

EASTERN SERAM: A SUBGROUPING ARGUMENT

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0. INTRODUCTION

In a recent report on language research in the Moluccas (Collins 1982b), a proposal for subgrouping the languages of eastern Seram was sketched in an outline form. Within the broad scope of that survey, only a few facts could be noted; so on this occasion I would like to flesh out that outline with more data and a tighter analysis.¹ The task is a very straightforward one: namely subgrouping closely related but hitherto poorly documented languages. The results sharply contrast with the atomistic theories proposed by earlier authors who attempted detailed subgrouping of these languages. Rather, this recent research supports the overview that the Moluccan languages are all interrelated, a position taken in different forms both by Dyen (1965) and Blust (1982 and elsewhere).

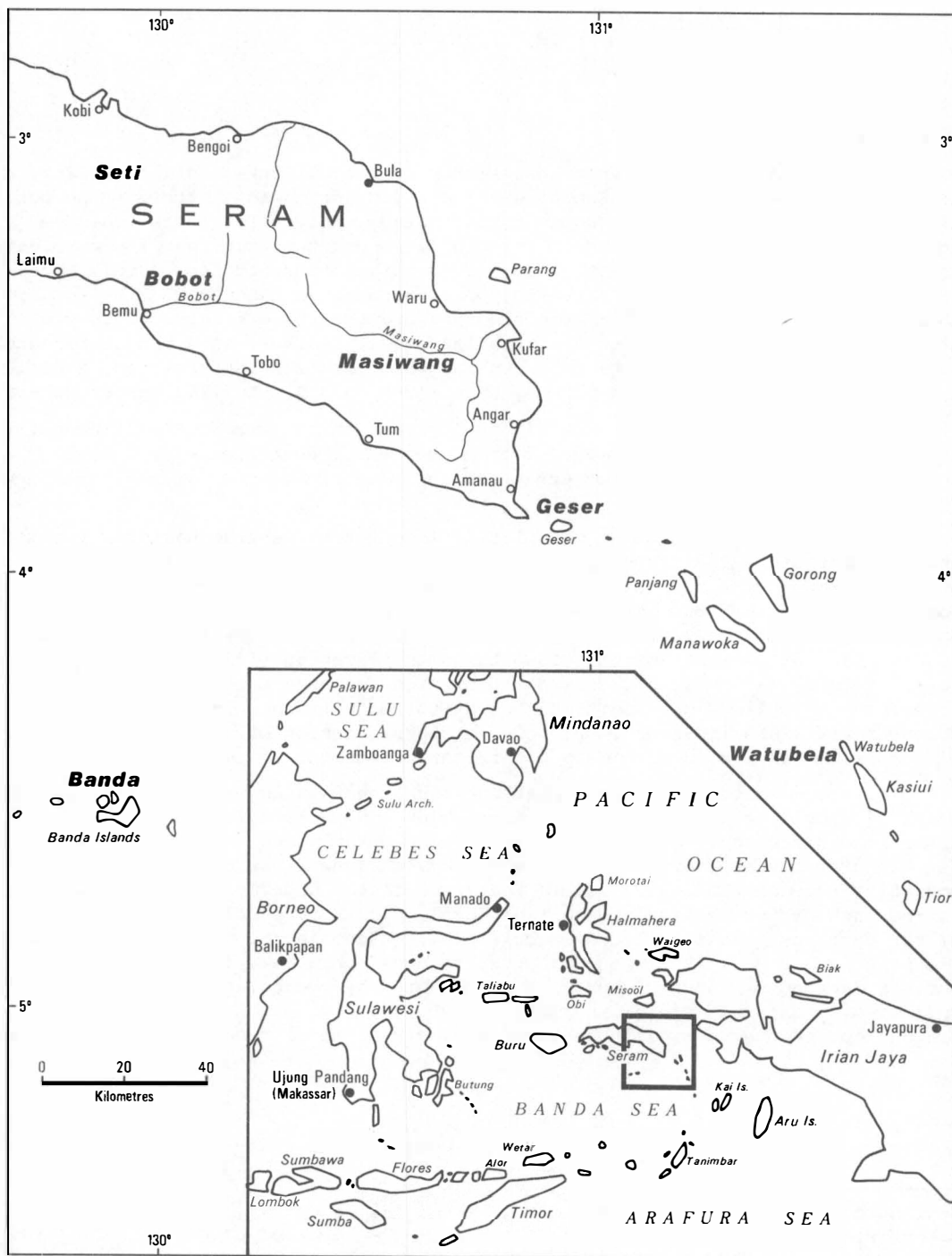
If we refer to the map below, it is apparent that, even by East Indonesian standards, East Seram is remote, far from even the modest bustle of Ambon, the provincial capital, and not even near the more frequented parts of West New Guinea.

It is no wonder then that very little linguistic research has ever been undertaken there. In this century, only two other writers have attempted language subgrouping in this area. E. Stresemann, working with some 19th century wordlists (Ludeking 1868, Wallace 1869, Boot 1893) and vocabularies collected before 1916 by his colleagues K. Deninger and O. Tauern,² dealt with East Seram in his major attempt at Moluccan language classification (1927). About 50 years later, Chlenov (1969, 1976), drawing chiefly on the same materials used by Stresemann as well as one additional wordlist collected by himself and his wife during their 1960s fieldwork,³ proposed a classification of these languages which differs from Stresemann's in many significant respects.

It is somewhat surprising that these two authors using essentially the same material should have reached conclusions which are quite different. Of course, there is a difference in approach. Stresemann established a taxonomy based on a few linguistic characteristics, while Chlenov's classification is based on lexicostatistical computations. Still, the major factor underlying the disagreement is the lack of information at their disposal. The very paucity and unreliability of the data must necessarily yield multiple, tenuous interpretations. The subgrouping presented in this paper however is based on a new, far greater data base. The six languages discussed here are represented by vocabularies and recordings collected by a single fieldworker over a period of two years.⁴ The data are drawn from, in one case, all the known dialects of the language in question,⁵ and

Paul Geraghty, Lois Carrington and S.A. Wurm, eds *FOCAL II: papers from the Fourth International Conference on Austronesian Linguistics*, 123-146. *Pacific Linguistics*, C-94, 1986.

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Map 1: Eastern Seram

in the other cases from at least three or four dialects of each language. It is hoped that this more representative data base will yield a more reliable sub-grouping theory.

The six languages are: Seti, Bobot, Masiwang, Geser, Watubela and Banda. Earlier authors assigned these languages a number of different names and were equally vague about their geographical distribution. Consequently a few remarks about the location and names of these languages are in order (refer to Map).

Seti is a language of the interior of Seram, east of the Isai mountain range and north of the Bobot and Masiwang rivers. Most Seti-speaking villages are now established on either coast of Seram, the westernmost being Seti itself now located on the north coast as one of Wahai's ancillary villages. These Seti-speaking villages include Liambata, Kobi and Benggoi mentioned by other authors.

The Bobot language is spoken in villages along the Bobot river, at its mouth and all along the southern coast of Seram roughly parallel to the river. Stresemann refers to one of these coastal villages, Hatumeten, while Chlenov deals with another, Batuasa. These are both dialects of Bobot.

Masiwang was, until recently, spoken along the length of the great Masiwang river but now it is mostly confined to a string of hamlets north-west of the river's estuary. There is also a very recent resettlement on the south coast of Seram near the Tum river. This language, formerly called Bonfia, has until now only been known through a wordlist collected 90 years ago by a Catholic missionary (Cocq d'Armandville 1901).

Geser, the far-flung language of traders, slavers, sailors and fishermen, is spoken in all but the southernmost Seran Laut islands, all along the north and south coasts of Seram as far west as Hoti and Siloham in the north and is reportedly even spoken in some villages of south-west New Guinea (R. Walker, personal communication). Stresemann referred to this largely as "Seran Laut".⁶ Closely related to it is the Watubela language spoken on Watubela island in the southern part of the Seran Laut group.⁷

The Banda language is no longer spoken in its homeland islands; refugees from the genocide of 1621 fled to Kei Besar in the Kei islands, 400 km to the south-east (see Map), where they established the two surviving Banda-speaking villages, Eli and Elat.⁸ Based on a 19th century wordlist (Van Eijbergen 1865) Stresemann discussed this language as "Eli-Elat".

