

# The Seko Languages of South Sulawesi: a Reconstruction\*

Tom Laskowske  
SIL International  
tom\_laskowske@sil.org

Prior to this article, the only historical reconstruction to include a Seko language was Mills' 1975 reconstruction of Proto South Sulawesi (PSS). However, his failure to notice contrastive word-final vowel length led him to erroneously conclude that no South Sulawesi language exhibits a reflex of Proto Austronesian (PAN) \*q. Hence \*q was omitted from his PSS reconstruction. Countering that conclusion, Sirk (1989) pointed out evidence for the existence of PSS \*q. Seko languages are therefore a test for PSS \*q.

Since Mills' reconstruction, Sirk addressed the question of what characteristics define PSS. He and other researchers noted similarities between the Badaic languages of Central Sulawesi and South Sulawesi languages, particularly Seko,<sup>1</sup> but questions about genetic relationships persisted, which motivated me to undertake this reconstruction.

This paper seeks to establish a low-level node called Proto Seko, which should provide a basis for eventually clarifying Seko's position in relation to other Sulawesi languages. I herein present a reconstruction of Proto Seko phonology on the basis of data from four closely related languages in northern South Sulawesi (Seko Padang, Seko Tengah, Panasuan, and Budong-budong), based on several years of fieldwork in this area. Besides retaining a reflex of PAN \*q, Seko languages share a quickness feature which corresponds to PAN \*e.

## 1. Introduction

The four languages that belong to the Seko sub-group are, or until recently were, located along the upper reaches of the Karama River, the third largest river system in Sulawesi, a major island in north central Indonesia. The river flows west, emptying into the Strait of Makassar north of Mamuju (map - Figure 1).

These languages, according to data from the 1980s, number 5000 speakers of Seko Padang, 2500 of Seko Tengah, 1500 of Panasuan, and 11 households of Budong-budong speakers (with only 5 households where both adults are Budong-budong speakers). According to Panasuan oral history, Budong-budong is a recent split from Panasuan.

After a brief overview of the common synchronic phonology of Seko languages in Section (§) 2, I will discuss changes that have taken place between Proto Malayo-Polynesian (PMP) and Proto Seko (PSek) in consonants (§3) and vowels (§4), with special attention to PMP \*e (hereafter symbolized \*ə). Next is a brief look at the present-day reflexes in Seko languages (§5), and hints toward classification of PSek are presented in §6. Reconstructions are listed in §7.

## 2. Seko Synchronic Phonology

### 2.1 Overview of basic features

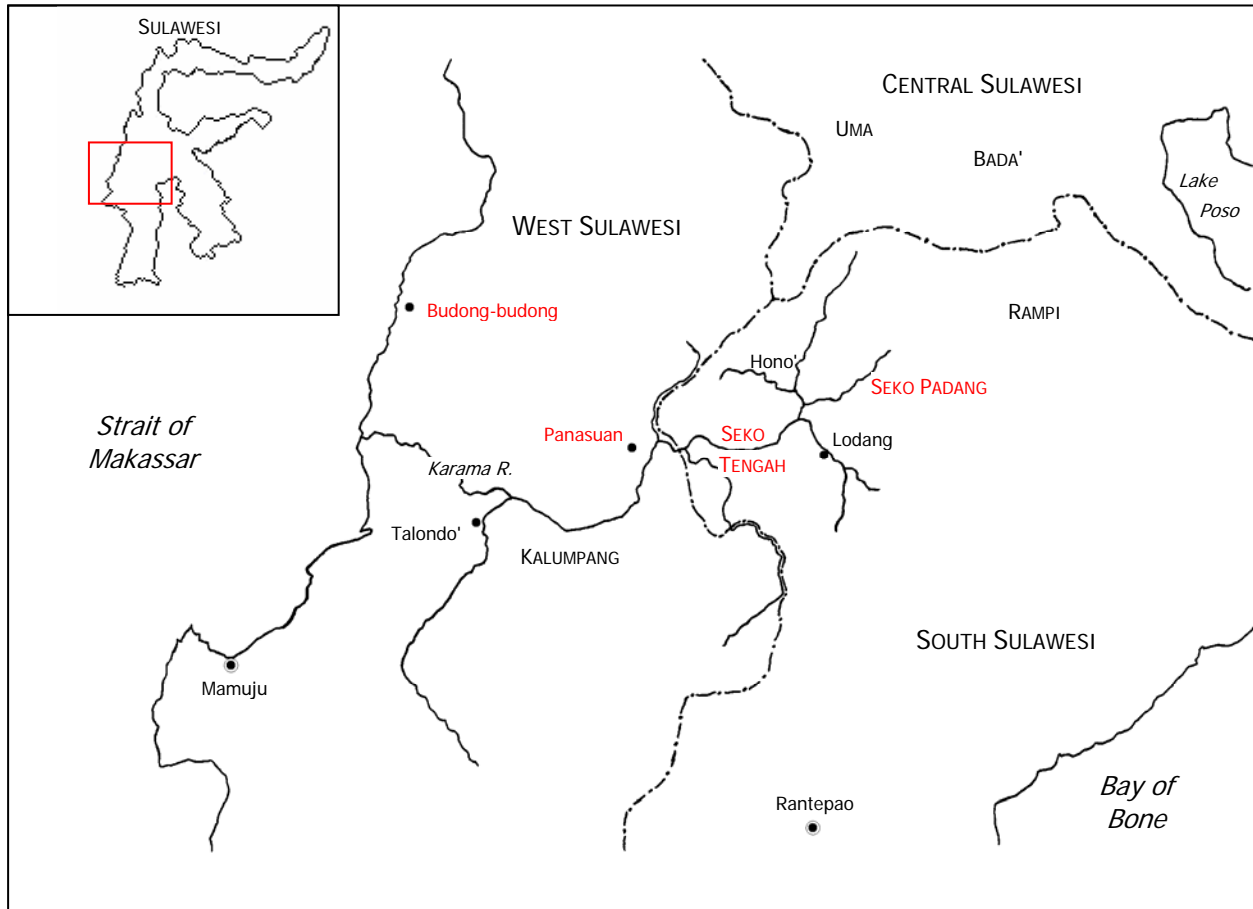
The common basic elements of the phonology of Seko languages are stated in the following list.

---

\* I would like to acknowledge David Mead for reading drafts of this paper. I am grateful for his many helpful comments, and for his guiding and encouraging me in my initiation into Austronesian historical linguistics. Thanks also to Michael Martens for input relating to Badaic languages, and for keeping me pointed in the right direction.

<sup>1</sup> Sirk (1989:55-57), Martens (1989:22-23, 31-33), Mead (2003:130-3, 136-8)

**Figure 1. Location of Seko languages**



1. Five vowels:                                i, e, a, o, u
  
2. Fourteen consonants:
  - vl stops:                                p, t, k, ʔ
  - vd stops:                                b, d
  - nasals:                                    m, n, ŋ
  - fricatives:                                s, h
  - liquids                                    l, r
  - semivowel                                y

Recent loan phonemes are: /g/, /w/, and palatal affricates /c/, and /j/.

In Panasuan, /c/ is an allophone of /t/ preceding high vowels. In the Hono' dialect of Seko Padang, retroflexed lateral flap [ɭ] is an allophone of /l/, but unmarked in the orthography.

The phoneme /y/ does not occur word initially, except in loans.

3. Two suprasegmental/prosodic features:
  - vowel length:        i:, e:, a:, o:, u:
  - vowel quickness:    ì, è, à, ò, ù
4. Words may end with a vowel, a long vowel, glottal, /k/, or /ŋ/. Long vowels only occur word finally. Glottal only occurs in root final position contrastively. It also occurs predictably between identical vowels, but is not symbolized in that environment.
5. Sequences of two vowels are common, each vowel filling a syllable slot.
6. Only one consonant cluster pattern is found root medially, namely -NC-. The pattern manifests itself variously among the languages, but geminate consonants are a common manifestation.
7. Stress is penultimate.
8. Closed syllables are common. Closed syllable structure is maintained when adding stress-shifting suffixes.
9. Syllable structure is fixed/assigned in the lexicon at the morpheme level. Stressed syllables contain a vowel nucleus followed by a coda. The coda is either a consonant, resulting in a closed syllable, or an empty timing mora, resulting in an open syllable. We could call the empty timing mora a DUMMY CODA or a CODA BLOCKER. Unstressed syllables may have a coda, but it is not required.
10. Possessive suffixes, which all begin with consonants and are stress-shifting, only attach to stem-final codas. Failing to find one, a homorganic nasal ligature is inserted between the stem and the possessive suffix.

## 2.2 More about prosodic features

A further word of description is in order about some of the more exotic features of Seko phonology. We will start with the prosodic features of vowel length and vowel quickness.

VOWEL LENGTH occurs in word final position, where it is contrastive. Length can occur on any of the five vowels. Word stress does not shift, but remains penultimate. Consider the following two-syllable roots from Seko Padang.

- |        |              |                       |
|--------|--------------|-----------------------|
| (1) a. | <i>mata</i>  | ‘eye’                 |
| a’.    | <i>mata:</i> | ‘raw’                 |
| (2) a. | <i>hulu</i>  | ‘body hair, feathers’ |
| a’.    | <i>hulu:</i> | ‘shin’                |
| (3) a. | <i>piso</i>  | ‘machete’             |
| a’.    | <i>siso:</i> | ‘snail’               |

- |        |              |         |
|--------|--------------|---------|
| (4) a. | <i>lose</i>  | ‘lazy’  |
| a’.    | <i>sise:</i> | ‘tooth’ |
| (5) a. | <i>api</i>   | ‘fire’  |
| a’.    | <i>rapi:</i> | ‘twin’  |

VOWEL QUICKNESS is contrastive only in the stressed syllable (penultimate position). As a point of reference, we could say that all vowels in closed syllables are QUICK. Normally, a penultimate closed syllable nucleus is followed by two consonants, like the /a/ is followed by /nd/ in example (6) from Seko Tengah. In such words it is not necessary to mark the /a/ as quick. The coda of the first syllable is the first consonant, /n/, and the onset of the second syllable is the second consonant, /d/.

- |     |                      |        |
|-----|----------------------|--------|
| (6) | <i><u>tan</u>duk</i> | ‘horn’ |
|-----|----------------------|--------|

What is unusual about Seko languages on this point is that they can have closed penultimate syllables that are followed by only one consonant. In example (7), the first syllable *man-* (written *màn-*) is closed, ending with /n/, and the final syllable *-na’* begins with /n/. The /n/ thus straddles two syllables, functioning as both coda of the first syllable and onset of the second. We refer to such consonants as AMBISYLLABIC. This stands in contrast to (8), whose penultimate syllable is open, and also contrasts with (9), whose lengthened medial consonant is analyzed as a cluster. These examples are from Seko Padang.

- |     |                       |               |
|-----|-----------------------|---------------|
| (7) | <i>m<u>an</u>a’</i>   | ‘quiet’       |
| (8) | <i>ma<u>n</u>a’</i>   | ‘inheritance’ |
| (9) | <i>ma<u>nn</u>ang</i> | ‘remain’      |

Besides having shorter timing than vowels in open syllables, quick vowels are reduced (centralized) in quality, most noticeable for /à/, pronounced schwa [ə]. Front vowels /i/ and /è/ are somewhat reduced to [ɪ] and [ɛ] respectively, whereas reduction in vowel quality is barely noticeable for /ù/ and /ò/. For further description of quick vowels and ambisyllabic consonants in Seko Padang, refer to Laskowske (1993).

### 2.3 More about maintaining closed syllables

Maintaining closed syllable structure is an important feature of Seko phonology. This is most readily demonstrable when suffixes are added to stems ending in a consonant. For example, the intransitive verb stem in (10a) ends in a /k/. The non-stress-shifting echo vowel *-i* in Seko Padang is lost when nominalizing suffix *-ang* is added (10a’), and /m/ in the prefix automatically goes to /p/. But the main thing to note is that, while stress shifts from syllable *ku* in (10a) to syllable *tik* in (10a’) (stressed syllables underlined), no resyllabification takes place. *tik* remains a closed syllable, in which /i/ is a quick vowel, and /k/ is ambisyllabic, so we mark it in the orthography with a grave diacritic over the vowel.

- |         |                              |            |
|---------|------------------------------|------------|
| (10) a. | <i>ming-<u>ku</u>tik-i</i>   | ‘ask’      |
| a’.     | <i>ping-<u>ku</u>tik-ang</i> | ‘question’ |

## 2.4 More about codas and possessive suffixes

The point of talking about codas in syllable structure is that it helps us explain two phenomena in Seko phonology. The first is when discussing what causes contrastive quick vowels. Quick vowels within roots cannot be predicted based on any sequence of segmental phonemes, so the feature must have already been assigned in the lexicon. If such assignment is related to syllable structure, a corresponding structure should be found in ancestral or related languages. Such a rule might read:

A consonant between two vowels is tagged plus or minus coda, where the first vowel  $V_\alpha$  is the nucleus of a stressed syllable, symbolized:

$$C > C_{+/-coda} / V_\alpha \_ V$$

The second phenomenon related to codas in syllable structure is the insertion of a homorganic nasal ligature preceding stress-shifting suffixes that begin with a consonant (all of which happens to be the entire set of possessive suffixes), and following stems that end in vowel /i/, /a/, or /u/. The rule might read:

The onset of a consonant-initial suffix becomes a nasal-consonant cluster when following a vowel, where the nasal takes on the point of articulation ( $\alpha$ ) of the following consonant, and where the vowel is one of the historic vowels, namely /i/, /a/, or /u/, symbolized:

$$-C_\alpha > -N_\alpha C_\alpha / V \_$$

It would be most elegant if just one ‘rule’ proved adequate to account for both quick vowels and nasal insertion. This is what we will attempt to do in the following paragraphs.

By focusing on the concept of coda, we go to the heart of the difference between open and closed syllable structure. The simple solution of assigning a +/- closed syllable feature from the lexicon would be adequate for vowels preceding root medial single consonants, but not for stem final vowels. We need some way to distinguish the behavior of vowels /i/, /a/, and /u/, which trigger a nasal ligature (underlined) on possessives, from vowels /e/ and /o/ and long vowels, which act like consonants in not triggering a nasal ligature.

<i>uhai</i>	<i>-na</i>	>	<i>uhai<u>inna</u></i>	‘his drink’
<i>tai:</i>	<i>-na</i>	>	<i>tai<u>na</u></i>	‘its intestines’
<i>lame</i>	<i>-ta</i>	>	<i>lame<u>ta</u></i>	‘our (INCL) potatoes’
<i>sise:</i>	<i>-mu</i>	>	<i>sise<u>mu</u></i>	‘your teeth’
<i>mata</i>	<i>-ku</i>	>	<i>mata<u>ngku</u></i>	‘my eye’
<i>lila:</i>	<i>-ku</i>	>	<i>lila<u>ku</u></i>	‘my tongue’
<i>pisu</i>	<i>-ki</i>	>	<i>pisu<u>ki</u></i>	‘our (EXCL) machete’
<i>lindo:</i>	<i>-ku</i>	>	<i>lindo<u>ku</u></i>	‘my forehead’
<i>hulu</i>	<i>-na</i>	>	<i>hulu<u>na</u></i>	‘its feathers’
<i>hulu:</i>	<i>-na</i>	>	<i>hulu<u>na</u></i>	‘her shin’
<i>sadang</i>	<i>-ku</i>	>	<i>sadang<u>ku</u></i>	‘my jaw’
<i>koko'</i>	<i>-mu</i>	>	<i>koko'<u>mu</u></i>	‘your leg’
<i>anak</i>	<i>-ku</i>	>	<i>anak<u>ku</u></i>	‘my child’ SekT

We could say that, because long vowels are derived historically from final *\*q*, and /e/ and /o/ are derived from final *\*ay* and *\*aw*, the possessive nasal rule is consistent from a historical perspective, in that nasals are inserted after former vowels but not after former consonants. But that doesn't explain why synchronically /e/ and /o/ and long vowels act like the other vowels when shifted over to the stressed syllable due to suffixation.

I propose that coda slots can be filled by more than just consonants. In the case of word final vowel length, the coda slot is filled by a timing mora (L) that takes on the segmental features of the preceding vowel. In the case of root final /e/ and /o/, the coda slot is filled by a dummy coda (D). When suffixes are added to words ending in L or D, these suprasegmental coda features effectively block consonants from filling the coda slots which they occupy.

### 3. Consonants, from PMP to Proto Seko

#### 3.1 Introduction

The following general comments can be made about the consonant reflexes in PSek:

1. Most final consonants have merged or become lost. They will therefore be treated separately in §3.14.
2. Any reflexes of PMP *\*c* are subsumed under *\*s*. They are so infrequent, I think I have no correspondences to reconstruct.
3. The first consonant in non-nasal clusters has been lost, while the reflex of the second consonant sometimes becomes ambisyllabic. In such a case, the preceding vowel will be marked with a grave accent, indicating quickness.

**Table 1. Proto Seko reflexes of PMP consonant phonemes in initial and medial positions**

PMP	<i>*p</i>	<i>*t</i>	<i>*k</i>	<i>*q</i>	<i>*b</i>	<i>*d</i>	<i>*r</i>	<i>*s</i>	<i>*Z</i>	<i>*nZ</i>	<i>*g</i>
PSek	<i>*p</i>	<i>*t</i>	<i>*k, ∅</i>	<i>*∅, :</i>	<i>*b, h</i>	<i>*r, d</i>	<i>*∅</i>	<i>*s</i>	<i>*d, r</i>	<i>*(n)d</i>	<i>*k</i>
PMP	<i>*m</i>	<i>*n, ñ</i>	<i>*ŋ</i>	<i>*N</i>	<i>*l</i>	<i>*R</i>	<i>*w</i>	<i>*j</i>	<i>*nj</i>	<i>*h</i>	<i>*y</i>
PSek	<i>*m</i>	<i>*n</i>	<i>*ŋ</i>	<i>*n</i>	<i>*l</i>	<i>*∅</i>	<i>*h, u</i>	<i>*r</i>	<i>*(n)d</i>	<i>*∅</i>	<i>*y</i>

Before dealing with the phonemes that merit discussion (§3.2 – 3.12), I will list the straightforward cases, with illustrations. PMP forms cited are taken from Blust (1999 or 1995) where possible, and those are usually unmarked in the examples. I have tried to explicitly reference other sources.<sup>2</sup>

<sup>2</sup> Refer to the associated source for the following abbreviations PWMP (Proto Western Malayo-Polynesian), Blust 1995. PPh (Proto Philippine). PIn (Proto Indonesian) or PSS (Proto South Sulawesi), Mills 1975. PPUS (Proto Pitu Ulunna Salu) or PMAT (Proto Mambi-Aralle-Tabulahan), Smith 1993. PKP (Proto Kaili-Pamona) Martens 1990. PMun (Proto Muna) van den Berg 1991.

	PMP		PSek		
(11)	* <i>p</i>	* <i>panij</i>	‘wing’	* <i>pani?</i>	
		* <i>hapuy</i>	‘fire’	* <i>api</i>	
(12)	* <i>t</i>	* <i>tasik</i>	‘sea’	* <i>tasik</i>	
		* <i>kutu</i>	‘head louse’	* <i>kutu</i>	
(13)	* <i>s</i>	* <i>susu</i>	‘breast’	* <i>susu</i>	
		* <i>asu</i>	‘dog’	* <i>asu</i>	
(14)	* <i>m</i>	* <i>mata</i>	‘eye’	* <i>mata</i>	
		* <i>lima</i>	‘five’	* <i>lima</i>	
(15)	* <i>ñ</i>	* <i>ñawa</i> Dahl	‘breath’	* <i>mi-na-naha</i>	‘breathe’
	* <i>n</i>	* <i>naquR</i> PPh <sup>3</sup>	‘descend’	* <i>nau:</i>	‘go downstream’
		* <i>tunu</i>	‘burn’	* <i>maN-tunu</i>	‘roast’
(16)	* <i>ŋ</i>	* <i>ŋaŋa</i> <sup>4</sup>	‘agape’	* <i>mi-ŋaŋa</i>	‘agape’
		* <i>buna, buŋaŋ</i>	‘flower’	* <i>buna</i>	‘decorative shrub (sp)’
				<i>buna-buna</i>	‘decorative flower’
				* <i>hùŋaŋ</i>	‘primordial fruit or its flower’
(17)	* <i>l</i>	* <i>li(n)juq</i>	‘forehead’	* <i>lindo:</i>	
		* <i>ala</i>	‘get, fetch’	* <i>maN-ala</i>	
(18)	* <i>h</i>	* <i>hasaq</i>	‘sharpen’	* <i>asa:</i>	‘file teeth’
		* <i>duha</i>	‘two’	* <i>i-dua</i>	
(19)	* <i>y</i>	* <i>bayad</i> Zorc '95	‘pay’	* <i>maN-baya?</i>	

### 3.2 PMP \**k*

PMP \**k* is generally reflected in PSek as \**k*, but in a significant number of words it is lost. I have not detected any general rule that conditions the loss, except that root initially only two or three forms reflect loss of PMP initial \**k*-, versus approximately 90 forms that retained it, whereas root medially 11 out of 41 (27%) lost \**k*-. After a couple of examples where \**k* is retained (20), I list all known examples of PSek words where \**k* is lost (21).

