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 Lauterscheinungen in den ambonischen Sprachen, he considered all the languages of Buru, Seram and the adjacent islands (excluding the southeastern tip of Seram) as descendants of a proto-language which he called "Ur-Ambon".¹

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 Mieson (1902), Schut (1915, 1919) and Joselin 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. Baud and others 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* display a number of shared innovations. Most of 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

<table>
<thead>
<tr>
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<th>Buru</th>
<th>Sula</th>
<th>Taliabo</th>
</tr>
</thead>
<tbody>
<tr>
<td>*kumbar</td>
<td>'ba³</td>
<td>kuba</td>
<td>kuba (Kadai)</td>
</tr>
<tr>
<td>'palm stem'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*(m)bubug</td>
<td>bubu</td>
<td>bobo</td>
<td>lehac mbubug⁴</td>
</tr>
<tr>
<td>'roof ridge'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ma-patiq</td>
<td>boti</td>
<td>boti</td>
<td>boti</td>
</tr>
<tr>
<td>'white'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ma-penuq</td>
<td>beno</td>
<td></td>
<td>bonu</td>
</tr>
<tr>
<td>'full'</td>
<td>'heavy'</td>
<td>(grains)'</td>
<td>baça</td>
</tr>
</tbody>
</table>

31
While there are some exceptions to these sound changes, 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 /\# V__V /
Taliabo *p > h /\# V__V /

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

Buru *p > t/\#
Taliabo p > s/\#

*qatep atet ato
'thatch'
*b > f
*batu fatu fatu
'stone'
*tebuS tefu
'sugar cane'
*qaBaSa faSa lime faSa: faha
'shoulder'

* t > t/\#
(V__V

PAN
*tagi t'ai bakatai t'ai
'feces'
*gatep atet 'dirty'
'thatch'
*taliq na-taliq na
'ear'

Buru8 *t > t/\#
Sula *t > s/\#
Taliabo *t > c/\#

PAN
*URat uhat ua n-uha
'vein'
*Kulit koli-n koli kulic
'skin'

In Taliabo *t in final position became ʂ. 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 (segí and ka�í) there is a retrievable conditioning factor. If final *t became *c after non-low vowels, then we have discovered both the motivation for final ç 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. The sequence of events outlined below suggests itself.

PAN *uRat>
Proto-Sula-Taliabo *uhat > Sula uhat > uha > a
>Tal. uhac > uhac > a

PAN **seget>
Proto-Sula-Taliabo *sege > Sula segí > segí
>Tal. segí > segí > a

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

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

PAN
*(DD)uRi rohin loi
'thorn'
*Dakep rake hak'ykoty10 hako
'embrace'
*DüSa ru gu11 howo
'two'
*ke(D)e eq kere-k keli kohog
'stand'
*MuDesi muri sa-muhi
'behind'
PAN
*dama raman lama
'eye'

There is great uniformity in the treatment of labial and dental obstruents, with or without prenasalization. Only the three different treatments of **d 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.

\[ k > k \]

<table>
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<tr>
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<th>Buru</th>
<th>Sula</th>
<th>Taliabo</th>
</tr>
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<tbody>
<tr>
<td>*kasiw</td>
<td>kau</td>
<td>kau</td>
<td>kayu</td>
</tr>
<tr>
<td>'wood'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ki&lt;sub&gt;mi&lt;/sub&gt;</td>
<td>kami</td>
<td>kami</td>
<td>kami</td>
</tr>
<tr>
<td>'we (excl.)'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ikan</td>
<td>ikan</td>
<td>ikan (Beha)</td>
<td></td>
</tr>
<tr>
<td>'fish'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*(d)baki</td>
<td>raki</td>
<td>laki</td>
<td></td>
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<tr>
<td>'body dirt'</td>
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</tbody>
</table>

Burun *k > t /
Sulan *k > s /
Taliabo *k > k /

\[ g > g \]

<table>
<thead>
<tr>
<th>PAN</th>
<th>manuk</th>
<th>manu</th>
<th>manuk</th>
</tr>
</thead>
<tbody>
<tr>
<td>'bird'</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>*anak</td>
<td>anat</td>
<td>n-ana</td>
<td>anak</td>
</tr>
<tr>
<td>'child'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*nunguk</td>
<td>nonu</td>
<td>nunuk</td>
<td></td>
</tr>
<tr>
<td>'banyan tree'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*tuak</td>
<td>tuat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'palm wine'</td>
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**PCG**

