

# LANGUAGE & LINGUISTICS IN MELANESIA

Journal of the Linguistic Society of Papua New Guinea ISSN: 0023-1959

Vol. 38, 2020



The Phonological History of Uripiv, an Eastern Malakula Language

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Uripiv is the best known of the dialects of Northeast Malakula, a language spoken by around 10,000 speakers, and a member of the Eastern Malakula linkage. This paper outlines in considerable detail the historical development of its phonology from that of Proto-Oceanic (POC). Three features are of particular interest: (i) the development of two prenasalised trills, one bilabial and the other alveolar; (ii) voicing and prenasalisation of stops in initial position in nouns in certain morphophonemic environments, and the concomitant behaviour of the accreted article \*na; and (iii) a considerable amount of assimilation and dissimilation with the reflexes of the POC vowels.

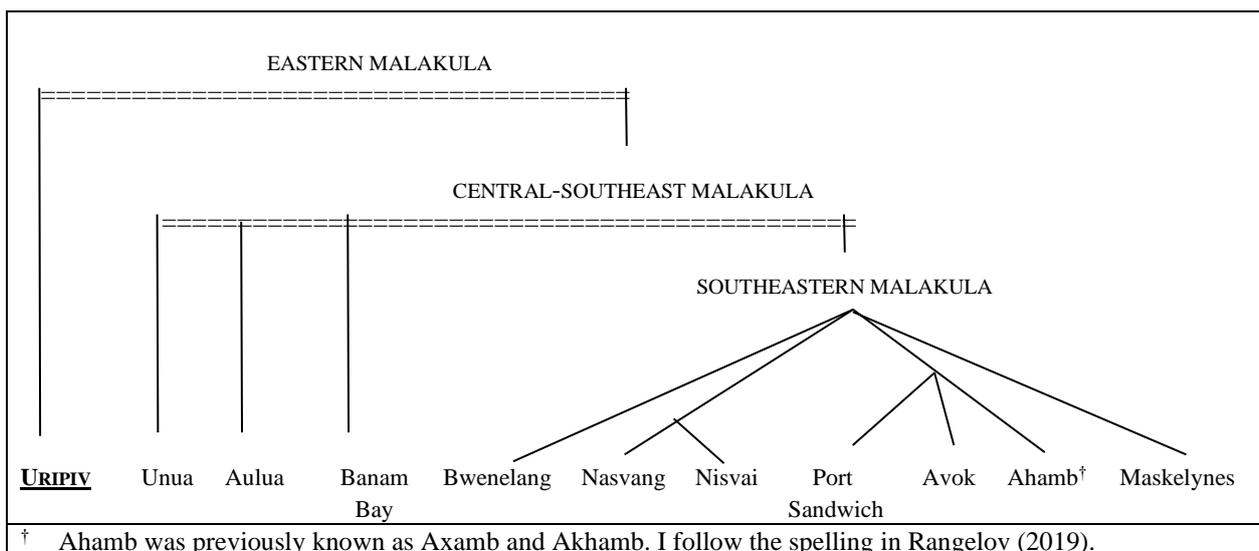
### 1. INTRODUCTION<sup>1</sup>

This is the last in a series of three papers describing the phonological history of individual languages of Malakula, each belonging to a different major subgroup or linkage. There are three such groupings—the Northern subgroup, the Eastern linkage, and the Western linkage—and this paper describes the phonological history of Uripiv, an Eastern linkage language.<sup>2</sup>

Lynch and Crowley (2001:80) referred to a Northeast Malakula language “spoken on the offshore islands of Uripiv, Wala, Rano and Atchin, as well as on adjacent mainland areas”, with around 10,000 speakers in all. This paper focuses on the Uripiv dialect, and will refer to the language by that name. Data for Uripiv come from two unpublished works by McKerras: a grammatical sketch and a quite substantial dictionary (McKerras 2001a,b).

The internal structure of the Eastern linkage is shown in Figure 1 (Lynch 2016b:104). Uripiv is one of two Eastern Malakula linkage languages that are treated in some detail by Clark in his study of North-Central Vanuatu (NCV) languages (Clark 2009:33–35), the other being Port Sandwich.

FIGURE 1. THE EASTERN MALAKULA LINKAGE



<sup>1</sup> I am grateful to Ross McKerras for assistance with the Uripiv data, and to him and Catriona Malau for comments on an earlier draft.

<sup>2</sup> For the most recent discussion of Malakula subgrouping, see Lynch (2016a,b).

## 2. BACKGROUND

### 2.1 Synchronic phonology

This description of Uripiv synchronic phonology follows McKerras (2001a:1–4). He analyses Uripiv as having the following consonant and vowel phonemes:

(1)	p <sup>w</sup>	p	t	k	i	u
	b <sup>w</sup>	b	d	g	e	ö
			j		a	
		v	s			
	m <sup>w</sup>	m	n	ŋ		
			r			
			r			
		B	(D)			
			l			
	w		y			

The voiced stops are prenasalised, and “trail off to voicelessness word-finally” (McKerras 2001a:1). The consonant phonemes in the first column are labiovelars; McKerras calls them “labialised”. There is a contrast between an alveolar flap /r/ and an alveolar trill /r/. There is also a voiced prenasalised bilabial trill /B/, which tends to merge with /b/ as [m<sup>w</sup>b], with “only a few older speakers [making] it clearly, and then only in careful speech. ... The bilabial trill is not found at all in the Northern dialects of the language” (McKerras 2001a:1). McKerras does not overtly recognise as phonemic the prenasalised alveolar trill /D/, but does write *drr-* in initial position in nouns and verbs, and it may be that there is such a phoneme. I will assume that it is phonemic in the present sketch.

The vowel /ö/ is “close, front and rounded. It is relatively rare, mostly occurring after /B/ and /v/. Younger speakers often make it into /u/ or /o/” (McKerras 2001a:1). He also notes that long vowels are rare but occasionally occur, as in:

(2)	/ra:pra:p/ ‘corpse’	vs.	/e-raprap/ ‘white’
	/te:ra/ ‘from Pentecost Island’		/ar-tera/ ‘they are old’
	/lo:lo:/ ‘game that is tiring in the chase’		/lolo-n/ ‘its inside’

Syllables may be open or closed, allowing for medial two-consonant clusters, and may begin with any phoneme except /ö/. Stress is generally on the penultimate syllable, but there are some environments, and some individual words, where stress falls elsewhere (some antepenultimate, others final).

In this paper, I write words using the phonemic symbols given in (1) above, except that I follow McKerras’s orthography in writing the alveolar flap as *r* and the alveolar trill as *rr* for ease of reading. A large number of noun roots referring to non-humans are prefaced with *n* or *nV*, deriving from POC \**na*, the common article, which has become an integral part of the noun in Uripiv, as in other Malakula languages, this is separated from the root in data lists by a slash: e.g., \**toqa* ‘fowl’ > *na/to*, \**patu* ‘stone’ > *ne/vöt*.

### 2.2 Vowel alternations

McKerras refers in a number of places in his grammar sketch to vowel alternations of one kind or another. I will briefly mention three here, which will be relevant to future discussion of the development of the POC vowels.

**Assimilation.** Front vowels assimilate to a back vowel in the next syllable. The examples McKerras gives (2001a:3) suggest that this occurs only (?) with verbal prefixes:

(3)	e-	+	po	→	opo	‘it smells’		pi-	+	tur	→	putur	‘he stands’
	3SG.REAL		+ smell					3SG.IRR		+ smell			

Note that when I cite verbs in data sets, they will normally be prefixed by the 3SG realis marker *e-* / *o-*.

**Low vowel dissimilation.** This “operates when a syllable containing the low vowel /a/ reduplicates. The /a/ in the first syllable changes to /e/ or /i/: *nu-le-lalos* ‘I am swimming’ (redup. of *nu-lalos*), *e-mit-matur* ‘he is lying down’ (redup. of *e-matur*, ‘he is sleeping’)” (McKerras 2001a:3). Whether the product of low vowel

dissimilation is *e* or *i* depends on the height of the following vowel: given underlying *Ca-CaCV*, if *V* is high (as with *matur* ‘sleep’ above), *Ca* becomes *Ci*; if *V* is mid or low (as with *lalos* ‘swim’ above), then *Ca* becomes *Ce*.

**High vowel dissimilation.** The third example is of interest, since the synchronic facts seem to suggest the opposite of what a diachronic analysis points to. McKerraas (2001a:3) says that “/u/ becomes /o/ and /i/ becomes /a/ ...when a suffix is added causing an /i/ to follow in the next syllable. Examples: *itul* ‘three’ → *itolin* ‘third’, *dubb* ‘grave’ → *dobbin* ‘his grave’”,<sup>3</sup> and note also *ivij* ‘four’ → *ivajin* ‘fourth’. In fact, as will be seen in §4.5.1, it is forms like *ivajin* ‘fourth’ that preserve the original vowel (< \**pati* ‘four’), and forms like *ivij* ‘four’ that show an *assimilatory* historical change (\**a* > *i* before \**Ci*, where the \**i* was subsequently lost).

### 3. CONSONANTS

POC word-final consonants are generally lost in Uripiv. I will discuss this in §3.5. In the first four subsections here, I will discuss consonants in non-final position.

There is one phenomenon in Uripiv that occurs with a number of different POC consonants, but not always in exactly the same way. This relates to the behaviour of noun-initial stops. Recall from §2.1 that most non-human POC nouns were prefixed by the common article \**na*, which fused with the root. That article was retained when the modern root was or became a single mora (as with \**weli* ‘marine worm’ > *na/wel* or \**lawaq* ‘spider(web)’ > *ni/la* ‘spiderweb’), but was later lost in nouns whose modern roots contain two or more moras (thus \**m<sup>w</sup>alau* ‘megapode’ > *molu*, not \*\**na/molu*, or \**jalala* ‘k.o mackerel’ > *jel<sup>l</sup>el*, not \*\**na/jel<sup>l</sup>el*).

With some POC stops, the reflex is voiced and prenasalised if the stop was noun-initial (whether or not the noun was preceded by \**na*) and voiceless non-prenasalised elsewhere, as with \**b*, illustrated in (4).<sup>4</sup>

(4)		<b>Non-human noun, without *<i>na</i></b>	<b>Non-human noun, with *<i>na</i></b>	<b>Other</b>
	POC	* <i>batavu</i> ‘breadfruit’	* <i>baga</i> ‘banyan’	* <i>barapu</i> ‘long’
	URIPIV	<i>betiv</i>	<i>nu/bek</i>	<i>periv</i>

With others, the reflex is voiced and prenasalised only if the stop was noun-initial but *not* preceded by \**na*, and voiceless non-prenasalised elsewhere, as with \**t*, illustrated in (5).

(5)		<b>Non-human noun, without *<i>na</i></b>	<b>Non-human noun, with *<i>na</i></b>	<b>Other</b>
	POC	* <i>tanipa</i> ‘sardine’	* <i>taq<sup>e</sup>-</i> ‘excrement’	* <i>tama<sup>5</sup>-</i> ‘father’
	URIPIV	<i>daniv</i>	<i>na/te-</i>	<i>teme-</i>

In the sections that follow, I will discuss each stop or pair of stops separately, without dwelling on the commonalities and differences in this area. I will return to this topic in detail in §3.4.

#### 3.1 The POC labials

Before a POC non-back vowel, the voiceless bilabial and labiovelar stops merged, as *v*:

(6)	* <i>pica</i> ‘how many?’	e- <i>vis</i>	* <i>p<sup>w</sup>a(ra)raq</i> ‘thunder’	bel/ <i>ver</i>
	* <i>panako</i> ‘steal’	e- <i>vnae</i>	* <i>p<sup>w</sup>(<sup>l</sup>)ilak</i> ‘lightning’	navil

<sup>3</sup> Orthographic *bb* represents the prenasalised bilabial fricative /*b*/.

<sup>4</sup> Reconstructions are POC unless marked by a preceding raised letter (thus <sup>N</sup>\**lavo* ‘to plant’): these letters are E, Proto-Eastern Oceanic; N, Proto-North-Central Vanuatu; R, Proto-Remote Oceanic; and S, Proto-Southern Oceanic. Reconstructions for all these languages except Proto-Southern Oceanic may be found in Ross, Pawley and Osmond (1998, 2003, 2008, 2011, 2016), and for PNCV also in Clark (2009); specifically Proto-Southern Oceanic reconstructions are outlined in the appendix. Glosses of reconstructed forms are often abbreviated for reasons of space; Uripiv reflexes are usually un glossed, unless the meaning differs significantly from that of the reconstructed form.

<sup>5</sup> POC \**tama-* ‘father’ was, of course, a noun with human reference, and thus did not take the common article \**na*.

*patu ‘stone’	ne/vöt	*p <sup>(w)</sup> aRaRa ‘handle’	nivar
*Rapi ‘evening’	rivriv	*p <sup>(w)</sup> ilit ‘to peel’	ne/vlu- ‘peel or skin of’ (N)

With very few exceptions, the labiovelar \*p<sup>w</sup> did not occur before back vowels, and I have no examples of this.<sup>6</sup> POC \*p (= PNCV \*v) before \*o almost always became w:

(7)	*lipo- ‘tooth’	liw, liwe-	*Ropok ‘run, jump’	o-row ‘jump, fly’
	*posa ‘a sore’	mela/wos ‘a boil’	*poli ‘buy’	o-wli
	*papo- ‘top, above’	wowo-	<sup>N</sup> *lavo ‘to plant’	e-lawe (w. digging-stick)
	*pose ‘a paddle’	ni/wos	*mapo ‘heal(ed)’	e-maw
	*posi ‘squeeze, wring’	o-wsi	<sup>E</sup> *tapoRa ‘ <i>Terminalia catappa</i> ’	dawo

The only exceptions seem to be \*poRos-i ‘squeeze, wring’ > *e-virsi* and <sup>N</sup>\*voki ‘change’ > *o-vu*, where \*p > v.

