The Phonological History of Naman, a Western Malakula Language

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Naman is a moribund Vanuatu language belonging to the Western Malakula linkage. This paper outlines the historical development of its phonology, paying particular attention to lenition of Proto-Oceanic (POC) *k, loss of POC vowels in various environments, and the phonological manifestations of the POC article *na which was accreted to many noun roots.

1. INTRODUCTION

This is the first in a projected series of three papers describing the phonological history of individual languages of Malakula, each from a different major subgroup or linkage. There are three such groupings: the Northern subgroup, the Eastern linkage, and the Western linkage. The internal structure of the Western linkage is shown in Figure 1.

FIGURE 1. THE WESTERN MALAKULA LINKAGE

This paper describes the phonological history of Naman, a member of the Western Malakula linkage. Naman was chosen because there is a good descriptive sketch and a reasonable amount of lexical data (Crowley 2006a). The historical phonologies of two other Western languages, V’ênen Taut and Ninde, feature in Clark’s (2009) coverage of North-Central Vanuatu.

Naman is a moribund language. It is currently spoken in Litzlitz village and in a couple of other villages in the area around the provincial capital, Lakatoro, on the east coast, but it was once spoken further west, in north-central Malakula. The current generation of a score or so adults, the descendants of those who moved from inland to the coast and took refuge in villages speaking other languages, are the last Naman speakers, as the language is not being passed on to the younger generation, who speak the more dominant languages of the villages in which they reside, Uripiv and Neve’ei.

1 I am grateful to Catriona Malau for comments on an earlier draft of this paper.

2 For the most recent discussion of Malakula subgrouping, see Lynch (2016a,b). Data from a number of Western Malakula languages are cited in this paper, and the sources are as follows: Avava (Crowley 2006b), Nahavaq (Laura Dimock, pers. comm.), Neve’ei (Musgrave 2007), Ninde and Nvwiern (Charpentier 1982), Tape (Crowley 2006c), Tirax (Amanda Brotchie, pers. comm.), Unua (Pearce 2007), and V’ênen Taut (Fox n.d.).

3 Language names in Figure 1 (apart from Naman) are abbreviated for reasons of space. Reading left to right, these abbreviations are: VT, V’ênen Taut; TAP, Tape; TRX, Tirax; NIN, Ninde; NTI, Nâti; LEN, Lendamboi; AVT, Aveteian; NWW, Navwiern; AVV, Avava; NSR, Nasarian; NHI, Naha’ai; NVQ, Nahavaq; NVT, Neve’ei; LAR, Larêvat.
2. BACKGROUND

2.1 Synchronic phonology

This description of Naman synchronic phonology follows Crowley (2006a:24–55).

Naman is analysed as having the following consonant and vowel phonemes:

(1) t c k i i: u u:
    b d j g e o o:
    v s y a a:
    m n η l r
    w y

The voiceless stops /t k/ are unaspirated, while the voiced stops /b d g/ are prenasalised. Of the other consonant phonemes, the following comments need to be made:

• /c/ and /j/ are affricates: /c/ is phonetically [tʃ], in free variation with [ts] intervocally, while /j/ is phonetically [ŋtʃ], freely varying with [ns] non-initially;
• /v/ is labiodental, realised as [f] initially and before a voiceless consonant, [p]~[f] finally, and [v] elsewhere;
• /ɣ/ is [ɣ] intervocally and after a voiced consonant and [x] elsewhere; and
• /r/ is a flap.

Phonemically, consonant clusters are not permitted initially or finally, but two-consonant phonemic clusters may occur medially across a syllable boundary. Lexical roots rarely begin with vowels, and may end only with the [−low] short vowels /i e o u/. The phoneme /k/ is extremely rare in lexical morphemes, though common in grammatical morphemes.

Stress occurs on the penultimate mora (the final syllable if it contains two vowels or a long vowel, otherwise the penultimate syllable):

(2) /nisən/ ‘her breast’ vs. /niːsən/ ‘its smoke’
    /nusələ/ ‘clothes’ vs. /nuːsən/ ‘his penis’
    /vəsən/ ‘s/he threw it’ vs. /vəsən/ ‘s/he did it how?’

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Stress occurs on the penultimate mora (the final syllable if it contains two vowels or a long vowel, otherwise the penultimate syllable):

(3) /nɛɾeun/ [ne'reun] ‘leaf’
    /dɛlvət/ [dɛlvə't] ‘at midnight’
    /nɔtɪɾeɾ/ [nɔtɪɾeɾ] ‘perspiration’
    /mətəɾɔvɾɔɾy/ [mətəɾɔvɾɔɾ] ‘old men’

As far as the orthography is concerned, the system I use here mainly follows Crowley’s, with a couple of exceptions. The phonemic symbols used in (1) are also used as orthographic symbols, with the following exceptions:

(a) /c/ is written as j and /ʃ/ as ns, following Crowley;
(b) /ɣ/ is written as x; and
(c) long vowels are written as double vowels (thus /iː/ as ii, for example).

These exceptions are made partly to make it easier for the reader to refer to Crowley’s text (especially (a) and (c)), and partly to conform with other comparative work on Malakula languages (especially (b)).

2.2 Developments in word structure

This section very briefly outlines a few processes that affect the shape of inherited lexical items. The discussion here is merely to assist the reader in interpreting the data in the sections dealing with individual consonants and vowels; full details are given in section 5.

• POC post-consonantal final vowels are generally lost in word-final position (e.g., *sake ‘go up’ > sax).

4 The exceptions are: (i) I use y and o for his ng and ə; and (ii) I use x rather than his kh to represent /ɣ/.
• The second vowel in a POC word-final vowel sequence is regularly lost (e.g., *katou ‘hermit crab’ > no/xta), though some final vowel sequences develop as a single vowel fusing features of both vowels (e.g., *malau ‘megapode’ > molo).
• POC final consonants are usually lost, and when they were deleted the preceding vowel was also deleted (e.g., *tanis ‘cry’ > /t/eq).
• Root-final vowels are not lost in bound roots that require a suffix (e.g., *mata- ‘eye’ > mete-., typically followed by possessive suffixes).
• Medial pretonic vowels are also often lost (e.g., *talija- ‘ear’ > delge-).
• A large number of noun roots are prefaced with $n$ or $nV$, deriving from POC *na, the common article, which has become an integral part of the noun in Naman, as in other Malakula languages (e.g., *panua ‘place, land’ > ne/venu).
• The citation forms of many verbs have an initial $i$, probably derived from an historical 3sg subject marker (e.g., *mate ‘die’ > $i$mes).

3. CONSONANTS

Because POC final consonants are regularly lost, the discussion in this section focuses on consonants in initial and medial positions in POC.

3.1 Labials

POC contrasted bilabial (*p, *b, *m) and labiovelar (p*, *b*, *m*) stops and nasals. Many Western Malakula, and indeed many Oceanic, languages are in the process of losing this distinction (see, e.g., Lynch 2002:317). In Naman, this process is complete: *p*, *b* and *m* merge with *p, *b and *m, respectively, as bilabials.

POC *p is regularly reflected as $v$ in all positions:

(4) *pudi ‘banana’ ne/vans *kapika ‘Syzygium sp.’ na/avax
    *pica ‘how many?’ vis *kape ‘k.o. crab’ na/xav
    *paliji ‘grass’ na/vilvilas *(n,ñ)opuq ‘stonefish’ ni/niv
    *pulan ‘moon’ ni/vøl *[p]paba ‘slipper lobster’ ne/vev

There are, however, sporadic examples of oral-nasal crossover, widespread in Vanuatu, where voiceless obstruents are reflected as if they were voiced prenasalised obstruents—in this cases, where *p is reflected as $b$.

Clark (2009:14–15) notes that PNCV consonants include several pairs that can be recognized as reflecting the POC opposition between ‘oral grade’ and ‘nasal grade’. … As elsewhere in Oceanic, there is a certain amount of fluctuation between members of these pairs, as can be seen from variant PNCV reconstructions such as: *beal*/væa ‘where’?, *tanj-si*/danj-si ‘weep’ …In addition to this sporadic variation, there is in certain languages a regular grammatically conditioned pattern of alternation between the reflexes of oral and nasal grade in initial position in verbs. … Even in some languages where no such synchronic alternation exists, verb-initial consonants show dual reflexes.

