

# PRELIMINARY NOTES ON PROTO-WEST CENTRAL MALUKU: BURU, SULA, TALIABO AND AMBELAU

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## Introduction

Based on data he and his colleagues collected during the second Freiburg Moluccan Expedition (1910-1912), as well as earlier published sources, in 1927 E. Stresemann published his pioneering reconstruction of the immediate ancestor of a major subgroup of Austronesian languages. In this book, *Die Lauterscheineungen in den ambonischen Sprachen*, he considered all the languages of Buru, Seram and the adjacent islands (excluding the south-eastern tip of Seram) as descendants of a proto-language which he called "Ur-Ambon".<sup>1</sup>

For decades this important contribution to comparative Austronesian studies was largely overlooked (notable exceptions are Capell, 1943, and Niggemeyer, 1952). In the last decade, however, several linguists have begun to reconsider the data and analyses found in Stresemann. Chlenov and Sirk (1973), Blust (1974, this volume and elsewhere), Chlenov (1976) and Dyen (1978) all encountered a similar problem — lack of reliable data.

Nonetheless, among the several languages of Central Maluku, the best documented is spoken on the most remote and least frequented island: Buru. Despite its isolation. As early as 1897 Hendriks completed a lengthy dictionary and grammatical outline of Buru. Numerous other wordlists, texts and language studies have also appeared; for example, van Doren (1859), van der Crab (1862), Ludeking (1868), Wallace (1869), Jellesma (1875), van der Miesen (1902), Schut (1915, 1919) and Josselein de Jong (1941). Recently C. Devin has been painstakingly revising his own comprehensive dictionary of Buru.

Likewise, although the Sula archipelago has often been cited as one of the least known linguistic areas in Indonesia, the language of the most remote island of the group, Taliabo, is represented by Fortgens' adequate wordlist of Soboyo. Furthermore, Adriani and Kruijt's notes (1914(3):288—295) deal with a dialect closely related to Soboyo.

Drawing on the work of Hendriks and others, Stresemann was able to justify the inclusion of Buru in his "Ur-Ambon" language group. Working with a wordlist of Sula (Wallace), however, Stresemann (1927:12), while acknowledging similarities, insisted on excluding the languages of the Sula archipelago from "Ur-Ambon". Fortgens' work, apparently unknown to Stresemann, and Devin's recent work have enabled R.A. Blust, this volume, to establish the close connection between Buru and Soboyo and to suggest their joint inclusion in a revised version of "Ur-Ambon".

Using the sources mentioned above, as well

as additional materials collected during my fieldwork in the Sula Islands and Buru, the paper presented here proposes a subgroup that includes all the indigenous languages of these islands. The proto-language of this subgroup is identified as Proto-West Central Maluku (PWCM); its descendants are the West Central Maluku languages (WCM). The relationship of PWCM to the languages of Seram and Ambon-Uliase, which are tentatively considered descendants of a single proto-language, Proto-East Central Maluku (PECM), is also touched upon here. These two proto-languages, PWCM and PECM, are descendants of Proto-Central Maluku (PCM).

All the Austronesian languages of central and south Maluku have been identified as members of a larger subgroup, Blust's Central Malayo-Polynesian. This paper does not deal specifically with that higher branch of the Austronesian family. Perhaps, however, this brief study may provide a partial measure of the validity of the CMP hypothesis.

Here it is asserted that PWCM had two branches: Buru-Sula-Taliabo (BST) and Ambelau. First the evidence for BST is presented and its members are discussed. Then the Ambelau branch is sketched. Finally there is a note about the relationship of PWCM to other languages in Central Maluku.

## 1. Buru, Sula and Taliabo

The languages of Buru and the Sula islands<sup>2</sup> display a number of shared innovations. First their uniform treatment of certain nasal clusters indicates their relationship to each other as well as other languages of Central Maluku. Some of these nasal clusters have been reconstructed for PAN; others involve apparent prefixation of a stative marker, \*ma- to a PAN word. At an ancient period this \*ma- was reduced to \*m- which resulted in initial nasal clusters. In addition to these PAN reconstructions, a few reconstructions of PCM words are cited.

\*mb, \*mp > \*mb > b

PAN	Buru	Sula	Taliabo
*kumbar	?ba <sup>3</sup>	kuba	kuba (Kadai)
'palm stem'			
*(m)bubuŋ	bubu	bobo	lehac mbubuŋ <sup>4</sup>
'roof ridge'			
*ma-putiq	boti	boti	boti
'white'			
*ma-penuq	beno		bonu
'full'	'heavy (grains)'		
*ma-baŋkaŋ		baga	
'spread apart'			

PCM	Buru	Sula	Taliabo
**mbetu	beto	betu	botu
'day'			
**mbega		bega	
'tuna fish'			
*nd, *nt > nd > d			
PAN			
*(dD)iq(dD)iq	bridi	makadidi	baratindi <sup>5</sup>
'cold'		'ill'	
*ma-TukTuk	doto	dotu	dutu
'pound'	'bent down'		
*ma-tunu		donu	dunu
'burn'			
PCM			
**ma-tati	dati	dati <sup>6</sup>	
'let down'	'dangle'		

While there are some exceptions to these sound changes,<sup>7</sup> on the whole the mergers of clusters containing nasals and labial obstruents and nasals and dental obstruents are well attested. The reflexes of \*p, \*b and \*t where there is no prenasalization are as follows.

Buru, Sula \*p > p / {#  
Taliabo \*p > h / {V\_\_V

PAN			
*pitu	pito	gapitu	hitu
'seven'			
*upu	opo	opu	n-uhu
'gr. child'			
*pija	pila	pila	hila
'how many'			
*paRi	pahi	pai	hahi (Kadai)
'sting ray'		(Soamole)	

Buru \*p > t / #  
Taliabo p > ø / #

*gatep	atet		ato
'thatch'			
*b > f			
*batu	fatu	fatu	fatu
'stone'			'boar tusk'
*tebuS	tefu		tofu
'sugarcane'			
*qabaRa	faha	lima fa:fa:	faha
'shoulder'		'upper arm'	'forearm'

\*t > t / {#  
V\_\_V

PAN			
*taqi	tai	bakatai	tai
'feces'		'dirty'	
*gatep	atet		ato
'thatch'			
*taliŋa	?liŋa-n <sup>3</sup>	taliŋa	taliŋa ndoŋ
'ear'			

Buru<sup>8</sup> \*t > t / #  
Sula \*t > ø / #  
Taliabo \*t > c / #

PAN			
*uRat	uhat	ua	n-uhac
'vein'			
*kulit	koli-n	koli	kulic
'skin'			

PCM	Buru	Sula	Taliabo
**seget	seget	segi	segec
'high tide'			
**ka(m)but		kafi	kabuc
'carry (side)'			

In Taliabo \*t in final position became *c*. At first glance we can see that in Sula \*t became zero in final position. Closer observation discloses the unexpected high front vowel in two of the Sula forms. Certainly there are occurrences of unexpected vowels in other parts of the Sula corpus but in these two words (*segi* and *kafi*) there is a retrievable conditioning factor. If final \*t became \*c after non-low vowels, then we have discovered both the motivation for final *c* in Taliabo and the conditioning factor for the vowel change observed in Sula. The data here suggests that at an earlier period Sula and Taliabo shared the innovative shift of final \*t to \*c after non-low vowels. Note that the reflex \*uRat confirms this; in Sula there was no vowel change. At the time Sula and Taliabo split apart, \*c was probably an allophone of \*t in final position. After the split each language underwent further innovations. In Sula the vowel preceding \*c was raised and fronted to *i*. Final \*c was lost when all the final consonants were lost in Sula. In Taliabo \*c, which was originally restricted to final position before non-low vowels, became the only reflex of \*t in final position.<sup>9</sup> The sequence of events outlined below suggests itself.

PAN *uRat >			
Proto-Sula-Taliabo *uhac	>Sula uhat	>uha	>ua
	>Tal. uhac	>uhac	>uhac
PCM **seget >			
Proto-Sula-Taliabo *segec	>Sula segic	>segi	>segi
	>Tal. segec	>segec	>segec

In all three languages \*d and \*D merged to \*\*ḍ. This \*\*ḍ was distinguished from the reflex of \*nt and \*nd, \*\*d. In each language \*\*ḍ underwent independent innovations which did not affect \*\*d.

\*d, \*D > \*\*ḍ > r (Buru)  
> l (Sula) (In Falahu and Fagudu dialects \*\*ḍ > h.)  
> h (Taliabo)

PAN			
*(dD)uRi	rohin	loi	
'thorn'			
*dakep	rake	hakʏkotʏ <sup>10</sup>	hako
'embrace'	'grasp'		
*DuSa	rua	guu <sup>11</sup>	howo
'two'			
*ke(dD)eŋ	kere-k	keli	kohoŋ
'stand'			
*muDesi	muri		sa-muhi
'behind'			'later'

PCM			
*dama	raman	lama	
'eye'			

There is great uniformity in the treatment of labial and dental obstruents,<sup>12</sup> with or without prenasalization. Only the three different treatments of \*\*ḍ and the late shift of \*p to *h* in Taliabo, distinguish these three

languages. The treatment of velar obstruents also displays great uniformity. The development of prenasalized velar obstruents is not so clear-cut.

