—	(S. r̄āp)	—	rap	rup
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## \*-ǎp

“know”	n̄ap	—	n̄ă	—	—	—
“dark”	ǎp	—	ā	—	ap	—
“roof”	d̄ap	—	(S. da)	—	—	—

## \*-ū̄m:

i) “rich”	kr̄im	-kr̄um	kyām	—	kram	—
“black”	ȳim	i-ȳum	—	—	—	—
“soft”	j̄im, j̄ūm	—	(B. dzam)	—	—	—
ii) “to plant”	s̄ōm, s̄ā̄m	—	—	sam	—	pəks̄əm̄
“beeswax”	pl̄ōm, pl̄am	—	plām	—	—	—
iii) “medicine”	s̄ā-n̄am	se-n̄um	se-nām	sānam	sa-nam	s̄ənəm̄

## \*-ǎm:

“die”	yām	yam	je-ām, jyām	yam	yam	yam̄
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## \*-ū̄ñ:

“snake”	h̄iŋ	—	han	han?	—	h̄oiñ̄
“star”	s̄ā-m̄iŋ	s̄ā-main	(D. sa-man)	sāman	si-main	səkm̄oiñ̄
“fat”	kl̄iŋ	—	klān	—	glaing	—
“shoot”	p̄iŋ	—	—	paiŋ(?)	—	p̄oiñ̄

An exceptional case is \*ū̄r, which has become -ū̄ in Rumai.

## \*-ū̄r:

“to fly”	p̄ar	—	p̄ū	—	—	p̄ər̄
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## \*-ār, -āl:

“cord, rope”	v̄ar	wer	v̄āi, wai	—	wān	(nuar̄) <sup>36)</sup>
“fire”	nḡar	ner	nḡāi	ŋáɪ, ŋə	ngaw	ŋal̄

## cf. \*-ās

“swell”	ār	—	—	ah	—	as̄
“charcoal”	ka-s̄ār	—	—	kās̄h(?)	—	kərcas̄

As compared with the distinction between \*-ū̄C and \*-ǎC, it is usually easy to distinguish \*-aC from -ǎC, especially by the forms of Ta-ang and Ra-ang.

*-at	Ta.	Ru.	Ra.	Da.
“scrape”	k̄āt	k̄ā	—	—
“hot”	tāt	(B. tā)	—	—

36) From \*hn-war (?).

*-an:				
“Burmese”	brān	mbi-ān	bran, brǎn	—
“ask”	hmān	—	hman, hmǎn	—
“hungry, thirsty”	kaŋ-brān	ka-byān	—	—
*-am:				
“sweet”	ngām	(B. gnam)	ŋam-	-ngām
“blood”	hnām	(B. hnam)	hnam	nām
“cry”	yām	djām	ya:m	—
*-as:				
“laugh”	—	kɨn-yā (D. ka-nia)	kǎñch	—
*-ar:				
“hill field”	mār	mā	mar	mān

One problem to be mentioned here is a possible contrast of \*-ah and \*-ǎh in Proto-Palaung. The vowel of “hundred” in Darang suggests \*-ǎh, in contrast to \*-ah of “wide”. However, there does not seem to be such a contrast in other dialects. Especially, Ra-ang has both -ah and -ah synchronically, and if there was a contrast of \*-ah vs. \*-ǎh, it seems more probable that it would have been preserved in Ra-ang.

\*-ah/ǎh(?)

“wide”	vāh	(D. ka-wa)	—	wagh
“hundred”	pa-ri-ǎh	pe-jā	pǎyah	mē-yawgh
	/pəryah/	(D. paiya)		
“say”	dāh	dā	—	—

### III Finals

The inventory of Proto-Palaung finals is the following:

*-p	-t	-c	-k
-m	-n	-ñ	-ŋ
	-r		
	-l		
	-s		-h
(-w)		-y	

The possibility of a final \*-ʔ in Proto-Palaung was mentioned already.

Final palatals \*-c, -ñ, -y have been reconstructed in certain \*-VC, such as \*-uc, \*-ũñ, \*-ay, etc., in the last chapter. There is no good example of \*-w. There oc-

curred certain changes with the final stops, such as the drop of \*-t in the Rumai group, but generally there is no difficulty in reconstructing final stops and nasals. Thus the main problem to be discussed in this chapter is the reconstruction of final liquids and spirants \*-r, -l, -s, -h.