Naman often shows unexpected nasal grade reflexes of oral grade phonemes (*p > b rather than v, *t > d rather than t, etc.). Prototypically in Malakula languages, this occurs verb-initially (5a), as a relic of a productive process marking the reals-irrealis distinction (see, e.g., Crowley 1991); but it also occurs medially in Naman for reasons that are unclear (5b):

(5) a. *Èporak-i ‘break’ bar *punu(q) ‘kill’ bon
    *tepe ‘cut’ tøbe
    *puko ‘morning’ mete/box
    *lapuа ‘big, large’ tø/leb + ‘high tide’
    b. *kaput-i ‘cover’ xabaj
      *tepe ‘cut’ tøbe
      *puko ‘morning’ mete/box
      *lapuа ‘big, large’ tø/leb + ‘high tide’

5 Reconstructions are POC unless otherwise marked. Forms that are not POC are marked by a preceding raised letter (thus ÈÈ/porak-i): 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.
There are only a few reflexes of *p\* in my data, but they show the same pattern: *p\* > v (6a), occasionally > b (11b):

(6) a. *p\*ip\*i(t) ‘squeezing, wringing’ i/vi
   *p\*a(ra)raq ‘thunder’ bele/ver
   *p\*(i)lak ‘lightning’ ni/vologi

POC *b and *b\* merged in Naman, as b:

(7) a. *baga ‘banyan’ ne/bag *q\*abe ‘body’ n/ib\-
   *barapu ‘long’ i/ber *tubu- ‘grandparent’ joba-
   *bilake ‘banded rail’ boliex *k\(u\)(i)ba ‘imperial pigeon’ nu/sub
   *bonji ‘night’ bu\(n\) ‘day (= 24 hrs) *makubu ‘gecko’ muxub
   *b(o.o)kas(i) ‘pig’ bues ‘boar’ *k\(a\)banib ‘a sail’ na/aben
   *buto- ‘navel’ baj\(a\) *k\(a\)bu ‘fire(wood)’ n/ab

b. *b\*at\(a\)k ‘head’ bata- *tob\*a ‘stomach, belly’ daba/(x)a-
   *b\*a/ka ‘affine’ balk\(a\) ‘wife’s father’ *m\*ab\*e ‘Tahitian chestnut’ mobu- ‘liver’
   *b\*e/ro- ‘ear’ bora- *n\*sob\*e ‘join’ nsubonsubo/den

Similarly, POC *m and *m\* merged in Naman, as m:

(8) a. *mata- ‘eye’ mete- *tama- ‘father’ teme-
   *maya-, *m\*m\*e- ‘tongue’ nelwe/me- *m\*m\*em\*e-u ‘dew, wetness’ i/mim ‘be wet’
   *m\*m\*il\*a ‘red’ miel *m\*mim ‘urine, urinate’ mimi (V)
   *m\*m\*uki ‘earthquake’ n/\(u\)mi *n\*\(u\)m\*uk ‘mosquito’ ne/nom

b. *m\*aq\*ane ‘male’ ma- ‘brother of woman’ *R\*um\*aq ‘house’ ne/im, n/emax
   *m\*eRa ‘young person’ mar ‘person of a place’ *m\*ata ‘snake’ na/mat
   *t\*a\(m\)*at\(a\),e ‘peace, calm’ damat ‘calm sea’

Finally, we come to POC *w. POC *a sometimes coalesces with a following *w, as a (9a); in other items, *w > v (with one case of w) in a similar environment (9b):7

(9) a. *s\*uk\*awa ‘year’ ne/sxo *wa(l,R)e-wa(l,R)e ‘Flagellaria sp.’ na/val ‘vine sp.? ’
   *war\(o\)c ‘vine’ n/\(u\)o ‘vein’ *wa(l,R)e ‘Flagellaria sp.’ na/val ‘vine sp.? ’
   *wa\(g\)a ‘canoe’ n/\(o\)ag *waiR ‘water’ no/we
   *wa\(R\)isa ‘two n/oas ‘day before yesterday’

   days from today’

3.2 Coronals

Since *t merges with *c and *s, and *d with *j, in certain environments, I will deal with *c, *s and *j first, before moving on to the coronal stops.

3.2.1 *c, *s and *j

POC *s and *c merged in Oceanic languages east of Manus, so are treated together here. The regular reflex in Naman is s:

(10) *s\*ake ‘go up’ sax ‘climb’ *m\*askan ‘sick’ masia\(x\)
    *s\*al\(a\)n ‘path’ ne/sel *p\*ica ‘how many?’ i/vis
    *s\*inaR ‘shine’ i/san *pose ‘paddle (N)’ na/vas

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6 Ross, Pawley and Osmond (2016:192–93) state that “in many Oceanic languages the term for kidney is a metaphor that makes reference to an object that is perceived as kidneyshaped … The most frequent metaphor equates a kidney with a Tahitian chestnut … In many languages of Vanuatu, evident reflexes of *m\*ab\*e [‘Tahitian chestnut’] mean ‘liver’ …”.

7 The coalescence in the last three items of (9a) is with the *a of the fused article *na plus the following *w.
*t and *d underwent palatalisation when *e root.

It is possible that this may be the result of a second, later, palatalisation process. I discuss each of these in turn.

(11) N*s*ova ‘cough, breathe w. difficulty’ i/jev ‘cough’ (see also (13))
*p*isiko ‘flesh, meat, muscle’ ne/joxo-
*p*osa(k) ‘break’ b*aj(baj) ‘break to pieces’
*s*iko’kingfisher’ ne/jax

I am unable to define any conditioning for this departure from the regular *s > s* pattern.

POC *j* (cf. PNCV *z*) has as its regular reflex *ns*:

(12) *majono ‘trevaly’ minsin
*laje ‘branching coral’ lensins ‘dead coral’
*(sj)uliq ‘sucker, shoot’ nsil/ŋ ‘seed’

There are also a number of etyma where oral/nasal crossover has occurred, with *s > ns* (the regular reflex of nasal grade *j*):

(13) N*s*aba ‘compressed air’ nsivu/x ‘sneeze’ N*sara ‘all, together’ tu/nsar ‘always’
N*sobo ‘join’ nsobonsubode/n *s*aman ‘outrigger’ ne/nsem
N*s*ova ‘cough, breathe w. difficulty’ nsuv- ‘breath’ *s*ipiri ‘coconut lory’ ni/nsav

A number of these examples are verbs, and verb-initial position is the most common environment where this crossover occurs. Other examples in (13), however, do not fit this pattern, and seem quite random.

3.2.2 *t and *d

As is common in almost all Malakula languages (Lynch 2016a:411), *t* and *d* underwent palatalisation when before front vowels, merging with the fricatives: *t* usually became *s* in this environment (14a), and *d* became *ns* (14b)—that is, they merged with *s* and *j*, respectively, in this environment:

(14) a. *tina ‘pregnant’ sien *maputi(q) ‘white’ mivas
*tina ‘mother’ sene *mate ‘die, dead’ i/mes
*tinaq ‘intestines’ ne/sne- *pati ‘four’ i/ves
*i*tikai ‘no’ e/sax *qata-mate ‘devil’ demes
*N*tigo-ni ‘push’ suxin ‘put into’ *qut(n) ‘penis’ nu/usa-

b. *pudi ‘banana’ ne/vons *kadik ‘stinging black ant’ na/xans

There are, however, a number of cases where *t* palatalised as *j* (and these seem to parallel the somewhat exceptional cases of *s > j* discussed above and illustrated in (17)):

(15) *kaput ‘cover’ xabaj *buto- ‘navel’ b*ajö-
*taqe ‘excrement’ ne/ji, ne/ja- *tubu ‘grandparent’ jabo-
*topu ‘sugarcane’ ni/jav

It is possible that this may be the result of a second, later, palatalisation process. I discuss each of these in turn.

- *kaput ‘cover’ > xabaj: palatalisation is explainable as due to the transitive suffix *-i* influencing the root-final *t*: i.e., *kaput-i*.
- *taqe ‘excrement’ > ne/ji, ne/ja-: palatalisation of *t* would only have occurred after loss of *q*, (or possibly loss of *q* as a single process); thus *taqe (> *tæ*) > *te > je*.
- *topu ‘sugarcane’ > ni/jav: POC *o* does not normally condition palatalisation, but *o* became a front vowel in this form in most Malakula languages. Examples from the Western Malakula linkage include:
(16) a. Neve’ei ne/tetv, Tirax na/tev, Naha’ai nuhum-tip, Navwien naso-tip
   b. V’ënen Taut ni/sti, Tape ni/ji

Forms in (16a) show the front vowel but no palatalisation of *t; those in (16b) show the front vowel plus palatalisation. This suggests that it was a more recent process than the regular *t > s / _ *i, *e

- *buto- ‘navel’ > baja-: a few Western Malakula languages show a front vowel in the second syllable, though there are no other examples of palatalisation of *t: Avava bbute-, Neve’ei ne/bite-, Ninde, Naha’ai ni/büte-, Navwien na/bute-
- *tubu- ‘grandparent’ > jaba-: Ninde tibù/no-, Nahavaq tebu- show a front vowel rather than *u following initial *t, though no palatalisation.

