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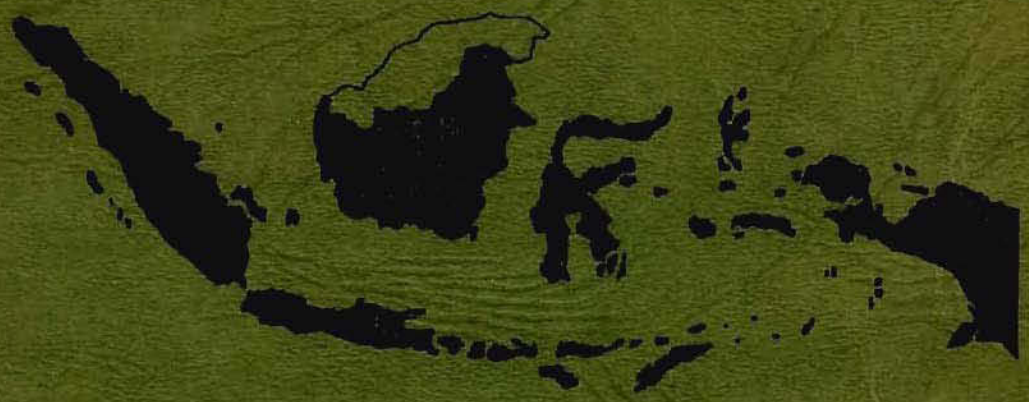
VOLUME 8 - MALUKU



PATTIMURA UNIVERSITY

and

THE SUMMER INSTITUTE OF LINGUISTICS

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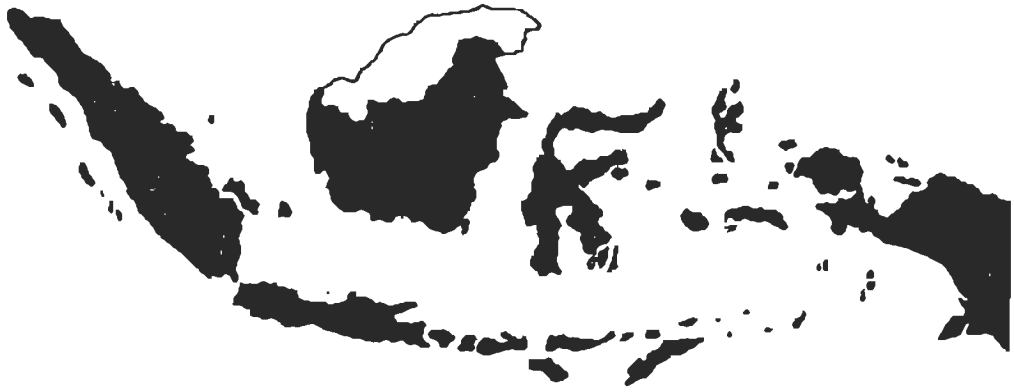

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Wyn D. Laidig, Editor

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PRAKATA

Dengan mengucap syukur kepada Tuhan yang Maha Esa, kami menyambut dengan gembira penerbitan buku *Workpapers in Indonesian Languages and Cultures, Volume 8 - Maluku*. Penerbitan ini menunjukkan adanya suatu kerjasama yang baik antara Universitas Pattimura dengan Summer Institute of Linguistics, Maluku.

Buku ini merupakan wujud nyata peran serta para anggota SIL dalam membantu masyarakat umumnya dan masyarakat pedesaan khususnya.

Diharapkan dengan terbitnya buku ini akan dapat membantu masyarakat khususnya di pedesaan, dalam meningkatkan pengetahuan dan prestasi mereka sesuai dengan bidang mereka masing-masing.

Dengan adanya penerbitan ini, kiranya dapat merangsang munculnya penulis-penulis yang lain yang dapat menyumbangkan pengetahuannya yang berguna bagi kita dan generasi-generasi yang akan datang.

Kami ucapkan terima kasih kepada para anggota SIL yang telah berupaya sehingga bisa diterbitkannya buku ini.

Akhir kata kami ucapkan selamat membaca kepada masyarakat yang mau memiliki buku ini. Harapan kami buku hasil kerjasama UNPATTI-SIL ini dapat bermanfaat bagi masyarakat di daerah seribu pulau yang tercinta ini, yaitu Maluku.

Ambon, March 1990
Universitas Pattimura

Dr.Ir.J.L. Nanere, MSc.
Rector

PREFACE

Workpapers in Indonesian Languages and Cultures is a joint publication of the Indonesia Branch of the Summer Institute of Linguistics, Cenderawasih University in Irian Jaya, Hasanuddin University in Sulawesi, and Pattimura University in Maluku. It is hoped that through this series some of the linguistic and ethnographic results of our cooperative research will become more accessible to colleagues and scholars sharing an interest in these aspects of Indonesia.

This issue, Volume 8 in the series, is the third to result from our work in Maluku with Pattimura University. Included in this volume are is Part III of a discussion of Pre-Sangir phonemes by Kenneth Maryott. Also, preliminary phonological descriptions of Alune, by Yushin and Takako Taguchi, and Yamdena, by Toni and Heidi Mettler, are presented. In addition, observations regarding kinship and marriage among the Nuaulu people and among the West Tarangan people are presented by Rosemary Bolton and Susan Nivens, respectively. As usual, the authors welcome any comments or suggestions regarding the findings presented here.

We are deeply indebted to our many friends and co-workers at Pattimura University. Without the smooth working relationship that we enjoy together, the results presented in this issue would not have been possible.

Wyn D. Laidig
Ambon
March 1990

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Volume 8 - Maluku

Wyn D. Laidig, Editor

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PRE-SANGIR *l, *d, *r AND ASSOCIATED PHONEMES: PART III

Kenneth R. Maryott

Pattimura University
and
Summer Institute of Linguistics

3. INTRODUCTION

Of the profusion of the reflexes of Pre-Sangir (PS) *l, *d, *r and their kind, Parts I and II of this paper[1] have accounted for a good many, but still there is a formidable residue. What are the conditions, for instance, under which the first r in Sangil (Sl) siriri? 'current' developed from PS*l? And how does this same *l give rise to initial l in Sl lalan 'thorn'? Or how does this retroflexion fail to develop from *l in the first l of Sangir (Sr) kulele 'dangle'? Or how does laterality fail to develop from PS*r in the second r of Sl roro 'cutting edge'? And whence PS*R to l, or PS*d to l or to r in Sangil, none of which have yet been accounted for?

The explanation is neither new nor complex in principle. In a paper published long ago, Conant (1916) made the statement:

> In several Indonesian languages original l becomes r by assimilation to an r of the same word ... Examples are ... Iloko, Toba, Ngaju ruar beside Sundanese luar 'outside, except'; Bikol rara beside Samar Bisaya lara 'weave matting'; Tirurai rebur beside Malay lebur 'roil, disturb'; Bagobo, Tirurai roros beside Samar Bisaya loros 'lower (sail, etc.)'. In all these languages l becomes r only under assimilative influence, the change not being spontaneous as in the cases under special consideration in this paper. (188)

Remarkably, the simple process Conant reported for Indonesian l applies not only to PS*l but to *d, *r, and *R as well. I am unaware that assimilation in Austronesian languages is anywhere as extensive, nor as complex, as in the Sangir languages.