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<tbody>
<tr>
<td>*gag</td>
<td>wa-wagi</td>
<td>'greasy'</td>
</tr>
<tr>
<td>'oil'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 > waŋa 'boat' and *tuggu > tugu 'place a watch'. In Taliabo, however, *Raŋk < Raŋk < <k> *Raŋk < 'raft' (with unexplained loss of -g) but PCG **g-waŋ-a > waŋ <waŋ > 'whale'.<sup>13</sup> Sula displays waŋ <waŋ > 'whale' and also *gwaŋ < *gwaŋ > 'a small burrowing crustacean (Stomatopoda)?' which should be compared to Buru *gwaŋ < *gwaŋ > 'a small crustacean (Crab)'. In Taliabo Langengu < *Eng < *Eng < 'crab'. A widespread PCG 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 *ŋg); 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 kokoŋ 'I stand' but kōu gohō '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.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>*Rumaŋ</td>
<td>huma</td>
<td>uma</td>
<td></td>
</tr>
<tr>
<td>*Raka</td>
<td>naha&lt;sup&gt;8&lt;/sup&gt;</td>
<td>nai</td>
<td>naha</td>
</tr>
<tr>
<td>'brother'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(woman speaking)'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*pāri</td>
<td>pahi</td>
<td>pai</td>
<td>hahi (Kadai)</td>
</tr>
<tr>
<td>'sting-ray'</td>
<td></td>
<td></td>
<td>(Soamole)</td>
</tr>
<tr>
<td>*piRaŋ</td>
<td>fiha</td>
<td>ka-fia</td>
<td></td>
</tr>
<tr>
<td>'a tuber'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*baŋeRe</td>
<td>fehu</td>
<td>feu</td>
<td>fohu</td>
</tr>
<tr>
<td>'new'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ma-iRaŋ</td>
<td>miha</td>
<td>mia</td>
<td>miha&lt;sup&gt;16&lt;/sup&gt;</td>
</tr>
<tr>
<td>'red'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*layaR</td>
<td>la:</td>
<td>laya</td>
<td></td>
</tr>
<tr>
<td>'sail'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*deŋeRa</td>
<td>p-reŋe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'hear'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*gateluR</td>
<td>telun</td>
<td>telu</td>
<td>tolu</td>
</tr>
<tr>
<td>'egg'</td>
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</tbody>
</table>

In Buru and Taliabo *R>* in both initially and intervocally; in final position *R>*. In Sula *R>* in all positions. In the Fagudu and Falahu dialects some intervocalic *R's are reflected as [?].<sup>17</sup> In view of this fact 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>* in final position. Buru and Taliabo retained BST *h from *R but Sula shifted *h to *, perhaps through an intermediate sound still retained in some dialects, i.e. **h>*g>, with retention of **g as [?] in some dialects.

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

<table>
<thead>
<tr>
<th>PAN</th>
<th>ta(m)buri</th>
<th>foli</th>
<th>tafoi</th>
<th>tafuhi</th>
</tr>
</thead>
<tbody>
<tr>
<td>'conch'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*(ma)buri</td>
<td>bohi-n</td>
<td></td>
<td>buhi-n</td>
<td></td>
</tr>
<tr>
<td>'rear'</td>
<td></td>
<td></td>
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</tbody>
</table>

**PCG**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>habu</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ra(m)bui</td>
<td></td>
<td></td>
<td>*mat'</td>
</tr>
</tbody>
</table>

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 t; in another h is the reflex of *R. Stresemann cites two other possible cases of words containing reflexes of *R: *baris 'row' > *pa-fa > *pa-fa > *ramp > laba- into 'fly'. There are also the somewhat doubtful comparisons of *raŋbak 'spread out'> *labak 'unwind' and *raŋqup 'scoop with hand'> *laun 'squeeze'. Against these uncertain reflex in which *R possibly became t, one must weigh *raŋqup < hau 'gather' and *ra(m)bui > hafa > 'disassemble' in which *R may have become h. Blust (p.c.) points out the existence of a PAN doublet *Raŋqu > 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.

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. In reflexes of *gajan and *buja *j>y. In reflexes of *pija, *suja, *Suaji and *pajey *j>y. In other words, *j became y. (In Buru this j 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).