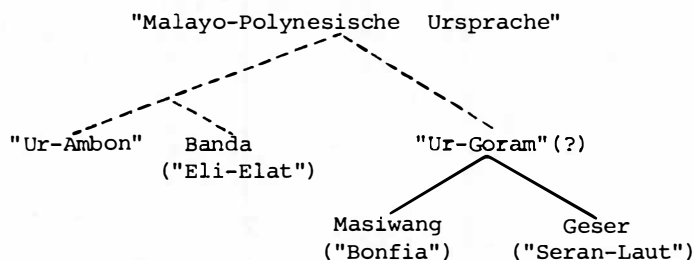
By obtaining a rough geographic notion of range and proximity of these six languages it is possible to understand their interrelatedness. Having identified the languages discussed by Stresemann and Chlenov and established a joint nomenclature for them, it will be easier to study the theories presented by them and to compare those contrasting theories with the proposals set forth here.

1. THE PROBLEM

In the first modern attempt to classify the languages of Central Maluku, Stresemann (1927) proposed a subgroup which he called "Ur-Ambon". He included in this subgroup all the indigenous languages of Buru and Seram and the adjacent islands except Masiwang in East Seram, Geser and Watubela in the Seran Laut islands, and the Banda language. In order to ascertain the boundaries of his Ur-Ambon group, he dealt with these 'peripheral' languages in appendices to his book, sketching sound correspondences of each with Ur-Ambon; he suggests that

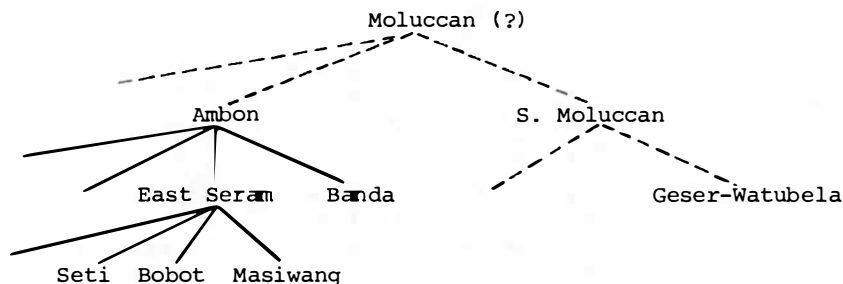
Masiwang and Geser are closely related to each other; indeed he proposes an "Ur-Goram" subgroup from which both are descended. About Ur-Goram he says that it is closer to Proto-Austronesian ("Malayo-Polynesische Ursprache") than Ur-Ambon. The conservative nature of Ur-Goram constitutes the most important difference between it and Ur-Ambon. In contrast, he writes that the Banda language is the language most closely related to Ur-Ambon because there exists a great similarity between the two which indicates earlier common developments.

If we summarise Stresemann's conclusions we reconstruct a family tree of the following shape:⁹



Note that Stresemann emphatically includes Seti ("Liambata, Kobi, Benggoi") and Bobot ("Hatumeten") in "Ur-Ambon", just as he explicitly excludes Masiwang and Geser.

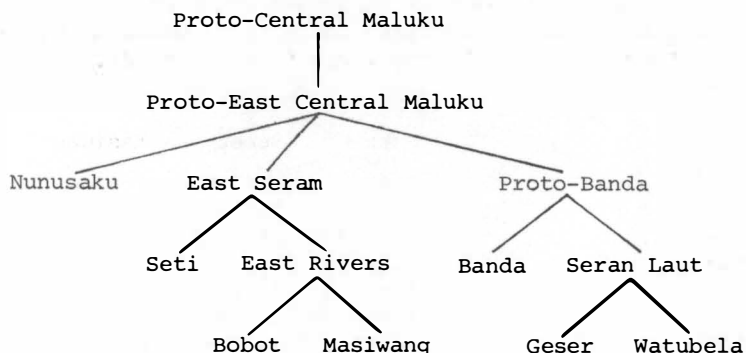
Chlenov (1969, 1976), in sharp contrast to Stresemann, includes Masiwang as well as Bobot and Seti, in the East Seram subgroups of his "Ambon" group. Banda forms a separate subgroup within the same Ambon group. Like Stresemann he assigns Geser and Watubela to the Geser group which he says belongs to the South Moluccan subfamily. This yields a diagram such as:¹⁰



A comparison of the respective theories of Chlenov and Stresemann shows their agreement in placing Geser in a group only related to the languages of Seram ("Ambon", "Ur-Ambon") in a distant, unspecified way. Similarly there is a parallel between the two in assigning Banda a close relationship to the languages of Seram. The most striking point of disagreement is the allocation of Masiwang, Stresemann grouping it with Geser but Chlenov insisting on its close relationship to the other East Seram languages.

In this paper, comparative evidence is offered in strong support of Chlenov's allocation of Masiwang to a group of East Seram languages. The details of the interrelationship of Masiwang, Bobot and Seti with each other are presented as well. However, exception is taken to both Chlenov's and Stresemann's exclusion

of Geser from a Central Maluku subgroup. Indeed, there is evidence that Banda and Geser are closely related to each other and thus sharply distinguished from the languages of South Maluku. A tentative family tree is outlined below:¹¹



2. PROTO-EAST SERAM

Three languages of easternmost Seram display a number of shared innovations which distinguish them both from the languages to the west as well as from those to the south-east (Collins 1982b). Furthermore, they fail to display a number of the innovations characteristic of the language subgroup of West and Central Seram, elsewhere identified as Nunusaku (Collins 1981). For these reasons, Seti, Bobot and Masiwang are grouped together as a major branch of Proto-East Central Maluku: East Seram.

Like other descendants of Proto-East Central Maluku, the East Seram subgroup displays merger of *d, *D, *z and *Z, truncation of diphthongs ending in front off-glides (*ay>a, *uy>u), coalescence of the diphthong *iw to i as well as all the innovations common to all the languages of Central Maluku (Collins 1981). Unlike the Nunusaku languages, however, Proto-East Seram did not merge *R with the reflex of *l. Note the following examples:¹²

PAN		Seti	Bobot	Masiwang
*Rumaq	<i>house</i>	(ufa ^h i ^h ya)	uma	suma
*daRəq	<i>blood</i>	laha	lawā	lasa
*(zZ)uRi	<i>thorn</i>	luila	-lui-	lusi-n
*waRəj	<i>rope</i>	wehela	wawat	wasat
*tiRəm	<i>oyster</i>	tekena	tilan	-
*bulan	<i>moon</i>	(umala)	vulan	hulan
*təlu	<i>three</i>	tol	tolu	tolu
*walu	<i>eight</i>	wal	waly	wali
*bulu	<i>body hair</i>	fula ^h a	-vuli-n	hulhuli-n

Although all three East Seram languages display l as the reflex of *l, reflexes of *R are distinct from *l. This contrasts with all Nunusaku languages. In Masiwang the reflex of *R is s (perhaps through devoicing of [ɣ] to [x] and then [s]). In Bobot, with some exceptions,¹³ *R became w (again via [ɣ], presumably); this w was lost when preceded or followed by [u]. In Seti, the correspondence is more problematic. But it appears that *R underwent a conditioned split. Before high vowels *R>l (*(zZ)uRi>luila, *Rusuk>lusu, etc.) but before non-high

vowels *R>h (*daRəq>laha, *waRəj>wehela,¹⁴ etc.). The conclusion is that *R was retained in Proto-East Seram as a sound ([ɣ], perhaps) distinct from *l whereas in Nunusaku *l and *R merged.