Stated generally, then, the sound change here is conditioned by assimilative influences near the sound undergoing change. Part II of this study also dealt in part with assimilation, but the assimilation there was associated with the spotty residue of an obsolete morphophonemics that was productive only at an earlier stage of the language. Here we will be discussing a later, still-productive morphophonemic assimilation, as well as assimilation that occurs within the word bases themselves and has no relation to border phenomena.[2] The latter process we will discuss as 'phonemic' and the former as 'morphophonemic.' In either case however, we can speak of the process as second-stage sound change, or simply secondary change.

To demonstrate that the process is in fact secondary, the rule being featured is always shown together with the rules that precede it and upon which it depends. In other words, the rule is displayed within the set of ordered rules of which the first are primary and have already been stated in Parts I or II, and the last is the secondary, assimilative rule (in bold print). Within the primary rules, it is generally the first that trace the development of the sound undergoing assimilation, and the second that account for the sound to which the assimilation is being made.

We will approach this topic as we did those in the other parts of the paper: in terms of the individual pre-Sangiric phonemes and of the particular process, phonemic or morphophonemic, involved in the replacement of these phonemes. Most of the change here pertains to Sangil sounds; few of the rules apply to Sangir. As before, however, data from both languages will always be included, in parentheses wherever the rule being discussed does not apply to that particular form, and in the order Sangir first and Sangil last with diagonal between; e.g. (loahɨʔ) / roarɨʔ 'opening, opportunity'.

3.1 PS*l AND INDEPENDENTLY DERIVED LATERALS

Of all the assimilative change discussed in this Part III of the study, the change originally stemming from PS*l and one or two laterals from other sources is the most noteworthy from the standpoint of both number of processes and amount of data affected. The processes themselves, however, are simple and the pertinent phoneme combinations frequent, both facts that help to explain the relative abundance of the examples to follow.

3.1.1 PHONEMIC PROCESSES

Broadly stated, these intra-morpheme processes result in a preceding lateral -- usually but not necessarily from PS*l -- assuming the phonological shape of a following lateral or retroflexion. Note that the first two of these processes have to do with laterals that are nonretroflexed before assimilation, while the last two correspondingly involve retroflexed laterals. Notice also that the influencing consonant need not be the next in succession, but can in many cases follow an optional intervening syllable (S), which symbol will be understood to include an optional consonant that may immediately precede the intervening syllable; e.g. n in ɭen.so.ɭaŋ 'body joint'. A Sangil back vowel (V_b) is either ɨ, a, u, or o; a front vowel (V_f) is either i or e. Sangir vowel classes are the same except for ɨ, which patterns with the front rather than the back vowels. $V_{-ɨ}$ represents any vowel other than ɨ.

Rule 3.1a1: In Sangil, a nonretroflexed lateral assimilates to the mode of articulation of a following retroflexed lateral (ɭ).

1	PS*l > l	| #__ (Sl)		(Rule 1.1(1))
	ɭ	| V_b__V_f (Sl)		(Rule 1.1(2c1))
	PS*r > ɭ	(Sl)		(Rule 1.4)
2	Sl l > ɭ	| __V(S)ɭ		

(laburɨʔ) / ɭabuɭɨʔ (< In labur) 'paint'
(laraŋ) / ɭaɭaŋ (< PS*laraŋ) 'thorn'
(lensoraŋ) / ɭensoɭaŋ (< PS*lensod-)[3] '(ankle) joint'

(lɨ̱li?) / ɭɨ̱ɭi? (< PS*lɨ̱li?) 'unprotected, cautious'
(lihadɨ?) / ɭehaɭɨ?[4] (< PS*lihad-) 'rub, chafe'
(liri?) / ɭiɭi (< PS*liri?) 'clear field'
(liruŋ) / ɭiɭuŋ (< PS*liruŋ) '(place name)'
(lohorɨ?) / ɭohoɭɨ? (< In/?Mg lohor) 'prayer hour'
(luraŋ) /[5] ɭuɭaŋ (< PS*luraŋ) 'load'
(duɭidɨ?) / ɭauɭidɨ? (< Sl*la-uɭidɨ? < PS*ulidɨ?) 'k.o. shell'

Apart from the assimilation formularized by this rule, the initial lateral expected in each Sangil form would be l. In the following cases, however, that l derives, not from an original PS*l as typical of this rule, but from PS*d by Rule 3.2a2, which see.

(daɭinau?) / ɭaɭinau (< Sl*laɭinau < PS*dalinau?) 'surprise'
(daɭiŋara) / ɭaɭiŋaɭa (< Sl*laɭiŋaɭa[6] < PS*daɭiŋara) 'look up'
(duɭiraŋ) / ɭuɭidaŋ (< Sl*luɭid- < PS*dulid-) 'plate (roof)'
(tarɨpa) / ɭaɭɨpa (< Sl*laɭɨpa < Sl*da-ɭɨpa < PS*dɨpa) 'spread arms (as in embrace or invitation)'

Rule 3.1a2: In Sangil, a nonretroflexed lateral assimilates to the mode of articulation of a following retroflexed flap (r).[7]

1 PS*l > l	# __	(Sl)	(Rule 1.1(1))
	V_f __	(Sl)	(Rule 1.1(2a))
PS*R > r		(Sl)	(Rule 1.5)
2 Sl l > r	_V(S)r		

(elehɨ?) 'flow' / ererɨ? 'drift with current' (< PS*eleRɨ?)
(laboloɦɨ?) / raborɨ?[8] (< PS*laboyoRɨ?) 'gruel'
(lahe?) / rare? (< PS*laRe?) 'clear, plain'
(lanteɦɨ?) / ranterɨ? (< PS*lanteRɨ?) 'vicinity'
(laŋeɦɨ?) / raŋerɨ? (< PS*laŋeRɨ?) 'anger'
(laŋiɦɨ?) / raŋirɨ? (< PS*laŋiRɨ?) 'k.o. tree'
(lehe) / rere (< PS*leRe) 'hang s.t. over fence or line (as in drying clothes)'
(lehe?) / rerɨ? (< PS*leRe?) 'neck'
(lɨ̱gaɦɨ?) / rɨ̱garɨ? (< PS*lɨ̱gaRɨ?) 'decorate'

(lɨhaŋ) / rɨraŋ (< PS*lɨRaŋ) 'show through (s.t. perforated)'
(lɨhasɨ?) / rɨrasɨ? (< PS*lɨRasɨ?) 'tree-core'
(lɨhigɨ?) / riruk̨ɨ? (< PS*lɨRikɨ?) 'go by round-about way'
(lɨhio) / rɨrio (< PS*lɨRio) 'k.o. insect'
(lɨkahɨ?) / rɨkarɨ? (< PS*lɨkaRɨ?) 'peel off'
(lɨkuhɨ?) / rɨkurɨ? (< PS*lɨkuRɨ?) 'small bat'
(lɨla?) / rɨareŋ (< Sl*rɨarɨ? + -eŋ < PS*lɨlaR) 'k.o. shell'
(lɨntohɨ?) / rɨntorɨ? (< PS*lɨntoRɨ?) 'skin disorder'
(lɨŋgihɨ? 'beautiful') / batu rɨŋgirɨ? 'smooth, round stone' (< PS*lɨŋgiRɨ?)
(lihadɨ?) / riradɨ?[9] (< PS*liRadɨ?) 'rub, crush'
(lihi) / riri (< PS*liRi) 'avoid'
(linuhɨ?) / rinurɨ? (< PS*linuRɨ?) 'earthquake'
(loahɨ?) / roarɨ? (< PS*loaRɨ?) 'open place or opportunity'
(loho) / roro (< PS*loRo) 'contents'
(luhe) / rure (< PS*luRe) 'put on (clothing)'
(mɨlohaŋ 'make hole, dig out') / mɨrora 'take out' (< PS*loRaŋ)
(selehɨ? 'cock the head') / sererɨ? 'incline the wings (as bird banking)' (< PS*seleRɨ?)
(sɨŋgelohɨ?) / sɨŋgerorɨ? (< PS*sɨŋgeloRɨ?) 'k.o. bird'
(silahɨ?) / sirarɨ? (< PS*silaRɨ?) 'k.o. palm'
(tɨŋgilahu) / tɨŋgiraro (< PS*tɨŋgilaRu) 'k.o. shell'

Apart from the assimilation here, the first r in each Sangil form would have been l. In the following case, however, that l would again have derived from PS*d by Rule 3.2a2.