	PMP		PSek	
(20)	* <i>kulit</i>	‘skin’	* <i>kuli?</i>	
	* <i>bikaq</i>	‘split’	* <i>maN-bika:</i>	
(21)	* <i>kita</i>	‘see’	* <i>maN-ita</i>	
	* <i>kua</i> PSS	‘say’	* <i>maN-oa</i>	
	* <i>ka</i>	‘if’	* <i>ia</i> <sup>5</sup>	
	* <i>lakaw</i>	‘go’	* <i>lao</i>	
	* <i>dalikan</i>	‘three-stone fireplace’	* <i>lalian</i>	
	* <i>sakit</i>	‘sick, painful’	* <i>sai</i>	‘illness’ * <i>t</i> > * <i>∅</i> irregular
	* <i>kaka</i>	‘elder sibling’	* <i>kaa</i>	
	* <i>daki</i>	‘fine dirt (on skin)’	* <i>rai</i>	SekP

<sup>3</sup> Charles (1973)

<sup>4</sup> Dempwolff (1938) and Blust pers. com. to David Mead

<sup>5</sup> Without external evidence, it's hard to say at this point what happened. It is possible \**k* was not lost in initial position, but rather PMP \**ka* > \**i-ka* > PSek \**ia*, in which case it would have been lost in medial position.

?* <i>dikaw</i>	‘you’	* <i>dio</i>	from where Mal <i>dikau</i> ?
* <i>ikəj</i> PWMP	‘cough’	* <i>m-ei?</i>	
* <i>dakut</i>	‘grab’	* <i>maN-rau?</i>	
* <i>buku</i>	‘node, joint, knuckle’	* <i>buu:</i>	‘bone, core’
* <i>siku</i>	‘elbow’	* <i>siku</i>	[SekP, SekT <i>siu</i> ]
* <i>nakaw</i> dbl	‘steal’	* <i>mu-ma-nau</i>	

PSek is not, however, the only proto language to have lost \**k*. Take, for example, the PSS word \**kande* (cognates also found elsewhere in Sulawesi), which in PSek has two reflexes, \**kande:* and \**ande:*. Data presented by Mills (1975:723) shows that reflexes with and without /*k*/ are found throughout South and Central Sulawesi. Example (22) lists derivations found in Seko Padang. Only the last three items have the /*k*/ reflex.

(22)	<i>m-anne:</i>	‘eat (intransitive)’
	<i>maN-anne:</i>	‘eat (transitive)’
	<i>maN-anne-i:</i>	‘eat from’
	<i>maN-pa-anne:</i>	‘feed to’ <i>mampaanne: saha asungku</i>
	<i>maN-pu-m-anne:</i>	‘have appetite for’
	<i>paN-anne:</i>	‘side dish’ (Mal <i>lauk pauk</i> )
	<i>anne-ang</i>	‘plate, food’
	<i>ka-m-anne-ang</i>	‘board (as in, “room and board”)’
	<i>pa-anne:</i>	‘able to cut’
	<i>pi-anne:</i>	‘eater, (house on) fire’
	<i>k-in-anne:</i>	‘cooked rice, food’ (-in- infix)
	<i>maN-pa-kanne:</i>	‘feed’
	<i>maN-paN-pa-kanne:-ing</i>	‘feed with’

### 3.3 PMP \**q*

PMP \**q* is lost root initially in PSek (23), and root medially (24). In some words, \*-*q*-metathesized with the final vowel which then became lengthened in PSek (25). For a description of word final \**q*, see §3.14.

(23)	PMP		PSek	
	* <i>qanitu</i>	‘spirit, soul’	* <i>anitu</i> SekP	‘spirit, ghost, goblin’
	* <i>qahəlu</i>	‘rice pestle’	* <i>alu</i>	
	* <i>quban</i>	‘gray hair’	* <i>uban</i> SekP	
(24)	* <i>laqia</i>	‘ginger’	* <i>laia</i>	
	* <i>bituqən</i>	‘star’	* <i>bintoəŋ</i>	
	* <i>paqit</i>	‘bitter’	* <i>mi-pai?</i>	
	* <i>buqaya</i>	‘crocodile’	* <i>buaya</i>	
	* <i>tuqəD</i>	‘tree stump, stubble’	* <i>toa?</i>	‘base of tree’
(25)	* <i>ma-tuqah</i>	‘mature, old’	* <i>ma-tua:</i>	‘mature, old, hard’
	* <i>taqi</i>	‘feces’	* <i>tai:</i>	also, ‘guts’
	* <i>paqa</i>	‘thigh’	* <i>paa:</i>	[but, <i>paa</i> archaic, <i>paanna</i> ]



### 3.4 PMP \*b

PMP \*b is reflected in PSek as \*b and \*h in both initial and medial positions. No variation is found between /b/ and /h/ reflexes in Seko languages, so all PMP \*b that became PSek \*h, presumably through transitional \*w, happened pre-PSek.

Two generalizations can be made. The first is that PMP \*bVb- sometimes became PSek \*bVh- and sometimes \*hVh-, but never \*hVb-. So in (28) we find PSek reflexes \*bahi and \*baha, but never anything of the pattern \*\*habi or \*\*haba.

The second generalization is that many PSek words with intervocalic \*b can trace back to something that blocked the shift to \*h, for example a consonant cluster (29b-c). Other intervocalic /b/ words in Seko languages follow a frozen PMP prefix (29d). Finally, some words had sound changes happen after PMP \*b went to \*h intervocalically, and missed the shift, for example, metathesis (29e), and loans, like (29f).

In conclusion for PMP \*b, besides the intervocalic environment in general, no other conditioning factor is evident for the shift toward Proto Seko \*h. In many cases, the shift to \*h, or lack thereof (29g, 29h), remains unexplained.

	PMP		PSek *h word medial
(26)	*təbuh	‘sugar cane’	*tùhu
	*bibiR	‘lip’	*hihi ‘edge, perimeter’
	*tabuni	‘afterbirth, placenta’	*tahuni SekP
	*babaw	‘above’	*i-aho
	*bubu	‘fish trap’	*huhu
	PMP		PSek *h word initial
(27)	*batu	‘stone’	*hatu
	*bulan	‘moon’	*hulan
	*bulu	‘body hair, feathers’	*hulu
	*buluq	‘slender bamboo’	*hulo:
	PMP		PSek *b word initial
(28)	*babuy	‘pig’	*bahi
	*baba	‘carry’	*maN-baha
	*bənaŋ PWMP	‘thread’	*bànaŋ
	PMP		PSek *b word medial
(29)	a. *baqbaq	‘mouth’	*baba: ‘door’
	b. *ti(m)baR PIn	‘throw’	*maN-tibe ‘throw away’
	c. *bəlbal	‘plugged, stupid’	*bebe SekP ‘mute, stupid’
	d. *banban	‘butterfly’	*kalibambaŋ
	e. ?*bu(ŋ)kuj Mills	‘back’	*kebo? u > e unexplained
	f. *tabaro? PKP	‘sago palm’	<sup>x</sup> tabaro: expected r > ∅
	g. *sa-Ribu Dahl	‘thousand’	*sàbu
	h. *təbək	‘pierce, stab’	*maN-tòbok ‘poke’
			tobok ‘kris’ [borrowed]
			maN-tobok ‘stab’ [ " ]

### 3.5 PMP \*d

PMP \*d went to \*r in PSek, but some words apparently never made the shift. Perhaps the migration/shift was incomplete at that point. The migration was more complete word medially than word initially. Example (30) shows root initial \*d > \*r, and (31) word medial.

	PMP		PSek	
(30)	* <i>dasan</i> PIn '81	‘house’	* <i>rasaŋ</i>	
	* <i>dakit</i>	‘raft’	* <i>raki?</i>	
	* <i>dapuR</i>	‘hearth’	* <i>rapu</i> SekP	‘clan’, (‘hearth’ - Lodang’)
			<sup>x</sup> <i>dapo?</i> SekP	‘hearth’ (later loan)
(31)	* <i>tuduR</i>	‘sleep’	* <i>ma-turu</i>	‘lie down’
	* <i>kudən</i>	‘cooking pot’	* <i>koriŋ</i>	
	* <i>adəp</i> PWMP	‘chest’	* <i>aru?</i>	
	* <i>ŋuda</i> dbl	‘young’	* <i>ma-ŋura</i>	

The most common exception is where PMP \*d remained \*d in PSek (32, 33). I know of no explanation for root initial \*d to remain, except that it is more resistant to change than in the medial position, the same phenomenon we observed for PMP \*b (§3.4). Root medially, however, the \*d can be explained. The shift was probably blocked when following a consonant. In (33a) the pattern is clear. Probably (33b) and (33c) were inherited from the forms that had a consonant cluster, where the \*n consequently got dropped after the \*d-to-\*r shift took place.

	PMP		PSek	
(32)	* <i>duha</i>	‘two’	* <i>i-dua</i>	[note: <i>karo'a</i> : ‘eight’]
	* <i>dahun</i>	‘leaf’	* <i>dauŋ</i>	
	* <i>duluR</i>	‘accompany’	* <i>maN-dulu</i>	‘work together, help’
	* <i>duRi</i>	‘thorn’	* <i>dui</i>	
	* <i>datu?</i> Zorc '95	‘chief’	* <i>datu:</i>	‘king’
(33)	a. * <i>tanduk</i>	‘horn’	* <i>tanduk</i>	
	b. * <i>pa(n)daŋ</i> Mills	‘meadow’	* <i>padaŋ</i>	
	c. * <i>sə(n)du</i> PAn	‘hiccup’	* <i>sudu</i> SekP	

Another exception is where PMP \*d went to \*l in PSek (34a). The shift probably went through an intermediate stage \*r, and then assimilated to the medial \*l. \*d > \*r > \*l.

A related word (34a) may be inherited through another route. I posit that \*d and \*l metathesized pre-PSek, and no assimilation took place, resulting in \**kaladuŋ* ‘deep’. Indeed, in Seko Tengah, *kaladuŋ* and *kadaŋ* are alternate forms with the same meaning. The variance between \*i in \**i-laliŋ* and \*u in \**kaladuŋ* is unexplained in the final syllable.

(34)	a. * <i>daləm</i>	‘inside, deep’	* <i>i-laliŋ</i>	‘inside’
	a’.		* <i>ka-daluŋ</i> , * <i>ka-laduŋ</i>	‘deep’

### 3.6 PMP \*r

PMP \*r became \*∅ in PSek (35), so it seems to act like PMP \*R (§3.10). Nevertheless, I am treating it in its own section. Many PMP \*r words have no traceable cognate in PSek.

	PMP		PSek	
(35)	*rəbuŋ	‘bamboo shoot’	*ohoŋ	‘shoot of palm or rattan’
	*birit	‘rear end, buttocks’	*bii?	
	*baraŋ	‘perhaps, if’	*haŋ-kàli?	‘perhaps, in case’
	*garus, karus, gaut, kaRus, kaRud	‘scratch, scrape’	*kau? SekP	‘deed’
				[semantic connection?]
		Pin ?*ga(hø)u(k?)		‘work, do’ (Mills 1981)

### 3.7 PMP \*Z

The pattern for PMP \*Z is rather clear. It became \*d in PSek word initially (36), and \*r word medially (37).

In (37e-g), \*Z did not become \*r medially because it was blocked by the nasal in the consonant cluster. However, \*nZ went to \*nd before the nasal was lost, perhaps indicating that \*d was a transitional form in all \*Z words that went to \*r.

	PMP		PSek	
(36)	*Zalan	‘path, road’	*dalaŋ	
	*ZaRum	‘needle’	*mu-dauŋ	‘sew’
	*Zaŋaw PWMP	‘paddy-bug’	*daŋo	‘stinkbug’
(37)	a. *quZan	‘rain’	*uraŋ	
	b. *tuZuq Zorc '71	‘point out’	*maN-turo:	
	c. *taZəm	‘sharp’	*pa-taruŋ	
	d. *ma-Zauq	‘far’	*ka-rao:	[frozen prefix]
	e. *hinZam PWMP	‘borrow, lend’	*indaŋ	‘debt’
	f. *tənZəg	‘upright, erect’	*tède?	‘stand’
		‘stand erect’		
	g. *inZak	‘step on, tread on, trample’	*idak SekP	

### 3.8 PMP \*g

Few Seko words reflect inherited PMP \*g. Whatever there are in PMP become \*k in PSek, which has no \*g.

	PMP		PSek	
(38)	*gəndaŋ Demp	‘drum’	*kandaŋ	
	*gənaŋ Demp	‘complete, enough’	*kàna?	
	?*gunaq Pin Mills	‘name’	*kona:	
	?*gumaq < *Rumaq	‘sheath’	*kuma:	Mmj guma

?*ga(m)bun Mills < *Rabun	‘cloud’	*kahuŋ	PSad *gawun
?*si(ŋ)gaq Mills	‘stop by, visit’	*mi-siŋka: SekP	
?*sugiR PIn	‘rich’	*suki? SekP	*R > *? irregular
---	‘what’	*aka	PSS *aga

### 3.9 PMP \*N

PMP \*N is reflected as \*n (39) in PSek in the very few correspondences that exist. Several words with PAN \*N already have doublets or another reconstructed form without \*N in the lower PMP node. Wherever PSek does not reflect PMP \*N as \*n, there is already another doublet that it corresponds to. So in example (40), PSek \*lite: corresponds to the doublet without the \*N.

(39)	PMP *ma-Najam PAN	‘accustomed to, tame’	PSek *ma-naraŋ	‘smart, clever, skilled’
(40)	*Nitəq, *litəq	‘sap of tree or plant’	*lite: SekP	‘sticky sap’
(41)	*Nabuq Dahl, *nabuq	‘drop, fall’	*mi-naho:	‘slip and fall while walking’

### 3.10 PMP \*R

Most reflexes of PMP \*R have become \*∅ in PSek, whether initially (42), medially (43), or finally (§3.14), such that exceptions present themselves as candidates for loans. For example *ura?* at the end of (43) would be a loan.

(42)	PMP *Rusuk Demp *Ratus	‘rib’ ‘hundred’	PSek *osok *atu?	‘rib, side’ [PSS *rusuk] [PSS *ratus]
(43)	*maRi *laRiw *bəRas *daRaq *duRi *ZaRum *qasiRa *suRuq Zorc '95 *bəRŋi *bəRsay *ma-Ruqanay *uRat PWMP	‘come here’ ‘flee’ ‘rice’ ‘blood’ ‘thorn’ ‘needle’ ‘salt’ ‘command, order’ ‘night’ ‘paddle’ ‘male’ ‘vein, root’	*mai *ma-lai *hea? *raa: *dui *mu-dauŋ *sia *maN-suo: *heŋi *(pi-)bose *muane *oa? ura? SekP	‘sew’ ‘root, vein, tendon’ ‘lines in palm of hand’

However, there are a few exceptions, and they merit mention. It's hard to conceive of *harani* being a loan in Seko Padang (44a), but the /r/ is unexpected. Perhaps  $*R > *r$  at some point between PMP and Psek.<sup>6</sup> The same goes for  $*kairi$ ,  $*rea:$ , and  $*ma-ràba:$  (44b-d). Either they were borrowed early on, or  $*R > *r$  in these words pre-Psek.

- (44) a.  $*baRanih$  PWMP 'brave, bold, dare'  $*harani$  SekP 'bold, daring, savage'  
 b.  $*ka-wiRi$  'left side'  $*kairi$   
 c.  $*Riaq$  Zorc '95 'sword grass'  $*rea:$   
 d.  $*Rəbaq$  Zorc '71 'destroy'  $*ma-ràba:$  SekP 'broken'

### 3.11 PMP $*w$

PMP  $*w$  is quite straightforward, going to Psek  $*h$  (45). However, there are a few words where the  $*w$  gets lost or is reflected as  $*u$  (46), of which I list all known reflexes. So, in (46a)  $*w > *∅$ , in (46c)  $*w > *u$ , etc.

- |      |                  |                                 |   |                            |
|------|------------------|---------------------------------|---|----------------------------|
|      | PMP              |                                 | Psek  |                            |
| (45) | $*sawa$          | 'python'                        | $*saha$   |                            |
|      | $*tawa$          | 'laugh'                         | $*ma-taha$                                      |                            |
| (46) | a. $*wada$       | 'be, exist, have, wealthy'      | $*ara$  | $*w > *∅$                  |
|      | b. $*ka-wiRi$    | 'left side'                     | $*kairi$  | $*w > *∅$                  |
|      | c. $*wasay$      | 'axe'                           | $*uase$   | $*w > *u$                  |
|      | d. $*wahiR$      | 'water (fresh)'                 | $*uhai$   | $*w > *uh$                 |
|      | e. $?*watɨR$ PIn | 'sago grub'                     | $*uhati$  | $*w > *uh$                 |
|      | f. $*quay$       | 'rattan'                        | $*uhe$ [ $*h$ suggests $< ?*quway$ or $?*way$ ] |                            |
|      | g. $*ka-wanan$   | 'right side'                    | $*kuanay$                                       | $*a-w > *u$                |
|      | h. $*baway$      | 'open expanse of land or water' | $*hauy$   | 'river, stream' $*wa > *u$ |

### 3.12 PMP $*j$

PMP  $*j$  went to Psek  $*r$  (47) via intermediate  $*d$ .  $*j > *d > *r$ . The shift  $*d > *r$  got blocked in nasal clusters (48) just as it did for PMP  $*d$  and PMP  $*Z$ . And,  $*r$  assimilated to  $*l$  in the environment of  $*l$  (49). Example (50) could be taken as a counterexample to the pattern, but more likely it is indirectly inherited through a form without  $*j$ .

I'd like to mention two possible routes for the process of PMP  $*qaləjaw$  going to Psek  $*àlo$  (49). Predictable consonant changes, if they all happened first, would have  $*qaləjaw > *aləlo$ . Through predictable vowel changes, assuming regressive assimilation, we get  $*aləlo > *alàlo$ . Dropping either  $*l$  plus a contiguous  $*a$  would leave  $*àlo$ . However, I don't know of traces in any language that support those intermediate steps. Alternatively, the process might have gone through the following sequence:  $*qaləjaw > *aldo > *adlo > *àlo$ . That is more likely, based on

<sup>6</sup> PKP  $*warani$  also exhibits an  $*R > *r$  irregularity in this word.

traces from existing languages, to wit, Ram *ando*, Kalao and Laiyolo *ajo* (< ?\**alyo* Mead 2003:134), Kapampangan *aldo*, Ceb *adlaw*. Mills (1975:696) reconstructed \**ɪzo* for PSS.

PMP \**j* unexpectedly becomes \**l* in the cognate pair \**ijun* > \**ilon* (50a). But Seko is not alone; several South Sulawesi languages and Bada' share this anomaly. The reflex begs for an etymon like \*\**idluŋ* or \*\**əluŋ*.

	PMP		PSek	
(47)	* <i>pija</i>	‘how much?’	* <i>pira</i>	‘how many?’
	* <i>suja</i> Zorc '95	‘pitfall spike’	* <i>sura</i>	‘thorn’
	* <i>ma-dajəm</i>	‘have chills’	* <i>mi-raruŋ</i> SekP	‘feel cold’
	* <i>pajay</i>	‘rice plant’	* <i>pare</i> Bbd	‘year’ Psn
	* <i>qapəju</i>	‘gall (bladder), bile’	* <i>puru</i>	[* <i>a</i> > * <i>∅</i> ]
	* <i>qujiŋ</i>	‘charcoal’	* <i>oriŋ</i>	
(48)	* <i>li(n)juq</i> Mills	‘front, forehead’	* <i>lindo:</i>	‘forehead’
	* <i>huaji</i> , * <i>ha(n)ji</i> Mills	‘younger sibling’	* <i>adi</i>	
(49)	* <i>qaləjaw</i>	‘day’	* <i>əlo</i>	
	* <i>laja</i> Demp	‘burn (a wound) be hot (spices)’	* <i>mi-lalaŋ</i> SekP	[* <i>∅</i> > <i>ŋ</i> , perhaps a loan] ‘ginger’ Psn, Bdb
(50)	* <i>ijun</i>	‘nose’	* <i>ilon</i>	[expected < ?* <i>əluŋ</i> or ?* <i>idluŋ</i> ]
	* <i>ilon</i> PSS		<i>illon</i> in Dur, Klp, Rkg	

### 3.13 Nasal Clusters

Sequences of nasal plus stop in PMP are retained in PSek, with the nasal assimilated in point of articulation to the following stop. All nasal clusters in PSek are word-medial. No words begin with a pre-nasalized consonant. For an illustration of what happens to PMP non-nasal clusters, see §4.2.1.3.

	PMP		PSek	
(51)	* <i>ampu</i>	‘grandparent, grandchild’	* <i>ampe</i>	[unexplained * <i>u</i> > * <i>e</i> ]
	* <i>kambaŋ</i>	‘bloom, well up, swelling’	* <i>kambaŋ</i>	‘swollen’
	* <i>punti</i>	‘banana’	* <i>punti</i>	
	* <i>diŋdiŋ</i>	‘wall’	* <i>rindiŋ</i>	
	* <i>andap</i> PWMP	‘luminous millipede’	* <i>anda?</i>	
	* <i>laŋkaq</i>	‘step, stride’	* <i>laŋka:-laŋka:</i>	‘spider’

### 3.14 Final Consonants

All the word-final consonants in PMP are reduced to three in PSek, plus one prosodic feature of length on final vowels, as illustrated in Table 2. The rest have been dropped. PMP \**-l* has reflexes of \**ŋ*, \**l*, and \**∅*, but without a clear pattern. Final \**-w* and \**-y* are treated under diphthongs (§4.1).