The default reflexes of *t and *d are t and d, respectively:

(17) a. *tauни ‘cry’ i/teμ *matau, s*muqta ‘right (side/hand)’ xa/metu
   *taput-i ‘pick fruit’ tov *kuRita ‘octopus’ n/stat
   *toqa ‘fowl’ ne/to *katou ‘hermit crab’ no/xto
   *tolo ‘three’ i/tol *qaton ‘sago, thatch’ n/iet
   *tu(q)auRa ‘ong ago’ tox *b*atu(k)- ‘head’ bata-
   *tumu ‘roast’ tetan ‘hot’ *maturuR ‘sleep’ metar
   b. *du/la ‘(go) around’ del/vas *dado ‘gums’ no/jode-
   *damu ‘spiny puffer’ ne/dum *qodu ‘palolo worm’ nu/ud
   *daleqo- ‘voice, language, word’ delo- *leidumudumu ‘whale’ lidumdum

When a *t-initial root was preceded by the article *na, the expected reflex nVl... occasionally occurred: e.g., *taroa ‘Columba vitiensis’ > no/toro, *takuRu ‘back’ > n/toro-, and *toqa ‘fowl’ > ne/to. More frequently, however, the *t became d in this environment, assimilating to the voicing and palatalisation of the article: sometimes the article was retained (18a), with *na-t... > nVd..., but more often it was lost (18b), with *na-t... simply > d... With loss of *q, sequences of *na-qat... behaved as if they were *na-t... .

(18) a. *tawo ‘Pometia pinnata’ ne/dou
   *tonR ‘mangrove’ ne/dan
   *talu ‘earwax’ na/dal
   *qatolR ‘egg’ n/adal
   b. *ta/lna- ‘ear’ delo-le-
   *tam ‘at(a,e) ‘peace, calm’ damat ‘calm sea’
   *tdoro ‘white-throated pigeon’ doro
   *tamuR ‘Columba vitiensis, white-throated pigeon’
   *taspik ‘sea’ des/we (we = ‘water’)
   *tapoRa ‘Terminalia catappa’ dovo
   *tob ‘stomach, belly’ daba/(x)a-
   *tokuRa ‘fowl’ doxo
   *quata-qutan ‘bush/inland person’ dut
   *quaq-mate ‘devil’ demes

3.2.3 *l, *r, *dr and *R

I will deal with *R in this subsection, even though it is not a coronal, since it undergoes a partial merger with *r.

POC *l is reflected as Naman / in all positions:

(19) *laoR ‘testicles’ less- ‘male genitals’ *salan ‘path’ ne/del
   *leqos ‘see, look at’ lis E*sma(a,q)e ‘cycad’ meil
   *lipon ‘tooth’ ne/lva- *ta/lna- ‘ear’ delo-
   *logo ‘pudding, laplap’ ne/lag *b*i ‘cup, coconut shell, skull’ bola/san ‘shell’
   *laq ‘vomit’ luolu *pulu- ‘hair (of head)’ naans/vola-

POC *r is regularly reflected as r in all positions:
(20)  *raka-‘lift, raise, pull out’ i/rox ‘clear garden site’  *[ma]raqu ‘thirsty’ ni/mir ‘hunger’
*raqani ‘daytime, daylight’ i/ran ‘dawn (V)’  *kara ‘devil nettle’ na/xaxar
*N*rara-ŋi ‘expose to heat’ i/rer ‘shine hotly’  *maqurip ‘alive’
*raunj ‘hear’ ron ‘hear, feel’  *maturuR ‘sleep’
*rua ‘two’  *draRaq ‘blood’

I have only one example of POC *dr: *draraq ‘blood’ > ne/de. However, note the following examples of probable oral/nasal crossover, in which *r > d (presumably < *dr); this suggests that *dr merged with *d as d

(21)  *rarap ‘Erythrina indica, coral tree’ ne/dar
*N*rara-ŋi ‘expose to heat’ i/rer ‘shine hotly’

François (2011) shows that POC *R is lost in some items in Vanuatu languages but retained in others, with no real element of predictability. This is the case in Naman. *R is lost in items like the following:

(22)  *Ruqa-‘neck’  no/we-  *kuRita ‘octopus’  ni/xat
*Rum*aq ‘house’  ne/im, n/emax  *paRu ‘Hibiscus tiliaceus’  na/veve
*draRaq ‘blood’  ne/de  *piRaq ‘giant taro’  ne/vi
*S*qanajRi ‘Canarium indicum’  n/ene  *suRaq ‘fluid, juice’  ne/sw-
*kaRat-i ‘bite’  xas  *taRuTu(m,q) ‘porcupinefish’  dau ‘spiny puffer’
*kaRo ‘vine (generic), rope’  no/xo  *tu(q)aRi ‘long ago’  toxe
*kur(R,Ja)p ‘dolphin’  ni/gi  *waRiSa ‘2 days from today’  n/oas ‘day before yesterday’

It is retained in others, however, and when retained it merges with *r, as r:

(23)  *Rapi ‘evening’  revrev  *maRaqa ‘light in weight’  merere
*Ropok ‘run, jump’  i/rov ‘run away’  *ma-wiRi ‘left (side/hand)’  xa/mir
*N*b‘aro ‘deaf’  bore/r  S*m°raK ‘ground dove’  vo/mar
*kaRaka ‘craw’  xarax  E°m°Ra ‘young person’  mar ‘person of a place’
*kaR(a) ‘Cordyline sp.’ na/ari ~ na/xari  *[qal]paRa ‘shoulder’  n/ver-
*maRaŋo ‘(be) dry’  merə (of leaves)  *takuRu ‘back’  ne/tre-

3.2.4 *n, *ñ and *y

As in all other Malakula languages, *n and *ñ merge, as n:

(24)  a.  *nako- ‘face’  noxo-  *sinaR ‘shine’  i/son
*napo(k) ‘wave (N)’  ne/nav  *tinaqe ‘intestines’  ne/sne-
*niiR ‘coconut’  ne/ni  *kani ‘eat’  xan ‘burn’
*N*no(k,g,o) ‘finish’  nog  *tanoq ‘earth, ground’  ne/en
*N*nuja ‘beg, beseech’  nen  *ponuq ‘full’  i/vən
b.  *ñamuk ‘mosquito’  ne/nom  *(n,ñ)opuq ‘stonefish’  ni/niv

POC *y occurs only in a few items. Initial *y > y in *yaŋo ‘yellow’ > yanayaŋ; but it is lost in N*yalo ‘sun’ > n/al. Medially, *ay coalesces as e:

(25)  *maya- ‘tongue’  nelwe/me. 8
*N*maraya ‘eel’  mere
*N*ku ‘tree, wood’  na/xε

A number of Southern Oceanic languages show a compound form for ‘tongue’ that would suggest something like $*lua-
maya, with *lua perhaps related to *luaq ‘vomit’. See the appendix.
3.3 Dorsals

POC *g is regularly reflected as g in all environments:

(26) N*ganisu- ‘nose’
S*garai ‘flying-fox’
*ku(t)/api ‘dolphin’
*baga ‘banyan’
N*baig(a,c) ‘turban shell’
N*buaga ‘swamp taro’
gunsa-
men-gore
ni/ɡi
ne/bag
beig
buag ‘taro’
g
N*lagu ‘outrigger pegs/struts’
N*ma(i)taga(a) ‘puzzle tree’
megi
N*logo ‘pudding, laplap’
bati/lug
N*baga ‘banyan’
N*magi ‘graded society, grade-taking ceremony’
n/oag

The reflexes of POC *k are complex, with lenition and loss, as well as oral/nasal crossover, all involved. First, there is a tendency for *k to be lost noun-initially after the fused article (i.e. *na-ka… > n(a)a…), as in (27a), but there are some cases where it is retained as x in this environment (27b):

(27) a. *kamaliR ‘men’s house’
 N*kaRi(a) ‘Cordyline sp.’
*N*kabani ‘a sail’
N*katobala ‘Dracontomelon’
 *kapika ‘Syzygium sp.’
 na/amil
 na/ari
 n/atabal
 na/avox
 b. *kara ‘devil nettle’
 N*kabani ‘a sail’
 N*katobala ‘Dracontomelon’
 *kapika ‘Syzygium sp.’
 na/xaxar
 na/ab
 n/atabal
 na/avox

It may well be that loss of *k began to occur in the environment *na _ a, or perhaps *a _ a: one example that suggests that the change may still be in progress is *kaRi(a) ‘Cordyline sp.’, where two reflexes in apparent free variation, na/ari and na/xari, are found. This is discussed further below.