Before \*u, however, the situation is more complex, with both w and v occurring. The reflex is w when the vowel remained back rounded or when it fronted to e or a:

(8)	*p(i,u)pu ‘bladder’	ne/wuw	*taput-i ‘pick fruit’	e-tawe
	*ipu ‘blow’	o-wuw	*puaq ‘fruit’	we/ne-
	*kaput-i ‘cover’	o-woj	<sup>N</sup> *b(e,o)vu ‘potato yam’	waren/bow (wares = ‘bad’)
	<sup>N</sup> *vunu ‘full, satiated’	o-wun	<sup>N</sup> *vuabu ‘ <i>Barringtonia asiatica</i> ’	nu/waB
	*pure ‘ <i>Ipomoea</i> sp.’	na/wuwu ne dis ‘ <i>I. pes-caprae</i> ’		

When \*u fronted to ö or i (9a),<sup>7</sup> however, or when it became word-final or pre-consonantal (9b), \*p > v:<sup>8</sup>

(9) a.	*pudi ‘banana’	na/vij	b.	*(nñ)opuq ‘stonefish’	na/niv
	*pusuR ‘bow and arrow’	ne/vis		*topu ‘sugarcane’	na/tiv
	*pu(s,c)o ‘heart’	vis-roplet <sup>9</sup> ‘lungs’		*qapu ‘ashes’	n/iv
	*tapuRiq ‘conch, triton’	davö		<sup>N</sup> *savu ‘steam, compressed air’	e-jiv ‘sneeze’
	*pulan ‘moon, month’	na/völ		<sup>N</sup> *batavu ‘breadfruit’	betiv
	*saŋapuluq ‘ten’	e/sŋavöl, seŋavöl		*barapu ‘long’	periv
	<sup>N</sup> *q(i,a)vua ‘turtle’	n/evö		*puŋa- ‘flower’	ne/vŋu-
	<sup>N</sup> *livuka ‘middle’	livöe		*tapun ‘bury’	e-tevni
	<sup>N</sup> *vura-i ‘spit’	e-vrae ‘spit on’			
	<sup>N</sup> *zavu-ti ‘pluck fowl’	o-jovji			

A few exceptions remain.

The voiced prenasalised bilabial and labiovelar stops remain distinct in some environments, though there is a partial merger. Let me deal first with \*b. POC \*b became the bilabial trill before \*u.<sup>10</sup>

(10)	*buRi-buRi ‘angelfish’	ni/Bi	*makubu- ‘grandchild’	meBu-
	*bubu ‘triggerfish’	na/Bö	*tabu ‘sacred’	duB, doBi- ‘grave’
	*buŋa ‘brain coral’	na/Böŋ	*kabu ‘fire’	n/aB
	*bue ‘bamboo’	na/Bu	<sup>N</sup> *vuabu ‘ <i>Barringtonia asiatica</i> ’	nu/waB

This development is not unique to Uripiv. There is in fact a group of neighbouring languages along the east coast of Malakula that show this development. There is a voiced prenasalised bilabial trill that is phonemic in Uripiv, Unua and Aulua (Eastern), as well as the intrusive Western languages Avava and Neverver that are now spoken on the east coast. It was probably also present in Banam Bay and Port Sandwich, but has been replaced by *b*. There is also a trill [ᵐB] which is an allophone of /b/ in Maskelynes, Nahavaq, Nāti, Ninde, and the extinct

<sup>6</sup> Apart from possibly \*p<sup>w</sup>otu ‘hill, mountain’ > *botw/en*, with crossover to nasal grade.

<sup>7</sup> See §4.3 for a discussion of the development of \*u in Uripiv.

<sup>8</sup> This complementary distribution is nicely illustrated by doublet reflexes of <sup>N</sup>\*vule ‘breadfruit flower, core’: *ne/wuwla* ‘breadfruit flower’, with \*v > w before u, and *beta/völ* ‘breadfruit pith’, with \*v > v before ö.

<sup>9</sup> In this compound, *roplet* = ‘dry leaf’.

<sup>10</sup> This also occurs in one form before \*o: \*boe ‘pig’ > *Bi*.

Niviar and Vivti (see especially Olson 2015:106 and Lynch 2016a:407). Very recently, Rangelov (2019) has reported *two* phonemic bilabial trills in Ahamb: voiced prenasalised /<sup>m</sup>ɸ/ and plain voiceless/ɸ/.

There are a couple of cases of \*b before a back vowel becoming a labiovelar (voiced noun-initially or voiceless elsewhere):

- |      |  |                      |
|------|--|----------------------|
| (11) | N*bora ‘coconut leaf basket’           | ne/b <sup>w</sup> ir |
|      | E*bulipa ‘ <i>Ficus</i> sp.’           | b <sup>w</sup> iliw  |
|      | N*taboi ‘ <i>Barringtonia edulis</i> ’ | dap <sup>w</sup> i   |

Otherwise, the reflex is *b* noun-initially and *p* elsewhere:

- |      |                           |            |                                     |                  |
|------|---------------------------|------------|-------------------------------------|------------------|
| (12) | N*balase ‘jawbone of pig’ | bel/nise-n | *[pa]paba ‘slipper lobster’         | ne/vep           |
|      | N*bala ‘swamp harrier’    | nu/bel     | *siba ‘cut’                         | ne/sip ‘knife’   |
|      | *bilake ‘banded rail’     | bila       | *tibo- ‘self’                       | jipo-n ‘himself’ |
|      | N*batavu ‘breadfruit’     | betiv      | N*katabola ‘ <i>Dracontomelon</i> ’ | n/itapol         |

With \*b<sup>w</sup>, there are cases of labiovelar stop, bilabial stop and bilabial trill reflexes, all in virtually identical environments:

- \*b<sup>w</sup>ilo ‘coconut shell’ > *bil/se-*, N\*b<sup>w</sup>isi ‘buttocks’ > *Buse/r*; or
- N\*b<sup>w</sup>asa-i ‘penis wrapper’ > *b<sup>w</sup>ese-*, N\*b<sup>w</sup>au- ‘knee’ > *bau-*; or
- N\*lab<sup>w</sup>e ‘root’ > *lap<sup>w</sup>e-*, N\*sob<sup>w</sup>e ‘join’ > *e-jipjip/ti*.

Labiovelar reflexes are the most common, and it would seem that bilabial stop and trill reflexes may have developed as a result of the beginning of a process of merger between labiovelar and bilabial stops, a merger which is by no means complete at this stage (but which has occurred in numerous Malakula languages).

POC \*m and \*m<sup>w</sup> remain distinct:

- |      |                              |                    |  |                               |
|------|------------------------------|--------------------|--|-------------------------------|
| (13) | *mata- ‘eye’                 | na/met, mete-      | E*m <sup>w</sup> eRa ‘young person’      | m <sup>w</sup> er(i) ‘person’ |
|      | S*matuqa ‘right (side/hand)’ | ni/matu-           | N*m <sup>w</sup> ala-gelo ‘young person’ | m <sup>w</sup> elakel         |
|      | *ma-wiRi ‘left (side/hand)’  | mair               | S*m <sup>w</sup> alava ‘twins’           | m <sup>w</sup> elew           |
|      | *mimiq ‘urine, urinate’      | me- (N) e-meme (V) | S*kum <sup>w</sup> i- ‘beard, chin’      | n/um <sup>w</sup> i-          |
|      | *tama- ‘father’              | teme-              | *m <sup>w</sup> ata ‘snake’              | nu/m <sup>w</sup> et          |

There are, however, some unexplained cases of crossover, in both directions (labiovelar to bilabial and bilabial to labiovelar), like the following:

- |      |                                     |                  |                           |                            |
|------|-------------------------------------|------------------|---------------------------|----------------------------|
| (14) | N*m <sup>w</sup> asu ‘bald’         | o-mus ‘hairless’ | *komi ‘put/hold in mouth’ | ekel kumkum <sup>w</sup> e |
|      | S*m <sup>w</sup> aR(i,u)a ‘feather’ | mau, mowe-       | N*z(i,u)mi ‘suck’         | o-jmujm <sup>w</sup> e     |

As Clark (2009:34) notes, POC \*w tends to be lost in the environment \*a\_\_a (15a), though there are a couple of exceptions (15b):

- |      |                           |                            |                   |        |
|------|---------------------------|----------------------------|-------------------|--------|
| (15) | a. *qasawa- ‘spouse’      | n/ese- ‘wife’              | b. N*sawa ‘dance’ | e-sew  |
|      | *lawaq ‘spider(web)’      | ni/la ‘spiderweb’          | N*bawa ‘seaperch’ | nu/biv |
|      | N*sukawa ‘year’           | sia                        |                   |        |
|      | *masawa(n,ŋ) ‘open space’ | mesa ‘open area, open sea’ |                   |        |

Otherwise, \*w > w:

- |      |                       |        |                         |            |
|------|-----------------------|--------|-------------------------|------------|
| (16) | *waiR ‘water’         | nu/wi  | R*weli ‘marine worm’    | na/wel     |
|      | *walu ‘eight’         | o/wil  | N*daweRu ‘coconut crab’ | Diwo, Duwi |
|      | *waso ‘digging-stick’ | ne/was | *siwa ‘nine’            | e/siw      |

### 3.2 The POC coronals

#### 3.2.1 \*t, \*d and \*dr

Like almost all Malakula languages (Lynch 2012), \*t and \*d underwent palatalisation in Uripiv when they occurred before POC front vowels. What is unusual about Uripiv and most other Eastern Malakula languages in the wider Malakula and Vanuatu context is that \*t and \*d merged in this environment;<sup>11</sup> the reflex of palatalised \*t and \*d is the same as the reflex of \*j. Note especially that in Uripiv and these other Eastern languages, (i) \*t and \*d did not merge in other environments, and (ii) nor did \*s (the expected palatalised reflex of \*t) and \*j merge. Of the eleven Eastern languages, only three do not show this development: (i) Banam Bay and Maskelynes do not show palatalisation of \*t or \*d at all, so they can be disregarded here; (ii) Aulua, however, despite merging \*s and \*j as *s*, palatalises \*t before front vowels as *c* and \*d as *nc* (Lynch 2016a:413–14).

In Uripiv, the palatalised reflex is *j*. (There are only two examples of reflexes of \*d before a front vowel in the data, both given here; nevertheless, I believe the merger is genuine, given what has also occurred in other languages in the area.) Examples:

(17)	*tiana ‘pregnant’	e-jien	*kadik ‘fire ant’	na/aj
	*tinaqe- ‘intestines’	jine-	*pudi ‘banana’	na/vij
	*tibo- ‘self’	jipo-		
	*sulati ‘worm’	juluj		
	*kaRat-i ‘bite’	e-aji		
	*pati ‘four’	i/vij		
	*mate ‘die’	e-mij		
	*qata-mate ‘devil’	demij		

There are a couple of possible cases of \*t > *s* in this environment (<sup>N</sup>\*Roti ‘tie’ > *e-irasi*, \*[ma]puti(q) ‘white’ > *e-wis*), and one where no palatalisation occurs where one might normally expect it to (\*bati- ‘tooth’ > *bati*- ‘upper canine’).

POC \*d in other environments merged with \*dr, as *D* noun-initially in the modern language (with loss of \*na) (18a) and *rr* elsewhere (18b):<sup>12</sup>

(18)	a.	<sup>N</sup> *daleqo- ‘neck, voice’	Dela- ‘voice’	b.	<sup>N</sup> *leidumudumu ‘whale’	lerrumrrum
		<sup>N</sup> *daweRu ‘coconut crab’	Diwo, Duwi		*paṅoda ‘forage for shellfish’	e-vaṅorr
		<sup>E</sup> *damu ‘yam’	Dum		<sup>N</sup> *ṅado- ‘gums’	no/rrṅo- (met.)
		<sup>S</sup> *dau ‘ <i>Pometia pinnata</i> ’	Da		<sup>N</sup> *doṅi ‘(coconut leaf) mat’	ni/rrō
					<sup>N</sup> *m <sup>w</sup> idolo ‘short’	murrol
					*-da ‘1INC PL POSS’	-rr
		*draRaq ‘blood’	Da (N)		*draRaq ‘blood’	e-rra (v)
		*(dr,r)anum ‘fresh water’	Danu ‘muddy water’		*(dr,r)anum ‘fresh water’	o-rron ‘sink’
		*(dr,d)ap(e,i)- ‘snot’	Davi-		*rodrom ‘think, remember’	o-rrorrmī

POC \*t in non-palatalising environments became *d* noun-initially—probably only in \*ta- and maybe \*to- initial nouns—when an earlier \*na- was lost (19a), and *t* elsewhere (19b):

(19)	a.	<sup>N</sup> *taroa ‘ <i>Columba vitiensis</i> ’	daro	b.	*taqe ‘excrement’	na/te
		*taRutu(m,ŋ) ‘porcupine fish’	daut		*toqa ‘fowl’	na/to
		*tob <sup>w</sup> aqa ‘belly’ <sup>13</sup>	depai-		*tupa ‘derris’	na/tuv
		*tokalau(r) ‘north wind’	dolu		*tolu ‘three’	i/tul
		*tanipa ‘sardine’	daniv		*tunu ‘roast’	o-tutun ‘hot’
		*talai ‘clam, <i>Tridacna</i> ’	del/buroṅ ‘ <i>T. maxima</i> ’ <sup>14</sup>		*taput-i ‘pick fruit’	e-tawe
		*tapuRiq ‘conch, triton’	davö		*matakut ‘afraid’	e-metmetu
		*tabu ‘sacred’	duB, doBi- ‘grave’		*mata- ‘eye’	mete-
		*tali ‘rope, string’	dali-, dil		*buto- ‘navel’	bito-

<sup>11</sup> See, for example, the description of palatalisation in Naman, which keeps \*t and \*d distinct in this environment (Lynch 2019:25–26).

<sup>12</sup> The development \*d > *D* may have occurred only with \*da-initial nouns.

<sup>13</sup> Ross, Pawley and Osmond (2016:184) reconstruct \*tob<sup>w</sup>a- but say that the Malakula reflexes that they cite “point to a form \*tob<sup>w</sup>a(k,q)a-, but we do not yet understand whether such reflexes are conservative or innovatory”.

<sup>14</sup> Also *deli* ‘axe’, presumably originally made from clam shells.