Table 2. Proto Seko word-final consonants

PMP	*p, t, b, d, g, s, j, r?	*m, n, ŋ, l	*k	*q, l?	*l, R, r?, h
PSek	*ʔ	*ŋ	*k	*:	*∅

(52)	PMP		PSek	
	*qatəp	‘roof’	*atuʔ	
	*laŋit	‘sky’	*laŋiʔ	
	*-b		no known correspondence	
	*sabuD	‘sow, scatter’	*maN-sahuʔ	
	*ma-panas	‘warm, hot’	*ma-panaʔ	‘sick, in pain’
	*palaj	‘palm, sole’	*palaʔ	
	*ənəm	‘six’	*ùnunŋ	
	*quZan	‘rain’	*uraŋ	
	*katəl	‘itch’	*mi-katiŋ	
	*tasak	‘ripe’	*tasak	‘done cooking’
	*puluq	‘ten’	*pulo:	
	*buaq	‘fruit, areca palm and nut’	*hoa:	‘fruit’
			*bua:	‘areca palm and nut’ [metathesis]
	*tuqah	‘old’	*ma-tua:	
	*pul Zorc	‘blunt, dull’	*pompo:	
	*bəlbal	‘plugged, stupid’	*bebe SekP	‘mute, stupid’
	*qatəluR	‘egg’	*tulu	
	*naquR PPh	‘descend’	*nau:	‘go downhill/ downstream’
	*-r		no known correspondence	
	*ilah	‘wild’	*ma-ila	

The only known sources of *-r* > *-ʔ* are loans, like *pasa* ‘market’ < *pasar* (Mal) and *kolla pasi* ‘granulated sugar’ < *gula pasir* (Mal). If the latter were inherited from PMP *\*pasiR*, we should get *pasi*, but we do not. It is my guess that PMP *\*-r* became *\*-∅*, like *\*-R* did, and not *\*-ʔ*, like in loans, but so far I have not found any clear cognate pairs.

There are a couple of words where *\*-R* unexpectedly became *-ʔ* in SekP (53). *damaʔ* ‘resin’ is probably a loan from Malay *damar*, from when its economic importance was introduced. Because of the glottal, *ma-tahaʔ* could be classified a loan, but it can also be explained by differentiation to avoid a homonym, because *ma-taha* already means ‘laugh’.

(53)	*damaR Zorc '95	‘resin’	<i>damaʔ</i>	[expected <i>dama</i> ]
	*tabaR	‘flat, tasteless’	<i>ma-tahaʔ</i>	[expected <i>ma-taha</i> ]

## 4. Vowels, from PMP to Proto Seko

### 4.1 Regular changes

The regular changes of vowels and diphthongs are presented in Table 3, followed by examples (54). PMP \*ə will be treated separately, beginning in §4.2.2.

Table 3. Unconditioned sources for Proto Seko vowels and diphthongs

PMP	*i	*a	*u	*-iw	*-aw	*-ay	*-uy
PSek	*i	*a	*u	*-i	*-o	*-e	*-i

(54)	PMP		PSek	
	* <i>taliŋa</i>	‘ear’	* <i>taliŋa</i>	
	* <i>buni</i>	‘hide’	* <i>miN-ka-buni</i> (vi), <i>maN-huni</i> (vt)	
	* <i>pitu</i>	‘seven’	* <i>pitu</i>	
	* <i>kahiŋ</i>	‘wood’	* <i>kayu</i>	[rule ordering applies]
	* <i>baliŋ</i>	‘dual division, moiety’	* <i>hali</i>	‘in balance’
	* <i>pisaw</i>	‘knife’	* <i>piŋo</i>	‘machete’
	* <i>matay</i>	‘die’	* <i>mate</i>	
	* <i>babuy</i>	‘pig’	* <i>bahi</i>	

## 4.2 Conditioned vowel changes

### 4.2.1 Vowel lowering

When I refer to vowel lowering, I mean to account for PSek reflexes \*e and \*o, inherited from PMP \*i and \*u respectively, beyond what was already described in §4.1. There are many /o/s and /e/s in Seko languages, and it’s difficult to account for them all, but I will describe what patterns I can. We will start with one of the clearer conditioning environments for vowel lowering, PMP \*-q.

#### 4.2.1.1 Lowering before \*-q

We saw in §3.14 how PMP \*-q is reflected as length on final vowels in Seko languages. In addition to length, high vowels get lowered, with the result that PMP \*-iq > \*-e: and \*-uq > \*-o: (55).

(55)	* <i>uliq</i>	‘return home, return something; restore, repair; repeat; motion to and fro’	* <i>ule:</i>
	* <i>pusuq</i>	‘heart’	* <i>puso:</i>
	* <i>tu(m)buq</i>	‘sprout, grow’	* <i>tuho:</i>
	* <i>bunuq</i>	‘kill’	* <i>buno:</i>
	* <i>qipuq</i>	‘tree with poison sap’	* <i>ipo:</i>



#### 4.2.1.2 Lowering of \*u before \*-ŋ

PMP \*u became \*o in PSek before PMP \*-ŋ, but not before PMP \*-m or \*-n.<sup>7</sup>

(56)	<i>*ijun</i>	‘nose’	<i>*ilon</i>	
	<i>*asun</i> PWMP	‘rice mortar’	<i>*ison</i>	
	<i>*rəbun</i>	‘bamboo shoot’	<i>*ohon</i>	‘shoot of palm or rattan’
	<i>*lutun</i>	‘monkey’	<i>*ma-loton</i>	‘black’
	<i>*ZaRum</i>	‘needle’	<i>*mu-dauŋ</i>	‘sew’
	<i>*dahun</i>	‘leaf’	<i>*dauŋ</i>	

#### 4.2.1.3 Lowering in reduplicated monosyllabic roots

A PMP C<sub>1</sub>C<sub>2</sub> consonant cluster in reduplicated monosyllabic roots becomes C<sub>2</sub> in PSek, provided C<sub>1</sub> is not a nasal. Nasal consonants are retained. Often the preceding vowel becomes lowered and/or sometimes takes on the quickness feature.

(57)	<i>*kitkit</i>	‘bite’	<i>*maN-keki?</i>	
	<i>?*kuhkuh</i>	‘scrape’	<i>*maN-koko</i>	SekP ‘reach inside and take, or fondle’
	<i>*tuktuk</i>	‘knock, pound, beat’	<i>*maN-tùtuk</i>	SekP ‘pound into pieces’
	<i>*bukbuk</i>	‘weevil, dust produced by weevil’	<i>*bubuk</i>	SekP ‘frass, leavings’
	<i>?*maN-bukbuk</i>	?’bore’	<i>*maN-bobok</i>	SekP ‘dig horizontally’
	<i>*suksuk</i>	‘stab’	<i>*maN-sosok</i>	SekP ‘insert, circulate’ [cognate?]
	<i>*pulpul</i> Zorc	‘blunt, dull’	<i>*pompo:</i>	

#### 4.2.1.4 Lowering word initially in the environment of \*R

Vowels in PSek have been lowered in word initial position where contiguous to a PMP \*R. This happens in only two or three words, but there appear to be no counterexamples. \*R does not lower vowels in other word environments. While we cannot really say that \*ə is ‘lowered’ to \*o in (58c), neither does it completely harmonize with \*u (see §4.2.2). It is reasonable to ask whether \*-k might be the determining factor, but there are counterexamples where \*-uk is not lowered. Since the evidence is slight, it might even be better to conclude that these examples only represent spontaneous innovation.

(58)	a.	<i>*Rusuk</i>	‘rib’	<i>*osok</i>	‘rib, side’
	b.	<i>*uRat</i>	‘vein, tendon’	<i>*oa?</i>	also, ‘root, vine’
	c.	<i>*rəbun</i>	‘bamboo shoot’	<i>*ohon</i>	‘shoot of palm or rattan’

#### 4.2.1.5 Lowering in the environment of PMP \*ə

Independent of how \*ə gets reflected segmentally in PSek, PMP \*i and \*u become lowered when followed by \*ə. This is height assimilation.

<sup>7</sup> This analysis is tentative, however, and not without counter-examples, like PMP \*patuŋ ‘large, thick, bamboo sp’ > PSek \*pantuŋ. I haven’t had opportunity to investigate whether this might be a loan.

In (59e), *\*toa?* could reflect either of the two etyma, but *\*tuqəD* is preferable because the *\*-əR-* combination in other words is usually reflected as *\*-e-* (§4.3.3.4). If that applied here, *\*təRas* would be reflected *\*\*tea?*

(59)	a.	<i>*inəm</i>	‘drink’	<i>*m-enuŋ</i>	<i>*i &gt; *e</i>	<i>*ə &gt; *u</i>
	b.	<i>*ipəs</i>	‘cockroach’	<i>*epi?</i> SekP	<i>*i &gt; *e</i>	<i>*ə &gt; *i</i>
						‘small cockroach sp’
	c.	<i>*kudən</i>	‘cooking pot’	<i>*korinŋ</i>	<i>*u &gt; *o</i>	<i>*ə &gt; *i</i>
	d.	<i>*bituqən</i>	‘star’	<i>*bintoey</i>	<i>*u &gt; *o</i>	<i>*ə &gt; *e</i>
	e.	<i>*tuqəD</i>	‘stump’	<i>*toa?</i>	<i>*u &gt; *o</i>	<i>*ə &gt; *a</i>
		<i>*təRas</i>	‘heartwood’			‘trunk, base (of tree)’, Mal <i>pangkal</i>

#### 4.2.2 Vowel harmony in reflexes of PMP *\*ə*

Besides vowel lowering, the only conditioned vowel change I am aware of for PSek is vowel harmony. In this set of reflexes, which has well-attested correspondences, the PSek reflex of *\*ə* harmonizes with the other vowel in the word (60). It appears that the neighboring vowel is a strong conditioning factor. Notice that the reflex in a penultimate (stressed) syllable has quickness, marked by a grave accent.

(60)	PMP		PSek	
	<i>*təbuh</i>	‘sugar cane’	<i>*tùhu</i>	
	<i>*qatəluR</i>	‘egg’	<i>*tùlu</i>	
	<i>*bənaŋ</i>	‘thread’	<i>*bànaŋ</i>	
	<i>*təlaŋ</i> PWMP	‘bamboo sp’	<i>*təlaŋ</i>	
	<i>*baləs</i>	‘reciprocate’	<i>*maN-balaʔ-i</i>	
			<i>maN-balaʔ</i>	‘buy’
	<i>*bətis</i>	‘calf of leg’	<i>*bìti?</i>	
	<i>*pənuq</i>	‘full’	<i>*pùno:</i>	
	<i>*kəmiq</i>	‘urinate’	<i>*təme:</i>	‘urine’ [no quickness] [*k > *t unexplained]
	<i>*sədut</i> PWMP	‘sip, suck’	<i>*sùru?</i>	‘sip, suck, slurp, inhale’
	<i>*qapəju</i>	‘gall (bladder), bile’	<i>*pùru</i>	
	<i>*si(n)jəm</i>	‘ant sp’	<i>*sirinŋ</i> SekP	

#### 4.3 Unconditioned vowel changes

The rest of the vowel changes from PMP to PSek are unconditioned, as far as I can tell, although I suggest some possibilities related to conditioning that could be investigated further. Perhaps the reader can pick out a pattern that has escaped the author’s notice. Sporadic vowel lowering (§4.3.1) is a tendency, and most of the other changes are the various reflexes of *\*ə* not following the pattern of vowel harmony presented in §4.2.2. Each reflex of *\*ə* will be presented in its own section. I try to limit my discussion to patterns, and place comments relating to specific etyma under their reconstructed forms in §7.

### 4.3.1 Unconditioned vowel lowering

#### 4.3.1.1 PMP \*u > PSek \*o

Vowel lowering in (61a) and (61b) should not be explained by \*q- and \*-q-, for they are not lowering environments for PSek, and there are several counterexamples. I am inclined to suggest reconstructing the second vowel in those etyma to \*ə for a smoother reflection of the PSek, i.e., ?\*qujəŋ (dbl \*qajəŋ already reconstructed, Blust ACD) and ?\*quqəs. Such reconstructions would allow those correspondences to be characterized as having ‘conditioned vowel changes’ (§4.2.1.5)

Reconstructing PMP \*kukud as ?\*kudkud (see §4.2.1.3) or ?\*kukəd would also allow this cognate pair (61c) to be characterized as having a ‘conditioned vowel change’.

In (61d), \*u could be lowered due to the presence of \*-q (see §4.2.1.1), even though they are not contiguous, and the same for \*i in (62a).

	PMP		PSek	
(61)	a. *qujiŋ	‘charcoal’	*oriŋ	
	b. *ququs	‘chew sugarcane’	*mu-oi?	
	c. *kukud	‘shank or hoof of animal’	*koko?	‘leg and foot’
	d. *luaq Dyen	‘expel from mouth’	*loa:	‘spit out s.t.’

#### 4.3.1.2 PMP \*i > PSek \*e

Etyma in (62) have \*i preceding \*u. This could be a pattern of dissimilation of high vowels.

(62)	a. *hinuq	‘beads’	*eno: SekP	‘necklace’
	b. *iluR	‘saliva’	*elu SekP	
	c. *inum	‘drink’	*enuŋ	

And the lowering continues. Among Seko languages, PSek \*u in \*manuk ‘chicken’ is reflected as /u/ in Panasuan, but as /o/ in the other three. \*tau ‘person’ is contracted to an unstressed, prefixal form *to* in Seko Tengah, but *tu* in the other three. Intransitive verbal prefixes *mu-*, *mi-*, *miN-*, and *ti-* have become *mo-*, *me-*, *meN-*, and *te-* in Seko Tengah, but then the pattern of vowel reduction is only natural in pre-penultimate position (Sirk, p 60).

### 4.3.2 Sporadic changes from PMP \*i, \*a, and \*u

PSek \*titi? would fit better if PMP \*titis (63) were reconstructed ?\*tətis, ?\*təstəs, or ?\*tistis.

(63)	*titis	‘drip’	*titi?	‘drop’	[*i > *i]
------	--------	--------	--------	--------	-----------

Vowels in the antepenultimate position can be ‘weak’ and easily influenced by their environment. That might be why \*a > \*u in (64), due to the influence of \*b.

(64)	*balaqih	‘co-parents-in-law’	*bulai	[*a > *u]
------	----------	---------------------	--------	-----------

In Seko, \*ampe is distinct from \*ampu (65a). \*u > \*e is unexplained.

- (65) a. dbl \*əmpu ‘grandparent, grandchild’ \*ampe [*\*u > \*e*]  
 a'. \*əmpu ‘owner’ \*ampu  
 b. \*hutək ‘marrow, brain’ \*etik [*\*u > \*e*]

### 4.3.3 Unconditioned reflexes of PMP \*ə

In this section, unconditioned reflexes of etyma having PMP \*ə are presented, a separate subsection for each Psek reflex \*a, \*i, \*u, \*e, and \*o. Conditioned reflexes which follow the pattern of vowel harmony were already presented in §4.2.2.

\*ə is the mother chameleon of Proto Austronesian. Its reflexes blend into the phonological environment to the extent that it is difficult to even say when it is involved in an unconditioned sound change. Patterns do emerge, but are not as consistent as one might hope, and I prefer to call them tendencies. For example, \*ə tends toward being reflected as \*a in Psek, but the other vowels are also represented. Perhaps some tendencies will reveal secondary conditioning factors to the observant.

Keep in mind that a Psek reflex of \*ə in a penultimate (stressed) syllable usually has quickness, marked with a grave accent.

#### 4.3.3.1 PMP \*ə > \*a

- (66) \*gənap Demp ‘complete, enough’ \*kàna?  
 \*qənap CEMP ‘lie down to sleep’ \*m-àna? ‘quiet, still, at rest’  
 \*qənaŋ PMP ‘quiet, still, at rest’ [*ŋ > ?* irregular]  
 \*təktək ‘cut (wood)’ \*tatak SekP ‘chop up for cooking’  
 \*bətik ‘tattoo’ \*bàtik SekP ‘speckled, blotched’  
 \*ma-əmis ‘sweet (taste)’ \*màmi? ‘delicious’  
 \*təlu ‘three’ \*i-tàlu  
 \*əmpu ‘grandparent, grandchild’ \*ampe  
 \*əmpu ‘owner’ \*ampu  
 \*tuqəD ‘tree stump, stubble’ \*toa? ‘base of tree’

#### 4.3.3.2 PMP \*ə > \*i

\*s could be a conditioning environment for PMP \*ə becoming \*i in Psek. Other possible consonants to consider as conditioning environments are \*l, \*t, and \*j.

- (67) \*səpsəp ‘suck’ \*sisi? ‘suck on’  
 \*pəsəq Zorc ‘break, broken’ \*pìse:  
 \*saləR ‘floor’ \*sali  
 \*katəl ‘itch’ \*mi-katiŋ  
 \*daləm ‘inside, deep’ \*i-laliŋ ‘inside’  
 \*laləj n ‘fly’ \*dali? [expected \*lali?]  
 \*ikəj PWMP ‘cough’ \*m-ei?  
 \*ipəs ‘cockroach’ \*epi? SekP \*i > \*e \*ə > \*i  
 ‘k.o. small cockroach’  
 \*litəq ‘sap of tree or plant’ \*lite: SekP ‘sticky sap’  
 \*lisəhaq ‘nit, louse egg’ \*lise:  
 \*kudən ‘cooking pot’ \*koriŋ

<i>*hutək</i>	‘marrow, brain’	<i>*etik</i>
<i>*əsuj</i> PWMP	‘rice mortar’	<i>*isoŋ</i>
<i>*əjuŋ</i>	‘nose’	<i>*iloŋ</i>

#### 4.3.3.3 PMP \*ə > \*u

The reflexes in (68) indicate that PMP \*e in the environment of \*m or \*p > Psek \*u.

(68)	<i>*ənəm</i>	‘six’	<i>*ùnunŋ</i>	
	<i>*əpat</i>	‘four’	<i>*ùpaʔ</i>	
	<i>*daləm</i>	‘inside, deep’	<i>*ka-laduŋ</i>	‘deep’
	<i>*ma-dajəm</i>	‘have chills’	<i>*mi-raruŋ</i>	‘feel cold’
	<i>*taZəm</i>	‘sharp’	<i>*pa-taruŋ</i>	
	<i>*adəp</i> PWMP	‘chest’	<i>*aruʔ</i>	
	<i>*qatəp</i>	‘roof’	<i>*atuʔ</i>	
	<i>*inəm</i>	‘drink’	<i>*maN-enunŋ</i>	

#### 4.3.3.4 PMP \*ə > \*e

(69)	<i>*bəlbal</i>	‘plugged, stupid’	<i>*bebe</i> SekP	‘mute, stupid’
	<i>*tənZəg</i>	‘upright, erect’	<i>*tèdeʔ</i>	‘stand’
	<i>*bəRas</i>	‘rice between harvesting and cooking’	<i>*heaʔ</i>	
	<i>*əZan</i>	‘notched log ladder’	<i>*ereŋ</i> SekP	‘ladder, stairs’
	<i>*bəRŋi</i>	‘night’	<i>*heŋi</i>	
	<i>*bənut</i>	‘husk’	<i>*benuʔ</i>	
	<i>*bituqən</i>	‘star’	<i>*bintoeŋ</i>	

#### 4.3.3.5 PMP \*ə > \*o

(70)	<i>*təbək</i>	‘pierce, stab’	<i>*maN-tòbok</i>	‘poke’
	<i>*bəRsay</i>	‘paddle’	<i>*(pi-)bose</i>	
	<i>*rəbuŋ</i>	‘bamboo shoot’	<i>*ohoŋ</i>	‘shoot of palm or rattan’

### 4.4 Evaluation of PMP \*ə

The complexity in the historical analysis required to account for correspondences of \*ə are disproportionately high in Seko compared to other issues. This seems unwarranted, and causes me to seek an explanation. Two possibilities for the complexity come to mind. The most likely is that, unlike Seko and South Sulawesi languages, many other languages have lost the contrasts necessary to directly reflect PMP \*ə, such that etyma with \*ə are more in need of revision than are etyma without \*ə. This seems to be the source of most of Proto Seko’s irregularities.

The second possibility lies in the nature of PAN \*ə itself. In order to explore that issue, let’s address the question, what is it that PAN \*ə contributes to the phonology that brings about such complexity to the reflexes in Psek, and other languages as well? And what does PAN \*ə have to do with vowel quickness in Psek? The answer that I think the Seko data shows us is that PAN \*ə carried a prosodic feature that is normally associated with closed syllables.

In fact, a possibility that toys at my mind is whether \*ə should be analyzed as a segmental phoneme at all. Rather, it could be viewed as a prosodic feature superimposed on the other three vowels \*i, \*a, and \*u. I'm not going to go there, however. I can't see the way out, and it is likely to be a fruitless pursuit. Let's just assume that PAn \*ə was a segmental phoneme, but I would add that it differed from the other vowels in that it had an associated prosodic feature, characterized by a truncated timing mora or absence of a coda blocker. What besides prosody could have possibly motivated formation of quick vowels (ambisyllabic consonants) in PSek, geminate consonants in South Sulawesi languages, schwa plus stress shift in Malay, and at least a portion of contrastive stress in Philippine languages. I cannot imagine that a simple segmental phoneme is capable of doing all that.

#### 4.5 Conclusions about Rule Ordering from PMP to Proto Seko

Our story about the sound changes from PMP to PSek would not be complete if we did not arrange them in a proposed chronological order. In Figure 2, tie bars connect ordered sound changes. There are a few minor internal conflicts between the data for supporting one order over against another, which cannot be resolved without further research. I'm sure the sequence will need to be reordered somewhat as genetic relationships are clarified for Sulawesi languages in time to come. Example (71) illustrates how rule ordering applies for PSek.