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**PAN**

*waRej* wahet wa?i tuka wahoc 'guts'
*pusej* puse puhi (Fagudu) puse
*navej* ule ule tu
*walej* 'ule ule tunu 'toxic caterpillar'
*lalej* fly

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.24 There is another innovation shared by all
members of BST: the loss of *q in all positions.

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<tr>
<td>*Rumaq</td>
<td>huma</td>
<td>uma</td>
<td></td>
</tr>
<tr>
<td>'house'</td>
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<td></td>
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<tr>
<td>*taqi</td>
<td>tai</td>
<td>bakatai</td>
<td>tai</td>
</tr>
<tr>
<td>'feces'</td>
<td>'dirty'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*gulej</td>
<td>ule</td>
<td>uli</td>
<td>ule tunu</td>
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<tr>
<td>'worm, grub'</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>*suan</td>
<td>suan</td>
<td>duap</td>
<td>'He prays'</td>
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<tr>
<td>'digging stick'</td>
<td></td>
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</tbody>
</table>

Although one vowel change has been mentioned in passing (the shift of *e to ë before -c in Sula), little attention has so far been paid to the vowels of these languages. Given the elementary state of our knowledge of these languages, a thorough consideration of the reflexes of PAN vowels must wait. However, it is important to direct our attention to the reflexes of PAN diphthongs.

<table>
<thead>
<tr>
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<td>*linaw</td>
<td>lina</td>
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<tr>
<td>'calm'</td>
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<tr>
<td>*kasaw</td>
<td>kasa</td>
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<tr>
<td>'rafter'</td>
<td></td>
</tr>
<tr>
<td>*be(t)law</td>
<td>feta</td>
</tr>
<tr>
<td>'sister(MS)'</td>
<td></td>
</tr>
<tr>
<td>*(t)a(q)law</td>
<td>?naka</td>
</tr>
<tr>
<td>'steal'</td>
<td></td>
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<tr>
<td>*quay</td>
<td>ua</td>
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<td>'rattan'</td>
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<td>*maRuany</td>
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<td>'man'</td>
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<td>*talisay</td>
<td>lisa</td>
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<td>'Catapang tree'</td>
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<td>sakay-k</td>
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<td>'ascend'</td>
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<td>*babuy</td>
<td>fafu</td>
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<tr>
<td>'pig'</td>
<td></td>
</tr>
<tr>
<td>*kapuy</td>
<td>api</td>
</tr>
<tr>
<td>'fire'</td>
<td></td>
</tr>
<tr>
<td>*Naguy</td>
<td>nago</td>
</tr>
<tr>
<td>'swim'</td>
<td>'wade'</td>
</tr>
<tr>
<td>*kaSiw</td>
<td>kau</td>
</tr>
<tr>
<td>'wood'</td>
<td></td>
</tr>
<tr>
<td>*pajey</td>
<td>pala</td>
</tr>
<tr>
<td>'rice'</td>
<td></td>
</tr>
<tr>
<td>*macEey</td>
<td>mata</td>
</tr>
<tr>
<td>'dead'</td>
<td></td>
</tr>
<tr>
<td>*qaCey</td>
<td>ate</td>
</tr>
<tr>
<td>'liver'</td>
<td></td>
</tr>
</tbody>
</table>

First, it is important that in BST *ey merged with *ay. This follows from the fact that while the treatment differs in each language it is the same in each language for both diphthongs: Buru, Sula *ay, *ey>â; Taliabo *ay, *ey>c. Consequently we are certain that in BST *ay, *ey>>ay. 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 *uw as separate diphthongs. (The reflex of *Naguy in Sula is unexplained.) In BST, then, the diphthong series was *ay, *aw, *uy and *iw.

In Taliabo the diphthongs underwent a change similar to sandhi; the first segment of the diphthong was moved forward or back depending on the following glide and that glide was then deleted. In Buru the second segment of the diphthong was deleted with no change in the preceding vowel. In Sula there were two strategies. In diphthongs of the sequence [-thig] [+high], namely *uy and *iw, the first segment of the diphthong was deleted. In diphthongs of the sequence [-thig] [-high], namely *aw and *ay, the second segment of the diphthong was deleted. Although there is partial similarity between the reflexes of diphthongs in Buru and Sula, the sound changes which resulted in the contemporary reflexes are not the same. The interconnected double strategy in Sula points against a special connection between Buru and Sula. In the treatment of the diphthongs, except for the early merger of *ay and *ey, each of the languages innovated independently.