POC *k is also lost in a few other words, though I cannot determine any pattern of conditioning:

(28) *takuRu ‘back’
 *makubu – ‘grandchild’
 *b(o,u)kas(i) ‘pig’
 *paka – ‘multiplicative’
 ne/tre- (but cf. also a/tox ‘behind, last’ with *k > x)
 na/ab- (irregular loss of *m)
 bues ‘boar’
 vaa-

Crossover to g occurs initially in three verbs (29a), and also (as is common in Vanuatu—see Clark (2009:161)) in two non-singular pronouns (29b)

(29) a. *kilala ‘know, see’
 N*kor ‘surround, obstruct’
 N*ku(i)ba ‘imperial pigeon’
 N*kuRita ‘octopus’
 gało ‘open eyes, look’
 garagar
 xansxanse/n
 xansxanse/n
 b. *kita ‘we INC.PL’
 *kamiu, *kamuyu ‘you PL’
 *keli ‘dig’
 *sake ‘go up’
 *keja ‘green, blue’
 *sake ‘go up’
 xal
 x
 *keja ‘green, blue’
 *sake ‘go up’
 xansxanse/n
 xansxanse/n

One other non-singular pronoun shows irregular *k > k : *kamami ‘we EXCL.PL’ > kam ~ kamem.

Otherwise, the default reflex of *k is x. The examples in (30) exclude cases of nouns beginning with *ka, which are illustrated in (27).

(30) *kaput-i ‘cover’
 *kaRaka ‘crawl’
 *kani ‘eat’
 *kaRat-i ‘bite’
 *keli ‘dig’
 *keja ‘green, blue’
 *kor(r)/as-i ‘scrape, grate’
 *ku(i)ba ‘imperial pigeon’
 *kutu ‘louse’
 *kuRita ‘octopus’
 xabo
 xarax
 xan
 xas
 xal
 xansxanse/n
 xor ‘scrape (coconut)’
 nu/xub
 no/xot
 ni/xat
 *manuka ‘a sore’
 *ikan ‘fish’
 *bakewa ‘shark’
 *sake ‘go up’
 *masakit ‘sick’
 *laki ‘marry’
 *makobu ‘gecko’
 *maku ‘gecko’
 *matoxtox
 menox
 n/iax
 baaxe
 sax
 masiαx
 ni/iax ‘husband’
 muxub
 ne/iax
 melax

* But cf. xabu ‘burnt’, with *k retained as x.
A number of Western Malakula languages show a similar lenition process. The data in Table 1 show relevant reflexes in Neve’ei, Avava, and Ninde, as well as Naman, with lenition shaded in yellow and oral/nasal grade crossover in blue; words containing the default reflex are unshaded. Items are grouped according to the vowel on either side of ‘*k; ‘*V represents any vowel other than ‘*a. Note that Ninde x is the regular reflex of ‘*r, not ‘*k. It is clear from Table 1 that lenition in Neve’ei, Avava and Ninde is a similar process, in similar environments, but is apparently more widespread than in Naman.

<table>
<thead>
<tr>
<th>POC</th>
<th>NAMAN (default x)</th>
<th>NEVE’EI (default x)</th>
<th>AVAVA (default k)</th>
<th>NINDE (default k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(n)ka-ka…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*kamaliR ‘men’s house’</td>
<td>na/amil</td>
<td>na/?amal</td>
<td>amal ‘house’</td>
<td>n/emel</td>
</tr>
<tr>
<td>*kabu ‘fire(wood)’</td>
<td>n/ab</td>
<td>na/?am</td>
<td>a/abb</td>
<td>n/eb</td>
</tr>
<tr>
<td>*kadika ‘dragon plum’</td>
<td>na/avəx</td>
<td>na/?at</td>
<td>avik</td>
<td>—</td>
</tr>
<tr>
<td>*kadik ‘fire ant’</td>
<td>na/xans</td>
<td>na/?ans</td>
<td>liŋ/aad ?</td>
<td>ne/ses</td>
</tr>
<tr>
<td>*katou ‘hermit crab’</td>
<td>no/xtō</td>
<td>nu/xutu</td>
<td>bwir/koto</td>
<td>n/etu</td>
</tr>
<tr>
<td>*kape ‘k.o. crab’</td>
<td>na/xav</td>
<td>ni/av ‘k.o. crab’</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>*kayu ‘tree’</td>
<td>na/xe</td>
<td>na/?ai</td>
<td>a/ga</td>
<td>n/εi</td>
</tr>
<tr>
<td>#*ka…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*kaput-i ‘cover’</td>
<td>xabəj</td>
<td>?abis</td>
<td>apap ‘penis wrapper’</td>
<td>—</td>
</tr>
<tr>
<td>*kaRaRa ‘crawl’</td>
<td>xarax</td>
<td>xaraʔ</td>
<td>arak</td>
<td>kaxakaxa</td>
</tr>
<tr>
<td>*kan ‘eat’</td>
<td>xan</td>
<td>xan</td>
<td>kan</td>
<td>—</td>
</tr>
<tr>
<td>*kaRat-i ‘bite’</td>
<td>xas</td>
<td>xas</td>
<td>yanyan</td>
<td>a/?ən</td>
</tr>
<tr>
<td>#…Vka…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*manuka ‘a sore’</td>
<td>menox</td>
<td>—</td>
<td>—</td>
<td>na/müno</td>
</tr>
<tr>
<td>*ikan ‘fish’</td>
<td>n/iax</td>
<td>n/iax</td>
<td>iki, vwin/iek</td>
<td>—</td>
</tr>
<tr>
<td>#…akV…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*bakewa ‘shark’</td>
<td>baaxe</td>
<td>no/box mavis</td>
<td>buku/mas</td>
<td>na/bio-müss</td>
</tr>
<tr>
<td>*sak ‘go up’</td>
<td>sax</td>
<td>saʔ</td>
<td>sak</td>
<td>iaʔ</td>
</tr>
<tr>
<td>*masakit ‘sick’</td>
<td>masiax</td>
<td>mesaʔ</td>
<td>—</td>
<td>miaʔ</td>
</tr>
<tr>
<td>*malakeza</td>
<td>—</td>
<td>—</td>
<td>melih</td>
<td>melkəse</td>
</tr>
<tr>
<td>*laki ‘marry’</td>
<td>ni/lax ‘husband’</td>
<td>laʔ</td>
<td>—</td>
<td>laʔ</td>
</tr>
<tr>
<td>*makobu ‘gecko’</td>
<td>muxub</td>
<td>nu/muxum</td>
<td>o/moob</td>
<td>na/maʔab</td>
</tr>
<tr>
<td>*matakut ‘afraid’</td>
<td>mətoxtox</td>
<td>metaʔ</td>
<td>matak</td>
<td>metaʔ</td>
</tr>
<tr>
<td>*na-kV…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ku(?)ba ‘imperial pigeon’</td>
<td>nu/xub</td>
<td>no/xoim</td>
<td>wiim</td>
<td>—</td>
</tr>
<tr>
<td>*kutu ‘house’</td>
<td>no/xot</td>
<td>na/?at</td>
<td>a/ut</td>
<td>nu/gut metone</td>
</tr>
<tr>
<td>*kuRita ‘octopus’</td>
<td>ni/xət</td>
<td>no/xoit</td>
<td>koit</td>
<td>nu/guwute</td>
</tr>
</tbody>
</table>

Other

| keja ‘green, blue’         | xansxanse/n        | xansxana/n          | —                 | —                 |
| keli ‘dig’                 | xal                | xal                 | il                | —                 |
| ko(?)Ra-‘scrape, grate’    | xor ‘scrape (coconut)’ | ?aʔar              | yoryor            | ka/?axaʔaxaʔ      |
| siko ‘kingfisher’          | ne/jəx             | ne/jəx              | a/sik             | —                 |

There are a few cases where POC ‘*q appears to be retained—as x (merging with ‘*k), as in (31a), and perhaps more controversially as i (31b).

    *[ŋa]paRa-‘shoulder’  no/xover-‘wing’  *qasu ‘smoke’  n/iʔaʔ-
    *tuqaRa ‘long ago’  toxe  N*qavua ‘turtle’  n/iʔu
    *Rum’aq ‘house’  n/emax

POC *tuqaka- ‘older same sex sibling’ > tuxa- ‘sister, of woman’ may also show *q > x, though *k > x is more likely.
Generally, however, *q is lost:

(32) *qase ‘jaw’ na/ase- *Ruqa- ‘neck’ no/we-
*qatoluR ‘egg’ n/adsl *raqani ‘daytime, daylight’ i/ran ‘dawn (vi)’
*quloc ‘maggot’ no/ul *tinaqe ‘intestines’ ne/sne-
*quran ‘prawn, lobster’ no/ur *toqa ‘fowl’ ne/to
*qudu ‘palolo worm’ nu/ul *leqos ‘see, look at’ lis
*qutan ‘inland, ashore’ no/ut ‘place’ *maqurip ‘alive’ mour
*qusan ‘rain (N)’ no/us *qata-qutan ‘bush/inland person’ daut

POC *ŋ is reflected as ŋ in all environments:

(33) *ŋ(a)ican ‘when?’ na/ŋsen *taliŋa- ‘ear’ delŋe-
*ŋado ‘gums’ no/ŋode- *boŋi ‘night’ buŋ ‘day (= 24 hrs)
*ŋorok ‘snore’ ŋod *toŋoR ‘mangrove’ ne/doŋ
*taŋis ‘cry’ i/teŋ *roŋoR ‘hear’ roŋ ‘hear, feel’

3.4 Consonants: Summary

The preceding sections are summarised in Table 2. Default reflexes are given first; a comma separates conditioned reflexes, and unconditioned reflexes are in parentheses.