- |         |  |       |    |  |                      |
|---------|--|-------|----|--|----------------------|
| (22) a. | *saman ‘outrigger’                         | jam   | b. | <sup>N</sup> *savu ‘steam, compressed air’         | e-jiv ‘sneeze’       |
|         | <sup>S</sup> *sau(a) ‘ <i>Cerbera</i> sp.’ | no/ju |    | <sup>N</sup> *sara ‘all, together’                 | ta/jer ‘always’      |
|         | *sulati ‘worm’ <sup>21</sup>               | juluj |    | *sobu ‘go down’                                    | o-juBu/l             |
|         | *suRi- ‘bone’                              | ji-   |    | <sup>N</sup> *b <sup>w</sup> isi- ‘buttocks, anus’ | na/bij, biji- ‘anus’ |

### 3.2.3 \*l, \*r and \*R

POC \*l is universally reflected as /l/ in all environments:

- |      |                                      |            |  |                      |
|------|--------------------------------------|------------|--|----------------------|
| (23) | *lalai ‘trochus’                     | na/lel     | *jalala ‘mackerel var.’                      | jelēl                |
|      | *leqos ‘see, look at’                | e-lesi     | <sup>E</sup> *m <sup>w</sup> a(q)ele ‘cycad’ | na/m <sup>w</sup> el |
|      | *lipon ‘tooth’                       | liw, liwe- | *pali(s,j)i ‘grass’                          | valis                |
|      | <sup>N</sup> *logo ‘pudding, laplap’ | ba/lok     | <sup>N</sup> *b <sup>w</sup> alo ‘fight’     | e-palpal             |
|      | *luaq ‘vomit’                        | o-lu       | *[ma]lumu ‘soft’                             | e-malum              |

POC \*r is regularly reflected as the flap *r* in all environments:

- |      |  |                     |   |                               |
|------|--|---------------------|---|-------------------------------|
| (24) | <sup>N</sup> *ragu ‘rudderfish’        | ni/raku             | <sup>N</sup> *b <sup>w</sup> ero- ‘ear’ | boro-                         |
|      | <sup>S</sup> *raja- ‘branch’           | reŋsi-              | <sup>N</sup> *ŋori- ‘upper lip’         | ŋorŋori-                      |
|      | <sup>N</sup> *rara-ŋi ‘expose to heat’ | e-raŋi ‘cook’       | <sup>N</sup> *gere- ‘tail (of fish+)’   | gere-                         |
|      | *raqani ‘daytime, daylight’            | e-rin ‘be daylight’ | *irip ‘fan’                             | ne/rivriv (N), e-rvirv-i (VT) |
|      | *raun ‘leaf’                           | rao                 | <sup>N</sup> *maro ‘hunger’             | nu/mer                        |
|      | *roŋoR ‘hear’                          | o-rŋe               | <sup>N</sup> *vura-i ‘spit’             | e-vrae ‘spit on’              |
|      | *rua ‘two’                             | e/ru                | *maturuR ‘sleep’                        | e-matur                       |
|      | *ruru ‘tremble’                        | e-ririr             | *maqurip ‘alive’                        | e-maur                        |

POC \*R was frequently, if unpredictably, lost (25a);<sup>22</sup> when it was retained (also unpredictably), it merged with \*r as *r* (25b). The examples of medial \*R in the second half of (25a) and (25b) have been chosen to illustrate loss and retention in identical or very similar phonological environments.

- |         |  |   |    |                                   |                        |
|---------|--|---|----|-----------------------------------|------------------------|
| (25) a. | *Rami ‘crustacean eggs’                      | ni/ami- ‘crab eggs’                     | b. | *Raŋa ‘spider conch’              | ni/raŋ                 |
|         | *Rum <sup>w</sup> aq ‘house’                 | n/aim                                   |    | *Rapi ‘evening’                   | rivriv                 |
|         | *Ruqa- ‘neck’                                | n/owe-                                  |    | <sup>E</sup> *Rav(ei) ‘pull’      | e-rev, e-rve           |
|         | *Runut ‘sheath around base of coconut frond’ | na/un ‘fibrous strands in coconut husk’ |    | *Ropok ‘run, jump’                | o-row ‘jump, fly’      |
|         | *taRaq-i ‘chop’                              | e-tai                                   |    | <sup>N</sup> *Roti ‘tie’          | e-irasi (?)            |
|         | *paRi ‘stingray’                             | nö/vi ‘blue-spotted ray’                |    | *paRa- ‘arm, hand’                | ne/vre-                |
|         | *sakaRu ‘reef’                               | sou ‘reef in mid-sea’                   |    | *kaRi ‘cockle’                    | n/ar                   |
|         | *suRi- ‘bone’                                | ji-                                     |    | *qaRus ‘current, flow’            | o-rus ‘fall/flow down’ |
|         | *kaboRa ‘catfish’                            | n/abo                                   |    | *tuRi[-] ‘sew’                    | o-tri                  |
|         | *kaRo ‘vine’                                 | n/a (generic)                           |    | *toRas ‘ <i>Intsia bijuga</i> ’   | na/tor                 |
|         | *piRaq ‘giant taro’                          | na/vi                                   |    | *paRoŋ ‘ <i>Ochrosia</i> sp.’     | bi/varvar              |
|         |  |   |    | *ŋiRas ‘ <i>Pemphis acidula</i> ’ | ne/ŋir                 |

There are a few cases of irregular reflexes of \*r: (26a) illustrates \*r becoming the trill *rr* rather than the flap *r*, and (26b) shows doublets which vary between flap and trill:

- |         |                               |           |    |                            |   |
|---------|-------------------------------|-----------|----|----------------------------|---|
| (26) a. | *rodrom ‘think, remember’     | o-rrorrmī | b. | *ŋora ‘snore’              | o-ŋorr, e-ŋur ‘grunt’                         |
|         | <sup>N</sup> *ŋara ‘cry’      | e-ŋerr    |    | <sup>N</sup> *zara ‘sweep’ | e-jirjir ~ e-jirtjirr ‘(fowl) scratch ground’ |
|         | <sup>N</sup> *masoru ‘hiccup’ | e-masorr  |    |                            |   |

<sup>21</sup> Clark (2009:183–84) has <sup>N</sup>\*sulati which derives perfectly regularly from POC \*sulati. The Malakula data, however, suggest a possible variant \*julati (Uripiv *juluj*, Neve’ei *nu/nsulah*, V’ënen Taut *səles*, Tape *jəlej*, Larëvat *nsəlas*, Unua *jurej*) or even \*dulati (Avava *o/dalah*, Nāti *ne/ntules*, Nasarian *na/dəlas*, Lendamboi *a/dəlas*, *na/dəlas*, Nahavaq *dules*, Naha’ai *nū/dulas*, Navwien *nə/dūlas*).

<sup>22</sup> See François (2011) for a general discussion of loss and retention of \*R in Southern Oceanic.

And there is also \*rarap ‘*Erythrina indica*, coral tree’ > *Der*, which behaves as if the first consonant were \*d preceded by the article \*na (cf. §3.2.1). Interestingly, although \*R when retained merged with \*r, there seem to be no examples of irregular trill reflexes of \*R.

### 3.2.4 \*n, \*ñ and \*y

The nasals \*n and \*ñ merge, as *n*, as they do in all Malakula languages:

(27)	*nako- ‘face’	no-	*tinaqe- ‘intestines’	jine-
	*m <sup>w</sup> aqane ‘man, male’	nor/man <sup>23</sup>	*pine ‘female’	vin
	*niuR ‘coconut’	na/ni, ne/ni	*tanipa ‘sardine’	daniv
	*tanoq ‘earth, ground’	dan	*pano ‘go’	e-van
	*ponuq ‘full’	o-Bun	*tanum ‘bury’	e-tanu ‘hide’
	*ñamuk ‘mosquito’	num	*ñatuq ‘red silkwood’	norr
	*(nñ)opuq ‘stonefish’	na/niv		

I have only five words reflecting POC \*y, and the situation could best be described as “messy”:

- with \*kayu ‘tree, wood’ > *n/ai*, we seem to clearly have \*y > *i*;
- with <sup>R</sup>\*maraya ‘eel’ > *mera* and \*yaRu ‘casuarina’ > *n/ur*,<sup>24</sup> \*y is clearly lost ;
- and with <sup>N</sup>\*yalo ‘sun’ > *n/ialal* and \*yaŋo(-yaŋo) ‘yellow’ > *e-iŋaŋo*, there is evidence for \*y > *i* in the first part of the reduplicated form but \*y >  $\emptyset$  in the second.

### 3.3 Dorsals<sup>25</sup>

POC \*g follows the same pattern as \*b<sup>w</sup> and \*b: voiced prenasalised *g* noun-initially, whether in absolute initial position (28a) or after \*na (28b), and *k* elsewhere (29):

(28)	a.	<sup>N</sup> *ganisu- ‘nose’	gunsi-	b.	<sup>S</sup> *gala ‘green lizard, <i>Emoia</i> ’	ne/gel
		<sup>N</sup> *gere- ‘tail (of fish+)’	gere-		<sup>N</sup> *guRio ‘dolphin’	ne/gi
		<sup>S</sup> *garai ‘flying-fox’	geri			
		<sup>S</sup> *(j,g)alato ‘devil nettle’	gelat			
(29)		*baga ‘banyan’	nu/bek ‘ <i>Ficus prolixa</i> ’	<sup>N</sup> *logo ‘pudding, laplap’	na/lok	
		<sup>N</sup> *baig(a,e) ‘turban shell’	baik ‘ <i>T. marmoratus</i> ’	<sup>N</sup> *magi ‘graded society’	maki	
		<sup>N</sup> *garu- ‘appendage’	jul/karu- <sup>26</sup> ‘(crab) leg’	<sup>S</sup> *m <sup>(w)</sup> agaru ‘flying-fish’	maker	
		*joRaga ‘ <i>Musa fehi</i> ’	jok ‘ <i>M. troglodytarum</i> ’	<sup>N</sup> *m <sup>w</sup> ala-gelo ‘young person’	m <sup>w</sup> elakel	
		*gumu ‘gargle, rinse mouth’	kumkum <sup>w</sup> e ‘moving it about in the mouth’			

As a general rule, POC \*k is lost in Uripiv, but there are some cases of retention. Non-initial POC \*k was virtually universally lost:

(30)	*bakewa ‘shark’	bae	*masakit ‘sick’	e-msemsaet
	*bakuRa ‘tamanu’	baur	*nako- ‘face’	no-
	*ikan ‘fish’	na/i	*pisiko- ‘flesh, meat’	viso-
	<sup>N</sup> *livuka ‘middle’	livöe	<sup>N</sup> *sukawa ‘year’	sia
	*makubu- ‘grandchild’	meBu-	*takuRu- ‘back’	vitu
	*manuka ‘a sore’	manu	*tuqaka- ‘older same sex sibling’	tuwa-

The only cases where a non-initial \*k is retained are (i) \*siRiko ‘fin’ > *siki-* and <sup>E</sup>\*tikai ‘no’ > *e-jki*, where we appear to have oral/nasal grade crossover, and (ii) <sup>N</sup>\*makobu ‘skink, gecko’, which has doublet reflexes—*mob* ~ *moB* ‘gecko (small and dark-coloured)’ and *mokob-lab* ‘kind of large gecko’—that show expected loss of \*k in one form and crossover on the other.

<sup>23</sup> Possibly from \*na-qata-m<sup>w</sup>aqane ‘male person’, though \*t > r is unexplained.

<sup>24</sup> The vowel in *nur* < \*yaRu is regular: see §4.5.1.

<sup>25</sup> I have no data on POC \*k<sup>w</sup>.

<sup>26</sup> Also ‘(octopus+) tentacle’; the first element is probably *julu-* ‘sucker, shoot’.

With initial \*k, the norm is also loss; the examples below show loss in both nouns (31a) and verbs (31b):

(31) a.	*kaboRa ‘catfish’	n/abo	b.	*kani ‘eat’	e-aan
	*kadik ‘black biting ant’	n/aj		*kaput-i ‘cover’	o-woj
	*kanase ‘mullet’	n/anes ‘ <i>Mugil seheli</i> ’		*karaka ‘crawl’	e-ra
	*kapika ‘ <i>Syzygium</i> sp.’	n/avi		*kaRat-i ‘bite’	e-aji
	*kaRupe ‘ghost crab’	n/aw ‘various k.o. shore crabs’		*keli ‘dig’	e-li
	*kutu ‘louse’	na/ut		*ko(rR)as-i ‘scrape’	o-rsi ‘itch’
	*ku(i)ba ‘ <i>Ducula pacifica</i> ’	n/ib		N*kona ‘taboo’	on
	*kuRita ‘octopus’	na/it		N*koto-vi ‘cut, cross’	oti ‘across’
				N*kub <sup>w</sup> i ‘throw s.t. at’	o-Bi

There are around ten forms, however, where \*k is not lost. In most of these, it is reflected as *k*. Three of these are non-singular pronouns (and this phonological development in the pronouns is common in most Malakula languages and, indeed, in many Vanuatu languages):<sup>27</sup>

(32)	*kita ‘we INC.PL’	kerr
	*kamami ‘we EXC.PL’	kem
	*kamiu ‘you PL’	kami

Second, although most verbs show loss of initial \*k (as in (31b) above), there is a handful of verbs where \*k > *k* initially. This may well be a residue of earlier verb-initial consonant alternation, which occurred widely in Central Vanuatu, and in which the irrealis form of the verb was basic but the realis form showed the nasal rather than oral grade reflex of a voiceless obstruent (see Crowley 1991). These forms in Uripiv include:

(33)	*kilala ‘know, see’	o-kulkul ‘look’	N*koro ‘surround, obstruct’	o-kre ‘block s.t. off’
	*kinit-i ‘pinch’	e-kinji	N*kota ‘cluck’	o-kokota

The comparison *nib-karkar* ‘scabies’ < N\*karos-i ‘scrape’ also belongs here: the first part of the compound is *nib* ‘skin’, and the second probably derives from an original verb. There is also the case of \*kalaka ‘*Planchonella* sp.’ > *na/klak* ‘*P. grayana*’, where we probably have oral/nasal grade crossover.

Finally, there are two items where \*k is unexpectedly reflected as *g*: N\*koro ‘temporary shelter’ > *gorkor/aim* ‘bivouac’ and R\*kara ‘*Lisa vaigensis*, diamond-scaled mullet’ > *gervö/ŋ* ‘mullet’.

POC \*q is also regularly lost:

(34)	*qaRus ‘current, flow’	o-rus ‘fall/low down’	*baqa[pu]n ‘banana variety’	bapa
	*qasu ‘smoke’	o-us (V)	*Ruqa- ‘neck’	n/owe-
	*qatoluR ‘egg’	n/arrlu-	*tinaqe- ‘intestines’	jine-
	*quloc ‘maggot’	na/ul-wij	N*mataqisau ‘craftsman’	metusu
	*quraj ‘prawn, lobster’	na/ur	*leqos-i ‘see, look at’	e-lesi
	*quRis ‘ <i>Spondias dulcis</i> ’	na/us	*maqurip ‘alive’	e-maur

There are, however, a few cases where \*q apparently became *i* (see the discussion on this phenomenon in Malakula languages generally in Lynch 2009). I list them in Table 1, together with cognates in other Malakula languages which show either *i* (or *y*) or a velar or post-velar obstruent as the reflex of \*q.

The case for treating *i* as a reflex of \*q in some Malakula languages was made in some detail in Lynch (2009). Basically, there is no motivation to treat the *i* in forms like *n/iat* ‘thatch’ < \*na-qatop as deriving from the \*a of the article, and an examination of the V’enen Taut cognate form *neiet* shows that *i* could only derive from \*q. In addition, the forms in the final column show that \*q was definitely retained in at least some forms in some Malakula languages. (I discuss this a little further in §5.)