\*k > k { #  
          V\_\_V

PAN	Buru	Sula	Taliabo
*kaSiw 'wood'	kau	kau	kayu
*kami 'we (excl.)'	kami	kami	kami
*ikan 'fish'	ikan		ikan (Beha)
*(dD)aki 'body dirt'	raki	laki	

Buru \*k > t  
Sula \*k > ø  
Tal. \*k > k /    \_#

PAN			
*manuk 'bird'	manut	manu	manuk
*anak 'child'	anat	n-ana	anak
*nunuk 'banyan tree'		nonu	nunuk
*tuak 'palm wine'	tuat		

\*g > g

PAN			
*gelgel 'notch' (PCM 'armpit')	gegen	sa-gege	gegen
*gelam 'Cayeput tree'	gelan		
*ga(m)pit 'hold to- gether'	gapi 'clasp'		

PCM		
**wagil 'oil'	ga-wagi 'greasy'	

There are few examples of PAN \*ŋk or \*ŋg to draw on. Based on the evidence available it seems that Buru merged \*ŋk and \*ŋg whereas in Sula and Taliabo there was neither merger nor reduction of the proto-clusters. In Buru we note \*waŋka>waga 'boat'.and \*tuŋgu>tugu 'place a watch'. In Taliabo, however, \*Raŋkit >ka-haŋki 'raft' (with unexplained loss of -e) but PCM \*\*ŋg-al-awani>ŋgawani 'whale'.<sup>13</sup> Sula displays ŋgawani 'whale' and also ŋgemu 'a small burrowing crustacean (Stomatopoda?)' which should be compared to Buru gemi 'Spanner crab' and Taliabo langemu 'a crustacean'. A widespread PCM form, \*\*soŋka became Sula soŋka 'fork of a tree'.<sup>14</sup> The tentative conclusion is that in Buru \*ŋk and \*ŋg became g (thereby merging with the reflex of PAN \*g); in Sula and Taliabo the PAN prenasalized velar stops were retained as \*ŋk and \*ŋg.

It should be pointed out, though, that in the paradigms of verbs with initial \*k Sula and Taliabo display inflectional forms with g. For example, in Taliabo we find aku kohon 'I stand' but kou gohon 'You stand'. These mergers in the inflectional systems took place at a stage later than BST.<sup>15</sup> Consequently we

can say with some certainty that \*ŋk and \*ŋg did not merge in Buru-Sula-Taliabo.

The reflexes of \*R indicate a uniform treatment in BST.

PAN	Buru	Sula	Taliabo
*Rumaq 'house'	huma	uma	
*ñaRa 'brother (woman speak- ing)'	nahat <sup>8</sup>	nai (-i unexpl.)	naha
*paRi 'sting-ray'	pahi	pai (Soamole)	hahi (Kadai)
*biRaq 'a tuber'	fiha	ka-fia	
*baqeRu 'new'	fehu	feu	fohu
*ma-iRaq 'red'	miha	mia	miha <sup>16</sup>
*layaR 'sail'	la:		laya
*dejeR 'hear'	p-reje		
*qateluR 'egg'	telun	telu	tolu

In Buru and Taliabo \*R>h both initially and intervocalically; in final position \*R>ø. In Sula \*R>ø in all positions. In the Fagudu and Falahu dialects some intervocalic \*R's are reflected as [ʔ].<sup>17</sup> In view of this and the fact that other members of the group display \*R>h, for the time being we suggest that in BST \*R>h in initial and intervocalic positions and R>ø in final position. Buru and Taliabo retained BST \*h from \*R but Sula shifted \*h to ø, perhaps through an intermediate sound still retained in some dialects, i.e. \*\*h>\*\*q>ø, with retention of \*\*q as [ʔ] in some dialects.

The reflex of \*r in BST is uncertain. Possibly \*r was retained as \*\*r.

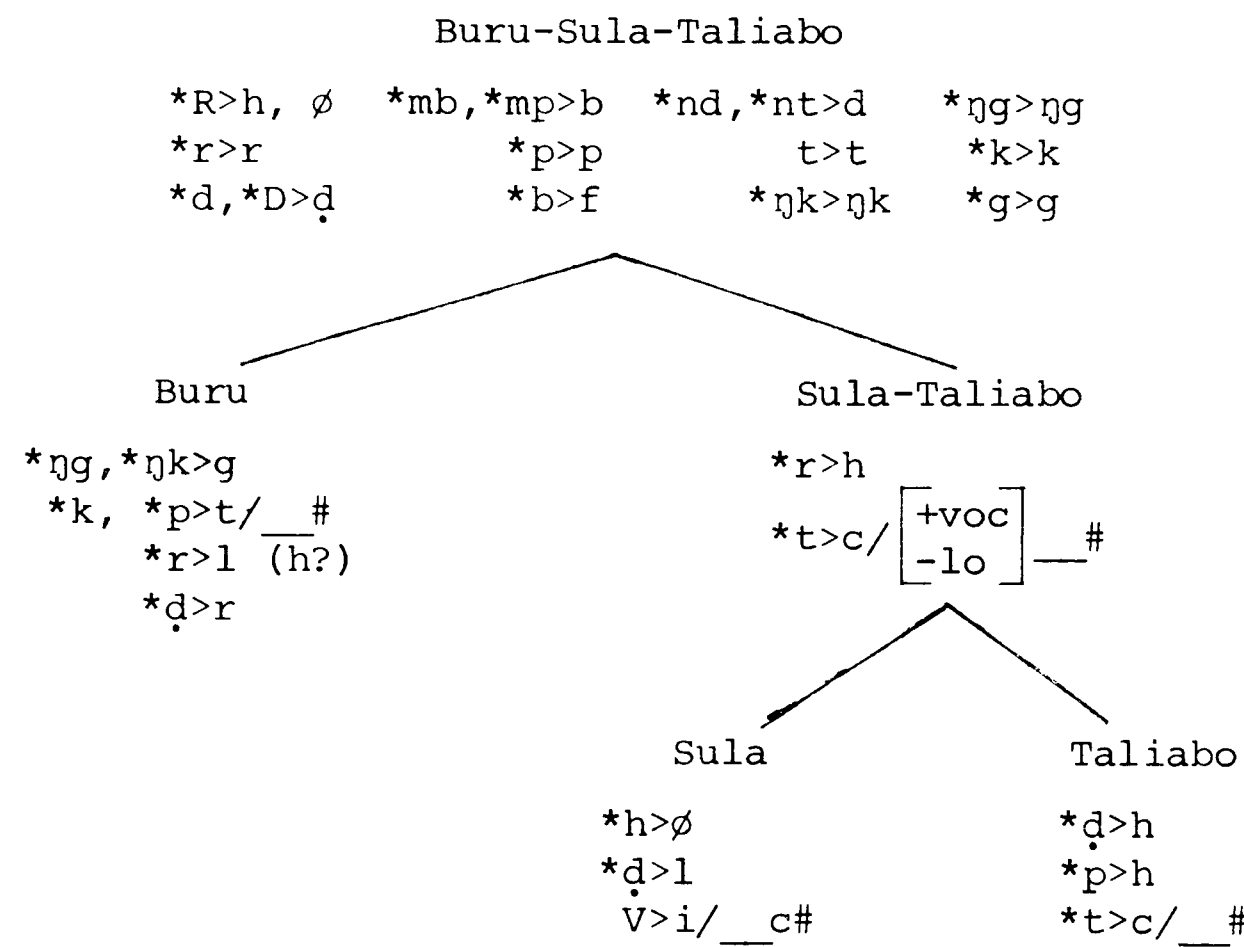
PAN			
*ta(m)buri 'conch'	foli	tafoi	tafuhi
*(ma)burit 'rear'	bohi-n		buhi-n
PCM			
*ra(m)bu <sup>18</sup> 'mat'			habu

Too few clear examples of \*r in Sula are available. Based on the single entry here, \*r merged with \*R as it did in Taliabo. In Sula, as was noted earlier, the reflex of \*R (presumed to be \*h in BST) was later lost.

The reflex of \*r in Buru is not clear. In one case \*r became l; in another h is the relfex of \*r. Stresemann cites two other possible cases of words containing reflexes of \*r: \*baris 'row'>fale 'rainbow' and \*rembay>laba-k 'fly'. There are also the somewhat doubtful comparisons of \*rambak 'spread out'>laba-h 'unwind' and \*raqup 'scoop with hand'>lau 'squeeze'. Against these uncertain reflex in which \*r possibly became l, one must weigh \*raqup>hau 'gather' and \*ra(m)bak>hafa 'disassemble' in which \*r may have become h. Blust (p.c.) points out the existence of a PAN doublet \*Raqup 'join hands cupwise'. Be-

cause of the uncertainty regarding the reflex of \*r in Buru, it may be that the shift of \*r to \*h occurred only in Sula-Taliabo.

The phonological development suggested so far can be represented in the following diagram.



Reflexes of \*z/Z and \*j in these three languages present a rather difficult problem. The resolution to it interlocks with the treatment of \*y. All the known evidence is presented here.