The Seti, Bobot and Masiwang languages, which do not undergo this merger of *l and *R display a number of shared innovations which distinguish them from the languages of Nunusaku. First, **d (from *d/D and *z/Z), *l and *j merge to l. For example:

PAN		Seti	Bobot	Masiwang
*qa(zZ)ay	<i>jaw</i>	alam	y-alan	y-alan
*Rəzan ¹⁵	<i>stairway</i>	olam	y-olan	w-olan
*Zalan	<i>road</i>	lala-m	lolan	lolon
*DuSa	<i>two</i>	lua	lua	lua
*daRəq	<i>blood</i>	laha	lawa	lasa
*daqun	<i>leaf</i>	lanna	ai-lan	lan
*bulu	<i>body hair</i>	fula?a	-vuli-n	hulhuli-n
*bulan	<i>moon</i>	(umala)	vulan	hulan
*lima	<i>five</i>	lima	lima	lima
*pija	<i>how many</i>	hila	fila	hila
*Suaji	<i>younger sibling</i>	(aifa)	walin	wali-n
*ŋajan	<i>name</i>	nalan-a	-nalan	nalan

In Collins 1983, the retention of *j and **d as distinct reflexes in Nunusaku is demonstrated; in that branch *l merged with *R.

A second innovation shared by the descendants of Proto-East Seram is the treatment of penultimate *ə. In all three languages, *ə>o/_CV(C)#

*təlu	<i>three</i>	tol	tol	toli
*pənuq	<i>full</i>	bonu	bonu	bom
*dəŋəR	<i>hear</i>	(bulai)	a-vloka	loka
*kəDəŋ	<i>stand</i>	kolo	a-kolan	kolan
*Rəzan	<i>stairway</i>	olam	y-olan	w-olan
*qatəluR	<i>egg</i>	tolla	toli-n	toli-n
*baqəRu	<i>new</i>	folla	voi	hosi
*qapəju	<i>gall</i>	(hoe?a)	foli	holi

The Nunusaku languages (Collins 1983) are reconstructed with a retention of *ə as ə in this position.

Third, while Nunusaku is reconstructed with k as the reflex of *k in initial and medial position, Proto-East Seram is reconstructed with zero as the reflex of *k in those positions on the basis of evidence such as:

*kaSiw	<i>wood</i>	ai-a	ai	ai
*kasaw	<i>rafter</i>	asa-?a	asa-	asa
*kami	<i>we(II)</i>	ami	am	im-
*kulit ¹⁶	<i>skin</i>	inta	kurit	uhit
*takut	<i>fear</i>	mu-ta	m-tait	ka-toit
*ikan	<i>fish</i>	en-a	ian	ian
*sakay	<i>ascend</i>	-	sa:	sa:
*(t)a(ŋ)kaw	<i>steal</i>	-	ma-na:	(kah leit)

Although the three descendants of Proto-East Seram do not agree on the phonetic shape of the reflex of ***nd*, *d* is tentatively reconstructed, based on the occurrence of [d] in Bobot. Masiwang and Seti display *r* but this *r* must have occurred after the shift of **R* to *s* and *h/l* respectively, as discussed above.¹⁷

In sharp contrast to the languages of Nunusaku, Proto-East Seram must be reconstructed with a retention of **ŋ* in medial positions. Both Bobot and Masiwang display [k] as the reflex of **ŋ*. In Seti the reconstruction is a problem because so few cognates containing **ŋ* occur. Two display *n* while one shows *k*. The partial (?) shift of **ŋ* to *n* must have occurred after Seti split from Bobot-Masiwang. For example:

PAN		Seti	Bobot	Masiwang
*dəŋəR	<i>hear</i>	(bulai)	a-vloka	loka
*taŋis	<i>weep</i>	tatan	takit	rakit
*laŋit	<i>sky</i>	(lea)	lakit	lakit
*naŋuy	<i>swim</i>	nak	naky	(ahás)
*taliŋa	<i>ear</i>	tinam	talika-n	talikan
*aŋin	<i>wind</i>	(simala)	yakin	yakin
*laŋau	<i>k.o. fly</i>	-	laka	-

Bobot-Masiwang is further distinguished from Seti in the treatment of **ə* in the final syllable. Note:

*kəDəŋ	<i>stand</i>	kolo	kolan	kolan
*(ma)-qitəm	<i>black</i>	metena	mametan	metan
*waRəj	<i>rope</i>	wehela	wawat	wasat
*qatəp	<i>thatch</i>	ata lanna	yata	-
*daRəq	<i>blood</i>	laha	lawa	lasa
*Daləm	<i>interior</i>	fallal	lala	lalan
*dəŋəR	<i>hear</i>	(bulai)	a-vloka	loka

In Seti, **ə* assimilates to the vowel of the preceding syllable. In Bobot-Masiwang **ə>a/_*(C)#.

Another characteristic which distinguishes the descendants of Proto-East Seram is the treatment of the ancient noun marker **si* (Collins 1982a). All three languages display its retention as *y-* in certain words. For example:

*aku	<i>I</i>	ya-ʔa	ya	ya-ʔaho
*Sasaŋ	<i>gill</i>	in-yasan	yasani	yasani
**kambat ¹⁸	<i>wound</i>	il-yabat	yabat	yabat

However in many other words only Bobot and Masiwang display *y-*.

*qa(zl)ay	<i>jaw</i>	ala-m	yalan	yalan
*qatəp	<i>thatch</i>	ata lanna	yata	(ilan)
*ama	<i>father</i>	ama-i	yama-n	(baba)
*aŋin	<i>wind</i>	(simala)	yakin	yakin
*asu	<i>dog</i>	(inawa)	yasu	yai ¹⁹

It is possible that these initial *ys* were lost in Seti but retained in Bobot and Masiwang.

An alternative analysis would propose that in Proto-East Seram *y-* (from **si*) was affixed only to certain words, such as **aku*, **Sasaŋ*, etc. After the split of

Seti and East Rivers, the East Rivers branch attached the affix to other words with initial a but Seti did not. At a still later stage, after Masiwang and Bobot had split, Bobot innovated further by affixing y- to other words which had previously been marked with w-²⁰ or zero. Note:

*aqi	<i>leg</i>	wai-na	yai-n	wai
*(R)əzan	<i>stairway</i>	ola	yolan	wolan
*qiSu ²¹	<i>shark</i>	woi ²²	yoi	woi

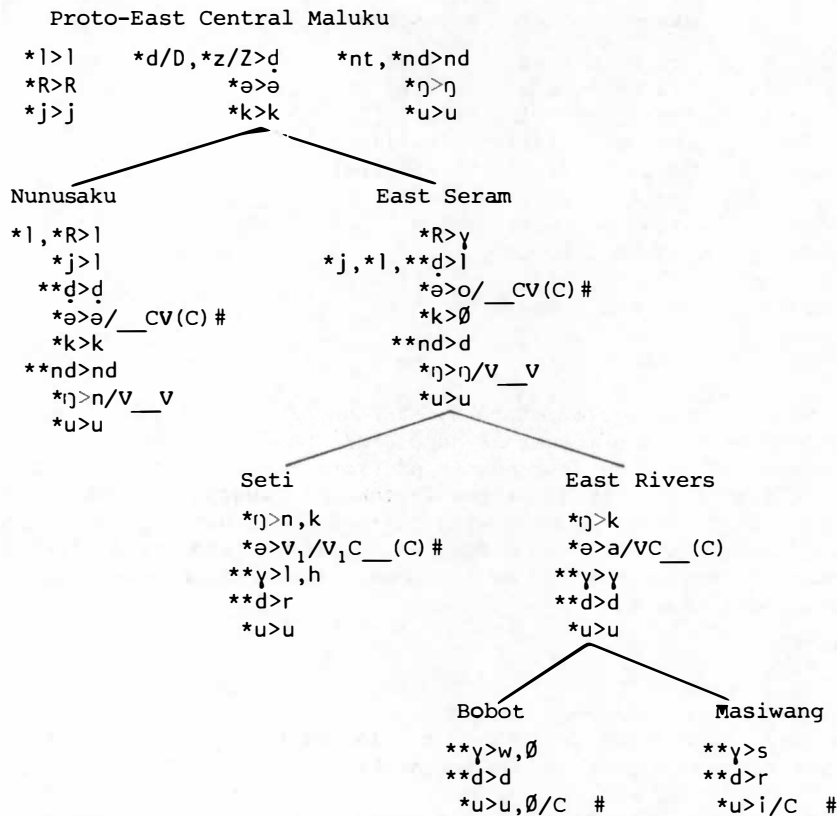
With regard to the presence or absence of y- it is difficult to determine with certainty which is the retention and which the innovation. But the pattern indicated by these petrified morphosyntactic markers is clear: Seti must have split from Bobot and Masiwang.²³ These data only confirm other evidence of this split (i.e. treatment of *ŋ, *ə, etc.). Some of the differences that distinguish Bobot and Masiwang have been mentioned above. We repeat here two of the most important:

*R	> Bobot	w
	> Masiwang	s
**nd>*dl	> Bobot	d
	> Masiwang	r

Another difference occurs in the treatment of final *u. In Masiwang *u fronts to i; subsequent metathesis occurs when the originally preceding consonant is [n]. In Bobot, however, *u is devoiced or lost (usually after voiced continuants).²⁴ For example:

PAN		Bobot	Masiwang
*batu	<i>stone</i>	vaty	hati
*ma-putiq	<i>white</i>	babuty	buti
*təlu	<i>three</i>	tol	toli
*TukTuk	<i>pound</i>	duty	tuti
*bunuq	<i>kill</i>	vun	huin
*tunu	<i>burn</i>	dun	tuin

Based on materials presented in this section, then, the relationship of the descendants of East Seram to each other and to Proto-East Central Maluku may be represented as follows:



PAN		Banda	Geser	Watubela
*Rumaq	<i>house</i>	rumo	ruma	lumak
*daRəq	<i>blood</i>	raro-	rara	lalak
*(zZ)uRi	<i>thorn</i>	riri-	ruri	luli
*waRəj	<i>rope</i>	warot	(tali)	(tali)
*qaZay	<i>jaw</i>	ara-	ar	(kakelan)
*Rəzan	<i>stairway</i>	eren	roran	lalon
*DuSa	<i>two</i>	ruo	ro-ti	lua
*daqun	<i>leaf</i>	ran-o	ru	lue?
*pija	<i>how many</i>	ilo	fis	fihi
*ŋajan	<i>name</i>	nalān	ŋasan	ŋahan
*bulan	<i>moon</i>	Φulan	ulan	ulan
*lima	<i>five</i>	limo	lim	lima

In both Banda and Geser the reflex of *d/D, *z/Z and *R is [r]; this r shifted later to [l] in Watubela. The merger of *d/D, *z/Z and *R is, thus, considered an innovation shared by all the descendants of Proto-Banda. Note that the reflex of *j is distinct from this r in all three descendant languages. Geser displays [s] as the reflex of *j (thus, merging with *s); Watubela has shifted all s's to [h]. As noted above Watubela has merged an earlier r (from *d/D, *z/Z and *R) with *l. In Banda *j merges with *l as l. Geser alone retains the original three-way distinction; that is:

*d/D, *z/Z, *R > r
 *s, *j > s
 *l > l

It is precisely this joint treatment of this series of voiced apicals which justifies the positing of a Proto-Banda subgroup. Note that in Nunusaku *R and *l merged but *d and *j did not; while in Proto-East Seram it was **d, *j and *l which merged but not *R. Although the contemporary reflexes vary (due to later shifts and mergers), the pattern displayed in Banda, Geser and Watubela is the same.

Numerous innovations, however, distinguish Banda from the Seran Laut branch, consisting of Geser and Watubela. First, we mention again the shift of *j to l in Banda which contrasts with the merger of *j and *s in Seran Laut. Second, the merger of *ŋ with *n in Banda contrasts with the retention of *ŋ as [ŋ] in initial and medial positions in both Watubela and Geser. For example:

PAN		Banda	Geser	Watubela
*nanuy	<i>swim</i>	nano ²⁶	nanu	(gaha)
*tanis	<i>weep</i>	(ndaut)	tanis	ntani
*təliŋa	<i>ear</i>	tilu-	tiliŋa	telŋa
*dəŋəR	<i>hear</i>	(motan)	roŋan	doŋan
*saŋa	<i>branch</i>	sana-	saŋ	(lifā)
*aŋin	<i>wind</i>	anin	aŋin	aŋin
*ŋajan	<i>name</i>	nalān	ŋasan	ŋahan

With only one exception (laŋit, an apparent loanword, perhaps from Malay), *ŋ > n in Banda.²⁷ In all cases Geser and Watubela retain [ŋ].

Third, in Banda *ə became [o] in final position but [e] in penultimate position. The few exceptions seem to be conditioned by assimilation. In Geser and Watubela the split is between [a] in final position and [o] in the penultimate syllable. For example:

PAN		Banda	Geser	Watubela
*qatəp	<i>thatch</i>	atop	(barem)	kataf
*daRəq	<i>blood</i>	raro-	rara	lalak
*waRəj	<i>rope</i>	warot	(tali)	(tali)
*ma+qitəm	<i>black</i>	metmetén ²⁸	metan	maketan
*Daləm	<i>interior</i>	raron	lomin ²⁹	lomi
*ənəm	<i>six</i>	nemu ³⁰	onan	onon
*dəŋəR	<i>hear</i>	(motan)	ronan	donan
*təlu	<i>three</i>	telu	tolu	tolu
*pənuq	<i>full</i>	mbunu	(lome)	(lomi-n)
*ma+qəti	<i>ebb</i>	meti	moti	mkoti
*qatəluR	<i>egg</i>	tuluru	tolu	katlu
*qapəju	<i>gall</i>	elu-n	foli	feli-n
*baqəRu	<i>new</i>	ferferu-rjo	wou-wou	oku-oku

Fourth, the treatment of the labial stops distinguishes Banda from the descendants of Seran Laut. Note:

PAN		Banda	Geser	Watubela
*qapəju	<i>gall</i>	elu-n	foli	feli-n
*paRi	<i>rayfish</i>	ari	fari	fali
*xapuy	<i>fire</i>	au	afi	afi
*qatəp	<i>thatch</i>	atop	(barem)	kataf
*bəRsay	<i>paddle</i>	fese	wosa	woho
*batu	<i>stone</i>	fatu	watu	watu
*busuR	<i>bow</i>	ɸusur	usu	uhul
*bubu	<i>trap</i>	ɸuɸu	u:	u:
*əmpu	<i>grandparent</i>	umbo	(tata)	(tata)
*(ma)+putiq	<i>white</i>	noito-no	futi	buti? (<i>skin fungus</i>)
**kambat	<i>wound</i>	ambat	abat	abat

These data can be summarised as follows:

- *p > Banda Ø / { $\frac{\#}{V_V}$ }, p / $\frac{\#}{_}$
 > Seran Laut f
 *b > Banda f / $\frac{[+voc]}{[-rnd]}$, ɸ / $\frac{[+voc]}{[+rnd]}$
 > Seran Laut w / $\frac{[+voc]}{[-hi]}$, Ø / $\frac{[+voc]}{[+hi]}$
 *mb, *mp > Banda mb
 > Seran Laut b

Fifth, the treatment of the reflexes of prenasalised labials noted above is paralleled by the treatment of prenasalised apicals. For example:

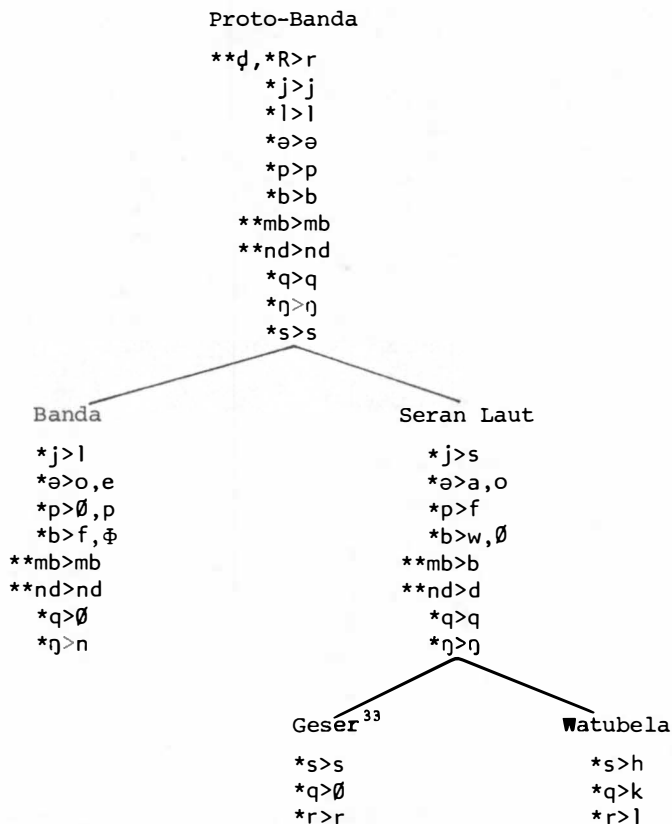
PAN		Banda	Geser	Watubela
*punti	<i>banana</i>	(kula)	fudi	fudi
*ma+tuu	<i>burn</i>	ndunu	(tuu)	dunu
*diŋdiŋ	<i>cold</i>	rindin	(rifi)	lidin
*DaRat	<i>land</i>	ndara-k ³¹	(nodi)	(na-kodi)

In Banda *nt and *nd merged as the cluster [nd] but in Seran Laut **nd (from *nt and *nd) has become [d].