Finally, POC \*ŋ is reflected as *ŋ*:

(35)	N*ŋado ‘gums’	no/rŋo- (met.)	*paŋan-i upper lip	o-wŋani
	N*ŋara ‘cry’	e-ŋerr	*Raŋa ‘spider conch’	ni/raŋ
	*[ŋi]ŋisa ‘grin, bare teeth’	e-ŋis	*boŋi ‘night’	na/boŋ ‘day (24 hrs)’

<sup>27</sup> See, for example, Lynch (2019b:28) for Naman and (2019c:69) for Nese.

*ŋiRas ‘ <i>Pemphis acidula</i> ’	ne/ŋir	*taŋis ‘cry’	e-tiŋ
*ŋora ‘snore’	o-ŋorr	*roŋoR ‘hear’	o-rŋe
<sup>N</sup> *ŋori- ‘upper lip’	ŋorŋori-	*laŋon ‘roller’	e-leŋani ‘use a roller’

### 3.4 Noun-initial obstruents

We have seen in preceding sections that (i) two POC stops (\*k and \*q) were lost in Uripiv, (ii) two others (\*p<sup>w</sup> and \*p) had become fricatives (PNCV \*v<sup>w</sup> and \*v) in a language ancestral to Uripiv and many other NCV languages, and (iii) the remaining stops all show an alternation between simple/voiceless and prenasalised/voiced reflexes, depending on morphophonemic context.

TABLE 1. POC \*q > URIPIV *i*

POC	URIPIV	OTHER MALAKULA LANGUAGES	
		*q > <i>i</i> / <i>y</i>	*q > <i>x</i> , <i>ʔ</i>
<sup>S</sup> *qaŋaRi ‘ <i>Canarium</i> ’	n/iŋi	Tape <i>n/ieŋe</i> , Nasarian <i>nei-yaŋai</i>	
*qapu ‘ashes’	n/iv	Ninde <i>ninwi n/iep</i> , Ahamb <i>mac-iav</i>	
*qase ‘jaw’	n/ise-	Nese <i>n/ias</i>	Neve’ei <i>na/xase-</i> , Larëvat <i>na/xse-</i> , Neverver <i>na/xas-n</i>
*qatop ‘thatch’ <sup>†</sup>	n/iat ‘sa thatch’	Avava <i>iat</i> , Neve’ei, Nese <i>n/iat</i> , Naman <i>n/iet</i> , V’ënen Taut <i>ne/iet</i>	
*tob <sup>w</sup> aqa- ‘belly’ <sup>‡</sup>	depai-		Neve’ei <i>ne/tabaxa-</i> , Naman <i>daba(x)a-</i> , Larëvat <i>tabxa-</i> , Tirax <i>təbax</i>

<sup>†</sup> POC \*qatop is reconstructed to mean ‘thatch, roof’. Now roofs are often thatched with leaves of the sago palm, *Metroxylon* sp., and somewhere along the line I must have got it into my head that \*qatop was glossed just that: ‘sago, *Metroxylon* sp.’. This error occurs in numerous publications of mine, most recently Lynch (2019b,c) in this journal. It is at last corrected here.

<sup>‡</sup> See footnote 13 for a discussion of the reconstruction \*tob<sup>w</sup>aqa- .

The default reflexes of these POC stops are simple voiceless stops (or the trill *rr* in the case of \*d). However, noun-initially there are two different patterns:

- a. The default reflexes of \*b<sup>w</sup>, \*b and \*g are voiceless stops. However, when a noun root began with one of these stops, whether or not it is preceded by a reflex of the POC article \*na, the reflex was a voiced prenasalised stop:

(36)	POC	DEFAULT	NOUN ROOT-INITIAL
	*b <sup>w</sup>	p <sup>w</sup>	nV-b <sup>w</sup> , b <sup>w</sup>
	*b	p	nV-b, b
	*g	k	nV-g, g

- b. The default reflexes of \*t and \*d are *t* and *rr*, respectively. When the noun root began with \*t or \*d, these reflexes also occurred when a reflex of \*na is present, but prenasalisation applied if \*na- had been lost:

(37)	POC	DEFAULT	NOUN ROOT-INITIAL
	*t	t	nV-t, d
	*d	rr	nV-rr, D

Only a very few examples are given below as a “memory-jogger”, since these matters have been fully discussed for each individual stop above.

(38)	POC	DEFAULT	POC	NOUN ROOT-INITIAL
a.	<sup>N</sup> *b <sup>w</sup> aro ‘unripe’	o-p <sup>w</sup> ur	<sup>N</sup> *b <sup>w</sup> ea ‘slitgong’	na/b <sup>w</sup> e
	<sup>N</sup> *lab <sup>w</sup> e ‘appendage (root, etc)’	lap <sup>w</sup> e- ‘root’	<sup>N</sup> *b <sup>w</sup> asa-i ‘penis wrapper’	b <sup>w</sup> ese-
	*barapu ‘long’	periv	*boŋi ‘night’	na/boŋ ‘day’
	<sup>S</sup> *tabo(q) ‘lay eggs’	e-tapo	*bati- ‘canine tooth’	bati-
	<sup>N</sup> *ragu ‘rudderfish’	ni/raku	<sup>N</sup> *gere- ‘tail (of fish+)’	gere-
	<sup>N</sup> *m <sup>w</sup> ala-gelo ‘young person’	m <sup>w</sup> elakel	<sup>N</sup> *guRio ‘dolphin’	ne/gi
b.	<sup>N</sup> *rato- ‘sweat’	rate-	*taqe- ‘excrement’	na/te-
	*taŋis ‘cry’	e-tiŋ	*taRutu(m,ŋ) ‘porcupinefish’	daut
	*paŋoda ‘search for shellfish’	e-vaŋorr	<sup>N</sup> *doŋi ‘coconut leaf mat’	ni/rro
	<sup>N</sup> *domi ‘think’	o-rroŋmi	<sup>E</sup> *damu ‘(k.o.) yam’	Dum

Reduplicated noun forms whose initial consonant was a voiced prenasalised stop also illustrate this distribution, with the first part of the reduplication prenasalised-initial but the second part not; for example:

(39)	<sup>N</sup> *b <sup>w</sup> ara-b <sup>w</sup> ara ‘(female) pig’	b <sup>w</sup> er=p <sup>w</sup> er ‘pig’
	<sup>N</sup> *b <sup>w</sup> ea ‘platform’	b <sup>w</sup> e=p <sup>w</sup> e
	*bi(rR)i=bi(rR)i ‘ <i>Hernandia nymphaefolia</i> ’	bir=pir
	<sup>N</sup> *dodo ‘dark cloud’	Do=rroŋ (Clark 2009:34)

Two different developments seem to have been involved: one seems to be unique to Uripiv, the other is (partially?) shared with at least two other Eastern Malakula linkage languages, Unua and Banam Bay.

The unique development is that described in (a) above and illustrated in (38a), and affects the labials and \*g. There seem to have been three ordered changes occurring:

- |  |  |             |             |
|--|--|-------------|-------------|
| I. Devoicing and denasalisation in all environments:   | <sup>*</sup> b <sup>w</sup> > p <sup>w</sup> | *b > p      | *g > k      |
| II. Voicing and nasal assimilation to a preceding *na: | na-p <sup>w</sup> > na-b <sup>w</sup>        | na-p > na-b | na-k > na-g |
| III. Loss of *na in some environments (see §5):        | na-b <sup>w</sup> > b <sup>w</sup>           | na-b > b    | na-g > g    |

Rules I and II are quite natural, and this sequence is a natural explanation of the facts. The alternative would be to posit the voiced reflexes as the default, and to propose a devoicing and denasalisation rule (a) initially in non-nouns and (b) non-initially. The latter is especially unnatural, since the intervocalic environment is one where we prototypically expect voiceless consonants to voice, not voiced consonants to devoice.

The partly shared development is that described in (b) above. Unua and Banam Bay both show \*t undergoing voicing and nasalisation, as *d*, but only noun-initially after \*na- was lost. Compare the following, in which we have the default reflex *t* in (40a), the noun-initial reflex *t* after \*na in (40b), and the noun-initial reflex *d* when \*na was lost in (40c):

(40)	POC	URIPIV	UNUA	BANAM BAY
a.	*t	<b>t</b>	<b>t</b>	<b>t</b>
	*mata- ‘eye’	mete-	mete-	mata-
	*matuqa- ‘mother’s brother’	mitu	metue-	metua-
	<sup>S</sup> *tabo(q) ‘lay eggs’	e-tapo	tabo	tabo ‘sit on eggs’
	*tolu ‘three’	i/tul	xe/ter	e-ter
	*tuqur ‘stand’	o-tur	i-tu	tu
b.	*t	<b>t</b>	<b>t</b>	<b>t</b>
	*toqa ‘fowl’	na/to	na/to	na/to
	*taqe- ‘excrement’	na/te-	na/te-	na/te-
	*topu ‘sugarcane’	na/tiv	ne/tev	na/tiv
	*tanoq ‘earth, ground’	ŋa/tan ‘down’	na/tan	ne/ten
*c.	*t	<b>d</b>	<b>d</b>	<b>d</b>
	*tapuRiq ‘conch, triton’	davö	davu	davu
	<sup>N</sup> *taboi ‘ <i>Barringtonia edulis</i> ’	dap <sup>w</sup> i	daBu	dabo
	*tapoRa ‘ <i>Terminalia catappa</i> ’	dawo	davo	davo
	*tob <sup>w</sup> aqa- stomach, belly’	depai-	daba/ŋo-, dobo.g	daba-

*qata-mate ‘devil’ <sup>28</sup>	demij	demej	demet
*talai ‘clam’	del/buroŋ	dere	—

Note that this is *not* an example of what I have been calling oral/nasal grade crossover. Crossover would involve, in this case, *\*t behaving as if it were \*d*. But the reflex of *\*d* is not *d* in any of these languages: the reflexes are Uripiv *rr* (*D* noun-initially when *\*na* was lost), Unua *rr* (occasionally *r*), and Banam Bay *D*:

(41) POC	URIPIV	UNUA	BANAM BAY
<b>*d</b>	<b>D, rr</b>	<b>rr (r)</b>	<b>D</b>
N*daleqo- ‘neck, voice’	Dela- ‘voice’	rra=rrau-	Da
*(dr,d)ap(e,i) ‘snot’	Davi-	—	Davi-
E*damu ‘yam’	Dum	no/rrom	na/Dam
N*leidumudumu ‘whale’	lerrumrrum	lerrumrrum	reDumDum
*paŋoda ‘forage for shellfish’	e-vaŋorr	paŋor	—

This is, instead, a simple case of assimilation: the *\*t* assimilates to the voicing and nasality of a preceding *\*n*, the two combining as a voiced prenasalised stop. What seems to have happened was:

IV. Loss of the *\*a* of *\*na* before *\*ta*:  $*na-ta > n-ta$

V. Fusion of nasal + stop:  $n-ta > dV$

This sequence of rules also applied—though in Uripiv only—to *\*da*-initial nouns; with *\*d* having the default reflex *rr*, we have:

IV'. Loss of the *\*a* of *\*na* before *\*da*:  $(*na-da >) na-rra > n-rra$

V'. Fusion of nasal + trill:  $n-rra > DV$

### 3.5 Final consonants

Only a subset of POC consonants were permitted to occur in word-final position: /p t k q s m n ŋ l r R/. Of these, *\*k* and *\*q* are regularly lost in Uripiv (§3.3), and so their loss in final position is not unexpected; and *\*R*, though irregularly lost initially and medially (§3.2.3), is always lost finally:<sup>29</sup>

(42) *kamaliR ‘meeting house’	lol-n/amel	*roŋoR ‘hear’	o-rŋe
*[ma]luR ‘shade’	na/mol ‘shadow, reflection’	*saliR ‘to float’	e-sal, e-salsal
*maturuR ‘sleep’	e-matur	*sinaR ‘shine’	e-sin (VI), esne (VT)
*niuR ‘coconut’	na/ni, ne/ni	*toŋoR ‘mangrove’	Doŋ
*qatoluR ‘egg’	n/arllu-	*waiR ‘water’	nu/wi

Root-final consonants may be retained when followed by a suffix, as in the following which carry the transitive suffix *< \*-i*:

(43) *paŋan ‘feed’	o-wŋan-i
*laŋon ‘roller’	e-leŋan-i ‘use a roller’
*rodrom ‘think, remember’	o-rrorm-i

However, in examples like these, the root-final consonants were not *word*-final. My concern in this section is with *word*-final consonants.

The POC nasals were lost *word*-finally:

(44) *onom ‘six’	o-uw/on	*ikan ‘fish’	na/i
*m <sup>(w)</sup> inum ‘drink’	e-minmin, e-mni	*pulan ‘moon, month’	na/völ
S*logom ‘ <i>Amaranthus</i> sp.’	loklok	*saman ‘outrigger’	jam
*(dr,r)anum ‘fresh water’	Danu ‘muddy water’	*baqa[pu]n ‘banana variety’	bapa
*paRoŋ ‘ <i>Ochrosia</i> sp.’	bi/varvar	*taRutu(m,ŋ) ‘porcupinefish’	daut
*quraj ‘prawn, lobster’	na/ur	*masawa(n.ŋ) ‘open space’	mesa ‘open area,

<sup>28</sup> With regular loss of *\*q* and subsequent fusion of successive identical vowels, *\*na-qata-mate* was reinterpreted as *\*na-tamate*.

<sup>29</sup> Note that the vowel preceding a lost final consonant is also usually lost. I will have more to say about this in §4.1.1.

\*i(s,c)əŋ ‘name’

na/is, n/ise-

open sea’

Of the remaining consonants, all are retained in final position in at least one item, but all are also lost in most items: in relation to \*p, \*t, \*s/\*c, \*l and \*r, the retention rate in Uripiv is around 30 percent or less. This is illustrated and exemplified in Table 2. No phonological conditioning for loss or retention can be established: note, for example, that there are one or more forms in Table 2 ending in \*-ip, \*-is, \*-us, \*-al and \*-ur located in each half (retained/lost) of the table.