	Buru	Sula	Taliabo
*ŋajan 'name'	ŋa:n	ŋa:	ŋa:n
*pija 'how many?'	pila	pila	hila
*suja 'stake trap'	sura	sua	sola-n
*Suaji 'yo. sibling'	wali, wai <sup>19</sup>		wali <sup>20</sup>
*qalejaw 'sun'	lea	lia	
*qapeju 'gall'	peu-n	m-peu	n-oyu-n
*maja 'dry'			moyo-n
*baja 'say'			faya
*Sajek 'sniff'			hayok
*qajeŋ 'charcoal'			ayoŋ
*buja 'bubble' <sup>21</sup>	fue-n		m-bua-k
*pajey 'rice'	pala		
*layaR 'sail'	la:		laya
*Raya 'big'	ha:	aya	haya
*buqaya 'crocodile'		fuaya (Fagudu)	
*Daya 'land'	dae-k	lai	hoyo
*qa(zZ)ay 'jaw'	a:n	n-aya	ade

	Buru	Sula	Taliabo
*quZan 'rain'		uya	uyaŋ
*Zalan 'road'	alan	ya:ll	
*tazim 'sharp'	'side'		
*mtae 'point out'			ka-tuyuk

In Sula the reflexes of \*z/Z and \*j are distinct from each other; \*z/Z became *y* but \*j became *l* or zero. Sula retained \*y as *y*. In Buru and Taliabo a partial merger of \*z/Z and \*j occurred. Buru displays zero as the reflex of \*z/Z and \*y; while \*j is reflected as *l* or zero. Taliabo displays *y* as the reflex of \*z/Z and \*y, while \*j became *y*, *l* or zero. What sequence of events led to these contemporary reflexes?

The simplest analysis is that in BST \*z/Z became \*y. In Sula-Taliabo \*y was retained as *y*; in Buru \*y (from any source) was lost. (The only apparent exception is \*Daya>dae-k 'landward' which is a directional and perhaps more likely to display idiosyncratic sound change; note the apparent prenasalization of \*D as well.)

Furthermore, in BST there was a weakening of medial \*j. This shared innovation took the form of an unconditioned split of \*j in specific lexical items.<sup>22</sup> In reflexes of \*ŋajan and \*buja \*j>∅. In reflexes of \*pija, \*suja, \*Suaji and \*pajey \*j>l. In other words, \*j became *y*. (In Buru this *y* was deleted when \*y was lost.) Some dialects of Buru, especially in the north, shifted *l* to *r*. Because of subsequent population movements and dialect borrowing, *r* sometimes appears where *l* is expected, including the reflex of \*suja (*sura*). Note also \*lesuŋ>resun 'mortar' and \*lema>rema-n 'deep'. In Sula a late sound change resulted in the loss of *y* when it was preceded by a front vowel; so \*qapeju>\*peyu>peu and \*qalejaw>\*leya>lia (Fagudu, leahama and Falahu lea). In Taliabo, where \*e did not become a high front vowel, *y* was not lost.

Information about \*j in final position is limited.

PAN			
*waRej 'vine, rope'	wahet	waʔi <sup>23</sup>	tuka wahoc 'guts'
*pusej 'navel'	pusen	puhi (Fagudu)	puse
*qulej 'worm, grub'	ule	uli	ule tunu 'toxic caterpillar'
*lalej 'fly'			lale

Based on the Taliabo and Buru entries for \*waRej it is argued that in BST \*j in final position became \*t. This \*t was retained in Buru but it was subject to the same series of sound changes which affected final \*t (from PAN \*t) in Sula and Taliabo. The presence of a high front vowel in Sula indicates that in BST \*j became \*c in the reflexes of \*lalej and \*pusej, although in both Buru and Taliabo the reflexes of \*j were inexplicably lost.<sup>24</sup>

There is another innovation shared by all



PAN	Buru	Sula	Taliabo
*Rumaq 'house'	huma	uma	
*taqi 'feces'	tai	bakatai 'dirty'	tai
*qulej 'worm, grub'	ule	uli	ule tunu
*sugan 'digging stick'	suan		duan 'He pries'

PAN			
*linaw	lina		
'calm'			
*kasaw	kasa	kaha	kasó
'rafter'			
*be(t)aw	feta	feta	foto
'sister (MS)'			
* (t) a(ŋ) kaw	?naka	bi-naka	paka-nako
'steal'			
*quay	ua	ua (Fagudu)	
'rattan'			
*maRuanay	mhana	ma:na	
'man'			
*qa(zZ)ay	a:n	n-aya	ade
'jaw'			
*anay	ana		
'termite'			
*talisay	lisa		talise
'Catapang			
tree'			
*sakay	saka-k		
'ascend'			
*babuy	fafu	fafi	
'pig'			
*xapuy		api	
'fire'			
*Naŋuy	naŋo	naŋu	naŋu
'swim'	'wade'		
*kaSiw	kau	kau	kayu
'wood'			
*pajey	pala		
'rice'			
*maCey	mata	mata	mate
'dead'			
*qaCey			ate
'liver'			

Second, in order to explain the final vowels of the Taliabo entries it is necessary to reconstruct three full diphthongs: \*ay, \*aw and \*iw. To explain the differences between Sula and Buru we must reconstruct \*uy and \*iw

We have no direct evidence. Contemporary reflexes are  $\phi$  and  $h$ . We know that it was probably not  $*h$ . Nonetheless it was probably not a sibilant since no trace of sibilancy is retained in any of the languages. For the time being, it is proposed that  $*S$  was retained in BST as  $*?$ . This phoneme shifted to  $*h$  in Sula-Taliabo, but it was lost in Buru. This suggests that

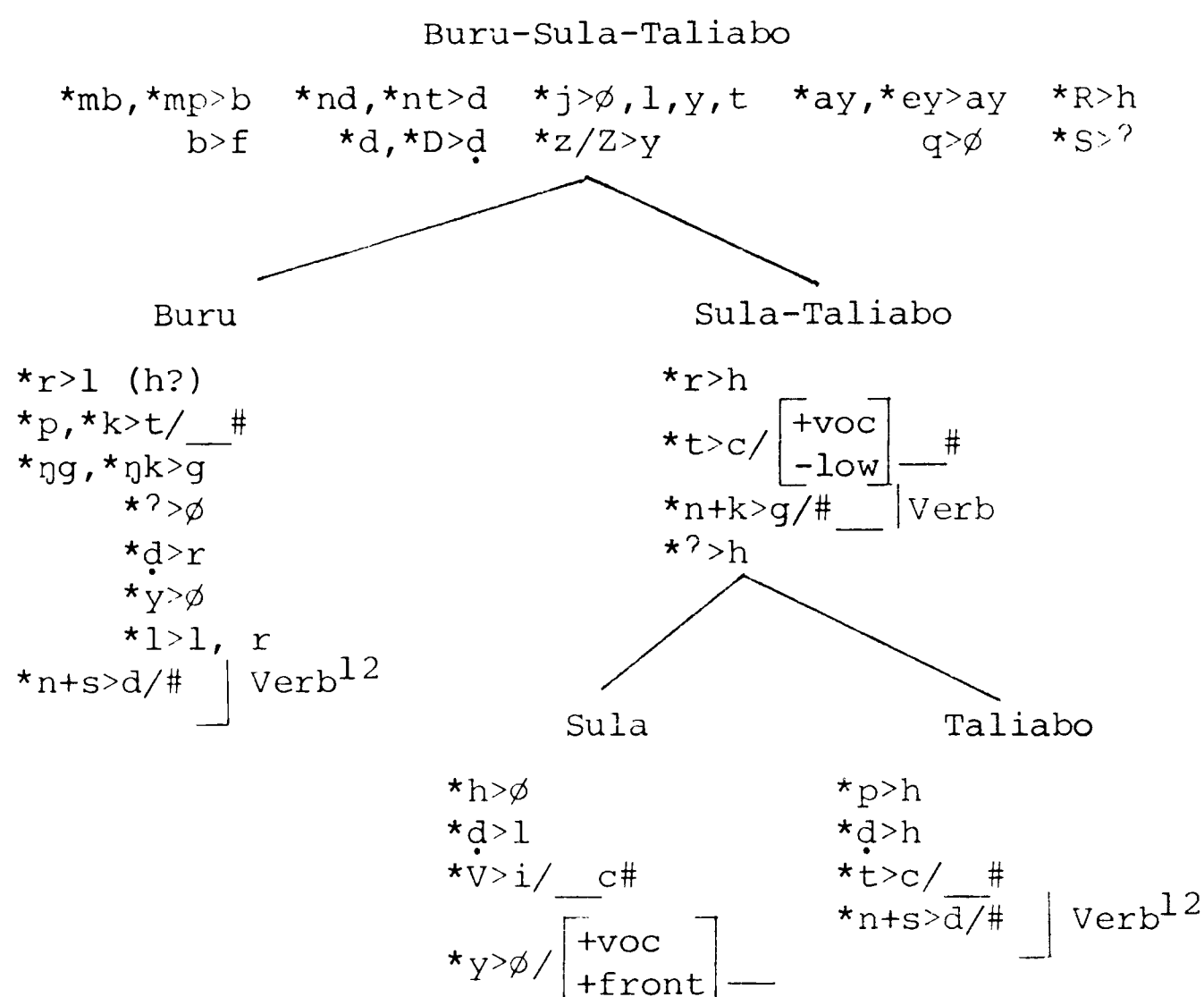
Blust, this volume, notes a word specific metathesis shared by Buru and Taliabo: PAN \*isa>*sia* 'one'. Sula (Fagudu and Falahu dialects) display the same innovation: *hia* 'one'. In the numeral series there was another

er innovation shared by all three languages. Instead of the expected reflex of \*siwa 'nine', BST counted backward from ten. Note the entries for 'nine': Buru *tsia*, *cia*; Sula *gatasia*; Taliabo *tasia*. At first one might suspect that these forms are reflexes of PAN \*siwa with loss of \*w. In fact, no other word in these languages displays loss of \*w. Furthermore, while in Sula *ga-* is prefixed to ordinals, what is the \*ta- reflected in each language?