(daluhɨ?, laluhɨ?) / rayurɨ? (< Sl*layurɨ? < PS*dayuRɨ?) 'aged'

With Sl rɨareŋ 'k.o. shell' compare Sl lɨa? '(another?) k.o. shell', whose final consonant *r was reduced to glottal stop instead of being preserved by the addition of the paragoge sequence -ɨ? as in rɨareŋ (on which process see Sneddon 1986). Without final r, lɨa? failed to meet the conditions for assimilation and none took place. In like manner, Sl loa? 'open wider, make broader, exaggerate' underwent final consonant reduction and so lacked the r to which initial l would

have assimilated, as it in fact did in Sl roarɨ? 'opening' (above).

Rule 3.1a3: In Sangil, a retroflexed lateral assimilates to the mode of articulation of a following retroflexed flap.

1 PS*l > ɻ | V_b—V_f (Sl) (Rule 1.1(2c1))
PS*R > r (Sl) (Rule 1.5)
2 **Sl ɻ > r | _V(S)r**

(saɻiabuhɨ?) / sariaburɨ? (< PS*saliabuRɨ?)
'scatter (as seed)'
(saɻehɨ?) / sarerɨ? (< PS*saleRɨ?) 'nest'
(saɻibuhɨ?) / sariburɨ? (< PS*salibuRɨ?)
'comfort (as a crying child)'
(saɻikahɨ?) / sarikarɨ? (< PS*salikaRɨ?)
'tickle'
(sɨlihɨ?) / sɨrirɨ? (< PS*sɨliRɨ?) 'current'

This time, apart from the assimilation, the first r in each Sangil form would have been ɻ. In the following, however, that ɻ derived either from PS*d by Rule 2.2a (viz PS*d > ɻ | V-_V (Sl)), or from PS*r by Rule 1.2.2 (viz PS*r > ɻ (Sl)).

(dipɨluhɨ? 'flame') / tɨntaripurɨ? 'red fruit'
(< Sl*tɨnta-ɻip0urɨ? < Sl*dipɨ0urɨ?
< PS*dipɨluRɨ?)
(darehɨ?) / darerɨ? (< Sl*daɻerɨ? < PS*dareRɨ?)
'k.o. fish'

Rule 3.1a4: In Sangir and Sangil, a retroflexed lateral assimilates to the mode of articulation of a following nonretroflexed lateral (but not, this time, where another syllable intervenes; cf Sr kaɻintola 'snarl, tangle' and Sl taɻasila 'genealogy').

1 PS*l > ɻ | V_b— (Sr) (Rule 1.1(2c))
ɻ | V_b—V_f (Sl) (Rule 1.1(2c1))
l | V_f— (Sr/Sl) (Rule 1.1(2a))
PS*y > l | V_b— (Sr) (Rule 1.2(2b))
2 **Sr/Sl ɻ > l | _V(S)l**

baleleŋ / baleleŋ (< PS*baleleŋ) 'turn about'
daluluŋ / (dauyuŋ) (< PS*daluyuŋ) 'deluge'
kulele / kulele (< PS*kulele) 'hang, dangle'
malalugɨ? / (mayugɨ?) (< PS*malayugɨ?) 'flying fish'
salele / salele (< PS*salele) 'go to and fro'

tɨmbulilin / tɨmbulilin (< PS*tɨmbulilin)
'become dizzy & fall'

Here, the first l in the Sangir form would again have been l had it not been for the assimilation. The following forms undoubtedly derived the initial lateral of their primitive bases from PS*d by Rules 3.2a2 and 1.2c2 modified (viz Sr*l > l | V_b—V_b, Sl*l > Ø | V_b—V_b).

salalo / (sayo) (< Sr*sa-lalo / Sl*sa-layo < PS*dayo) 'k.o. tree'[10]

Alternatively stated, Rule 3.1a4 might specify that a lateral is blocked from developing retroflexion by the assimilative influence of the following nonretroflexed lateral. There is a place for such rules but I suspect that it is not here. In the first place, it assumes that the influencing environment developed first and, lacking evidence one way or the other, that is an assumption I am not prepared to make. In addition, if we accept that the environment could block retroflexion in a lateral, we might have to accept that it could block attenuation and loss as well in the lateral. And that the environment clearly did not do; cf saluru / saulu (< PS*saluRu) 'hold in arms'.

3.1.2 MORPHOPHONEMIC PROCESSES

These processes, which operate between two morphemes rather than within a single morpheme as above, partially overlap the processes above in that a preceding lateral again assimilates to a following lateral or retroflexion ('Intervocalic change'). What differs is that processes of a second type ('Reduplication') produce, not the minimal change involved in the assimilation of one lateral to another, for example, but the total change involved when a phonological unit has no shape of its own but takes on shape from the stem with which it occurs. Reduplication constitutes the ultimate case of assimilation.

3.1.2.1 INTERVOCALIC CHANGE

The first rule considered here is the inter-morpheme counterpart of the intra-morpheme rule

just above. As such, it will serve as a convenient transition to the rules that follow.

Rule 3.1b1a: In Sangir, a lateral that has become intervocalic and has thereby undergone retroflexion assimilates to the mode of articulation of a following nonretroflexed lateral (except, as in Rule 3.1a4, where another syllable intervenes; cf ma-l̤imbolon 'round'.

1	PS*l > l	# _	(Sr)	(Rule 1.1(1))
	Sr l > l̤	V_b - _		(Rule 2.1(1b))
	l	V_f _		(Rules 1.1(2a,b)
	PS*y > l	V_b _	(Sr)	(Rule 1.2(2b)
2	**Sr l̤ > l**	**V_b - V_1**		

ma-lele / (ma-lele) (< PS*lele) 'insipid'
maka-lola / (maka-loya) (< PS*loya) 'chew'
na-lalo / (na-layo) (< PS*layo) '(rooster) has grown a wattle'
na-lilaŋ[11] / (na-lila) (< PS*lilaŋ) 'forgotten, overlooked'
na-lolaŋ / (noyaŋ) (< PS*loyaŋ) 'withered'
pa-lalah-eŋ / (pareŋ) (< PS*lalaR-) 'mast'

As under the previous rule on phonemic processes, here again the first l̤ in each Sangir form would have been l̤ had it not been for the assimilation. And the following forms derived that l̤ from PS*d by Rules 3.2a2 and 2.1b2 modified (viz Sr l̤ > l̤ | V_b - _ V_b).

ma-l̤il̤iŋ (Tar) / (ma l̤a l̤iŋ) (< PS*daliŋ) 'be poured'
na-lalu[11] / (nayuŋ) (< PS*dayu) 'delayed in arriving'

Notice that the formation of Sangil ma l̤a l̤iŋ does not necessarily involve assimilation since the retroflexion of its first lateral could have developed by the earlier morphophonemics solely because of its intervocalic position (PS*d > l̤ | $V_{\_ i \_} V$; Rule 2.2(1)). However, the retroflexion here probably is from assimilation because the prefix ma- is replaceable, without change in the first lateral, with prefixes ending in the high central vowel (as in m ɨ l̤a l̤iŋ 'pour'), after which vowel the intervocalic retroflexion does not and did not take place.