Consider the following subset of ordered rules, taken from Figure 2:

*R	> *∅	Loss
*-iq, uq	> *eq, oq	Lowering
*-qV	> *-Vq	Metathesis
*-q-	> *∅	Loss
*-q	> *-.:	Vowel length
*-C	> *-q <sup>8</sup>	Merger

(71)	*puluq 'ten'	>	*pulo:	not *pulu:
	*t-in-aqi 'guts'	>	*tai:	not *tai or *tae:
	*naquR 'descend'	>	*nau:	not *nau or *nao:
	*lanjit 'sky'	>	*lanjiq	not *lanji:

In another sequence of sound changes, it appears that a proto-form \*kanahaw 'sugar palm' (PWMP \*qanahaw) > \*kanaaw > \*kanaau > \*kanaqu > \*kanauq > \*kanau: (72). The crucial timing in this sequence is that the shift from -aaw to -aqu must have happened before the \*-aw > \*-o rule could apply (see Figure 2).

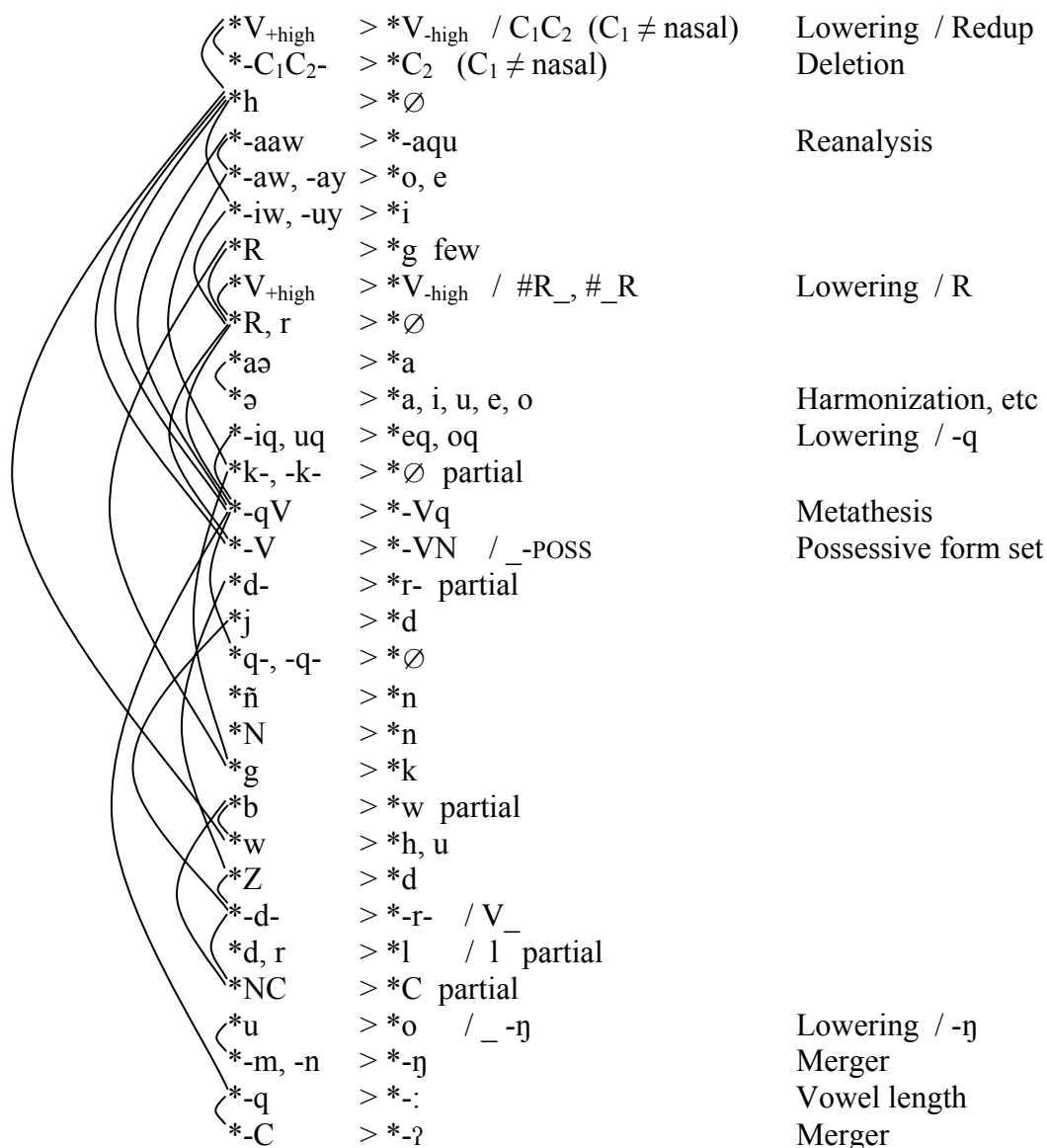
(72)	dbl ?*kanahaw 'sugar palm'	>	*kanau:	not *kanao
------	----------------------------	---	---------	------------

Examples in (73) were very possibly inherited indirectly through neighboring Central Sulawesi languages. They would have been borrowed after \*-uq > \*-oq, but before \*-q > \*-.:

<sup>8</sup> q = glottal, here and in \*lanjiq (71) and \*walesuq (73). It is written \*ʔ elsewhere in this paper for PSek, and in PKP it is written \*'.

- (73) no etymon found ‘rat, mouse’ <sup>X</sup>*balesu*: [PKP \**walesuq*]  
 \**suluq* ‘torch’ <sup>X</sup>*sulu*: SekP [expected *sulo*:]

Figure 2. Ordered sound changes, PMP to Proto Seko



PSek \**sumpi*: (74) was probably also borrowed, but from an unknown source. \**sumpit* > \**sumpiq* > \**sumpi*:. Cf PKP \**supi*'.

- (74) \**su(m)pit* ‘tongs’ <sup>X</sup>*sumpi*: [expected > \*\**sumpi*?]

## 5. From Proto Seko to the Present

How do the Seko languages today reflect Proto Seko? How are they related to one another? Table 4 presents the innovations.

**Table 4. Phonological innovations within the Seko group**

Language - Dialect	Proto Seko	Innovation	Example
Seko Padang	*- <i>V<sub>a</sub>k</i>	- <i>V<sub>a</sub>kV<sub>a</sub></i>	* <i>anak</i> > <i>anaka</i> ‘child’
Seko Padang	* <i>nd, mb</i>	<i>nn, mm</i>	* <i>rindiŋ</i> > <i>rinniŋ</i> ‘wall’
Seko Padang - Hono'	* <i>l</i>	l / V <sub>-front</sub> _V <sub>+front</sub>	* <i>ale:</i> > [ a e: ] ‘mat’
Seko Padang, Seko Tengah - Ambalong	*- <i>kiŋ</i> suffix	- <i>iŋ</i>	* <i>maN-rène'-kiŋ</i> > <i>maN-rène'-iŋ</i> ‘drop’
Seko Tengah	* <i>mp, nt, ŋk</i>	<i>pp, tt, kk</i>	* <i>kuntu?</i> > <i>kuttu?</i> ‘knee’
Seko Tengah	* <i>i, u</i> in prefixes	<i>e, o</i>	* <i>mi-kehi?</i> > <i>me-kehi?</i> ‘hot’
Panasuan, Budong-budong	*- <i>k</i>	- <i>ʔ</i>	* <i>anak</i> > <i>anaʔ</i> ‘child’
Panasuan, Budong-budong	* <i>r</i>	<i>h</i>	* <i>raa:</i> > <i>haa:</i> ‘blood’
Panasuan	* <i>d</i>	<i>r</i>	* <i>adi</i> > <i>ari</i> ‘younger sibling’
Panasuan	* <i>t</i>	<i>tʃ / _V<sub>+high</sub></i>	* <i>pitu</i> > <i>pitʃu</i> ‘seven’
Budong-budong	* <i>V:</i>	<i>V</i> often no length	* <i>(ma-)sàle:</i> > <i>ma-sàle</i> ‘cold’
Budong-budong	* <i>y</i>	<i>dʒ</i>	* <i>kayu</i> > <i>kadʒu</i> ‘wood’
Budong-budong	*- <i>a</i>	- <i>ɔ</i> sometimes	* <i>mi-taha</i> > <i>mi-tahɔ</i> ‘laugh’

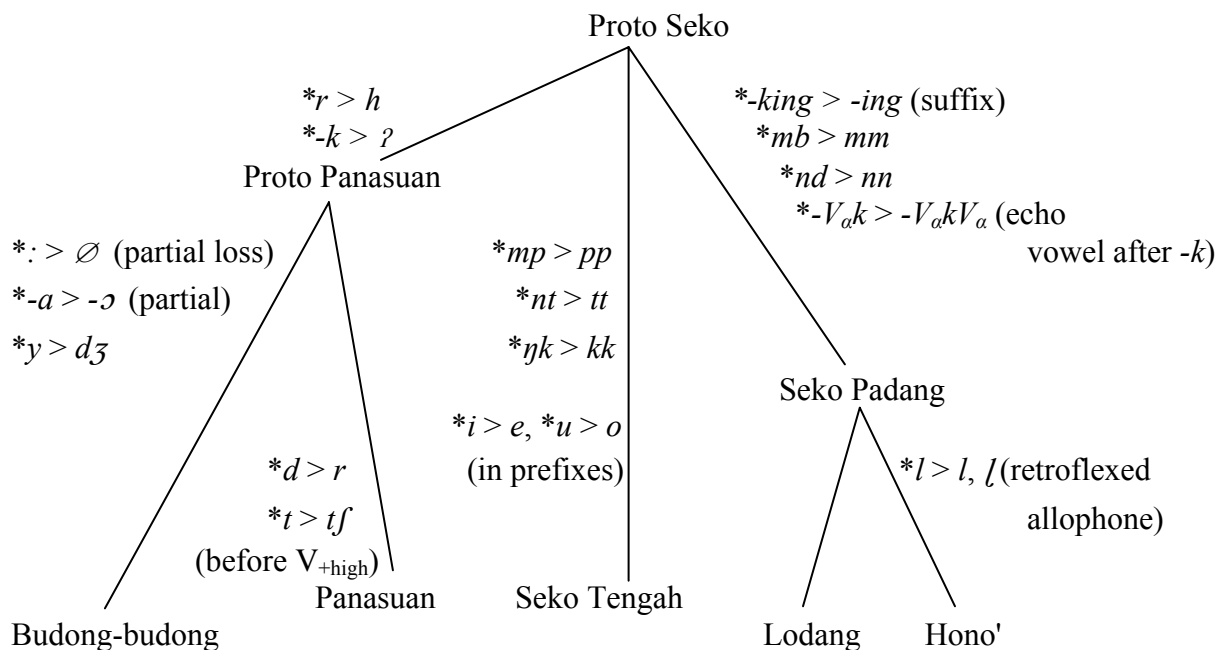
Several of the innovations in Seko languages reflect areal influences. Those are:

1. Retroflexion of \**l* as an allophone in the Hono' dialect of Seko Padang. Rampi, Bada', Behoa, and Uma have retroflexed *l* allophones, too (Martens 1990:42).
2. The Seko Tengah practice of taking nasal - voiceless stop clusters and turning them into geminate voiceless stops follows the practice of Kalumpang.
3. Most surrounding languages have lowered vowels in pre-penultimate prefixes: Uma, Rampi, Bada', Rongkong, Kalumpang, Mamuju, Tabulahan, Bambam.
4. Final *k* has become glottal stop or been lost in Karama dialects of Kalumpang, but retained in the Bone Hau dialect.
5. \**r* > *h* in Bambam, Tabulahan, and Talondo', but not in another Bambam dialect and not in Kalumpang.
6. In recent generations, Budong-budong has been isolated from other Seko languages. Their current location has brought them into close contact with Topoiyo and Mamuju.



Their numbers are small and the influence of those languages on Budong-budong is high. Besides many lexical replacements, the following areal influences can be observed: loss of final vowel length, fortition of  $*y > dʒ$  (also  $> nʃ$ ), and backing of  $*-a > -ɔ$  (probably from Topoiyo).

Figure 2. The Seko group relationships based on sound change



Notice that one ordering rule is important for Panasuan. That is,  $*r > h$  before  $*d > r$ . Otherwise we would find words where  $*d > h$ , but we do not.

## 6. Toward classification: comparison to Sirk's criteria for a South Sulawesi group

Now we may ask, where does Seko fit in the grand scheme of things? I am not prepared to go into that deeply, but let me offer a first step.

In a 1989 article, Sirk set forth eight criteria that he said characterized the South Sulawesi group (SSul). Against the framework of those criteria, we compare four groups in Table 5, namely, Tamanic (Adelaar 1992), PSS (Mills 1975), PSek, and Badaic<sup>9</sup> (Martens 1990).

<sup>9</sup> Martens reconstructed Badaic and Rampi as a subgroup of Proto Kaili-Pamona, but Mead (2003) stated they did not belong there based on reflexes of PMP  $*j$  (pp 131-133), and the lowering of  $*-uq > -oq$  (p 136).

Table 5. Comparison to Sirk's SSul group criteria

Characteristic of SSul	Tamanic	PSS	PSek	Badaic
1. PMP *-q > *-q	yes -ʔ	no *-∅	yes *-:	yes *-ʔ
2. nasal ligature before -POSS	no	yes	yes	no
3. *R > *r	r	*r	∅	∅
4. *-C <sub>2</sub> C <sub>1</sub> <sup>-10</sup> > *-ʔC <sub>1</sub> - (C <sub>2</sub> ≠ N)	---	*-ʔC <sub>1</sub> -	*-C <sub>1</sub> -	*-C <sub>1</sub> -
5. Transitive prefix *uN-	?	yes	no	no
6. Numerals 'eight' and 'nine'	borrowed borrowed sera 'one'	*karua(a) *kamesa(a) / *kasera(a)	*karoaa: *kamesaa:	*u-walu *sa-sio
7. Lexical items group I	---	16 items	5/16 cognate	---
8. Lexical items group II	---	12 items	4/12 cognate	---
*****	*****	*****	*****	*****
9. PMP *-uq > *-oq (vowel lowering)	yes	yes	yes	yes
10. PMP *əCV >	aCV	*əCCV (gemination)	*əCV, etc (quick vowel)	VCV
*təbuh 'sugarcane' > ---	tabu sadiŋ 'wake up'	*təbbu *səddiŋ 'feel, hear'	*tùhu *sàdiŋ 'hear, feel'	tuwu hádi 'hear, feel'

We can see in Table 5 that Sirk took issue with Mills' conclusion that PSS did not reflect PMP \*-q. Mills was correct, in that none of the other South Sulawesi languages directly reflect \*-q, but Seko languages, Badaic, and Tamanic do.

Regarding items 2-8, Sirk is in harmony with Mills for PSS, but the other three language groups do not line up as well. In comparison with PSS on sound changes, only PSek has nasal ligature and only Tamanic reflects \*R as r. Neither PSek nor Badaic reflects the first consonant (C<sub>2</sub>) in earlier reduplicated monosyllabic roots.

Items 5-8 are lexical. PSek agrees nicely with PSS on the numerals, but the tally for other lexical correspondences is quite low.

I have added two more points of comparison to those of Sirk. All four groups of languages lower PMP \*-uq to -oq, something Mead (2003:136) considers diagnostic. Item 10 shows the various ways these language groups handle the PMP sequence \*əCV. In PSS, geminate consonants are the outcome, and in PSek quick vowels. Tamanic seems to consistently reflect \*ə as a with no other segmental change. Badaic maintains a single intervocalic consonant, but the reflex of \*ə may harmonize with the other vowel, as in *tuwu*. It appears to have lost the closed

<sup>10</sup> The full symbolization for proto reduplicated monosyllabic roots is \*C<sub>1</sub>VC<sub>2</sub>C<sub>1</sub>VC<sub>2</sub>.

syllable prosody associated with \*ə, but on the other hand, a trace may remain. For, Bada' and Behoa have an unrounded, low, back vowel [ a ], spelled á, which corresponds in this word.

My conclusion from Table 5 is that the four language groups are definitely related, but that it is unlikely the other three are inherited from PSS, even if it were revised to reflect PMP \*-q. How the nodes are related will take further investigation. The key, I believe, to further understanding the relationship of Proto Seko to these other language groups will be in accurately applying ordered sound change rules, such as those shown in Figure 2. For sure, the definition of PSS will have to be changed. It should either be expanded and reworked to include more languages, or reduced and tightened up after removing Seko languages at least. In the latter case, a new term will be needed to cover the broader range.

## 7. Lexical Reconstructions

### 7.1 Introduction

The reconstructions presented in §7.2 are drawn from 488-word lists I collected from all dialects of the Seko group and surrounding languages. Some of the lists for neighboring languages, taken for comparison, were collected by SIL International colleagues. Section 7.3 is an additional wordlist based solely on Seko Padang data from my own fieldwork, for which reconstruction is rather straightforward or certain.

Reconstructed entries are structured as follows. On the first line is the reconstructed Proto Seko etymon. This is followed by an English gloss, and sometimes, for clarification, an Indonesian gloss. The gloss is sometimes followed by a question mark and a code letter, meaning that the link between the PSek reconstruction and the PMP etymon is in doubt. ?d means the distribution is limited. ?p means a heavy phonological irregularity. ?s means a tenuous semantic correspondence.

The second line begins with identification of which languages reflect the reconstruction regularly (blue font). Following a semicolon, reflexes are cited for languages where they deviate unpredictably from the PSek form. Next, in brackets, the level and etymon are cited from which the PSek reconstruction is inherited, followed by the source in parentheses. Following the closed bracket are comments about irregularities, expected reflexes or etyma, possible pathways of inheritance, and related forms in other languages.

I have used the following abbreviations for language names in the Seko group. Abbreviations for other languages referred to are footnoted.<sup>11</sup>

Seko Padang	SekP	Hono'	SekPH
		Lodang	SekPL
Seko Tengah	SekT	Ambàlong	SekTA
		Hoyane	SekTH
		Pokappaang	SekTP

<sup>11</sup> Bad Bada', Bam Bambam, Beh Behoa (Besoa), Blt Balantak, Ceb Cebuano, Dur Duri, Enr Enrekang, Gor Gorontalo, Klp Kalumpang, KlpBH Kalumpang - Bone Hau, KlpKr Kalumpang - Karama, Klw Kulawi, Kul Kulisusu, Mak Makas(s)ar, Mdr Mandar, Mmj Mamuju, Mms Mamasa, MorB Mori Bawah, Nap Napu, Pen Pendau, Ram Rampi, Rkg Rongkong, Sad Toraja Sa'dan, Skt Sanskrit, Tab Tabulahan, Tae Tae', Tam Tamanic dialects, Tld Talondo', Top Topoiyo

Panasuan	Psn
Budong-budong	Bdb

## 7.2 Proto Seko lexical reconstructions

Entries preceded by superscripted <sup>X</sup> reference loans.

In expected etyma, -C represents an unknown proto consonant from the set (\*p, t, b, d, g, s, j, r) from which Psek glottal (?) is regularly reflected.

\***adi** ‘younger sibling’ (possessive suffix required), \***adi:** (vocative)

All [PMP \**ha(n)ji* Mills 616)]<sup>12</sup> regular if \**nj* > \**nd* > \**d*

\***i-aho** ‘above, on top of’

All [PMP \**i-babaw* (Blust 1999)] presumed \**b-* > \**h-* > \**∅-*

\***aka** ‘what?’

All [possibly a mutation of PMP \**apa* (Blust 1999)] cf PSS \**aga*; only Bugis reflected as *g*, PUS dialects and KlpBH as *k*

\***ale:** ‘mat’

SekP, SekT, Psn. Suggests < ?\**aliq*. Cf PKP \**ali*’, PPUS \**ale*, PSS ?\**jali(C?)*. PMP \**aliq* ‘move, change place’ (Dempwolff, in Zorc 1971 item 0109) has a semantic connection (mats are portable), but it seems too distant

\***alo** ‘day’

All [PMP \**qaləjaw* (Blust 1999)] \**j* > \**r* > \**l*, then \**qal-* > \**∅-*. Or, \**ə* > \**∅*, then \**lj* > \**ld* > \**dl* > \**l*. Cf Ram *ando*, (*aldo* Martens pers. com.)

\***alu** ‘rice pestle’

All [PMP \**qahəlu* (Blust ACD)]

\***ambuy** ‘fog, mist’

SekT, Bdb; SekT also, ‘cloud’ [PWMP \**ambun* ‘dew, mist, fog’ (Blust ACD)]

\***ampe** ‘grandparent, grandchild’

SekP, SekT [PMP dbl \**əmpu* (Blust ACD)] \**u* > \**e* unexplained, appears to be an innovation. Cf PPUS \**ampo* ‘grandchild’, PSS \**#mpu* ‘grandparent, grandchild’

\***maN-ampe-i** ‘wait for’

SekP, Psn; Bdb *maN-empe-i*, SekTH *maN-appe-i* (some vowel irregularities) [PMP \**qantay* (Dempwolff 1938)] \**nt* > \**mp* unexplained. Cf Tab *maN:-empe*, Mmj *maN-eppe*, Bam *maN:-ampa*, KlpKr *ma'-kappa*, Rkg *makampa*. Together these suggest < ?\**kəmpay*

\***ampu** ‘owner, citizen, resident, host, property, head (as of a clan)’

SekP; Bdb *ampu hai* ‘crocodile’ [PMP \**əmpu* ‘lord, master, owner’ (Blust ACD)]

<sup>12</sup> Blust (ACD) reconstructs PMP \**huaji*, with no comment on the uncertain (*i*) in Dempwolff’s \**a(i)ji*. Since the presence of \**n* in the etymon fits best with Psek, I’m not sure how to reconcile with today’s upper level reconstructions.