TABLE 2. RETENTION AND LOSS OF SOME POC FINAL CONSONANTS

Final *C retained			Final *C lost		
*p	*irip ‘fan’	ne/rivriv (N)	*maquirip ‘alive’	e-maur	
	*qalop ‘beckon, wave’	o-luv	*qatop ‘ <i>Metroxylon</i> ’	n/iat	
*t	*masakit ‘sick’	e-msemsaet	*rarap ‘ <i>Erythrina</i> ’	Der	
			*lumut ‘moss, algae’	na/lum	
			*bulut ‘sticky’	na/Böl ‘ <i>Cordia dichotoma</i> , glue tree’	
			*lapuat ‘big, large’	lep	
			*Runut ‘sheath around base of coconut frond’	na/un ‘fibrous strands in coconut husk’	
			*kurat ‘ <i>Morinda citrifolia</i> ’	na/ur	
			*s/*c	*quRis ‘ <i>Spondias dulcis</i> ’	na/us
*r	*qaRus ‘current, flow’	o-rus ‘fall down, flow down’	*waroc ‘vine’	na/u ‘vein, artery +’	
			*taŋis ‘cry’	e-tiŋ	
			*quloc ‘maggot’	na/ul-wij	
			*ŋiRas ‘ <i>Pemphis acidula</i> ’	ne/ŋir	
			*toRas ‘ <i>Inisia bijuga</i> ’	na/tor	
			*motus ‘cut off, broken’	e-maj	
			*l	*susul ‘emperor fish’	no/jil
*r	*kabakabal ‘swiftlet’	gerkerial ?	*laur ‘seawards’	vi/lu (cf. vi/tan ‘down’, < *tanoq ‘earth’)	
				*tuqur ‘stand’	o-tur

### 3.6 Consonants: Summary

The preceding sections are summarised in Table 3. Default reflexes are given first; a comma separates conditioned reflexes, and unconditioned reflexes are in parentheses.

TABLE 3. CONSONANT CORRESPONDENCES

POC	*p <sup>w</sup>	*p	*t	*s, *c	*k	*q
Uripiv	v (w)	v (w)	t, d, j (rr)	s (j)	Ø (k)	Ø (i)
POC	*b <sup>w</sup>	*b	*d, *dr	*j	*g	
Uripiv	p <sup>w</sup> , b <sup>w</sup> (p, B, b)	p, b (B, b <sup>w</sup> )	D, rr, j	j	k, g	
POC	*m <sup>w</sup>	*m	*n	*ñ	*ŋ	
Uripiv	m <sup>w</sup>	m	n	n	ŋ	
POC	*w		*l	*r	*y	*R
Uripiv	w, Ø		l	r	(i, Ø)?	Ø, r

## 4. VOWELS

In this section, I trace the development of the POC vowels in Uripiv. I rely considerably on Clark’s insightful treatment of the vowels (2009:34–35), giving more examples and expanding on details where necessary.

## 4.1 Vowel loss

### 4.1.1 Final vowels

Word-final vowels underwent loss.<sup>30</sup> A single post-consonantal word-final vowel was regularly lost:

(45)	*Rapi ‘evening’	rivriv	*boŋi ‘night’	na/boŋ ‘day (24 hrs)’
	*mate ‘die’	e-mij	*laje ‘branching coral’	wa/lijlij ‘coral stones’
	*buŋa ‘brain coral’	na/Böŋ	*m <sup>w</sup> ata ‘snake’	nu/m <sup>w</sup> et
	<sup>N</sup> *logo ‘pudding, laplap’	na/lok	*pano ‘go’	e-van
	*patu ‘stone’	ne/vöt	<sup>E</sup> *damu ‘yam’	Dum

This applies also to the vowel preceding a final consonant: when that consonant was lost, the preceding vowel was also lost. There are numerous examples of this in §3.5.

As far as word-final vowel sequences are concerned (and by “vowel sequences” I include those that arose after loss of intervening consonants, like \*k, \*q and sometimes \*R), the second vowel was lost if neither vowel was high.<sup>31</sup>

(46)	*ae	*b <sup>(w)</sup> ilake ‘buff-banded rail’	bila	*sake ‘go up’	e-sa ‘climb’
	*ao	*kaRo ‘vine’	na (generic)		
	*ea	*pea > <sup>N</sup> *bea ‘where?’	ŋa/be, ni/be	<sup>N</sup> *vareqa ‘outside’	vare
	*eo	*leqo ‘voice’	na/le ‘word, language’		
	*oa	<sup>N</sup> *taroa ‘ <i>Columba vitiensis</i> ’	daro	*toka ‘be in a place’	o-to, o-toe
	*oe	*b <sup>w</sup> o-b <sup>w</sup> oe ‘pufferfish’	BuBu dis ‘spiny puffer’	<sup>N</sup> *m <sup>w</sup> azoe ‘star’	moju

The second vowel was also lost if the first was high and the second non-high:

(47)	*ia	*kapika ‘ <i>Syzygium</i> sp.’	n/avi	*ua	*luaq ‘vomit’	o-lu
		*ikan ‘fish’	na/i		*panua ‘land+’	vanu ‘island, country’
		*piRaq ‘giant taro’	na/vi		*manuka ‘a sore’	manu
	*io	<sup>N</sup> *guRio ‘dolphin’	ne/gi	*ue	*bue ‘bamboo’	na/Bu
		*siko ‘kingfisher’	na/si		*puRe ‘ <i>Ipomoea</i> sp.’	na/wuwu ne dis ‘ <i>I. pes-caprae</i> ’

When the first vowel was non-high and the second high, however, the first vowel was lost :

(48)	*ai	<sup>S</sup> *garai ‘flying-fox’	geri	*au	*tokalau(r) ‘north wind’	dolu
		*talai ‘clam’	deli ‘axe’		*nau ‘I’	i/nu
		<sup>E</sup> *tikai ‘no’	e-jki		*takuRu ‘back’	vi/tu ‘after’
		<sup>S</sup> *qajaRi ‘ <i>Canarium</i> ’	n/inji		*matakut ‘afraid’	e-metmetu
	*oi	<sup>N</sup> *taboi ‘ <i>Barringtonia edulis</i> ’	dap <sup>w</sup> i	*ou	*katou ‘hermit crab’	n/atu
	*ei	<sup>N</sup> *bei ‘ <i>Polyscias</i> ’	na/bi		<sup>N</sup> *maloku ‘kava’	melu
		*sei ‘who?’	i/si, si			

And when both vowels were high, it appears that \*u was lost and \*i retained, irrespective of which order they occurred in:

(49)	*iu	*niuR ‘coconut’	na/ni, ne/ni	*ui	<sup>N</sup> *muki ‘earthquake’	na/m <sup>w</sup> i
		<sup>S</sup> *niu-niu ‘ <i>Veitchia</i> sp.’	nini		*buRi-buRi ‘angelfish’	ni/Bi
		*kamiu ‘you PL’	kami			

<sup>30</sup> However, root-final vowels that are not word-final—i.e., are followed by a suffix—do not undergo this loss: cf. \*mata ‘eye’ > na/met ‘eye, staring’, with final V lost, but mete- ‘eye of’, which takes possessive suffixes (e.g., mete-n ‘his/her/its eye’).

<sup>31</sup> I have only one secure example of final \*ao and \*eo.

#### 4.1.2 Identical vowel sequences

Sequences of identical vowels arose as a result of the regular loss of \*k and \*q and the frequent loss of \*R. In this section, I look only at root-internal sequences. I leave discussion of sequences that arose as a result of the article \*na being prefixed to \*k-, \*q- or \*R-initial nouns till a discussion of the article in §5.

The data I have mainly involve \*aa sequences, though sequences of other like vowels confirm the same general conclusion: a sequence of like vowels is reduced to a single vowel. See examples of \*aa > a in (50a) and other vowels in (50b):

(50)	a.	*karaka ‘crawl’	era	b.	*ii	*siRiko ‘fin’	siki-
		N*maraka ‘stand up’	e-mra ‘get up’		*oo	N*(j,s)oko(j,s)i- ‘(man’s)sister’ <sup>32</sup>	joji-
		*draRaq ‘blood’	Da		*uu	*tuqur ‘stand’	o-tur
		*kaRat-i ‘bite’	e-aji			*takuRu ‘back’	vi/tu ‘after’
		*taRaq-i ‘chop’	e-tai				

In two cases, \*aa sequences surface as *i*, but this is the expected reflex of \*a before a high vowel in the next syllable (see §4.5.1):

(51)	*raqani ‘daytime, daylight’	nu/rin	*saqat > **saqati ‘bad’	e-sij
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#### 4.1.3 Pretonic vowel deletion

Like a number of Malakula languages, Uripiv shows deletion of a medial vowel if it was pretonic and not in the initial syllable (since initial consonant clusters are not permitted). We can observe this in CVCV reduplicated forms, like those in (52). (In this section, I mark primary stress with an acute accent, and add, where relevant, the article, a possessive suffix, a TAM prefix (V-) and/or a transitive suffix to roots. The pretonic vowel that is ultimately deleted is bolded for ease of reference.

(52)	N*b <sup>w</sup> arab <sup>w</sup> ára ‘female pig’	b <sup>w</sup> erp <sup>w</sup> er ‘pig’	N*wénu ‘to whistle’ > *V-wenu-wénu	e-winwin
	*bi(r,R)i-bí(r,R)i ‘ <i>Hernandia</i> sp.’	birpir	*m <sup>w</sup> inúm ‘drink’ > *V-m <sup>w</sup> inu-m <sup>w</sup> inu	e-minmin
	N*V-molimóli ‘round’	o-mulmul	S*logóm ‘ <i>Amaranthus</i> ’ > *logo-lógo	loklok
	N*leidumudúmu ‘whale’	lerrumrrum	N*léba ‘mud, swamp’ > *leba-léba	laplap

Other examples of pretonic vowel loss in unreduplicated forms include the following:

(53)	N*na-vará-na ‘his hand’	nevran	N*V-varás-i ‘step on’	e-vrasi
	*na-puṅá-na ‘its flower’	nevṅun	N*V-tib <sup>w</sup> ár-i ‘touch’	e-jpari
	*V-paṅán-i ‘he feeds it’	o-wṅani	N*V-v <sup>w</sup> ará-i ‘say, tell’	o-wra-i
	N*V-maráka ‘stand up’	e-mra ‘get up’	*na-pinu(q)an ‘ <i>Macaranga</i> sp.’ > *na-pinúa	nevnu

There is, however, another set of forms that appear to be exceptional: in these, a penultimate, and thus presumably stressed, vowel is lost. I list the forms below, and then discuss various subsets of them. All are verbs, and are cited with the 3SG realis prefix *e-* / *o-*. Note that all are transitive verbs, and most end in *i*, which is one form of the transitive suffix in Uripiv and which derives from the POC transitive suffix \*-i.

(54)	a.	*solo ‘carry on shoulder’	o-sloi
		S*ta(k,g)a ‘marry, be married’	e-tka(i) ‘(man) marry (woman)’
		E*Rave ‘pull’	e-rev, e-rvei
	b.	*poli ‘buy’	o-wli

<sup>32</sup> This does not appear in Clark (2009). I make this reconstruction on the basis of Uripiv *joji-* and the following forms: Mota *soyoi* ‘relative of the same moiety’; Tamambo *vo/njoho-* ‘older sister, man’s father’s brother’s daughter’, *vo/sohoti-* ‘man’s sister (respectful)’; Raga *hoyosi-* ‘sister, father’s brother’s daughter’; Apma *hoji-* ‘sister, father’s brother’s daughter, mother’s sister’s daughter’; Nese *joxo-* ‘mother’s brother’, *joxos-* ‘sister, of male’; Unua *xoso-* ‘wife, also used in various compounds referring to female kin’.

N*liji ‘put, pour’	e-lji
*pisi ‘tie’	e-vsi
c. *kinit ‘pinch’	e-kinji
*rodrom ‘think, remember’	o-rrormi
*tapun ‘bury’	e-tevni
*poRos ‘squeeze, wring’	e-virsi
*tolom ‘swallow’	o-rrolmi
*bulut ‘stick to’	o-Bólji
*saput ‘pluck fowl’	o-jovji

Consider first <sup>E</sup>\*Rave ‘pull’ in (54a).<sup>33</sup> This actually has two reflexes. Here are the beginnings of the two entries in the dictionary (McKerras 2001b:60, 65):

- (55) **erev** v. it (a current) pulls ...  
**ervei** vt. (root **reve(i)**) (*older form ervee*) he pulls it ...

The intransitive form *e-rev* develops regularly: final vowel loss sees \*V-Ráve > *e-rev*. With the transitive form, the addition of the transitive suffix shifts the stress one mora to the right: in \*V-Ravé-i, the \*a is now pretonic and unstressed, and is deleted by regular rule, and final \*i is not deleted since it has a grammatical function. The same developments account for the other forms in (54a).

The three forms in (54b) were \*i-final. It is tempting to suggest that the transitive suffix was also added to these verbs, giving a final long vowel: \*V-lijí-i ‘he puts it’, stressed as marked. Vowel loss and degemination would produce *e-lji*.

The set of forms in (54c) shows a different pattern. These roots are consonant-final, and the root if or when it occurred unsuffixed would have been stressed on the final syllable: \*kinít, \*rodrom, etc. The addition of the transitive suffix would not have changed the location of stress: \*kinít-i, \*rodrom-i, etc. The only explanation that comes to mind is that these were reanalysed as \*i-final forms, to which transitive \*-i was then added (as with those in (54b)), and the final long \*i attracted the stress, thus creating an environment for the last vowel of the root, now pretonic, to delete. Subsequent degemination shifted the stress leftward. Thus we assume that the derivation of *o-rrolmi* ‘swallow’ from \*tolom would have been:

- (55) \*V-tolóm-i > o-rrolomí-i > o-rrolmí-i > o-rrólmi

#### 4.2 POC \*i

In discussing \*i, and indeed all POC vowels, I take as given the behaviour of vowels in sequences as discussed in §4.1.1 above, and will not mention these cases in the following subsections.

There are a few examples where \*i is backed to *u*, usually in the environment of a labial (e.g., <sup>E</sup>\*ibe ‘mat’ > *n/ub<sup>w</sup>e-*, \*pitu > <sup>N</sup>\*bitu ‘seven’ > *e/but*, <sup>N</sup>\*m<sup>w</sup>ido-lo ‘short’ > *murrol*), though there are similar examples where \*i remains *i* (see, e.g. the first four examples in (57) below). There are also a handful of examples where \*i lowers to *e*, for which I have no explanation; these include:

- (56) \*masakit ‘sick’ e-mse=msaet \*kita ‘we inc.pl’ kerr  
 \*sisiq ‘nerite +’ na/ses ‘periwinkle’ <sup>N</sup>\*b<sup>w</sup>alika- ‘affine’ p<sup>w</sup>ile- ‘father-in-law, mother-in-law,  
<sup>N</sup>\*vizi ‘dig w. hands’ e-veji son-in-law, daughter-in-law’

However, the overwhelming majority of cases show \*i > *i*:

- (57) \*lipo- ‘tooth’ liw, liwe- \*[ŋi]ŋisa ‘grin, bare teeth’ e-ŋis  
<sup>S</sup>\*b<sup>w</sup>il(i,u) ‘close eyes’ e-p<sup>w</sup>il \*siko ‘kingfisher’ na/si  
 \*p<sup>(w)</sup>ilak ‘lightning’ na/vil \*sipi(r,R)i ‘coconut lory’ sivr  
<sup>S</sup>\*kum<sup>w</sup>i- ‘beard’ n/um<sup>w</sup>i- \*tibo- ‘self’ jipo-n ‘himself’  
 \*tinaqe- ‘intestines’ jine- \*lima ‘five’ e/lim  
 \*pisiko- ‘flesh, meat’ viso- \*siwa ‘nine’ e/siw

<sup>33</sup> The reconstruction is strictly \*Rav(e,i), with an ambiguous final vowel, but it seems clear that Uripiv inherited the \*e-final root form. In any case, it makes no difference to the argument here which form was inherited.