Blust, this volume, has pointed to the sporadic retention of reflexes of *S in Tali-}

In Sula the contemporary reflex is 5; in Taliabo it is h. It has been proposed that at an earlier stage Sula retained *h as a reflex of *R. Here it is suggested that in Sula the reflex of *S was also *h. After the split of Sula and Taliabo *h from any source (*R, *r and *S) was lost. In short, the reflex of *S in Sula-Taliabo was *h. What, then, was the reflex of *S in Buru-Sula-Tali-}

We have no direct evidence. Contemporary reflexes are 5 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 re-}

This volume notes a word specific metathesis shared by Buru and Taliabo: PAN *isa>>isa 'one'. Sula (Fagudu and Falahu dialects) display the same innovation: hia 'one'. In the numeral series there was anoth-
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 Tallibo 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-Tallibo. 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. 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

---

In addition we also note the apparent merger of *ns with *nd and *nt. Note *manser > *marsspial.29

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 > baɓu  *pija > fila
'pig'  'how many'
*batu > bara  *paɓi > fahi
'stone'  'stingray'
*bukubuku > buɓu  *xapuy > afu
'fish-trap'  'fire'

**butu > boro  **sipan > sipane
'ten'  'skin (fungus)' 

*ɓ > ɓ  *ɓ > ɓ  *ɓ > ɓ
D > ɓ  D > ɓ  D > ɓ

*ta(m)buri > erbui  *surat > suha
'conch shell'  'write'

PAN Ambelau PAN Ambelau
*ta(m)buri > erbui  *surat > suha
'conch shell'  'write'

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

In Ambelau *j displays a split: *J?/y, y.

Except for the retention of *b as b ([ɓ]) 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-iRaq > miha  *Rusuk > hosun lahen
'red'  'ribs'
*uɓ > ufare  *daɓi > haɓa
'vein'  'blood'
*tuRun > roho  *qateru > roho-
'descend'  'egg'

There are some exceptions to this sound change. Some may have been caused by assimilation, e.g. *SaɓiK > lili 'post'; others are probably loanwords such as *Rumag > ñama 'house'. 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 *qateru > roho- i 'egg'; in addition we find *laya > ha: 'sail'. The expected reflex of *l is l, for example, *lima > lima 'five', *waɓu > waɓo 'eight', *laɓ > laɓi 'sky' and so forth. Apparently the earlier presence of final h from *R affected the reflex of *l.

Stresmann (1927:19) considered roho-i a case of metathesis, apparently with subsequent loss of final *l; so *qateru > teluh > tehulu > roho- i. Another interpretation is possible. We have already noted cases of assimilation (c.f. *daɓi > haka 'blood'). Perhaps *l became h through assimilation to the final h. At a later period final h was lost. So, *qateru > teluh > tehulu > 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  *surat > suha
'conch shell'  'write'

The two words which display i as a reflex of *j in Ambelau were among those words assumed to have shifted *j to *l in BST. The reflexes of *gapeju, *galejaw and *maja in Ambelau and BST agree in displaying y as the reflex of *j. In BST *l in *najam was lost; in Ambelau it is retained as a glide [Y] with raising of the preceding vowel. Apparently the loss of *j in *najam was an innovation of BST. The raising of the first vowel of fiko- ni in Ambelau is conditioned both by the following glide as well as the high vowel *u. In leɓa, 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 1. In Ambelau we find *Saɓu > jeyi 'younger sibling (of the same sex)'. Reflexes of this PWCM 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: wai 'spouse's siblings; vocative title for outsiders' and wai 'younger sibling of the opposite sex'. While the possibility of borrowing (of wai 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 Talabio we find wai 'spouse's sister (man's and woman's
view); spouse's brother (woman's view) but no reflex of *Suaji which means 'younger sibling'.20 In Ambelau we find *mæ ‘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 *y 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 *ga ajan. 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-r-ni 'tree', *qulu> oto-ni 'head' and *daRe> haka '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.