- \***anak** ‘child’  
All [PMP \**anak* (Blust 1999)]
- \***anda?** ‘luminous millipede’  
All [PWMP \**andap* (Blust 2002)]
- \***ande:** ‘eat’ (see \**kande:*)
- \***anisi** ‘tooth’  
SekT, Psn; Bdb *nisi* [PMP dbl \**ɲisi* ‘grin, tooth, gum’ (Blust ACD)] uncertain whether Psek \**a-* is a regular development preceding PMP \**ɲ-*
- \***api** ‘fire’  
All [PMP \**hapuy* (Blust 1999)]
- \***aru?** ‘chest’  
SekP [PWMP \**adəp* (Blust ACD)] appears related to SekT *mabaru'*, Psn, Bdb *babahu'*.
- \***asu** ‘dog’  
All [PMP \**asu* (Blust 1999)]
- \***atu?**<sub>1</sub> ‘roof’  
All [PMP \**qatəp* (Blust 1999)]
- \***atu?**<sub>2</sub> ‘hundred’  
All [PMP \**Ratus* (Dempwolff 1938, Dyen 1953, Zorc 1995)] cf PSS \**ratus* (Mills 1975:299)
- \***baak** ‘head’  
SekT, Psn, Bdb; SekP *baka* (expected *baaka*). Cf PSad ?\**baka*<sup>13</sup>, PMAT \**baak*, Bad *woaq*, Uma *wooq*, Bar *woqo* (Mills 627)
- \***baba:** ‘doorway’  
SekP, SekT; Bdb *baba-ang* [PMP \**baqbaq* ‘mouth’ (Blust 1999)]
- \***maN-babe** ‘make (a mat, e.g.)’  
All. Cf Uma, Nap *babehi*, Behoa *bábehi*, possible frozen suffix *-hi*
- \***bahi** ‘pig’  
All [PMP \**babuy* (Blust ACD)]
- \***maN-bala?** ‘buy’  
SekP; SekP *maN-bala?-i* ‘repay, reciprocate’, *miN-bala?* ‘retaliate’ [PMP \**baləs* ‘answer, retaliate, reciprocate good or evil’ (Blust ACD)]
- \***balambəŋ** ‘belly’  
SekP, SekT. Frozen prefix? *ba-*, although frozen infix *-al-* might also be possible. Cf PSS \**balimba(N)/barimba(N)* ‘chest, stomach’, Badaic *baramba* ‘lungs’. Also note similarity to Mal *me-lembung* ‘swell’ Together suggest < ?\**ləmbəŋ*

<sup>13</sup> \**baka* is probably not an accurate etymon. \*-*k-* is reflected only in Seko Padang, and there *-a* is strongly suspected of being the trace of an echo vowel.

<sup>X</sup>*balesu*: ‘rat, mouse’

SekP, SekT, Psn. Cf PKP *\*walesu*’

*\*bànaŋ* ‘thread’

SekP, SekT, Psn; Bdb *bannang* < probably Klp or Tab < PSS *\*bɪnnaŋ* [PWMP *\*bənaŋ* (Blust ACD)]

*\*barako*: ‘neck’ ?p

All; suggests < ?*\*ba-dakuq*. [PIn ?*\*b(V)ruku* ‘neck’ (Mills 626)] *\*u* > *\*a* unexplained, probably a Psek innovation. Also, irregular *\*-∅* > *\*-:*, but note PKP *\*waroko*’. Cf PMP *\*dukuq* ‘bend over, stoop’ (Blust ACD), PBT *\*boroko* (Mead ???), PSS *\*baroko* ‘neck’, Blt *boroko?* ‘throat’. PMP *\*dukuq* should have yielded PKP *\*ruku*’. If these etyma are derived from PMP *\*dukuq*, there must have been an innovation back there (PIn?) that affected lots of Sulawesi microgroups. PMP ?*\*dukəq* might better account for the vowel lowering.

<sup>X</sup>*b/ma-baru?* ‘chest’ (see *\*aru?*)

SekT *mabaru*’, Psn, Bdb *babahu*’. Unknown etymon; possibly related to PWMP *\*adəp* ‘chest’ (Blust ACD), but how? Cf Bad *bombaru*’, Ram *bobari*’, PKP *\*bambara*(’)

*\*maN-baya?* ‘pay’

All [PMP *\*bayad* (Zorc 1995)]

*\*beu*: ‘lip’

SekP; Psn, Bdb *kalambeu*’, SekTH, SekTP *kalambu*’, SekTA *kalambou*<sup>14</sup>; suggests < ?*\*bequ*. Cf Gor *bihu* ‘lip’, Bar *wequ* ‘raised inner lip (e.g. of a chest) on which the lid fits’ (Mills 643); construction perhaps parallels Kul *wiwihuu* ‘lips’ from *wiwi* ‘rim’ + *huu* (not reconstructed) ‘external mouth area’ (Mead 429)

*\*bii?* ‘rear end, buttocks’

SekP, SekT, Bdb [PMP *\*birit* (Blust ACD)] cf Mmj *bui*’ < PMP *\*burit*; suggests? < ?*\*bərīt*

*\*maN-bika*: ‘split (wood)’ cf *bàka*:

All [PMP *\*bikaq* (Blust ACD)] This regular correspondence does not directly support PIn *\*bi(ŋ)kas* (Mills 1981); else > Psek *\*bika?*

*\*biluhak*<sup>15</sup> ‘hair (of head)’

Bdb; SekP and SekT *bahulak* (*l-h* metathesis and antepenultimate vowel lowering) Cf PSS *\*belu(b)ak*, Bad *weluaq*, Uma *wulu wooq*, PMP *\*buhək*

*\*bintoey* ‘star’

SekT; Psn *bintaŋ*, *\*oe* > *a* irregular, but also reflected that way in several PUS dialects (Smith 163); Bdb *bitue* appears to be borrowed through a Kaili-Pamona language [PMP

<sup>14</sup> Whether *kalaN-* is a live or frozen form, whether it reflects a root or functional prefix, and its semantic component are uncertain.

<sup>15</sup> *\*biluhak* is presumably from ?*\*bulu baak* ‘hair (of) head’. ?*\*bulu baak* > ?*\*buluhaak* > *buluhak* > *biluhak*. I have no external evidence that the *l-h* metathesis happened pre-Psek. So perhaps this is one piece of evidence that another node below Psek is common to Seko Padang and Seko Tengah.

- \*bituqən* (Blust 1999)] pre-penultimate nasal insertion *\*∅ > \*n* probably happened pre-Proto Seko; cf PSS *\*bintuin*
- \*biti?** ‘calf of leg’  
**All** [PMP *\*bātis* (Dempwolff 1938)] irregular if from 3-syllable PMP *\*bātias* (Blust ACD). Cf PSS *\*bātis*
- \*bose** ‘paddle’  
**Psn**; SekP (*pi-*)*bose*, SekT *pe-bose*, Bdb *bose*: *\*e > e*: unexplained [PMP *\*bəRsay* ‘oar, paddle’ (Dempwolff, in Zorc 1971 item 0916)]
- \*bua:** ‘areca palm and nut’  
**All** [PMP *\*buaq* ‘fruit, areca palm and nut’ (Blust ACD)]
- \*buaya** ‘crocodile’  
**SekP, SekT** [PMP *\*buqaya* (Blust 2002)]
- \*bula?** ‘ankle bone’ ?s  
**SekP** also means ‘bud’ and ‘cockspur’; SekT *bula'-bula'* [PMP *\*bulat* ‘stare with round eyes’ (Blust ACD)] Phonological correspondence regular, but semantics uncertain, sharing only the component of ‘round’ or perhaps ‘eyeball shaped’. Cf Mal *bulat* ‘spherical’. PMP *\*bulan* ‘artificial cockspur’ rejected as cognate; *\*ŋ > \*ʔ* cannot be reconciled
- \*bulampa:** ‘thigh’ ?s Cf *lampa:*  
**Psn, Bdb**; SekP ‘long bones of legs or arms’ [PMP *\*lampaq* ‘walk, go’ (Blust ACD), or is this a homonym?] Probably from PSec *\*buu:* ‘bone’ plus *\*mi-lampa:* ‘long between nodes’. *\*lampa:* ‘bamboo water container’. Presumably named for the length resemblance between a thigh and the container. Could it once have meant ‘walking bone’? Another possible source: PMP *buluq* ‘slender bamboo’ plus (SekP) *ampa:* ‘internode’. Cf Tae *bulo sanglampa* ‘an internode of slender bamboo’ (Blust ACD).
- \*bulonko:** ‘spine, upper back’  
**SekP**. Could be a low level innovation.
- \*miN-ka-buni** (vi) ‘hide’ cf *\*maN-huni*  
**SekTH, SekTP, Psn**; SekTA *me-ka-buni*, Bdb *miN-ka-la-buni*, SekP *miN-buni* [PMP *\*buni* (Blust 1999)]
- \*buŋa** ‘decorative plant’ cf *\*hūŋaŋ*  
**SekP** 1) ‘shrub sp, the flesh of which is eaten’, 2) ‘decorative shrub’, 3) (usually Redup) ‘decorative flower’; SekT (Redup in SekTH) ‘decorative flower’ [PMP *\*buŋa* ‘flower’ (Blust 1999)]
- \*ma-busa:** ‘white’  
**SekP, SekT, Psn** [PMP *\*busa* ‘foam’ (Blust ACD)] *\*a > \*a*: irregular. I posit PMP be reconstructed *\*busaq* ‘foam’. Anyway, that would place it closer to its double *\*bujaq*. Cf Klp, Tab, Bam, Rkg, Enr, Sad *ma-busa* ‘white’
- \*buto:** ‘penis’  
**SekP, SekT, Bdb** [PMP *\*butuq* ‘testicles of animals’ (Blust ACD)]

- \*buu:** ‘bone’  
All; SekP also ‘core’ [PMP *\*buku* ‘node, joint’ (Blust ACD)]
- \*dalaŋ** ‘road, trail’  
All [PMP *\*Zalan* (Blust 1999)]
- \*dali?** n ‘fly’  
SekPH, Psn, Bdb [PMP *\*laləj* (Dyen & McFarland 1970 item 352)] *\*l* > *\*d* irregular dissimilation. Cf PPUS *\*dali?*, KlpBH, Beh, Bad, Uma *dali*!. Probably inherited through an intermediate node < *\*dali?*
- \*ka-daluŋ** ‘deep’ (see *\*ka-laduŋ*)
- <sup>x</sup>**daja** ‘span’  
Bdb [PMP *\*Zaŋan* ‘hand span’ (Blust ACD)] cf PKP *\*(sa)-ndaŋa*, Mmj *daŋa*
- \*daŋkaŋ** ‘span’ ?d  
Psn [PWMP *\*Zaŋkal* ‘hand span’ (Blust ACD)] cf PPUS *\*daŋka(m/n)*, Sad *daŋkan*, PSS *\*jaŋka(l?)*
- \*dauŋ** ‘leaf’  
SekP, SekT; Psn *dun-na*, Bdb *dau* [PMP *\*dahun* (Blust 1999)]
- \*mu-dauŋ** ‘sew’  
SekP, SekTA [PMP *\*ZaRum* ‘needle’ (Blust 1999)]
- \*dio** ‘you’  
All [PMP *\*dikaw* (find), else what is source of *d*?] Cf PMAT *\*dio*
- \*i-dua** ‘two’  
SekP, SekT, Psn; Bdb *dua* [PMP *\*duha* (Blust 1999)]
- \*dui** ‘thorn’  
Psn, Bdb [PMP *\*duRi* (Zorc 1995)]
- \*m-ei?** ‘cough’  
SekP, SekT; frozen prefix [PWMP *\*ikəj* (Blust ACD)]
- \*eno:** ‘necklace’  
SekP, Psn [PMP *\*hinuq* ‘beads’ (Blust ACD)]
- \*maN-enuŋ** ‘drink’  
All [PWMP *\*inəŋ* (Blust ACD), PMP *\*inum* (Blust 1999)] The etymon *\*inəŋ* fits best, because it provides the conditioning environment for lowering *\*i* > *\*e* (see §4.2.1.4). But also see §4.3.1.2 for *\*i* > *\*e* preceding PMP *\*u*.
- \*m-esonŋ** ‘sit’ ?s  
SekP, SekT, Psn; Bdb *misong* [PMP *\*əsuŋ* ‘rice mortar’ (Blust ACD)]<sup>16</sup> *ma-iŋonŋ* > *m-esonŋ*. The relationship between the orientation of rice mortars and the sitting position is

<sup>16</sup> PSek intransitive prefix *\*m-* plus *\*iŋonŋ* could have yielded either *mesong* or *misong*. The full form of the etymon for the prefix here is uncertain. It could have been infix *-um-*. Or, it could have been prefix *ma-* or *mi-*. All are valid intransitive affixes in Seko languages today. Perhaps the lowered vowel *\*e* favors formation from a *\*ma-* prefix.



logical, but should be investigated. Otherwise the PSek term derives from a separate etymon. Cf PSS *\*isun* ‘sit’ (Mills 715)

**\*etik** ‘marrow, brain’

**SekP, SekT, Psn**; SekTP *itik* [PMP *\*hutək* (Blust ACD), probably with intermediate node; *\*u* > *\*e* unexplained] Cf PSS *\*ut#k* ‘brains’, Tab *eti'*, Ram *iti'*, Beh *ati'*

**\*maN-hələy** ‘dry in sun, menjemur’ ?d

**SekP**. Etymon uncertain, expect < *\*bəlay*. Cf. PMP *\*bəkələj*, Karo Batak *pe-belang* ‘spread out’

**\*hali** ‘in balance’

**SekP**; SekP *hali-ang* ‘spouse, partner, one side (team) in a sports event, counterpart’, SekP, SekTH, SekTP, Bdb *maN-hali-i*, SekTA *me-hali*, Psn *miN-hali* ‘reply, respond’, SekP *maN-hali-i* also ‘come to someone’s aid, balance out a load (as on a horse), cut on the opposite side of the first cut (as when felling a tree) [PMP *\*baliw* ‘dual division, moiety’ (Blust ACD)]

**\*hana-ay** ‘shoulder’ ?s

**All** [PMP *\*baNaR* ‘thorny vine, *Smilax* spp (for carrying firewood)’] cf PPUS *\*aβa(n/ŋ)aN*, Tab *uhanay* ‘shoulder’. Also similar to PKP (East) *\*(a)wəŋa*, Bad *uwəŋa*, but cannot reconcile PSek *\*-n-* with PKP *\*-ŋ-*

**\*hatu** ‘stone’

**SekPH, SekT, Psn, Bdb** [PMP *\*batu* (Blust 1999)]

**\*hauŋ** ‘river’

**SekT**; SekP ‘stream’ [PWMP *\*baway* ‘open expanse of land or water’ (Blust ACD)]

**\*hea?** ‘rice between harvest and cooking’

**All**; SekP, SekT, and Psn extend the meaning to ‘rice before cooking’; SekP, SekT also, ‘year’ [PMP *\*bəRas* (Blust ACD)]

**\*heŋi** ‘night’

**All** [PMP *\*bəRŋi* (Blust 1999)]

**\*hihi** ‘edge, border’

**SekP, SekT**; Bdb *sihi*, unexpected assibilation *\*h-* > *s-* (related to Mal *sisi?*) [PMP *\*bibiR* (Blust ACD)]

**\*hoa:** ‘fruit’

**All** [PMP *\*buaq* ‘fruit, areca palm and nut’ (Blust ACD)]

**\*hulay** ‘moon’

**All** [PMP *\*bulan* (Blust 1999)]

**\*hulo:** ‘slender bamboo of *Schizostachyum* genus’

**SekT, Psn, Bdb**; SekP ‘blowgun’, also, ‘the constellation Orion’s belt’ [PMP *\*buluq* (Blust ACD)]

**\*hulu** ‘body hair, fur, feather’

**All** [PMP *\*bulu* (Blust 1999, ACD)]

- \*hùŋaŋ** ‘primordial fruit or its flower’ cf *\*buŋa*  
 SekP, Psn, Bdb; SekP also, ‘fingers, toes’ [PMP dbl *\*buŋaŋ* ‘flower’ (Blust ACD)] *\*u* > *\*ù* irregular; suggests < ?*\*buŋa-aŋ*
- \*hùŋiŋ** ‘sand’  
 All [PMP *\*buhaŋin* (Blust ACD)] cf PSS *\*buŋin*
- \*ia** (*na*)<sup>17</sup> ‘if (it)’  
 SekP, SekT, Psn; Bdb *ka na?*<sup>18</sup> [PMP *\*ka* (Blust ACD)] *\*ø* > *\*i* unexplained
- \*iloŋ** ‘nose’  
 SekP, SekT, Bdb; Psn *èloŋ*<sup>19</sup> (*\*i* > *è* unexplained) [PWMP *\*ajuŋ*, dbl *\*ijuŋ* (Blust ACD, 1999); *\*j* > *\*l* unexplained] suggests < ?*\*əluŋ* or ?*\*idluŋ*. Cf PSS ?*\*iloŋ*, PPUS *\*illoŋ*, Dur, Klp, Rkg *illoŋ*, Bad *ilo*
- \*inday** ‘debt’  
 All [PWMP *\*hinzam* ‘borrow, lend’ (Blust ACD)]
- \*isi** ‘flesh’  
 All [PMP *\*isi* (Blust ACD)] contrasts with PSS *\*i(n?)si* < PMP dbl *\*hesi* (Blust ACD). This contrasting pair affirms the reconstruction of doublets at the PMP level.
- \*issoŋ**, dbl **\*isoŋ** ‘rice mortar’  
 SekT, Bdb *issong*, Psn *essong* (irregular *\*i* > *e*), SekP *isong* [PMP *\*iŋsuŋ* dbl *\*əsuiŋ* (Blust ACD)] cf Tab *ingseng*, Mmj *insung*
- \*maN-ita** ‘see’  
 SekP, SekT, Bdb; Psn *mu-ita* [PMP *\*kita* (Blust 1999)]
- \*kaa** ‘elder sibling’ (possessive suffix required), **\*kaa:** (vocative)  
 All [PMP *\*kaka* (*\*kakaq* vocative) (Blust 1979)]
- \*kabe?** ‘left-handed’  
 SekP; SekTH, SekTP ‘left (side)’. Cf Bad, Beh *kabeo* ‘left (side)’ Uma *ngkabi* ‘left-handed’ (rare word)
- \*kado:-kado:** ‘throat’ ?d cf *\*kora:-kora:*  
 Psn. Cf PPUS *\*kado-kado*, Mmj *kado kado*, KlpBH *kedo-kedo*. PSek *\*-d-* and many PUS reflexes with *-äd-* (low front vowel) together suggest < ?*\*kanduq-kanduq*, where the nasal was subsequently lost. Note similarity to SekT *kora:-kora:*; probably related.
- <sup>X</sup>**\*kaholo?** ‘throat’ ?d  
 SekPL. possibly < unknown Kaili-Pamona language. Cf Uma *tumolo* ‘front of neck’ Ram ‘throat’, Bad *tambolo* ‘throat’, PKP *\*tambolo* ‘front of neck’; but PKP *\*-ø* > PSek *\*-?* irregular, same for frozen prefixes

<sup>17</sup> *\*ia* could be analyzed as derived from two morphemes *\*i-a*. *na* is probably third person marker ‘3’, and the whole sequence translated ‘if it be that’ or ‘in the event that’. The sequence *a na* should probably NOT be reanalyzed as *àna* < *\*kàna*, because in SekTH, SekTP, and Psn /n/ is doubled, which does not follow the pattern for PSek reflecting *\*əC* sequences.

<sup>18</sup> The glottal in Bdb is unexplained. That, plus the retention of /k/, makes it a candidate for borrowing, from an undetermined source.

<sup>19</sup> quick vowel presumed; not written in data

**\*kahuy** ‘cloud’ ?d

SekP [PAn dbl ?\*ga(m)bun<sup>20</sup> (Mills 699)] cf PMP \*Rabun (Blust 1999), PSad \*gawun ‘cloud’, PPUS \*gaβun ‘fog’

**\*ka-iri** ‘left side’

SekP, Bdb; SekTA *keiri*, Psn *kehi*; frozen prefix [PMP \*ka-wiRi (Blust 1999)]

**\*kalae:** ‘body’ cf \*kale

SekP, Bdb. Cf PSS ?\*kalawe / ?\*kale; suggests < ?\*kalaqi<sup>21</sup>

**\*kale** ‘body’ cf \*kalae:

SekT, Psn. Cf PSS ?\*kalawe / ?\*kale; suggests < ?\*kalaqi

**\*kali-bambay** ‘butterfly’

SekT, Psn, Bdb; SekP *kalu-bammang*, \*i > u irregular, but not uncommon to have sporadic vowel shift in pre-penultimate position. Frozen prefix [PMP \*kali-bambay (Blust 2001:20)]

**\*kalidi:** ‘little finger’ ?s

SekP, SekTH, Psn, Bdb; SekP also, ‘twig’, SekTP ‘small one’ [PMP \*kancil ‘animal’ (Dempwolff, in Zorc 1971 item 1737)] cf PKP \*kanCili. Together suggest < ?\*kanjiliq. Presumed pathway to PSek: \*kanjiliq > \*kandiliq > \*kadiliq > \*kalidiq > \*kalidi:. Note similarity of PKP \*kanCili to Mal *kecil* ‘small’ and *kancil* ‘mouse deer’(; but Mal *lidi* ‘palm leaf rib’ is also similar to SekP *kalidi:* ‘twig’.)