Sixth, Watubela preserves a distinct reflex of *q in all positions.³² Although Geser has lost *q, we reconstruct it in Seran Laut but not in Banda. Note:

PAN		Banda	Geser	Watubela
*qatəluR	<i>egg</i>	tuluru	tolu	katlu
*qatəp	<i>thatch</i>	atop	(barém)	kataf
*ma+qəti	<i>ebb</i>	meti	moti	mkoti
*baqəRu	<i>new</i>	ferferu-	wou-wou	oku-oku
*Rumaq	<i>house</i>	rumo	ruma	lumak
*daRəq	<i>blood</i>	raro	rara	lalak

Based on the evidence presented here we reconstruct a family tree for Proto-Banda below:



4. CONCLUDING REMARKS

This paper proposes a classification of six languages of eastern Seram and the adjacent islands. The subgrouping is based on shared phonological innovations, a traditional, if beleaguered, approach. The analysis proposed here divides the six languages into two groups, East Seram and Proto-Banda, both of which are sister languages descended from Proto-East Central Maluku. The inter-relationships of the languages within each of these subgroups has been worked out and tentative family trees have been proposed.

Clearly, this classification is an initial step in the long process of refining knowledge and theories about these languages. Not only do we need more information about the languages but furthermore we need more comprehensive methodological approaches which rest on morphological as well as phonological innovations and which are more sharply aware of the sociocultural factors, indeed the sociolinguistic history of the area.

Nonetheless, even this rudimentary sifting of evidence suggests a theory of classification which can be challenged and tested. It is apparent now that the chief differences between most of these languages and those further to the west occur because the eastern Seram languages are characterised by retentions of sounds and sound patterns which have been largely lost in western Seram. The identification of these retentions, *q, *ŋ, *j, *ə, *mb/*nd, is important in two ways.

First, it provides a picture of Proto-Central Maluku's phonological system which is strikingly different from the one proposed in Stresemann 1927. It is precisely these differences from Stresemann's model which yield a Proto-Central Maluku phonological system which is richer, more complete and much more similar to the system proposed for Proto-Austronesian. Proto-Central Maluku, then, can be considered much more conservative than a study of only western Seram languages would indicate.

Second, in Collins 1983 certain hypotheses were set forth regarding the reconstruction of Proto-Central Maluku *q, *j and *ə. These theories were based on sound correspondences in some languages of western Seram and the somewhat complex arguments needed to interpret them. The data set forth in the present paper provide strong support for those hypotheses and justify the interpretation proposed there.

Certainly some aspects of the subgrouping theory presented in this paper are stronger than others. The close relationships of Bobot to Masiwang and of Geser to Watubela seem sufficiently clear. But, for example, the relationship of Seti to Bobot and Masiwang requires closer scrutiny. A more detailed comparison of Seti to the languages immediately westward, in particular variants of Manusela, is an obvious project for future research. The collection of a larger body of information regarding Seti dialects is also imperative. The relationship of some languages, for example Salas, to other variants of Seti is none too clear, largely because the amount and quality of the data collected are far from satisfactory.

Indeed, perhaps this attempt at subgrouping the languages of eastern Seram has been premature. One would have preferred that detailed phonetic sketches, grammatical outlines and extensive vocabularies for each of the languages compared were prepared first, before subgrouping proceeded. Attempting classification on the basis of a few hundred or even a few thousand words is not a model approach for comparative linguistic research. So, this paper is presented as a starting point, a testable theory, a flawed beginning. But a beginning has been made.

NOTES

1. The research upon which this and earlier papers are based was conducted under the auspices of Lembaga Ilmu Pengetahuan Indonesia; the support and advice offered by the staff there is gratefully acknowledged here. The provincial government of Maluku and its officers fully cooperated in my efforts to collect data. Furthermore, I owe a special word of thanks to F. Berhutu and his family who were my hosts in Geser and to A. and L. Rumra of Elat who assisted me in collecting information about the Banda language, now spoken on Kei Besar. But my research would not have been possible without the generosity and hospitality of the many people in Maluku who helped, tolerated and befriended me. A partial list of informants is included in Collins 1983. My thanks also go to Sergei Ignashev for his assistance with the Russian materials and several obscure bibliographical references.
2. Stresemann (1927:2) acknowledges that Deninger collected the wordlist for Hatumeten, which was his chief source for the language named Bobot in the present paper. Tauern also sent him information about Liambata and other East Seram languages.
3. Chlenov (1976:226) reports that he recorded a 507 word vocabulary and 36 sentences of a variant of Gorom (called Geser here). The material was collected from a native of AMAPBABATY, Amarwawatu (?) but apparently Amarwatu on the south-easternmost cape of Pulau Gorom Laut. In addition to the materials at Stresemann's disposal, Chlenov also referred to several other wordlists including Miklucho-Maclay 1950, 1951 (based on that Ukrainian ethnologist's visit to south-east Seram in 1874; see Cowan 1957: 290), Rosenberg 1878, Riedel 1886 and Ribbe 1892.
4. The data collection took place during my doctoral field work, September 1977 to August 1979.
5. The Banda language apparently survived in only two variants, Eli and Elat, on Pulau Kei Besar. See note 8 for an explanation.
6. Stresemann's information on this language group seems to have been drawn from Cocq d'Armandville 1901 and Riedel 1886, but S. Müller and N.N. Miklucho-Maclay are mentioned as well (Stresemann 1927:199).
7. Riedel's (1886) information, though scattered and sparse, is fairly reliable, but Wallace's "Matabello" wordlist (1869) appears to be from a less conservative dialect of Kesui Island, just south-east of Watubela Island proper. It seems that Wallace did visit Muslim Watubela (which he called "Kisiwoi" (1869:279)) but the wordlist he published was collected from pagans on Kesui (which he called "Uta").
8. For an account in English about the murderous depopulation of the Banda Islands see Hanna 1978. (Apparently Coen, the Governor General, was simply following a decision made as early as 1615 in Holland by the directors of the VOC; refer to Hyma 1953:11.) Their flight and resettlement on Kei Besar was well known (Van Eijbergen 1865); indeed it is reported as early as 1656 (Leupe 1875).
9. The details of the relationships among Ur-Ambon, Eli-Elat, Ur-Goram and PAN ("Malayo-Polynesische Ursprache") are not clear.

10. Note that the dendrograms summarising the conclusions of both Chlenov and Stresemann were designed by this writer. Every attempt has been made to avoid error and distortion but of course it may be misleading to diagram verbal explanations, especially those based on lexicostatistical computations.
11. Some of the details of the subgrouping theory implied here are presented in Collins 1981, 1982b, 1983.
12. Reconstructions used here are largely drawn from Wurm and Wilson 1975; however, PAN *e, a central vowel, is written ə to avoid confusion with mid-front vowels in some languages of Maluku.
13. Many of these exceptions are the names of sea creatures, for example, *oyster* in the preceding list. Because the Bobot peoples were probably originally people of the interior (along the Bobot River), these sea creature names may be loanwords.
14. There are other irregularities in these two examples.
15. The abbreviated reconstruction *Rəzan, rather than *SaRəzan appears here.
16. The Seti reflex displays metathesis followed by syncope and subsequent assimilation; that is **ulita > iluta > ilta > inta. The Bobot reflex unexpectedly displays a k.
17. There are at least two other minor innovations which the three descendants of Proto-East Seram appear to share. After the loss of *q, petrified prefix *ma- before i in *ma-qitem *black* yielded me-, note:

PAN	Seti	Bobot	Masiwang
*ma+qitem	metena	ma-metan	metan

Furthermore, in the numeral series, the reflex of *ənəm in all three languages displays o: Seti noi, Bobot nom, Masiwang nom. In Seti, this would be the expected reflex but in the others it is not: a shared irregularity?