On the other hand, this retention of the first l̤ despite the affix replacement might be thought

explainable in terms of back-formation from a ɻ-initial base produced through the obsolete morphophonemics. However, such an analysis would ignore the facts that in Sangil sound change between morphemes was preserved only in forms with high usage frequency, and maɻaɻiŋ was not such a form. Compare Sl maɻaw 'far' (<- ma- + daw) which was such a high-frequency form, as such survived, and now undergoes back-formation to ɻaw 'distance'.

Rule 3.1b1a probably holds for at least some Sangil forms but this is not certain. Unless a form is judged to be of high frequency, it is quite indeterminate whether the reason for the nonretroflexion of the first lateral is assimilation to the following lateral, or is simply the failure of a retroflexed lateral to survive from the earlier morphophonemics. Only when such forms are clearly fossils and can no longer be broken down into component morphemes are the hyphens here dispensed with that would indicate such morpheme breaks.

Rule 3.1b1b: In Sangil, a lateral that has become intervocalic and has thereby undergone retroflexion assimilates to the mode of articulation of a following retroflexed flap.

1 PS*l > l | #__ (Sl) (Rule 1.1(1))
Sl l > ɻ | V_b-_V_f (Sl) (Rule 2.1(1b1)
PS*R > r (Sl) (Rule 1.5)
2 Sl ɻ > r | V-_V(S)r

(ma-ɻeneh̬ʔ) / marener̬ʔ (< PS*leneR̬ʔ) 'calm'
(ma-ɻiebeh̬ʔ) / marieber̬ʔ (< PS*liebeR̬ʔ) 'slippery'

Here the first r in each Sangil form would have been ɻ, which derived in the following cases not from PS*l but from PS*d by Rule 2.2a (viz PS*d > ɻ | V_{-i}-_V (Sl)).

(ma-raseh̬ʔ) / maraser̬ʔ (< PS*daseR̬ʔ) 'stormy'
(da-reho?) / darero (< PS*deRo?) 's.t. wound about, sarong'
(da-riha 'be corrected, chastened') / darira 'wary, on guard' (< PS*diRa)
(naka-riŋih̬ʔ) / nakariŋir̬ʔ (< PS*diŋiR̬ʔ) 'overhear'

(papa-risihɨʔ) / paparisirɨʔ (< PS*disiRɨʔ)
'vertical support'

3.1.2.2 REDUPLICATIVE CHANGE

In Sangir and Sangil, the reduplication of word roots is common, particularly in adjectives, but the reduplication of stem-initial consonants for various semantic purposes is much more common. In either case, however, reduplication can be thought of as the total assimilation[12] of a phonologically amorphous element to another, well-formed element. Here we need concern ourselves only with stem-initial consonant reduplication.

Rule 3.1b2a: In Sangir and Sangil, a reduplicative consonant undergoes total assimilation to the mode of articulation of a following stem-initial nonretroflexed lateral.

1 PS*l	> l	#	(Sr/Sl)	(Rule 1.1(1))
		V_f	(Sr/Sl)	(Rule 1.1(2a))
2 Sr/Sl C_r	**> l**	**V(S)**	**-l**	
		C	**-Vl**	

(da-ɭimasɨʔ) / la-limasɨʔ (< PS*limasɨʔ)
'bailing device'
la-lelaŋ / la-lelaŋ (< PS*lelaŋ) 'diversion dam'
lɨ-likut-aŋ / lɨ-likut-aŋ (< PS*liku?) 'be being encompassed'
luʔ-labaŋ / lu-labaŋ (< PS*labaŋ) 'is transgressing'
(luma-ɭinsoʔ 'dancer') / luma-linsoʔ 'jumper' (< PS*linsoʔ)
mɨla-lele / mɨla-lele (< PS*lele) 'one who weeds fields'
mɨʔl-alo / (magag-ayoʔ) (< PS*ayo) 'is attacking'

There is no data here corresponding to that in previous sections in which stem-initial l derived from an original phoneme other than PS*l.

Notice that for Sangir, the reduplication is not of the word-initial consonant prior to the preposing of the reduplicative morpheme, but of the stem-initial consonant made medial by that prepositioning. Any

factors therefore which maintain that stem-initial consonant as a nonretroflexed lateral insure the proper conditions for this rule; e.g., the last l in Sr la-lelaŋ, before which stem-initial l assimilates to the same nonretroflexed mode of articulation; the ɨ in Sr lɨ-likutaŋ, after which l does not undergo retroflexion; and glottal stop clustering with the l in Sr lu?-labaŋ, which prevents the occurrence of l intervocalically and thus its retroflexion. Compare the situation in Sangil, where the productive pattern itself disallows retroflexion.

Rule 3.1b2b: In Sangir, a reduplicative consonant undergoes a near total assimilation to the mode of articulation of a following stem-initial retroflexed lateral by becoming either the voiced alveolar stop (d) or the nonretroflexed lateral (l), depending on certain morphological conditions; in Sangil, the corresponding process is total assimilation.

1 PS*l > l | #__ (Sr/Sl) (Rule 1.1(1))
Sr l > ɭ | V_b-__ (Rule 2.1(1b))
Sl l > ɭ | _(S)ɭ (Rule 3.1a1)

2 **Sr C_r > d ~ l | _V(S)-ɭ**
| C_-V]
Sl C_r > ɭ | _V(S)-ɭ
where the difference symbol (~) indicates 'and under different morphological conditions'

da-ɭuraŋ / ɭa-ɭuɭaŋ (< PS*luraŋ) 'loading device, hoist'
da-ɭensodɨ? / ɭa-ɭensodɨ? (< Sl ɭensoɭ(aŋ) < PS*lensod-)[13] 's.t. causing ankle sprain'
duma-ɭɨto / luma-lɨtaw (< PS*lɨtaw) 'float, bob on surface'
luma-ɭinso? 'dancer' / luma-linso? 'jumper' (< PS*linso?)
mɨ?-da-ɭau? / mɨ-la-lau? (< PS*lau?) 'mix'
mɨla-ɭiri? (Tar) / mɨɭa-ɭiɭi (< PS*liri?) 'farmer'
mɨ?d-aɭa? (Tar) / (magag-a??) (< PS*ala?) 'is getting'
mɨ?l-aɭeŋ / (magag-aɭeŋ?) (< PS*aleŋ?) 'is becoming dizzy, giddy'

Again no unambiguous data here indicates a stem-initial ɭ other than from PS*l.