**\*kambay** ‘swell, swollen’

SekP, SekT; SekPH *ma-kammang*, SekT, Psn, Bdb *ma-kambay* ‘thick, *tebal*’; Psn *kambang hacu* (n) ‘boil’ [PMP \*kambay ‘bloom, well up, swelling’ (Dempwolff, in Zorc 1971 item 1729)]

**\*kambutu?** ‘heel’

SekT, Psn. Cf PPUS \*kambut(u/e)?, Klp, Mms, Rkg *kambutu*’

**\*kàna?** ‘complete, enough’

SekP; Psn ‘many’, SekT ‘perfect’ (Mills) [PAn \*gənəp (Dempwolff, in Mills 702); also PMP \*kəna? ‘right, suitable’ (Blust ACD)] Either etymon would yield a regular reflex, but the latter diverges semantically away from PSek. Nevertheless, both forms and semantics are similar.

**\*kande:** ‘eat’, also \*ande:

SekP, SekT; Psn, Bdb *m-ande:*; suggests < ?\*kandiq. Cf PSS \*kande

<sup>X</sup>**\*kandij** ‘eyebrow’ cf \*kìni

SekT, Psn; Bdb *kandi* ‘forehead’ (\*η > ∅ unexplained) [possibly < Mmj or Tab *kandij* ‘forehead’ < PAn \*kəniη ‘eyebrow’ (Mills 733)] irregular, expected > \*\*kàniη or \*kìniη. Cf PSS \*kənniη, PMAT \*kandij ‘forehead’

<sup>20</sup> Mills based his proposed doublet on Dempwolff, which apparently contained uncertain \*(m).

<sup>21</sup> ?\*kalaqi could have followed independent pathways and yielded both PSek reflexes:

?\*kalaqi > ?\*kalaiq > \*kalae:

?\*kalaqi > ?\*kalai > \*kale

\**kaŋkaŋ* ‘forearm and hand’

All [PMP \**gəmgəm* ‘hold (in fist)’ (Blust 1999)]

\**kanoni*: ‘heel’ ?d

SekP

<sup>X</sup>*maN-kàru*: ‘scratch, scrape’

SekP, SekTH. [< Ram *mangkokaru*’ < PKP \**karu*’ < PMP \**kadus* ‘scratch, rub’ (Dempwolff, in Zorc 1971 item 1681)] *maN-ka-karu*’ > *maN-ka-arur*’ > *maN-kà-ru*’ > *maN-kàru*:

\**karuruŋ* ‘skull’

SekP, SekT, Psn. Cf Klp *karurung*, Rkg *karuru*, PPUS \**karorak* ‘outer shell (skull, coconut shell)’

<sup>X</sup>*katinimpu*: ‘thumb’

SekPL; SekPH *katinempu*.; Psn *kinampu* [< ? < PMP \**t-impu* ‘grandparent’ (Blust ACD)] \**∅* > \**i*: irregular. Uncertain inheritance path, probably indirect. Cf Ram *kototumpu*, Bad *katumpu*

\**mi-katiŋ* ‘itch’

SekP, SekTA, Psn; Bdb *ma-katiŋ* [PMP \**katal* (Dempwolff, in Zorc 1971 item 1761), PWMP \**gatal* (Blust ACD)] Languages with -*ŋ* cognates: Tab, Mmj. Languages with -? cognates: Klp, Sad, Dur, Bam. \**ə* > \**i* here may be diagnostic for classification; cf Mills (p 728) and Martens (p 199)

\**maN-kau*: ‘beckon’

SekTH; SekP ‘lead, entice?’ [PMP \**k-aku* ‘to me’ (Blust ACD)]

\**kayu* ‘wood’

All; SekPL, SekT also ‘tree’, SekPH some speakers ‘firewood’ [PMP \**kahiw* (Blust 1999)]

\**kebo?* ‘back’

All [PMP ?\**bu(ŋ)ku(jt)*<sup>22</sup> (Mills 660)] *b-k* metathesis assumed, else not related to PMP etymon; \**u* > \**e* unexplained, expected < \**ə* somewhere. Cf PSS *boko(t?)* and PSS ?\**keboC* (Mills 888), PMAT \**kebo?*

\**maN-keki?* ‘bite’

SekP, SekT [PMP \**kitkit* (Blust 1973)]

\**kini* ‘nail, claw, hoof’ cf <sup>X</sup>*kandiŋ* ?s

All; SekP *kini mata* ‘eyebrow’ [PAn \**kəniŋ*<sup>23</sup> ‘eyebrow’ (Mills 733); \**ŋ* > \**∅*<sup>24</sup>] cf PMP \**kinit* ‘pinch, nip, pluck’ (Blust ACD)

<sup>22</sup> Mills suggested his proto-form could also reflect PAn \**buku* ‘bone’.

<sup>23</sup> PAn \**kəniŋ* ‘eyebrow’ apparently developed along two pathways. \**kəniŋ* > \**kiniŋ* > \**kini* is the more regular for Psek, but the meaning ‘nail, claw, hoof’ suggests a more generic PAn gloss, like ‘hard, protective covering/protrusion’. The other pathway, probably through PSS, doubled the nasal, which then became -*nd-* in languages where geminate nasals are disallowed root medially. \**kəniŋ* > \**kənniŋ* > *kandiŋ*.

<sup>24</sup> Loss of \**-ŋ* could be explained by back formation. The root normally occurs with a possessive suffix, so it might get reinterpreted as a nasal ligature (see §2.4). \**kiniŋ-na* > \**kini-nna* ‘its hoof’ (both pronounced identically /kinin:a/)

**\*koko?** ‘leg, foot’

All [PMP *\*kukud* ‘shank or hoof of animals’ (Blust ACD)] irregular *\*u* > *\*o*, suggests < *?\*kudkud* or *?\*kukəd*

<sup>x</sup>**kolla** ‘sugar’

SekP, SekT, Psn; Bdb *golla*. [< Mal *gula* ‘sugar’ < Skt *guḍa, gula* ‘molasses’ (Mills 899)]

<sup>x</sup>**kolloŋ** ‘throat’ ?d

SekPH. < (likely) Rkg *kollong* ‘neck’ < PSS *\*killoŋ* ‘neck’. Related to? PMP *\*kəluŋ* ‘coil, curl’ (Blust 1970, in Zorc 1971 item 1834)

**\*kompoŋ** ‘belly’

Bdb; Psn *pompong*, *\*k* > *p* irregular. See Mills 733 for similar irregularities. [PMP *\*kəmpuŋ* ‘stomach of animals’ (Zorc 1995)]

**\*kona:** ‘name’

All [Pin *?\*guna(q)* (Mills 1981 item 17)] *\*u* > *\*o* irregular; but *o* in all reflexes

**\*kora:-kora:** ‘throat’ ?d cf *\*kado:-kado:*

SekT. Cf Rkg *gora-gora*. Together suggest < *?\*gudəq-gudəq*, else indirectly inherited.

**\*koriŋ** ‘cooking pot’

All [PWMP dbl *\*kudən* (Blust ACD)]

**\*k-uanay** ‘right side’

SekTH, SekTP, Psn; SekTA *koanaŋ*, SekP *konaŋ*, Bdb *kanaŋ* [PMP *\*ka-wanan* (Blust 1999)]

**\*kuli?** ‘skin’

All [PMP *\*kulit* (Blust 1999)]

**\*kuma:** ‘sheath’

All [*?\*gumaq*<sup>25</sup> < PMP *\*Rumaq* ‘house’ (Blust 1999)]

**\*kuntu?** ‘knee’

All. Cf PPUS *\*guntu?* ‘knee’, PSad *\*guntu(t?)* (Mills 882), Bad *kuntu?*, Ram, Uma *kotu?*

**\*kutu** ‘head louse’

SekP, SekTA, Psn, Bdb [PMP *\*kutu* (Blust 1999)]

**\*ka-laduŋ** ‘deep’ also, **\*ka-daluŋ**

SekP, SekT, Psn; Bdb *ma-ka-laduŋ*, SekT also, *ka-daluŋ*. Frozen prefix *ka-* [PMP *\*i-daləm* ‘in, inside, deep’ (Blust 1999, ACD note)] *d-l* metathesis. Variance between *\*ə* > *\*u* in *\*ka-laduŋ* and *\*ə* > *\*i* in *\*i-laliŋ* unexplained

<sup>25</sup> Although *?\*gumaq* ‘sheath, housing’ has not, to my knowledge, been reconstructed at an intermediate level, Psek is clearly inherited from this form. The phonological correspondences are regular, but not so with *\*Rumaq*. There are outside witnesses from Mmj, Mdr and Bar *guma* ‘sheath’, and PKP *\*guma()* ‘k.o. sword or sheath’ (semantic shift?). PPUS constructs *banua piso* and Sad. *banua la'bo'* (Lit., ‘machete housing’) for ‘sheath’, from *banua* ‘house’, corresponding semantically to PMP *\*Rumaq* ‘house’ > *?\*gumaq*.

- \**ma-lai* ‘leave for home’  
 All; SekP also, ‘go to a more suitable place’ [PMP \**laRiw* ‘run, run away, flee, escape’ (Blust ACD)]
- \**laila* ‘ginger’  
 SekP, SekTH, SekTP, Psn, Bdb; SekTA *leia* [PMP \**laqia* (Blust pers. com. to Mead)]
- \**mi-lalay* ‘spicy hot’  
 SekP; Psn, Bdb ‘ginger’ [PMP \**laja* ‘burn, smart (a wound), be hot (spices)’ (Dempwolff, in Zorc 1971 item 2043)] cf Sad, Dur *ma-lala*. \*-Ø > \*-ŋ unexplained; possibly a loan inherited through Bug *ladang* < Mal *lada* ‘pepper’ (Mills 908)
- \**laliay* ‘three-stone fireplace’  
 All [PMP \**dalikan* (Blust 1999)] \**d* > \**l* assimilation regular. Tld *lalikang*; borrowed?
- \**i-laliŋ* ‘inside’  
 SekP, SekT; Psn *i-laiŋ*, \**l* > Ø unexplained, but several neighboring languages have similarly lost one of the *l*’s [PMP \**i-daləm* ‘in, inside, deep’ (Blust 1999, ACD note)]
- \**lambe?* ‘back of the knee, popliteal space’  
 SekP, Psn, Bdb; SekT *lambe?lambe?*. Cf PPUS \**lambe?* ‘calf of leg’, KlpBH *lambe?*
- \**lampa:* ‘bamboo water container’ ?s  
 SekT; SekP ‘stack of food containers, *rantang*’ [PMP \**lampaq* ‘walk, go’ (Blust ACD)] cf PPUS \**lampa*, Rkg, Klp *lampa*
- \**lanji?* ‘sky’  
 All [PMP \**lanit* (Blust 1999)]
- \**lanka:-lanka:* ‘spider’ ?s  
 All [PMP \**lankaq* ‘step, stride’ (Dempwolff, in Blust ACD note)]
- \**lanke:* ‘shackle’  
 SekP
- \**lao* ‘go, walk’ (variously affixed)  
 All [PMP \**lakaw* (Blust 1999)] The first *k* in SekTP *mellaok-king* appears to reflect a metathesized *k* from proto-form \**lako*. I don’t know enough about SekTP morphophonemics to say for sure. Badaic *l-um-ao*
- \**ma-lea:* ‘red’<sup>26</sup>  
 All. Suggests < ?\**ma-ləRaq*. Cf PSad ?\**lea*, PKP \**ma-lei*, PMP \**ma-iRaq*. Related to PBT \**lea*<sup>o</sup> ‘flame’?
- \**lèsok* ‘hobble’  
 SekTP *lèsok-kang* ‘ankle (not the joint)’, SekP *mimpa`lèsoko* ‘scoot oneself forward or around on the floor’, Psn *lèsò`ang* ‘ankle joint’; quickness uncertain in SekTP and Psn. Cf PKP \**leso* ‘?ankle/wrist joint’, Lindu *lesok-a* (frozen suffix) ‘joint’

<sup>26</sup> I think I have heard that, in the practice (archaic in Seko Padang) of making red dye, a plant called *lea:*, which I have yet to see or identify, is cooked. But this needs to be verified.

- \*lila:** ‘tongue’  
 All [PMP *\*dilaq* (Blust 1999); Sirk claims (p 58) *\*lilaq* is pre-PSS, the same would also hold for PSek]
- \*lima** ‘five’  
 All [PMP *\*lima* ‘hand, five’ (Blust ACD note)]
- \*lindo:** ‘forehead’  
 SekP, SekT [PMP *\*li(n)juq*, PIn *?\*li(n)juq* ‘face, forehead’ (Mills 330-1, 765)]
- \*ti-loa:** ‘vomit’  
 All; SekP *maN-loa*: ‘spit out’ [PWMP *\*luaq* ‘expel from mouth’ (Dyen 1953), dbl ‘empty out’ (Blust ACD)] *\*u* > *\*o* unexplained, but same pattern as *\*hoa*:
- \*ma-lotoŋ** ‘black’ ?d  
 SekP [PMP *\*lutuŋ* ‘monkey’ (Blust 2002)]
- \*ba-lua?** ‘wide, spacious’  
 SekP, Psn, Bdb. Frozen prefix [PMP *\*ma-luqas* (Zorc 1995)]
- \*màmi?** ‘delicious’  
 SekP. Frozen prefix [PMP *\*ma-əmis* ‘sweet (taste)’ (Blust ACD note)] possibly related to PSek *\*maN-tàmi* ‘taste’
- \*manok**, dbl **\*manuk** ‘chicken’  
 SekP *manoko*, SekT *manok*, Bdb *mano*’; Psn *manu*’ [PMP *\*manuk* ‘hen, bird, animal’ (Dempwolff, in Zorc 1971 item 2438), ‘bird’ (Blust 1999)] Tld *mano*’. Irregular *\*u* > *\*o*, perhaps < *?\*manək*. Cf Tab *mane*’, Bam *māne*’
- \*mata** ‘eye’  
 All [PMP *\*mata* (Blust 1999)]
- \*mate** ‘die, dead’  
 All [PMP *\*m-atay* (Blust 1999)]
- \*muane** ‘male’  
 SekP, SekTA; SekTH, SekTP *mane*, Psn *manane*, Bdb *muniane*; the latter two based on reduplicated *\*muane-ane* [PMP *\*ma-Ruqanay* (Blust 1999)]
- \*muŋku** ‘mountain’ ?d  
 SekPH. Cf PSS *?\*buŋku* (Mills 659), Klw (Mills), MorB, Pad *tamuŋku*, Bar *muŋku* (ritual language), Top *muŋgu* ‘mountain’; Daa *buŋgu* ‘summit’. Cognates with *m-* are in Central Sulawesi languages, so possibly a loan.
- \*mi-na-naha** ‘breathe’  
 All; Tld *\*mi-naha* [PMP *\*ñawa* ‘breath’ (Dahl 1981b)]
- \*mu-ma-nau** ‘steal’ ?d ?p  
 SekPH; second morpheme break frozen [PMP dbl *\*nakaw* (Blust ACD)] irregular *\*-aw* > *\*-u*, expected *mu-ma-nao*. Perhaps *\*nakaw* > *\*nako* > *\*nao* > *\*nau*. Cf Ram, Beh *ma-nako*, retaining medial *\*k*; Uma *ma-nako*

- \**nau***: ‘go downstream’  
 SekP, SekT. Cf PPh *\*naqu(gR)* ‘descend’ (Charles 1973), PKP *\*na'u* ‘descend, go downhill’
- \**maN-oa*** ‘say’  
 SekP, SekTH, SekTP, Psn. Cf PSS *\*kua*
- \**oa?*** ‘root, vine’ cf *\*ua?*  
 All; one SekPH witness *boa'*, *b* unexplained [PWMP *\*uRat* ‘blood vessel, nerve, tendon, root’ (Blust ACD); alternatively PMP *\*Rawəj*, dbl *\*waRəj* ‘vine, aerial root’ (Zorc 1995)] cf PSS *\*urat*
- \**orij*** ‘charcoal’  
 All [PMP *\*qujiŋ* (Blust ACD)] *\*u* > *\*o* irregular vowel lowering (< *\*qujəŋ* would be better fit, due to vowel lowering in *\*ə* environment)
- \**osok*** ‘rib, side’  
 All [PMP *\*Rusuk* ‘rib’ (Dempwolff 1938)] cf PSS *\*rusuk* (Mills 299), PPUS *\*usuk*
- \**oto?*** ‘little crawly parasite’  
 SekP ‘maggot’; SekTH, SekTP ‘head louse’; Psn, SekTH ‘caterpillar’; Psn *oto' malea*: ‘red chicken mite’ [PIn *\*rutus* ‘worm sp (marine), harmful to boats’ (Mills 694)]
- \**paa***: ‘thigh’, *\*paa* (Possessive form)<sup>27</sup>  
 SekP; SekTA *paang* [PMP *\*paqa* (Blust ACD)]
- \**pàduy*** ‘heel’ ?d  
 Bdb. Cf PKP *\*pad(u/o)'*
- \**ma-pai?*** ‘bitter’  
 Psn, SekTH; SekP *mi-pai'*, SekTA, SekTP *me-pai'*, Bdb *pai'* [PMP *\*paqit* (Blust ACD note)]
- \**pala?*** ‘palm of hand, sole of foot’  
 All [PMP *\*palaj* (Blust ACD)]
- \**palo*** ‘thigh’ ?d  
 SekTH, SekTP. Low level innovation?
- \**maN-pana***: ‘shoot (with bow and arrow)’  
 SekP, SekTA; SekTP, Psn, Bdb *maN-pana*; SekP *pana*:<sup>28</sup> ‘bow’ [PMP *\*panaq* ‘shoot’ (Blust 1999)]
- \**ma-pana?*** ‘sick, in pain’  
 Bdb; SekP *mi-pana'*, SekTH, SekTP *me-pana'* [PMP *\*ma-panas* ‘warm, hot’ (Blust 1999)]

<sup>27</sup> Although SekP *paa*: reflects metathesis of *\*-qa*, the possessive construction *paa-nna* ‘his thigh’ retains a nasal ligature, which can only attach to the unmetathesized form, so we reconstruct a second Psek etymon without vowel length. Also, one witness claimed that the reflex *paa* was used by the older generation. SekTA *paang* could be a back formation from the Possessive form. On the other hand, cf Mmj, Tab *paang*, which appears to be a metathesis of PPUS *\*apa(m/n)*

<sup>28</sup> In Panasuan *pana* was claimed to be a new, introduced item. In Seko Padang, it is only known as a child’s toy. No term for it in Seko Tengah - Hoyane.



- \*pani?** ‘wing’  
All [PMP *\*panij* (Blust ACD)]
- \*pape:** ‘cheek’  
Psn, Bdb; suggests < ?*\*papiq*. Cf PPUS *\*pap(o/e)*
- \*pare** ‘rice plant’ ?d  
Bdb; Psn ‘year’ [PMP *\*pajay* Blust ACD)] regular, but possible loan from Klp
- \*pira** ‘how many?’  
SekP, SekT, Psn [PMP *\*pija* ‘how much?, how many?’ (Blust ACD note)]
- \*piso** ‘machete’ ?d  
SekP [PAn *\*pisaw* (Dempwolff, in Zorc 1971 item 2764)]
- \*pitu** ‘seven’  
All [PMP *\*pitú* (Zorc 1995)]
- \*pompo:** ‘blunt, dull (point)’  
All [PMP *\*pul* (Zorc 1995)] presumably *\*pulpul* > *\*pumpuq* > *\*pompo:*. Cf PSS *\*pompon* (Mills 891)
- \*puduk** ‘mouth’ ?d  
Psn. Correspondence regular, but possibly borrowed. Cf Tld *pudu'*, Rkg *puduk*, Botteng *pudu'* ‘nose’, Mms *puduk* ‘lip’; suggests < ?*\*puduk* ‘snout, *moncong*’. Note PPUS *\*puduN* ‘nose’, SekP *paropok* ‘snout’
- \*pulo:** ‘ten’  
All [PMP *\*púluq* (Zorc 1995)]
- \*maN-puŋu** ‘bind, shackle’  
SekP; Psn *ka-pungu-ang* ‘ankle (not the joint)’ [PMP *\*puŋu* ‘bunch, cluster’ (Blust ACD)]
- \*pùno:** ‘full’  
SekP, Psn, Bdb [PMP *\*pənuq* (ACD note, or PAn *\*pənúq* Dyen & McFarland 1970 item 468)]
- \*punti** ‘banana’  
SekPL, SekT, Psn, Bdb [PMP *\*punti* (Dempwolff, in Zorc 1971 item 2822)]
- \*pùru** ‘gall (bladder), bile’  
SekP; SekTP *pa'du*, Bdb *pàdu*, Psn *pàru*<sup>29</sup> [PMP *\*qapəju* (Blust ACD)] *\*qa-* > *\*∅-*
- \*puso:** ‘heart’  
SekP [PMP *\*pusuq* (Dyen 1953)]
- \*raa:** ‘blood’  
All [PMP *\*daRaq* (Blust 1999)]

<sup>29</sup> The SekTP form *pa'du* is certainly borrowed, possibly from Rkg, known by the root medial glottal. The Psn and Bdb forms are irregular, and are possibly Seko-ized versions -- *pa'du* > *pàdu*. An alternative analysis, which I consider less likely, is to reconstruct PSek *\*pàdu*. Under that scenario the change to SekP *pùru* would have occurred post-PSek. Although such a progression is regular, the timing is late. It would be the only intervocalic PMP *\*j* to be reconstructed PSek *\*d*, and the only instance of PSek *\*d* > SekP *r*.