18. This is not a Proto-Austronesian reconstruction but, as the double asterisk indicates, a lexeme tentatively reconstructed for Proto-Central Maluku.
19. The loss of *s is unexplained here.
20. These cases of w- are thought to be reflexes of the Proto-Austronesian article *u (Collins 1982a).
21. The reflex of *qiSu in the Central Maluku languages will be treated in a forthcoming note.
22. This lexeme was not collected in Seti village but in Salas. In six other dialects of Seti, the form varies. On the south coast, Seti-speaking villages display forms influenced by neighbouring languages. Uluhanan, for example, has woka, clearly a borrowing from the East Littoral languages which border it. In Lesa and Adabai, both within easy walking distance from Atiahu, where a dialectal variant of Bobot is spoken, forms which are similar to Bobot occur (yoyam, yoya respectively). On the north coast, Benggoi and Kobi (tentatively considered variants of Seti) display wuyam and woia. Salas (probably a Seti dialect) shows woī but here, too, proximity to Masiwang-speaking villages may be a factor.
23. Note, for example, the distribution of Seti waha *fire* compared to Bobot yafʷ and Masiwang yah.

24. Note that in Bobot *vovo* *new* is an apparent exception. Furthermore, in the Atiahu variant of Bobot -u is lost except when following [h]. Note the following comparisons between Atiahu and Werinama on opposite banks of the Bobot (though each is some kilometres away from the river).

PAN	Atiahu	Werinama
*batu <i>stone</i>	hat	vat
*təbu <i>sugarcane</i>	tohon	tov
*bubu <i>fish trap</i>	huhu	vuv

Apparently then Bobot (if we are to account for the Atiahu reflexes) retained final [u] when preceded by [β]. After [β] became [v] in most Bobot dialects that u was lost too. In Atiahu β>h and -u was retained.

25. There do however, appear to be some problems with the reflexes of *uy in Geser.
26. In Banda *nano wade neck deep*, not *swim*.
27. Note the error in Collins 1982b:121. "Banda retains *ŋ as [ŋ]" should read "Geser retains *ŋ as [ŋ]".
28. The stress on the final syllable suggests that a suffixed genitive marker -ni ~ -in has changed the expected final a to e, i.e. metmetanni > metmetenni > metmetén.
29. The addition of -i(n) occurred before the shift of *ə to o, a.
30. The Banda form is an exception.
31. *DaRat *shore, land (not sea)* with a presumed verbal affix *ma, yields ndara-k *go aground* in Banda.
32. There are a few exceptions. Note, for example No.180 of the appended comparative wordlist. One would predict lauk as the reflex of *Zauq *far, distance*. In this case, perhaps lau *far* has merged semantically with lau *seaward, across the sea*.
33. Some dialects of Geser display additional innovations. In Pulau Panjang, for example, [f], the reflex of *p, has moved to [h]; *k shifted to [ʔ] whereas it is retained in Geser. In Kiandarát word-final *u shifted to [i] and was metathesised, yielding forms like [wait-a] *stone* < *batu, [suis-a] < *susu *breast*, etc.

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APPENDIX:

A comparative wordlist of the languages of Eastern Seram

In the following pages the six languages discussed in this paper are represented by a standard 200 word list (as revised by R.A. Blust). Because materials were collected for more than one variant of each of the languages, it has been somewhat difficult to organise these lists. In the end, one variant was selected for each language; occasionally material was not available for the selected variant so in those cases the data was supplied from another variant. So unless otherwise stated the data presented below come from the following sources:

Seti: Seti village
 Bobot: Werinama
 Masiwang: Kota Baru
 Geser: Selor
 Watubela: Efa
 Banda: Elat

With regard to the phonetic notation, stress is penultimate unless otherwise marked. A dash at the beginning or end of a word indicates that it usually appears with person marker. The notation ˘ (written below a vowel) indicates devoicing; ʏ indicates an unspecified devoiced vowel. A semicolon between entries means that more than one word recurs with roughly the same meaning. A slash between two words indicates that these forms appear in morphologically complementary patterns. Parentheses around the initial letter have the same meaning; for example in Seti *kai* and *ai* are morphological variants in an inflected verb system; so we write (k)ai. A plus sign within a word indicates a morphologically complex construction. Some predictable phonetic alternations are not represented in these lists; for example, in Banda /f/ always appears as [ɸ] before round vowels but only *f* is written in the list.

To reduce the number of notes to the Appendix, letters have been written behind a word that is not taken from one of the six dialects mentioned above. The letter initial in parentheses after the word is the first letter of the dialect from which the word has been taken. The codes are as follows: For Seti, (A): Adabai; for Bobot, (N): Naiyaba, (T): Tobo; for Masiwang, (D): Dawang; for Geser, (G): Geser, (K): Kilmuri, (P): Pulau Panjang; for Watubela, (K): Keldor; and for Banda, (E): Eli.

	Seti	Bobot	Masiwang	Geser	Watubela	Banda
1. <i>arm</i>	ima-	-niman	hasan	ma	ma-	lima-
2. <i>left</i>	ibaYa	avet	kabalit	kubalit	balit	fitar
3. <i>right</i>	fiti fita	kamuin	lalait	kuanan	mela	ratu
4. <i>leg</i>	wai-	-yain	wai	ke	kwe-	ai-
5. <i>walk</i>	rak/tak	ko	uha	tangi	fana	mbō
6. <i>path</i>	lalam	lolan	lolon	lalano (K)	-	erēn
7. <i>come</i>	forok	slot	boti	ratan	elat	omā
8. <i>stir</i>	bui	butar	hutan	futar	futal	mbutor
9. <i>swim</i>	nak	naky	ahās	naŋu	gaha	nano ¹
10. <i>dirty</i>	kailoa (A)	fof _i fof _i	ba?obo?	galotak (K)	muden	monjōn
11. <i>dust</i>	kaitaha lafna	lav	ubas	ubas	uban	ofin
12. <i>skin</i>	inta	-kurit	uhit	likit	kalikit	kilit
13. <i>back</i>	sisā-	-kotan	karan	kotan	kotoni-	miri-
14. <i>belly</i>	tai- ²	-tian	tuan	toa	kabu-	tia-
15. <i>bone</i>	lūil-a	-luin	lusin	ruri	luli	riri
16. <i>intestine</i>	tua-na	-vituan	tuan walan	utuk	utka-	tain kambun
17. <i>liver</i>	lali-;ata ³	-yatan	yatan	at	lamno-	raro-
18. <i>breast</i>	susa	-susin	susin	susu	susu	susu-
19. <i>shoulder</i>	mabala- (A)	-vayayan	malat	wakir	wawa-	fara-
20. <i>know</i>	mane	vaneta	kalelan	ruk	lunam	mbo+kaiko
21. <i>think</i>	bisna	fikir	ita	hi?ir (P)	-	m+fikir
22. <i>fear</i>	muta	mtait	katoit	matakut	matakut	mbo+takunia-
23. <i>blood</i>	lāha	-lawa	lasa	rara	lalak	rara-
24. <i>head</i>	ulu- ⁴ (A)	-ulin katin (N)	ulin	lu	kulu-	ulu-
25. <i>neck</i>	solo-	-yonin	wosan	totolan	aliko-	enu-
26. <i>hair</i>	elfua	-ulin	ulin lan	uk	uka	fuk-
27. <i>nose</i>	ninu-	-ilin	ninin	so	hu-	nilu-
28. <i>breathe</i>	bo'o nawa (A)	-mesi	manowa	fai ŋak	fail uwak	mbilik nuwa-
29. <i>sniff</i>	mala	-bufmauk	mulit	fimusi	kuŋahi	mbok fau
30. <i>mouth</i>	furu-	vivin;vudin	uban	lo	hili	suo-
31. <i>tooth</i>	nesi-	-nifa(n)	nihan	ŋisik	nifo	ni-
32. <i>tongue</i>	lela-	-melin	leha?	kel	lama	me-
33. <i>laugh</i>	mamal	mli	balí?	malif	mumlifa	mbo+malik
34. <i>weep</i>	tatán (A)	takit	rakit	taŋis (G)	ntaŋi	ndaut
35. <i>vomit</i>	momuta	-lua	lua?	luak	luak	luako
36. <i>spit</i>	fi to/bito	beba	batof	ginisuk	mukanihuk	mbifiru
37. <i>eat</i>	(k)ai	ken	kan	nga faŋa	golat	mban
38. <i>chew</i>	lamtak (A)	mama	-	mama (G)	mamak	mamo
39. <i>cook</i>	bakalai (A)	-masa	hakatuin	masak	mahak	mososak
40. <i>drink</i>	(k)unu	ninY	nimin	inu	minu	-inu
41. <i>bite</i>	(k)oto	kat	kasat	karat	gukut	-iki
42. <i>suck</i>	sus;mo	moit;sosa	komoan	bus;sorat	bus;busa	mbuk ⁵
43. <i>ear</i>	tina-	talikan	talikan	tiliŋa	telŋa-	tilu-
44. <i>hear</i>	bulai	bloka	loka	roŋan	doŋan	motan
45. <i>eye</i>	mata	matan	mata	mata	mata	mata-
46. <i>see</i>	(k)ote	bla	ita	mekun	sini?	-ito
47. <i>year</i>	(k)amowo	mamawa	mumáh	maflaba	ma:f	nuak (E)
48. <i>sleep</i>	(k)ina	mtolY	nima	kifit	gena	muturu
49. <i>lie down</i>	kemeluhu	burburinY	nima kanowa	bula-bula	bula bula	muturu mbolor
50. <i>dream</i>	mihin (A)	mnif	manh	manifi (G)	-mifi	ndososuo