<table>
<thead>
<tr>
<th>POC</th>
<th>*p, <em>p</em></th>
<th>*t</th>
<th>*s, *c</th>
<th>*k</th>
<th>*q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naman</td>
<td>v (b)</td>
<td>t, s (j, d)</td>
<td>s (j, ns)</td>
<td>x (Ø,k,g)</td>
<td>Ø (x,i)</td>
</tr>
<tr>
<td>POC</td>
<td>*b, <em>b</em></td>
<td>*d</td>
<td>*j</td>
<td>*g</td>
<td></td>
</tr>
<tr>
<td>Naman</td>
<td>b</td>
<td>d, ns</td>
<td>ns</td>
<td>g</td>
<td></td>
</tr>
<tr>
<td>POC</td>
<td>*m, <em>m</em></td>
<td>*n</td>
<td>*ŋ</td>
<td>*ŋ</td>
<td></td>
</tr>
<tr>
<td>Naman</td>
<td>m</td>
<td>n</td>
<td>n</td>
<td>ŋ</td>
<td></td>
</tr>
<tr>
<td>POC</td>
<td>*w</td>
<td>*l</td>
<td>*r</td>
<td>*dr</td>
<td>*y</td>
</tr>
<tr>
<td>Naman</td>
<td>v, *aw &gt; o</td>
<td>l</td>
<td>r (d)</td>
<td>d</td>
<td>y, *ay &gt; e</td>
</tr>
</tbody>
</table>

4. VOWELS

The five POC vowels have developed in Naman into a six-vowel system, with /a/ in addition to /i e a o u/. In this section, I will first deal with two general processes that apply to more than one vowel, and then discuss the remaining reflexes of individual vowels.

4.1 Development of long vowels

Recall that the high and low vowels occur with a length contrast: thus /i/ contrasts with /i/, /a:/ with /a/, and /a:/ with /a/. This contrast has developed as a result of the juxtaposition of two vowels following the loss of an intervening consonant, usually *k or *; and the orthographic representation as double vowels—ii, uu, and aa—captures this nicely.

The forms in (34) show regular development of *aka or *aka > aa.10

(34) *na-qase- ‘jaw’ naase- *paka- ‘multiplicative’ vaa-
*na-kamaliR ‘meeting house’ naamil *na-kapika ‘Syzygium sp.’ naavax
*N *na-kabani ‘a sail’ naaben *malaso > PMAL *malakaso ‘cold’ melas
*na-kaRi(a) ‘Cordyline sp.’ naari ~ naxari

Two irregular developments are *na-makubu- ‘grandchild’ > naab>, with unexplained loss of *m, and *bakewa ‘shark’ > baaxe.

10 Examples of nouns in this section are cited with the article *na prefixed.
The two cases of uu in my data that have POC etymologies derive from *na-qu..., with loss of *q and assimilation of the *a of the article to the following *u: *na-quit- ‘penis’ > *na-su- and *na-quadu ‘palolo worm’ > *nuas. However, *na-qu... rather more frequently becomes *nu... (35), so it is difficult to explain why the long vowel developed in these two cases.

(35) *na-quloc ‘maggot’ noul *na-qusan ‘rain’ nous (N)
*na-qrán ‘prawn, lobster’ nour *na-qrutan ‘inland, ashore’ nout ‘place’

The one case of ii that has a POC etymology is *na-qasu ‘smoke’ > *niis-, where one occurrence of i derives from *q (see 3.3) and the adjacent *a seems to have assimilated to it.

4.2 Final syllable reduction

There is a very strong tendency for the high vowels to become a in the environment C_C#, irrespective of the nature of the vowel that followed what is now a word-final consonant: *i > a is shown in (36a), *u > a in (36b).11

*kipiri ‘coconut lory’ ni/nasav *susu ‘breast’ i/sas ‘breastfeed’
*bili ‘close eyes’ i/bal *pulan ‘moon’ ni/val
*pali ‘grass’ na/vilvilaS *tapun ‘bury’ tevaN
*lisk ‘hand’ lM ‘tie up’ *na- ‘child’ nata-
*p’ilak ‘lighting’ ni/valiS *pusuR ‘bow’ ni/vas
*lima ‘five’ i/laM *pudi ‘banana’ ne/vans
*kapika ‘Syzygium sp.’ na/avav *tubu- ‘grandparent’ jabo-
*sina ‘shine’ i/san *maputi(q) ‘white’ mivA
*sipo ‘go down’ i/jaV *sulu ‘torch’ sal ‘burn’
*papine- ‘man’s sister’ vo-va- *tunu ‘roast’ te/taN ‘hot’
*lisk ‘hand up’ lM ‘tie up’ *ganiSu ‘nose’ gunsa-
*i-tikai ‘no’ e/sax *pasu ‘smoke’ ni/isa-
*quti- ‘penis’ nu/usa- *maturuR ‘sleep’ metar

Cases of *i and *u remaining i and u in this environment are rare, with only the following identified:

(37) a. *ma-wiRi ‘left (side/hand)’ xa/mir b. *zumi ‘kiss’ jum
*pica ‘how many?’ i/vis *leidumuduM ‘whale’ lidumuM
*zila ‘support’ sisil ‘lean (against)’ *tusi ‘write, paint’ tutus

There is also a tendency, though a somewhat weaker one, for *o to become a in the same environment as the high vowels (38a), though there are also quite a few cases of *o > o (38b) in this environment:

(38) a. *p*osak- ‘break’ baj *tolu ‘three’ i/tal
*poli ‘buy’ val *pilos ‘turn, change’ valaS
*poung ‘full’ i/vaN *qatoluR ‘egg’ n/adaL
*N*maloku ‘kava’ melax *lIsoru ‘testicles’ leS-
*Ropok ‘run, jump’ i/raV ‘run away’ *buto- ‘navel’ bajo-
*topu ‘sucarcane’ ni/jeV *lipo- ‘tooth’ ne/iva-
*N*peku ‘nest’ nivok *ne/don
*ororo ‘took’ ne/don
*N*robor ‘to rest’
*N*no(k.g) ‘to finish’ nog

11 In examples in this section, directly possessed nouns are given with a following hyphen, but this assumes a following consonantal suffix (e.g., *tubu- ‘grandparent’ > jabo- subsumes jabo ‘my grandparent’, jabo ‘your grandparent’, jabo ‘his/her grandparent’, etc.
12 With unexplained loss of *p.
There are a few occurrences of *e in the relevant environment, but *e > o (39a) is less common than *e > e here (39b).

(39) a. *keli ‘dig’  xəl  N*malakeza ‘green’  melexans ‘green parrotfish’
   *(q)ab- ‘his body’  n/iba-

b. *qase- ‘jaw’  na-aše  N*maya-  N*mea- ‘tongue’  nelwe/me-
   *tinaqe- ‘intestines’  ne/nše-  N*tarere ‘to crow’  toter
   *beta ‘breadfruit’  ne/bet  N*leba ‘mud, swamp’  leleleb

POC *a, on the other hand, almost never becomes o in this environment, The only good examples of *a > o / C_C# that I have been able to identify are:

(40) *saliR ‘float’  səl  N*qaca(n,ŋ) ‘name’  n/aŋsa-
   *kami ‘you pl.’  (i)gəm  N*sova ‘cough’  nsuʋ- ‘breath’
   *qapaRa- ‘shoulder’  na/vəɾ- ‘arm, hand’

4.3 *a

POC *a underwent low vowel dissimilation,14 with *a > e before *Ca. Examples of dissimilation include the following:

(41) *tama- ‘father’  teme-  N*tava ‘new’  i/med
   *lalai ‘trocus’  ne/lel  N*marani ‘tomorrow’  tevle-
   *saman ‘outtrigger’  ne/nsem  *[pa]paba ‘slipper lobster’  n/evə
   *pata ‘platform’  (ne)vətəvet  *mamaca ‘ebb, of tide; dry’  mes
   *panako ‘steal’  venox  N*vara- ‘step on’  veres
   *salan ‘path’  ne/sel  *barapu ‘long’  i/her

This dissimilation, however, was blocked by a neighbouring velar, postvelar or labiovelar. That neighbouring consonant may have preceded the occurrence of *a, or followed it. Thus dissimilation is blocked in *mata ‘snake’ > na/mat (and not *na/met) by the preceding *m*, and also blocked in *pangan ‘feed’ > vaŋan (and not *vaŋan) by the following *ŋ. Examples of blocking are:

(42) *waga ‘canoe’  n/oag  N*mata ‘snake’  na/mat
   *raŋa ‘branch’  ne/raŋa-sə-  N*vaŋa ‘alight (of fire)’  i/vaŋ
   N*laŋa ‘Zosterops sp.’  nəvə/nəlax  *kaRa-chain ‘bite’  xas
   N*tam ‘at(a,e) ‘peace’  damat ‘calm sea’  *ma-raqani ‘become light’  meran ‘tomorrow’
   *kaRa ‘crawl’  xarəx  N*katabola ‘dragon plum’  n/atalal
   *kamani ‘we EXC’  kamem  *pangan ‘feed’  vaŋan
   *b*arabara ‘(female) pig’  babarpər  N*mataq ‘male’  ma- ‘brother of woman’

Note in case like N*maraka ‘stand up’ > merax that the first *a dissimilates before *ra but the second *a does not dissimilate, since it is blocked by the intervening *k.