### 4.3 POC \*u

There is a very strong tendency for \*u to become the mid front rounded vowel *ö* after bilabials.<sup>34</sup>

(58)	N*q(i,a)vua ‘turtle’	n/evö	*butu, *butuR-i ‘kick’	o-Böt
	*tapuRiq ‘conch, triton’	davö	E*buŋa ‘brain coral’	na/Böŋ
	N*livuk*a ‘middle’	livöe	*buli(q) ‘cowrie’	Böl/mim ‘large cowrie’
	*pulan ‘moon, month’	na/völ	*kabu ‘fire(wood)’	e-aBö ‘burnt’
	*saŋapuluq ‘ten’	e/sŋavöl	*bulut ‘sticky’	o-Bölji ‘stick to’

Note, however, that there are exceptions, First, this fronting did not occur when \*p had become *w* (though it did occur when \*p > *v*, as exemplified above):

(59)	*p(i,u)pu ‘bladder’	ne/wuw
	N*vunu ‘full’	o-wun
	*puRe ‘ <i>Ipomoea</i> sp.’	na/wuwu ne dis ‘ <i>I. pes-caprae</i> ’

This suggests that it was the fronting of \*u to *ö* that caused *w* to change to *v*.

Second, there are a number of cases where \*u fronted to *i*. This sporadic, apparently unconditioned fronting of \*u is a common feature of languages in Malakula and elsewhere in North-Central Vanuatu (see, e.g., Lynch 2019a:§4 for the Santo-Malakula region and Lynch 2019c:§4.3 specifically for Nese). In Uripiv, this fronting occurs especially after a bilabial (60a) or \*/s/\*j (60b):

(60)	a.	*putiR ‘wart’	bisbis	N*ganisu- ‘nose’	gunsi-
		*buto- ‘navel’	bito-	*susul ‘emperor fish’	no/jil
		*pu(s,c)o- ‘heart’	vis-roplet ‘lungs’	N*sukawa ‘year’	sia
		*tabu ‘sacred’	doBi- ‘grave’		
		*pudi ‘banana’	na/vij		
		*pusuR ‘bow and arrow’	ne/vis		

There are also a few cases where \*u unexpectedly lowers to *o*, like \*turuq ‘drip, drop’ > *o-tori*, or \*kaput-i ‘to cover’ > *owoj*.

The default reflex is *u*:

(61)	*pasu- ‘cheek(bone)’	vasu-	*maquirip ‘alive’	e-maur
	*takuRu- ‘back’	Du-	*jumu ‘triggerfish’	na/sum
	*susu- ‘breast’	na/sus, ne/su-	N*leidumudumu ‘whale’	lerrumrrum
	*paŋus ‘blow one’s nose’	o-ŋus ‘sniff’	*qaRus ‘current, flow’	o-(ru)rus ‘fall/flow down’
	*pasu[su] ‘give birth’	e-vasus	*tuqur ‘stand’	o-tur
	*maturuR ‘sleep’	e-matur	*tupa ‘ <i>Derris</i> sp.’	na/tuv

### 4.4 The POC mid vowels

As pointed out by Clark (2009:34), stressed mid vowels were raised when the next syllable contained a high vowel, with \*e > *i* and \*o > *u*.<sup>35</sup> The only cases of \*e-raising that I have located are:

(62)	N*wenu ‘whistle’	e-winwin
	N*bueli ‘absent, deserted’	o-Bil ‘empty’
	N*meme-u ‘dew, wetness’	e-mim ‘wet’

And there are a couple of cases where raising does not occur as expected:

<sup>34</sup> I have no clear examples of what happens to a retained \*u after \*m. However, cases where \*a assimilated to a \*u in the following syllable suggest that this \*u then became *ö* after \*m: cf. \*na-manuk ‘bird’ > \*\**na-mun* by regular assimilation > *nu/mön* by this rule of \*u-fronting.

<sup>35</sup> Note that a similar raising process applies to \*a, but I will deal with that separately, in §4.5.1.

- (63) <sup>R</sup>\*weli ‘marine worm’      na/wel  
 \*keli ‘dig’      e-li (presumably < \*e-eli)

However, raising is clearer, and far more frequent, with \*o:

- |      |   |          |                          |                         |
|------|---|----------|--------------------------|-------------------------|
| (64) | *molis ‘ <i>Citrus</i> sp.’                 | na/mul   | N*maloku ‘kava’          | melu                    |
|      | N*molimoli ‘round’                          | o-mulmul | N*logu-ni ‘fold, bend’   | o-lukluk ‘(rope) slack’ |
|      | N*voki ‘change’                             | o-vu     | S*majonu ‘trevally’      | mejun                   |
|      | *qalop ‘beckon, wave’ > <sup>N</sup> qalovi | o-luv    | *tolu ‘three’            | i/tul                   |
|      |   |          | *motus ‘cut off, broken’ | e-maj                   |
|      |   |          | *ma-tolu ‘thick’         | e-mtul                  |
|      |   |          | *ponuq ‘full’            | o-Bun                   |

And there are a couple of cases where \*oe > u:

- (65) <sup>b</sup>w<sup>o</sup>-b<sup>w</sup>oe ‘pufferfish’      BuBu dis ‘spiny puffer’  
 N\*m<sup>w</sup>azoe ‘star’      moju

There are a few exceptions to the \*o-raising rule, but all of them occur in the environment of the velar nasal; it would appear that this raising is blocked by an adjacent \*ŋ:

- (66) N\*ŋori- ‘upper lip’      ŋorŋori-  
 N\*ŋoli- ‘top shoot of plant’      ŋoli- ‘top (of tree, post)’  
 \*boŋi ‘night’      na/boŋ ‘day (= 24 hrs)’  
 N\*doŋi ‘coconut leaf mat’      ni/rro

In other environments, with very few exceptions indeed, the default reflex of \*e is e:

- |      |                                     |                               |                                  |                       |
|------|-------------------------------------|-------------------------------|----------------------------------|-----------------------|
| (67) | *qase- ‘jaw’                        | n/ise-                        | N*vareqa ‘outside, outdoors’     | vare                  |
|      | *leqo- ‘voice’                      | na/le ‘word, language’        | N*eve ‘count’                    | e-ve (< *e-eve?)      |
|      | *tinaqe- ‘intestines’               | jine-                         | N*leŋa ‘dance’                   | na/leŋ ‘k.o. dance’   |
|      | N*gere- ‘tail (of fish+)’           | gere-                         | E*m <sup>w</sup> a(q)ele ‘cycad’ | na/m <sup>w</sup> el  |
|      | E*m <sup>w</sup> eRa ‘young person’ | m <sup>w</sup> er(i) ‘person’ | N*sagele ‘sit on’                | e-sakel               |
|      | N*tarere ‘to crow’                  | e-tarer                       | N*malakeza ‘green, blue’         | pe/mlaej ‘blue-green’ |

and the default reflex of \*o is o:

- |      |                                     |                   |                              |                                 |
|------|-------------------------------------|-------------------|------------------------------|---------------------------------|
| (68) | *Ropok ‘run, jump’                  | o-row ‘jump, fly’ | *joRaga ‘ <i>Musa fehi</i> ’ | jok ‘ <i>M. troglodytarum</i> ’ |
|      | S*logom ‘ <i>Amaranthus</i> sp.’    | loklok            | N*koro ‘temporary shelter’   | gorkor/aim                      |
|      | N*katabola ‘ <i>Dracontomelon</i> ’ | n/itapol          | *pose ‘a paddle’             | ni/wos                          |
|      | *paŋoda ‘search for shellfish’      | e-vaŋorr          | N*masoru ‘hiccup’            | e-masorr                        |
|      | N*logo ‘pudding, laplap’            | na/lok            | N*kona ‘taboo, sacred’       | on (< o-on ?)                   |
|      | *tolom ‘swallow’                    | o-rrolmi          | *laso- ‘testicles’           | laso-                           |

## 4.5 POC \*a

### 4.5.1 Assimilation

Clark (2009:34) points out that stressed \*a “assimilates totally” to a following high vowel, with \*a > i before \*Ci and u before \*Cu. However, there is an interesting restriction, not pointed out by Clark: the assimilation takes place *only when the vowel that conditions it is lost*. That is:

- |      |                    |                   |                    |                               |
|------|--------------------|-------------------|--------------------|-------------------------------|
| (69) | a. <b>Original</b> | <b>V2 is lost</b> | b. <b>Original</b> | <b>V2 is retained</b>         |
|      | *aCi               | iC                | *aCi               | aCi (or some variant thereof) |
|      | *aCu               | uC                | *aCu               | aCu (or some variant thereof) |

This can be illustrated by the following doublet reflexes:

(70)		<b>Assimilation</b>	<b>No assimilation</b>	<b>Both</b>
	N*sari ‘spear’	sir ‘a spear’	e-sari ‘he spears it’	
	*tali ‘rope’	dil ‘rope’	dali-n ‘its rope’	
	N*zavi ‘carve (bow +)’	e-sivsiv ‘he carves’	e-savi ‘he carves it’	e-sivsavi ‘he whittles it’
	*b <sup>w</sup> atu(k) ‘head’	but (not possessed)	batu-n ‘his head’	
	*tabu ‘sacred’	duB ‘a grave’	doBi-n ‘his grave’	

Further examples of \*\*aCi > iC are given in (71):

(71)	*tañis ‘cry’	e-tij	N*kabani ‘a sail’	n/abin
	N*vali ‘food taboo’	e-vil ‘taboo’	N*malazi ‘leftover food’	te/mlij
	*(q,k)ulapi ‘parrotfish’	n/uliv ‘long-nosed parrotfish’	*tasik ‘sea’	dis
	*pati ‘four’	i/vij	N*lañi ‘wind’	lij
	*Rapi ‘evening’	rivriv	*saqat > *saqati	e-sij

There are, as well, three examples of the same assimilatory change taking place when the vowel in the following syllable was \*e, not \*i (72a), but also cases in this environment where \*a became e, not i (72b):

(72)	a. *mate ‘die, dead’	e-mij	b. *kanase ‘mullet’	n/anes ‘ <i>Mugil seheli</i> ’
	*qata-mate ‘devil’	demij	E*Rave ‘pull’	e-rev
	*laje ‘branching coral’	w/lijlij ‘small dead coral stones on beach’		

Example (73) shows further examples of \*aCu > uC:

(73)	N*m <sup>w</sup> asu ‘bald’	o-mus ‘hairless’	*rasu ‘bail, bailer’	nu/rus (N)
	N*mavu ‘tame’	o-mu	E*damu ‘(k.o.) yam’	Dum
	*ñamuk ‘mosquito’	num	*yaRu ‘casuarina’	n/ur
	*qalu ‘barracuda’	n/ul	*qasu ‘smoke’	o-us
	N*lagu ‘outrigger pegs/struts’	luk		

There are a couple of cases where this u develops further as ö after a bilabial (see §4.3):

(74)	*manuk ‘bird’	> **nV-mun	> nu/mön
	*patu ‘stone’	> **nV-vut	> ne/vöt

And there are some cases where it appears that fronting has taken place, with \*u unexpectedly being reflected as i (see §4.3):

(75)	N*savu ‘steam, compressed air’	e-jiv ‘sneeze’	*matu(r,R) ‘ <i>Mimosa pudica</i> ’	jiber/mij
	*walu ‘eight’	o/wil	*qapu ‘ashes’	n/iv
	N*batavu ‘breadfruit’	betiv	*barapu ‘long’	periv

When the high vowel was not lost, no assimilation took place, and \*a usually remained a:

(76)	*ma-wiRi ‘left (side/hand)’	mair	*pasu- ‘cheek(bone)’	vasu-
	*tanipa ‘sardine’	daniv	*manuka ‘a sore’	manu
	*Rami ‘crustacean eggs’	ni/ami- ‘crab’s eggs’	*maturuR ‘sleep’	e-matur
	*pali(s,j)i ‘grass’	valis	*maqurip ‘alive’	e-maur
	N*tib <sup>w</sup> ari ‘touch’	e-jpari ‘reach, arrive at’	*tapuRiq ‘conch, triton’	davö
	*taci- ‘younger same- sex sibling’	tasi-	*tanum ‘bury’	e-tanu ‘hide’

#### 4.5.2 Dissimilation

McKerras (2001) discusses productive dissimilation in various places in his sketch grammar, and the facts are summarised in Lynch (2003:368). Basically, reduplication involves repetition of verb-initial CV or CVC; when

*Ca*-initial verbs reduplicate, however, the first *Ca* dissimilates to *Ce*: *\*\*la-lalos* (REDUP-swim) > *le-lalos*, *\*\*mal-malel* (REDUP-lean) > *mel-malel*.

Historically, low vowel dissimilation is widespread in central Vanuatu (Lynch 2003): the first \*a of an \*aCa sequence dissimilates, usually to *e*, though sometimes to other vowels (*i* or *ə* being the most common in this region). In Uripiv, the product of this historical dissimilation is *e*, which is also the product of synchronic dissimilation. Some examples are given in (77).

(77) a.	*tama- ‘father’	teme-	b.	<sup>N</sup> *mana ‘laugh’	e-men
	<sup>R</sup> *maraya ‘eel’	mera		*tiana ‘pregnant’	e-jien
	<sup>N</sup> *batavu ‘breadfruit’	betiv		*jalala ‘mackerel var.’	jelel
	*malaso ‘cold’	melas ‘the cold’		*lalai ‘trochus’	na/lel
	*barapu ‘long’	periv		*jajal ‘croton’	na/jej

Note that this dissimilation occurred whether the second \*a was retained (77a) or lost (77b), and if retained whether it was retained as \*a (cf. <sup>R</sup>\*maraya, \*malaso) or as some other vowel (\*tama-, <sup>N</sup>\*batavu, \*barapu). Dissimilation is also widespread on the final \*a of a directly possessed noun, the likely reason being that the most frequently occurring possessive suffix would have been \*-na ‘3SG’.