The apparent prefix \*ta- appears in one more numeral; under the entries for 'eight' we find: Buru *turua*; Sula *gatahua*; Taliabo *walu*. Only in Taliabo is a reflex of PAN \*walu retained; Sula and Buru agree in displaying \*ta+\*DuSa just as the entry for 'nine' in all three languages reflects \*ta+\*isa. We suggest here that in the numeral series \*ta- had the meaning of 'less' or 'towards'.<sup>26</sup>

Because Buru and Sula are not in the same branch of BST, the appearance of reflexes of \*ta+\*DuSa in both languages must be a retention from BST. In Taliabo \*ta-+\*DuSa was lost. It is likely that in BST there were two ways of counting to eight or nine. Either the PAN numerals \*siwa and \*walu were used or the arithmetical "minus-one" and "minus-two" were used. In all three languages \*siwa was lost, perhaps because after the metathesis of \*isa to *sia* the resemblance to \*siwa was too strong.<sup>27</sup> In Taliabo \*walu was retained but \*ta+\*DuSa was lost; in Sula and Buru \*ta+\*DuSa was retained but \*walu was lost.

Taken by itself the lexical innovation discussed above would be of little value in ascertaining historical relationships within a language group, but as a part of the spectrum of innovations already discussed this small piece of evidence interlocks with the conclusions reached earlier. It might be useful to present a cumulative chart of those phonological innovations. Retentions are not considered here.



In addition to the shared innovations sketched above, there are many more innovations in each language which are not treated here. With the exception of the comments about the diphthong series, changes in the vowel systems have not been touched upon here, except in passing. The reflexes of final nasals and liquids in Taliabo have not been investigated. The sporadic merger of \*s and \*\*h in dialects of Sula and Buru has been set aside. It is assumed that these changes are not diagnostic and do not affect the bifurcating tree proposed here. This preliminary highlighting of significant data can be further refined but already many facets of BST are clear.

## 2. Ambelau

It has been possible, then, to sketch an outline of the historical development of Buru-Sula-Taliabo. In turning our attention to the language of Ambelau we will not be able to match the salient evidence marshalled for the other three languages. Stresemann (1927) dealt with a corpus of about one hundred words (van Doren, 1859). The remarks in this paper are based on less than seven hundred words.<sup>28</sup> Despite the insufficient material an attempt to make a tentative analysis of Ambelau will complement and refine our notion of BST and PWCM as well.

Ambelau and BST clearly subgroup together because they display a number of shared innovations. These include: the mergers of \*mb and \*mp as well as \*nd and \*nt, the shift of \*R to h, the lexically specific split of medial \*j, the merger of \*j and \*t in final position and the loss of \*q. Still many innovations distinguish Ambelau from other languages descended from PWCM. Ambelau has no special relationship with any one of the other descendants of PWCM. Despite its geographic proximity to Buru, the linguistic evidence suggests an ancient bipartite split of PWCM into BST and Ambelau.

Ambelau displays the merger of \*mb and \*mp and the merger of \*nd and \*nt.

*mb, *mp > *mb > p		*nd, *nt > *nd > t	
PAN	Ambelau	PAN	Ambelau
*umpu	> opo-ni 'gr. father'	*ni-Da	> ta 'they'
*rumbia	> elpia 'sago'	*ni-ta	> t- 'our (incl)'
		* (ma) TukTuk	> toro 'pound'
PCM		* (ma) tanem	> tane 'plant'
**lambun	> lapu 'shirt'		
**mbetu	> piru 'day'		
**mbega	> peka-i 'tuna'		

In addition we also note the apparent merger of \*ns with \*nd and \*nt. Note \*manser > mate 'marsupial'.<sup>29</sup>

While BST and Ambelau agree in displaying mergers of \*mb and \*mp and \*nd and \*nt, the

contemporary reflexes are strikingly different. The reflexes of \*b, \*p, \*t and \*d/D are also different.

*b > b		*p > f	
PAN	Ambelau	PAN	Ambelau
*babuy	> baβu 'pig'	*pija	> fila 'how many'
*batu	> baru 'stone'	*paRi	> fahi 'stingray'
*buqubuqu	> buβu 'fish-trap'	*xapuy	> afu 'fire'
PCM		PCM	
**butu	> boro 'ten'	**sipan	> sifane 'skin fungus' <sup>30</sup>
*d, *D > *ḍ > l		*t > r <sup>31</sup>	
PAN		PAN	
*DuSa	> lua 'two'	*tamburi	> erbui 'conch shell'
*quDaŋ	> ula-i 'prawn'	*(ma)putiq	> em-puri 'white'
*kuDen	> ule 'pot'	*uRat	> uhare 'vein'
PCM		*laŋit	> lanire 'sky'
**dama	> lam-isi 'eye'		

Except for the retention of \*b as *b* ([β] in intervocalic position), Ambelau displays innovations in all the above reflexes and these innovations are quite different from those of BST. The critical reflex of \*R, however, agrees with BST: \*R > *h*.

PAN			
*ma-iRaŋ	> miha 'red'	*Rusuk	> hosun laleni 'ribs'
*uRat	> uhare 'vein'	*daReŋ	> haha 'blood' <sup>32</sup>
*tuRun	> roho 'descend'	*qateluR	> roho-i 'egg'

There are some exceptions to this sound change. Some may have been caused by assimilation, e.g. \*SaDiRi > *lili* 'post'; others are probably loanwords such as \*Rumaŋ > *luma* 'house'.<sup>33</sup> Regularly Ambelau displays the diagnostic PWCM innovation: \*R > *h*.

In Ambelau there are no cases of final \*R but we must assume that a reflex of \*R was retained in final position until fairly recently, that is at least until after the split of Ambelau from other descendants of PWCM. We have already noted that \*qateluR > *roho-i* 'egg'; in addition we find \*layaR > *ha*: 'sail'. The expected reflex of \*l is *l*; for example, \*lima > *lima* 'five', \*walu > *valo* 'eight', \*laŋit > *lanire* 'sky' and so forth. Apparently the earlier presence of final *h* from \*R affected the reflex of \*l.

Stresemann (1927:19) considered *roho-i* a case of metathesis, apparently with subsequent loss of final \*l; so \*qateluR > *teluh* > *tehu* > *roho-i*. Another interpretation is possible. We have already noted cases of assimilation (c.f. \*daReŋ > *haha* 'blood'). Perhaps \*l became

*h* through assimilation to the final *h*. At a later period final *h* was lost. So, \*qateluR > *teluh* > *tehu* > *roho-i* 'egg'.

In either case, metathesis or assimilation, we must reconstruct *h* (from \*R) in final position in order to provide the proper conditions for the sound change. In this respect, Ambelau differs from BST. In BST there is no trace of \*R in final position. Presumably in PWCM \*R > *h* in all positions. In BST \*h in final position was lost; in Ambelau it was retained.

It is difficult to determine the reflex of \*r in Ambelau. Four words occur which display apparent reflexes of \*r.

PAN	Ambelau	PAN	Ambelau
*ta(m)buri	> erbui 'conch shell'	*surat	> suha 'write'
*(ma)burit	> puhi 'behind'	*rumbia	> elpia 'sago'

With these few cognates it is difficult to draw a conclusion. With the exception of *erbui*, intervocalic \*r became *h*. In initial position \*r > *l*, before undergoing metathesis (?) in *elpia*. Tentatively it is suggested that \*r > *h/V* *V* but \*r > *l/#* *\_\_*. The loss of expected *h* in *erbui* is unexplained.

In Ambelau \*j displays a split: \*j > *l*, *y*.

*pija	> fila 'how many'	*ŋajan	> neYa-mu 'name'
*pajey	> fala 'rice'	*qapeju	> fiYo-ni 'gall'
*Suaji	> βaYi 'yo. sibling'	*maja	> may 'dry'
		*qalejaw	> leYa 'sun'

The two words which display *l* as a reflex of \*j in Ambelau were among those words assumed to have shifted \*j to \*l in BST. The reflexes of \*qapeju, \*qalejaw and \*maja in Ambelau and BST agree in displaying *y* as the reflex of \*j. In BST \*j in \*ŋajan was lost; in Ambelau it is retained as a glide [Y] with raising of the preceding vowel.<sup>34</sup> Apparently the loss of \*j in \*ŋajan was an innovation of BST. The raising of the first vowel of *fiYo-ni* in Ambelau is conditioned both by the following glide as well as the high vowel \*u. In *leYa*, where no such high vowel in the following syllable appears, the first vowel was not raised. Loss of final *a* in *may* is unexplained.