<table>
<thead>
<tr>
<th>PAN</th>
<th>Ambelau</th>
<th>PAN</th>
<th>Ambelau</th>
</tr>
</thead>
<tbody>
<tr>
<td>*maCey &gt; mara</td>
<td>*linaw &gt; eq-lina</td>
<td>&quot;dead'</td>
<td>'calm'</td>
</tr>
<tr>
<td>*quay &gt; ua</td>
<td>*betaw &gt; berata</td>
<td>&quot;sister (man's view)&quot;</td>
<td>&quot;sister (man's view)&quot;</td>
</tr>
<tr>
<td>*qa(z)lay &gt; ala-mu</td>
<td>*babuy &gt; bašu</td>
<td>&quot;j'aw&quot;</td>
<td>&quot;pi'j&quot;</td>
</tr>
<tr>
<td>*maRuanay &gt; elmana</td>
<td>*kapuy &gt; afu</td>
<td>&quot;man&quot;</td>
<td>&quot;fire'</td>
</tr>
</tbody>
</table>

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 *au-a, Buru and Sula kau and Taliabo kau. Apparently after the sporadic loss of *S in PWCM, *kaSiw became *kaiv. 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\>s; 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 *L). 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/S. PAN *qa(z)lay became ala-mu 'jaw' and *quNan> uan 'rain', thereby merging with the reflex of *l as in *gulu> oto-ni etc. This indicates that *z/S was present as a distinct sound in PWCM.

Another important innovation in Ambelau was the merger of *q and *n in all positions. Initial and medial *n became n: *galmaq> elmanu 'a crab'; *aqin> anim 'wind'; *gaajan> neka-mu; *gisiq> ni 'tooth'. There are no clear reflexes of final *q; possibly *buneka is a reflex of *busuq> roof ridge'.35 In BST *n was clearly retained in initial and medial positions. Note the data from Buru: *Nanyu> nago 'swim'; *gaajan> gan 'name'; *aqin> ania 'wind'; *gisi> n 'tooth'. The reflex of *q in final position in BST is somewhat doubtful. Evidence is rather sparse. Nonetheless the reflexes of *n in Taliabo suggest retention of *n in final position. A brief note on final *m, *n, *q and *t in Taliabo is in order.

<table>
<thead>
<tr>
<th>PAN</th>
<th>Taliabo</th>
<th>PAN</th>
<th>Taliabo</th>
</tr>
</thead>
<tbody>
<tr>
<td>*batay &gt; m-fataq</td>
<td>*gaban &gt; ufan</td>
<td>&quot;trunk&quot;</td>
<td>'white-haired'</td>
</tr>
<tr>
<td>*qajeq &gt; ayoq</td>
<td>*Daqun &gt; n-dqun</td>
<td>&quot;charcoal&quot;</td>
<td>&quot;leaf&quot;</td>
</tr>
<tr>
<td>*(m)bubuq &gt; m-bubuq</td>
<td>*taqun &gt; taqun</td>
<td>&quot;root&quot;</td>
<td>&quot;year&quot;</td>
</tr>
<tr>
<td>*rebuj &gt; hobuq</td>
<td>*guZan &gt; uyap</td>
<td>&quot;bamboo&quot;</td>
<td>&quot;rain&quot;</td>
</tr>
<tr>
<td>*buluq &gt; fuluq</td>
<td>*saReiman &gt; soman</td>
<td>&quot;shoot&quot;</td>
<td>'outrigger'</td>
</tr>
<tr>
<td>*inum &gt; inoq</td>
<td>*kawil</td>
<td>&quot;scrap's&quot;</td>
<td>&quot;drink&quot;</td>
</tr>
<tr>
<td>*enem &gt; noq</td>
<td>*bisul</td>
<td>&quot;six&quot;</td>
<td>&quot;hook&quot;</td>
</tr>
<tr>
<td>*tanem &gt; tanaq</td>
<td>*gelgel &gt; geqen</td>
<td>&quot;plant&quot;</td>
<td>&quot;boil&quot;</td>
</tr>
</tbody>
</table>

A preliminary conclusion must be that in Taliabo *n and *q did not merge in final position.36 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 *q.

The treatment of velar stops in Ambelau is different from the BST treatment. While BST retained *k as *k, Ambelau displays * as the reflex of *k in initial and medial position. For example, *kaSiw> *au-a 'wood'; *kutu > *kutu 'louse'; *kami> *umi-a 'we(excl)';
*wa(*)ka>wa? a 'boat'. In final position *k became zero: *manuk>manu- 'bird'; *anak>ana- 'child' and *Sawak 'waist'>aθa- 'small of the back'.