The major matter requiring comment is the justification of a Sangir stop (d) as a 'near total assimilation' to a lateral (l). This stop may seem at first to be a better example of dissimilation than of assimilation. But observe that in every other instance of consonant reduplication the norm is assimilation in Sangir, even assimilation to a lateral (l) under certain conditions (cf mɨla-ɭiri? above). Once the general tendency toward assimilation is accepted, it is not hard to see that the reduplicative consonant reproduces what it can of the retroflexed consonant. It cannot wholly reduplicate ɭ following pause or another consonant, but it is able to reduplicate at least its voicing, point of articulation, and closure. This closure or contact of the tongue with the alveolar ridge, a tap in passing in the case of the ɭ, is simply more sustained in the case of the d.

3.2 PS*d

If the assimilative change above was notable for sheer bulk of material, the change originating from PS*d is more interesting in connection with the processes themselves. The data here is limited, yet is more than enough to yield the following rules.

3.2.1 PHONEMIC PROCESS

This first process is of a less likely sort than anything we have seen thus far. The preceding section featured laterals assimilating to retroflexions and vice versa, but all of them were essentially continuants. Here, the assimilating consonant is not just another continuant, but a stop. Still, this conversion of stop to continuant initially is not without precedent, as we will see in the second rule hereunder. Of greater interest perhaps is the fact that while not a phoneme is lost through the processes above, the process here systematically results in the loss of a full syllable from each root.

Rule 3.2a1: In Sangil, a voiced alveolar stop immediately preceded by pause or a front vowel assimilates to the mode of articulation of a following nonretroflexed lateral bracketed by identical back

vowels. (By Rule 1.1(2c2), this lateral is then lost and the bracketing vowels coalesce.)[14]

1 PS*d > d (Sl) (Rule 1.3)
PS*l > l (Sl)[15]

2 Sl d > l | $\emptyset$ / $V_{b\alpha}$ _ l $V_{b\alpha}$
| V_{f-} $V_{b\alpha}$ l $V_{b\alpha}$

(daɬaŋiraŋ) / ɬaŋiɬaŋ (< PS*dalaŋiraŋ) 'k.o. tree'
(daɬatu (NSa)) / latu (< PS*dalatu) 'k.o. ant'
(daɬoati) / lawati (< PS*dalawati) 'roundwort'
(dɨlusɨ?) / lausɨ? (< PS*daulusɨ?) 'descend'
(doɬoi) / loy (< PS*doloi) 'sapling'
(doɬosɨ? 'change with s.o./s.t.') / losɨ? 'borrow' (< PS*dolosɨ?)
(doɬosi)[16] / losi (< PS*dolosi) 'k.o. fish'
(duɬu) 'wild, of the hinterland'[17] / lu 'interior, forest' (< PS*dulu)
(iroɬo (Si)) / ilo (< PS*idolo) 'rest'
(kiraɬa) / kila (< PS*kidala) 'recognize'

Apart from the assimilation here, the first l in each Sangil form would have been d, including the first example, in which initial l has undergone further assimilation to ɬ before another ɬ; see Rule 3.1a1.

A minor exception, that might even have been worked into the rule with little more complexity, is (duɬo) / luaw (< PS*dulaw) 'saliva'.[18] This pair, together with (dɨlusɨ?) / lausɨ? (above), are crucial in arguing that the l in the Sangil roots could not have developed from PS*l with preceding *dV lost in the process, since otherwise u in luaw and au in lausɨ? would have preceded and not followed the l's. A further argument invokes the precedent of the loss of l rather than d from Sl*dako 'departure', from Ca- + lako 'go on raid' (see Rule 2.1(2)).

Rule 3.2a2: In Sangir and Sangil, a voiced alveolar stop optionally assimilates to the laterality (but not the retroflexion, if any) of a following nonretroflexed or retroflexed lateral. (In Sangil only, this lateral, by Rules 3.1a1 and 2, further assimilates to the mode of articulation of that following lateral.)

1 PS*d > d (Sr/Sl) (Rule 1.3)
PS*l > l | V_{f}__ (Sr/Sl) (Rule 1.1(2a))
ɬ | V_{b}__ (Sr) (Rule 1.1(2c))
ɬ | V_{b}__ V_{f} (Sl) (Rule 1.1(2c1))

2 **Sr/Sl d > d, l ɬ | V l**
|ɬ

where comma (,) indicates 'or (and/or)',
the logical operator of union

dila, lila / dila (< PS*dila) 'tongue'
dara-riŋihɨ? / daɬiŋi, ɬaɬiŋi '(a) listening (as for pleasure)' (< SldaØaɬiŋi < Sl*daɬa-ɬiŋiØ < PS*diŋiR)
daɬatu (NSa), lɨlatu / latu (< PS*dalatu) 'ant'[19]
daɬiabedɨ? / daɬiabedɨ?, ɬaɬiabedɨ? (< PS*daɬiabedɨ?) 'millipede'
daɬiŋ, lɨliŋ (Tar) / ɬaɬiŋ (< PS*daliŋ) 'pour'
dɨle, lɨle / (dɨay) (< PS*dɨlay) 'k.o. grain'[20]
doɬe, loɬe / *ɬoɬay (+ ka- -> kuɬay) (< PS*dolay) 'differ'
ma-ruɬuŋ / *duɬuŋ (+ ma- -> maduŋ),[21] *ɬuɬuŋ (+ ma- -> mauɬuŋ) (< PS*duluŋ) 'near land'
daɬinau? / ɬaɬinau (< Sl*laɬinau < PS*dalinau?) 'surprise'
daɬiŋara / ɬaɬiŋaɬa (< Sl*laɬiŋaɬa < PS*daɬiŋara) 'look up'
duɬidɨ? / ɬauɬidɨ? (< Sr dØuɬidɨ? < Sr la-uɬidɨ? < PS*ulidɨ?) 'k.o. shell'
duɬiraŋ / ɬuɬidaŋ (< Sl*luɬid- < PS*dulid-) 'plate (roof)'
(taɾɨpa) / ɬaɬɨpa (< Sl*laɬɨpa < Sl*da-ɬɨpa < PS*dɨpa) 'open arms to embrace, invite'[22]

Included in the forms under this rule is a small subclass the study of which is especially interesting. This set consists of l-initial roots that clearly stem from d-initial protoforms, yet in their Sangil reflexes lack the medial l that would activate the d-to-l assimilation initially. For example, consider Sl dayu 'trying to come'. In Sangir the corresponding lalu 'delayed' has undergone the assimilation of d to l initially before another l as predicted by the present rule. But there is a second Sangil reflex, *layu (+ na- -> nayuŋ 'long time in coming'), that also has

initial l despite the non-occurrence of the medial l that alone could account for it.

What I am proposing is that, even though roots like Sl *layu do not have a medial l in their present forms, they did have at some point in their past. Pre-Sangir *y must have been similar enough to a lateral that at least some members of the newly-divergent Sangil community pronounced it as such (as did all the Sangir community) and, in doing so, triggered the assimilation of d to l preceding it. This initial l endured; the medial l did not, but yielded to analogical pressure for the restoration of y. This medial l is a good example of an incipient change that ultimately fails to establish itself, or a transient sort of 'sporadic change', as it is sometimes called (Lehmann 1962:159). Hereafter, I will symbolize sounds that result from sporadic change by enclosing them in braces; e.g. {l}.