As was pointed out by Shafer, Proto-Palaungic had final \*-r, -l, -s, -h, the contrast being preserved in Riang.<sup>37)</sup> In Ta-ang, however, there are only two final continuants: -r, a voiceless alveolar fricative(?) [ɹ̥] according to Shorto, and -h. However, the correspondence between the four Palaung dialects clearly shows that Proto-Palaung had preserved all four finals. The correspondences can be summarized in the following way:

	Ta.	Ru.	Ra.	Da.	cf. Ri.
*-r				-n, -ng	-r
*-l	-r	{-y/*ǎ— ϕ	{ϕ/*back, *u— r	{-w/i, e— ϕ	-l
*-s		ϕ	-h <sup>38)</sup>	-gh, ϕ	-s
*-h	-h				-ϕ

Examples:

*-r:	Ta.	Ru.	Ra.	Da.	cf. Ri.
“iron”	hīr	—	—	hing	hir <sup>-</sup>
“bee”	pyār	pyū, pyū	p’rīār	—	—
“fowl”	i-ār	i-ō, i-ū	íār, í:r	yen, -iyeng	yer <sup>-</sup>
“moon”	-kyār	pa-kyū	pākíār	mag-gyen	kier <sup>-</sup>
“wind”	kūr	kū	k’u	kun	kur <sup>-</sup>
“skin”	hūr	hū	hu	hu-in <sup>39)</sup>	hu:r <sup>-</sup>
“hill field”	mār	—	mār	mān	mar <sup>^</sup>
“to fly”	pār	pū	—	—	pār <sup>-</sup>
“cord, rope”	vār	vai, wāi	—	wǎn	—
*-l:					
“gold”	k’rīr	k’yī	—	kriu/-iw/	—
“thin”	hrēr	(D. hre)	—	rheo/-ew/	—
“seven”	pūr	pū	pu	bu	pul <sup>-</sup>
“bag”	hūr	—	—	hu	
“six”	tōr	tō	tō	naw	tual <sup>-</sup>

37) Shafer, *op. cit.*

38) Probably the merger is recent. Sometimes \*-s is preserved.

39) Probably /huñ/. But the condition for the split of \*-r to -n and -ñ (sometimes -ng) is not clear.

“ten”	kōr	kō	kɣ	gō	-kəl <sup>-</sup>
“vomit”	hūr	hū	hɣ	—	həl <sup>-</sup>
“mortar”	pār	—	bar	—	pal <sup>-</sup>
“fire”	ngār	ngāi	ŋɔ, ŋáɪ <sup>40)</sup>	ngaw	ŋal <sup>ʰ</sup>
*-s					
“sweep”	pīr	pī	βih, βiɣ	—	pi:s <sup>-</sup>
“mushroom”	tīr	—	ɖi:h, ɖi:ɣ	—	tis <sup>-</sup>
“bear”	kʼrēr	—	krih, kriɣ	—	kres <sup>-</sup>
“root”	ri-ār	—	riéh	—	rias <sup>ʰ</sup>
“foam”	būr	—	buh	—	bus <sup>-</sup>
“barking deer”	pʼōr	---	βɔh, βɔɣ, βɔs	bwa	pos <sup>-</sup>
“nose”	-mūr	-mū	muh	mu	—
“heart”	nu-ār	nō	nɔh, nauh	nogh	kənuas <sup>ʰ</sup>
“price”	ngwǝr	ngō	ŋɔh, ŋauh	—	—
“porcupine”	i-kūr	—	ākɣh	—	rənkɔs <sup>-</sup>
*-h					
“drop”	jǝh	jō, jǝ	—	shogh	—
“flower”	pōh	pū	βōh	bogh	pɔ <sup>-</sup>
“hundred”	pə-ri-āh	pe-ja	pǎyɔh	mē-yawgh	pərya <sup>ʰ</sup>
“say”	dāh	da	—	—	da
“wide”	vāh	—	—	wagh	—
“go down, go out”	lēh	lē	lih	—	le <sup>ʰ</sup>

40) It is difficult to decide which of -ar, -ɔ, -aɪ is the regular form corresponding to \*-al.