In one entry Ambelau displays *y* as a reflex of \*j whereas BST apparently shifted \*j to *l*. In Ambelau we find \*Suaji > βaYi 'younger sibling (of the same sex)'. Reflexes of this PAN word were troublesome when we considered reflexes of \*j in BST. (See footnotes 19 and 20.) It is difficult to reach a definitive conclusion but a possible solution suggests itself. We note that in Buru there is a doublet pair: *wali* 'spouse's siblings; vocative title for outsiders' and *wai* 'younger sibling of the opposite sex'. While the possibility of borrowing (of *wali* from any language spoken on Seram or of *wai* from Ambelau) exists, let us assume that Buru retains both members of a doublet pair. In Taliabo we find *wali* 'spouse's sister (man's and woman's

view); spouse's brother (woman's view)' but no reflex of \*Suaji which means 'younger sibling'.<sup>20</sup> In Ambelau we find *paʔi* 'younger sibling' but no reflex of \*Suaji which means 'spouse's sibling'. In view of the distribution of the meanings of \*Suaji it is possible that in PWCM \*Suaji became \*\*wali 'spouse's sibling' and \*\*wayi 'younger sibling of the same sex'. Buru retained both members of the pair while Taliabo and Buru lost one or the other.

If our analysis of the reflexes of \*Suaji is correct, then there was complete uniformity in the treatment of \*j in all the descendants of PWCM. There was a split of \*j to \*l and \*y in medial position. Later BST lost \*y in the reflex of \*ŋajan. In final position \*j became \*t in PWCM. We have cited the evidence from BST; in Ambelau we note \*waRej> *wahere* 'rope'. As noted earlier, PAN \*t>r in Ambelau. An apparent exception is \*qulej> *ule-a* 'worm' in Ambelau.

Ambelau as well as the other descendants of PWCM display loss of \*q in all positions. Some Ambelau examples are: \*puqun>*fo:-ni* 'tree', \*qulu>*olo-ni* 'head' and \*daReq>*haha* 'blood'.

Ambelau agrees with BST in the merger of PAN \*ay and \*ey. The treatment of \*ay and other PAN diphthongs points to the necessity of reconstructing all diphthongs at the PWCM level.

PAN	Ambelau	PAN	Ambelau
*maCey	> <i>mara</i> 'dead'	*linaw	> <i>en-lina</i> 'calm'
*quay	> <i>ua</i> 'rattan'	*betaw	> <i>bera</i> 'sister (man's view)'
*qa(zZ)ay	> <i>ala-mu</i> 'jaw'	*babuy	> <i>baʔu</i> 'pig'
*maRuanay	> <i>elmana</i> 'man'	*xapuy	> <i>afu</i> 'fire'

In the entries above it is clear that in Ambelau the last segment of the diphthong was deleted. The data presented here confirm Blust's observation (1976:224—5) that in Ambelau "original diphthongs have undergone simple truncation ..., thus clearly being treated as -VC sequences." The treatment of \*kaSiw 'wood' in all WCM languages, however, demands a refinement of this generalization.

We note Ambelau *ʔau-a*, Buru and Sula *kau* and Taliabo *kayu*. Apparently after the sporadic loss of \*S in PWCM, \*kaSiw became \*kaiw. This was reanalyzed as \*kayu, which was retained in Taliabo; in the other three WCM languages \*kayu underwent subsequent sound changes. As noted earlier in Buru and Ambelau \*y>ø; in Sula \*y between a front vowel and a high vowel also became zero.

We conclude that in PWCM the three-segment sequence VVG was changed to VGV when the last two segments were of the same height but the first segment was not. This shifting of consonantalism in sequences of vowel plus diphthong was an "adjustment" to the disyllabic canonical structure of PAN words. In PWCM consonantal reversal in \*-iw occurred before diphthong truncation. Consequently, the reflex of \*kaSiw in PWCM (\*kayu) was not subject to this general sound change since it

no longer displayed a final consonant. This distinctive innovation of VVG to VGV, under the circumstances described here, was unique to PWCM among the descendants of Proto-Central Maluku.

Although there are a number of innovations which Ambelau shared with other WCM languages, a considerable number of differences between Ambelau and BST are transparent. Earlier we noticed that Ambelau has retained \*b as *b*, while BST shifted \*b to \*f. Ambelau displays no reflex of \*S but in BST we proposed retention of a reflex of \*S (possibly \*ʔ). BST retained \*p and \*t while Ambelau shifted these to *f* and *r*, respectively.

In contrast to BST which changed \*z/Z to \*y, Ambelau displays *l* as the reflex of \*z/Z. PAN \*qa(zZ)ay became *ala-mu* 'jaw' and \*quZan> *ulan* 'rain', thereby merging with the reflex of \*l as in \*qulu>*olo-ni* etc. This indicates that \*z/Z was present as a distinct sound in PWCM.

Another important innovation in Ambelau was the merger of \*ŋ and \*n in all positions. Initial and medial \*ŋ became *n*: \*qalimaŋ> *elmanu* 'a crab'; \*aŋin>*ani* 'wind'; \*ŋajan> *neʔa-mu*; \*ŋisi>*nisi* 'tooth'. There are no clear reflexes of final \*ŋ; possibly *buneha* is a reflex of \*bunbun 'roof ridge'.<sup>35</sup> In BST \*ŋ was clearly retained in initial and medial positions. Note the data from Buru: \*Naŋuy>*naŋo* 'swim'; \*ŋajan>*ŋa:n* 'name'; \*aŋin>*aŋin* 'wind'; \*ŋisi>*ŋisi-n* 'tooth'. The reflex of \*ŋ in final position in BST is somewhat doubtful. Evidence is rather sparse. Nonetheless the reflexes of \*ŋ in Taliabo suggest retention of \*ŋ in final position. A brief note on final \*m, \*n, \*ŋ and \*l in Taliabo is in order.

PAN	Taliabo	PAN	Taliabo
*batan	> <i>m-fatan</i> 'trunk'	*quban	> <i>ufan</i> 'white-haired'
*qajeŋ	> <i>ayon</i> 'charcoal'	*Daqun	> <i>n-don</i> 'leaf'
*(m)bumbun	> <i>m-bubun</i> 'roof ridge'	*taqun	> <i>taun</i> 'year'
*rebuŋ	> <i>hobun</i> 'bamboo shoot'	*quZan	> <i>uyan</i> 'rain'
*buluŋ	> <i>fuluŋ</i> 'scraps'	*saReman	> <i>soman</i> 'outrigger'
*inum	> <i>inoŋ</i> 'drink'	*kawil	> <i>kawin</i> 'hook'
*enem	> <i>noŋ</i> 'six'	*bisul	> <i>fisun</i> 'boil'
*tanem	> <i>tanon</i> 'plant'	*gelgel	> <i>gegen</i> 'armpit'

A preliminary conclusion must be that in Taliabo \*n and \*ŋ did not merge in final position.<sup>36</sup> Reflexes of \*l and \*m in the entries above may be conditioned by the preceding vowel so no firm conclusion can be drawn about their reflexes. However, no such conditioning is apparent in the reflexes of words containing final \*n and \*ŋ.

The treatment of velar stops in Ambelau is different from the BST treatment. While BST retained \*k as \*k, Ambelau displays *ʔ* as the reflex of \*k in initial and medial position. For example, \*kaSiw>*ʔau-a* 'wood'; \*kutu>*ʔuru* 'louse'; \*kami>*ʔami-a* 'we(excl)';



\*wa(ŋ)ka>wa<sup>?</sup>a 'boat'. In final position \*k became zero: \*manuk>manu-e 'bird'; \*anak>ana-i 'child' and \*Sawak 'waist'>aβa- 'small of the back'.<sup>37</sup>

Reflexes of \*g, \*ŋg and \*ŋk are few in Ambelau. Nonetheless the data at hand suggest that these three sounds became k in Ambelau. Note, \*gelgel 'notch'>s-keke-na 'carry pressed between upper arm and flank' and \*kuSkus 'claw'>kuku 'finger' (apparently in the nasal grade).<sup>38</sup>

The innovations shared uniquely by BST and Ambelau are limited in number. Nonetheless based on the material available to us and analyses proposed here we can submit a tentative sketch of PWCM and its two branches: Buru-Sula-Taliabo and Ambelau.

#### Proto-West Central Maluku

\*mb, \*mp>mb \*R>h \*j>l, y, t  
 \*nd, \*nd>nd \*q>ø \*ay, \*ey>ay  
 \*d, \*D>d \*S>? \*iw>yu

#### Ambelau

\*b >b \*d >l \*?>ø  
 \*p >f \*t >r \*k>?, ø  
 \*mb>p \*nd>t \*Z>l  
 \*ŋ >n \*y >ø \*r>l, h

\*g, \*ŋg, \*ŋk>k  
 \*aw, \*ay>a  
 \*uy>u  
 \*ns>t

#### Buru Sula-Taliabo

\*b >f \*d >d \*? >?  
 \*p >p \*t >t \*k >k  
 \*mb>b \*nd>d \*Z >y  
 \*ŋ >ŋ \*y >y \*r >r  
 \*ay>ay \*aw>aw \*uy>uy

\*g >g  
 \*ŋg>ŋg  
 \*ŋk>ŋk

PAN	Murnaten	Hunitetu	Kaitetu
*umpu 'ancestor'	upu	uku 'mo. in-law'	upu
*(ma)penuq 'full'	penu-te	kenu	
*rembia 'sago'	pia		lapia
*tumbak 'spear'		tuka-te 'pole'	tupa
*punti 'banana'	uri	hudi	
*(dD)iq(dD)iq 'cold'			pa-riki
*bankaŋ 'boat'			haka
*bankaŋ 'spread apart'	baka 'split'		pata-haka (Asilulu)

#### PCM

**mbetu 'day'	petu	ketu	petu
**ntibu 'fly'	ribu	dipu	kihu

The treatment of \*R was not as uniform as Stresemann (1927:15—6) declared. It does, however, demonstrate that PECM could not have shifted \*R to h as was the case in PWCM. PAN \*R is reflected as r or l in most languages. Derivation of l from \*\*h is quite unlikely. Note, too, that final \*R is retained as either r or l.