**\*raki?** ‘raft’

All [PMP *\*dakit* (Blust ACD)]

**\*raŋka?** ‘fingers, toes’

SekT, Psn, Bdb; SekP ‘crab’. Uncertain etymon. If directly inherited, expect < *\*danŋkaC*. Cf PPUS *\*reŋke?* / *raŋka?* ‘finger’, Rkg *raŋka'* (glottal presumed, not written), Klp *rakka'*, ‘fingers, toes’, PMP *\*kaRakap* ‘crab sp.’ Possibly indirectly inherited from PWMP *\*Zaŋkal* ‘handspan’ (Blust ACD), cf Psek *\*danŋaŋ* ‘span’

**\*ka-rao:** ‘far’

All; frozen prefix [PMP *\*ma-Zauq* (Blust 1999)] cf Nap *karao*, Beh, Bad *karao'*, perfectly corresponding to Psek but unlike any other Kaili-Pamona languages.

**\*rasaŋ** ‘house’

SekP [PIn *\*dasan* (Mills 1981)] cf PKP *\*rasa* ‘hut’

**\*rea:** ‘sword grass, *Imperata cylindrica*’

SekP, SekT; Psn *ha-bahi* [PMP *\*Riaq* (Zorc 1995)] *\*R* > *\*r* irregular, expected < *\*dəRaq*; probably inherited through an intermediate node. Cf PPUS *\*rea*, Mak *rea*, Tam *rea?*

**\*rindiŋ** ‘wall’

SekP, SekTH, SekTP [PMP *\*diŋdiŋ* (Dempwolff, in Zorc 1971 item 1420)]

**\*ka-roa-a:** ‘eight’ cf *\*dua*

SekT, Psn, Bdb; SekP *karo'a:*. Frozen affixes [PMP *\*duha* ‘two’ (Blust 1999)] *\*u* > *\*o* irregular for SekP, more typical of SekT

**\*rombe** ‘hair (of head)’

Psn; alternate *hambe*, younger generation. Cf PSS *\*(d)ombe* ‘fringe’, Mak *rombeng* ‘long-haired’ (Mills), Mal *rumbai* ‘tuft, tassel’, Kul *rembe* ‘body hair’ (Mead 491)

<sup>X</sup>**\*rupa** ‘face’

Psn, Bdb. [< Skt]

**\*sàbu** ‘thousand’

SekP, SekT, Psn; Bdb *sàbu*: *\*u* > *u*: unexplained [PMP *\*sa-Ribu* (Dahl 1981a)] *\*sa-Ribu* > *\*sa-ibu* > *\*səbu* > *\*sàbu*

**\*sadaŋ** ‘chin, jaw’

SekPH, SekT, Bdb; SekPH also ‘gill’; Psn *sadaŋ*, expected *saraŋ*<sup>30</sup>. Cf PSS *\*sadaŋ*

**\*saha** ‘python’

SekP; Bdb ‘snake’ [PMP *\*sawa* (Blust ACD note, 2002)] possibly also applies to SekT and Psn, limited data

**\*sai** ‘illness’

SekP, Psn [PMP *\*ma-sakit* ‘sick, painful’ (Blust 1999)] *\*t* > *\*∅* irregular, but PSS *\*saki* also shows unexplained loss of final consonant; same with Badaic

<sup>30</sup> Mills also noted irregular retention of /d/ in Makassarese (p 811)

- \*sali** ‘floor’  
 SekP, SekTH [PMP \*saləR (Dempwolff, in Zorc 1971 item 2932)]
- \*sape:** ‘chin, jaw’ (possibly \*sàpe:) ?s  
 SekPL [PAn ?\*səpiq (Mills 824, modifying Zorc \*sipi q ‘section, part, strip off’)] Cf PSS  
 \*sippe ‘break, separate’
- \*sia** ‘salt’  
 SekPH, SekT, Psn, Bdb [PMP \*qasiRa (Blust 1999)]
- \*siku** ‘elbow’  
 Psn, Bdb; SekP, SekT *siu* [PMP \*siku (Blust 1999)] Beh, Nap *hiu*<sup>31</sup>
- \*sila** ‘face’ ?s  
 SekP, SekT; Psn ‘forehead’ [PMP \*sila ‘outpouring of light’ (Blust ACD)]
- \*sise:** ‘tooth’ ?d  
 SekP; suggests < ?\*sisiq [PWMP \*sisig ‘pick or clean the teeth’ (Blust ACD)] irregular  
 \*-g > \*-:
- \*maN-sisi?** ‘suck on’  
 SekP [PMP \*səpsəp ‘suck’ (Blust 1999)]
- \*sua:** ‘mouth’  
 SekPL, SekT, Bdb; SekPH ‘voice, word’; SekTA *soa:*. Cf PMAT \**sua*, Mal *suara*  
 ‘voice’ < Skt *svara*; suggests < ?\**suaRa* or ?\**suRa*q or ?\**suqa*. But note Ledo *sumba*  
 ‘mouth’, PMP \**suba/supa*q ‘spittle’
- \*s-um-ule:** ‘return home’ ?s cf *maN-ule:-kin*  
 SekTH, SekTP, Psn; SekTA *s-um-ule*, SekP ‘return’, SekP *maN-sule-i:* ‘return to look for  
 something’ [PMP \**suliq* ‘repay, requite’ (Charles 1973)] probably related to PMP  
 \**um-uliq* ‘return home’ (Blust ACD), but \*∅-> \*s- is problematic. Cf PSS \**ole* (Mills  
 879)
- <sup>X</sup>**sumpi:** ‘tongs’  
 SekP, SekTH. < unknown source *sumpiq* < PWMP \**su(m)pit* (Blust ACD) PMP \**t* >  
 Psek \*: irregular; expected > \*\**sumpi?*. Cf PKP \**supi*’
- \*sura** ‘thorn’  
 SekP, SekT; SekP also ‘short spear or dagger made from e.g. bamboo, *ranjau*’ [PMP  
 \**suja* ‘pitfall spike’ (Zorc 1995)]
- \*suru?** ‘sip, suck, slurp, inhale’  
 All [PWMP \**sədut* ‘sip, suck’ (Blust ACD)]
- \*susu** ‘breast’  
 All [PMP \**susu* (Blust 1999)]
- <sup>X</sup>**tabaro:** ‘sago palm’  
 SekP, SekT; Psn *cubaho:*, cf Ram *tubaro*’. [< unknown Celebic language *tabaro*’]

<sup>31</sup> The Psek reconstruction reflects later loss of \*k, with subsequent borrowing into Behoa and Napu. An analysis reflecting earlier loss of \*k might also be possible, or a reconstruction of doublets.

Irregular *\*r* > *\*r*. If directly inherited from PMP, expect < ?\**tabaduq*, else if etymon = ?\**tabaruq*, expect *\*r* > *\*∅*, > \*\**tabao*:. Cf PKP *\*tabaro*'.<sup>32</sup> Cf PMun *\*tabaro* 'sago flour'. Mills (p 912) also claimed this as a loan for South Sulawesi languages

**\*mi-taha** 'laugh'

SekTP, Psn, Bdb; SekP, SekTA, SekTH *ma-taha* [PMP *\*tawa* (Blust 1999)]

**\*tai**: 'guts, feces'

All [PMP *\*tinaqi* (Blust 1999), *\*t-in-aqi* (Blust ACD note)] metathesis *\*-qi* > *\*-iq* > *\*-i*:

**\*tako**: 'mouth' ?d

SekPH; suggests < ?\**takuq*. Local innovation? No known correspondences

**\*tələj** 'bamboo sp'

SekP, SekT [PWMP *\*tələj* (Blust ACD)]

**\*taliŋa** 'ear'

All [PMP *\*taliŋa* (Blust 1999)]

**\*i-təlu** 'three'

SekP, SekT, Psn; Bdb *tallu* < Klp or Mmj [PMP *\*təlu* (Blust 1999)]

**\*talubamba?** 'snake' ?d

SekPH. Frozen morpheme break possible *\*talubamba?* or *\*ta-lubamba?* or both. Possible local innovation; find outside cognate or delete

**\*tambusu** 'cheek' ?d ?s

SekP, SekT [PWMP *\*busuR* 'satisfied from having eaten enough; satiated' (Blust ACD)]  
Frozen prefix *taN-* presumed, but uncertain meaning. Could be lower level lexical innovation

**\*tanduk** 'horn'

All [PMP *\*tanduk* (Dempwolff, in Zorc 1971 item 3417)]

**\*pa-taruŋ** 'sharp'

SekP [PMP *\*ma-taZəm* (Blust 1999)] Nap, Beh *taru*, Bad *tumaru*. Cf PKP *\*ma-taja*. The Badaic are similar to Psek, not to PKP

<sup>X</sup>**\*tarutu** 'chest' ?d

Psn. Possible loan from KlpKr. Cf KlpKr *tarutu*, Top *tanutu*

**\*tasik** 'sea'

SekP, SekT; Psn *sasi'* (probable loan, Mdr *sasi'* (Mills), KlpBH *sasik*) [PMP *\*tasik* (Blust 1999)]

**\*tède?** 'stand'

All [PMP *\*tənZəg* 'upright, erect', or *\*ti(n)Zəg* 'stand erect' (Blust ACD)] *\*nZ* > *\*nd* > *\*d*

<sup>32</sup> Martens (1990:165) wrote, "Sago was virtually unknown in the Uma mountains until 50 years ago. The term is therefore probably a borrowing in some KP languages and not a native word."

**\*teme:** ‘urine’

SekPH, SekTA, SekTH, Psn, Bdb [PMP \**kəmiq* ‘urinate’ (Blust ACD)] \**a* > \**e* irregular, expected \**ə*; \**k* > \**t* irregular.<sup>33</sup> Cf PPUS, PSS \**teme*, \**tene*

**\*maN-tibe** ‘throw away’

All [PIn \**ti(m)baR* (Mills 1981:71)] irregular \*-*aR* > \**e*, expected < ?\**ti(m)bay* or ?\**ti(m)bəR*. Cf PSS \**ti(m)be*

**\*timbi?** ‘span’ ?d

SekP, SekT. Cf Ram *timbi?*. Appears to be lower level innovation or loan from Rampi, which in either case should not be reconstructed. But, hold until certain of no other cognates.

**\*toa?** ‘base of tree’

SekP, Bdb [PMP \**tuqəD* ‘tree stump, stubble’ (Blust ACD)]

<sup>X</sup>**\*tobok** ‘kris’, <sup>X</sup>*maN-tobok* ‘stab’ cf \**maN-tòbok*

SekPH, SekT [< Sad? *tobok* (Mills 863) < PMP \**təbək* ‘pierce, stab’ (Blust ACD)] If directly inherited from PMP, \**a* > \**o* irregular; expected > \**ò*, therefore considered loan.

**\*ma-tua:** ‘mature, old (living things)’

All; SekP also, ‘hard’ [PMP \**ma-tuqah* (Blust 1999)] metathesis regular \**qa* > \**aq* > \**a*:

**\*tuho:** ‘live, grow’

All [PMP \**tu(m)buq* ‘grow’ (Blust 1999), \**tubuq* ‘sprout’ (Blust ACD note)]

**\*tùhu** ‘sugarcane’

SekP, SekTA [PMP \**təbuh* (Blust pers. com. with Mead)]

**\*tùlu** ‘egg’

SekP [PMP \**qatəluR* (Blust 1999)]

**\*maN-tunu** ‘burn’

Bdb; SekP ‘roast’ [PMP \**tunu* (Blust 1999)]

**\*maN-turo:** ‘point’

SekP, SekT [PMP \**tuZuq* (Dyen, in Zorc 1971 item 3662)] \**tuZuk* (Dyen & McFarland 1970 item 681) rejected because \*-*uk* > \*-*o*: is irregular

**\*ma-turu** ‘lie down’

SekP, SekTH, SekTP; SekTA ‘go to bed’ [PMP \**tuduR* ‘sleep’ (Blust 1999)]

**\*t-um-utu** ‘pound rice’

SekP, Psn; Bdb *t-im-utu*, SekP *maN-tutu* ‘pound’ [PMP \**tutu* ‘pound’ (Blust 1999)]

**\*ua?** ‘blood vessel, nerve, tendon’ cf \**oa?*

SekT; SekPH *oa?*, SekPL *ura?*, Psn, Bdb *uha?*<sup>34</sup> [PWMP \**uRat* ‘blood vessel, nerve,

<sup>33</sup> Mead (pers. com.) suggests possible early loss of *k*-, then addition of a verbal prefix having *t*. Cf MorB *te'eme* ‘urinate’, PBT \**eme* ‘urine’. While this analysis is possible, I am doubtful, because, in addition incorporating an unknown verbal prefix, the form would have to be reanalyzed from a verb back to a noun. \**kəmiq* > \**əmiq* > \**t-emeq* (v) > \**temeq* (n). The verbal infix *-um-* is employed in modern day SekP, *t-um-eme*: ‘urinate’.

<sup>34</sup> The SekPL, Psn and Bdb reflexes are loans, probably from neighboring Rkg and Klp. SekT maintains a distinction between *ua?* ‘vein’ and *oa?* ‘root’, whereas SekPH does not. It is uncertain how that came about.

tendon, root' (Blust ACD)] cf PSS *\*urat* 'vein, tendon; root', PPUS *\*uraʔ*, PKP *\*ua'*, 'vein (blood)'

*\*uhai* 'water, river, drink'

All [PMP *\*wahiR* 'water (fresh)' (Blust 1999)] *\*w-* > *\*uh-*

*\*uhe* 'rattan'

SekP, SekT [PMP *\*quay*,<sup>35</sup> or *\*buay* 'rattan fruit (?)' (Blust ACD)] *\*u-* > *\*uh-* irregular (but cf *\*uhai* and *\*uhati*); expected < *\*quway*?<sup>36</sup> else, *b-u* metathesis, *\*buay* > *\*bue* > *\*ube* > *\*uhe*. Cf Bad, Beh *uwe*

*\*maN-ule:-kiŋ* 'return something, return home' cf *\*s-um-ule:* 'return home'

SekP; SekTA *maN-ule-kiŋ*, SekP *ba-ule:-ule:* 'go to and fro' [PMP *\*maN-uliq* 'return something; restore', *\*uliq-an* 'go home', *\*uliq uliq* 'repeatedly' (Blust ACD)] PSS *\*ole* 'again, return' (Mills 879).

*\*ulo* 'tear, *air mata*' ?s

Psn archaic/obsolete; SekP *ulo:* (*\*o* > *o*: unexplained, suggests < *\*uluq*) [PAn *\*ulaw* 'confusion, perplexity' (Blust ACD)]

*\*ùnuy* 'six'

All [PMP *\*ənəm* (Blust ACD)]

*\*ùpaʔ* 'four'

SekP, SekT, Bdb; Psn *òpa'*, sporadic vowel lowering [PMP *\*əpat* (Blust 1999)]

<sup>X</sup>*uraʔ* 'vein (blood)'

SekPL, Psn, Bdb; SekP also, 'lines in one's palm'. [< Rkg *uraʔ* or KlP < PPUS *\*uraʔ*, PSS *\*urat* 'vein, tendon; root' < PWMP *\*uRat* 'blood vessel, nerve, tendon, root' (Blust ACD)]

*\*uray* 'rain'

SekP, SekT, Psn [PMP *\*quZan* (Blust 1999)]

*\*uruy* 'fish' ?d

SekP. Cf Uma *uru* 'fish'<sup>37</sup>

### 7.3 PSek wordlist reconstructed based on Seko Padang only

*\*maN-ala* 'take, get, fetch'

[PMP *\*ala* (Blust ACD)]

<sup>35</sup> Mills (1975:876) offered PSS *\*we* as an alternate reconstruction. That form would serve as a regular etymon intermediate between PMP and PSek.

<sup>36</sup> Charles (1973) reconstructed PPh *\*quway* and PAn *\*quwey* 'rattan', but *-w-* forms were rejected by later researchers for those levels (where did I read that?), so contrary to first impression, PSek *\*uh* must not reflect PMP *\*uw*.

<sup>37</sup> *\*uru(N)*, if there was such a proto-form, meant 'snakehead fish'. I don't know if that fish was introduced or is native. Ledo *bau uru* 'snakehead fish', Moma, Lindu *uru* 'snakehead fish', Uma *uru mpu'u* 'snakehead fish' (lit., 'real/true fish') (Martens, pers com), SekP *urung maroa'* 'snakehead fish' (lit., 'common fish', but could also mean 'original fish, *ikan asli*')

\**alo?* ‘knobbed hornbill’

[PMP dbl \**alaw* (Blust ACD)] \**aw* > \**o?* irregular, probably a spontaneous innovation; also unexplained in Uma

\**m-àna?* ‘be quiet, calm’ ?p

Prefix presumed, frozen; cf *maN-àna* ‘make straight’, *mu-ling-àna* (second morpheme break presumed) ‘lie at full length’. [PMP \**qənəŋ* ‘quiet, still, at rest’ (Blust ACD)] \**ŋ* > \**?* irregular, but cf CEMP \**qənəp* ‘lie down to sleep’ where *p* > ?*is* regular

\**anitu* ‘ghost, spirit’

[PMP \**qanitu* (Blust ACD)]

\**ara* ‘be, exist, have, wealthy’

[PMP \**wada* (Blust ACD)]

\**maN-àru?* ‘scrape, shave (as rattan), whittle to a point’

[PWMP \**aRud* (Blust ACD)] irregular \**R* > \**r* and \**a* > \**à*; expected < ?\**əjud*

\**maN-asa:* ‘file teeth’

[PMP \**hasaq* ‘whet, sharpen’ (Blust ACD)]

\**maN-baha* ‘carry, bring, lead’

[PMP \**baba* ‘carry on back’ (Blust ACD)]

\**bàka:* ‘crevice’

distinct from \**bika:* [PMP \**bəkaq* ‘split, crack open’ (Blust ACD)]

\**maN-bala:* ‘shape with a machete by cutting away slivers with the grain of wood’

[PWMP \**bala* (Blust ACD)] \**a* > \**a:* irregular. Suggests PWMP etymon be revised to ?\**balaq*

\**balèbe?* ‘cockroach’

\**bàtik* ‘speckled, blotched (as markings on a chicken or snake)’

[PMP \**bətik* ‘tattoo’ (Blust ACD)] Uma *woti* ‘etch, decorate’. Tentative PKP \**woti* ‘etch, decorate’ or ‘speckled’

\**bebe* ‘mute, stupid’

[PMP \**bəlbəl* ‘plugged, stupid’ (Blust ACD)] irregular?<sup>38</sup> \**-l* > \**-∅*, expected? < ?\**bəRbəR*. PKP \**bobo*(’) ‘mute, stupid’. But Behoa has *bebe*

\**benu?* ‘husk’

[PWMP \**bənut* ‘coconut husk’ (Blust ACD)] irregular \**ə* > \**e*, an irregularity common throughout Sulawesi (Mead, pers. com.)

\**maN-bobok* ‘dig horizontally’

[PWMP \**maN-bəkbək* ‘pound into fine particles’<sup>39</sup> (Blust ACD)]

<sup>38</sup> No actual pattern has been established for sound change from etyma ending in *l*. Only two other correspondences are known to me: PMP \**katəl* ‘itch’ > \**PSek mi-katiŋ*, where \**l* > \**ŋ*, and PMP \**pulpul* ‘blunt, dull’ > \**PSek pompo:*, where \**l* > \**q* > \**.*

<sup>39</sup> Whereas most reflexes assign a meaning related to the pulverizing done by weevils, it appears that the Seko term is related to the work of boring. Blust calls PMP \**bukbuk* and \**bəkbək* ‘weevil (dust)’ doublets (ACD note), but does not reconstruct \**maN-bukbuk*.

- \*bubuk** ‘frass, leavings’  
[PMP *\*bukbuk* ‘weevil, dust produced by weevil’ (Blust ACD)]
- \*bulai** ‘co-parents-in-law’  
Cf PPh *\*balaqih* (Blust ACD). Note that *\*q* was lost and did not metathesize with *\*i* to yield PSec *\*-i:*. Also, *\*a* > *\*u* irregular. Nevertheless, this reflex should encourage reconstructing the etymon at a higher level.
- \*maN-buno:** ‘take heads’  
[PMP *\*bunuq* ‘kill’ (Blust 1999)]
- <sup>X</sup>**dama?** ‘resin’ also, ‘tree that produces (copal) resin, *Agathis* sp’  
[< Mal *damar* < PMP *\*damaR* ‘resin’ (Zorc 1995)] If directly inherited, expected > *dama* or *rama*
- \*dayo** ‘stinkbug’  
[PWMP dbl *\*Zaṅaw* ‘paddy-bug’ (Blust 2002)]
- <sup>X</sup>**dapo?** ‘kitchen, hearth’ cf *\*rapu*  
[< undetermined source, possibly Rkg < PMP *\*dapuR* ‘hearth’ (Blust ACD note)] cf PSS *\*(d)apuR*, Mal *dapur*, Sad, PUS, Mmj *dapo*’ (Mills 676)
- \*datu:** ‘king’  
[PMP *\*datu?* ‘chief’ (Zorc 1995)] cf PM *\*datu?* ‘head of clan’ Also, Mills (677) notes, in addition to *datu*, Bug, Mak term *dato*’, with discussion.
- \*maN-dulu** ‘work together, help’  
[PWMP *\*duluR* ‘accompany, go together with’ (Blust ACD)]
- \*elu** ‘saliva’  
[PMP *\*iluR* (Blust ACD)] *\*i-* > *\*e-* unexplained
- \*epi?** ‘small cockroach sp’  
[PMP *\*ipəs* ‘cockroach’ (Blust 2002)]
- \*ereṅ** ‘ladder, stairs’  
[PMP *\*əZan* ‘notched log ladder’ (Blust ACD)] *\*ə* > *\*e* irregular, expected > *è*; *\*a* > *\*e* unexplained
- \*haṅ-kàli?** ‘perhaps, in case, lest’<sup>40</sup> ?s  
[PMP *\*baraṅ* ‘perhaps, if’ (Blust ACD)] cf Mal *barangkali*
- \*harani** ‘bold, daring, savage’  
[PMP *\*baRanih* ‘hero, war leader, dare’ (Blust ACD)] *\*R* > *\*r* irregular. Cf PKP *\*warani*, irregular also
- \*huhu** ‘fish trap’  
[PMP *\*bubu* (Blust ACD)]
- <sup>X</sup>**hulu:** ‘shin’ ?s  
uncertain source < PKP *\*bulu*’ ‘mountain’ < PMP *\*bulud* (Blust ACD), suggests ‘ridge’.