(78)	*mata-na ‘his/her/its eye’	mete-n	*Ruqa-na ‘his/her neck’	no/we-n
	*tama-na ‘his/her father’	teme-n	*matuqa-na ‘his/her mother’s brother’	mitwe-n
	*salan-na ‘its path’	sele-n	*kaba-na ‘/its wing’	n/abe-n
	*paRa-na ‘his/her/its arm/hand’	ne/vre-n	*i(s,c)an, *i(s,c)a-na ‘his/her/its name’	n/ise-n

Lynch (2003:386–87) discussed blocking of historical assimilation in Vanuatu languages generally. In many of these languages, a velar, post-velar or labiovelar consonant intervening between the two occurrences of \*a blocked dissimilation from applying; in some of these languages, the same consonants preceding the first \*a also blocked the change. Thus in many, \*aka, for example, did not undergo dissimilation, and in some, \*kaCa did not, either. There is some evidence that this kind of blocking took place in Uripiv, as illustrated in the left-hand half of Table 4, but there are many examples where dissimilation did occur in the same environment, as shown in the right-hand half of that same table; and it is not clear whether this blocking was a major feature in Uripiv historical phonology.<sup>36</sup>

TABLE 4. BLOCKING OF DISSIMILATION

Sequence	No dissimilation		Dissimilation occurred	
	POC	URIPIV	POC	URIPIV
*aka	<sup>N</sup> *maraka ‘stand up’	e-mra ‘get/wake up’	—	
*kaCa	<sup>N</sup> *sukawa ‘year’ *kaba- ‘wing’ *kamaliR ‘meeting house’ *gara > **kara ‘gills’	sia n/abe- lol-n/amel n/ar	<sup>R</sup> *kaRapa ‘diamond-scaled mullet’ *kamami ‘we EXC.PL’	gervö/ŋ ‘ <i>Mugil vaigensis</i> ’ kem
*aga	<sup>S</sup> *m <sup>(w)</sup> agaru ‘flying-fish’	maker	*baga ‘banyan’ <sup>N</sup> *m <sup>(w)</sup> a(t,d)aga ‘ <i>Kleinhovia</i> ’	nu/bek ‘ <i>Ficus prolixa</i> ’ m <sup>w</sup> irrek
*gaCa	—		<sup>S</sup> *gala ‘green lizard, <i>Emoia</i> ’ <sup>S</sup> *(j,g)alato ‘devil nettle’ <sup>S</sup> *garai ‘flying-fox’	ne/gel gelat geri
*aŋa	*Raŋa > **raŋa ‘spider conch’	ni/raŋ	<sup>S</sup> *raŋa ‘branch’ <sup>N</sup> *vaŋa ‘alight (of fire)’ *saŋapuluq ‘ten’	reŋ/si- e-veŋ ‘glow/shine red’ seŋavöl
*ŋaCa	—		<sup>N</sup> *ŋara ‘cry’	e-ŋerr
*aqa	*baqa[pu]n ‘banana var’	bapa	—	
*qaCa	—		*qasawa- ‘spouse’	n/ese- ‘wife’

<sup>36</sup> I have no secure forms involving \*p<sup>w</sup>, and so omit \*ap<sup>w</sup>a and \*p<sup>w</sup>aCa from the first column.

*ab <sup>w</sup> a	—	—
*b <sup>w</sup> aCa	— — —	S*b <sup>w</sup> al(a,o)ke ‘leg, foot’ N*b <sup>w</sup> asa-i ‘penis wrapper’ N*b <sup>w</sup> ara-b <sup>w</sup> ara ‘(female) pig’
*am <sup>w</sup> a	—	N*tam <sup>w</sup> at(a,e) ‘peace, calm’
*m <sup>w</sup> aCa	*m <sup>w</sup> ala(m <sup>w</sup> ala) ‘naked’ malmal	N*m <sup>w</sup> ala-gelo ‘young person’ S*m <sup>w</sup> alava ‘twins’ *m <sup>w</sup> ata ‘snake’ S*m <sup>w</sup> aRaki ‘ground dove’
		b <sup>w</sup> ela-, bol- b <sup>w</sup> ese- b <sup>w</sup> erp <sup>w</sup> er ‘pig’ e-temat m <sup>w</sup> elakel m <sup>w</sup> elew nu/m <sup>w</sup> et wu/m <sup>w</sup> er

#### 4.5.3 Reflexes in other environments

In other environments, there are sporadic cases of all vowels occurring as reflexes of \*a: for example, *e* (N\*maloku ‘kava’ > *melu*), *o* (N\*m<sup>w</sup>azoe ‘star’ > *moju*), or *u* (N\*b<sup>w</sup>aro ‘unripe’ > *o-pur*). However, by far the commonest reflex is *a*:

(79)	N*tarere ‘to crow’	e-tarer	*laso- ‘testicles’	laso-
	*bakewa ‘shark’	bae	N*masoru ‘hiccup’	e-masorr
	N*vareqa ‘outside, outdoors’	vare	*mapo ‘heal(ed)’	e-maw
	N*lab <sup>w</sup> e ‘appendage (root etc.)’	lap <sup>w</sup> e- ‘root’	S*tabo(q) ‘lay eggs’	e-tapo
	N*sagele ‘sit on’	e-sakel	N*taroa ‘white-throated pigeon’	daro
	S*ta(k,g)a ‘marry, be married’	e-tka	N*v <sup>w</sup> ara ‘say, tell’	o-wra-i
	N*kota ‘cluck’	o-kokota	N*vura-i ‘spit’	e-vrae ‘spit on’

#### 4.6 Vowels: Summary

The preceding sections are summarised in Table 5. Default reflexes are given first; a comma separates conditioned reflexes, unconditioned reflexes are in square brackets and a notation like *x*, (*y*) means that *x* is the default reflex, while *y* is a conditioned reflex but there are numerous exceptions.

TABLE 5. VOWEL CORRESPONDENCES

POC	*i	*e	*a	*o	*u
Uripiv	i [u,e]	e, (i)	a, i, u, (e)	o, u	u, (ö,i)

### 5. THE ACCRETED ARTICLE<sup>37</sup>

As in all other Malakula languages, the POC article was accreted to many nouns and has become part of the modern noun root; and as with most Malakula languages, the form of the article that was accreted was \*na. Nouns with human reference, however, are generally not prefixed with the article.

Within Malakula, some languages generally retain the article irrespective of the moraic structure of the root (like Neve’ei below), whereas others retain it if the root consists of one mora but lose it with longer roots (like Unua below).<sup>38</sup> Uripiv follows the Unua pattern.

(80)	POC	NEVE’EI	UNUA	URIPIV
	<b>Root is one mora</b>			
	*na-boŋi ‘night’	<b>nabuŋ</b> ‘day’	<b>naboŋ</b> ‘day’	<b>naboŋ</b> ‘day’
	*na-m <sup>w</sup> ata ‘snake’	<b>nem<sup>w</sup>at</b>	<b>namat</b>	<b>num<sup>w</sup>et</b>
	*na-kayu ‘tree’	<b>na?ai</b>	<b>nixe</b>	<b>nai</b>
	*na topu ‘sugarcane’	<b>netev</b>	<b>natov</b>	<b>nativ</b>

<sup>37</sup> Reconstructed forms in this section will be cited with the article \*na preceding them.

<sup>38</sup> This pattern was first pointed out by Pearce (2007), in relation to Unua. In addition, recall the discussion in §3.4, where the behaviour of root-initial obstruents in nouns was discussed.

*na-kutu ‘louse’	naʔat	naxut	naut
<b>Root is more than one mora</b>			
<sup>N</sup> *na-m <sup>w</sup> azoe ‘star’	nim <sup>w</sup> insi	majo	moju
*na-(s,j)uli-na ‘its shoot’	nunsul-n	juri-n	julu-n
<sup>N</sup> *na-malakeza ‘green parrotfish’	nemelaʔans	meraxej	pe/mlaej
*na-bakuRa ‘tamanu’	nebaʔar	bagur	baur
*na-mata-na ‘his/her eye’	nemeta-n	mete-n	mete-n

Clark (2009:35) states that, in Uripiv, “the vowel of the noun prefix \*na- is most commonly *a*, but has variants with all the other vowels as well. Though these show some correlation with the form of the following noun, this does not seem to be reducible to regularity”. In the data I have, *na-* occurs in about 40% of cases, and *ne-* in about 20%; apart from *nö-* (for which I have just one form with a POC etymology), each of the other combinations of *n* + vowel accounts for 10% or less. In the remainder of this section, I will try to account for the development of the vowel of the article in as many cases as I can, but there are, as Clark points out, numerous cases where the development seems irregular.

I will deal first with \*k- and \*q-initial nouns. Recall from §3.3 that \*k underwent wholesale loss in Uripiv, and \*q was generally lost. With \*ka-initial nouns that took the article, \*na-ka > \*\*naa > *na*:

(81)	*na-kabu ‘fire(wood)’	naB	*na-kadik ‘black biting ant’	naj
	*na-kaba- ‘wing’	nabe-	*na-kanase ‘mullet’	nanes ‘ <i>Mugil seheli</i> ’
	<sup>N</sup> *na-kabani ‘a sail’	nabin	*na-kaRi ‘cockle’	nar
	*na-kaboRa ‘catfish’	nabo	<sup>S</sup> *na-kari(v,p <sup>w</sup> )i ‘rat’	nariv
	*na-kayu ‘tree, wood’	nai	*na-kapika ‘Malay apple’	navi

With \*qa-initial nouns, \*na-qa generally became *ni*:<sup>39</sup>

(82)	*na-qata-qutan ‘bush/inland person’	nitaut
	<sup>S</sup> *na-qaŋaRi ‘ <i>Canarium</i> ’	niŋi
	*na-qapu ‘ashes’	niv
	*na-qase- ‘jaw’	nise-

but cf. also \*na-qatop ‘*Metroxylon*’ > *niat*, where the \*a of the root was not lost. I have argued elsewhere (see Lynch 2009 and §3.3 above) that this *i* actually reflects \*q, the development being:

(83)	*n a -q a
	→ n a i a
	→ n i a (as with *qatop)
	→ n i (as with the examples in (82))

If this interpretation is incorrect, note that \*ka-initial nouns essentially behave quite differently from \*qa-initial nouns.

With \*ku- and \*qu-initial nouns, the vowel of the article was generally retained, unchanged:

(84)	*na-kuRita ‘octopus’	nait	*na-quloc ‘maggot’	naul-wij
	*na-kurat ‘ <i>Morinda citrifolia</i> ’	naur	*na-quraŋ ‘prawn, lobster’	naur
	*na-kutu ‘louse’	naut	*na-quRis ‘ <i>Spondias dulcis</i> ’	naus
			*na-qusan ‘rain’	naus

There are, however, a couple of cases where the \*a of the article was simply lost (\*na-(q,k)ulapi ‘parrotfish’ > *nuliv* ‘long-nosed parrotfish’, <sup>S</sup>\*na-kum<sup>w</sup>i ‘beard’ > *num<sup>w</sup>i-*), and a couple of others where the \*a of the article merged with the \*u of the root, as *o* (\*na-quti- ‘penis’ > *noji-*, \*na-qupi ‘yam’ > *nov* ‘k.o. yam’). (There are virtually no \*k- or \*q-initial nouns reflected in the data I have whose first vowel was \*e, \*i, or \*o.)

<sup>39</sup> But note, however, (i) \*na-qasawa- ‘spouse’ > *nese*, (ii) \*na-qatoluR ‘egg’ > *narrlu-*, and (iii) \*na-qalu ‘barracuda’ > \*\*nalu > *nul* (with assimilation, as discussed in §4.5.1).

With the exception of *nurin* ‘dawn’ < \*na-raqani ‘daytime, daylight’, *nu-* occurs as a form of the accreted article only before root-initial labial consonants:

(85)	<sup>N</sup> *na-bala ‘swamp harrier’	nubel ‘ <i>Falco peregrinus</i> ’	*na-m <sup>w</sup> ata ‘snake’	num <sup>w</sup> et
	*na-baga ‘banyan’	nubek ‘ <i>Ficus prolixa</i> ’	<sup>N</sup> *na-vera ‘ <i>Abelmoschus manihot</i> ’	nuver
	<sup>N</sup> *na-marō ‘hunger’	numer	<sup>N</sup> *na-vuabu ‘ <i>Barringtonia asiatica</i> ’	nuwaB
	*na-manuk ‘bird’	numön	*na-waiR ‘water’	nuwi

However, while we can say that \*na- > nu- before labials, we can *not* say that the form of the article before labials is always, or usually, nu-. Note the following examples of \*na- before a labial where the vowel is one other than u:

(86)	na-	*na-bue ‘bamboo’	naBu	ne-	<sup>N</sup> *na-mea- ‘tongue’	neme-
		<sup>N</sup> *na-b <sup>w</sup> ea ‘slitgong’	nab <sup>w</sup> e		<sup>N</sup> *na-bora ‘coconut leaf bsket’	neb <sup>w</sup> ir
		*na-molis ‘ <i>Citrus</i> sp.’	namul		*na-paRa- ‘arm, hand’	nevre-
		<sup>E</sup> *na-m <sup>w</sup> a(q)ele ‘cycad’	nam <sup>w</sup> el		*na-waso ‘digging-stick’	newas
		*na-pulan ‘moon, month’	navöl	ni-	*na-buRi-buRi ‘angelfish’	niBi
		<sup>R</sup> *na-weli ‘marine worm’	nawel		<sup>S</sup> *na-matuqa ‘right (side/hand)’	nimatu-
	no-	<sup>S</sup> *na-vulua ‘tree fern’	nowlu ‘black palm’		*na-p <sup>(w)</sup> aRaRa ‘handle’	nivar
	nö-	*na-paRi ‘stingray’	növi ‘blue-spotted ray’		*na-pose ‘a paddle’	niwos

What is somewhat unusual is that there is no evidence to suggest that the \*a of the article behaves in the same way as other occurrences of \*a do in relation to the kinds of assimilation and dissimilation discussed in §4.5. From §4.5.1 and §4.5.2, we might expect \*a to behave as follows with some frequency:

(87)		<b>Root</b>	<b>Expected</b>
	a.	*na- + Ci...	niC...
	b.	*na- + Cu...	nuC...
	c.	*na- + Ca...	neC...