#### PAN

*Rumaq 'house'	luma	luma	luma
*(zZ)uRi 'fish bone'	luli	luli	luli
*layaR 'sail'	laele		la:l

### 3. Proto-East Central Maluku

In the preceding pages the term Proto-West Central Maluku has been used. This implies Proto-East Central Maluku. It is not the intention of this paper to provide a complete description of PECM and its descendants. That would be a considerable undertaking. Rather, in order to bring PWCM into sharper focus, it is worthwhile to step a generation back and survey PECM as well. Instead of describing PECM in detail, selective reference is made to specific languages. For the sake of brevity and accessibility only languages which Stresemann classified as West-Seram-Ambon (which he called "Sub-Ambon") are mentioned. These were the languages whose classification Stresemann least doubted.

In PECM nasal clusters merged: \*mb and \*mp became \*\*mb; \*nd and \*nt became \*\*nd; \*ŋg and \*ŋk became \*\*ŋg. The reflexes of these prenasalized stops differ in each language. The examples cited below are taken from Murnaten, an Alune dialect, Hunitetu, a Wemale dialect, and Kaitetu, a Hitu dialect. Some supplementary information is drawn from closely related dialects or languages.

In PECM \*j in medial position was not split as it was in PWCM. Even in those ECM languages which display a distinctive reflex of \*j, there is only a single reflex.

#### PAN

*pija 'how many'	ila	hila	ila
*ŋajan 'name'	nane	na:	nala
*qapeju 'gall'	s-olu	holu (Lumamoli)	weru (Seit)
*suja 'pit trap'			sula
*Suaji 'yo. sibling'	k <sup>w</sup> ali	wale	wali

Although Hunitetu and Murnaten display ø as the reflex of \*j in the entries for \*ŋajan, the fact that Kaitetu (and most other languages) display l as the reflex of \*j in this word compels us to reconstruct a single reflex of \*j in PECM. There is evidence that at least in one entry PECM shifted final \*j to \*t.

PAN	Murnaten	Hunitetu	Kaitetu
*waRej	k <sup>w</sup> eliti	walit <sup>40</sup>	walet
'rope, vine'	'string'		
*qulej	ule tele <sup>39</sup>	tipu ulei	ure (Seit)
'worm, grub'		'dragon fly'	
*lalej	lale	lale:	lale?
'fly'			
*pusej	use	huse	use
'navel'		(Lumamoli)	

A striking innovation distinguishes PECM from PWCM. Both PECM and PWCM merged \*d and \*D. In PECM \*z/Z also shifted to \*ḍ; in PWCM \*z/Z was retained as a distinctive sound.

PAN			
*ke(dD)eq	kele	ele	ele
'stand'			
*daReq	lalak <sup>We</sup>	la:	lala
'blood'			
*DuSa	lua	lua	lua
'two'			
*quZan	ulane	ulane	ulan
'rain'			
*qa(zZ)ay	ala-mu	ala-mu	ala
'jaw'			
*Zalan	lalane	(ladina)	lalan
'road'			
*Zauq	lauke	lau	lau
'far'			

Although truncation of original diphthongs is widespread in WCM language, Alune dialects retain PAN \*aw under certain circumstances. The details of this argument are presented elsewhere.<sup>41</sup> In the examples below, nouns ending in \*-aw are followed by a noun marker -e. In Alune \*w became *kw*; so those final \*w's which were suffixed by -e became intervocalic. They were not subject to final segment deletion as was the case with other diphthongs, but were retained as -*kw*-.

PAN			
*labaw	ma-laβakwe	ma:pa	malaha
'rat'			
*kasaw	asakwe	yasa-i pui	asa?
'rafter'			
*kalaw	alakwe	manu wa:	manu ala
'hornbill'			
*linaw	nina-e <sup>42</sup>		lina
'calm'			
*maCey	mata	mata	mata
'dead'			
*qaCey	ata	yata	ata upal
'liver'			'lungs'
*qa(zZ)ay	ala	ala	ala
'jaw'			
*sakay	sa:	sa?a	sa?a
'ascend'			
*babuy	babu <sup>43</sup>	papu	hahu
'pig'		'domestic pig'	
*xapuy	au <sup>We</sup>	yahu	au
'fire'			
*kaSiw	ai	yai	ai
'wood'			

Based on the retention of \*-aw in Alune, we reconstruct \*aw in PECM. Evidence about other proto-diphthongs is not clear. For the

time being, we conclude that in PECM \*aw>\*aw but other diphthongs underwent the truncation discussed earlier.

In PWCM \*q>ø without exception. There is no convincing evidence for the retention of \*q in Murnaten, Hunitetu or Kaitetu. In other ECM languages, however, there are indications of the retention of \*q. In Kamarian, south Seram, there is sporadic retention of \*q in initial position. In at least three entries \*q>h: \*qaSelu>haru 'pestle'; \*qijun>hiru 'nose'; \*qi(η)suD 'move a bit'>hahisure 'earthquake'. In Asilulu, Ambon island, we find *walit hulu* 'end of the rope' and *hena hulu* 'far edge of the village'. These are clear reflexes of \*qujun 'protrusion, cape'.

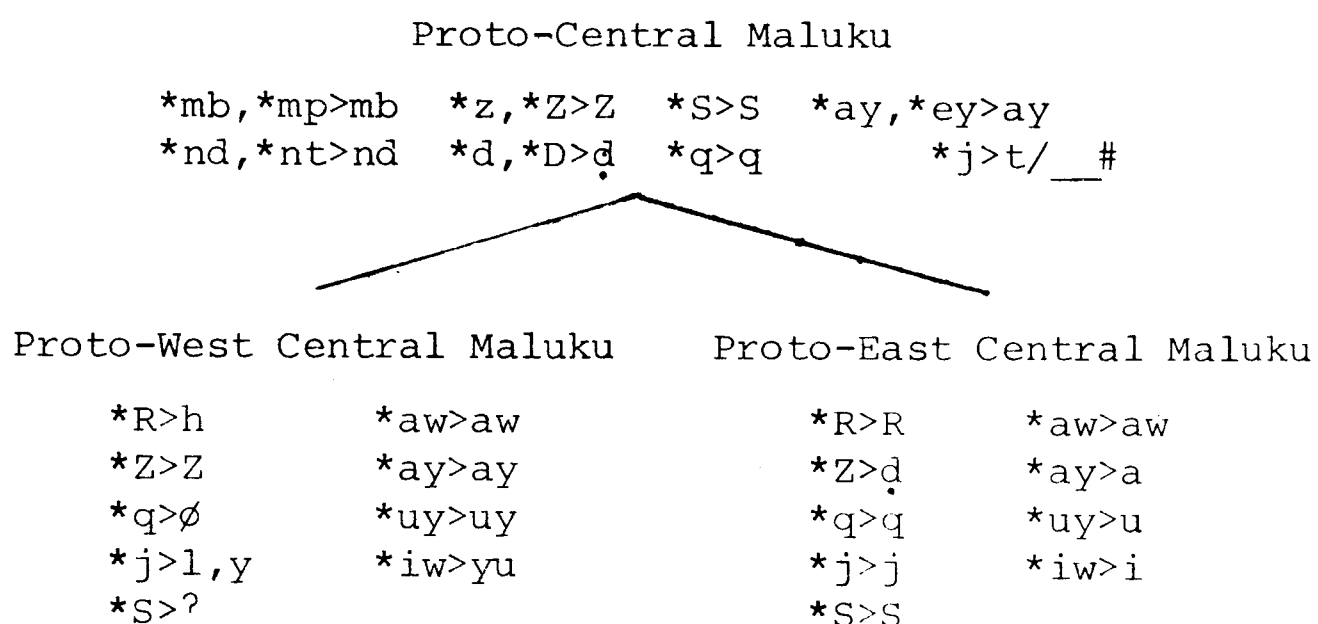
Elsewhere<sup>41</sup> it is demonstrated that final and intervocalic \*q must be reconstructed in PECM in order to account for vowel changes in several ECM languages, including Alune, Boano and Manipa. In view of the retentions of \*q in initial position in Kamarian and Asilulu as well as the role that medial and final \*q played in late vowel changes, it is necessary to reconstruct \*q in all positions in PECM.

In the preceding pages it was noted that PWCM retained a distinct reflex of \*S in at least certain words. There is some evidence that certain ECM languages display a reflex of \*S.

*Sasaq	hasa	Alang, Kaitetu, Asilulu
'whet'		
*Sasaṇ	hasa	Alang, Kairatu, Kasie
'fish gill'		
*kuSit	kuhi	Asilulu <sup>44</sup>
'tear off lightly'		
*Sukay	hu?a-k	Asilulu <sup>45</sup>
'dig up'		

In the four words cited above \*S became *h*. However, in several Alune dialects (Lohia-Tala, Nurue and Murnaten) \*Sasaṇ became *sasa-i* 'fish gill'. If this occurrence of *s* in \*Sasaṇ is an inherited reflex of \*S, it seems likely that \*S, or some sibilant reflex of \*S, was retained in PECM. Before a decision can be reached, more detailed research and compilation of adequate dictionaries must be undertaken.

From the data presented here we can draw a preliminary outline of PCM and its descendants PWCM and PECM.