This might seem a rather ad hoc solution to the problem except that it has ramifications in another area of the diachronics. Recall that in Part I, I could not explain certain Sangil doublets like taya vs ta (Sr tala) 'not', from the reconstructed PS*taya (Maryott 1978:125). With the present hypothesis these doublets can be given a plausable explanation. Alongside the expected taya, Sangil developed the spurious form *ta{l}a, in which {l} between back vowels replaced the acoustically similar *y as suggested for *la{l}u above. This {l} was later lost from between those vowels and the vowels coalesced as in Rule 1.2c2. So, in ta as in layu, the deviant {l} did not endure, but in ta as in layu, it endured long enough to produce effects that themselves endured, viz the shift from d to l in layu and the loss of a syllable in ta.[23]

daluhɨ?, laluhɨ? / rayurɨ? (< *layurɨ?
< *la{l}urɨ? < Sl*da{l}urɨ? < PS*dayuRɨ?)
'aged'.

lalu / dayu, *layu ((+ na- -> nayuŋ) < *la{l}u
< *da{l}u < PS*dayu) 'delayed, trying
to come'

salalo / (sayo) (< Sl*saØayo < Sl*sa-la{l}o
< PS*dayo) 'k.o. tree'

As in Part II, in this section we have been concerned with a rule whose output in terms of

consistent sound changes is far from uniform. But the spottiness of the data here is for a different reason than the spottiness of the artifacts from the old morphophonemics of Part II. There, the rules applied some time in the past and the uniform results were largely lost through natural attrition. Here, too, the rule can hardly be called recent, but the absence of a given form is more likely to stem from randomness of result in the rule's application. Here there is a certain arbitrariness in the output of a rule, while in Part II the arbitrariness was in the survival of the output.

3.2.2 MORPHOPHONEMIC PROCESSES: REDUPLICATIVE CHANGE

The rules for the reduplication of Sangir and Sangil d are parallel to those for the reduplication of l in sec 3.1.2.2.

Rule 3.2b1: In Sangir and Sangil, a reduplicative consonant undergoes total assimilation to the mode of articulation of a following stem-initial voiced alveolar stop.

1 PS*d > d (Sr/Sl) (Rule 1.3)
2 **Sr C_r > d | _V-d**
Sl C_r > d | _V(S)-d

dɨʔ-deak-eng / dɨ-deak-eng (< PS*dea?) 'is being sought'
duʔ-daɻeŋ / du-daɻeŋ (< PS*daɻeŋ) 'is walking, going'
(da-rɨli?) / da-dɨɻi? (< PS*dɨli?) '(a) flaming'
(duma-rɨke?) / duma-dɨke? (< PS*dɨke?) 'carrier of sickness'
(duma-roka?) / duma-doka? (< PS*doka?) 'opponent'
mɨn-dɨʔ-diko?[24] / (mɨn-ɨn-diko?) (< PS*diko?) 'is lighting (lamp, etc)'

Rule 3.2b2: In Sangir, a reduplicative consonant undergoes a near total assimilation to the mode of articulation of a following stem-initial retroflexed flap by becoming a voiced alveolar stop (d).

1 PS*d > d (Sr) (Rule 1.3)
Sr d > r | V-_ (Rule 2.2(1))

2 Sr C_r > d | #_V(S)-r
| C_V-r
| C_-Vr

da-raɻeŋ / (da-daɻeŋ) (< PS*daɻeŋ) 'trip, journey'
duma-rɨma? / (dumaɻɨma?) (< PS*dɨma?) 'lie face down'
ka-ra-ratu-aŋ (<- ka- + da-ratu-aŋ) / (kaɻaɻatuaŋ) (< PS*datu) 'kingdom'
pɨnda-reso? / (pɨndaɻeso?) (< PS*deso?) 'the keeping'
mɨ?d-ero / ? (< PS*ero) 'burn up'

The 'near total assimilation' here is quite comparable with that of Rule 3.1b2b, which see. Again the reduplicative consonant reproduces what it can of the following retroflexed consonant, viz the voicing, the placing of the articulation at the alveolum, and the contact of the tongue with that part of the mouth. And again the momentary touch of the flap becomes the complete closure of the stop owing to the occurrence of that stop non-intervocalically, i.e. after pause or a different consonant.

3.3 PS*r

The assimilation here is very different from anything we have seen, or will see, in this paper. To this point assimilation has been anticipatory or regressive, an assimilation in which the influence is in the opposite direction to the stream of speech and a later consonant causes change in an earlier. This section reports the only pattern of progressive assimilation found so far in these languages, an assimilation in which the modifying influence advances from a preceding to a following phoneme.

The cause of this phenomenon is none too clear but it must relate to the fact that Sl ɻ (< PS*r) is weaker than Sl r (< PS*R), at least when the latter is word-initial (on which see next section). And the language tends to insure that two such similar sounds will assimilate completely, even though the r- will not be the one to do so. But the phenomenon may also relate in some way to the occurrence of PS*r only

medially in Pre-Sangir. In any case, the non-occurrence of PS*r at morpheme boundaries means there will be no morphophonemic processes to report in this section.

Rule 3.3: In Sangil, a retroflexed lateral assimilates to the mode of articulation of a preceding, stem-initial retroflexed flap.

1 PS*r > ɻ (Sl) (Rule 1.4)
PS*d > ɻ | V_V (Sl) (Rule 2.2(1))[25]
PS*R > r (Sl) (Rule 1.5)
2 **Sl ɻ > r | rV(S)_**

(haroʔ) / rarudɨʔ (< PS*Rarud) 'hoarseness'
(himudɨʔ) / remorɨʔ (< PS*Rimud-) 'stage in coconut growth'
(horo) / roro (< PS*Roro) 'cutting edge'
(hupadɨʔ) / roparɨʔ (< PS*Rupad-) 'brittle (of wood)'
(ma-haro) / maro (< PS*Raro) 'tame'
(pahuru)[26] / pauru (< PS*Ruru) 'bait'

Apart from the assimilation here, the last r in each Sangil form would have been ɻ. Following this assimilation, the last two examples added prefixes and the first r (< *R) was lost between vowels;[27] see also:

(ma-horo) / moro (< Sl mØ-oro < Sl*ma-Øoro < Sl*roro < Sl*Roɻo < PS*Roro) 'sharp' (cf Sl roro 'cutting edge' above)

3.4 PS*R AND INDEPENDENTLY DERIVED r

Of all the consonants involved in the assimilative processes, the PS*R reflexes, Sr h and Sl r, seem in some sense to be the strongest. In the first place, they are the only sounds here with unconditional change in all word positions. And reflexes of the others, *l, *d, and *r, will all assimilate, even where word initial and presumably less prone to that assimilation. Only h / r resist such change and retain their integrity when initial, as we saw in the last section. Further, this Sl r is subject to intervocalic assimilation in only a very few cases, as we shall presently see.

3.4.1 PHONEMIC PROCESS

Notice that the process here is precisely the reverse of that seen in the last section. There, Sl r < *R caused the assimilation to itself of a following ɻ < *r, a progressive assimilation. Here, that same ɻ < *r causes the assimilation to itself of the preceding r < *R, a regressive assimilation. The differentiating factor: the occurrence of r from *R intervocalically rather than initially, and thus more vulnerably with respect to assimilation.

Rule 3.4a: In Sangil, a retroflexed flap assimilates to the mode of articulation of a following retroflexed lateral.