Reflexes of *g, *sg and *gk are few in Ambelau. Nonetheless the data at hand suggest that these three sounds became k in Ambelau. Note, *gelgel 'notch'→gakeke-na 'carry pressed between upper arm and flank' and *kusuKuS 'claw'>gakko 'finger' (apparently in the nasal grade).

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

Ambelau

*b > b *a > [a] *g > [d] *
*p > t *r > r *k > [k] *
*mb > p *nd > t *q > [q] *
*g > y *h > [h] *
*g, *gg, *gk > k *
*aw, *ay > a *
*uy > u *
*ns > t *

Buru Sula-Taliabo

*h > f *d > [d] *g > [g] *
*p > t *t > [t] *k > [k] *
*mb > b *nd > [d] *g > [g] *
*g > y *y > [y] *r > [r] *
*ay > ay *aw > aw *uy > uy *

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.

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.

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; *ng and *gk became **gk. The reflexes of these presinalized 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.

PAN

Murnaten

Hunitetu

Kaitetu

*uμpu uku upu
*άμα't *μπου 'mo. in-law'
*άμπου kenu
*καμμένα lapia
*σαγο 'pia
*σαγο tuka-te tupa
*πόντι 'pole'
*ποντί hudi
*βανά 'banana'
*βανά pa-riki
*κόλι cold'
*βάνακαq haka
*βάνακα baka
*άπαρα 'spread' pata-haka
*άπαρα (Asilulu)

PCM

*μεμετου petu ketu petu
*κατμένα day'
*τατμου ribu dipu kihu
*βλύ 'fly'

PAN

Rumaq

luma luma luma

'house'

*αλομά ti luli luli luli

'fish bone'

*λμάρα laele laele la

'sail'

'Yo. sibling'

Although Hunitetu and Murnaten display θ as the reflex of *j in the entries for *gajən, the fact that Kaitetu (and most other languages) display θ 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.
A striking innovation distinguishes PECM from PWCM. Both PECM and PWCM merged *d and *D. In PECM *z/Z also shifted to */ɟ/ in PWCM *z/ʒ was retained as a distinctive sound.

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.41 In the examples below, nouns ending in */-aw/ are followed by a noun marker */-e/. In Alune */w/ became */w/ so those final */w/ 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

<table>
<thead>
<tr>
<th>*awRej</th>
<th>*waRej</th>
<th>40</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>rope, vine</em></td>
<td><em>Meliti</em></td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td><em>worm, grub</em></td>
<td><em>ule tele</em></td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>*lalej</td>
<td>*laRej</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td><em>fly</em></td>
<td>*luRej</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>*pusej</td>
<td>*usej</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td><em>navel</em></td>
<td>(Lumamoli)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In PWCM *q/g without exception. There is no convincing evidence for the retention of *q in Murnaten, Huniteku or Kaitetu. In other ECM languages, however, there are indications of the retention of *q. In Kamaranian, south Seram, there is sporadic retention of *q in initial position. In at least three entries *q>h: 1. *qaSeLu>hara 'pestle'; 2. *qjuwa>hiru 'nose'; 3. *qινς>suD 'move a bit'>hara 'earthquake'. In Asilulu, Ambon island, we find *waLala 'end of the rope' and *waNa 'far edge of the village'. These are clear reflexes of *qjuwa 'protrusion, cape'.

Elsewhere 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 rejections of *q in initial position in Kamaranian 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.

### PAN

<table>
<thead>
<tr>
<th>*ke(dd)e?</th>
<th>kele</th>
<th>ele</th>
<th>ele</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>stand</em></td>
<td>*daRej</td>
<td>*laRej</td>
<td>*laRej</td>
</tr>
<tr>
<td>*duSa</td>
<td>lua</td>
<td>lua</td>
<td>lua</td>
</tr>
<tr>
<td><em>two</em></td>
<td>*quzan</td>
<td>ulane</td>
<td>ulane</td>
</tr>
<tr>
<td>*ga(z)ay</td>
<td>*ala-mu</td>
<td>*ala-mu</td>
<td>*ala</td>
</tr>
<tr>
<td><em>julaw</em></td>
<td>*laRej</td>
<td>*laRej</td>
<td>*lalal</td>
</tr>
<tr>
<td><em>road</em></td>
<td>*laRej</td>
<td>*laRej</td>
<td></td>
</tr>
<tr>
<td><em>kujaw</em></td>
<td>*laRej</td>
<td>*laRej</td>
<td></td>
</tr>
</tbody>
</table>

In the four words cited above *S became *h. However, in several Alune dialects (Lohietalisa, Tala, Nurue and Murnaten) *Sasaq became *sasaq- 'fish gill'. If this occurrence of *S as *sasaq 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 PECM and its descendants PWCM and PECM.