## Conclusion

The number of innovations shared by PWCM and PECM is not great, though more detailed analysis may produce evidence of more. On the other hand, a clearer knowledge of PCM's closest relatives may demonstrate that some of these shared innovations are in fact retentions of innovations which occurred at an earlier stage. Merger of \*mb and \*mp and \*nd and \*nt is probably one of these retentions of an earlier innovation.

Pending such information, it is proposed here that PWCM and PECM shared certain innovations which point to the existence of a common ancestor, Proto-Central Maluku. A detailed vocabulary study would provide considerable lexical evidence to support this claim. The grammatical data which support this position — partially mentioned by Stresemann — are not touched upon here. This paper is merely a sketch of sound correspondences and their apparent sequential occurrence. It is not a thorough analysis of the data, rather an introduction to the problem.

## FOOTNOTES

The impetus for this study was an early draft of Blust's "The Soboyo reflexes of Proto-Austronesian \*S" which I received in mid 1978. Because of Dr. Blust's encouragement, I ventured to write this paper while still in the field and far from adequate research facilities. I extend my thanks to him and acknowledge the errors as my own. My thanks also go to the Indonesian Academy of Sciences (*Lembaga Ilmu Pengetahuan Indonesia*), under whose auspices I conducted fieldwork in the Sula islands and Buru, as well as most of central Maluku. I express my gratitude to my several hosts and informants in these islands, especially Lukas Sopamena, Lutfi Syech Abu Bakar and Anton Lesnussa. I am indebted to C. Devin who made available to me the latest draft of his impressive dictionary and to A. Sol, M.S.C., bishop of Ambon, who was a major source of moral support and practical advice.

1. Stresemann's use of the term "Ur-Ambon" was an unfortunate choice of labels because it identifies a large and diverse language group spread over several islands by the name of a single small island in the area. That island, in addition to being the homeland of as many as five distinct indigenous languages, is even more famous for its unique dialect of Malay, also called Ambonese (*bahasa Ambon*). Stresemann's nomenclature is misleading and he complicates it further by introducing another term, "Sub-Ambon", to describe a subgroup of "Ur-Ambon". The name "Ur-Ambon" is used in this paper only to refer to Stresemann's group as he defined it. The proto-language dealt with in this paper is Proto-Central Maluku.

2. There are three known indigenous languages spoken on these islands, each with numerous dialects. Little is known about a fourth language, Kayeli, spoken in northwestern Buru; however, based on information avail-

able, it is grouped with the languages of Seram not Buru. The material in this paper is drawn from my fieldnotes of Buru, spoken in southern Buru especially on and in the hinterland of Namrole Bay, Sula, spoken in Waitina on Mangoli Island, and Taliabo as it is spoken in Sofan in the center of Taliabo's south coast (the locus of the Soboyo dialect). The Buru and Taliabo dialects described here are the ones which are best documented and most accessible to the interested reader. No Sula dialect is well-described. The Mangoli dialect referred to here has not undergone a number of obfuscating innovations shared by the dialects spoken on Sula Island; it is, however, a minor dialect from the viewpoint of the total number of speakers and its social prestige. Whenever helpful, this paper draws on material from other dialects of all three languages. In such cases the name of the other dialect appears in parentheses beside the form cited.

3. A late sound change made \*k or \*t a glottal stop when it immediately preceded a consonant; *e* often precedes these glottal stops. Stresemann's transcription (1927:33 and elsewhere) of such entries as though they were geminate consonants (e.g. ?*ba* written as "ebba") is baffling. None of his published sources transcribes them as geminate consonants. Schut and Hendriks used diacritical marks on the *e*, *ě* and *é* in Schut and *é* in Hendriks. Jellesma and van Doren fail to mark the glottal stop. Schut also discards the diacritics in his grade school primer (*Kitab-embasat*, 1915). A dialect with geminate consonants is not impossible but I don't know where such a dialect is spoken.

4. The initial *m-* is not part of a proto-cluster. Here it is an allophonic variant of *n-* (from \*ni), the third person singular possessive pronoun. So it is *lehae m-bubun* 'house, its-roof ridge'. Attention should be drawn to the final palatal stop of *lehae*. This contrasts with Fortgens' analysis of Soboyo's sound inventory. His treatment of the final consonants is misleading. His "-i" or "-ic" should be written *e*, a voiceless palatal stop. In final position he transcribes a glottal stop, ['], as the reflex of \*k; in fact this is a strongly checked [k]. Similarly he records "-in" or sometimes zero for the palatal nasal [-ɲ]. See Collins, 1979 (ms.), regarding the Taliabo dialect "chain".

5. This means 'shiver'. If this is a reflex of \*(dD)in(dD)in, it is a problem because \*nd did not become *d* as predicted. The appearance of *t* suggests that *bara-tin* is not from \*(dD)in(dD)in or, if it is, that it was borrowed. Note that in Banggai, the language spoken immediately to the west of Taliabo, \*nd became *nd*.

6. This means to let down with a rope. Another dialect, Fagudu (as it is spoken in Waibau, Sula) has *dati* 'hang down like a dangling spider, a fruit from a bough or clothes half-falling from a shelf'. Note too in Buru the similar differentiation of active and middle voice in verbs. Beside *dati* 'hang down (fruit from a bough)', for example, we

find *tatik* 'to fish with a sinker'. The reflex of \*TukTuk in Buru also occurs in the middle voice: *doto* 'hang down (of head); bent down with fruit (of boughs)', presumably from an earlier form \*\*toto 'to strike downward, to pound'.

7. Many are only apparent exceptions. Some words were borrowed from other sources; for example *tumba* 'spear' in Sula dialects is probably from Malay rather than directly inherited from \*tumbaq. Many nasal clusters in Taliabo are results of late morphological changes; so they are not subject to sound changes which occurred at an earlier period. For example, *mfahae* 'heavy' does not display a nasal cluster from \*ma-bageRat; instead it is a reflex of \*bageRat with a late preposed pronoun marker *n-*. See footnote 4. Compare *bonu* 'full' and *m-bono* 'depth' (its-full(ness)). Other exceptions are not so easily resolved. Blust, this volume, has cited "kabu-i" (from Fortgens' list) as a reflex of \*kampuŋ 'animal stomach'. The word in question is, in fact, *kabue*, 'carry on one's hip'. Sula has *sakafi* 'cradle in one's arms'. It is argued elsewhere in this paper that final -i in Sula is an indication that there was once a following palatal. Comparing the Sula and Taliabo material we reconstruct an earlier form \*\*ka(m)bu(tj). If this reconstruction is correct, the Sula-Taliabo form can not be a reflex of \*kampuŋ. The expected reflex of \*ŋ in Taliabo would be -ŋ and the Sula form with *f* points to \*b not \*p. It is worth noting that \*\*ka(m)bu(tj) is similar to Malay *kambut*, 'a matwork bag'. This suggests a PAN \*kambut 'carrying bag'. Another form, not recorded in Fortgens but widespread in Taliabo dialects including Soboyo, is more clearly associated with \*kampuŋ. I refer to *kompon* 'fish innards', clearly closer to \*kampuŋ semantically. Here we face a further problem: retention of the cluster \*mp as *mp*. This irregular reflex is best considered a loanword from Banggai which has *kombon* 'buik' (van den Bergh).

8. There is a possibility that this merger to *t* in final position is related to the grammatical suffix -*t* used to mark dependent nouns or verbs. For example, *oso* 'enter' but *geba nosot* 'adopted child'; *tonal isin* 'the flesh of the marsupial' but *tonal isit* 'marsupial flesh'; *huma na ha:* 'The house is big' beside *huma ha:t* 'the big house'. In Devin we find verbals cited only in the dependent form: *mihat* 'red', *hat* 'big' (vowel length not indicated), *safut* 'sprinkled'. While Devin records the dependent form of \*ŋajan *ŋat* 'name', I recorded the independent form *ŋa:n*. This grammatical -*t* must be distinguished from *t* which is the reflex of \*t, \*p and \*k in final position. Words whose prototype end in *ø* (*fatu*, *tefu*, etc.) do not take -*t* in the independent form. We must consider the grammatical -*t* an unrelated phenomenon. Nonetheless, the issue is not completely clear. I recorded the following kinship terms: \*be(t)aw>*feta* 'sister (man speaking)' and \*umpu>*opo* 'grandchild' but \*ipaR>*ifat* 'sister-in-law (woman speaking)' and \*ñaRa>*nahat* 'brother (woman speaking)'. Since the informants who supplied this information were men, it is not impossible that the dependent category was used in reference to a

woman's viewpoint. But that is only speculation. A more rigorous inquiry is necessary. See Jonker's observations (1906).

9. No such evidence is available in Sula for words with \*s in final position. Very few occur in the data. In Taliabo, \*s>c/\_# in \*taŋis>*danie* 'weep' and perhaps \*kiŋkis>*gee* 'scrape' but not in \*ma-nipis>*manipi* 'thin' and \*bitiqis>*foti ntuka* 'calf'. Other occurrences of \*s>c/\_# are loanwords from Malay; for example, \*Ratus>*ratue* 'hundred' (irregular reflex of \*R), \*(q)idus>*ka-irue* 'ladle' (irregular reflex of \*d) and presumably \*galus>*aloe* 'fine'.

10. The symbol V indicates an unspecified devoiced vowel, in this case perhaps /o/. The entry cited here is from Fagudu where \*\*ḍ became *h*; it means 'grasp firmly'.