1 PS*R > r (Sl) (Rule 1.5)
PS*r > ɻ (Sl) (Rule 1.4)
2 Sl r > ɻ | _V(S(S))ɻ[28]

(suhuraŋ) / suɻuɻaŋ (< PS*suRuraŋ) 'squid'
(tahatuari) / taɻatuaɻi (< PS*taRatuari) 'siblings'
(tahabera 'orator') / taɻabeɻa 'reciter of incantations' (< PS*taRabera)

Apart from the assimilation here, the first ɻ in each Sangil form would have been r.

3.4.2 MORPHOPHONEMIC PROCESS: REDUPLICATIVE CHANGE

The rule for the reduplication of Sangil r is just as routine as the rules for Sangil l and d.[29]

Rule 3.4b: In Sangil, a reduplicative consonant undergoes total assimilation to the mode of articulation of a following stem-initial retroflexed flap.

1 PS*R > r (Sl) (Rule 1.5)
2 Sl C_r > r | _V(S)-r

(la-hepesɨʔ / ra-repesɨʔ (< PS*Repesɨʔ) 'pincher, clip'
(la-hɨpiŋ) / ra-rɨpiŋ (< PS*Rɨpiŋ) 'shutter, door'
(ma-ɻa-habesɨʔ) / ma-ra-rabesɨʔ (< PS*Rabesɨʔ) 'fast, rapid'

(luma-hiŋkoko) / ruma-riŋkoko (< PS*Riŋkoko)
'squat'

In the following examples, r derives, not from an original PS*R, but from PS*l by Rule 3.1a2, which see.

(lɨʔ-laeh-aŋ) / rɨ-raer-aŋ (< PS*laeRɨʔ) 'is soaking'
(luʔ-luhu) / ru-ruru (< PS*luRu) 'is roaming aimlessly, wasting time'
(mara-l̩ohaŋ) / mara-roraŋ (< PS*loRaŋ) 'be full of holes (of more than one object)'
(mɨlɨʔ-liondohɨʔ) / mɨrɨ-riondorɨʔ (< PS*liondoRɨʔ) 'is sliding'

FOOTNOTES

1 Part I (Maryott 1978) dealt with basic 'phonemic' sound change within the roots of Sangir and Sangil words; Part II (Maryott 1986), with 'morphophonemic' sound change between those roots and affixes adjoining them. Rules cited herein as Rule 1 ... and Rule 2 ... are found in those two parts of the complete study, respectively.

Research for the first two parts and the present paper was done in the Philippines intermittently from 1960 to 1980 in an SIL affiliation with the University of the Philippines. Final study and the writeup of the present paper was done in Indonesia under a cooperative program with the Pattimura University, Ambon. I am grateful for the encouragment and the timely guidance of J.N. Sneddon in bringing this report to its present stage of completion. I must express special appreciation to Alice Maryott, my wife and colleague, for her wholehearted assistance in the project, particularly in the compiling and processing of the Sangil vocabulary (A. Maryott and K. Maryott 1978), from which most of Sangil data was taken. The Sangir data is also from our own studies and from Steller and Aebersold (1959) as well; it represents the Manganitu dialect unless otherwise indicated.

2 For this paper, I am specifically ruling out the assimilation of consonants to vowels or vocalic features, as in the production of Sr r intervocalically

by the assimilation of d to the resonance of the bracketing vowels (see Nida 1949:301). I am also excluding the assimilation of a nasal to the point of articulation of an immediately following stop or sibilant, as in the cluster nd in either Sangir or Sangil. I am dealing solely with the assimilation of consonants to other consonants or to consonantal features that are non-contiguous necessarily, since they never occur together in cluster.

3 See further data indicating this reconstruction under Rule 3.1b2b.

4 I am handling problematic correspondences like Sr d vs the second Sl ɻ in terms of back-formation from a suffixed form wherein the final consonant had undergone change intervocalically; here, Sl *d > ɻ after a and before the vowel of an unidentified suffix, perhaps -aŋ, after which the suffix was used less often, but by then ɻ was established. In any case, ɻehaɻi? is still irregular in that h did not change to r; where it did, note the results in the related pair (lihadi?) / riradi? 'roll, crush' cited under the following rule. (See also daɻehaɻeŋ 'hemp chafer' under 2.2(a).)

5 On Sr duɻidi? in place of the expected **lauɻidi?, see Rule 3.2a2.

6 As the root of the Sangir form, SA and Adriani (1893) both list diŋara, "variant of tiŋara." But diŋara with the Ca- reduplication yields the non-attested **dariŋara and does not account for the Sr daɻiŋara that actually occurs. I therefore reconstruct PS*daɻiŋara for this pair of correspondences even though I am not at all sure how ɻ came to replace r in this pre-Sangiric form. Notice that in this as well as in a few similar reconstructions I have posited a lateral as retroflexed (ɻ) in order to justify its reduplication as d rather than l; see Rule 3.1b2b.

7 An interesting class of exceptions includes Sl lurunusi? (Sr root hunu? 'small fire') 'be camping out' and luramaw (Sr root hamau 'greed, covetousness') 'be showing covetousness', esp in Sangil folklore of the male sun for the female moon, and so the reputed seizure of the moon by the sun or 'lunar eclipse'. The

prefix involved is Cu(?)-, whose glottal stop is rarely heard in normal speech but can apparently block the assimilative influence of the r with which it is contiguous. Compare the similar constraint on assimilation effected by the stops clustering with r in the recent Sangil borrowings librita 'notebook', and litratu 'photograph' (from Visayan). Apart from this constraint, the non-occurring **ribrita and **ritratu, respectively, would be expected. Compare also, however, the borrowing a‡ambɨ‡e (Vis alambri) 'wire', in which the transition vowel ɨ had time to develop, the contiguity of b with ‡ was thus broken, and the assimilation of the preceding l to the following ‡ could take place routinely.

8 The S1 form appears to be one of those in which y is irregularly lost; see sec 1.2(2b) and 3.2a2.

9 Cf (lihadɨ?) / ‡ehaɨ‡ɨ? 'rub, chafe' under the preceding rule.

10 According to SA, this fast-growing tree is considered to have a healthful influence on those around it, and evidently for this reason is often used as the central house support where it can exert its influence and be venerated as praiseworthy (cf dalo / dayo 'praise').

11 Inflected from entry in SA though not actually attested in current speech patterns.

12 See Rule 3.1b2b for a minor qualification on 'total assimilation'.

13 The stem-initial ‡ in S1 ‡a-‡ensodɨ? is almost certainly not an intervocalic retroflexion for, if the process had taken place that far back in the history of the form, then the reduplicative consonant would not have been ‡ as here but d as in da‡eha‡eŋ 'hemp chafer' (see Rule 2.1(2)). The stem-initial ‡ is probably a back-formation from S1 ‡ensoɨaŋ 'ankle joint', which see under Rule 3.1a1.

14 This rule represents a major departure from the analysis of PS*d in Part I. The second rule there has been revised for presentation here in this section. At the time of the original statement I had not yet

recognized the role of assimilation in the development of these d's.

15 Notice that this preliminary rule holds implications for Parts I and II, in which I stated that PS*l > Ø in certain environments. Here I am merely claiming an intermediate step not previously needed, in which PS*l was first replaced by the nonretroflexed lateral l rather than directly by Ø. It was this l that triggered the assimilation of *d to l, and only then was it lost.