	Seti	Bobot	Masiwang	Geser	Watubela	Banda
51. <i>sit</i>	huttue/buttue	duwat	tuat	matoran	sabóu	metet
52. <i>stand</i>	(k)olo	kolan	kolan	mariri	mlili?	meliri
53. <i>person</i>	mansia	mansia	mansia	mančia	mansia	mapčia
54. <i>man</i>	mulačina	muana	masanan	urana	marjkana	morana
55. <i>woman</i>	hifnáina	vina	baroha	wawina	hilala	meifino
56. <i>child</i>	yana?a	yana	o?on	anak	ananak	anako
57. <i>husband</i>	mulačina	sawan	masanan ⁶	rana	marjkana ⁷	tau- morana
58. <i>wife</i>	fifnáina/sawa- ⁸	sawan	baroha	wawina	hilala	tau- meifino
59. <i>mother</i>	inai	inan	ina	nina	nina	ina- ⁹
60. <i>father</i>	amai	yaman; baba	baba	baba	yai	ama- ⁹
61. <i>house</i>	ufaiya	uma	suma	ruma	lumak	rumo
62. <i>roof</i>	ata lanna	yata	ilan	barém	kataf	atop
63. <i>name</i>	nalana	nalán	nalán	qasan	qahan	nalán
64. <i>say</i>	rindak/dindak	dula	lian	kuk	mamán	lia-
65. <i>rope</i>	ai wehela	wawat	han wasat	tali (G)	tali	warot
66. <i>tie</i>	lahe	nafit	tes	wokas	deta	lakot
67. <i>sew</i>	labe	bakasoma	tula	firait	famlait	mborait
68. <i>needle</i>	lóusa	lalayan (N) (T)	lalain	lalan	lalan	bilin
69. <i>hunt</i>	ila;usir	vakavela	ukikia	leus;musir	lela	rasté
70. <i>shoot(bow)</i>	hana	bana	hana	fanak	fanak	mbano
71. <i>stab</i>	luk	devat	toi?	tewat	tulak	ndusuk
72. <i>strike</i>	fele/bele	biat	lait	sakur	nggul	ndukul
73. <i>steal</i>	kamana (A)	mana:	kahleft	faka;leus (G)	komanaka	mbo+naka
74. <i>kill</i>	humata/bumata	vunŷ	huin	tara ¹⁰	bunuk	mbo+kota
75. <i>dead</i>	mata (A)	mata	mata	-mata	-mata	mata-
76. <i>alive</i>	ninawa	meka (N)	lihilihan	liu	mliu	nunuli
77. <i>scratch</i>	(k) fala	kwas	kasa	fikori	goli?	mbo+skakir
78. <i>cut</i>	fita/bitá	da:	tasa	lait	mlait	mbutu
79. <i>wood</i>	ai-a	ai	ai	kai	kai	uno
80. <i>split</i>	bolo	bat	bola ha?as	tola	bakas	mbo+fkila
81. <i>sharp</i>	moi	kat	moit	matarin	matarin	mout
82. <i>dull</i>	koko	nona	babukit	baba	-kati	tutal
83. <i>work</i>	-	dei	-	-	garja	mbuno
84. <i>plant</i>	so?ak	bakatáu	toi?	tauk	daun	ndano
85. <i>choose</i>	liike (A)	badali	pili	filik (G)	fie	mbili
86. <i>grow</i>	abot (A)	me	-	-	-	mbotuk
87. <i>swollen</i>	boto	bivawa	boka	bulu	-bulul	ndofaro
88. <i>squeeze</i>	kisa?at	lefa	-	singatan (X)	dindis	ndembet
89. <i>hold</i>	(k)opla	doman	sit	dahan	gudi?	ndakan
90. <i>dig</i>	(k)ali	kaly	kais	kayk	galik	mbaéro
91. <i>buy</i>	safe (A)	balat	has	fas	sawal	mbaso
92. <i>open</i>	sire (A)	balak	sia?	salik	badil	mbende
93. <i>pound</i>	dut (A)	dutŷ; dau	tuti	tutu	dutu	ndutu
94. <i>throw</i>	tafa/rafa	dutŷ	toi?	folá	dulak	ndutu
95. <i>fall</i>	buk	mnav	rei?	ngék	dakadokit	monafu
96. <i>dog</i>	inawa	yasŷ	yai	kafuna	kofuna	asu
97. <i>bird</i>	manua	miova	ohas	manuk	manuk	manuk
98. <i>egg</i>	tolla	tolin	tolin	tolu	katlu	tulur
99. <i>feather</i>	ful?a	vulin (T)	hulhulin	wilfu	walu-	fulu-n
100. <i>wing</i>	ifale-na	yeun	hian	waki	waliunfe	foro