11. There are two irregularities in this form: loss of final -a (which is also missing in the Falahu form, *gahu:*) and the unexpected appearance of *u* for the expected *a* of the numeral marker *ga-*. The loss of *l* from ḍ, however, is regular. In Sula *l* between like vowels is deleted; for example, \*bulu>*fo:* 'body hair'; \*puluq>*po:* 'ten'; \*puluq \*DuSa>\*\*pululu:>*powu* 'twenty'.

12. In Taliabo and Buru we find evidence that this last merger may have included \*ns clusters. In Buru \*salaq 'wrong'>*dala* 'lose one's way' and \*susu 'breast'>*doso* 'suck at a straw'. In Taliabo \*sugan 'digging stick'>*duan* 'He dabbles' and \*\*sombal 'sail' (Loanword)>*doban* 'He sails'. There is no evidence that this sound change took place in Sula. Furthermore this shift of *ns* to *d* does not seem to take place in proto-clusters; at least we have no clear evidence of such a shift. What we observe here are sound changes which take place in clusters which result from morphological affixation. In Buru \*ma+Verb creates middle voice constructions. (See footnote 6.) In Taliabo \*n+Verb marks the second and third person inflectional forms of the verb. Although the function of such secondary nasal clusters is different in each language (the one marking voice change and the other inflectional change), it may be that the process is an inherited one. However, since Sula displays no convincing evidence, we will assume that the processes were independent innovations in Buru and Taliabo.

13. This reconstruction is based on Asilulu (Ambon) *kaluwan* and Banda (Elat) *gorowan*. Since \*ŋk and \*ŋg merged in both of these languages, it is the Sula-Taliabo evidence which confirms that the reconstruction must have an initial \*\*ŋg.

14. The proto-word \*\*soŋka is based on Asilulu *soka* 'space between boat planks'; Elat *soŋa*, Boano *so?a* 'a tool used to smooth plank fittings of a boat'; Lohia-Tala (Alune) *lame? so?a* 'a bifurcating arrow head'; Adabai (Seti) *ai soka-soka* 'tree forks'; Kaitetu *soka* 'adjoin fitted pieces of wood' and Werinama (Bobot) *sokat* 'space between interfitted palm stems, gangways'. This PCM form is probably related to Malay *seŋkar* 'cross-seat in a boat'. These forms may represent reflexes of either (or both) forms which appear in POC



as \*soka 'cross beam' and \*soka 'ribs of a boat' (Blust, 1972).

15. Furthermore, they affected only the verbal paradigm. Nouns with preposed third singular marker do not display this innovation. In Taliabo we find *peda ŋ-kalali* 'machete, its-lashing' (NP-n-NP) 'the lashing of a machete'. Nor does it affect nominalization (?) *pisok ŋ-gap* 'knife, its-eating', 'The knife's sharp'.

16. This entry is from Waikadai and from a rather obscure corner of the lexicon at that. Probably due to language taboos, all Taliabo dialects have different words for 'red'. In Waikadai, however, we do find *hahi miha*, 'a brownish to pink brown stingray', identified as *Taeniura lymna* Forskal (Cf. Grant). A river is also named Wai Miha. This is considered a name given by outsiders but no contemporary dialect of Sula displays \*R>h.

17. There doesn't seem to be any pattern to it. I presume this is due to interdialectal borrowing. Fagudu is the language spoken in Sanana which has been the administrative capital of the Sula islands for some centuries. Some examples of R>? are: \*DuRi>ho?i 'thorn'; \*uRat>u?a 'vein'; \*biRaq>ka-fi?a 'Alocasia'; \*ma-iRaq>mi?a 'red' and \*paRi>pa?i 'stingray'. But in the same dialect we note: \*baqeRu>feu 'new'; \*SaDiRi>hi: 'post'; \*ñaRa>nai 'brother (woman speaking)'.

18. Stresemann cites "Ur-Ambon" \*\*labu 'mat'. His symbol "l" represents PAN \*r, \*l or \*j. The Taliabo entry confirms a PCM reconstruction of \*\*ra(m)bu.

19. In Buru *wali* is a fictive kinship term for outsiders used to imply collateral relationship; it is also a cover term for spouse's siblings. (More specific terms also exist depending on the sex of the speaker and the referent.) This compares with *wali* in Taliabo which means 'spouse's sister (man's and woman's viewpoints)' and 'spouse's brother (woman's viewpoint)'. In Buru *wai* means 'younger sibling of the same sex'. Perhaps Buru displays a doublet of PAN \*Suaji.

20. In addition to the *wali* form cited here, there is the entry *ulik* 'younger sibling of the same sex'. Note that -k is not a suffix. This should probably be compared to Buru *ali* 'clan'. Van den Bergh lists *ulik* in Banggai; among its meanings is 'jonger broertje of zusje'. Fortgens cites *oeli* 'jongere (broer of zuster)'. The final k of both Soboyo and Banggai suggests that we are not dealing with a reflex of PAN \*Suaji.

21. In Buru there is an unexplained e. In Taliabo the word means 'to bubble up (of bubbles rising to the surface of water when a large stone is tossed in)'. In that case -k is a transitive; m- is the third person pronoun; and b is from \*ma+b.

22. Blust, this volume, first pointed out the lexically specific split of \*j.

23. 'trouser string'.

24. The reflex of \*qulej cited here is a compound form and would not display a final consonant unless it was the second part of the compound. It should be noted that while we

find *tuka wahoe* 'intestines' and *puse nwahoe* 'navel cord' the entry for 'rattan' is *waho* with loss of final e. This suggests that loss of final e is a recent development.

25. The similarity in treatment of \*kaSiw in Sula and Buru is discussed in a later section of this paper.

26. In Soboyo *ta-* is used with directionals to express limit of motion, 'towards'. Compare this arithmetical method of counting from ten to Malay *sembilan* 'nine' (from *se-ambil-an*, 'one taken away').

27. It is worth noting that these languages observe strict taboos on pronouncing in-laws' names. One's in-laws' names and homonyms of them must be replaced by other words, metaphors and loanwords. Both Fortgens and Hendriks have remarked on this. This widespread taboo system may have something to do with the double counting system of these languages.

28. At the time of this writing I have been unable to visit Ambelau. The data were collected and double checked on several occasions over a period of about eighteen months by working with three informants (aged 14 to 46), all from Wailua in Western Ambelau. Villages in eastern Ambelau are said to speak a slightly different dialect.

29. This reconstruction is from Blust (to appear). Evidence from Alune confirms the reconstruction of \*ns in PCM. The final vowel is unexplained.

30. This is based on Wakasihi (Ambon) *sianu*, Banda (Elat) *sian* and Naiyaba (Bobot) *sifan*.

31. The fact that in at least one entry \*t>e suggests that the shift of \*t to \*r is a late innovation. Note \*pitu>ficeo 'seven'; apparently there was a sequence of sound changes: 1. \*t>c/[+high]\_\_\_\_[+high]; 2. \*t>r.

32. The shift of \*d to h is apparently a case of progressive assimilation; compare this to \*SaDiRi>lili 'post' where assimilation has taken place in the opposite direction.

33. In fact, both these words could have been borrowed from almost any language spoken in coastal Seram or Ambon. The fact that Ambelau is an Islamic island and the seafaring peoples of Central Maluku are also Islamic makes borrowing all the more likely. Wakasihi, the village at the base of Ambon's landmark peak, is a likely source of borrowing.

34. In Ambelau this is the characteristic treatment of \*y; for example, \*Raya 'big' >ẽ-heya 'It's grown up'. We assume, then, that in \*ŋajan, \*j>\*y>[Ÿ] (with raising of the preceding vowel).

35. Compare, however, to Buru *buge* and Hitu (Ambon) *hunen* 'roof-ridge'.

36. There may be some exceptions to this generalization. For example, \*ke(dD)en>kohon 'stand'. In this case, however, -n is probably a reflex of \*-ni 'third singular pronoun'. We assume that *koho-n* is a reflexive form.

37. Again the appearance of some forms which display palatalization indicates that at

an earlier period Ambelau probably retained \*k as k; for example \*ikan>icane 'fish'. See footnote 31.

38. There is probably another example of \*g in the corpus. I recorded aŋ-kekehe-o 'I'm shivering'. This may come from a PAN word such as \*geger; see Malay *gigil* 'shiver'. Blust (p.c.) notes his reconstruction \*gerger 'shake, shiver'.

39. 'a caterpillar infesting certain trees'.

40. From Lumamoli, 'vine'.

41. This is probably a loanword from Lisabata, a village two hours walk from Murnaten. In that language n is the regular reflex of \*l.

43. Of the fifteen dialects of Alune which I studied, only one, Hukuanakota, displayed *babu* (from \*babuy) with the meaning 'pig'. In two other dialects *babu* was retained only in compound animal names: Lohia-Tala *mumba-bu* 'gnat' beside *mumu* 'mosquito' (recalling that the presence of gnats in the forest is a hunter's sign that a boar is near) and Buria *kalate babu* 'a large black lizard with a mouth that extends like a snout' beside *kalate* 'inedible lizard'.

44. The gloss in Asilulu is 'rip off small pieces with the forefinger and thumb'. This word could be a reflex of PAN \*kubit 'pinch' as well.

45. The gloss in Asilulu is rather precise: 'dig out (embedded stones); open (jammed doors)'.

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