**Proto-Central Maluku**

*mb, *mb >/mb */z, */2*/s */2*/s */s */s */aw */e >/ay */ey >/ay */nd >/nt >/nd */d, */D >/q */q */j >/t /

**Proto-West Central Maluku**

**Proto-East Central Maluku**

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

Pendu this 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 Stresemmann—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 Sobooy 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 (Lebaga 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. Devon, 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. Stresemmann'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 (Bahas Ambon). Stresemmann'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 Stresemmann'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, Kayelli, spoken in northwest-ern Buru; however, based on information available, it is grouped with the languages of Sera 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 Taliaibo as it is spoken in Sofan in the center of Taliaibo's south coast (the locus of the Sobooy dialect). The Buru and Taliaibo 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. Stresemmann's transcription (1927:33 and elsewhere) of such entries as though they were geminate consonants (e.g. *h* written as "ebb") is baffling. None of his published sources transcribes them as geminate consonants. Schut and Hendriks used diaritical marks on the a, ë and ä 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 (Kitaembazaat, 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 luha m- babuq "house, its-roof ridge". Attention should be drawn to the final palatal stop of lepi. This conservative final palatalization in the sound inventory of Sobooy's sound inventory. His treatment by the final consonants is misleading. His "-i" or "-ic should be written r, 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 [-m]. See Collins, 1979 (ms.), regarding the Taliaibo dialect "chain".

5. This means 'shiver'. If this is a reflex of *dDlq (dDlq, it is a problem because nd did not become n as predicted. The appearance of suggests that beru-gi is not from *(dDlq (dDlq or, if it is, that it was borrowed. Note that in Bangai, the language spoken immediately to the west of Taliaibo, *nd became nd.

6. This means to let down with a rope. Another dialect, Pagu (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: *datu '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 samba 'spear' in Sula dialects is probably from Malay rather than directly inherited from *tumbag. 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, mfahaa 'heavy' does not display a nasal cluster from *ma-baqeRat; instead it is a reflex of *baqerat 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 *kampuq 'animal stomach'. The word in question is, in fact, kabua, 'carry on one's hip'. Sula has soko'i 'cradle in one's arms'. It is argued elsewhere in this paper that final -n in Sula is an indication that there was once a following palatal segment. Comparing the Sula and Taliabo material we reconstruct an earlier form **ka(m)bu(tj). If this reconstruction is correct, the Sula-Taliabo form cannot be a reflex of *kampan. The expected reflex of *n in Taliabo would be -ŋ and the Sula form with ʃ points to *b not *p. It is worth noting that **ka(m)bu(tj) is similar to Malay kambat, 'a network bag'. This suggests a PAN *kambat 'carry network bag'. An older form, not recorded in Fortgens but widespread in Taliabo dialects including Soboyo, is more correctly associated with *kampan. I refer to *kampan 'fish innards', clearly closer to *kampan 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 komboq 'bulk' (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 goba goaet 'adopted child'; tonal lehn 'the flesh of the hanging marsupial flesh'; huma ma ha: 'The house is big' beside huma hat: 'the big house'. In Devin we find verbal stems cited only in the dependent form: mihiat 'red', hat: 'big' (vowel length not indicated), safut 'sprinkled'. While Devin records the dependent form of *gajen gat 'name', I recorded the independent form gwur. 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 * (jata, teu', 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: *b(e)tawfeta 'sister (man speaking)' and umpurupa 'grandchild' but *ipaR- 

ijat 'sister-in-law (woman speaking)' and 

Raharnahat '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/> ᶻ in *tagis>daqia 'weep' and perhaps *ksiakia 'scrap' but not in *ma-niips> miipp 'thin' and *bitigat sof >niqia 'calf'. Other occurrences of *s>c/> ᶻ are loanwords from Malay; for example, *Ratas>ratua 'hun-
dred' (irregular reflex of *k), *(g)idus> ka-emua 'ladle' (irregular reflex of *d) and presumably *galus>alos 'fine'.