	Seti	Bobot	Masiwang	Geser	Watubela	Banda
101. fly	tif/rif	div	rihi	tiu	dekan	ndifu
102. rat	ulá:fa (A)	milava	ilaha	kalufa (G)	-	folafa
103. flesh	isi	-isin	sama?	sisia	hai	isi-
104. fat	mina (A)	-iak	mina? (D)	woda ¹¹ (G)	babal ¹¹	loloi-
105. tail	etna	efat	lekan	kaku	sku	keto-
106. snake	ula (A)	bufin	ula	tekis	utolok	nia ¹²
107. worm	sinalowa	urat ¹³ (T)	bat kutin	ena kutu	kuwatawatal	tambir luano
108. louse	fatana	kutin (N)	taniman	kutu	kutu	kutu
109. mosquito	uhua (A)	umanis	-	umis (G)	umus	lokumut
110. spider	lawa lawa (A)	-	-	gafas (G)	la:k	lau
111. fish	ena	ian	ian	ikan	ikan	ikan
112. rotten	fáuna (A)	koban	ma?obon	ngofak	-	fau-
113. branch	sanna	ai yakan	saksakan	san	lifa	sana-
114. leaf	lanna	ai lan	han lan	ru	lue?	rano
115. root	tap la	ai wa?at	tamit	akar	akal	wakat
116. flower	kof la	ai futin	dulan husin	fus	fuha	saur
117. fruit	fona-	ai vuan	huan	woi	oke?	fuan
118. grass	ai fafuta	fof	hanulin	imak	egegil	furun
119. earth	kaitaha	yena	bata	ena	tana	tambir;nonain
120. stone	fatwa	vat	hati	watu	watu	fatu
121. sand	enna	yena	bes	ena	kena wo	nui
122. water	waya	wai	way	ar	al	war
123. flow	abán	bait	roi?	tauk	-	nJok
124. sea	taisá	tasi	tasi?	tasik	tahit	tasik
125. salt	táisa	-	-	-	-	morosan
126. lake	torwa	tify	balabalan	louk ¹⁴	kahar	kual
127. forest	ai dimana	ai lalan	latan	imak;liba	ehi lome	mur wasi
128. sky	leá	lakit	lakit	lanjit	lanjit	lanjit
129. moon	umala	vulan	hulan	ulan	ulan	fulan
130. star	oha	toin	ilyowas	futuín (G)	tokul	fotuon
131. cloud	yafu	yofan (N) (T)	lak tain	agin tái (G)	lanjit ni tái	anin rano;awan
132. mist	isa?a	siwan (N)	suhan	sawan	sawan	fut
133. rain	roá	ulan	roti	uran	kadama	uren
134. thunder	dóla (A)	dola	lolas	dudun	dudun	ngur namár (E)
135. lightning	héfna (A)	kalak	yamyamat	tinitik	kanitik	ndatarák (E)
136. wind	simala	yakin	yakin	agin	agin	anin
137. blow	(k)uma	nu:	hosuf	utin	mufa?	mbu+furuko
138. hot	hasa-	bafanat	bobit	mfanas	kuan	wanato
139. cold	mori	ba?idik	sirin	rifi	lidin	rindin
140. dry	malafu	mamala	momala	kirimas	-maha	gelekár
141. wet	boro	loba loban	mareman	kiribotan	nakabetan	Jinár
142. heavy	meféla (A)	biat	tonit	maleman	kaleman	fafot;fafót
143. fire	waha	yaf	yah	afi	afi	au
144. burn	tutki (A)	dun;lut	tuin	tunu	dunu	ndurin
145. smoke	foyona	numik	yah kuba?	kubun	afi kubun	foko
146. ash	kalafuá	lav	bala hua? taín	au tai	kamtái	aftai
147. black	metena	mametan	metan	metan	maketan	metemeten
148. white	put a	babut	buti	futi	mfutik	noitigo
149. red	lalahana	dadau	kasahan	mera	gilala	moro-moro
150. yellow	rarakata	unin	si?init	kunig	kunin	kunil (E)

	Seti	Bobot	Masiwang	Geser	Watubela	Banda
151. <i>green</i>	kokolona	iʃo	biri biri	biri (K)	uŋ-uŋ	kairanranoko
152. <i>small</i>	matik	fofin yana	kongon	tutuŋ	sikit ha	doŋuro
153. <i>big</i>	boto-	ayak	isa	bobak	leha	ra
154. <i>short</i>	kes kes	wetuwetik	karokat	kubut	towól	noitfk
155. <i>long</i>	kóila	otak	wotat	malás	malá:	naru
156. <i>thin</i>	marni	minifit	manihit	banifis	manifi	munít
157. <i>thick</i>	futulu	vitól	kuta?	batolu	batolu	karát
158. <i>narrow</i>	keneʔat	kofa-kofat	koru-korup	korok	mokot	ndeték
159. <i>wide</i>	ferohana	tiban	tiha?	galawa	galawal	lafár
160. <i>ill</i>	malaʔu	mayaut	kali?	masinat	mahigat	nelet
161. <i>shy</i>	mukai	mayan	malih	-	-	momai
162. <i>old</i>	mutua	mitua	ronaman	matu:;ual	-mtuka	motua-
163. <i>new</i>	folla	vovoi	hosihosin	wouwou	oku-oku	feferúŋ
164. <i>good</i>	holo	kamuin ¹⁵	hia	babán;gafin	baik;fi	bobai-
165. <i>bad</i>	lal saʔa	kaʃahatan	lalan sa	garata (P)	-	ʃahat;setan
166. <i>true</i>	leke	mam	katoti	katotu	moson	mololo
167. <i>night</i>	kahana (A)	mamenin	mesat	garan	dodan	moŋʃia
168. <i>day</i>	boti	matabot	roman	dodan	dodan	refok
169. <i>year</i>	naha	na:	nala?	ŋarak	ŋarak	taun
170. <i>when</i>	bothila	bot fila	rom hila	dodan fis	dodan fihi	refilo
171. <i>hide</i>	ubafun (A)	basavunin	tainunin	wunin	bunin	mbo+moroko
172. <i>ascend</i>	saʔa (A)	sa:	sa:	saka	haka	ŋʃaka;leyan
173. <i>at</i>	ni	vi	ra (?)	bua	bo	wa
174. <i>inside</i>	loi fallal	vilalan	ramuli lalan	bua lomin	bo lomi	wa rarón
175. <i>above</i>	-	lete	leta	ata	ata	tutuno
176. <i>below</i>	-	na val	laho	wawa (?) (G)	loaka	fofán
177. <i>this</i>	anín	li	mehéi	ira	ne	i:
178. <i>that</i>	amaʔun	lin	mahó;masó	ira	ine	iko
179. <i>near</i>	hikut	wetuwetik	kekebat	ranik;rapat	lan-lani	runfk
180. <i>far</i>	kóila	otak	wotat	rau	lau	rau
181. <i>where</i>	niamba	matawaya (N) (T)	yataúa	na-ingí	kotnáu	mbe
182. <i>I</i>	yaʔa/ya	ya	yaʔaho	aku	ak	ak/-ŋ(u)
183. <i>you</i>	au/u	ana	aisó	kau	ka	ka/-m(u)
184. <i>he/she</i>	ia/ei	ia;i	iso	na;i	i	i/-n(o)
185(a) <i>we+2</i>	ita	ita	-	kita	kita	kito/-na
185(b) <i>we-2</i>	ami	am	msoa	kam	kami	kam/-mam
186. <i>you(pl.)</i>	om	em	imahoa	kumu	kemiu	kem/-mi
187. <i>they</i>	sia/si	sia	lelsoa;lelso	sidi	ila	si/-ni
188. <i>what</i>	esa	safa	nahain	la	afa	ansá
189. <i>who</i>	sia	sema	isi	sei	heha	se;sain
190. <i>different</i>	sáikin	vilul (N)	hosin	wown	haulot	fasiri
191. <i>all</i>	sefu	yalik (N)	ohi	ababis	nusik	abisi
192. <i>and</i>	tu	dua	tama	tura	hel	ndofon
193. <i>if</i>	kalu	Ø	kalu	Ø	Ø	naku
194. <i>how</i>	hoba	dawaya	haʔaí	manlá	ufanafa	ŋenbe
195. <i>no</i>	teʔula/tewa/te	sakali	eéyi	tei	tei?	ta
196. <i>count</i>	neke	(rekin)	reʔin	reʔen (P)	reyn (K)	neke
197. <i>one</i>	esa	san	ain a	sa	ha	sa
198. <i>two</i>	nlo	lua	ain lua	roti	lua	ruo
199. <i>three</i>	ntol	tol	ain toli	tolu	tolu	telu
200. <i>four</i>	hata	fet	ain fat	fat	fata	at

NOTES TO THE APPENDIX

1. *wade in neck deep water.*
2. (A) and other dialects have tua- for 14 and tai for 16.
3. In (A) as well as Salas ata- refers to animal liver; ata was not recorded in Seti itself.
4. In Seti fufu-, which was recorded for 24, may refer to the top of the head only.
5. of cigarettes.
6. But we note hiyowo *wed* and basowan *son-in-law*.
7. Note fakhá: *to wed*.
8. Here sawa- is taken from the (A) data.
9. Reference terms only.
10. Note, however, nunu *to extinguish a lamp*.
11. Both Geser (P) and Watabela have gul *grease*.
12. In Elat [ria] seems to be a variant pronunciation.
13. *intestinal worm*.
14. *tidal pool*.
15. See no.3 *right hand*.