However:

- The only possible case of (87a) is <sup>S</sup>\*niu-niu ‘*Veitchia* sp., palm sp.’ > *nini*, but even this admits of another explanation: the first *ni* may instead be from the first half of the reduplication. Examples like the following do *not* show the expected assimilation:

(88)	*na-b <sup>w</sup> isi ‘anus’	nabij	*na-niuR ‘coconut’	nani, neni
	*na-siko ‘kingfisher’	nasi	<sup>N</sup> *na-liua ‘arrow’	neliw
	*na-piRaq ‘giant taro’	navi	*na-ñiRas ‘ <i>Pemphis acidula</i> ’	nenjir
	*na-p <sup>(w)</sup> ilak ‘lightning’	navil	*na-siba ‘cut’	nesip knife’
	*na-piso ‘ <i>Saccharum edule</i> ’	navis		

- The only possible case of (87b) is <sup>N</sup>\*vuabu ‘*Barringtonia asiatica*’ > *nuwaB*. Examples like the following do *not* show the expected assimilation:

(89)	*na-jumu ‘triggerfish’	nasum	*na-susu ‘breast’	nasus
	<sup>E</sup> *na-buŋa ‘brain coral’	naBöŋ	<sup>N</sup> *na-guRio ‘dolphin’	negi
	*na-lumut ‘moss, algae’	nalum	<sup>N</sup> *na-tuva ‘belt, waistband’	netatuw
	*na-sulu ‘torch(-fishing)’	nasul	*na-pusuR ‘bow and arrow’	nevis
	*na-bulut ‘sticky’	naBöl ‘glue tree. <i>Cordia dichotoma</i> ’	*na-susul ‘emperor fish’ nojil	

- There are a few cases of the article surfacigu as *ne-* before \*Ca-initial nouns (cf. (87c)), like:

(90)	<sup>S</sup> *na-gala ‘green lizard, <i>Emoia</i> ’	negel	*na-patu ‘stone’	nevöt
	*na-qasawa ‘spouse’	nese- ‘wife’	*na-paRa- ‘arm, hand’	nevre-
	*na-[pa]paba ‘slipper lobster’	nevrep	*na-waso ‘digging-stick’	newas

However, there are also cases of both *na-* and *ni-* in this environment, as illustrated below; and it seems that the cases listed in (90) do not illustrate dissimilation so much as the almost random reflection of *\*na* as *ne-* in a significant proportion of nouns.

(91)	<i>*na-jajal</i> ‘croton’	najej	<i>*na-lawaq</i> ‘spider(web)’	nila ‘spiderweb’
	<i>*na-kalaka</i> ‘ <i>Planchonella</i> ’	naklak ‘ <i>P. grayana</i> ’	<i>S*na-matuqa</i> ‘right (side/hand)’	nimatu-
	<i>*na-lalai</i> ‘trochus’	nalel	<i>N*na-ragu</i> ‘rudderfish’	niraku
	<i>*na-mata-</i> ‘eye’	namet	<i>*na-Raŋa</i> ‘spider conch’	niraŋ
	<i>*na-[ma]luR</i> ‘shade’	namol ‘shadow’	<i>*na-p<sup>(w)</sup>aRaRa</i> ‘handle’	nivar
	<i>E*na-m<sup>w</sup>a(q)ele</i> ‘cycad’	nam <sup>w</sup> el		
	<i>*na-taqe-</i> ‘excrement’	nate-		

As Clark (2009:35) said, the form of the article “does not seem to be reducible to regularity”. Nor does the *\*a* of *\*na* behave in the same way as *\*a* does elsewhere in the language. All I can do at this stage is present the facts, along with possible explanations of some of them, and leave the matter to future research.

## 6. CONCLUDING REMARKS

The three papers in this series have dealt with the historical phonology of three languages, each representing a different genetic grouping in Malakula: Naman (Lynch 2019b), representing the Western linkage; Nese (Lynch 2019c), representing the Northern subgroup; and this paper on Uripiv, a member of the Eastern linkage. The overall aim has been to try to give a general “feel” for the historical phonology of this largish grouping of languages. Some unusual features are not covered in these three sketches (like, for example, the regular change of *\*r > x* in Ninde, or the vocalisation of liquids in a number of Eastern languages (Lynch 2008)), but it is hoped that these three papers will give a fairly good idea of how the phonologies of Malakula languages developed from those of their earlier ancestors.

## APPENDIX. PROTO-SOUTHERN OCEANIC RECONSTRUCTIONS CITED IN THE TEXT

Data supporting reconstructions to Proto-Oceanic, Proto-Eastern Oceanic and Proto-Remote Oceanic can be found in Ross, Pawley and Osmond (1998, 2003, 2008, 2011, 2016), and to PNCV in Clark (2009). Below, I cite data supporting reconstructions to Proto-Southern Oceanic cited in this paper, from North-Central Vanuatu (NCV), Southern Vanuatu (SV) and New Caledonian (NC). Where the NCV data had led Clark to make a PNCV reconstruction in his 2009 work, I cite only that reconstruction; otherwise, I cite data from individual NCV languages.

The following PSOc forms cited in this paper were justified in earlier papers in this series and will not be re-justified here: *S\*b<sup>w</sup>il(i,u)* ‘close eyes’, *S\*garai* ‘flying-fox’, *S\*majonu* ‘trevally’, *S\*matuqa* ‘right (side/hand)’, *S\*m<sup>w</sup>aRaki* ‘ground dove’, *S\*niu-niu* ‘*Veitchia* sp.’ and *S\*qaŋaRi* ‘*Canarium*’ in Lynch (2019b), and *S\*b<sup>w</sup>al(a,o)ke* ‘leg, foot’, *S\*dau* ‘*Pometia pinnata*’, *S\*(j,g)alato* ‘devil nettle’ and *S\*raŋa-* ‘branch’ in Lynch (2019c).

*S\*gala* ‘green lizard, *Emoia*’  
 PNCV *\*gala* ‘lizard sp.’  
 NC: Nemi, Jawe *geena* ‘lizard (generic)’

*S\*juluq* ‘emperor fish, *Lethrinus* sp.’  
 NCV: Uripiv *no/jil*  
 SV: Anejoñ *ni/θiθ* ‘*L. mahsena*’  
 NC: Fwâi, Nemi, Jawe *diruk*; Nyelâyu *diru*; Iaai *diiü* (?) – all ‘*L. miniatus*’  
 Irregular development of POC *\*susul*.

*S\*kari(v,p<sup>w</sup>)i* ‘rat’  
 PNCV *\*karivi*  
 NC: Pije *siib<sup>w</sup>i*; Fwâi, Nemi, Jawe *ciib<sup>w</sup>i*  
 The labial seems to be *\*v* on NCV evidence but *\*p<sup>w</sup>* (or maybe *\*b<sup>w</sup>*) on NC evidence.

<sup>S</sup>\*kum<sup>w</sup>i- ‘beard, chin’

PNCV \*kum<sup>w</sup>i

SV: N Tanna *nou-nə/kmə-*; Whitesands *na/km<sup>w</sup>ə-*; Lenakel *nə/km<sup>w</sup>ə-*; Kwamera *nə/kumu-* ‘chin and upper throat’

Irregular development of POC \*kumi.

<sup>S</sup>\*logom ‘*Amaranthus* sp.’

NCV: Uripiv *loklok*

NC: Fwâi, Nemi, Nyelâyu *do-logom*; Jawe *jo-logom*; Nêlêmwa *do-logom* ‘*A. interruptus*’. [Note *do-*, *jo-* = ‘leaf’]

<sup>S</sup>\*m<sup>(w)</sup>agaru ‘flying-fish’

NCV: Mwotlap *na-m<sup>w</sup>key*; Mota *makaru*; Mwerlap *m<sup>w</sup>okor*; Dorig *m<sup>w</sup>kaar*; Koro *m<sup>w</sup>εakear*; Oirat *m<sup>w</sup>okay*; NE Ambae *m<sup>w</sup>akaru*; Raga *magaru*; Uripiv *maker*; Namakir *manjar/atah*

This continues POC \*ma(g,ŋ)aRu with slight changes in consonants, and is reconstructible to PSOC.

<sup>S</sup>\*m<sup>w</sup>alava ‘twins’

PNCV \*malava

SV: Sye (*u*)*mal/me*; Ura *u/mal/me*; Lenakel *m<sup>w</sup>ilm<sup>w</sup>il*; Kwamera *m<sup>w</sup>irm<sup>w</sup>ir*; Anejoñ *n/m<sup>w</sup>a*

Though PNCV \*malava is reconstructed with initial \*m, among NCV languages. at least Apma *m<sup>w</sup>elap* and Uripiv *m<sup>w</sup>elew* show initial \*m<sup>w</sup>.

<sup>S</sup>\*m<sup>w</sup>aR(i,u)a ‘feather’

PNCV \*mau-a

SV: N Tanna *nə/m<sup>w</sup>a-m<sup>w</sup>ei-*; Whitesands *nə/m<sup>w</sup>o-m<sup>w</sup>ei-*; Lenakel *nə/mo-m<sup>w</sup>i-*; SW Tanna *nu/mlə-*; Kwamera *nu/m<sup>w</sup>heri-*; Anejoñ *nu/mri-*

Clark reconstructed initial \*m, but in addition to the SV forms, the following NCV forms suggest the possibility of initial \*m<sup>w</sup> instead: Nakanamanga *na-m<sup>w</sup>au* ‘feather, body hair’, *m<sup>w</sup>aau* ‘champion warrior, champion fighter in the olden days’; S Efate *n/m<sup>w</sup>au*. The SV forms also suggest medial \*R.

<sup>S</sup>\*sau(a) ‘*Cerbera* sp.’

NCV: Uripiv *no/ju*; Paamese *a/sou* (both ‘*C. odollam*’)

SV: Sye *ne/sau* ‘*C. manghas*’

NC: Xârâcùù *fâwâ* ‘*Cerbera* sp.’

<sup>S</sup>\*tabo(q) ‘lay eggs’

NCV Uripiv *e-tapo*; Avava *tomtobo*; Neve’ei *tobo*; Unua, Pt Sandwich, Banam Bay *tabo*; Neverver *tomtom*; Bwenelang *dabo*; Aulua *dob<sup>w</sup>e*

SV: Anejoñ *a/tpu* ‘lay eggs, hide’

NC: Pije, Fwâi, Nemi, Jawe *tago* ‘lay eggs, perch’

Cf. POC tau(p) ‘lay egg’, \*taup-i ‘sit on egg’

<sup>S</sup>\*ta(k,g)a ‘marry, be married’

NCV: Uripiv *e-tka* ‘<man> marry <woman>’, *o-totko* ‘marry, join’; Avava *dakdaka* ‘marry, be married’; Tape *taxe*

SV: Lenakel *ə/rək*; Kwamera *e/ra* – both ‘<woman> marry <man>’

<sup>S</sup>\*vulua ‘tree fern’

PNCV \*vulua ‘tree fern’

SV: Sye *no/vol* (refers to *Imperata cylindrica* but used as first element of a compound with a number of tree-fern names)

## REFERENCES

- Clark, Ross. 2009. *\*Leo tuai: A comparative study of North and Central Vanuatu languages*. Canberra: Pacific Linguistics.
- Crowley, Terry. 1991. Parallel development and shared innovation: Some developments in Central Vanuatu inflectional morphology. *Oceanic Linguistics* 30:179–222.
- François, Alexandre. 2011. Where \*R they all? The geography and history of \*R-loss in Southern Oceanic languages. *Oceanic Linguistics* 50:140–97.
- Lynch, John. 2003. Low vowel dissimilation in Vanuatu languages. *Oceanic Linguistics* 42:359–406.
- . 2008. Liquid vocalization and loss in Central Vanuatu. *Oceanic Linguistics* 47:294–315.
- . 2009. Irregular sound change and the post-velars in some Malakula languages. In *Austronesian historical linguistics and culture history: A festschrift for Robert Blust*, ed. by Alexander Adelaar and Andrew Pawley, 57–72. Canberra: Pacific Linguistics.
- . 2012. Play it again, Sam: Multiple identical phonological innovations in Malakula. Paper presented to the Ninth International Conference on Oceanic Linguistics, Newcastle, February 4–8.
- . 2016a. Malakula internal subgrouping: Phonological evidence. *Oceanic Linguistics* 55:399–431.
- . 2016b. Numeral systems, internal subgrouping, and language contact in Malakula. *Language and Linguistics in Melanesia* 33(1):95–106. [http://www.langlxmlanesia.com/LLM%20Vol.%2034%202016\\_Lynch%20JUSTIFIED.pdf](http://www.langlxmlanesia.com/LLM%20Vol.%2034%202016_Lynch%20JUSTIFIED.pdf).
- . 2019a. The bilabial-to-linguolabial shift in Southern Oceanic: A subgrouping diagnostic? *Oceanic Linguistics* 58:293–323.
- . 2019b. The phonological history of Naman, a Western Malakula language. *Language and Linguistics in Melanesia* 37:21–41. [https://www.langlxmlanesia.com/LLM%20Vol.%2037%20John%20Lynch\\_The%20Phonological%20History%20of%20Naman.pdf](https://www.langlxmlanesia.com/LLM%20Vol.%2037%20John%20Lynch_The%20Phonological%20History%20of%20Naman.pdf)
- . 2019c. The phonological history of Nese, a Northern Malakula language. *Language and Linguistics in Melanesia* 37:61–82. [https://www.langlxmlanesia.com/LLM%20VOL.%2037%202019.%20John%20LYNCH\\_Phonological%20history%20of%20Nese%20.pdf](https://www.langlxmlanesia.com/LLM%20VOL.%2037%202019.%20John%20LYNCH_Phonological%20history%20of%20Nese%20.pdf)
- Lynch, John, and Terry Crowley. 2001. *Languages of Vanuatu: A new survey and bibliography*. Canberra: Pacific Linguistics.
- McKerras, Ross. 2001a. Uripiv phonology and grammar. Computer file.
- . 2001b. Uripiv dictionary. Computer file.
- Olson, Kenneth S. 2015. The bilabial trills in Port Sandwich (Vanuatu) in 1774. *Diachronica* 32(1):105–14.
- Pearce, Elizabeth. 2007. The reflexes of Proto-Oceanic \*na in Unua. In *Language description, history and development: Linguistic indulgence in memory of Terry Crowley*, ed. by Jeff Siegel, John Lynch, and Diana Eades, 327–39. Amsterdam: Benjamins.
- Rangelov, Tihomir. 2019. The bilabial trills of Ahamb (Vanuatu): Acoustic and articulatory properties. In *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019*, ed. by Sasha Calhoun, Paola Escudero, Marija Tabain, and Paul Warren, 1292–96. Canberra: Australasian Speech Science and Technology Association Inc.
- Ross, Malcolm, Andrew Pawley, and Meredith Osmond. 1998. *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*, vol. 1: *Material culture*. Canberra: Pacific Linguistics.
- . 2003. *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*, vol. 2: *The physical environment*. Canberra: Pacific Linguistics.
- . 2008. *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*, vol. 3: *Plants*. Canberra: Pacific Linguistics.
- . 2011. *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*, vol. 4: *Animals*. Canberra: Pacific Linguistics.
- . 2016. *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*, vol. 5: *People, body and mind*. Canberra: Asia-Pacific Linguistics.