POC *a is generally fronted and raised to e when followed by *Ci:

(43) *taŋa ‘ear’  dənə-  N*taŋis ‘cry’  i/teŋ
   *b(o,u,k)as(i) ‘pig’  bues ‘boar’  N*tasik ‘sea’  des/we
   N*dali ‘go around’  del/vaŋ  N*laŋi ‘wind’  ne/leŋ
   *Rapi ‘evening’  revər  N*alali ‘walk’  i/leŋ
   N*nagii ‘graded society’  megi  N*vara-si ‘step on’  veres
   *kabani ‘a sail’  na/aben  N*lavi ‘fetch’  lev + ‘give’
   *pati ‘four’  i/ves  N*kamani ‘we EXC.PL’  kamem

---

13 However, *a > e is also common in this environment as a result of low vowel dissimilation (see §4.3); I will ignore such cases here.

There are a few cases where *a is further raised, to i (or in two cases iə), in the same environment (44a), and, on the other hand, a few cases where no fronting or raising takes place (44b):

(44) a. *kamaliR ‘men’s house’ na/amil b. *kadik ‘fire ant’ na/xans
   *paliji ‘grass’ nəviliviləs *kani ‘eat’ xən
   *masakiti ‘sick’ masiəx N*əbaliṅka- ‘affine’ balxə- ‘wife’s father’
   *laki ‘marry’ ni/liix ‘husband’ N*marəni ‘tomorrow’ merən
   N*vali ‘observe food taboo’ i/vil ‘eat from taboo fire’
   N*kapika ‘Syzygium sp.’ na/avəx

   *kani ‘eat’ xan
   *masakit ‘sick’ məsiəx x

POC *a also underwent similar fronting and raising when followed by *Cu, usually to e (45a), but sometimes to i (45b):

(45) a. 5*matuqa ‘right (side)’ xa/metu b. *qasu ‘smoke’ ni/isə- (N)
   *maturuR ‘sleep’ metar *manuk ‘bird’ ni/min
   *panu ‘land, territory’ ne/venu ‘place’ N*qavua ‘turtle’ n/ivu
   *patu ‘stone’ ne/vet *maputiq ‘white’ mivəs
   *qasu ‘smoke’ i/es (V)
   N*məlu ‘come out, leave’ melu
   *tapun ‘bury’ tevən
   *lapu ‘bury’ ta/leb
   *manuka ‘a sore’ menox

There are, however, also cases where *a undergoes backing and raising in the same environment, to o (46a) or, less often, to u (46b):

   *mətakut ‘afraid’ mətoxtox E*damu ‘Dioscorea sp.’ ne/dum
   *takuRu ‘back’ a/tox ‘be last’
   *tamuk ‘mosquito’ ne/nom
   *taput ‘pick fruit’ tov
   N*məruqe ‘Dioscorea sp.’ more ‘vine sp.’

I cannot establish any conditioning for these variant reflexes, nor for cases like those in (47) where *a remains a in this same environment:

(47) 5*bəatu(k)- ‘head’ bata-
   *natu- ‘child’ nata-
   *qapu ‘ashes’ misn/av
   *karu ‘swim to’ garagar

There are occasional unexplained cases of all vowels as occasional reflexes, but the default reflex is a; see (42), (44b), (47), and also:

(48) *qatoluR ‘egg’ n/adəl b. *napo(k) ‘a wave’ ne/nав
   *bakewa ‘shark’ baaxe N*bəalo ‘flight’ balabal
   *kapə ‘reef/rock crab’ na/xav ‘rock-crab’ *yaŋo(-yaŋo) ‘yellow’ yaŋayaŋ
   *wa(l,R)e-wa(l,R)e na/val ‘vine sp.’ ? *məaloq ‘coral head’ batn/mal ‘ocean side
   Flagellaria sp.’ of reef

4.4 The mid vowels

POC *e is backed and rounded when preceded by *bə, either as o (N*sobəe ‘join’ > nsubonsuboden, N*bəro-
   ‘ear’ > bora-) or u (*mabəe ‘Tahitian chestnut’ > mobu- ‘liver’). And, as discussed in §4.2, *e sometimes
   becomes a in the environment C_C#—see (39a). Otherwise, the default reflex is e; see (39b) and also:

15 Most of the cases where *a remains a before *Ci have *k preceding the *a. I am not sure whether this is significant, as
   other cases of *a in this environment undergo fronting.
(49) *bakewa ‘shark’ baaxe *pea (> *bea) ‘where?’ (e)abe
*N*vareqa ‘outside, outdoors’ vere E*boRe ‘dream’ bore

POC *o is often reflected as ο in the environment C_C# (see §4.2). It is regularly raised to u when adjacent to *b or *b:

(50) *bo- ‘smell, stink’ i/bu *makobu ‘gecko’ muxub
*ba(o,u)kas(i) ‘pig’ i/bue *b(o,u)oe ‘pufferfish’ bubu-dis ‘spineless puffer’
*boŋi ‘night’ buŋ ‘day (24 hours)’ *sob ‘join’ nsubonsuboden

There are occasional examples of *o being reflected as a, e or i, but the default reflex is o:

(51) *nako ‘face’ noxo- *roŋoR ‘hear’ roŋ
*bw(aŋo ‘mouth’ boŋo- S*bwaŋo ‘mouth’
*kor ‘scrape, grate’ xorxor ‘itch’ *bwoe ‘pufferfish’
*N*taroa ‘Columba vitiensis’ doro *koro ‘surround, obstruct’
*katou ‘hermit crab’ no/xto *taroa ‘Columba vitiensis’

4.5 The high vowels

In §4.2, I showed that the high vowels regularly became ο in the environment C_C#. POC *i also often became ο before *Ca (52a) and *Co (52b):

(52) a. *kilala ‘know, see’ golo ‘open eyes, look’ *tina ‘mother’
*bilake ‘banded rail’ *kita ‘we INC.PL.’
*bina ‘fiancée’ *niu ‘Veitchia sp.’
*bilake ‘banded rail’

though there are counterexamples:

(53) N*baig(a,e) ‘turban shell’ beig *qipaR ‘spouse’s sibling’
*qipaR ‘spouse’s sibling’ (lel = ‘tabu’)

*N*ziita ‘support’ *pica ‘how many?’ i/vis

The default reflex is i:

(54) *mimiq ‘urine, urinate’ mimi (V) *piRaq ‘giant taro’ ne/vi
*tina ‘pregnant’ sien *kaRa(t) ‘giant taro’ na/ari ~ na/xari
*N*magi ‘graded society’ megi S*niu-niu ‘Veitchia sp.’ ne/nini
*p*p*/(t) ‘squeeze, wring’ i/vi N*liua ‘arrow’ ni/liu
*N*niuR ‘coconut’ ne/ni N*miala ‘red’ miel

Like *i, *u is generally reflected as ο in the environment C_C#, as shown in §4.2 and illustrated in (36b).

There are a couple of other weak tendencies: *uCu or *uCo > aC (55a), and *u > e before a possessive suffix in words where the pretonic vowel has been deleted (55b):

(55) a. *pulu ‘hair (of head)’ naans/vəla- b. *punut ‘skin, bark’ ne/vne-
*buto ‘navel’ baja- *takuRu ‘back’ ne/tre-
*tubu ‘grandparent’ jaba- *suRuq ‘fluid, juice’ ne/swe-

The default reflex is u:

(56) *quti ‘penis’ nu/usə- *quran ‘prawn, lobster’ no/ur
*luaq ‘vomit’ luolu *qudu ‘palolo worm’ nu/ud
*quloc ‘maggot’ no/ul *qutan ‘inland, ashore’ no/ut ‘place’
5. WORD STRUCTURE

I very briefly sketched developments in word structure in §2.2, mainly to facilitate the reader’s understanding of the examples cited in §3 and §4 which show reflexes of POC consonants and vowels. In this section, I provide fuller details of those developments.