10. The symbol Y indicates an unspecified devoiced vowel, in this case perhaps /o/. The entry cited here is from Fagudu where *h 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, galu') and the unexpected appearance of a for the expected a of the numeral marker ga-. The loss of l from ᶻ, however, is regular. In Sula /e/ between like vowels is deleted; for example, bulu>jo: 'body hair'; puluq>pura:ten'; puluq *DaSa>*pululur>poue 'twenty'.

12. In Taliabo and Buru we find evidence that this last merger may have included *ns clusters. In Buru *salaq 'wrong' -ula 'lose one's way' and *susu 'breast' > isoa 'suck at a straw'. In Taliabo *musgan 'digging stick' > duap 'He dibbles' and *somal 'sail' (Loanword) > doban 'He sails'. There is no evidence that this sound change took place in Sula. Furthermore this shift of nas 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 there is no convincing evidence, we will assume that the processes were independent innovations in Buru and Taliabo.

13. This reconstruction is based on Asilulu (Ambon) kalawuan and Banda (Elat) gorowam. Since *y and *ŋ 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 *sosya is based on Asilulu soko 'space between boat planks'; Elat soga, Boano sọa 'a tool used to smooth planks fittings of a boat'; Lohia-Tala (Alune) lama? sọa 'a bifurcating arrow head'; Adabai (Seti) ai soka-soka 'tree forks'; Kaitetu soka 'adjoin fitted pieces of wood' and Werinana (Bobot) sokat 'space between interfitted palm stems, gapways'. The PGCM form is probably related to Malay soka > kerat 'across-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 k raping-m "machete, its-lashing" (NP-n-NP) 'the lashing of a machete'. Nor does it affect nominalization (?) pisok o-gan "knife, its-bating", '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 mih a, 'a brownish to pink brown stingray', identified as Stavasta Lynna 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>*.

17. There doesn't seem to be any pattern to it. I presume this is due to interdialectal borrowing. Pagudu is the language spoken in Sanada which has been the administrative capital of the Sula islands for some centuries. Some examples of R>? are: *DuRi>ho?e 'thorn'; *uRat>ao?i 'vein'; *biRaq>ka-?i 'Alocasia'; *ma-iRaq>mi?i 'red' and *paRi>pa?i 'stingray'. But in the same dialect we note: *baqeRuh>em 'new'; *SaDiRi>ki: 'post'; *naRak>naT 'brother (woman speaking)'.

18. Stresemann cites "Ur-Ambon" *labu 'mat'. His symbol "1" 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 wali 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 utik 'younger sibling of the same sex'. Note that -ik is not a suffix. This should probably be compared to Buru wali 'clan'. Van den Bergh lists utik in Banggai; among its meanings is 'jaunger broertje of zusje'. Fortgens cites utik '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 -e is a transitive; -e is the third person pronoun; and h 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 taka wahoo 'intestines' and puhr wahoo 'navel cord' the entry for 'rattan' is who with loss of final a. This suggests that loss of final a 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 Malayambil 'nine' (from se-ambil-an, 'one taken away').

27. It is worth noting that these languages observe strict taboos on pronouncing in-law 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 Wallua 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 Wakasihu (Ambon) siana, Banda (Elat) sian and Nalyaba (Bobot) sijan.

31. The fact that in at least one entry *t>c suggests that the shift of *t to *r is a late innovation. Note *pituylooo '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>ti?i '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. Wakasihu, 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' >S-koh: 'It's grown up'. We assume, then, that in *qajan, *j>y>Y] (with raising of the preceding vowel).

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

36. There may be some exceptions to this generalization. For example, *ke(dd)e>app.kohap 'stand'. In this case, however, -p is probably a reflex of *ni 'third singular pronoun'. We assume that kohap-p 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>iaane 'fish'. See footnote 31.

38. There is probably another example of *g in the corpus. I recorded ag-kekehe-o 'I'm shivering'. This may come from a PAN word such as *gerger; 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 Lisesaba, a village two hours walk from Murnaten. In that language n is the regular reflex of *i.

43. Of the fifteen dialects of Alune which I studied, only one, Hukanakota, 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 'indible lizard'.

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

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

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