16 losi, synonymous with doɬosi, is also attested for Sangir.

17 uɬu 'hinterland, interior' is also attested for Sangir. In fact, there seem to be several couplets of this type in Sangir (e.g. daɬo, aɬo 'prohibition marker, barrier', doɬoriwu?, oɬoriwu? 'princess'). I am at a loss to explain them.

18 The rule would then have stated that the vowels bracketing the lateral were 'similar' rather than 'identical', with 'similar' defined as including u and o.

19 In Sangir lɨɬlatu here and lɨɬliŋ 'pour' below, ɨ may have derived from a to restore a following ɭ to l (ɭ does not occur following ɨ in Sangir; see Part I Appendix) and thus to aid in the articulation of the otherwise difficult sequence laɭ. Notice from loɭe 'differ' below that o did not so develop to ɨ, nor did a itself in certain other environments like mɨlaɭoɭe 'differ from each other'. For derivation of the Sangil form here, see the preceding rule.

20 It may well be argued that if this is a correct analysis, the medial ɭ in kuɭay should also have been lost between back vowels just as the inital ɭ was in, for example, Sl pareŋ 'mast' under Rule 3.1b1a (Rules 1.1(2c2) and 2.1(1b2)). Apparently the answer is that if an initial l becomes intervocalic and is lost before a medial l is lost, then the medial l is retained. In other words, whether the medial l is or is not lost depends upon the point in time when the root was prefixed: if this time was early, the medial l remains as in kuɭay (and mauɭuŋ in the following example); if

the time was relatively late, the medial l was lost as in paren.

21 With Sl -dun here (< PS*dulun) compare Sl lu under the preceding rule (< PS*dulu) where word-initial d assimilated to l before the latter was lost. Here, ma- was prefixed to *dulun commonly enough to prevent that assimilation. From the resulting form madun, the word dun 'land (as opposed to sea)' is probably a back-formation. At least that best explains why dun did not develop as **lun, parallel to lu. The same explanation is offered for Sl dorɨ? (Sr doɻohɨ?) 'bald-headed' (< PS*doloRɨ?), to which the prefix ma- was added often enough to keep the d-to-l assimilation from occurring and the non-attested **lorɨ? -- or **rorɨ?, after l-to-r assimilation -- from forming. The result is the neutralization in Sangil of the contrast between Sr dolohɨ? 'bald' and Sr doɻohɨ? 'send (person)' which both become dorɨ? 'bald' and 'send' in Sangil. (On Sl dorɨ? 'send', see Part I, sec 1.1.2.)

22 One exception to the conditions of this rule is Sr dɨpan, lɨpan (Sl ?) 'make impression, be of influence', for which a reconstruction is as yet indeterminate.

23 It may be remembered from Part I that, comparable to the deviant Sl ta{l}a 'not', there also occurred deviant forms like so{y}o 'lamp', which derived with the regular so (Sr soɻo) from the putative PS*solo (Maryott 1978:122). Here {y} developed from *l instead of {l} from *y, and so reveals that the Pre-Sangir *y-*l similarity was sufficient to lead to change in either of the two directions. Beyond this, the only major difference between the two processes is that the deviant {y} in so{y}o became permanent whereas the {l} in ta{l}a was temporary. But this is just an accident of the phonology: y is always retained between back vowels and l is routinely lost.

There is one other bit of evidence for sporadic change in the Sangil history. For some time it bothered me that Sl darun 'needle' seemed to lack a prefix present in the corresponding Sr darahun. Experience has shown that Sangir and Sangil morphologies are normally parallel; if a Sangir word has an affix, the Sangil cognate has it as well, even

if that cognate as finally derived has disguised the affix in the loss of a syllable. Sl daruŋ as an uninflected base could readily be accounted for on the basis of PS*daRuŋ reconstructed from the Sangir form, but could Sl daruŋ as a form incorporating the counterpart of the Sangir prefix da- be as readily accounted for? Using the sporadic change hypothesis, yes, though the deviant (l) here developed not from PS*y but from PS*R through r, a similar enough sound to the (l). The details of the proposed analysis are given in the following citation.

(darahuŋ) / daruŋ (< Sl*da-0aruŋ < Sl*la{l}uŋ
< Sl*da{l}uŋ < PS*daRuŋ) 'needle'

24 An archaic alternate is mɨ?-dɨn-diko? (Adriani 1893:208), with no change in the rule.

25 There is no data to indicate whether the retroflexed lateral that undergoes assimilation here may or may not derive from PS*l.

26 SA claim this form to have been derived from duru, the base for the verb 'cut off, cut through'. If so, it is irregular; I know of no other case where Sr h replaces d, at morpheme boundaries or elsewhere.

27 I had not yet discovered this rule when I published Part II on the morphophonemics of Pre-Sangir (Maryott 1986).

28 An interesting exception is Sl talundasɨ? 'dugout', which I give the following explanation. Like the corresponding Sr tahaɻundasɨ? ('craftsman, esp of boats'), this form added the prefix *taRa- to the root *lundasɨ?, upon which the r that derived from *R assimilated to the following l and that l was then lost (together with prefix-final a as is common in Sangil). In other words, r assimilated to l instead of the l of this rule because that l had not yet assumed its retroflexion before it was lost. (At some point in the process, the meaning of the form shifted from the craftsman who shaped the dugout hull to the hull itself.) The derivation of the final form is detailed as follows.

(tahaɻundasɨ? 'craftsman') / talundasɨ? 'dugout'
(< Sl*tal00undasɨ? < Sl*talalundasɨ?
< Sl*taRa-lundasɨ? < PS*lundasɨ?)

29 And the rule for the 'reduplication' of Sangir h is just as problematic as the rules for Sangir l and r, the intervocalic counterparts of l and d. In fact, this rule seems to be, not of the reduplication of a consonant at all, but of an element that if anything is more like a vowel. Consider Sr hansaŋ 'to nail' which when the reduplicative morpheme Ca- is preposed becomes lahansaŋ '(a) nail'. So far, the resulting l, however its laterality is explained, could be analyzed as a reduplication of the consonant h. But compare Sr ʔansaŋ 'to urge s.o. to hurry' which becomes laansaŋ 'exhortation to hurry' when the same Ca- is added. We now have the single phoneme l as the putative reduplication of two dissimilar consonants, h and ʔ! There is I think but one explanation. This Sr l reduplicates not consonants but vocalic elements, the voiceless vocoid [A] in the case of the h, and the voiced vocoid [a] in the case of the lost glottal stop. The oral resonance of these vocoids simply reduplicates as the most resonant consonant in the inventory of consonants, i.e. the l.

ABBREVIATIONS

C_r	consonant reduplicating stem-initial consonant
Ca-, Cuʔ-	morphemes embedding reduplicative consonant
In	Indonesian
k.o.	kind of
Mg	Magindanao (influential language of the Southern Philippines)
NSa	North Sangir (Taruna and North Tabukang dialects)
PS	Pre-Sangir(ic)
S	Syllable
SA	Steller and Aebersold's Sangir dictionary
Si	Siau dialect of Sangir
Sl	Sangil (nee Sangiré)
s.o.	some one
Sr	Sangir (nee Sangihé)
s.t.	something
Tar	Taruna (or Tahuna) dialect of Sangir
Vis	Visayan
V_b	back vowel
V_f	front vowel

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