5.1 Loss of word-final consonants

Western Malakula languages vary widely as to the fate of POC word-final consonants (see Lynch 2005): V’ënen Taut and Tape, for example, retain about half of all instances, whereas Nāti and Nahavaq lose just about every instance. Naman belongs with this latter group: the only possible examples of retention are the following:

(57) *guba(rR) ‘cloud’ no/bobor
*tuqur ‘stand’ i/tə
*Rum’aq ‘house’ n/emax

Of these, the first is not a secure reflex, since it is missing the initial syllable.

The examples in (58) illustrate loss of various consonants word-finally (usually along with the preceding vowel—see the next section):

(58) *maqurip ‘alive’ mour *rarap ‘Erythrina’ ne/dar
*matakut ‘fear’ mətoxtox *masakit ‘sick’ masıax
*manuk ‘bird’ ni/min *kadik ‘fire ant’ na/xans
*piRaq ‘Alocasia’ n/a/vi *draRaq ‘blood’ ne/de
*taŋis ‘cry’ i/teŋ *klok ‘hold tight’ go, to/go
*samutu ‘outrigger’ ne/nsem *salan ‘path’ ne/sel
*quraŋ ‘prawn’ no/ur *qaca(n,ŋ) ‘name’ naŋs-
*laur ‘seawards’ a/lo ‘by the sea’ *patar ‘platform’ (ne)vetevet
*pusuR ‘bow’ ni/vas *tongoR ‘mangrove’ ne/doŋ

There are a few cases of apparent retention of word-final consonants, like *kaput ‘cover’ > xabọj, or *paŋan ‘feed’ > vaŋan. However, it is likely that the consonant in these examples, though root-final, was not word-final: the verb root was probably followed by the transitive suffix *-i (which also explains the palatalisation of the *t of *kaput).

5.2 Loss of word-final vowels

In speaking of final vowels, we need to recognise that in forms ending in *VqV or *VRV, where the intervening consonant has been regularly lost, a final vowel sequence results. Final *ai and *au sequences tend to be reflected as e and o, respectively:

(59) *talai ‘clam; axe/adze’ (bat)ne/tele ‘axe’ *sauq ‘far’ tuo/so
*kalajəri, *qajaRa ‘Canarium sp.’ n/eje *tokalau(r) ‘north wind’ doxolo
*waiR ‘water’ no/we *mala ‘megapode’ molo
*garai ‘flying-fox’ men-gore *matailau ‘sister’s child’ metelo
*N*vai ‘copula; do, make, cause’ ve N*matalau ‘sister’s child’ (male speaker)
*tuq)əRa ‘be long ago’ toxe

Otherwise, the second vowel of a final vowel sequence is regularly lost:

35
Single post-consonantal word-final vowels were regularly lost:

(61) *liŋi ‘put, pour’ ləŋ *pati ‘four’ i-ves
*lima ‘five’ i/łam *kita ‘we INC.PL.’ (i)got
*sipo ‘go down’ i/jəv *maRaŋo ‘dry’ meranŋ
*topu ‘sugarcane’ ni/jəv *ma-tolu ‘thick’ mi-tol

5.3 Loss of pretonic medial vowels

A medial vowel was often lost if it occurred in the syllable before the primary-stressed vowel, but not in the first syllable of the word. In the examples below, primary stress is marked by an acute accent, and directly possessed nouns are suffixed with the 3SG for *na:

(63) *na-takuRú-na ‘back’ netre-n
*na-talinjá-na ‘ear’ delŋe-n
*na-punjá-na ‘flower’ nevŋa-n
*na-sukáwa ‘year’ nesxo
*N*b’aliká-na ‘affine’ balxe- ‘wife’s father’
*na-tinajé-na ‘intestines’ > *na-tiné-na nesne-n
*na-tavalá-na ‘side’ tevle-n
*na-punút-na ‘skin’ nevne-n
*na-lipó-na ‘tooth’ nelva-n
*na-ŋ(a)icán ‘when?’ > *na-ŋjicán nagsen

5.4 Accretion of the article *na

The POC common article is attached to many nouns in all Malakula languages. That article had two forms, *na and *a. Most Malakula languages show accretion of *na only, though a few show *a instead of, or along with, *na. In a number of Malakula languages, especially but not solely those of the Eastern linkage, when a noun root consists of a single syllable, the accreted article is retained (64a); but where a noun root consists of two or more syllables, the article does not appear (64b). This development was first noted for Unua by Pearce (2007).

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16 See Lynch (200) for a general discussing of this phenomenon in Vanuatu and Lynch (2017) for specifics on *na and *a in Malakula. In some languages, the article is separable from the noun root in a number of grammatical contexts, while in others it is more tightly bound to the root and can never or only rarely be separated from it. Naman allows separation only in what Crowley (2006a:65–66) calls ‘tight compounds’, as in netite ‘child’ + numin ‘man’ > netite-man ‘boy’.

17 Whether the original root was multisyllabic or not is not relevant: vowel loss rules have reduced, for example, the two syllables of the root of *na kutu ‘louse’ to one in Unua naxut.
However, the length of Naman roots bears no relation to the presence or absence of the article, with multisyllabic roots like the following taking *na-:

(65) N*katabola ‘dragon plum’ na/tabal  *qapaRa- ‘shoulder’ no/xovera- ‘wing’
  *kara ‘devil nettle’ na/xaxar  S*va-(laka)lakav ‘Zosterops sp.’ na/vilaxalax
  *quti- ‘penis’ nu/us-  *paliji ‘grass’ na/vililas
  *ŋado- ‘gums’ no/xode-  *takere ‘fantail’ nuvi/toxotox ‘bird sp.’ w. yellow tongue

In Malakula languages, nouns with human reference, and sometimes nouns referring to higher animates, do not take the article. Thus in Naman nouns like the following show no bound *na- for semantic reasons:

(66) baaxe ‘shark’  lidumdum ‘whale’  teme- ‘father’
  babar ‘pig’  metelo ‘sister’s son’  sane- ‘mother’
  lektar ‘old woman’  moxi ‘sorcerer’  tuxa- ‘sister, of woman’
  libax ‘dog’  moxt ‘person’  xabat ‘white-skinned spirit’

It appears that at least some Naman nouns referring to body parts and products also do not take the article (but contrast the forms in (67) with words like *qapaRa- ‘shoulder’ > no/xovera- ‘wing’, *quti- ‘penis’ > nu/us-, or *ŋado- ‘gums’ > no/xode- in (65)):

(67) bata- ‘head’  gawe- ‘spur on leg of rooster’  mete- ‘eye’
  baja- ‘navel’  lesa- ‘male genitals’  mia- ‘urine’
  galax- ‘side, rib’  malgava- ‘finger/toenail’  mobu- ‘liver’

However, there are other nouns which do not take the article, but for which no clear phonological or semantic explanation can be given. These include nouns like the following:

(68) belever ‘thunder’  loxor ‘circumcision ceremony’  sele ‘anchorage, harbour’
  bour ‘banana variety’  metab ‘open space’  tevtevba ‘fog, mist’
  buaga ‘swamp taro’  manse ‘star’  xajxaj ‘pounded breadfruit’

Now to the shape of the article. The original form, as I have mentioned, was *na-, but we find all six vowels, plus no vowel, following initial n, and we also find cases of *na-… > d… Each of these variants is illustrated in (69):

(69) L*jadi ‘marry’  ni/liax ‘husband’  N*Mata ‘imperial pigeon’  nu/xub
  *panua ‘place, land’  ne/venu  *katou ‘hermit crab’  no/xto
  *paliji ‘grass’  na/vililas  *ikan ‘fish’  n/iax
  *kape ‘k.o. crab’  na/xav  *tasik ‘sea’  des/we (we ‘water’)

But what conditions the shape of the fused article?
Let me start with *ta-initial nouns. Generally, *na-ta became dV:

(70)镊 ‘ear’  delge-
  N*Mata ‘Columba vitiensis’  doro
  N*Mat ‘peace, calm’ damat ‘calm sea’  N*Mata ‘Porcupine fish’  daut ‘spiny puffer’
  N*Mata ‘Terminalia catappa’ dovo  *tasik ‘sea’  des/we

Two cases of *na-qata-initial compounds are also treated, after loss of *q, as if they were *na-ta-initial: *qata-mate ‘devil’ > demes and *qata-qutan ‘bush/inland person’ > daut. There are a couple of kinds of exceptions:
cases of *to-initial nouns behaving the same way (71a), and cases of *ta-initial nouns not behaving the same way but taking the “full” article instead (71b):