<sup>40</sup> *haṅkàli*’ can alternately be expressed *saṅkàli*’ or *ṅkàli*’ or *kàli*’. If *haṅ-* is derived from *saṅ-* ‘one’, then it is not inherited from *\*baraṅ*. Determining the source, however, is problematic in that the semantics of *kàli*’ are unclear.



- Cf PMP *\*lulud* ‘shin’ (Blust ACD note), PKP *\*wuku-mbulu* ‘bone of the *\*bulu*’, Blt *kaiwulu*, Pen *bulud* ‘shin’
- \*maN-huni* (vt) ‘hide’ cf *\*miN-ka-buni*  
[PMP *\*buni* (Blust 1999)]
- \*idak* ‘step on, trample’  
[PMP *\*inZak* (Blust ACD)]
- \*ma-ila* ‘wild’  
[PMP *\*ilah* ‘wild, timorous, shy’ (Blust ACD)]
- \*ipo*: ‘kind of poison from uncertain source, but probably from the tree, *Antiaris toxicaria*’  
[PWMP *\*qipuq* ‘a tree, *Antiaris toxicaria*, with poison sap’ (Blust ACD)]
- \*kanau*: ‘sugar palm’  
[PWMP *\*qanahaw* (Blust ACD)] irregular *\*q* > *\*k*, expected < *?\*kanahaw*. However, a range of other languages also show *k* reflexes, so the innovation *\*k-* must have occurred at a pre-PSek level (Mead, pers. com.)
- \*kandaŋ* ‘drum’  
[PMP *\*gəndaŋ* (Dempwolff, in Mills 701)]
- \*kau?* ‘deed’<sup>41</sup>  
[PIn *?\*ga(hø)u(k?)* ‘work, do’ (Mills 1981 item 16)] *\*-k?* > *\*-?* cannot be reconciled; expect different consonant. Cf PMP *\*karus*, *kaRus*, *garus*, *gaut*, *kaRud* ‘scratch, scrape’ (Blust ACD). PSek *\*kau?* is a regular fit from any of the cited PMP etyma, but the semantic connection is doubtful.
- \*saN-kido?* ‘a little’  
[PWMP *\*kədit* ‘small in size or amount’ (Blust ACD)] *\*i* > *\*o* irregular
- \*maN-koko* ‘reach inside and take, as rice from a cooking pot; reach inside and fondle’  
[PMP (inferred) *?\*kuhkuh* ‘scrape’ < PAn *\*k-ar-uSkuS* (Blust ACD)]
- \*maN-kutik* ‘ask’  
cf PSS *\*ko(tc)i(C)* ‘press out, pick out’. Mills acknowledged possibility of PSS *\*kutik*, but did not reconstruct because of doubts about semantic relationship.
- \*lame* ‘potato’  
may also reference a wild tuberous plant, not well-known. Cf PSS *\*lame*
- \*limmati*: ‘land leech’  
[PAn *\*Nimatək* ‘leech’ (Dahl 1976), PWMP *\*qali-mətaq* ‘paddy leech’ (Blust ACD)] irregularities from either etymon. Expected < *?\*li-mati?*, possibly from intermediate node, possibly indirectly inherited [check spelling whether one /m/]
- \*lise*: ‘nit, louse egg’  
[PMP *\*lisəhaq* (Blust ACD)] presumably *\*lisəhaq* > *\*lisəq* > *\*lisiq* > *\*lise*:. PMP doublet *\*ləsəq* rejected because PSek reflex has no quickness on *\*i*.

<sup>41</sup> Derived forms of *kau* ‘deed’ reference a range of meanings, including ‘do, a feast, be naughty’

- \*lite:** ‘sticky sap’  
[PMP *\*litəq* ‘sap of tree or plant’ (Blust ACD)]
- \*loba:** ‘multicolored or striped (of dog or cat)’  
PKP *\*loba* ‘spotted, dappled (of animals)’, but possibly borrowed
- \*lose** ‘lazy’  
Suggests < ?\**ləRsay*; analogous to PMP *\*bəRsay* > PSek *\*pi-bose*. Cf PKP ‘lazy’, Sad ‘weak (of one’s body)’
- \*mai** ‘(come) hither’  
[PMP *\*maRi* ‘toward the speaker’ (Dempwolff 1938), *\*maRi* ‘come’ (Blust 1999)]
- \*mana?** ‘inheritance’  
[PMP *\*manaq* (Blust ACD), but see his note] Mills proposed PSS *\*mana(R?)*. Both these forms irregular for PSek; expected < ?\**manaC*, where C is a consonant, but not \**q* or \**R*.
- \*manday** or ‘left, remain (adv), *sisə*’  
Possibly <sup>X</sup>*mannay* if inherited through PSS
- \*mata:** ‘unripe, uncooked’  
[PMP *\*mataq* ‘green’ (Blust 1999)]
- \*mea:** ‘strangler fig’ ?s cf *\*ma-lea:*  
[PMP *\*ma-qiRaq* ‘red’ (Blust 1999)]<sup>42</sup>
- \*mi-naho:** ‘slip and fall while walking’  
[PMP *\*Nabuq* ‘drop, fall’ (Dahl 1976:73-75 [check]), *\*nabuq* ‘fall’ (Blust ACD)]
- \*ma-naray** ‘smart, clever, skilled’  
[PAn *\*ma-Najam* ‘accustomed to, tame’ (Blust ACD)]
- \*mi-ŋaya** ‘agape’  
[PMP *\*ŋaya* (Dempwolff 1938)]
- \*ma-ŋura** ‘young’  
[PMP dbl *\*ŋuda* (Blust ACD)]
- \*ohoy** ‘shoot of palm or rattan’  
[PMP *\*rəbuŋ* ‘bamboo shoot’ (Blust pers. com. to Mead)] similar also to etymon *\*qubud* ‘palm heart’, but \**d* > \**ŋ* makes that correspondence problematic. Note that *\*rə-* did not become \**ò-* as expected. (Try checking out with data source.)
- \*maN-oi?** ‘chew sugarcane’  
[PWMP *\*maN-ququs* (Blust ACD)] vowels irregular; would fit better if < ?\**maN-quqəš*
- \*paday** ‘grassland’  
[PAn *\*pa(n)day* (Mills)] \**n* > \* $\emptyset$
- <sup>X</sup>**\*pasa?** ‘market’  
[< Mal *pasar* < (presumably) Persian *bāzār*]

<sup>42</sup> Mead reconstructed *\*meaq* for ‘red’ in PBT. That form, *mea:* in Seko Padang, is the generic term for ‘strangler fig’, of which there is a red species. The semantic connection remains questionable, but consider Ram *mo-mea* ‘red’ and Mmj *ma-mea* ‘red’.

- <sup>X</sup>*pasi?* ‘granulated’  
[< Mal *pasir* ‘sand’ < PMP *\*pasiR* ‘sand, grain’ (Dempwolff, in Zorc 1971 item 2657)]  
Known only from the expression *kolla pasi* ‘granulated sugar’
- \*pise:* ‘broken in pieces, shattered’  
[PMP *\*pəsəq* ‘break, broken’ (Zorc 1995)]
- \*pisi?* ‘stingy’  
suggests < ?*\*pəs(i/ə)C*. Cf PSS *\*pisA(C)* ‘touch, feel (gently)’ (Mills 804), Sad *pesse* ‘pinch, squeeze’. Related to PMP *\*pəspəs* ‘squeeze’ (Zorc 1995, Blust ACD)? Indirectly inherited from PMP *\*piZət* (Blust ACD)?
- \*ma-ràba:* ‘broken, damaged, rusak’ *\*maN-ràba:* ‘dismantle’  
[PMP *\*Rəbaq* ‘destroy’ (Zorc 1971), PWMP *\*rəbaq* ‘collapse, fall down (as a house)’ (Blust ACD)] *\*R/r* > *\*r* irregular; expected < PMP *\*dəbaq*<sup>43</sup>
- \*rai* ‘fine dirt on skin’  
[PAn? *\*dakiH* ‘dirt(y); body dirt, dandruff’ (Zorc 1995), PMP *\*daki* (Blust pers. com. to Mead)]
- \*rapi:* ‘twin’ ?p  
expected < ?*\*dapiq*. Likely indirectly inherited. Cf PKP *\*rapi* ‘twins, pair (e.g., two bananas in one skin)’, Karo Batak *galuh rapit* ‘double banana’ (ACD note). Probably related to [PWMP *\*apij* ‘twins, double banana’ (Blust ACD)] Martens (pers com) suggests PMP *\*apij* be revised to *\*-apid*
- \*rapu* ‘clan’  
SekPL also, ‘hearth’, SekPH archaic, ‘hearth’ [PMP *\*dapuR* ‘hearth’ (Blust ACD note)]
- <sup>X</sup>*rarame* ‘rice straw’  
[probably < Sad/Rkg *dadame* < PMP *\*ZaRámi* (Zorc 1995)] If directly inherited, irregular *\*Z-* > *\*r-*, *\*R* > *\*r*, and *\*i* > *\*e*; expected > *\*\*da(a)mi*; cf Uma, Bad *deami* (Martens 1990). Cf PSS *\*dame* (Mills 675)
- \*mi-raruŋ* ‘feel cold’  
[PMP *\*ma-dajəm* ‘have chills’ (Blust ACD)]
- \*maN-rau?* ‘grab’  
[PMP *\*dakut* (Blust ACD)]
- \*ma-rùbuk* ‘brittle, friable, crumble’ ?p  
[PMP *\*rəpək* (Blust ACD)] *\*r* > *\*r* irregular; *\*p* > *\*b* similar, but cannot be reconciled. Either not cognate or indirectly related. Should not be reconstructed without outside witness
- \*saha* ‘python’  
[PMP *\*sawa* (Blust ACD note)]
- \*maN-sahu?* ‘sow, scatter, broadcast’  
[PWMP *\*sabuD* ‘sow, strew, scatter’ (Blust ACD)]

<sup>43</sup> If PMP *\*r* holds for *\*rəbaq*, and *\*ma-ràba:* is not a loan in Psek, it would stand as the only known, clear Psek *\*r* reflex of PMP *\*r*.

- \*sala:** ‘different, in error, mistake’  
[PMP *\*saláq* (Zorc 1995)]
- \*miN-sàla:** ‘turn aside, swerve, deviate’  
[PMP *\*saláq* (Zorc 1995)] *\*a* > *\*à* irregular, expected < ?*\*səlaq*
- \*maN-sàŋe** ‘fry without oil’  
[PMP *\*saŋəlaR* ‘fry’ (Blust ACD)] *\*-laR* > *\*∅*. Else, possible loan from Mal *sangra-i* ‘fry without oil’ > *sangai* > *sange*
- \*saŋe?** ‘forest mite?’  
[PMP *\*səŋət* ‘biting insect, wasp’ (Blust 2002)] *\*ə* > *\*a* irregular, expected > *\*à*
- \*mi(N)-siŋka:** ‘stop by, visit’  
[PAn ?*\*si(ŋ)gaq* ‘land, come ashore; visit’ (Mills 893)]
- \*sirij** ‘small, biting red ant’  
[PMP *\*si(n)jəm* ‘ant sp’ (Blust ACD)] Blust (2002) reconstructed PMP *\*səjəm* [check with speaker to be sure no quick *i*]
- \*siso:** ‘snail’  
[PWMP *\*sisuq* ‘edible snail’ (Blust ACD)]
- \*maN-sosok** ‘insert, circulate’ ?s  
[PMP *\*suksuk* ‘stab’ (Blust 1999), *dsj* ‘skewer’ (Blust ACD)]
- \*sùdu** ‘hiccup’  
[Pan *\*sə(n)du* (Blust 1986 item 292)] *\*n* > *\*∅*
- \*suki?** ‘rich’  
[PIn ?*\*sugiR* (Mills 835)] *\*R* > *\*ʔ* irregular; expected < ?*\*sugiC*. Either *\*-R* was reconstructed in error, or SekP inherited this form indirectly
- <sup>X</sup>**sulu:** ‘torch’  
< PKP language *\*suluq* < PMP *\*suluq* (Dempwolff, in Zorc 1971 item 3222)
- \*maN-suo:** ‘command, order’  
[PMP *\*suRuq* (Zorc 1995)]
- \*ma-taha?** ‘tasteless, insipid’  
[PMP dbl *\*tabaR* (Blust ACD)]
- \*tahuni** ‘afterbirth, placenta’  
[PMP *\*tabuni* (Dyen & McFarland 1970 item 658)]
- \*maN-tàmi?** ‘taste’  
[PMP *\*tamis* ‘taste, try’ (Blust ACD)] *\*a* > *\*à* irregular, expected < ?*\*təmis*; cf Tae *\*tammi*. Possibly related to PSek *\*màmi* ‘sweet’
- \*tasak** ‘done cooking’  
[PMP *\*tasak* ‘ripe’ (Charles 1973)] cf PSS *\*tasak* ‘ripe’ (Mills 851)
- \*maN-tatak** ‘chop up for cooking’  
[PMP *\*təktək* ‘cut (wood)’ (Blust 1999)]

\**titi?*(n) ‘drop, *tetes*’

[PMP dbl *\*titis* ‘drip, leak’ (Blust ACD)] *\*i* > *\*ì* irregular; suggests < *?\*tātis*, *?\*tastās* or *?\*tistis*. Considering Mal *tetes*, reconstructing PMP *?\*tistis* might be preferable

\**maN-tòbok* ‘poke’ cf <sup>X</sup>*tobok*

[PMP *\*təbək* ‘pierce, stab’ (Blust ACD)]

\**tuha* ‘*Derris elliptica* extract, fish poison’

[PMP *\*tuba* (Zorc 1995)]

\**maN-tùtuk* ‘pound into pieces’

[PMP *\*tuktuk* ‘knock, pound, beat’ (Blust 1999, dbl ACD)]

\**uase* ‘axe’

[PWMP *\*wasay* (Blust ACD)]

\**ubay* ‘gray hair’

[PMP *\*quban* (Blust ACD)]

\**uhati* ‘sago grub’

[PMP dbl *\*qabatiR* (Blust ACD); PIn *?\*watiR* (Mills)] *\*b-* > *\*w-* > *\*uh-*. Note similarity to PMP *\*qali-wati* ‘earthworm’ (Blust 1999)

## References

- Adelaar, K. Alexander. 1992. *Proto Malayic: The reconstruction of its phonology and parts of its lexicon and morphology*. Pacific Linguistics C-119. Canberra: ANU.
- Adelaar, K. Alexander. 1994. The classification of the Tamanic languages. In *Language contact and change in the Austronesian world*, ed. by Tom Dutton and Darrell T. Tryon, 1-42. Trends in Linguistics, Studies and Monographs 77. Berlin: Mouton de Gruyter.
- Blust, Robert. 1973. Additions to 'Proto-Austronesian addenda' and 'Proto-Oceanic addenda with cognates in non-Oceanic languages', no. II. *Working Papers in Linguistics*, 5.3:33-61. Honolulu: University of Hawaii.
- Blust, Robert. 1979. Proto-Western-Malayo-Polynesian Vocatives. *Bijdragen tot de Taal-, Land- en Volkenkunde* 135:205-251.
- Blust, Robert. 1986. Austronesian etymologies—III. *Oceanic Linguistics* 25:1-123.
- Blust, Robert. 1995, in progress. *Austronesian comparative dictionary*. Computer files, Department of Linguistics, University of Hawai'i.
- Blust, Robert. 1999. subgrouping, circularity and extinction: some issues in Austronesian comparative linguistics. In *Selected papers from the Eighth International Conference on Austronesian Linguistics*, ed. by Elizabeth Zeitoun and Paul Jen-kuei Li, 31-94. Symposium Series of the Institute of Linguistics, 1. Taipei: Academia Sinica.
- Blust, Robert. 2001. Historical morphology and the spirit world: the \*qali/kali- prefixes in Austronesian languages. In *Issues in Austronesian morphology*, ed. by Joel Bradshaw and Kenneth L. Rehg, 15-73. Pacific Linguistics 519. Canberra: ANU.
- Blust, Robert. 2002. The history of faunal terms in Austronesian languages. *Oceanic Linguistics* 41:89-139.
- Charles, Matthew. 1973. Additions not yet in list or English file. Unpublished typescript, 25pp. Ithaca: Cornell University.
- Dahl, Otto Christian. 1976. *Proto-Austronesian, 2nd revised edition*. Scandinavian Institute of Asian Studies Monograph Series, 15. London: Curzon Press.
- Dahl, Otto Christian. 1981a. Austronesian numerals. In *Historical linguistics in Indonesia, part I*, ed. by Robert Blust, 46-58. NUSA, Linguistic Studies in Indonesian and Languages in Indonesia 10. Jakarta: Universitas Katolik Indonesia Atma Jaya.
- Dahl, Otto Christian. 1981b. *Early phonetic and phonemic changes in Austronesian*. Oslo: Universitetsforlaget.
- Dempwolff, Otto. 1934–1938. *Vergleichende Lautlehre des uraustronesischen Wortschatzes*, 3 volumes. Zeitschrift für Eingeborenen Sprachen, Beihefte 15, 17, 19. Berlin: Dietrich Reimer.
- Dyen, Isidore. 1953. *The Proto-Malayo-Polynesian laryngeals*. Baltimore: Linguistic Society of America.
- Dyen, Isidore and Curtis McFarland. 1970. Proto-Austronesian etyma constituting an Austronesian cognate finder list. Unpublished typescript, 31 pp. Yale University.
- Laskowske, Thomas. 1993. Fonologi bahasa Seko Padang dan penerapan teori fonologi autosegmental. In *Penyelidikan bahasa dan perkembangan wawasannya I*, 256-274. Jakarta: Masyarakat Linguistik Indonesia.
- Martens, Michael. 1989. The Badaic languages. In *Studies in Sulawesi linguistics, part I*, ed. by James N. Sneddon, 19-53. NUSA, Linguistic Studies of Indonesian and Other Languages in Indonesia 31. Jakarta: Universitas Katolik Indonesia Atma Jaya.

- Martens, Michael. 1990. Proto Kaili-Pamona: reconstruction of the protolanguage of a language subgroup in Sulawesi. Unpublished typescript.
- Mead, David. 2003. Evidence for a Celebic supergroup. In *Issues in Austronesian historical phonology*, ed. by John Lynch, 115-141. Pacific Linguistics 550. Canberra: ANU.
- Mills, Roger F. 1975. Proto South Sulawesi and proto Austronesian phonology. Ph.D. dissertation, University of Michigan.
- Mills, Roger F. 1981. Additional addenda. In *Historical linguistics in Indonesia, part I*, ed. by Robert Blust, 59-82. NUSA, Linguistics Studies in Indonesian and Languages in Indonesia 10. Jakarta: Universitas Katolik Indonesia Atma Jaya.
- Sirk, Ülo. 1989. On the evidential basis for the South Sulawesi language group. In *Studies in Sulawesi linguistics, part I*, ed. by James N. Sneddon, 55-82. NUSA, Linguistic Studies of Indonesian and Other Languages in Indonesia 31. Jakarta: Universitas Katolik Indonesia Atma Jaya.
- Smith, Beverly Kean. 1993. A phonological reconstruction of Proto-Pitu Ulunna Salu. M.A. thesis, University of Texas at Arlington.
- van den Berg. 1991. Muna dialects and Muna languages: towards a reconstruction. In *Papers from the Fifth International Conference on Austronesian Linguistics, Vol. 2 (VICAL2): Western Austronesian and contact languages*, ed. by Ray Harlow, 21-51. Auckland: Linguistic Society of New Zealand.
- Zorc, R. David. 1971. Proto-Philippine finder list. Cornell University. Unpublished typescript.
- Zorc, R. David. 1995. A glossary of Austronesian reconstructions. In *Comparative Austronesian dictionary: an introduction to Austronesian studies, part 1: fascicle 2*, ed. by Darrel T. Tryon, 1105-1197. Trends in Linguistics, Documentation 10. Berlin: Mouton de Gruyter.

The preceding document was presented at the Tenth International Conference on Austronesian Linguistics (10-ICAL). To properly reference this work, please use the following format:

<LastName>, <FirstName>. 2006. <PaperTitle>. Paper presented at Tenth International Conference on Austronesian Linguistics. 17-20 January 2006. Puerto Princesa City, Palawan, Philippines.  
<http://www.sil.org/asia/philippines/ical/papers.html>

For other papers that were presented at 10-ICAL, please visit <http://www.sil.org/asia/philippines/ical/papers.html>.