(71)  
a. *tob\^a-ʼstomach, bellyʼ daba(x)a-  
  *tokalau(r) ʼnorth windʼ doxolo  
b. *takuRu- ʼbackʼ ne/tre-  
  *talai ʼclamʼ (bat)ne/tele ʼaxeʼ  
  *tanoq ʼearth, groundʼ ne/ten  
  *taqe- ʼexcrementʼ ne/ji, ne/ja-

Next let me deal with cases where only n is prefixed to the root. The commonest of these are cases of *na-CV where *C was lost, and thus *na-CV became *nV:

(72)  
  *[qa]paRa- ʼshoulderʼ n/əvera-  
    N\^katabola ʼDracontomelonʼ n/atalabal  
  *qaca(n,ŋ)ʼnameʼ n/ənʃa-  
    N\^yalo ʼsunʼ n/al  
  *qatoluR ʼeggʼ n/adəl  
    *Rum\^aq ʼhouseʼ n/emax  
  *qaŋaRi ʼCanarium indicumʼ n/eje  
    *pisiko- ʼflesh, meatʼ n/ejoxo-\textsuperscript{18}  
  *kabu ʼfire(wood)ʼ n/ab

There are, however, other cases of *qa- and *ka-initial nouns where the consonant was lost but the article remained *nV-, and I cannot explain why these forms differ from those in (72):

(73)  
  *qasu ʼsmokeʼ ni/iso-  
    *kapika ʼSyzygium sp.ʼ na/avəx  
  *qapi-ya- ʼarm pitʼ no/xove  
    N\^kabani ʼa sailʼ na/aben  
  *[qa]pRa- ʼshoulderʼ no/xovera- ʼwingʼ  
    *kaRa(i(a) ʼCordyline sp.ʼ na/ari (~ na/xari)  
  *qase ʼjawʼ na/ase-  
    *kamaliR ʼmenʼs houseʼ na/amil

Other apparent instances of prefixation of n only are cases of *na-qa > ni (74a), *na-wa > noa (74b), and two cases of (what developed as) an *i-initial root (74c):

(74)  
a. *(q)abe ʼbodyʼ n/iba-  
  *qatop ʼsago, thatchʼ n/iet  
    *panua ʼland, territoryʼ n/oag  
  *qavua ʼturtleʼ n/ivu  
    *waraRa ʼ2 days from todayʼ n/oas ʼday before yesterdayʼ  
  *ikan ʼfishʼ n/iax  
  *qipaR ʼspouseʼs siblingʼ nivənlel ʼin-lawʼ (lel ʼtabuʼ)

Now we come to those cases—by far the majority—where the prefix surfaces as *nV-, and try to account for the nature of V in as many cases as possible. Some of the occurrences of reflexes of the article can be explained by the rules that apply to *a which were discussed in §4.3; thus:

- The vowel of the article underwent low vowel dissimilation and took the form ne- when the POC root which followed began with *Ca, where *C is not one of the “blocking consonants” discussed in §4.3—i.e., a labiovelar, a velar, or a postvelar:

(75)  
  *baga ʼbanyanʼ ne/bag  
    *napo(k) ʼa waveʼ ne/nəv  
  *damu ʼ(k.o.) yamʼ ne/dum  
    *panua ʼland, territoryʼ ne/venu ʼplaceʼ  
  *draRaq ʼbloodʼ ne/de  
    *raun ʼleafʼ ne/reu-  
  *lalai ʼtrochusʼ ne/lel  
    *salan ʼpathʼ ne/sel  
  *(m,k)arawa ʼgreen parrotfishʼ ne/mer ʼred parrotfishʼ  
    *tanoq ʼearth, groundʼ ne/ten

- Where one of these blocking consonants occurred root-initially, however, dissimilation did not take place (whether or not that consonant was subsequently lost) and the vowel remained a:

(76)  
  *kadik ʼblack biting antʼ na/xans  
    *kayu ʼtree, woodʼ na/xə  
  *kamaliR ʼmeeting houseʼ na/amil  
    *m\^a ʼsnakeʼ na/mat  
  *kara ʼdevil nettleʼ na/xaxar  
    *qase- ʼjawʼ na/ase-

\textsuperscript{18} With unexpected loss of *p.
POC *a in the article *na was often raised to e (77a), and sometimes to i (77b), before *Ci:

(77) a. *lipon ‘tooth’ ne/lva- b. N*liua ‘arrow’ ni/liu
*nilR ‘coconut’ ne/ni *p(“)ilak ‘lightning’ ni/vlil
*pilRaq ‘giant taro’ ne/vi *pinu(q)an ‘Macaranga sp.’ ni/vnu
*siba ‘cut’ ne/sab ‘knife’ *sipi(r,R)i ‘coconut lory’ ni/nsav
*siko ‘kingfisher’ ne/jax
*tniæ ‘intestines’ ne/sne-

Similarly, POC *a in the article *na was often raised to o (78a), and sometimes to u (78b), before *Cu, and in a couple of cases before *u or *w:

(78) a. N*kumaqu ‘Intsia bijuga’ no/xmo b. *ku(i)ba ‘Ducula pacifica’ nu/xub
*kutu ‘louse’ no/xot N*muki ‘earthquake’ nu/mi
*quloc ‘maggot’ no/ul *qudu ‘palolo worm’ nu/ud
*quraŋ ‘prawn, lobster’ no/ur *quਁti ‘penis’ nu/us�-
*Ruqa ‘neck’ no/we- N*ure ‘island’ no/urour
*waroc ‘vine’ no/u ‘vein +’

There are two other apparent sub-regularities not related to the development of *a discussed in §4.3.

6. CONCLUDING REMARKS
This discussion of the historical phonology of Naman is intended to help illustrate how the phonologies of Western Malakula linkage languages developed.

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.

\*bʷaŋo ‘mouth’
PNCV *bʷaŋo ‘mouth, front of house’

The SV forms followed by hyphens are used as the first element of compounds in words for interior of ear, nose, mouth, etc. It is difficult to decide what the primary sense of this word was.

S*b`ili ‘close the eyes’

PNCV *b`ili ‘close the eyes’

SV: Lenakel a/pul ‘close eyes, sleep’, a/puliapul ‘blink’, a/pul/etin ‘wink’; Kwamera a/pri ‘sleep, close eyes, wink, blink’

NC: Nemi, Jawe bwi ‘blind’; Nêlêmwa bwi ‘blind person’

S*garai ‘flying-fox’

PNCV *garai

SV: Sye na/qkrai; Ura navso/kkrai ‘bat’; N Tanna ko; Whitesands kei; Lenakel kal; SW Tanna kil/avə ‘hole’; Kwamera kiri ‘Pteropus tonganus’; Anejo m̃n/e/kra

S*lua-mea ‘tongue’

NCV: Neve’ei ne/leme-. Avava leme


S*majonu ‘k.o. fish, probably Caranx sp., trevally

NCV: Araki m`atsonu ‘C. melampygas’, Uripiv mejun, Neve’ei ne/mansin ‘very long trevally’, Nese ne/nijun, Namakir mahon

SV: Sye mehen ‘kingfish (family Carangidae), Lenakel mihin ‘rabbitfish’

NC: Jawe majen bac

S*matuqa ‘right (side/hand)’

PNCV *matuqa ‘right hand, right side’:

SV: N Tanna m"adap; Whitesands maru; Lenakel m"atu; SW Tanna matuk”; Kwamera m"atuk; Anejoŋ n/mata-

NC: Pije, Fwâi du/hi, du/hi-n; Nemi due-hi-n, du/hi, du/hi-n; Jawe jue-hi-n; Nêlêmwa m"aaguk; Nyelâyu m"aayu (?); Iaai met; Nengone nata

This is a metathesised form of POC *mataqu-.

S*m*aRaki ‘ground dove’

PNCV *m*aRaki ‘ground dove’

SV: Lenakel m"ak; Kwamera mak

S*nwu-nwu ‘Veitchia sp.’

NCV: Araki vi-nini; Raga niuniu; Naman ne/nini; Neve’ei nahi-ni; Avava, Uripiv nini; Larevat nin; Nese na/ni, neve/nini

The Raga form suggests that this form may be a reduplication of *niu ‘coconut’ and thus attributable to a higher level protolanguage than PNCV.

S*qaŋaRi ‘Canarium indicum’

PNCV *qaŋaRi ‘almond, Canarium’

SV: Sye, Ura, Anejoŋ n/aŋai; Lenakel, SW Tanna, Kwamera n/aŋe

Irregular development of PO*C *[ka]ŋaRi.

S*vâ-(laka)lakav ‘Zosterops sp.’

PNCV *vâalaka ‘whiteeye, Zosterops’

SV: Sye u lýap, welýap, n/elýap; Ura u lýap; Anejoŋ n/huley
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